

STATE OF NEW JERSEY
DEPARTMENT OF AGRICULTURE

PHILLIP ALAMPI, *Secretary*



Forty-fifth Annual Report
OF THE
New Jersey
State Department of Agriculture

July 1, 1959 — June 30, 1960

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Trenton, N. J., June 30, 1960

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¹Messrs. Wegner and Roy will retire from the Board on June 30, 1960. The new members will be Azariah M. Frey, Stewartsville, and Reginald V. Page, Toms River.

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STATE OF NEW JERSEY
DEPARTMENT OF AGRICULTURE
PHILLIP ALAMPI, *Secretary*
TRENTON

June 30, 1960.

*To His Excellency, the Governor, and Members of the Senate
and General Assembly of the State of New Jersey:*

I have the honor to transmit, on behalf of the State Board of
Agriculture, the Forty-fifth Annual Report of New Jersey
Department of Agriculture, for the fiscal year ended June 30,
1960.

Respectfully yours,

Phillip Alampi

The State Board of Agriculture

The State Board of Agriculture is responsible for all policies of the State Department of Agriculture, and is the highest official agency representing New Jersey's agricultural industry.

The eight members of the Board are all active farmers, who serve without compensation. They meet at least once each month in Trenton with the Secretary of Agriculture and often with other officials of the Department.

Terms of Board members are staggered and two new members are appointed each year. They are chosen by official delegates to the annual State Agricultural Convention for recommendation to the Governor for appointment. The law provides for 84 official delegates, who represent the county boards of agriculture, Pomona granges, and State breed and commodity organizations.

The proceedings of the 45th State Agricultural Convention appear on page 173.

The Year in Review

New Jersey continues to be the leading state in the nation in cash receipts per acre. In 1959 this amounted to \$179 per acre, a drop of about 8 per cent from the year before. New Jersey's position was challenged only by Rhode Island which had gross cash receipts of \$137 per acre.

New Jersey's high rank in cash receipts per acre is only part of the story. It should also be recorded that New Jersey has the highest farm taxes per acre, as well as high labor and operational costs, all of which take their toll of the otherwise favorable gross receipts.

During the fiscal year New Jersey's farm land declined in value. This was the first time in many years in which there was a trend downward. Even so, New Jersey still leads the nation in average value per acre. The present average is \$591 per acre compared with a national average of \$111. This is not a farm use valuation, however, for much of the demand for farm properties is for residential and other non-agricultural uses.

The growing and harvesting season of 1959 was not conducive to the development of high quality and yields of many farm products. Hot and wet weather, especially during August, affected the keeping quality of potatoes, for example, and made it difficult to deliver a high quality product to market, especially at any distance. Similarly, heavy August rains took their toll of yields of canning tomatoes, a very important cash crop in New Jersey, by affecting the blossom set of fruit that would normally mature in September.

The gross value of New Jersey's agricultural production declined about 7 per cent from that of 1958. The 1959 value was estimated at \$326,698,000, compared with \$351,613,000 the year before. Gains were reflected in several industries but they could not offset the tremendous decrease in the total value of eggs and poultry. Slight decreases occurred in gross value of production in the livestock and vegetable industries. Slight gains were noted in the case of grains, nursery and greenhouse products. More substantial gains were apparent in the fruit industry where value of production increased about 13 per cent. Production of white potatoes was somewhat lower than in 1958, but prices were substantially higher and, as a consequence, the gross value of production of this commodity advanced about 40 per cent over that of 1958.

The gross farm value of New Jersey agricultural products in 1959, with percentage changes from 1958 is tabulated below:

	1959	1958	Per Cent Change 1959 Compared With 1958.
Poultry industry	\$ 88,001,000	\$ 114,352,000	-23.0
Eggs	72,522,000	91,200,000	-20.5
Poultry	15,479,000	23,152,000	-33.2
Livestock industry	85,458,000	86,915,000	- 1.7
Milk	66,065,000	65,934,000	+ 0.2
Meat animals	19,393,000	20,981,000	- 7.6
Vegetable industry	50,787,000	53,258,000	- 4.6
General farm crops	38,793,000	38,964,000	- 0.4
Grains	22,833,000	22,085,000	+ 3.4
Hay	15,960,000	16,879,000	- 5.4
Nursery-greenhouse products	33,500,000	32,647,000	+ 2.6
Fruit industry	20,830,000	18,387,000	+13.3
Tree fruits	13,530,000	11,838,000	+14.3
Berries	7,300,000	6,549,000	+11.5
Potato industry	7,469,000	5,306,000	+40.8
Miscellaneous	1,860,000	1,784,000	+ 4.3
Totals	\$326,698,000	\$351,613,000	- 7.1

THE WORK OF THE DEPARTMENT

A substantial part of the Department's activities is regulatory in character. This concerns the enforcement of laws which have been enacted by the Legislature over the years and for which the Department is responsible. Involved are the control and eradication of livestock diseases and pests affecting plant life. Others have to do with the licensing and bonding of dealers in milk, produce, eggs and poultry, and the licensing of cattle dealers. Several laws have to do with the handling, packing, and the selling of eggs, with enforcement at both wholesale and retail levels.

Another large category of Department activities embraces promotional work on a number of major commodities. Separate councils have been established for apples, asparagus, eggs and poultry, and white potatoes. Under their direction a number of promotional campaigns have been developed. Somewhat allied to these promotional endeavors is the introduction and merchandising of quality controlled products under the "State Seal of Quality" program.

Other important activities of the Department include such projects as market news, informational services, seed certification, and voluntary grading and inspection programs which are designed to benefit both producers and consumers.

FRUIT AND VEGETABLE MARKETING

A new development to improve the marketing of peaches, peppers and sweet corn was initiated when two of our farmer cooperative associations joined together in a new sales service program utilizing a single label with supervised quality control. This embodies direct sales rather than sales at auction, but the new method holds considerable promise for high quality products.

More consideration is being given today to the possibility that growers of certain commodities operate under a State marketing order or agreement. Presently there is some opposition to this principle, but proponents are growing in number in the belief that this is about the only method that can be used to stabilize the market. Marketing orders and agreements have worked successfully in other areas, and New Jersey growers are hoping to capitalize on this experience and enjoy the same benefits of stability.

Demoralization of the cranberry industry occurred when just prior to the Thanksgiving holiday the United States Secretary of Health, Education and Welfare issued a statement alleging that some cranberries were unfit for food as a result of having been sprayed with a dangerous weed killer. New Jersey authorities subsequently declared publicly that New Jersey cranberries had not been so treated and could be used as usual. However, the damage had been done and consumers for the most part avoided cranberries. Moreover, it was difficult in such a short time to identify packages or other units of untreated cranberries in retail stores. The Federal government later subsidized cranberry growers here and elsewhere to make up for their losses.

Farmer-owned auction markets have long provided an outlet where farmers have generally secured the highest prices available compared with returns from other methods of sale and distribution. By virtue of adverse growing weather for some crops, as well as a reduction in volume due to lower yields, and also due to the siphoning of some volume for direct sales, prices averaged about 14 per cent below those of the previous year. Total sales through auctions amounted to \$8,900,000 for 1959 compared with \$9,600,000 in 1958.

THE POULTRY INDUSTRY "DEPRESSION"

Extremely low prices for eggs during a major part of the year caused severe hardship throughout the industry. Quite a number of poultrymen were forced to discontinue their operations and liquidate their laying flocks. Credit was no longer available for feed, and producers thus affected had no other alternative. Egg sales through auctions declined nearly 25 per cent, and this is a rather true reflection of what has happened in the industry. In three short years the average annual return of eggs had dropped from 48.4 cents to 36.76 cents; in this same span of time, labor costs have risen and feed costs have remained high.

LICENSING AND BONDING

Nearly 750 dealers in milk, produce, eggs and poultry were licensed under the several applicable laws. In accordance with requirements, they furnished a total of nearly \$7,500,000 in surety bonds against the possibility of defaulting payment to farmers for the products purchased. Over the years these laws have tended to build up a reputable group of buyers. Only infrequently is it necessary to resort to a bond to satisfy claims of producers for nonpayment. Most of the time complaints that arise are settled without recourse to the surety company or the United States Treasury Bonds on deposit with the Department.

COUNCIL PROMOTIONS

The four promotional councils previously mentioned have been active through the year in conducting advertising campaigns through various media. Tax acts for each of the commodities specify the amount of and collection of taxes to be paid by producers, and in the case of asparagus, processors and dealers as well. The following amounts of taxes have been collected during the 12 months period:

Egg & poultry	\$ 160,678.64
Asparagus	89,420.06
Apples	55,143.91
White potatoes	15,131.12
Total	<u>\$ 320,373.73</u>

These funds were budgeted by the respective councils primarily for advertising costs, subject to approval by the State Board of Agriculture, and expended within the limitations applied to State funds generally.

TERMINAL FOOD MARKET

The Legislature enacted a "New Jersey Public Market Commission Law" which among other things established a five-man commission to be responsible for the development of a modern food distribution center in northern New Jersey. The Commission, of which the Secretary of Agriculture is a member, has progressed to the point of locating such a market within Hudson County. A location here would be highly advantageous not only to New Jersey agriculture but to a great many distant shippers moving their products into this metropolitan area. It is felt that the location of such a distribution center immediately west of the Hudson River would provide for the greatest efficiency and economy in the handling of the vast quantity of perishable products moving into this area.

LIVESTOCK DISEASE CONTROL

An outbreak of eastern viral encephalitis in horses occurred in the fall of 1959 and was of such proportions as to infect 66 horses on 59 premises. Simultaneously an outbreak of eastern encephalitis occurred in humans, a very unusual circumstance, which caused some hysteria. Because years ago eastern encephalitis had been described as an equine disease, many people had the erroneous idea that horses contributed to the human affliction. It has been difficult to convince people that horses are just as much the end victim of the disease, presumably transmitted through mosquitoes from diseased wild birds, as are humans. Later observations and studies through the winter and spring months gave authorities reasonable assurance that the same combination of contributing factors would be most unlikely to occur again and that the next and subsequent years would not see a repetition. As far as horse owners are concerned, the outbreak stimulated interest in horse vaccination against eastern encephalitis, a program which the Department has been encouraging and urging for years.

Testing of our cattle herds continued according to plan. Incidence of both tuberculosis and brucellosis in our dairy and beef herds is at a satisfactory low level. It is of interest to point out that indemnities for tuberculosis reactors during the year amounted to \$13,587.74 payable from State funds. This compares with an average of \$89,530 per year for the 45 years since tuberculosis control was first initiated in New Jersey. In the early years, indemnities amounted to very considerable sums per year; since 1916 the State of New Jersey has paid indemnities slightly in excess of four million dollars in its program to develop disease-free herds and offer the highest protection to its consumer citizens.

The brucellosis program by comparison is much newer but it, too, is making very satisfactory progress. State indemnities during the past year

amounted to \$34,878.77. In a span of two decades the State has made an investment in the control of this disease of just under one million dollars, again a contribution to the welfare of the New Jersey dairy industry and the health of all its people.

At the end of the fiscal year all swine establishments where garbage was being fed were licensed to feed only cooked garbage and to meet certain sanitation of premises' requirements stipulated by the State Board of Agriculture. The only exceptions were several pig farmers in the Secaucus area who were under court order to completely vacate the farms by September 1, 1960, or face jail sentences. Pig farmers in this particular area were not licensed to do business because they were already under contempt of court proceedings.

PLANT PEST CONTROL

The 10 per cent increase in the number of nurseries requesting inspection and certification indicating freedom from insect and disease pests, reflects the growing importance of this industry in the total agricultural enterprise in this State. Contributing to this growth have been the landscaping needs of the great number of residential developments, as well as of industrial parks and industrial plants.

The threat of an infestation of gypsy moth was thwarted by an intensive aerial spraying operation in the Jockey Hollow area of Morristown National Historical Park. The 2,400 acres involved were sprayed within a few days during mid-spring and it was felt that a very satisfactory control had been secured. Gypsy moth presents a periodically difficult problem in that one of the infected neighboring states has done little to control the spread of the insect, which means that it may be necessary for New Jersey to take similar remedial steps every few years.

Severe losses were suffered by some pepper growers due to bacterial spot. The Department has undertaken studies to determine the sources of New Jersey infections; so far it appears that both southern-grown and home-grown plants are contributing equally. Fortunately the disease has not shown up to any extent in New Jersey tomato fields.

SEED CERTIFICATION

The certification of seed has long been a major project of the Department. Growers have recognized the great value of starting a crop with seed that has been certified as to trueness to variety and freedom from disease. Most of the work has been on small grains and tomato seed. In the last year or so special attention has been given to certifying sweet corn seed for growers producing seed for commercial sweet corn farmers. As a result of this new work greatly improved sweet corn seed is being offered.

Due to an adverse growing season a 25 per cent reduction occurred in the amount of tomato seed certified. It is worthy of note here that two varieties developed by Campbell Soup Company have supplanted Rutgers as a favorite variety. These two varieties, No. 135 and No. 146, accounted for approximately 60 per cent of the seed certified; the remainder was divided between Rutgers and five other varieties. It is also of interest to note that an appreciable amount of New Jersey certified tomato seed was exported to numerous countries including South America, India and Africa.

A recital of all of the projects and activities of the Department will be found in the pages following this brief summary of the Department's interests and accomplishments during the fiscal year for which this report is made. Attention is invited to these details for a fuller knowledge of the contribution which the Department is making to the people of New Jersey through its regulatory and promotional services.

Report of the Division of Administration

WILLIAM E. KENNY, *Assistant Director*

The Department of Agriculture serves all residents of the State. Live-stock and plant disease control services and marketing programs are intended to assist the agricultural economy and to provide quality products to consumers. These programs are administered by the various operating divisions of the Department. The Division of Administration serves those operating divisions so that they are able to perform the work assigned by the State Board of Agriculture.

Division of Administration functions concern fiscal control, personnel and general service programs. The Division is responsible for preparing the Department budget and controlling expenditures; for maintaining a personnel program; and for certain general services.

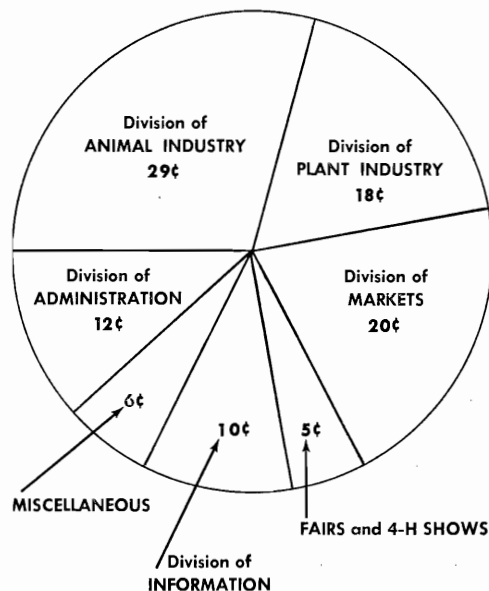
The Department of Agriculture receives operating funds from three sources. The largest appropriation is provided by the General Treasury of the State of New Jersey. The United States Department of Agriculture offers certain funds for cooperative programs. Lastly, receipts from the special commodity tax programs are made available to the promotion councils assigned to the Department.

During the fiscal year 1959-60, Department expenditures against the General Treasury appropriation totaled \$1,174,991.89. This money was used to carry out Department functions established by law. The diagram on page 17 indicates how the funds were spent by the divisions of the Department. Because the Office of Milk Industry receives a separate appropriation, the expenditures of that agency are not included in this analysis.

The special promotion taxes provided an additional \$300,000. These taxes were collected on apples, asparagus, poultry feed and white seed potatoes. Revenue from each tax is deposited in special accounts. The funds in each account can only be used for administrative costs, and for research and promotion programs which are recommended by the appropriate promotion council and approved by the State Board of Agriculture.

The United States Department of Agriculture cooperates with the Department on certain "matched fund" programs. Under these programs the Federal government appropriates operating funds provided the State matches the Federal appropriation. During fiscal year 1959-60, the Federal expenditures were \$42,052.01. The funds were used for special statistical studies and market expansion programs.

**NEW JERSEY DEPARTMENT OF AGRICULTURE
1959-1960 BUDGET EXPENDITURES
(Cents per Dollar)**



PERSONNEL

Some 250 employees were associated with the Department during the year. Full-time employees numbered 192. There were 39 assigned to the Office of Milk Industry, 145 to the Department, and eight to the promotion councils. In addition, some 60 temporary employees were used on seasonal and special work assignments.

During the year the Agricultural Society employed 62 inspectors for fruit and vegetable inspection services. While these employees are not Department personnel, the Department is responsible for their recruitment and supervision.

STAFF CHANGES

The year was noteworthy from one respect. There were no retirements. However, staff changes did occur. These were:

Appointments:

Samuel Garrison, Agricultural Economist, assigned to the Rural Advisory Council, August 24, 1959

Appointments (cont'd)

Grant F. Walton, Soil Conservationist, assigned to the State Soil Conservation Committee, September 14, 1959

Dr. Paul V. Weber, Chief, Bureau of Plant Pathology, September 21, 1959

Dr. Dorwin H. Perella, Chief, Diagnostic Laboratory, Division of Animal Industry, June 6, 1960

Robert C. Frohling, Manager, N. J. Apple Industry Council, February 24, 1960

Promotions:

Carleton R. Bowen, Supervisor, Agricultural Promotion Taxes, January 11, 1960

William E. Kenny, Assistant Director, Division of Administration, April 4, 1960

Paul N. Taylor, Marketing Coordinator, June 7, 1960

J. Gilbert Sholin, Supervisor, Administrative Services, June 30, 1960

Amanda Q. Zich, Senior Public Relations Assistant, July 1, 1959

Resignations:

Marcus B. Evans, Inspector, Animal Industry, July 2, 1959

Dr. Henry R. Recht, Veterinarian, April 29, 1960

GENERAL SERVICES

The Division of Administration continued the machine data processing unit, the centralized automobile fleet and the efforts to secure new office and laboratory facilities. Other important projects were a complete review of the Department's regulations and the revival of the New Jersey Farm Show.

The machine data processing unit was started in 1959. Most livestock disease control records have now been transferred to the machines. The unit is also computing and preparing monthly tuberculin and brucella test bills due private veterinary practitioners. In addition, the transfer of all Office of Milk Industry license records was accomplished. At present, poultry improvement plan records are being transferred to the unit.

The Department operates 81 vehicles. These were assigned to central control in 1959. A preventive maintenance program on these vehicles has made possible substantial savings in the operation of the fleet.

Office and laboratory facilities continue to be inadequate. However, plans will now be drawn for a Department of Agriculture-Health Building. Land has been secured in Trenton. Construction is scheduled to start in June, 1961. Occupancy is scheduled for January, 1963.

The Department's basic responsibility is the enforcement of certain State laws. Many of the statutes give the State Board of Agriculture authority to adopt regulations to carry out the intent of the statutes. Since 1916, the State Board of Agriculture has used that authority to establish many disease control and marketing programs and to fix quality standards for agricultural products.

All regulations were reviewed and revised during the fiscal year 1959-60. On March 24, 1960, the State Board of Agriculture adopted 89 current regulations. All county agricultural agents received copies of these regulations. Each will continue to receive all changes so that a complete and current set of regulations will be available in each county.

After a 19-year lapse, the New Jersey Farm Show was resumed during the 1960 Farmers Week. Held in the Trenton Armory, January 25 through 29, 79 commercial companies exhibited their products to some 6,000 visitors to the show. In addition to the commercial exhibits, there were educational displays and commodity shows for apples, eggs, hay, honey, seed, grain and sweet potatoes. The show was considered most successful and a valuable asset to Farmers Week.

Other Division of Administration functions included management of the New Jersey Junior Breeders' Fund and the State Board of Agriculture Federal Loan Fund.

NEW JERSEY JUNIOR BREEDERS' FUND

During the fiscal year 1959-60 a total of 224 loans amounting to \$17,429.98 was made to 4-H club members and vocational agriculture students by the New Jersey Junior Breeders' Fund. Although the total number of loans increased by 35 over 1958-59, many were for small amounts under the agricultural loan section of the Fund. This section covers loans for grade sheep and swine, fat lambs, fat barrows, cross-bred poultry, feed, seed and fertilizer. Loans for fat lambs accounted for most of the increase in loans as indicated by the following comparison of the last three years.

Type of Loan	Number of Loans			Amount Loaned		
	1959-60	1958-59	1957-58	1959-60	1958-59	1957-58
Agricultural loan fund*	84	49	23	\$ 2,887.83	\$ 2,005.77	\$ 869.40
Beef	40	39	49	5,509.15	5,647.35	7,034.15
Dairy	74	82	69	6,871.00	9,175.00	8,005.00
Poultry	1	1	..	50.00	36.00	.....
Sheep	20	10	14	1,697.00	740.00	815.00
Swine	5	8	..	415.00	1,140.00	.....
Total	224	189	155	\$17,429.98	\$18,744.12	\$16,723.55

*All loans other than purebred animals.

Charges against the emergency fund for livestock losses incurred by members totaled \$1,028 for the year. Seven sheep, two swine and five dairy animals were lost. Two of these heifers were non-breeders. Due to excessive losses on sheep in recent years, emergency coverage on sheep loans was discontinued June 1, 1960. Emergency coverage for non-breeding dairy animals was also changed to provide a return to the Fund of one-half the salvage value of the animal.

Earnings from interest charges on loans provided all members with subscriptions to breed journals and awards of ribbons and cash premiums or trophies at the following events:

State 4-H Sheep Show, Flemington	\$ 19.00
State 4-H Dairy Show, Flemington	155.00
4-H Fat Lamb Show, Flemington	16.00
Atlantic County 4-H Fat Lamb Show, Egg Harbor City	16.00
4-H Baby Beef Show, Trenton	148.00
State FFA Livestock Show, Trenton	115.00
	<hr/>
	\$469.00

The New Jersey Agricultural Society continued to make awards to members of the New Jersey Junior Breeders' Association. These cash awards were for the best fitted animal in each breed at the State 4-H and State FFA dairy shows and the best fitted animal in the State 4-H sheep show. Cash awards by the Agricultural Society also went to the highest producers on 4-H Meritorious Milk Production Records and to 16 FFA members who received Junior Breeders' Fund Certificates of Merit for high scoring projects.

The Frelinghuysen Memorial Awards, recognizing 4-H club members and vocational agriculture students whose dairy animals made the highest milk production, were presented at the annual meeting of the Cooperative Inter-Breed Cattle Association of New Jersey. The Frelinghuysen Memorial Award winners and 4-H Meritorious Production Certificate winners were guests of the New Jersey Junior Breeders' Fund at this dinner meeting.

The Garden State Publishing Company continued to provide subscriptions to *Business Farming* for all new members of the Fund.

Since the inception of the New Jersey Junior Breeders' Fund in 1921, 4,592 loans totaling \$402,072.49 have been made to rural youth of the State. The usefulness of this program is demonstrated in the large number of loan requests received each year from 4-H club members and students of vocational agriculture.

STATE BOARD OF AGRICULTURE FEDERAL LOAN FUND

The State Board of Agriculture Federal Loan Fund was established with assets from the defunct Rural Rehabilitation Corporation. Under the transfer agreement of these assets from the Federal government to the New Jersey Department of Agriculture, the funds can be used only for programs which are compatible with the purposes of the former Rural Rehabilitation Corporation.

The Department has used this money to assist young farmers. Farm purchase and soil and water loans have been made. The loans are negotiated and serviced by the Farmers Home Administration of the United States Department of Agriculture. With this arrangement, New Jersey farmers can obtain financing when Federal funds have been depleted.

During 1959-60, the fund made five loans totaling \$79,350. The total amount now loaned is \$250,390.86 to 21 young farmers.

Report of the Division of Markets

VINTON N. THOMPSON, *Director*

The summer of 1959 was hot and wet throughout the State. The abnormal number of wet days delayed harvesting and adversely affected the shipping quality of potatoes, blueberries and tomatoes. As the harvest season progressed, it became evident that total crop yields had been reduced by the extremely disagreeable weather.

Irrigation

Irrigation facilities continued to be improved in both quality and quantity. While their use was not necessary during most of the summer, a rather dry period in September and October brought irrigation into general use for fall crops.

Apples

Crop yields in 1959 were above average despite much unfavorable weather during the harvest season. The apple crop of 3,600,000 bushels was the largest since 1942. Due to a large national crop and variable quality in New Jersey apples, marketing was difficult and prices were substantially lower than in 1958. A trend toward more red varieties and Yellow Delicious can be noted. Consumer packaging is increasing as are more frequent direct store-door deliveries. Interest is increasing in utilizing controlled atmosphere storages to lengthen the marketing season, as well as improve the quality and condition of storage apples when offered for sale. Several sizable controlled atmosphere storages for apples were placed into operation during the year.

Small Fruits

Cranberry acreage was up slightly with crop yields the same as in 1958 resulting in a slightly larger total production. The cranberry industry was completely demoralized as the result of a statement on November 7, 1959, by the United States Secretary of Health, Education and Welfare that consumers should not eat cranberries due to the presence of the weed killer aminotriazole, an alleged cancer-producing substance, in a portion of the 1959 crop. Marketing came to a virtual standstill and a large portion of the crop could not be sold at any price. Early in May, 1960, the United States Department of Agriculture inaugurated an indemnification program for cranberry growers in all states. In New Jersey this program is being

assisted by the Bureau of Fruit and Vegetable Service of this Division. As the year closed, surplus supplies of cranberries were being disposed to clear the way for the 1960 crop which faces an uncertain future in the market place.

Blueberries experienced a difficult marketing season. Frequent rains caused tender fruit which was difficult to ship successfully to distant markets. The crop was slightly larger than in 1958.

Other Crops

Hay and grain crops produced above average yields as improved varieties and harvesting methods made the production job easier and more rewarding. The State corn crop was again one of the highest yielding in the nation. Tomatoes matched their record yield of 1958 despite unfavorable harvesting weather. The newer varieties, particularly Campbell Soup Company varieties 135 and 146 which are crack resistant, contributed materially to this achievement. Rutgers, Marglobe, Garden State and other older well-known varieties are rapidly fading from the scene in New Jersey.

The wet summer of 1959 was followed by a relatively dry and warm fall and winter. Killing frosts were later than normal, permitting the marketing of tender crops late in the season. A general shortage of fall vegetables resulted in better returns to growers than in 1958.

After an unusually warm January and February, March temperatures were much colder than normal, delaying the marketing season for about 10 days as contrasted to 1959. Sales of spring greens and other vegetables got off to a slow start but increased rapidly after the middle of April. Asparagus harvest began later than normal and was not general until April 25. Although the weather was ideal for crop development in May and June, the total yields of asparagus were below normal as a result of the late start. Ample sunshine combined with cool dry weather made extensive use of irrigation on late spring and summer crops necessary.

As the fiscal year closed the harvest of blueberries, sweet corn, string beans, tomatoes, onions and apples was underway. Crop prospects were excellent with the exception of apples. An unusually successful strawberry season was just ending in which strawberries of exceptionally high quality and flavor brought improved returns to producers. Again improved varieties played an important part with Jerseybelle a particular favorite with the buyers. Heavy crops of spring lettuce and spinach encountered price competition and despite excellent quality brought somewhat disappointing returns.

Dairy Products

New Jersey dairy products enjoyed a degree of marketing stability during the past year. The amount of milk being shipped to plants under Federal Milk Marketing Order 27 continued to increase. Unless consumption keeps pace with this increased production, producers will receive less for their milk as the percentage used for fluid milk decreases. A plan to raise money to promote the use of milk was voted down by dairy farmers in the New York-New Jersey milkshed. This promotion program could have been effective in increasing fluid milk consumption and maintaining or increasing producer returns.

Poultry and Eggs

Poultry farmers continued to suffer severe economic distress during the past year. Eggs brought very low returns and a considerable number of producers were forced to discontinue operations. There were fewer layers on New Jersey farms in June 1960 than at any time since the mid-1940's. The depression in the industry is national in scope and has resulted from overproduction and underconsumption of eggs. Production costs remain high despite egg prices only slightly higher than pre-war levels. New Jersey poultry meat producers also received low returns as competition from other producing areas continued to depress the markets generally.

Marketing Trends

Several efforts were begun during the fiscal year to improve the marketing of New Jersey farm products. Noteworthy among these were: (1) the formation of a poultry industry steering committee to establish a central sales agency for marketing New Jersey eggs; (2) a sales service program supported by two cooperatives for the sale of peaches, peppers and sweet corn under a single label with supervised quality control; (3) a new milk marketing organization made up of farmers and sub-dealers; (4) the establishment of an agricultural industry committee to prepare suitable enabling legislation for State marketing orders and agreements; and (5) an improved blueberry marketing service in Atlantic County to meet the changing patterns in marketing.

Public Market Commission

In May legislation was passed and signed by Governor Robert B. Meyner creating the New Jersey Public Market Commission. This Commission is responsible for establishing a modern food distribution center in northern New Jersey. As the fiscal year closed, a site for the distribution center had been selected in the vicinity of the Croxton railroad yards, Jersey City. The site is ideally located near the Lincoln and Holland tunnels and

the New Jersey Turnpike. It is adjacent to the Pennsylvania, Erie and New York, Susquehanna and Western railroads. The successful establishment of a large food distribution center in New Jersey including a produce market will result in substantial savings in time and money to New Jersey farmers.

Relations with Other Agencies

The Division's relations with other departments have been excellent. A high degree of cooperation exists with the Division of Weights and Measures of the Department of Law and Public Safety. This Division works closely with the Division of Weights and Measures in the standardization of packages and enforcement of laws concerning weights and measures of New Jersey agricultural products. A cordial and responsive relationship is maintained with the Department of Conservation and Economic Development. The New Jersey State Marketing Council, consisting of selected members of the staffs from the College of Agriculture, the Experiment Station and the Division of Markets, held several meetings on marketing problems during the fiscal year. The director of this Division serves as secretary of this Council. Better coordination and understanding of work programs is achieved as a result of these meetings. The Division also works in close cooperation with the Agricultural Marketing Service of the United States Department of Agriculture.

BUREAU OF LICENSING AND BONDING

This Bureau issues licenses to, and in some categories, obtains bonds from the various dealers who purchase agricultural commodities from New Jersey farmers. Included are dealers who purchase milk, cattle, fruits, vegetables, eggs and live poultry from New Jersey producers. Garbage-feeding hog farms and disposal plants which process the bodies of dead animals or packing-house refuse are also licensed by this Bureau.

During the past three years legislation has been enacted providing for "promotion taxes" on poultry and eggs, white potatoes, asparagus and apples. Under this legislation a tax is imposed on the grower of the commodity and the proceeds of the tax are used to promote the sale of that product. The collection of these taxes has been assigned to this Bureau.

MILK DEALERS' LICENSING AND BONDING ACT

Licenses to purchase milk and cream from New Jersey producers during the period July 1, 1959 to June 30, 1960 were issued to 121 milk dealers. Before such a license is granted the applicant is required to file a bond, the amount being based on the volume of anticipated purchases. A total of \$4,761,500 in such bonds was provided in support of these licenses, consisting of surety bonds and United States Government securities.

At its May meeting the State Board of Agriculture adopted a proposal that the bonds required in support of the licenses of milk dealers who operate under Federal Milk Marketing Order 27 be increased. Under the provisions of Order 27, dealers are permitted to pay producers as late as the 25th of the month for milk obtained during the previous month. They could, therefore, owe for almost two months' milk. Under the new ruling such dealers will be required to provide a bond not less than twice the maximum monthly purchases from New Jersey producers, instead of the one and one-half times which was previously required. South Jersey dealers, who are not under Order 27, are still required to pay by the 15th of the month and will continue to provide bonds not less than one and one-half times their maximum monthly purchases. The maximum bond which can be required of milk dealers is fixed by the law at \$100,000.

PRODUCE DEALERS' LICENSING AND BONDING ACT

Dealers licensed under this act include those who purchase fruits, vegetables, eggs and live poultry from New Jersey producers. Licenses were issued to 628 such dealers this year. Each dealer is required to provide a bond in support of his license, the size of the bond depending on the dollar value of commodities purchased and the promptness with which payment is made. A total of \$2,716,000 in bonds was filed in support of the 628 licenses issued.

Complaints were received from 83 producers against 25 licensed dealers during the year, most of which were settled without the filing of formal claims. Claims were filed against the bonds of eight dealers. The claims ranged from \$340 to \$37,132.28 and totaled \$52,766.07. In one case the claims greatly exceeded the amount of the bond. This has stimulated discussion of the desirability of increasing the size of the bonds required.

One hearing was held on a complaint that a dealer was operating without a license. A penalty of \$100 was imposed and the operation was discontinued.

In another case a hearing was held prior to the granting of a license. The purpose of the hearing was to obtain additional information regarding the financial responsibility of the concern since several of the officers of the corporation had been officers of another corporation which had almost defaulted on its bond during the previous year.

POULTRY PRODUCTS PROMOTION COUNCIL, AND TAX ACT

This act imposes a tax of one cent per 100 pounds on all poultry feed used in New Jersey, the proceeds to be used in promoting the sale of

poultry and eggs. Five taxing periods have now been completed. The collections are summarized below:

Taxing Period	Amount Collected	Sources
July 1—Dec. 31, 1957	\$86,750.03	337
Jan. 1—June 30, 1958	87,973.09	302
July 1—Dec. 31, 1958	89,400.35	302
Jan. 1—June 30, 1959	83,202.25	290
July 1—Dec. 31, 1959	77,476.49	269

The decrease in the amount of tax collected is the result of failures in the poultry business and the feed business during 1959. Prices received for eggs and poultry were at low levels for long periods so that many poultry farmers and some feed dealers were forced out of business.

WHITE POTATO INDUSTRY PROMOTION AND TAX ACT

This law imposes a tax of five cents per hundredweight on all seed potatoes planted in New Jersey, the proceeds to be used to promote the sale of New Jersey-produced white potatoes. During the first year of its operation the tax yielded \$15,604.13. This amount was collected on seed potatoes planted during the spring of 1958, the tax being due on or before August 1, 1958. During the second year \$15,131.12 was collected, reflecting a slight reduction in the acreage planted in 1959.

ASPARAGUS INDUSTRY PROMOTION AND TAX ACT

The first annual payment of this tax was due on or before August 1, 1959. Estimates of tax yield, based on sales of the previous year's crop to processors and through auction markets, were that approximately \$90,000 should be collected. The actual collections were \$74,240.42 from tax on asparagus for processing and \$15,179.64 from tax on fresh market asparagus, or a total of \$89,420.06 for the 1959 crop. From figures available at the time of this report, it appears that approximately the same amount will be collected in 1960.

APPLE INDUSTRY PROMOTION AND TAX ACT

This act, providing a tax of three cents on each bushel of apples sold for marketing as fresh apples and three cents per hundredweight on apples sold for processing other than for cider or apple juice, became effective July 1, 1959. The act requires that the tax be collected four times a year, on the 15th of July, September, January and April, on apples sold during the previous three month period. The collections for the four periods of the 1959-60 year were:

July 15, 1959	\$17,326.84
Sept. 15, 1959	19,064.74
Jan. 15, 1960	13,402.59
July 15, 1960	5,349.74
	<hr/>
	\$55,143.91

The yield of this tax was not so large as anticipated and it seems likely that some growers are not reporting their full crop. A system of audits has been initiated but the records of most farmers are not complete or accurate and it will be very difficult to collect 100 per cent of this tax.

BUREAU OF MARKET NEWS AND COOPERATIVES

COOPERATIVE SERVICE

By statute the Department through the Division of Markets is "to advise and assist in the formation and maintenance of farmer and consumer cooperative associations".

At the close of this fiscal year, 95 New Jersey nonprofit agricultural cooperative associations are in existence, with another 25 foreign incorporations domesticated in New Jersey under the provision of the Agricultural Cooperative Association Act.

The combined net worth or farmers' equity of the New Jersey cooperatives is approximately eight million dollars or about 40 per cent of the total assets.

It is estimated that approximately 30,000 farmer patrons are members of these cooperatives, some belonging to as many as four. Purchases for farmers include feeds, seeds, fertilizer, petroleum products, farm tools, paints and other necessary farm equipment and supplies. Cooperative purchasing permits, through volume, a certain amount of performance testing, thus assuring the farmer patron of a better than average product as well as savings by purchasing at cost.

Marketing cooperatively permits assembling volumes of a product to meet buyers' needs. Any savings by the selling cooperative are returned to the producer which increases his share of the sales dollar.

Service cooperatives fill a particular need for some farmers. Artificial breeding and dairy herd improvement cooperatives have been particularly helpful to dairymen.

Credit cooperatives have been used as subsidiary organizations by some purchasing cooperatives to finance patron purchases. Pooled credit plans have been acceptable to local banks.

To meet the efficiencies of private business, cooperatives themselves must be efficient. To that end, the Division staff has been helpful in analyzing financial statements filed with the Secretary of Agriculture as required by law, and suggesting ways of strengthening the operations and financial structures.

Many small cooperatives in the marketing field do not operate efficiently and through competition for markets weaken the farmers' price structure. These cooperatives are being advised to merge and channel all operations through one office. Six cooperatives of the 95 are now in the process of merging.

MARKET NEWS

With the assistance of Research and Marketing Service (United States Department of Agriculture) funds, a pilot market news program on f.o.b. (country point) pricing was inaugurated in 1958. The program had a stabilizing influence on the market. Widespread dissemination of the reports through newspaper, radio and direct mail reduced the number of uninformed producers of fruits and vegetables.

Basically, the reports on country point pricing give tested values at which commodities can be purchased in the producing area. Market trend information included in the reports gives shipments from producing areas, unloads in the principal markets, available supplies, and receiver acceptance of quality. Principal emphasis at the end of the fiscal year is being placed on determining inadequately supplied markets which might be utilized to widen the distribution of New Jersey-grown commodities.

Several attempts have been made to develop a country price reporting program for New Jersey produced eggs. These attempts have not been successful because trade practices in procurement and selling of eggs have been so divergent that the wide range of low to high price would make such a report meaningless. Price reporting programs in other states are currently being analyzed to determine the best known and proven method of obtaining, verifying and disseminating country shipping point egg pricing information. A market news service for New Jersey eggs will be inaugurated as soon as a meaningful quotation can be obtained.

BUREAU OF FRUIT AND VEGETABLE SERVICE

The principal activity of this Bureau is the supervision of inspection and certification of fresh fruits and vegetables for domestic and foreign shipment, and grading of raw products for processing. The work is performed on the basis of established standards, jointly supervised and conducted under a written agreement between the Federal and State Departments of Agriculture and the New Jersey Agricultural Society.

The number of fresh market inspections is affected by such factors as production, quality, demand, prices and marketing regulations. Volume of white potatoes inspected this fiscal year was down about 3 per cent but the volume of apples was more than double that of last year. Government

purchases of sweet potatoes and indemnity payments to cranberry growers in New Jersey accounted mainly for the increase in the total number and volume of products inspected this fiscal year over last. Even excluding the certification of cranberries for indemnity payments, not a normal function of the Bureau, the overall number of inspections for fresh market was still 8 per cent above last year and total volume was greater.

The volume of products for processing varies annually in proportion to production and contracted acreage. Raw products for processing are purchased by most processors on the basis of established standards or contract specifications closely allied with the standards. Volume of tomatoes graded this year for processing was 61,975 tons less than last, a decrease of about 32 per cent. Tomato acreage for processing was 30 per cent less and, although yield per acre was reported as being the same both years, 12.6 tons, the season was shortened by excessive rain in August and early September. Volume of asparagus graded this spring was almost 98 per cent of last year's record of 58,846,452 pounds.

Inspection is available to applicants throughout the State on carlots, trucklots, warehouse and storage lots. The service is permissive and provides unbiased certification at reasonable cost. In addition to the activities connected with the administration of the inspection service, personnel of this Bureau also work with the local fruit and vegetable auctions and city farmers' markets. The Bureau also cooperates and assists in the operation of the program of Jersey Certified Farm Markets, Inc. In June, 1960, an inspector from this Bureau was assigned on a full-time basis to work in an advisory capacity with this organization, other roadside market operators and the Trenton Farmer's Market during the summer months.

Personnel of this Bureau continued to provide technical assistance to committees representing the asparagus and cultivated blueberry industries. In March the committee on asparagus for processing developed quality standards for packing processed asparagus under the New Jersey "State Seal of Quality". The committee on grades for cultivated blueberries recommended a revision in the fresh market standards. Following approval and adoption by the Board of Agriculture, the standards for State seal processed asparagus were promulgated, and the revised fresh market standards for cultivated blueberries were made official New Jersey standards.

During the fiscal year, 84 Federal-State fruit and vegetable inspectors licensed by the United States Department of Agriculture were required to handle the inspection and grading of commodities for fresh market and processing in New Jersey.

CERTIFYING FRESH PRODUCE

Apples

Apple inspections and volume this fiscal year more than doubled last year's. The explanation for this increase was the demand in European and South American markets for New Jersey apples.

Inspection of apples for export is mandatory under the U. S. Export Apple and Pear Act. This year the Bureau inspected a total of 241 lots for fresh market, consisting of 114,929 bushels. Of the total volume inspected, 105,867 bushels or 92 per cent were certified for export. For domestic shipment, inspection is voluntary and very few requests for certification are received.

The 1959 apple crop was the largest since 1942. The quality varied considerably with variety. The solid red or red sport varieties withstood the adverse weather experienced during the growing season much better than some of the old regulars such as Stayman and Rome Beauty. Above normal temperatures and excessive rain in late summer and early fall prevented proper coloring and hastened maturity. Many growers reported well advanced maturity at harvest. This shortened storage life and in some cases made it impractical to store at all.

On the other hand, the red sport varieties kept well in storage. Those stored in controlled atmosphere storages were exceptionally well preserved including some in rooms that were not opened until May 1960.

White Potatoes

The 1959 growing season for potatoes was very good. Fairly attractive prices early in July induced a few growers to start digging about two weeks earlier than normal. The potatoes were extremely immature and excessive skinning was evident in these early shipments.

Heavy rains and high temperatures from July 10 to 25 prevented harvesting. Following this period it soon became evident that the keeping quality of the potato crop had been seriously affected by these conditions. Shipments were being rejected upon arrival in terminal markets because of excessive soft rot. This condition was not apparent at the time of shipment and the inspectors were unable to detect it.

The situation became so serious in August that a meeting of potato growers was called by the chairman of the White Potato Industry Committee. Growers were advised to delay further shipments until more favorable weather conditions prevailed, and to refrigerate harvested potatoes during periods of extremely hot weather.

In September the weather improved and was generally excellent for harvesting. The carrying quality was much improved and rejections for excessive soft rot were considerably reduced. As the season progressed the situation continued to improve. By the end of the digging season soft rot ceased to be a serious factor to our growers and shippers.

Average yield per acre of the 1959 crop was 215 hundredweight as compared with last year's 225 hundredweight. Estimated commercial acreage was the same as in 1958, 18,000 acres.

The larger shippers in the Central Jersey area again requested that inspectors be assigned to them on a full-time basis. This required placing 17 inspectors in the area with headquarters in Hightstown.

The total number of lots inspected this fiscal year was 3,079, consisting of 912,937 hundredweight equivalents. Last year's totals were 3,109 lots and 943,338 hundredweight equivalents.

Prior to the beginning of the 1959 season the Board of Agriculture approved a revision of the requirements for white potatoes to be identified by the "State Seal of Quality," as recommended by the New Jersey White Potato Industry Council. The revision amended the original requirements by the addition of "fairly clean", raised the minimum size to two inches and limited the maximum size to four inches.

The requirements for potatoes packed under State seal for the 1959 season were U. S. No. 1 - Size A, two-inch minimum, four-inch maximum, fairly clean and fairly well matured. Inspection and certification is mandatory under the regulations providing for the control of quality of State seal potatoes.

During the season 28 lots, comprised of 101,510 10-pound bags, were certified as meeting State seal requirements. Much more advantage could have been taken of the program since an average of 97 per cent of all potatoes inspected graded U. S. No. 1 - Size A, or better, including 40 per cent two inches, or larger, minimum diameter.

Green Corn, Sweet Potatoes and Cranberries

Two fruit and vegetable cooperative organizations in South Jersey requested full-time assignment of inspectors for green corn in July, 1959. Cutting began the first week in July and the quality of corn was generally excellent. After the second week of harvesting, heavy supplies in most markets lowered prices considerably. Excessively hot weather forced fields to early maturity and the shipping season was shortened to three weeks from a normal of five or six for the areas. Total inspections this season covered 36 lots and 17,290 crates. The 1958 totals were 26 lots and 8,592 crates.

In an attempt to aid New Jersey sweet potato growers in disposing of some of their surplus supplies this spring, the Sweet Potato Industry Committee, the New Jersey Department of Agriculture and others interested in the welfare of the industry succeeded in getting a government purchase program instituted in New Jersey. The program was administered locally by the Commodity Stabilization Service of the United States Department of Agriculture with headquarters at the College Farm in New Brunswick.

Early in March, 1960, a purchase announcement was made giving details as to eligible vendors, acceptable varieties, minimum grades, packing requirements and price per bushel. The grade requirements were U. S. No. 1 or better and the price was \$2.10 per bushel. Inspection was mandatory.

New Jersey was allotted 100 carlot equivalents of 528 bushel baskets each. Only one carlot was shipped by rail. The remainder were moved in 104 trucklots.

The program terminated April 30, 1960, and the varieties and volume of each sold under the program were as follows:

Jersey Orange	45,783 bushels
Yellow Jersey	5,275 bushels
Jersey Red	1,742 bushels
	52,800 bushels

The program was beneficial in two important respects. It strengthened the market for good quality sweet potatoes and illustrated to our growers the importance of better grading and packing for the commercial markets.

In May, 1960, the government instituted a program to make indemnity payments to cranberry growers throughout the producing areas in the United States. This was brought about through insistence of organizations and individuals, aided by leaders in the various state departments of agriculture, that reparations should be made for the damage to the cranberry industry as a result of an announcement by the United States Secretary of Health, Education and Welfare. The statement concerned the danger of eating cranberries and cranberry products contaminated by aminotriazole, used on some cranberry bogs as a weed killer.

In order to determine the volume upon which indemnity payments were to be made and to confirm proper disposal of eligible lots of cranberries, the shipping point inspection service was given the responsibility of checking the volume and supervising disposal.

The program began late in May. At the end of June 32,581 barrels of cranberries were certified, removed from New Jersey storages and properly disposed.

CANNERY CROPS

Exclusive of white potatoes, more than half of the vegetable acreage of New Jersey is planted to crops for processing. The processing industry is the single most important user of Jersey-grown vegetables, including a considerable volume of white potatoes.

The most important processing crops are asparagus and tomatoes. Other crops for which the Department's grading service is requested are carrots, snap beans, red sweet peppers and green tomatoes. An occasional request is received for inspection of trucklot shipments of apples, sweet potatoes and other products for processing.

The grading service is made available to growers and processors for the purpose of establishing the value of each load delivered. Contracts between processors and growers specify prices to be paid according to quality, based on standards or contract specifications. The inspectors determine the quality by analyzing samples from each load, according to specifications, and applying the percentages to the entire load. The value of each load is directly proportionate to the quality delivered as established by inspection. This system encourages delivery of higher quality which means greater returns to growers, and provides an opportunity for processors to produce a high quality finished product at minimum cost.

Asparagus

The grading of green asparagus for processing is the largest single activity of this Bureau. In the spring of 1960, 21 receiving stations, operated by four processors and 10 brokers, were established in the producing areas. Each station was manned by one or more inspectors. Two supervisors and 34 inspectors were required to handle the grading work.

New Jersey ranks second only to California in the production of asparagus. Early spring estimated acreage for harvest in New Jersey in 1960 was approximately 31,200 acres, an increase of some 200 acres over 1959.

Normally, contracted acreage for processing is about 60 per cent of the total. This year it was nearer 66 per cent as processors found their inventories fairly well depleted before the harvest season began.

The contract price this season was 10½ cents per pound for N. J. No. 1 spears, 7 inches in length, 4½ inches minimum green color, ⅜ inch minimum diameter measured at the butt of the spear. Last year's price for the same specifications was 10¼ cents per pound.

Six contracts were used this season by processors in purchasing asparagus as compared with three last year. The greatest volume purchased by contract was based on the specifications shown in the paragraph

above. Two canner-grower agreements did not make particular reference to standards but specified maximum length and minimum diameter of spears.

Throughout the harvesting season this year the quality of asparagus was above that of 1959. Cooler temperatures this season retarded growth and prevented tips from spreading. Spears were cut shorter in the field, resulting in a lower percentage of butts, for which growers receive no payment. Less damage by insects this season was also attributable to the cooler weather. Favorable weather aided growers in maintaining their dusting schedule for the control of asparagus beetles.

The volume graded this year was about 2 per cent below the record volume graded in 1959. Total volume graded in 1960 was 57,455,512 pounds, compared with 58,846,452 pounds in 1959. The decrease was due primarily to the season's lower average temperatures and shorter processing season.

Volume graded this season under the regular contract based on the New Jersey Standards and calling for a 7-inch spear with $4\frac{1}{2}$ inches of green color was 37,715,146 pounds. Average grades were 73 per cent N. J. No. 1, 6 per cent culls and 21 per cent butts. Corresponding figures on the same contract basis in 1959 were 56,542,272 pounds, with averages of 72 per cent N. J. No. 1, 6 per cent culls and 22 per cent butts.

Volume graded on the basis of a 7-inch spear with $5\frac{1}{4}$ inches of green color was 16,474,666 pounds with averages of 67 per cent N. J. No. 1, 6 per cent culls and 27 per cent butts.

Volume graded on the basis of a 7-inch spear, 5 inches green, was 301,818 pounds with averages of 75 per cent N. J. No. 1, 4 per cent culls and 21 per cent butts.

Volume graded on the basis of the canner-grower contract calling for a 10-inch spear was 2,179,944 pounds, with 82 per cent meeting contract specifications for pay weight, 1 per cent culls and 17 per cent butts. On the one calling for a 9-inch spear, volume was 255,000 pounds with 88 per cent pay weight and 12 per cent butts.

One contract specified a $7\frac{1}{2}$ -inch spear, with payments of 11 cents a pound for spears with a minimum of $5\frac{1}{2}$ inches green and $7\frac{1}{4}$ cents for spears with $4\frac{1}{2}$ to $5\frac{1}{2}$ inches green. Volume graded was 528,938 pounds with grade averages of 54 per cent N. J. No. 1 - $5\frac{1}{2}$ inches green, 13 per cent N. J. No. 1 - $4\frac{1}{2}$ to $5\frac{1}{2}$ inches green, 8 per cent culls and 25 per cent butts.

Tomatoes

New Jersey is one of the leading states in the production of tomatoes for processing. Early indications in 1959 pointed to a new record yield per acre but acreage was 30 per cent below that of 1958, only 14,000 acres as compared with 19,900 the previous year.

Deliveries to processors began late in July and increased rapidly in early August reaching the season's peak the last week of the month. Quality was about average throughout August despite the excess rain and extreme heat in July and August. After the first week in September volume began dropping sharply. The heavy rains in August materially affected the September volume in that August setting of limb-crop fruit was severely damaged by cracking and anthracnose infection and most of it was never harvested. This served to reduce yield and the final average yield per acre was 12.6 tons instead of an indicated 13 tons early in the season.

One processor discontinued operations on September 4, the earliest closing date on record. All except one were closed by September 19.

Volume graded this season was 129,424 tons with grade averages of 60 per cent U. S. No. 1, 37 per cent U. S. No. 2 and 3 per cent culls. In 1958 the volume graded on the basis of the U. S. Standards was 150,659 tons with averages of 64 per cent U. S. No. 1, 34 per cent U. S. No. 2 and 2 per cent culls. In addition, 40,740 tons were graded on the basis of a canner-grower contract.

At the peak of the season 29 Federal-State inspectors were required to handle the tomato grading work.

SUMMARY 1959 CANNERY TOMATO SEASON AND COMPARISON
WITH PREVIOUS 10 YEARS

Seasons	Total Tons Graded	U. S. No. 1 (Per Cent)	U. S. No. 2 (Per Cent)	Culls (Per Cent)
1949	147,076	63	34	3
1950	195,697	69	29	2
1951	215,875	70	28	2
1952	127,418	57	39	4
1953	192,623	66	32	2
1954	130,462	62	36	2
1955	36,705	47	49	4
1956	157,464	64	33	3
1957	144,196	69	29	2
1958	150,659	64	34	2
1959	129,424	60	37	3

Other Cannery Crops

Our grading service is also requested annually on several other important New Jersey crops for processing. Each raw product is graded on the basis of the U. S. Standards for Processing for that commodity.

Following is the quantity of each graded product as compared with last year.

1959-1960		1958-1959	
Product	Pounds	Product	Pounds
Carrots	5,636,100	Carrots	11,117,491
Snap beans	2,379,000	Snap beans	3,545,230
Red sweet peppers	1,222,980	Red sweet peppers	1,256,000

SHIPPING POINT AND MISCELLANEOUS INSPECTIONS

In addition to the products covered in detail in this report, others, such as beets, cabbage, carrots, chicory, cucumbers, eggplant, escarole, lettuce, onions, peaches, peppers and mixed vegetables, were inspected and certified. A considerable volume of asparagus has normally been exported to Canada but due to the rigid Canadian import requirements only one lot was exported this season. Inspections of miscellaneous products this season covered 96 shipments and 27,505 packages.

Federal-State inspectors were also stationed at several of the shipping point fruit and vegetable auction markets for inspection and arbitration purposes.

The following table shows the 10-year record of shipping point inspections by products.

	TEN-YEAR RECORD OF SHIPPING POINT INSPECTIONS BY PRODUCTS									
	50-51	51-52	52-53	53-54	54-55	55-56	56-57	57-58	58-59	59-60
Apples	234	796	157	228	369	150	191	336	107	241
Asparagus	46	10	45	36	24	14	32	6	1	1
Beans	1	..	1	2	..	..	..	..	1	..
Beets	1	..	..	1	..	..	..	1	4	2
Cabbage	5	4	7	2	1	6	6	8	10	21
Carrots	..	..	1	1	1	..	10	..	..	1
Cauliflower	..	..	..	..	..	..	..	..	..	..
Celery	..	..	..	..	..	..	..	..	1	..
Chicory	..	..	..	..	..	..	..	..	..	1
Collards	..	..	..	..	..	..	..	2	..	..
Corn	67	92	113	135	91	33	35	17	26	36
Cucumbers	..	1	4	49	1	5	..	7	2	141
Eggplant	..	..	..	..	..	..	..	..	..	1
Escarole	..	..	..	..	..	..	..	..	..	1
Lettuce	2	..	5	1	5	1	36	14	48	49
Onions	15	42	14	27	28	15	9	6	14	10
Onions, green	..	..	2	1	..	..	..	..	..	5
Peaches	1	5	3	3	8	1	2	..	4	13
Peppers	..	5	5	2	..	..	..	3	..	10
Potatoes	18,429	9,989	1,748	782	632	493	1,858	3,007	3,109	3,079
Rutabagas	..	..	3	..	..	1	..	..	..	..
Spinach	..	..	1	..	..	..	..	..	..	..
Squash	6	..	..	..	..	..	..	..	..	..
Sweet potatoes	26	12	7	24	9	33	2	1	1	108
Tomatoes	1	..	..	4	..	..	12	10	..	..
Turnips	..	..	1	..	..	..	..	..	..	..
Mixed vegetables	3	..	2	1	3	2	2	..	..	4
Totals	18,837	10,956	2,119	1,299	1,172	754	2,195	3,418	3,328	3,597

TERMINAL INSPECTIONS

While this Bureau's chief responsibility is the inspection and certification of products grown and packed in New Jersey, its inspection activities also include certification of products shipped to New Jersey terminals in interstate commerce. Inspections are made at the request of the receivers of such produce. Most requests are for potato inspections. Inspection of fresh supplies for State hospitals and institutions also comes under terminal work. Most of this work is on purchases by the New Jersey State Hospitals at Trenton and Marlboro.

Only inspectors appointed by the United States Department of Agriculture as collaborators are eligible to make terminal inspections. Authorized for this work in New Jersey are the chief of the Bureau, three State supervisors and four Agricultural Society inspectors. All terminal inspections are certified on straight Federal certificates rather than the Federal-State type used in reporting shipping point inspections.

The following list shows commodities and volume certified at various terminals in New Jersey during the fiscal year.

Product	Volume
Apples (processing)	110,000 pounds
Cranberries (processing)	281,952 pounds
Cabbage	563—50-pound bags
Green corn	295 crates
Grapefruit	5,844 crates
Lettuce	520 crates
Onions	5,565—50-pound sacks
Onion sets	625—40-pound bags
Peaches	254— $\frac{3}{4}$ bushels
Potatoes	324,354 hundredweight
Watermelons	3,856 melons
Mixed vegetables	119 packages

Inspections of fresh fruit and vegetables delivered to institutions, including those on items for replacements of rejections on original deliveries, amounted to 152 and covered 1,087,781 pounds.

MISCELLANEOUS INSPECTIONS

Personnel of this Bureau were assigned to conduct a survey on fresh packed asparagus for the purpose of determining grades and sizes being offered by New Jersey growers at shipping point auction markets.

One inspector was assigned to inspect and certify processed asparagus packed in accordance with the New Jersey "State Seal of Quality" specifications. The P. J. Ritter Co. of Bridgeton was the only processor to pack under State seal this first year. A total of 158,120 cases of $13\frac{1}{2}$ and

9½ ounce glass jars were packed and certified as meeting New Jersey State seal standards.

During the 1959 blueberry season two inspectors from this Bureau made a survey on the quality of blueberries throughout the main producing areas to determine the percentage of lots that would meet the requirements of our New Jersey Standards for Blueberries for Fresh Market. The survey revealed that 85 per cent of the lots inspected met the requirements.

MARKET ACTIVITIES

While the generally warm and wet 1959 crop year adversely affected keeping quality of some highly perishable fruits and vegetables, most gave record or near record yields as a result of the ample moisture supplies. Statistics of nine operating farmer-owned produce auctions are given in an accompanying table. They indicate which crops were in bountiful supply during the 1959 season. However, direct sales of produce are not tabulated; therefore, the auction sales do not necessarily account for the total volume of any single commodity.

Prices for most fruits and vegetables again declined in 1959. Notable exceptions were asparagus, peaches, cabbage, blueberries, onions and white potatoes. Price declines were particularly severe for apples, sweet potatoes, sweet corn and lettuce. Snap beans, lima beans, eggplant and peppers declined moderately in price while cucumbers showed no change.

The farmer-owned produce auctions continued to improve their operating facilities by the addition of larger capacity hydrocoolers and truck icing equipment. Hydrocooling, vacuum cooling, and stericooling are used on many commodities. Top icing and refrigerated trucks are also widely used to insure top quality produce all the way to the consumer. New Jersey farmers have learned that these practices insure consumer satisfaction and thus create demand for "Jersey produce".

Personnel of the Division work closely with the members, directors and managers of New Jersey cooperative marketing associations. The Division is represented at all membership meetings and nearly all of the monthly directors' meetings. Assistance is rendered to shipping point markets, roadside markets, city farmers' markets and to the terminal markets in Philadelphia and New York City.

SHIPPING POINT AUCTION MARKETS

Information in this section is given for the complete calendar or crop growing year; therefore, the entire marketing year of 1959 is covered. Volume and dollar value of sales declined at New Jersey fruit and vegetable auctions in 1959. This resulted from lower prices for several major com-

modities handled and the increase in direct sales of produce at several of the shipping point markets. Direct sales increased significantly at Beverly, Hammonton and Glassboro. The average price received per package dropped sharply in 1959 while volume declined moderately. A table is also included to show the volume of major commodities sold at auctions in 1959 as compared with 1958. It should be noted that volume and sales reports of cooperative shipping point markets do not reflect total sales of produce in New Jersey.

SUMMARY OF SALES AT FRUIT AND VEGETABLE AUCTION MARKETS

Market	Season of 1959		Season of 1958	
	Number of Packages Sold	Value of Sales	Number of Packages Sold	Value of Sales
Beverly	238,890	\$375,739.80	275,018	\$381,436.58
Consigned and direct				
Corn	101,575 crates*	180,094.80	176,076*	352,764.16
Peaches	27,481 $\frac{3}{4}$ bu.*	76,414.75		
Cedarville	461,829	959,215.27	520,850	1,138,480.29
Direct	67,205*	106,759.06	.....	.....
Glassboro	338,928	540,305.87	416,817	654,620.91
Direct	140,589*	387,878.57	.....	.....
Hammonton	184,434	779,757.70	301,068	1,098,299.85
Blueberries, fresh	79,969*	273,286.65	.....	.....
Blueberries to processors	27,793*	.....	74,255 lbs.*	14,788.05
Sweet potatoes to processors	.....	.....	379,024 bus.	438,947.60
Hightstown	463,513	504,910.51	436,878	457,791.78
Direct	38,857*	75,434.30	48,548*	85,926.60
Landisville	448,948	685,761.78	544,787	964,518.54
Consigned and direct	42,831*	51,216.00	53,387*	95,844.00
Pedricktown	160,858	479,636.30	164,873	445,807.20
Swedesboro	677,136	1,695,712.19	790,786	1,857,627.85
Asparagus to processors**	1,459,662 lbs.*	.....	1,341,110*	134,111.00
Vineland	1,006,085	1,732,858.32	839,460	1,434,271.58
Totals—By Auction	3,980,621	\$7,753,897.74	4,290,537	\$8,432,854.58
Value—All Sales	.....	\$8,904,981.87	.....	\$9,555,235.99
		Average price per package (by auction), 1959		\$1.696
		Average price per package (by auction), 1958		\$1.964

** Pay weight.

* "Number of Packages Sold," not included in totals sold by auction or in average price per package by auction, but included in "Value-All Sales."

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PRINCIPAL COMMODITIES SOLD AT FRUIT AND VEGETABLE AUCTION MARKETS
VOLUME IN 1959 WITH 1958 COMPARISONS

Commodity	Unit	1959	1958
Peaches	Bushels	93,925	185,805
Blackberries	Crates, 12 pints	.....	2,997
Blueberries & huckleberries	Crates, 12 pints	106,462	192,915
Raspberries	Crates, 12 pints	7,466	5,309
Strawberries	Crates, 24 quarts	153,432	125,879
Asparagus	Crates, dozen bunches	487,224	567,745
Beans, lima	Bushels	14,853	22,031
Beans, snap	Bushels	182,640	161,417
Beets	Bushels	17,944	10,457
Cabbage	Bushels	86,756	65,988
Cantaloupes	Bushels	89,886	53,779
Cauliflower	Crates, 1½ bushel	.....	6,279
Corn, sweet	Bushels or sacks	136,327	125,362
Cucumbers and pickles	Bushels	207,973	197,856
Eggplant	Bushels	145,165	123,558
Lettuce	Crates, 2 dozen	229,531	308,820
Onions	Sacks, 50 pounds	33,019	73,011
Peppers	Bushels	512,920	484,929
Potatoes, white	Sacks, 100 pounds	23,448	18,782
Squash	Bushels	67,881	.....
Tomatoes	Climax baskets	193,536*	576,173

* Equivalent bushels 63 lbs.

DAIRY SERVICE

NEW MILK MARKETING AGENCY

The supervisor worked with a group of producers and sub-dealers in establishing Westbrook Farms, Inc., in Johnsonburg. Westbrook Farms, Inc., is an entirely new organization in which dairy farmers and milk sub-dealers purchased shares of stock to finance a new milk plant and operate their own marketing project.

This is the first time a group of producers and sub-dealers have united in a marketing venture. At the present time they are producing, processing and marketing over 20,000 quarts of milk daily. Westbrook Farms, Inc., has been under inspection of the New Jersey Official Grades inspection service of the Department of Agriculture since the operation began in October 1959.

OFFICIAL GRADES INSPECTION SERVICE

The New Jersey Official Grades inspection service of the Department was continued with 10 cooperating dealers. Once each year every milk plant employee where milk is sold must be examined by a physician to determine if he is medically satisfactory to handle milk. In the past year 75 employees were provided milk handlers' cards by the Department of Agriculture after satisfactorily passing medical examinations.

New Jersey Dairy Laboratories of New Brunswick made microscopic analysis of all milk samples taken in our control work. During the year 2,191 samples were collected, analyzed and reports sent from this office to cooperating producers, dealers and health officers.

During the year 79 warning letters were sent out from this office to producers having two consecutive high bacteria counts. It was necessary to suspend only one producer from his market because of a third high bacteria count.

New Jersey Official Grades milk comes from 166 farms. This milk is produced by 195 herds, consisting of 7,692 cows, all of which are under the supervision of the Department of Agriculture. Each herd is given a physical examination once a year by a veterinarian in accordance with the New Jersey Official Grade regulations.

The accompanying table records the physical examination of cows by counties during the fiscal year 1959-1960 and the results of examinations.

RESULTS OF VETERINARIAN EXAMINATION OF HERDS BY COUNTIES

County	Number of Herd Examinations	Number of Animal Examinations	Number of Animals Passed	Number of Animals Isolated	Number of Animals Condemned
Burlington	16	526	520	6	..
Cumberland	4	94	93	1	..
Gloucester	3	92	89	3	..
Hunterdon	50	1,971	1,940	31	..
Mercer	6	221	215	6	..
Monmouth	9	465	454	11	..
Morris	17	658	656	2	..
Salem	19	852	837	15	..
Somerset	35	1,053	1,039	13	1
Sussex	20	965	942	23	..
Warren	15	745	736	9	..
No. Hampton (Pa.)	1	50	49	1	..
Totals	195	7,692	7,570	121	1
No. of herds in which all animals were passed				127 or 65.1%	
No. of herds in which animals were excepted				68 or 34.9%	
No. of animals passed				7,570 or 98.41%	
No. of animals isolated				121 or 1.58%	
No. of animals condemned				1 or 0.01%	

The supervisor and fieldmen have aided several dairymen in the installation of bulk milk tanks on farms. The bulk tank system is the trend in all milk markets.

The supervisor attended the New Jersey Dairymen's Council meetings throughout the year, and also attended hearings called by the Office of Milk Industry pertaining to the pricing of milk.

LIVESTOCK AUCTION MARKETS

The livestock auctions operating in New Jersey have continued their fine cooperation by sending to the Department weekly reports on all sales, giving class of animals sold and prices obtained. During the past year the number of head of animals sold was higher than in the 1958-1959 fiscal year, though total money returns were lower. The Boyer Sales auction market in New Egypt sold its property in July and during that month had only one sale. Freehold Auction Market started reporting its sales in August, 1959, and has continued weekly. The following chart shows the sales at the cooperating markets for 1959-1960 fiscal year.

SUMMARY OF SALES AT LIVESTOCK AUCTION MARKETS

Market	No. of Head	Value
Flemington	15,924	\$ 654,160.91
Hackettstown	49,182	3,586,455.76
Mount Holly	3,957	112,402.21
Freehold	3,451	193,777.16
New Egypt	72	4,675.84
Sussex	42,591	2,768,044.99
Woodstown	31,942	1,922,793.25
Totals	147,119	\$9,242,310.12

BUREAU OF POULTRY SERVICE

The New Jersey poultry industry continues to be confronted with an unfavorable economic situation, a problem not limited to New Jersey. The impact of financial reverses by many egg producers in a community dependent upon their success has posed a serious problem in some New Jersey localities.

The egg-feed ratio reveals the relation between one major cost item and the price received for eggs. The months of March and April were considered the most favorable to the egg producer, however, at no time during the year did the egg-feed ratio reveal a truly favorable economic situation. The lowest monthly average price per dozen, as reported by the Crop Reporting Service, was 32 cents and occurred in February. This was three cents higher than the low for last year which occurred in May.

Figures compiled by the Crop Reporting Service reveal 11,709,000 layers on farms in January, 1960, as compared with 12,612,000 in January, 1959. Replacement chicks moved very slowly early in the season and gained little as the season progressed. As the fiscal year closes, the number of layers on farms is reported as 10,156,000 compared with 11,450,000 in June, 1959. Older fowl are being kept on many farms as a substitute for replacement stock.

POULTRY STANDARDIZATION

Operating under the N.J.-U.S. Poultry and Turkey Improvement Plans for the 25th year, the Bureau certified 534,094 birds from 177 flocks in 18 counties with 57 hatcheries cooperating. The number of birds in participating flocks was 21.6 per cent less than the 1958-1959 total of 680,938 birds in 266 flocks. Production of chicks in the State-supervised hatcheries was approximately 16,400,000. About 100,000 turkey poultts were produced under State supervision.

Eighty-four privately-employed workers, certified as flock selectors, and 90 certified as pullorum-fowl typhoid testing agents, worked in various phases of the N.J.-U.S. National Poultry Improvement Plan.

The State inspector and seasonally employed assistants are supported by fees paid by participants.

Department personnel selected and blood-tested 286,087 birds (52.2 per cent of the total) and 261,775 birds were handled by field agents. The agents were assisted and their work was closely supervised and found satisfactory by the Bureau of Poultry Service inspector and one Division of Animal Industry man. Selecting agents operated in two breeding stages, Approved and Certified. Testing agents operated in the Pullorum-Typhoid Clean stage.

The average participating flock numbered 3,017 birds last year, compared with the 1,072 bird flock average of 10 years ago. The participating hatcheries' total capacity in New Jersey is 9,188,990 eggs per setting. This is about 86.0 per cent of the total hatchery capacity for New Jersey. The average hatchery capacity is 161,200 eggs per setting.

The trend since 1953 toward fewer hatching egg flocks, hatcheries and breeders in New Jersey continued in 1959-1960. There are 23 (one more than last year) New Jersey hatcheries that have taken on franchise breeding contracts with 15 (one more than last year) out-of-state breeders. One New Jersey breeder has sold out to an out-of-state breeding organization.

The breeding and health classifications used were:

Breeding Stages	Pullorum-Typhoid Classes
N.J.-U.S. Record of Performance	N.J.-U.S. Pullorum-Typhoid Clean
N.J.-U.S. Certified	N.J.-U.S. Pullorum-Typhoid Passed
N.J.-U.S. Approved	

The scope of the services the poultry standardization program rendered is indicated in Poultry Table 1.

POULTRY TABLE 1

N.J.-U.S. Improvement Plans	Number in 1959-60	Number in 1958-59	Per Cent Change
Number of flocks cooperating	177	266	-33.5
Total number of breeders	534,094	680,938	-21.6
Number of hatcheries cooperating	57	66	-13.6
Hatchery capacity cooperating	9,188,990	10,528,830	-12.7
Hatchery capacity in New Jersey	10,688,900	11,959,000	-10.6
Number of birds in pullorum-typhoid classes only	154	764	-79.8
Number of birds in Approved stages	475,446	634,346	-25.0
Number of birds in Certified stages	58,494	45,828	+27.6
Number of birds in ROP trapnest	0	0	.....
Number of females in ROP breeding pen	464	589	-21.2
Percentage of birds reacting to the pullorum-typhoid test	0.0033	0.0020	+65.0
Number of flock inspections	168	262	-35.9
Number of hatchery inspections	54	92	-41.3

Poultry Tables 2 and 3 give the classification and distribution of birds under supervision, and the number of birds banded by breeds and by counties. Cumberland County leads in number of breeding birds, followed by Ocean, Monmouth and Hunterdon.

White Leghorns accounted for 70.5 per cent of the total of all varieties enrolled in the State program. Incross mated numbered 53,053; New Hampshires, 1,167; Rhode Island Reds, 4,310; Barred Rocks, 2,785; and White Rocks, 22,364. White and buff Cornish continued to grow in popularity to supply males for crossing on other varieties to produce modern meat type chicks.

Participation in the Turkey Improvement Program totaled 6,736 birds in 1959-1960, which is a 21.4 per cent increase from 1958-1959.

Two new agents qualified at the 19th annual school for flock selectors and pullorum-typhoid testers. Instructors from the College of Agriculture cooperated with the Division of Markets and the Division of Animal Industry.

One Federal supervisor visited the State. The National Poultry and Turkey Improvement Plans' Biennial Conference in Athens, Georgia, was attended by one member of the industry, two employees of the Division of Markets and one employee of the Division of Animal Industry.

Lists of participating breeding flocks and hatcheries, with their official rating, were published in circular form.

POULTRY TABLE 2
NUMBER OF BREEDERS, BY COUNTIES, BREEDS OR VARIETIES

County	Single Comb White Leghorns	New Hamp- shires	Rhode Island Reds	Barred Rocks	White Rocks	Crosses	Incross	Others	Turkeys			Totals
									Broad Breasted Bronze	Broad Breasted White	Others	
Atlantic	25,355	....	....	....	3,458	1,592	718	....	....	....	....	31,123
Bergen	880	....	184	....	506	....	....	....	....	....	....	1,570
Burlington	3,723	....	....	541	....	....	....	....	....	....	....	4,264
Camden	....	....	....	....	....	....	....	....	93	....	152	245
Cape May	12,667	....	....	....	....	3,062	....	....	....	....	....	15,729
Cumberland	65,361	....	3,079	....	4,502	8,530	23,954	834	....	....	....	106,260
Gloucester	11,479	162	....	....	13,225	483	....	....	....	....	....	25,349
Hunterdon	60,809	....	....	....	....	4,747	....	....	....	....	....	65,556
Mercer	17,120	....	756	2,244	....	17,606	....	....	2,789	....	381	40,896
Middlesex	18,583	....	....	....	....	....	....	....	....	101	....	18,684
Monmouth	72,111	....	....	....	364	7,308	....	61	32	....	454	80,330
Morris	658	....	....	....	....	....	....	....	....	....	....	658
Ocean	54,688	....	....	....	....	433	28,381	....	1,140	....	....	84,642
Passaic	251	....	291	....	....	....	....	....	....	....	....	542
Salem	....	283	....	....	309	27,944	....	110	....	....	....	28,646
Somerset	21,645	....	....	....	....	....	....	....	....	....	....	21,645
Sussex	1,598	722	....	....	....	....	....	93	....	1,201	393	4,007
Warren	3,948	....	....	....	....	....	....	....	....	....	....	3,948
Totals	370,876	1,167	4,310	2,785	22,364	71,705	53,053	1,098	4,054	1,302	1,380	534,094
1958-59	513,572	3,355	6,218	2,848	8,227	95,614	44,378	1,175	2,386	2,198	967	680,938

POULTRY TABLE 3
CLASSIFICATION AND DISTRIBUTION OF BIRDS UNDER SUPERVISION IN THE
POULTRY STANDARDIZATION PROGRAM

County	Number of Flocks	NUMBER OF BIRDS				Totals
		N.J.-U.S. Certified Pullorum- Typhoid Clean	N.J.-U.S. Approved Pullorum- Typhoid Passed	N.J.-U.S. Approved Pullorum- Typhoid Clean	N.J.-U.S. Pullorum- Typhoid Clean	
Atlantic	8	718	....	30,405	....	31,123
Bergen	3	....	....	1,570	....	1,570
Burlington	4	....	....	4,264	....	4,264
Camden	3	....	....	245	....	245
Cape May	3	....	....	15,729	....	15,729
Cumberland	34	24,430	....	81,830	....	106,260
Gloucester	11	4,965	....	20,384	....	25,349
Hunterdon	17	....	....	65,556	....	65,556
Mercer	18	....	....	40,896	....	40,896
Middlesex	4	....	....	18,684	....	18,684
Monmouth	21	....	....	80,269	61	80,330
Morris	1	....	....	658	....	658
Ocean	26	28,381	....	56,261	....	84,642
Passaic	2	....	....	542	....	542
Salem	10	....	....	28,646	....	28,646
Somerset	4	....	....	21,645	....	21,645
Sussex	6	....	....	3,914	93	4,007
Warren	2	....	....	3,948	....	3,948
Totals	177	58,494	....	475,446	154	534,094

COOPERATIVE MARKETING

The cooperative egg marketing associations are of two types. Those which physically handle the eggs of their members originated as auctions and are located at Paterson, Hackettstown, Flemington, Hightstown, Mount Holly and Vineland. Others operate as "bargaining" cooperatives and are located mainly in the Lakewood-Toms River area, with a few in the vicinity of Vineland. The auction type cooperative has its individual method of pricing; the bargaining type cooperative negotiates contracts on behalf of its members, using the New York market quotation as the base.

A committee created by three feed cooperatives is working towards the development of a central sales agency for all egg marketing cooperatives in New Jersey. The purpose is to place the egg producer in a stronger position in marketing his product and eliminate competition among the cooperatives. Progress is slow for two principal reasons: (1) the respective managers foresee their position fading and (2) those associations with physical assets and facilities now at the disposal of their members are not inclined to jeopardize them. Therefore, certain conditions must be stipulated to protect those cooperatives which possess facilities and sales outlets. It is generally agreed that a central sales agency is a sensible objective but the control and management of such a venture has many detailed problems which must be resolved carefully.

The total volume of eggs marketed through the auction cooperatives in 1959-1960 was 756,047 (30-dozen) cases which is 23.69 per cent less than last year. One bargaining cooperative reported handling 237,361 (30-dozen) cases during the same fiscal year while six bargaining cooperatives through a federation reported handling 480,012 cases. No report of the volume handled by six other bargaining cooperatives is made to the Department. The Bureau of Poultry Service, however, serves all cooperatives.

In 1959-1960 the average price per dozen of all grades and sizes of eggs sold through the "auction" type cooperatives was 36.76 cents or \$11.03 per 30-dozen case. This compares to an average price of 39.6 cents per dozen or \$11.88 per 30-dozen case in 1958-1959.

Live poultry sales are conducted by five cooperatives located at Paterson, Hackettstown, Flemington, Hightstown and Mount Holly. The total annual volume handled was 42,071 crates or 1,542,364 pounds which sold for \$212,330.11. This was 1,004,054 pounds less than last year's volume and \$214,066.17 less than last year's value. In 1959-1960 the average price per pound of all poultry sold was 13.76 cents compared to an average price of 16.7 cents in 1958-1959.

Table 4 "Summary of Egg and Poultry Auction Markets" shows the volume and value of sales of the "auctions" and the total of all sales for the year.

POULTRY TABLE 4
SUMMARY OF EGG AND POULTRY AUCTION MARKETS
July 1, 1959 to June 30, 1960

Market	Case of Eggs	Value of Eggs	Crates of Poultry	Pounds of Poultry	Value of Poultry	Total Value
Flemington	238,693	\$2,581,204.41	17,315	790,332	\$120,392.28	\$2,701,596.69
Hackettstown	26,197	293,524.84	15,615	214,926	29,883.72	323,408.56
Hightstown*	43,588	473,636.85	999	57,806	5,821.43	479,458.28
Mount Holly	41,373	448,498.87	5,226	302,998	39,256.12	487,754.99
Paterson	37,893	410,179.13	2,916	176,302	16,976.56	427,155.69
Vineland	368,303	4,131,725.10	.....	.....	.....	4,131,725.10
Totals	756,047	\$8,338,769.20	42,071	1,542,364	\$212,330.11	\$8,551,099.31
		Average price per case of eggs, 1959-60		\$11.03		
		Average price per case of eggs, 1958-59		\$11.88		
		Average price per pound of live poultry, 1959-60			\$0.138	
		Average price per pound of live poultry, 1958-59			\$0.167	

* Discontinued reports as of November 1959.

Table 5 provides a comparison of seasonal values on a monthly basis.

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POULTRY TABLE 5

AVERAGE PRICE PER DOZEN EGGS ON SIX NEW JERSEY AUCTION MARKETS

Month	1959	For Comparison	
		1958	1939
July	\$0.3734	\$0.4222	\$0.2647
August	.3561	.4478	.2678
September	.4037	.4754	.2948
October	.3425	.4307	.3029
November	.3617	.4375	.3118
December	.3554	.4263	.2453
	1960	1959	1939
January	.3244	.4183	.2372
February	.3214	.3968	.2260
March	.4197	.3835	.2305
April	.4362	.3114	.2218
May	.3645	.2827	.2146
June	.3574	.3257	.2384

The development of the marketing program is traced in Table 6.

POULTRY TABLE 6

TEN-YEAR SUMMARY OF NEW JERSEY POULTRY AND EGG AUCTION SALES

Year	Number Cases of Eggs	Number Crates of Poultry	Pounds of Poultry	Total Combined Value Eggs and Poultry
1959-60	756,047	42,071	1,542,364	\$ 8,551,099.31
1958-59	990,802	49,724	2,546,418	12,198,175.14
1957-58	1,036,495	61,634	3,110,486	14,958,559.86
1956-57	1,201,770	83,501	4,237,116	15,143,821.58
1955-56	1,181,742	99,084	4,954,517	18,245,286.84
1954-55	1,348,732	112,629	5,718,722	18,148,548.35
1953-54	1,334,554	116,074	5,869,994	22,068,208.60
1952-53	1,291,951	114,313	5,869,308	23,083,519.57
1951-52	1,180,320	130,754	6,882,213	20,302,196.16
1950-51	1,067,278	122,147	6,548,720	19,353,488.51
Totals	11,389,691	931,931	47,279,858	\$172,052,903.92

Auction Markets' Egg-Feed Ratio

The ratios of egg prices compared with feed costs presented in Table 7 reveal that no months during the fiscal year were favorable economically to New Jersey egg producers. It is generally accepted that an egg-feed ratio of 8 dozen = 100 pounds of feed is an indication of poultry producer prosperity.

POULTRY TABLE 7

NEW JERSEY EGG AUCTIONS—EGG-FEED RATIO

	July 1958			August 1958			September 1958		
	1959	1958	1939	1959	1958	1939	1959	1958	1939
EGGS									
Total dozens sold	2,296,440	2,633,280	891,300	2,072,550	2,390,820	900,540	2,088,030	2,716,740	855,660
Total price paid	\$857,462.83	\$1,111,845	\$235,920	\$738,113.17	\$1,070,680	\$241,138	\$842,910.34	\$1,291,513	\$252,290
Av. price per doz.	\$0.3734	\$0.4222	\$0.2647	\$0.3561	\$0.4478	\$0.2678	\$0.4037	\$0.4754	\$0.2948
FEED									
Av. 100 lb. scratch	\$3.80	\$3.90	\$1.60	\$3.80	\$3.90	\$1.50	\$3.75	\$3.80	\$1.86
Av. 100 lb. mash	\$4.40	\$4.60	\$2.18	\$4.35	\$4.60	\$2.16	\$4.35	\$4.45	\$2.02
Av. laying ration	\$4.10	\$4.25	\$1.89	\$4.08	\$4.25	\$1.83	\$4.05	\$4.13	\$1.94
RATIOS									
Doz. eggs required to buy 100 lb. feed	10.9	9.0	7.1	11.5	9.5	6.8	10.0	8.7	6.6
No. lb. feed one doz. eggs will buy	9.1	9.9	14.0	8.7	10.5	14.6	9.96	11.5	15.2
EGGS									
Total dozens sold	2,341,980	2,702,700	995,430	1,991,550	2,310,840	969,330	1,841,490	2,395,680	1,135,350
Total price paid	\$802,162.50	\$1,163,986	\$301,571	\$720,269.21	\$1,010,936	\$302,285	\$654,498.36	\$1,021,193	\$278,465
Av. price per doz.	\$0.3425	\$0.4307	\$0.30296	\$0.3617	\$0.4375	\$0.3118	\$0.3554	\$0.4263	\$0.2453
FEED									
Av. 100 lb. scratch	\$3.70	\$3.75	\$1.78	\$3.75	\$3.75	\$1.77	\$3.75	\$3.75	\$1.83
Av. 100 lb. mash	\$4.25	\$4.45	\$2.54	\$4.30	\$4.45	\$2.25	\$4.30	\$4.45	\$2.58
Av. laying ration	\$3.98	\$4.10	\$2.16	\$4.03	\$4.10	\$2.14	\$4.03	\$4.10	\$2.20
RATIOS									
Doz. eggs required to buy 100 lb. feed	11.6	9.5	7.1	11.1	9.4	6.9	11.3	9.6	9.0
No. lb. feed one doz. eggs will buy	8.6	10.5	14.0	8.97	10.7	14.6	8.8	10.4	11.2

POULTRY TABLE 7—Continued

NEW JERSEY EGG AUCTIONS—EGG-FEED RATIO

	January			February			March		
	1960	1959	1939	1960	1959	1939	1960	1959	1939
EGGS									
Total dozens sold	1,565,070	2,177,970	1,099,080	1,631,040	2,154,330	1,085,550	1,712,730	2,549,490	1,372,230
Total price paid	\$507,763.42	\$911,049	\$260,807	\$524,399.48	\$854,887	\$245,377	\$718,821.43	\$977,657	\$316,304
Av. price per doz.	\$0.3244	\$4.183	\$2.373	\$3.215	\$3.968	\$2.260	\$4.197	\$3.835	\$2.395
FEED									
Av. 100 lb. scratch	\$3.80	\$3.80	\$1.54	\$3.75	\$3.80	\$1.54	\$3.75	\$3.80	\$1.56
Av. 100 lb. mash	\$4.35	\$4.55	\$2.04	\$4.30	\$4.55	\$2.04	\$4.25	\$4.50	\$2.06
Av. laying ration	\$4.08	\$4.18	\$1.79	\$4.03	\$4.18	\$1.79	\$4.00	\$4.15	\$1.81
RATIOS									
Doz. eggs required to buy 100 lb. feed	12.6	9.99	7.5	12.5	9.5	7.9	9.5	9.8	7.9
No. lb. feed one doz. eggs will buy	7.95	10.0	13.3	7.97	9.49	12.6	10.5	9.2	12.7
EGGS									
Total dozens sold	1,563,450	2,712,690	1,213,620	1,830,240	2,528,220	1,388,070	1,721,670	2,451,300	1,117,170
Total price paid	\$681,939.34	\$844,841	\$269,177	\$667,095.13	\$714,824	\$297,863	\$615,372.14	\$798,363	\$266,289
Av. price per doz.	\$0.4362	\$3.114	\$2.218	\$3.645	\$2.827	\$2.146	\$3.574	\$3.257	\$2.384
FEED									
Av. 100 lb. scratch	\$3.80	\$3.80	\$1.58	\$3.85	\$3.85	\$1.64	\$3.70	\$3.85	\$1.69
Av. 100 lb. mash	\$4.25	\$4.50	\$2.11	\$4.15	\$4.50	\$2.18	\$4.00	\$4.40	\$2.18
Av. laying ration	\$4.03	\$4.15	\$1.84	\$4.00	\$4.18	\$1.91	\$3.85	\$4.13	\$1.94
RATIOS									
Doz. eggs required to buy 100 lb. feed	9.2	13.3	8.3	10.9	14.7	8.9	10.8	12.7	8.1
No. lb. feed one doz. eggs will buy	10.9	7.5	12.1	9.1	6.8	11.2	9.3	7.9	12.3

The extremes in egg prices occurred in April with a high of 43.62 cents per dozen and in February with a low of 32.15 cents per dozen.

Poultry feed cost during 1959-1960 was \$4.02 per hundredweight as compared with a hundredweight cost of \$4.16 in the 1958-1959 fiscal year.

Based on actual reports and estimates, the average New Jersey hen in 1959-1960 produced 16.37 dozen eggs which earned a gross income of \$6.02. With a feed cost of \$4.02 there is a balance of \$2.00 per bird for all other costs. In 1958-1959 the average hen produced 16.1 dozen eggs, earning a gross income of \$6.38. The feed cost was \$4.16, leaving a balance of \$2.22 per bird for all other costs.

GRADING AND INSPECTION SERVICE

The grading and inspection of poultry products is a service rendered by the Bureau at a specified fee charge. With the exception of one phase of this work, those desiring such service make application and enter into a contractual agreement. In exceptional cases, service is rendered on call at an established rate per hour.

Cooperative markets located at Vineland, Hightstown, Mount Holly and Flemington apply the official Wholesale Grades for Eggs. These markets handled a total of 691,957 cases or 20,758,710 dozens, which was 25.05 per cent less than last year. Two cooperatives in the Toms River-Lakewood area apply the official standards under supervision which is a procedure for determining the percentage of different qualities in each producer's lot so that he can be paid accordingly. No declaration of grade is made but the facts are recorded on official egg grading certificates as a matter of record and educational value to the producer. The two cooperatives marketed 717,373 cases of eggs during the year.

Eggs for New Jersey institutional use are inspected before delivery is made. The Division of Purchase and Property, in consultation with this Department, establishes specifications to which the eggs shall conform and such other conditions as the Division considers necessary to insure getting the desired product. One of the conditions is that the cases shall be sealed and bear the "State Seal of Quality". The rules and regulations under which the State seal is used require the vendor to apply the seal; in performing this act, he declares the eggs in the container to be of the grade designated. This places the responsibility on the vendor for the lot to conform to the grade. The inspector, through his inspection and preparation of a grading certificate, confirms this conformity with the grade to the Division of Purchase and Property. Failure of the lot to conform constitutes a violation of the use of the "State Seal of Quality". There were 22,795 cases of eggs inspected for this purpose.

The application of the "State Seal of Quality" to one dozen consumer cartons is another phase of official egg grading performed under the supervision of the Department. The number of firms licensed to use the State seal in this manner fluctuates. As the year closed, 51 firms were authorized to perform this service. In some instances these firms will also supply restaurants and hotels with eggs packed in 30-dozen containers under the State seal. The procedure is similar to that describing deliveries to the institutions except that an egg grading certificate is not issued. The 51 firms marketed 648,712 cases or 19,461,360 dozens under the State seal.

The total of all eggs graded under the supervision of the Bureau of Poultry Service personnel amounted to 2,080,837 cases or 62,425,110 dozens. Administrative and inspection fees are recovered in the performance of these services on the basis of established charges.

FRESH EGG LAW ENFORCEMENT

The Fresh Egg Law is administered in the interest of the consumer and serves as the rule for marketing eggs properly for those who serve consumers. The field staff of the Bureau of Poultry Service performs inspections under the provisions of the Fresh Egg Law, as well as other laws applicable to egg marketing which are assigned to the Department for enforcement. Duties include supervision of firms licensed to use the "State Seal of Quality" and performance of such other inspections as may be required. This is a broad application of service but enables the staff to follow through more constructively in a total effort to gain compliance.

During the past year 13,025 inspections were made at retail outlets; 2,055 or 15.78 per cent violations were found, compared with 13.70 per cent last year. One hundred and fifty-three letters of warning were issued to effect compliance.

SOURCE IDENTIFICATION LAW

This law encompasses the detail of use, in whole or in part, of the name New Jersey or any county or municipality therein; grade and size of eggs offered for sale; re-use of egg cases; identity of packer or distributor; and identity of the eggs as to state of origin.

Enforcement experience has revealed some difficult situations which reflect on the practical aspects of enforcing the law. For the most part the intent of the law is good, but its provisions as worded and thereby interpreted are most difficult to follow. For this reason an effort is being made by the egg industry to amend the law through a revision which would incorporate provisions of the Fresh Egg Law. The result would be one law to govern the marketing of eggs.

There were 1,596 inspections made, of which 804 revealed violations. The violations were mainly concerned with the re-use of egg cases. There were 543 letters of warning issued to effect compliance.

Report of the Division of Animal Industry

DR. E. L. BROWER, *Director*

BUREAU OF LIVESTOCK DISEASE CONTROL

BOVINE BRUCELLOSIS

The number of brucellosis-infected herds continues to decline. Sixty-nine infected herds remained at the end of the fiscal year, compared with 114 infected herds last year. This reduction in the number of infected herds was due to the following measures of control:

1. Calfhood vaccination which reduces chance of infection.
2. Brucellosis ring testing of producers' milk which spots infection early.
3. Blood testing of herds which reveals infected animals. Such animals are sent to slaughter.
4. Rigid regulations controlling the importation of cattle into the State.

In a program of disease eradication, the last remaining infected herds are the most difficult to clean up. Constant pressure is being maintained on these herds and, with the aid of new testing techniques, the reduction of the number of brucellosis-infected problem herds should continue.

During this fiscal year 5,962 herds containing 113,077 animals were tested. Four hundred and ninety-two reactors were disclosed on 259 farms.

Cape May and Atlantic counties were certified as brucellosis free, a big step toward the eradication of the disease. Requirements are more stringent than those for a *modified*-certified brucellosis free status, for which the entire State has qualified. To obtain certification as a brucellosis free area, not more than 1 per cent of the herds or one herd can be found to be infected, and not more than 2 per cent of the cattle can be found to be reactors. In addition, all suspects must give a negative reaction to retest or the retest must show that the blood titre is stabilized or receding.

A program for herd owners who wished to establish their herds as certified brucellosis free was made available.

During the fiscal year, 11 counties were completely tested and qualified for recertification: Atlantic, Burlington, Cape May, Gloucester, Hunterdon, Middlesex, Monmouth, Ocean, Passaic, Salem, and Somerset.

Brucellosis Ring Test

A new regulation was approved by the State Board of Agriculture to conduct brucellosis milk ring tests on producer milk samples three times a year rather than twice annually. The added test should result in earlier detection of infection and reduce spread of the disease.

The brucellosis ring test was conducted on 7,297 herds containing 356,501 animals. Negative results were obtained on 7,053 herds comprised of 343,653 animals. Blood tests were conducted on the 244 herds (12,848 animals) that disclosed suspicious results.

In collecting milk samples at milk receiving stations in New Jersey, some samples were obtained from producers located in neighboring states. The Division laboratory conducted tests on 1,187 samples from out-of-state herds. Reports of these herds were sent to the proper officers.

By reciprocal agreement with neighboring states, the Division received reports of brucellosis ring tests conducted on 160 New Jersey herds containing 6,707 animals which ship to out-of-state dealers. Negative results were obtained on 156 herds comprised of 6,535 animals. Blood tests were conducted on four herds (172 animals) which disclosed suspicious results.

BOVINE TUBERCULOSIS

The tuberculosis picture remained about the same despite added efforts to cut down on the number of infected herds. There were 57 infected herds at the end of the fiscal year compared with 58 infected herds in 1958-59. Because New Jersey depends on importing cattle from other states to maintain its dairy herds, tuberculosis may be brought in from other areas. This occurs despite rigid regulations to forestall importation of infected animals. Success in reducing the incidence of disease here depends to a great extent on the measures of eradication implemented and carried out in states from which New Jersey imports dairy cattle. New Jersey imported 19,372 animals during 1959-60, an increase of more than 2,000 animals compared with the year before.

Tuberculosis tests were conducted on 6,458 herds containing 194,058 animals. The tuberculin test disclosed 196 reactors in 189 herds.

The number of dairy herds in the State continued to decline, but the total number of animals remained almost the same. The family cow is gradually fading out of the picture because of economic reasons and local ordinances.

Dairy farmers are increasing the size of their herds to lower the unit cost of producing milk. More efficient equipment makes it possible for one man to tend more cows.

The entire State of New Jersey is modified-accredited tuberculosis free. During the fiscal year, 11 counties were completely tested and qualified for reaccreditation: Atlantic, Burlington, Cape May, Gloucester, Hunterdon, Middlesex, Monmouth, Ocean, Passaic, Salem, and Somerset.

CATTLE UNDER SUPERVISION
1950-1960

	Herds	Animals	Tuberculosis Reactors Indemnified	Brucellosis Reactors Indemnified	Calves Officially Brucella Vaccinated
1959-1960	5,717	173,532	148	440	18,033
1958-1959	6,771	174,203	150	759	16,305
1957-1958	6,987	175,026	175	1,224	15,665
1956-1957	8,014	185,327	162	1,830	16,179
1955-1956	8,488	194,937	141	2,133	17,514
1954-1955	9,483	204,620	173	1,801	17,886
1953-1954	9,797	214,212	188	653	22,029
1952-1953	10,415	215,660	135	362	23,626
1951-1952	10,683	207,959	193	254	22,394
1950-1951	11,273	200,496	232	166	19,944

CATTLE AND GOAT SURVEY
June 30, 1960

County	Cattle		Goats	
	Herds	Animals	Herds	Animals
Atlantic	54	174	12	62
Bergen	19	651	7	79
Burlington	536	20,905	11	58
Camden	62	1,269	5	56
Cape May	39	336	1	1
Cumberland	151	4,956	1	7
Essex	6	269	1	22
Gloucester	344	4,184	22	56
Hudson	...	...	..	..
Hunterdon	1,055	27,168	44	264
Mercer	166	5,590	2	9
Middlesex	193	4,158	15	43
Monmouth	398	7,743	14	124
Morris	216	8,091	13	97
Ocean	70	927	11	41
Passaic	40	307	15	61
Salem	617	16,916	7	33
Somerset	438	10,410	33	314
Sussex	665	32,722	5	78
Union	15	94	7	25
Warren	633	26,662	27	88
Totals	5,717	173,532	253	1,518

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SUMMARY OF TESTING
July 1, 1959 to June 30, 1960

TUBERCULOSIS ERADICATION PROGRAM

Veterinarians Testing	Cattle		Goats	
	Lots	Animals	Lots	Animals
State	398	13,391	26	190
Federal	314	8,100	43	256
Accredited practitioners	5,746	172,567	202	1,246
Total	6,458	194,058	271	1,692
Reactors—196—0.10%				

BRUCELLOSIS ERADICATION PROGRAM, BLOOD TESTING

Veterinarians Testing	Cattle		Goats	
	Lots	Animals	Lots	Animals
State	553	15,871	28	169
Federal	378	9,731	51	345
Accredited practitioners	5,031	87,475	179	1,051
Total	5,962	113,077	258	1,565
Reactors—492—0.44%				

BRUCELLOSIS ERADICATION PROGRAM, BRUCELLOSIS RING TESTING

	Division of Animal Industry Laboratory	Out-of-State Laboratories	Total
Herds tested	7,297	160	7,457
Animals in tested herds	356,501	6,707	363,208
Clean herds	7,053	156	7,209
Animals in clean herds	343,653	6,535	350,188
Suspicious herds	244	4	248
Animals in suspicious herds	12,848	172	13,020

BRUCELLOSIS TESTS OF IMPORTED ANIMALS

Veterinarians Testing	Cattle	
	Lots	Animals
State	770	7,929
Federal	382	5,285
Accredited practitioners	268	5,672
Total	1,420	18,886
Reactors—25—0.13%		

TUBERCULOSIS REACTORS INDEMNIFIED¹

July 1, 1959 to June 30, 1960

Cattle appraised	Total	
Registered	34	
Grade	114	
Total	148	
Salvage		Average
Registered	\$6,059.81	\$178.23
Grade	18,918.87	165.96
Total	\$24,978.68	168.77
State indemnity		
Registered	\$5,037.74	\$148.17
Grade	8,550.00	75.00
Total	\$13,587.74	91.81
Federal indemnity		
Registered	\$1,694.59	\$49.84
Grade	2,850.00	25.00
Total	\$4,544.59	30.71
Sum of salvage, Federal and State indemnity	\$43,111.01	\$291.29

¹ Total State indemnity paid for tuberculin test reactors from the beginning of this work in 1916 to June 30, 1960: \$4,028,849.68.

BRUCELLOSIS REACTORS INDEMNIFIED¹

July 1, 1959 to June 30, 1960

Cattle appraised	Total	
Registered	26	
Grade	414	
Total	440	
Salvage		Average
Registered	\$3,946.00	\$151.77
Grade	68,960.72	166.57
Total	\$72,906.72	165.70
State indemnity		
Registered	\$3,885.75	\$149.45
Grade	30,993.02	74.86
Total	\$34,878.77	79.27
Federal indemnity		
Registered	\$1,300.00	\$50.00
Grade	10,347.20	24.99
Total	\$11,647.20	26.47
Sum of salvage, Federal and State indemnity	\$119,432.69	\$271.44

¹ Total State indemnity paid for brucellosis test reactors from the beginning of this work in 1940 to June 30, 1960: \$972,194.98.

BRUCELLOSIS SERVICE FEES AND INDEMNITY PAID

1950-1960

	State Indemnity Paid	Federal Indemnity Paid	State Veterinary Service Fees For Testing	Federal Veterinary Service Fees For Testing	State Veterinary Service Fees For Vaccination	Federal Veterinary Service Fees For Vaccination
1959-1960	\$34,878.77	\$11,647.20	\$15,761.75	\$13,735.45	\$10,862.40	\$10,488.50
1958-1959	61,368.35	20,559.71	543.75	34,004.10	1,292.50	17,370.50
1957-1958	98,268.10	33,164.99	2,279.90	37,373.95	1,051.95	17,242.50
1956-1957	143,400.01	48,048.65	8,542.85	47,336.63	9,636.50	10,173.50
1955-1956	168,913.00	56,516.13	14,433.25	41,585.98	22,024.50	.....
1954-1955	142,561.23	46,105.99	24,880.25	18,554.00	20,790.50	.....
1953-1954	53,787.83	8,071.00	37,602.55	.....	24,121.50	.....
1952-1953	30,883.20	10,339.77	33,826.95	.....	25,771.50	.....
1951-1952	23,676.13	7,950.45	12,427.85	.....	24,480.50	.....
1950-1951	14,070.37	4,904.19	8,973.50	.....	22,447.50	.....

LEPTOSPIROSIS

Tests for leptospirosis were conducted on a request basis this fiscal year. A total of 17,436 samples were tested, of which 904 showed titres of 1:10 through 1:40 and 61 showed titres of 1:160 or higher.

CERTIFICATION OF IMPORTS AND EXPORTS

All cattle moved into New Jersey are required to comply with New Jersey laws and regulations. An official health certificate from the state or country of origin gives the history of each animal. The animals are then examined, and certain classes of animals are tested as indicated. The table titled "Cattle and Goats Imported and Released" shows the number of each class imported, and the states and countries from which they were moved.

All states and countries have laws and regulations governing entry of cattle. The Division of Animal Industry attempts to keep acquainted with the most recent laws and regulations of all states. Official health certificates are issued covering cattle moved out of New Jersey. If the movement is to another country, the certificate is sent to the local office of the United States Department of Agriculture to be certain that the requirements of the country of designation are met. The table titled "Cattle and Goats Shipped Out of New Jersey" shows the number of animals moved out of New Jersey and the states or countries to which they were moved.

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CATTLE AND GOATS IMPORTED AND RELEASED
July 1, 1959 to June 30, 1960

Origin	Adult Dairy and Breeding	Calves Under 6 Months and Vaccinated Animals Under 24 Months	Feeder Steers	Goats
Arizona	1	..	..	..
California	3	..	..	..
Canada	1,330	3	..	11
Connecticut	432	6	..	..
Delaware	242	33	..	..
Florida	3	..	233	..
Illinois	10	3	..	..
Indiana	257	2	..	..
Ireland	1	..	..	..
Isle of Jersey	2	..	..	..
Maine	1	2	..	..
Maryland	171	86	35	..
Massachusetts	24	16	..	..
Michigan	690	2	..	..
Minnesota	369	..	..	..
Mississippi	9	15	..	..
New Hampshire	1	..	1	..
New York	2,983	99	88	..
North Carolina	1	..	..	..
Ohio	35	22	..	..
Oklahoma	..	1	..	..
Oregon	3	1	..	..
Pennsylvania	772	78	1,251	..
Rhode Island	10	4	..	..
South Carolina	..	2	..	..
Texas	..	..	70	..
Vermont	139	..	17	..
Virginia	185	32	245	..
Washington	2	3	..	..
Wisconsin	10,824	207	..	..
Wyoming	262	3	2	..
Totals	18,762	620	1,942	11

STATE DEPARTMENT OF AGRICULTURE

CATTLE AND GOATS SHIPPED OUT OF NEW JERSEY
July 1, 1959 to June 30, 1960

Destination	Cattle		Goats	
	Lots	Animals	Lots	Animals
Alabama	2	3	..	..
Arizona	2	2	1	1
Bermuda	1	1	..	..
California	4	5	..	..
Canada	17	57	..	..
Colorado	37	72	..	..
Connecticut	29	62	..	..
Costa Rica	4	10	..	..
Delaware	86	395	..	..
Florida	28	94	..	..
Georgia	4	4	..	..
Idaho	2	2	..	..
Illinois	9	13	..	..
Indiana	7	7	..	..
Iowa	6	6	..	..
Kentucky	4	5	..	..
Louisiana	9	26	..	..
Maine	2	2	1	1
Maryland	168	724	..	..
Massachusetts	11	13	..	..
Mexico	2	2	..	..
Michigan	5	34	..	..
Minnesota	1	1	..	..
Mississippi	9	13	..	..
Missouri	14	78	..	..
Montana	2	8	..	..
Nebraska	69	90	..	..
Nevada	4	10	..	..
New Hampshire	1	2	..	..
New Mexico	3	3	..	..
New York	80	472	1	1
North Carolina	434	656	..	..
Ohio	18	22	..	..
Oklahoma	1	4	..	..
Oregon	2	2	..	..
Pennsylvania	444	1,656	4	9
Puerto Rico	2	2	..	..
South America	6	12	..	..
South Carolina	9	13	..	..
Tennessee	5	17	..	..
Texas	9	28	..	..
Utah	2	2	..	..
Vermont	3	3	..	..
Virginia	50	276	..	..
Washington	1	1
West Africa	1	3
West Virginia	6	35
Wisconsin	6	22
Totals	1,620	4,967	8	15

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VACCINATION REPORT OF IMPORTED ANIMALS
July 1, 1959 to June 30, 1960

Origin	Animals Imported	Animals Vaccinated
Arizona	1	..
California	3	3
Canada	1,333	1,144
Connecticut	438	429
Delaware	275	198
Florida	3	1
Illinois	13	10
Indiana	259	156
Ireland	1	..
Isle of Jersey	2	..
Maine	3	2
Maryland	257	108
Massachusetts	40	26
Michigan	692	442
Minnesota	369	144
Mississippi	24	19
New Hampshire	1	..
New York	3,082	1,797
North Carolina	1	..
Ohio	57	31
Oklahoma	1	1
Oregon	4	1
Pennsylvania	850	480
Rhode Island	14	8
South Carolina	2	2
Vermont	139	29
Virginia	217	171
Washington	5	4
Wisconsin	11,031	8,741
Wyoming	265	177
Totals	19,382	14,124

MILK ADDITIVES

The Food and Drug Administration of the United States Department of Health, Education and Welfare in rulings during the past year, has decreed that no tolerances will be allowed for certain antibiotic and pesticide residues in milk. To comply with these rulings and to keep milk producers informed, two meetings were called of people concerned with these problems. Those attending including representatives of the Department of Agriculture, Department of Health, Agricultural Extension Service—Rutgers University, producer groups and dealer organizations.

The first meeting was called by the Secretary of Agriculture on February 9, 1960, in Trenton. The problem was outlined and committees appointed to study and report back at a subsequent meeting on recommendations for the use of pesticides and antibiotics in connection with milk production.

The second meeting was held on May 4, 1960, at which time the committees reported and the following points were agreed upon:

1. Mastitis control recommendations should continue to place major emphasis on prevention through maintaining herd health and employing recognized measures of sanitation. Antibiotics should be employed only as supplemental control measure.
2. Antibiotic preparations contain inadequate label information to guide the user when administering through the teat canal. Labels contain directions for the administration of units on a dose basis rather than on a time basis. It was suggested that the label might clarify this point as follows: Administer not more than 100,000 units of penicillin in a 24-hour period, following which milk from the treated cow must be withheld for a 72-hour period after last infusion.
3. Labels of commercial antibiotic preparations contain inadequate or lack information relative to the period of time that milk should be discarded following intramuscular injection. It was recommended that until additional disappearance rate data is available, dairymen should obtain the services of a veterinarian for administering antibiotics intramuscularly and follow his advice as to the period that milk must be withheld following treatment.
4. Recent data indicates that 72 hours is an adequate period of withholding milk following intramuscular injection of various dosages of antibiotics in various vehicles. That this is the situation and that concern exists regarding intramuscular administration of antibiotics are reflected in the notice published in the Federal Register April 12, 1960. The Commissioner of Food and Drugs proposes to amend the regulations for the certification of antibiotics and antibiotic-containing drugs.
5. Sufficient data is available to form a basis for making recommendations regarding the use of insecticides for the control of pests of forage crops and dairy animals. These recommendations, if followed carefully, will not result in insecticide-contaminated milk.
6. It was suggested that it would be most helpful if the Agricultural Extension Service recommendations were endorsed by the State Departments of Health and Agriculture.

Subsequently, the Agricultural Extension Service distributed to all milk producers of the State a bulletin which reported the consensus of the New Jersey Agricultural Experiment Station, New Jersey Department of Health and New Jersey Department of Agriculture on the proper use of antibiotics and pesticides.

TATTOOING 4-H BABY BEEF

In cooperation with the Agricultural Extension Service—Rutgers University and the 4-H clubs, 102 steers entered in 4-H baby beef projects were tattooed by Division veterinarians. This was done to eliminate the possibility of changing steers at a later date.

SHEEP SCABIES

Six flocks were found to be affected with sheep scabies during the fiscal year. These flocks were dipped twice and were released from quarantine.

New Jersey is now classified as a scabies infected state. Procedures are now being followed that would change that status to an eradication area, leading to classification as a free area.

One change made during the year was from annual inspection of flocks to semiannual inspections.

During this fiscal year 420 flocks containing 11,514 sheep were inspected.

SHEEP INSPECTION

July 1, 1959 to June 30, 1960

Number flocks under supervision	444
Number sheep in flocks under supervision	9,660
Number inspections conducted	420
Number sheep inspected	11,514
Number farms affected	6
Number farms remaining under quarantine at end of year	...

SHEEP SCRAPIE

No cases of scrapie or exposure thereto were reported during the year. The three flocks that had been under inspection periodically were released from surveillance following the standard 42-month period necessary to check these animals to be sure that they were not affected.

SWINE DISEASE CONTROL

All swine farms feeding garbage and licensed under the provisions of the Garbage Feeding Swine Law were inspected on a biweekly basis. Temperatures of cooked garbage were taken at regular intervals as provided in the regulations promulgated by the State Board of Agriculture in accordance with the swine law.

INSPECTION OF SWINE HERDS

July 1, 1959 to June 30, 1960

	State	Federal	Total
Farms feeding grain	185	61	246
Farms feeding heat-treated garbage	2,760	2,361	5,121
Total	2,945	2,422	5,367

SWINE IMPORTED FOR FEEDING AND BREEDING

Feeder	36,408
Breeder	8
Total	36,416

SWINE SURVEY
(Garbage-Fed Swine)
June 30, 1960

County	Licensed		Non-Licensed		Total	
	Herds	Animals	Herds	Animals	Herds	Animals
Atlantic	25	5,620	..	..	25	5,620
Bergen	2	2,750	..	..	2	2,750
Burlington	28	18,090	..	..	28	18,090
Camden	10	1,770	..	..	10	1,770
Cape May	19	5,370	..	..	19	5,370
Cumberland	5	1,233	..	..	5	1,233
Essex	..	.....	..	..	..	.....
Gloucester	83	80,375	..	..	83	80,375
Hudson	..	.....	6	3,500	6	3,500
Hunterdon	3	1,230	..	..	3	1,230
Mercer	12	1,382	..	..	12	1,382
Middlesex	8	1,261	..	..	8	1,261
Monmouth	22	7,875	..	..	22	7,875
Morris	9	2,191	..	..	9	2,191
Ocean	5	865	..	..	5	865
Passaic	..	.....	..	..	..	.....
Salem	3	132	..	..	3	132
Somerset	7	1,135	..	..	7	1,135
Sussex	..	.....	..	..	..	.....
Union	1	37	..	..	1	37
Warren	..	.....	..	..	..	.....
Total	242	131,316	6	3,500	248	134,816

Hearings

A hearing before the Assistant Secretary of Agriculture was held on March 10 for violations of the Garbage Feeding Swine Law.

William Cormaney of Sewell and William R. Henry, III, of Westville were each given seven days to comply with the regulations. They were warned that they would be prohibited from feeding garbage to their hogs for 30 days unless this was done.

Mrs. Mary Wesocky of South Brunswick Township was allowed until May 1 to correct conditions on her farm and was notified that she would be prohibited from feeding garbage for 30 days, beginning on that date, unless she complied.

Charges against Harold Sorenson of South Plainfield and C. C. West of Monmouth Junction were dismissed. Both men had corrected conditions on their farms and were in compliance with the law at the time they appeared for hearings.

Another hearing has been scheduled for Ernest Higgins of Franklin Township, Somerset County, because the defendant was confined to the hospital on the date originally set for the hearing.

Harold Shaw appeared on March 28 and was ordered to correct within seven days all violations in the pen in which he keeps his pigs. He was allowed 30 days to clean up his empty pens. Mr. Shaw was warned that unless he complied with the order, court proceedings would be instituted against him.

On April 7, Steven Swaycheck, South Plainfield, Middlesex County, was brought before Judge George Morrison of the Middlesex District Court on complaint of 10 violations of the Garbage Feeding Swine Law. Judgment was entered against him in the amount of \$1,900 on all 10 counts of the violations. This was later reduced to \$300 on agreement that he sell all his swine except two animals. Mr. Swaycheck has complied with this agreement. The animals were sold to another swine farmer who has facilities for the quarantine and the feeding of cooked garbage until absence of infection in the swine is established.

On April 14, five Secaucus hog farmers who appeared before Judge Victor S. Kilkenny in Hudson County Court were fined \$50 each for past violations of the court order to vacate their premises by November 1, 1958. Judge Kilkenny further ordered that if they had not vacated their farms by September 1, 1960, they would be fined \$50 for each day of violation, and if they were there after October 1, 1960, they would be given 15-day jail sentences for every day they failed to vacate.

INSPECTION OF DISPOSAL PLANTS

The Division of Animal Industry conducted inspections required by State law prior to the licensing of disposal plants.

EASTERN ENCEPHALITIS

An epizootic of eastern encephalitis of severe proportions occurred in New Jersey in 1959. Because humans were stricken, much attention was given to this disease which normally affects only horses and pheasants.

History of the Disease

The western encephalitis virus was first isolated in California in 1930. In 1933 Ten Broeck investigated an epizootic in New Jersey which was similar to western encephalitis but had a higher mortality rate. A virus was isolated which was serologically and immunologically distinct from the western type and was subsequently called "eastern equine encephalomyelitis". In general, the eastern virus has remained localized along the eastern seaboard and the Gulf of Mexico, with isolated occurrences reported in Wisconsin, Michigan, Missouri and Tennessee. The western

type has been found in every state west of the Mississippi. Prior to 1933 we knew that the disease existed but it was called by various names and sometimes confused with other diseases.

It was difficult to differentiate eastern encephalitis from forage poisoning or botulism until the causative agent, a filterable virus, was found in 1933. Subsequent research showed other strains of the virus. The St. Louis strain was isolated in the United States and others in Japan and South America. Here, concern is mostly with the eastern strain which has the highest mortality rate of any in the United States. The western strain has also been isolated in eastern states, including New Jersey.

A preventive vaccine has been developed to protect horses against viral encephalitis. A bivalent type with both eastern and western strains is available and is used and recommended for the protection of both horses and pheasants.

The 1959 Epizootic

During the fiscal year 66 cases of eastern encephalitis in horses were reported on 59 premises. Eighteen brain specimens were submitted, of which 13 were reported positive, and five were reported negative. Four horses were reported to have recovered from the disease. Seventeen pheasant flocks and one partridge flock were infected with eastern encephalitis during the year.

Thirty-three cases were diagnosed in humans, with 21 deaths. Most of the human cases were located along Highway 9 in Ocean and Atlantic counties. A few cases occurred in four other southern counties.

Much hysteria developed due to the human involvement, with newspapers carrying stories about the extent of the disease and the deaths. As most of the cases were in the shore area, many people were reluctant to go to New Jersey shore resorts for vacations.

The main area involved was the narrow strip on the mainland where the upland wooded areas and the fresh water swamps meet the salt water marsh. We note that in the past, virus has been recovered from *Culiseta melanura* mosquitoes and have reason to believe that this past year, it was present in *Aedes sollicitans* and *Culex salinarius*. Literature indicates that many of the song birds harbor the disease.

The viremia or amounts of virus in the blood of a horse is so low that a mosquito cannot be infected and effectively transmit the disease to other animals and humans. Therefore, it was thought best to change the name from eastern equine encephalomyelitis to eastern viral encephalitis or just simply eastern encephalitis, which is a more accurate title for this disease.

Incidence in Horses and Pheasants

Since the virus of eastern encephalitis was first isolated in 1933, records have been kept of the number of equine cases which occurred each year. Although the largest number of cases was reported in 1934, the ratio of cases to the total equine population was highest in 1959 and 1956.

EASTERN ENCEPHALITIS IN EQUINES IN NEW JERSEY
1933 to 1959

Year	Equine Population on Farms	Number of Affected Equines	Cases Per 10,000 Equines
1933	42,000	54	12.9
1934	43,000	201	46.7
1935	41,000	2	0.5
1936	39,000	0	0.0
1937	37,000	10	2.7
1938	35,000	13	3.7
1939	34,000	35	10.3
1940	32,000	0	0.0
1941	30,000	0	0.0
1942	27,000	0	0.0
1943	26,000	0	0.0
1944	23,000	1	0.4
1945	21,000	26	12.4
1946	20,000	19	9.5
1947	19,000	7	3.7
1948	14,000	9	6.4
1949	13,000	3	2.3
1950	12,000	1	0.8
1951	11,000	1	0.9
1952	10,000	5	5.0
1953	9,000	0	0.0
1954	9,000	0	0.0
1955	9,000	2	2.2
1956	9,000	48	53.3
1957	9,000	0	0.0
1958	8,500	3	3.5
1959	8,200	66	80.5
		Total	516

Eastern encephalitis was first reported in a pheasant flock in 1938. In 15 of the 21 years since that time, there have been reported confirmed isolations from pheasant flocks. The years 1956 and 1959 stand out as extremely high years of infection, paralleling to a great extent the incidence in horses by years.

EASTERN ENCEPHALITIS IN NEW JERSEY PHEASANT FLOCKS
1938-1959

Year	New Jersey Pheasant Flocks	Number of Flocks Affected
1938	765	1
1939	835	3
1940	904	1
1941	881	0
1942	842	0
1943	672	1
1944	614	2
1945	573	3
1946	633	2
1947	673	0
1948	756	1
1949	779	0
1950	879	0
1951	791	5
1952	793	4
1953	843	4
1954	854	0
1955	893	1
1956	916	24
1957	900	1
1958	900	2
1959	617	18 (1 partridge farm)

Interdepartmental Committee

In New Jersey last fall, the Governor appointed an Interdepartmental Committee on Disease Control to study more fully eastern encephalitis and to recommend measures for the control of all phases of this disease. The committee consists of representatives of the Departments of Agriculture, Health, and Conservation and Economic Development, the New Jersey Agricultural Experiment Station and the State Mosquito Control Commission. Much research and study were carried out by this committee to determine the best methods of control. The Department of Health in cooperation with the Fish and Game Commission mist netted wild birds, and drew blood samples which were tested for the presence of virus or antibodies, to continue the study of the source of this disease. Approximately one-third of the bloods collected have shown a high antibody content.

It is, therefore, apparent that wild birds, both native and migrating, are the source of this disease. Because New Jersey is in the migratory path from North to South America, control is difficult. The mosquito appears to be the vector of the disease, and mosquito control may be the best means of breaking the cycle.

A survey showed there were about 9,000 horses in New Jersey exclusive of the race tracks. The cost to the State to vaccinate all of these animals would be more than \$100,000. Because eastern encephalitis cannot be

effectively transmitted from the horse, vaccination is considered to be an economic rather than a health measure. The Department has recommended that all horses be vaccinated on a voluntary basis for the protection of the individual horse. This is a sound insurance measure.

In January, the New York State Racing Commission issued a directive that if any cases of eastern encephalitis were reported, a drastic quarantine would be imposed on all horses which had not been inoculated at least 21 days prior to establishment of the quarantine. An embargo would also go into effect against the importation of horses until positive proof was furnished that they had been duly vaccinated at least 21 days prior to shipment to New York.

The Secretary of Agriculture of New Jersey called a meeting on April 12 in New York City of the regulatory officials of some of the surrounding states. At this time the description of the 1959 outbreak, mosquito control measures and other pertinent information were discussed. A second meeting was held in New York City on May 6 with representatives of racing commissions, race tracks, horse breeding associations, veterinarians and representatives of the regulatory bodies of the northeastern states.

In the interest of public understanding and public health, the conference considered and accepted the following recommendations:

1. That all governmental agencies concerned with the control of eastern encephalitis and the health of domestic animals maintain an epidemiological surveillance for the detection and notification of cases of eastern encephalitis in animals.
2. That environmental control measures be continued.
3. That premises upon which eastern encephalitis has occurred be inspected. That environmental control measures be established and a report made available to all interested agencies indicating the final decisions and actions of the controlling agency.
4. That all horses be vaccinated for the protection of the individual animal.
5. That there be no restriction imposed on the interstate movement of healthy animals by voluntary or official agencies, since available evidence concerning transmission of eastern encephalitis indicates that horses, pheasants and domestic poultry do not serve as the source of infection.

A letter was sent to all those attending both meetings and the state officials of those northeastern states not in attendance which reads as follows:

"In any state there are two departments generally that have major responsibility in this area, the Departments of Health and Agriculture. Cases of human disease are reported to the Health Department. Cases of encephalitis in animals are reported to the Department of Agriculture.

"While it is desirable that there be only one person responsible for transmitting information to other states, nevertheless, there should be administrative flexibility in such action. Therefore, we would like to suggest that in the event of an outbreak of encephalitis in pheasants and horses in any state along

the Eastern seaboard, that the responsible veterinarian in the Department of Agriculture contact immediately by telegram the veterinarians in the Departments of Agriculture of the various states. In similar fashion, we would like to suggest that Health Department personnel responsible for the epidemiology of human disease transmit information from state to state.

"I would also suggest that the occurrence of infection in animals or humans be immediately transmitted to the Epidemic Intelligence Service of the United States Public Health Service, Dr. E. Russell Alexander, Communicable Disease Center, Atlanta 5, Georgia.

"In each of our states an immediate notification system will be in effect, providing information to officials responsible for health, agriculture, fish and wild life, and mosquito control."

We are indebted to Dr. J. R. Porteus, veterinarian-in-charge of the New Jersey office, Animal Disease Eradication Division, United States Department of Agriculture, and to Dr. Oscar Sussman, chief of the Bureau of Veterinary Public Health, New Jersey Department of Health, who cooperated wholeheartedly in the reporting of this disease, for some of the information compiled.

At the end of this fiscal year, 1,241 horses were reported vaccinated against eastern encephalitis.

BUREAU OF POULTRY DISEASE CONTROL

AVIAN TUBERCULOSIS

A flock of commercial laying chickens which persistently disclosed avian tuberculosis on post-mortem examination was disposed of after quarantine and other preventive measures failed to halt the spread of the disease in the flock. This measure was taken to prevent the spread of the disease to other flocks and because of the possible human health hazard. A total of 6,702 chickens were sent to slaughter and 1,340 were condemned on the farm. Of the birds slaughtered, 420 were condemned for tuberculosis on post-mortem examination and 118 for various other diseases.

The Department of Law and Public Safety advised that the Department of Agriculture has the authority to condemn infected poultry, cause the same to be slaughtered, and compensate the owner for the value of the slaughtered poultry. The above procedure was followed in the disposal of this flock.

PULLORUM DISEASE

Two flocks of chickens which disclosed pullorum disease were found on investigation to have been purchased from Pennsylvania. These chicks were brought in in violation of our regulations. The hatchery was contacted and reimbursed the owners for their full losses.

An outbreak of pullorum on three farms was traced to an out-of-state shipment of hatching eggs into New Jersey. The hatchery also reimbursed the farmers for their losses in this case.

The above cases show the value of constant vigilance in the form of inspections and diagnostic service to control and eradicate diseases that would otherwise spread into other flocks in New Jersey.

The testing season from July 1, 1959 to June 30, 1960 for pullorum disease showed a total of 578,334 chickens tested with 29 reactors or 0.005 per cent reaction. There were also 8,431 pullorum tests (mainly on turkeys) conducted by the tube method in the laboratory with no reactors.

During the year a number of retests were made on flocks known to be infected with fowl typhoid. There were 31,596 birds tested with 309 reacting chickens.

The blood testing program continues to maintain good disease control for the poultrymen.

FOWL TYPHOID

During the 1959-60 season 24 known typhoid cases were diagnosed in New Jersey. Due to the fairly large number of typhoid cases, discussions were held with parties interested in this disease, including representatives of the New Jersey College of Agriculture. All information obtained and suggestions made were presented to the State Board of Agriculture for its decision. The Board decided in October 1959 that the Department would no longer officially quarantine flocks for fowl typhoid. A representative from this Division would visit the farm as soon as an outbreak occurred and talk to the poultryman in regard to disposing of the infected birds immediately and the proper method of cleaning and disinfecting. Since this Board decision was made, six flocks revealed fowl typhoid. All were promptly investigated and suitable action taken. Of the 18 flocks under official quarantine this year, 11 have been officially released from quarantine. A total of 12 flocks is still under official quarantine for fowl typhoid.

PULLORUM-TYPHOID CONTROL July 1, 1959 to June 30, 1960

Fowl tested in field	578,334
Number reacting	29
Per cent reacting	0.005
Fowl tested in laboratory	8,431
Number reacting	.....
Per cent reacting	.....
Total fowl tested	586,765
Total fowl reacting	29
Per cent reacting	0.004
Retest of fowl typhoid suspects by field tests	31,596
Total fowl reacting	309

TURKEY INSPECTION FOR STATE SEAL OF QUALITY

In cooperation with the Poultry Products Promotion Council of the Division of Information, the Division of Animal Industry had its area veterinarian conduct ante-mortem and post-mortem inspection of turkeys, to determine their eligibility for the "State Seal of Quality". A total of 234 hours of overtime was necessary to conclude this program. On January 1, 1960, the date of conclusion of the program, a total of 19,571 birds, weighing approximately 346,395 pounds, had been inspected.

TERMINAL MARKET POULTRY INSPECTION

Inspection at the Vanderpool Street Market in Newark was discontinued on September 30, 1959. Poultry meat inspection is now under the direction of the Department of Health. From July 1 through September 30, our agent inspected 832 truck loads of poultry consisting of 853,000 birds weighing 4,165,000 pounds. Of this volume, 10,950 birds, weighing approximately 46,600 pounds, were condemned.

EXPORTS OF HATCHING EGGS AND POULTRY

Most countries have laws and regulations governing entry of hatching eggs and poultry. These requirements usually include inspection of farms from which these eggs and poultry were obtained. The table below titled "New Jersey Imports of Hatching Eggs and Poultry" shows the countries to which New Jersey consignors shipped, and the classes of eggs and poultry involved. The Division of Animal Industry conducts this activity in cooperation with the local office of the United States Department of Agriculture.

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NEW JERSEY EXPORTS OF HATCHING EGGS AND POULTRY
July 1, 1959 to June 30, 1960

Country to Which Consigned	Hatcheries Shipping	Hatching Eggs	Baby Chicks	Cockerels	Pullets
Africa	1	800	.....	.....	.....
Austria	1	.....	.....	.....	100
Azores	1	.....	.....	40	400
Belgium	2	18,000	.....	725	5,175
Bermuda	2	.....	300	2	9
Brazil	1	224	.....	.....	.....
British Guiana	2	1,020	.....	.....	.....
British West Indies	2	.....	93,900	54,100	200
Canada	4	35,280	22,500	44,190	4,500
Chile	3	.....	140	920	550
Connecticut	1	200	.....	.....	.....
Cuba	1	5,400	.....	600	.....
Dutch Guiana	1	.....	13,300	.....	.....
Egypt	2	.....	100	145	755
Finland	1	2,000	.....	.....	.....
France	1	72	.....	.....	.....
Greece	4	.....	.....	240	900
Israel	1	.....	.....	.....	100
Italy	1	.....	700	350	2,100
Japan	1	500	.....	.....	.....
Korea	2	1,000	.....	.....	.....
Mexico	2	400	150	285	16,400
Peru	2	.....	30	.....	2,000
Portugal	2	38	.....	391	540
Puerto Rico	6	350,924	157,450	124,500	149,700
South Africa	1	.....	104	.....	.....
South America	1	.....	.....	100	1,000
Spain	2	.....	400	20	115
Switzerland	1	5,940	.....	.....	.....
Venezuela	2	31,680	1,500	100	1,900
West Africa	1	.....	.....	.....	3,000
Yugoslavia	1	863	.....	.....	.....
Totals	56	454,341	290,574	226,708	189,444

STATE DEPARTMENT OF AGRICULTURE

DIVISION LABORATORY REPORT

July 1, 1959 to June 30, 1960

BLOOD TESTS MADE FOR BRUCELLOSIS ON INSHIPPED ANIMALS

Samples received	18,886*
Unfit for test	21
Samples tested	18,865*
Reactors	131
Negative	18,734

* This figure includes titre carrying calfhood vaccinates eligible for entry.

BLOOD TESTS MADE FOR BRUCELLOSIS ON ANIMALS IN HERDS
UNDER SUPERVISION

Samples received	114,911
Unfit for test	120
Samples tested	114,791
Reactors	557
Suspicious	3,890
Negative	110,344

MILK RING (BRT) TESTS FOR BRUCELLOSIS

Samples received	9,150
Unfit for test	31
Samples tested	9,119
Suspicious	338
Negative	8,781

BLOOD TESTS MADE FOR PULLORUM DISEASE OF POULTRY

Samples received	9,748
Unfit for test	.....
Samples tested	9,748
Reactors	11
Suspicious	2
Negative	9,735

BLOOD TESTS MADE FOR LEPTOSPIROSIS OF ANIMALS

Samples received	17,506
1:10-1:40 Titres	904
1:160 or Higher Titres	61
Negative	16,471
Unfit	70
Tested	17,436

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BACTERIOLOGICAL, MICROSCOPIC AND POST-MORTEM EXAMINATION

July 1, 1959 to June 30, 1960

Lots	Animal	No.	Material	Condition Suspected	Findings
52	Avian	129	Chickens	<i>S. pullorum</i>	Negative
7	Avian	21	Chickens	<i>S. pullorum</i>	<i>S. pullorum</i>
12	Avian	30	Chickens	<i>S. pullorum</i> or typhoid	Negative
8	Avian	34	Chickens	<i>S. pullorum</i> or typhoid	Fowl typhoid
6	Avian	28	Chickens	Fowl typhoid	Fowl typhoid
4	Avian	16	Chickens	Fowl typhoid	Negative
3	Avian	9	Turkey ovaries, spleens	<i>S. pullorum</i>	Negative
1	Avian	6	Chickens	<i>S. pullorum</i> , paratyphoid	Negative
1	Avian	2	Chickens	Unknown	Intestinal coccidiosis
1	Avian	1	Blood sample pheasant	<i>S. pullorum</i> or typhoid	Negative
8	Bovine	8	Ears	Anthrax	Negative
1	Bovine	1	Ear and blood swabs	Anthrax	Negative
1	Bovine	1	Blood sample	Anthrax, hemorrhagic septicemia	Negative
1	Bovine	1	Ear	Anthrax, hemorrhagic septicemia	Negative
2	Bovine	3	Blood samples	Anthrax	Negative
1	Bovine	1	Ear	Anthrax	<i>B. subtilis</i>
1	Bovine	1	Fetus	Brucellosis and vibrio	Negative
1	Bovine	1	Fetus	Brucellosis and vibrio, leptospirosis	Leptospirosis
4	Bovine	6	Feti	Brucellosis and vibrio, leptospirosis	Negative
1	Bovine	1	Stomach, spleen of fetus	Brucellosis and vibrio, leptospirosis	Negative
1	Bovine	1	Blood sample	Blackleg, malignant edema	Negative
1	Bovine		Muscle	Blackleg	Clostridial infection
2	Bovine	3	Blood samples	Pathogens	Negative
1	Bovine	2	Blood samples	Pathogens	<i>Staphylococcus aureus</i> and saprophytic rods
1	Bovine	1	Blood culture plate of milk	Pathogens	Ovid cells
1	Bovine	1	Blood culture plate of milk	Pathogens	Coliforms
1	Bovine	3	Blood culture plates	Pathogens	Negative
1	Bovine	2	Blood samples	Leucopenia	Confirmed
1	Bovine	2	Blood samples	Complete blood count	Within normal range
1	Bovine		Cultures from milk sample	Pathogens	<i>E. coli</i> and <i>staphylococcus albus</i>
1	Bovine	3	Blood agar plate of milk	Pathogens	Negative
1	Bovine		Milk samples	Brucella organisms	Negative
1	Bovine	1	Skin scrapings	Parasites	Negative
1	Bovine	4	Milk samples	Pathogens	<i>S. aureus</i>
1	Bovine	1	Liver	Tuberculosis	Negative
1	Bovine		Culture plates milk samples	Pathogens causing mastitis	Gram-positive streptococcus
					Gram-positive bacilli
1	Bovine	2	Culture plates milk samples	Pathogens causing mastitis	Gram-positive streptococcus
3	Bovine	7	Culture plates milk samples	Pathogens causing mastitis	Gram-positive streptococcus
					Gram-positive staphylococcus

Lots	Animal	No.	Material	Condition Suspected	Findings
1	Bovine	2	Culture plates	Pathogens causing mastitis	Gram-positive staphylococcus Yeast-like cells
1	Bovine	1	Culture plate	Pathogens causing mastitis	<i>Staphylococcus aureus</i>
1	Bovine	1	Culture plate of milk	Mastitis organisms	Negative
1	Bovine	1	Culture plate from lung	Malignant edema	Negative
1	Bovine	1	Milk plate	Pathogens causing mastitis	<i>Streptococcus agalactiae</i>
2	Equine	2	Blood samples	Complete blood count	Within normal range
1	Equine		Blood sample	Pregnancy	Negative
1	Ovine	1	Shropshire wether	Cause of death	Enterotoxemia— <i>Clostridium perfringes</i>
1	Ovine		Skin scrapings	Pscroptic mites	Pscroptic mites
1	Ovine		Skin scrapings	Mange mites	Pscroptic mites
1	Ovine	1	Sheep scabs	Scabies	Negative
1	Ovine	1	Wool specimen	Scabies	Negative
1	Ovine	1	Wool and skin scrapings	Scabies	Negative
1	Ovine	1	Skin scrapings	Mange mites	Pediculosis
1	Porcine	1	Blood sample	Brucellosis, leptospirosis	Negative
2	Porcine	2	Fetus	Brucellosis	Negative
1	Porcine	1	Suckling pig	Leptospirosis, bangs, erysipelas	Uremia, <i>Septicemia peritonitis</i>
1	Porcine	1	Spleen, kidney bladder and liver	Leptospirosis, bangs, erysipelas	Negative
1	Porcine	1	Lung	Pathogens	Lungworms
1	Porcine	1	Shoat	Listeriosis	Negative
2	Misc.	3	Water samples	Pathogens	Negative
1	Misc.	2	Dead ticks	Identification	Brown dog tick
		2	Live ticks		

Report of the Division of Plant Industry

FRANK A. SORACI, *Director*

BUREAU OF ENTOMOLOGY

NURSERY INSPECTION

During the fiscal year 1,092 nurseries were inspected for issuance of the certificate of inspection of this Department. This represents an increase of 95 nurseries over last year. Infestations requiring control measures before certification could be granted were found in 242 nurseries. The insects most commonly found are as follows:

Insect Pests	Infestations
Spruce gall aphid, <i>Chermes abietis</i> and <i>Chermes cooleyi</i>	48
Holly leaf miner, <i>Phytomyza ilicis</i> , <i>P. iliciola</i> , <i>P. weidhausii</i>	47
Oyster shell scale, <i>Lepidosaphes ulmi</i>	47
Bagworm, <i>Thyridoptery ephemeraeformis</i>	41
Spider mites, <i>Tetranychus telarius</i> and <i>Metatetranychus ulmi</i>	39
Andromeda lace bug, <i>Stephanitis globulifera</i>	38
Sycamore lace bug, <i>Corythucha ciliata</i>	33
Euonymus scale, <i>Unaspis euonymi</i>	32
Juniper scale, <i>Diaspis carueli</i>	27
Rhododendron lace bug, <i>Stephanitis rhododendri</i>	27
Eastern tent-caterpillar, <i>Malacosoma americanum</i>	25
Azalea lace bug, <i>Stephanitis pyrioides</i>	25
Birch leaf miner, <i>Pennsa pusilla</i>	24
Azalea leaf roller, <i>Gracilaria azaleella</i>	17
White pine weevil, <i>Pissodes strobi</i>	16
Crown gall (willow), <i>Erwinia tumefaciens</i>	12
Tulip scale, <i>Toumeyella liriiodendri</i>	12
Juniper webworm, <i>Dichomeris marginella</i>	10
Fall webworm, <i>Hyphantria cunea</i>	10

Dealers Certificates

Certificates were issued to 403 dealers in nursery stock, 44 more than last year. For issuance of a dealer's certificate, the dealer must inform the Department of his sources of nursery stock. A certificate is issued only when the Department is satisfied that the nursery stock obtained from these sources is certified.

During the year, 473 inspections were made of dealer establishments to determine whether stock being held over and sold was free of plant pests and diseases. The premises of 13 dealers were found to have infested plant material requiring control measures.

Special Certificates

Special certificates were issued to 407 private individuals and nurserymen desiring to ship plants out of New Jersey in accordance with special regulations of other states and foreign countries.

Canadian Certificates

One hundred thirty-three special certificates were issued for the movement of plant material to Canada in accordance with the regulations of that Dominion.

Special Corn Borer Certificates

Eighty-six special corn borer certificates were issued for the shipment of herbaceous plants into states having such requirements.

Domestic Inspections

Five inspections were made of plant materials shipped into New Jersey from other states. These inspections were made to check on the efficiency of the inspection services of other states. No infested plant material was found.

Gypsy Moth Inspections

One hundred nurseries located within or near the area quarantined for the gypsy moth were inspected during the winter months. No egg masses were found.

Native Plant Inspections

Thirty-three inspections were made for persons desiring to move plant material from the wild. A special certificate is issued for the movement of such plants only when the material is found to be free of injurious insects and plant diseases or when control measures have been satisfactorily completed.

Special (Request) Inspections

One hundred and three inspections were made at the request of New Jersey residents desiring information about control of insects and plant diseases affecting their premises.

Truck Inspections

Four trucks carrying nursery stock were examined during the 1959 fall and 1960 spring shipping seasons. This effort was made in cooperation with the New Jersey State Police to determine if proper certification was carried and to ascertain whether the stock was free of insect pests and diseases. All the trucks stopped carried certificates and clean stock.

Vegetable Plant Inspection

Seventy-five vegetable plant growers were called upon during the months of May and June to ascertain whether vegetable plants purchased from out-of-state were properly certified in accordance with our vegetable plant regulations. Of the total number of growers contacted, four had made purchases of uncertified plants. Two growers, one in Mount Holly and the other in Hammonton, purchased a total of 408,000 uncertified tomato plants from the Six L. Packing House, Immokalee, Florida. The plants were found to be infected with early blight and infested with root-knot nematode. They were destroyed under the supervision of this Department. Two growers made purchases of uncertified escarole and cabbage plants. These plants were examined, found free of plant pests and diseases and were released.

Winter Nursery Inspection

Thirty-seven nurseries were inspected during February and March for overwintering pests. Insect infestations requiring control measures were found in seven nurseries.

POST-ENTRY QUARANTINE INSPECTIONS

During the year 138 inspections were made of plant materials imported under permit from foreign countries and growing under the supervision of this Department, in accordance with the cooperative program of this Department and the United States Department of Agriculture.

Because of Federal Quarantine 37, certain plant materials imported from foreign countries and capable of carrying and spreading virus and other diseases must be grown in segregated beds until found safe to be released to the trade. Most materials are held for two growing seasons and then released if found to be uninfected. However, the holding period may be lengthened or shortened, depending upon the type of plant and the diseases affecting it.

PLANT MATERIAL IMPORTED DURING 1959-60, BY GENUS

Genus of Plants	Number Imported
<i>Acer</i>	1,325
<i>Anthurium</i>	1,006
<i>Berberis</i>	400
<i>Cytisus</i>	120
<i>Daphne</i>	110
<i>Euonymus</i>	100
<i>Hydrangea</i>	1,200
<i>Populus</i>	24
<i>Rhododendron</i>	128
<i>Rosa</i>	209
<i>Sorbus</i>	42
<i>Wisteria</i>	7
Totals	4,671

PLANT MATERIAL RELEASED DURING THE YEAR, BY GENUS

Genus of Plants	Number of Plants Originally Imported	Number of Plants Released
<i>Acer</i>	2,515	1,724
<i>Aesculus</i>	75	65
<i>Anthurium</i>	1,100	900
<i>Azalea</i>	100	100
<i>Berberis</i>	3	2
<i>Corylus</i>	46	10
<i>Cytisus</i>	55	55
<i>Daphne</i>	13	1
<i>Fraxinus</i>	18	18
<i>Hydrangea</i>	400	21
<i>Juniperus</i>	564	552
<i>Mahonia</i>	9	5
<i>Malus</i>	150	118
<i>Populus</i>	6	6
<i>Prunus</i>	200	165
<i>Quercus</i>	47	27
<i>Rhododendron</i>	31	22
<i>Rosa</i>	11	11
<i>Wisteria</i>	3	2
Totals	5,346	3,804

BLUEBERRY CERTIFICATION PROGRAM

The past year was the third under the new blueberry certification program. Certification is based on both spring and fall inspection of cutting beds, nursery plants and enough mother plants to supply cutting wood. Plants showing symptoms of virus diseases, such as stunt, mosaic, ringspot and shoestring, are tagged by inspectors of this Department and must be removed by the growers.

During the calendar year 1959, 19 growers entered plantings for certification in comparison with 23 the previous year. At the completion of the fall inspection 57,704 mother plants, 1,321,443 nursery plants and 2,094,090 rooted cuttings were certifiable. With good growing conditions, an adequate supply of plants and cuttings was available.

During both the spring and fall inspections only 23 diseased plants were found in the mother plants. No disease was found in the nursery plants or in the cutting beds.

The following table summarizes the incidence of disease in mother plants:

Disease	Mother Plants	
	Spring	Fall
Stunt	18	1
Mosaic	2	2
Shoestring	..	..
Ringspot	..	..
Totals	20	3

RED STELE DISEASE OF STRAWBERRIES

During April, 1960, strawberry plantings of 46 growers were inspected, representing a total of 145 acres. Regulations require that strawberry plants moved within the State be inspected and found free from red stele disease, *Phytophthora fragariae*. Certification was granted to 38 growers, representing a total of 91.45 acres of certifiable strawberry plants.

VIRUS-FREE STRAWBERRY PLANT CERTIFICATION

The virus-free strawberry plant project is a cooperative program in which this Department inspects and certifies the plants, the New Jersey Experiment Station provides virus-free, greenhouse-grown "Foundation" stock, and the Small Fruits Council retains ownership of and controls the distribution of the progeny.

During 1959, the New Jersey regulations were changed to conform, in the main, with those advocated by the Central and Eastern Plant Boards. The main change in the regulations eliminated the "Improved" class of plants and changed the "Registered" class to Registered No. 1, No. 2 and No. 3, according to the number of years from "Foundation" stock.

The spring of 1960 was the second year that these superior plants were made available to strawberry growers and the first year that a sizable number of virus-free Jerseybelle plants was produced.

More than 388,000 plants of the varieties Sparkle, Midland and Jerseybelle were produced. Of these certifiable plants, approximately 313,000 "Registered" plants were dispersed as follows:

	Sold	Planted for "Registered No. 2" (New Jersey Small Fruits Council)
Jerseybelle	153,000	27,000
Midland	60,000	2,000
Sparkle	70,000	1,000
Totals	283,000	30,000
	Unsold	
Sparkle	75,000	

The following "Foundation" plants were released by the New Jersey Experiment Station for growing as "Registered No. 1" plants during the summer of 1960: 4,000 Jerseybelle, 100 Sparkle, 1,000 Midland and 1,800 N. J. No. 157.

GYPSY MOTH CONTROL

The gypsy moth control program in New Jersey is divided into four phases: trapping, scouting, control and quarantine. Each phase corresponds with the various life stages of the insect.

Trapping is performed when the moth is in the adult stage. Sex-attractant traps are placed in the field on a seven-eighths mile grid during mid-June. The traps are inspected at 10-day intervals during the entire flight season of the adult male moth, which begins in early July and extends to early September.

Scouting is carried on when the gypsy moth is in the egg stage. Clusters of approximately 400 eggs are laid by the female during late August and early September. Visual examination is made of all standing vegetation for a one-half mile radius around each attracting trap site when the foliage is off the trees in late fall and winter.

Control is performed during late April and early May when the moth is in the early stages of larval development. Known areas of infestation are treated at the rate of one pound of DDT in one gallon of light fuel oil to one acre of land.

Quarantine is enforced throughout the various stages of the moth's development. Materials capable of harboring any life stages of the gypsy moth are carefully inspected before they are allowed to move out of the infested area.

Trapping

Trapping was begun on June 15. A total of 5,369 sex-attractant traps was placed throughout the northern half of the State. Five-mile strips were also trapped along the coast from Sandy Hook to Cape May and along the Delaware River from Lambertville to the middle of Salem County.

The following table shows the distribution of traps by counties:

County	Number of Traps
Atlantic	125
Bergen	371
Burlington	201
Camden	91
Cape May	108
Gloucester	167
Hunterdon	740
Mercer	115
Monmouth	302
Morris	904
Ocean	297
Passaic	340
Salem	59
Somerset	130
Sussex	863
Warren	556
16 counties	5,369 traps

Particular attention was given to five separate areas which had a recent history of infestation. Sixty-five traps were placed on a one-quarter mile grid within a one-mile radius circle around each of these areas.

The traps were inspected throughout the summer for suspicious moths. At the same time, the tanglefoot inserts were serviced to insure adhesiveness. All suspicious moths were removed and submitted for identification.

Seven male gypsy moths were captured during the trapping program, five within a small area in Morris County. The other two moths were taken in Sussex County.

Date of Capture	Number of Male Moths	County	Township
July 27	1	Morris	Harding
July 31	1	Morris	Harding
August 3	2	Morris	Harding
August 3	1	Morris	Morris
August 3	1	Sussex	Montague
August 26	1	Sussex	Montague

Scouting

Early in October a preliminary scouting survey in the immediate vicinity of the five attracting trap sites in Morris County disclosed an infestation on Sugar Loaf Mountain in the Jockey Hollow area of the Morristown National Historical Park. Heavy foliage prevented further scouting at that time.

After the foliage had fallen, intensive scouting was started in an area bounded by a three-quarter mile radius from the existing infestation and each of the five attracting trap sites. Further scouting revealed additional masses which brought the total to 13 new and one old egg mass. No further infestation was found.

The two attracting trap sites in Sussex County were scouted for a half-mile radius around each site, with negative results. After this, additional work was performed in an area enclosed by a mile-wide strip between the two sites. Again the results were negative.

ACREAGE SCOUTED NOVEMBER 1959-APRIL 1960

Month	Morris County		Sussex County	
	Woodland	Open	Woodland	Open
November	5	..	155	10
December	110	5	90	..
January	315	..	150	60
February	125	80	325	495
March	1,015	60	230	180
April	295	..	...	...
Totals	1,865	145	950	745

Control

Because an infestation existed in New Jersey, the Department was required to take control measures. The area to be treated consisted of approximately 2,400 acres. In addition to the Morristown National Historical Park and the Morris County Park, land held by 87 private owners was to be treated.

Each of the owners was notified and invited to a meeting on April 25, 1960. The Secretary of Agriculture presided at the meeting and explained the nature and reason for the work that was to be performed. While only six of the property owners attended, approximately 50 other persons were present. The Secretary assured the people that every possible precaution would be taken and that any suggestion offered by the involved property owners would be considered.

Spray application was begun early on the morning of April 28 and completed on May 2. Careful control was exercised throughout the entire spray operation. Helium-filled balloons were positioned at prominent points over the boundary lines to act as aerial markers. Ground-to-air and air-to-ground communications were in use throughout the operation. An observation plane was supplied by the United States Department of Agriculture to provide accurate observations of the treatment at all times.

A small amount of ground work was accomplished by mist blower. Ground application was completed on May 3. A total of 2,379 gallons of insecticide was applied by aircraft to a total of 2,412 acres of land. An additional 25 gallons of insecticide were applied by mist blower.

Upon completion of the control operation a check was immediately started to ascertain any adverse effects of the DDT upon the various forms of fish and wildlife inhabiting the treated area. Amphibians and crustaceans suffered a reduction in numbers. However, large populations of both groups were still present throughout the area. Birds, fish and small mammals appeared to have survived the treatment with no harmful effects.

Quarantine

The only quarantine work performed by the inspectors concerned Christmas greens being moved into or through New Jersey. Information on the Federal quarantine law was sent to radio stations and newspapers throughout the State. Checks of trucks carrying Christmas trees were made with the cooperation of the New Jersey State Police. A total of 15 trucks was stopped and checked for valid certification. One truckload of logs destined for New York City was observed to be in moving in violation of the quarantine law. Officials of the United States Department of Agriculture were informed of the incident, for possible prosecution.

WHITE-FRINGED BEETLE CONTROL

The summer of 1959 marked the fifth year since the finding of the white-fringed beetle near Vineland; the fourth since treatment was applied to 350 acres of farm and woodland, and the second that concentrated surveys revealed no adults or larvae in the treated area.

Eradication of white-fringed beetle in the area appears to be an accomplished fact. The local quarantine is still in force and the movement of those materials and products which could prove a means of spread is regulated.

JAPANESE BEETLE QUARANTINE ENFORCEMENT

The cooperative Federal-State Japanese beetle program has two major phases: certification services to plant shippers and summer regulatory activities. Certification is a year-round operation regulating the shipment of plant materials to points outside the area of Japanese beetle infestation. Summer regulatory measures are designed to control the spread of adult beetles by carriage on vehicles and hazardous materials.

A total of 2,819,484 plants was certified as a result of treatment or through inspection. In addition, 662 cubic yards of potting soil were treated, as well as 78.23 acres of surface soil. The estimated value of all materials certified was \$1,909,293. In the performance of this work, 2,568 calls were made to commercial establishments and private individuals. Help was extended to growers interested in employing newer and less costly techniques to meet certification requirements. Residual insecticides, in granular form, applied by ground power equipment, were popular with many growers during the past year.

The summer of 1959 marked the second season of operation under the new procedures based on conditions of hazard. Under this procedure regulations are put into operation only when and where local inspectors determine that infestations warrant such action. Thus, the inspectors are able to devote more time to locating and appraising infestations than they were previously.

All major shipping points throughout the State, such as airfields, auction produce markets, trucking and railroad centers, were scouted. Two hundred and seventeen shipping points were scouted and observations were made at 48 airfields. Regulatory measures were required at two trucking centers and five airfields.

In July 1959, due to an explosive emergence, Japanese beetles were found on planes arriving in Europe from McGuire Air Force Base, Wrightstown. Temporary measures proved effective in stopping the spread, but in order to reduce beetle population at the Base, soil treatments were initiated. At the close of the year, a total of 1,153 acres had been treated with granular dieldrin.

GOLDEN NEMATODE

A joint Federal-State survey of the potato growing areas of New Jersey for golden nematode, *Heterodera rostochiensis*, has been conducted annually since 1948. Laboratory equipment for the processing of soil samples has been set up at Trenton, at facilities provided by this Department.

A total of 2,375 soil sample lots was processed in the late fall and winter. These samples had been collected from graders throughout the State and from fields in Monmouth County, and represented approximately 5,182 acres of potatoes. This year was the second in which soil samples were given a dual check. The samples were checked for the soybean cyst nematode, *H. glycines*, as well as the golden nematode, *H. rostochiensis*. No golden nematodes or soybean cyst nematodes were recovered from the samples.

SOYBEAN CYST NEMATODE FIELD SURVEY

For the third consecutive year, a statewide field survey was conducted by personnel of the Bureau of Seed Certification to determine the presence of soybean cyst nematode. To date the nematode has not been found.

The counties covered were Atlantic, Burlington, Cape May, Cumberland, Mercer, Middlesex, Monmouth and Salem. These counties contain the largest soybean acreage in the State. Soil samples were collected from all fields that had visual symptoms of nematode damage. A total of 24 soil samples was collected and delivered to the laboratory from 21,302 acres in 1,077 fields. Approximately 50 per cent of the soybean acreage in New Jersey was inspected and soil sampled, where indicated.

County	Estimated No. of Acres Surveyed	No. of Fields	No. of Samples Collected
Atlantic	87	8	..
Burlington	2,918	198	8
Cape May	45	6	..
Cumberland	1,306	57	..
Mercer	8,739	263	6
Middlesex	2,102	119	2
Monmouth	5,042	289	2
Salem	1,063	137	6
Totals	21,302	1,077	24

BEE CULTURE

Through the year, frame by frame inspections were made of colonies of bees in 20 counties. A total of 549 registered and new apiaries was visited and 5,119 colonies were inspected. Of these, 96 apiaries, consisting of 378 colonies, were found to be infected with American foulbrood. The incidence of the disease in all colonies was 7.4 per cent.

A slight reduction in the incidence of American foulbrood this year resulted from previous work done in commercial apiaries in the southern part of the State. Another factor is reduced use of sulfa drug and terramycin for the prevention of contagious brood diseases.

The Department requires the burning of disease-infected combs and the sterilization of other bee equipment in a lye bath.

European foulbrood is a common disease in the southern section of New Jersey. The causal organism is *Bacillus pluton*. During this fiscal year 43 colonies were found infected in 17 apiaries.

Ideal weather conditions during the early part of July permitted colonies to gather a surplus of nectar. In late July, during August and the early part of September, weather conditions were such that very little surplus nectar or pollen was gathered. Late in September, fall plants started to produce nectar in good quantity and the bees were able to gather a surplus until the end of October.

Cold weather in November, December, January and February severely curtailed the inspection of colonies. Colonies were opened only when temperatures were 50° F. or above. Colonies wintered well with an adequate number of warm days when the bees could take cleansing flights, thus avoiding dysentery. These warm days also enabled the bees to move to new stores.

During the winter months, scouting for new and abandoned apiaries was conducted throughout the State, as weather and road conditions permitted.

March and April were very unfavorable for beekeeping because of heavy snows and cold weather. Bees clustered tightly and consumed more stores than usual. Most of the winter loss occurred during these months. Rainy weather and cool temperatures during May curtailed nectar secretion. However, enough pollen-bearing plants were available to stimulate brood rearing. During June, colonies produced a very good surplus in southern New Jersey and a fair surplus in North Jersey.

The supervisor of bee culture was a guest speaker at meetings of various New Jersey beekeeping organizations during the year. He also participated in the Eastern Apiculture meeting held at Cornell University in August 1959.

On June 23, 24 and 25, 1960, the Eastern Apiculture Society met at Rutgers University, New Brunswick. The supervisor and inspector of bee culture helped to plan and worked at this meeting. It was gratifying to note that the use of sulfa drugs and antibiotics is losing favor throughout the eastern states.

Following is a tabulation of work performed during the year :

SUMMARY OF INSPECTIONS
1959-1960

County	Apiaries		Colonies		Nuclei	Crossed Comb	American foulbrood				European foulbrood				Colonies Burned	Microscopic Determination		
	Registered	New	Registered	New			Registered	New	Registered	New	Registered	New	Registered	New		American foulbrood	European foulbrood	Negative
Atlantic	4	..	80	..	...	..	1	..	1	..	..	..	..	..	..	..	..	..
Bergen	33	8	193	23	...	..	6	1	18	1	..	..	..	1	1	..	..	..
Burlington	65	17	551	67	3	..	13	..	49	..	8	..	29	..	17	1	4	3
Camden	21	11	321	45	...	4	3	1	19	3	..	..	..	14	2	1	2	
Cape May	12	..	135	..	45	..	1	..	2	..	..	..	..	..	..	..	1	
Cumberland	18	1	291	12	...	35	9	..	24	..	1	..	5	..	21	2	1	4
Essex	6	1	40	1	...	..	2	..	6	..	..	..	..	3	..	..	..
Gloucester	10	5	59	19	...	..	..	..	..	..	..	..	..	..	..	..	..
Hunterdon	72	13	867	57	240	6	18	1	72	1	1	..	1	..	46	..	..	..
Mercer	11	7	67	32	...	2	3	3	4	14	..	..	..	2	..	..	..
Middlesex	1	..	63	..	...	..	1	..	52	..	..	..	..	52	..	..	..
Monmouth	55	13	806	40	...	..	9	1	23	1	4	1	4	1	14	3	3	5
Morris	21	3	182	9	...	..	2	..	11	..	..	..	..	..	..	..	..	..
Ocean	28	17	150	57	...	3	6	1	7	2	2	..	3	..	1	..	..	2
Passaic	5	2	30	2	...	..	2	..	3	..	..	..	..	3	1	..	..	..
Salem	7	5	95	27	...	..	2	2	2	6	..	..	..	3	8	..	..	..
Somerset	9	10	100	39	...	..	3	..	19	..	..	..	..	..	..	..	..	..
Sussex	13	3	257	10	...	..	1	..	1	..	..	..	..	..	..	..	..	..
Union	10	1	53	1	...	..	3	..	32	..	..	..	..	..	..	..	..	..
Warren	26	5	307	31	...	56	1	..	5	..	..	..	..	..	..	..	..	..
Totals	427	122	4,647	472	288	106	86	10	350	28	16	1	42	1	176	19	9	17

Certificates of transfer issued: 6
Queen-rearing certificates issued: 11

BUREAU OF PLANT PATHOLOGY

COOPERATIVE ECONOMIC PEST SURVEYS

The Bureau of Plant Pathology cooperates with the Agricultural Experiment Station, the Agricultural Extension Service and in some cases with the Plant Pest Control Division of the United States Department of Agriculture in the conduct of surveys of economic pests.

European Chafer

The European chafer, *Amphimallon majalis*, was found in New Jersey for the first time on June 24, 1960 along the northeast shore of Upper New York Bay about opposite Liberty Island at Caven Point.*

This insect has been reported able to reduce winter wheat yield up to 80 per cent and to completely kill all grass in a lawn. The overwintering grubs damage plants by feeding on the roots of pasture and lawn grasses, common legumes, small grains and nursery stock. European chafer is under Federal quarantine 77, established in 1955.

This insect is believed to have been introduced into the United States from France. It was first found in western New York State in 1940. In 1959 the European chafer was found infesting some 14 square miles in Brooklyn, N. Y., extending to the eastern shore of New York Bay, and on Governors and Liberty Islands in Upper New York Bay. Control treatments were applied on these islands and to a small area along the Belt Parkway in Brooklyn.

An organized survey for the detection of the European chafer in New Jersey was conducted, in cooperation with the Plant Pest Control Division, United States Department of Agriculture, starting in late June, 1959.

In 1959, 108 locations were scouted in a strip extending south from the New York border along the Hudson River, New York Bay, Newark Bay and Raritan Bay to Cheesequake State Park, south of Perth Amboy. No finds of European chafer were made.

In 1960, between June 13 and July 13, a total of 23 sites was scouted in the south Hudson County area, again in cooperation with Plant Pest Control personnel. Between June 24 and July 13 chafers were caught at New Jersey Turnpike Exits 14A, 14B and 14C, and at two Jersey City locations. In addition, sightings of suspects were made at 11 south Hudson County locations.

* First specimen taken by Edmund Warner, district supervisor, and John J. Bagocius, plant pest control inspector, Plant Pest Control Division, United States Department of Agriculture.

Khapra Beetle

The khapra beetle, *Trogoderma granarium*, the most serious of all stored grain pests, although not yet known to occur in New Jersey, has become established to a limited extent in the southwestern United States. Surveys to detect this insect in New Jersey were first conducted in 1955. The 1960 survey was started on February 4 and completed by May 1. A total of 258 establishments, including locations in every county of the State, was surveyed. Specimens from eight establishments were submitted for identification, but no khapra beetles were found.

European Corn Borer

The European corn borer, *Pyrausta nubilalis*, is an important crop pest in New Jersey. In addition to field and sweet corn, white potatoes, peppers, tomatoes, beans and beets are often severely attacked.

Results of fall surveys made during the past four years to determine the borer population are given below. These data indicate an increase in corn borer populations over the past three years.

County ¹	Average Number of Borers per 100 Plants			
	1956	1957	1958	1959
Sussex	73.6	3.6	10.8	9.2
Warren	66.6	7.6	8.0	56.8
Hunterdon	204.2	10.4	16.0	163.8
Somerset	694.6	150.6	292.8	174.8
Middlesex	566.8	63.0	298.8	568.4
Monmouth	596.6	407.8	368.8	333.4
Mercer	690.2	117.4	185.8	722.4
Burlington	608.6	81.2	188.4	255.8
Camden	226.0	94.0	128.0	372.4
Gloucester	374.0	52.8	162.8	344.1
Salem	127.2	40.6	168.4	95.4
Cumberland	154.0	36.0	199.6	155.2
Average	365.2	88.8	169.0	271.0

¹ 10 fields examined in each county except Camden and Cumberland where five fields were examined.

A survey was conducted in five key counties in the spring of 1960 to determine the overwintering mortality of the fall population. Mortality was approximately 41 per cent. Bird feeding accounted for 72.3 per cent of the overwinter reduction in population; and parasitization for 27.7 per cent.

Although the high fall 1959 populations were apparently reduced by about half, the spring 1960 threat was considered to be the greatest in six years. In the five counties surveyed, Middlesex, Monmouth, Mercer, Burlington and Cumberland, an average of 235.2 borer larvae per 100 stalks were counted in the spring survey.

European Corn Borer Parasites

In connection with the fall population survey each year, European corn borer larvae are collected and sent to the European Corn Borer Research Laboratory of the United States Department of Agriculture at Ankeny, Iowa, for parasite rearing, identification and study. Collections of 50 larvae were made and forwarded between October 16 and November 25, from each of the 21 general area locations scattered uniformly over the State.

Light Trapping

Current growing season development and population levels of certain economically important insect pests can be followed by means of near ultraviolet, fluorescent "black-light" traps. The information obtained is used by the Extension Service, Rutgers University, to advise growers of the timing of application of control measures. Two light traps were in service in Burlington County in 1959-60. The insects selected for counting from those trapped during 1959, together with their scientific names, were as follows: corn earworm, *Heliothis zea*; European corn borer, *Pyrausta nubilalis*; armyworm, *Pseudaletia unipuncta*; fall armyworm, *Laphygma frugiperda*; black cutworm, *Agrotis ypsilon*; spotted cutworm, *Agrotis c-nigrum*; tomato hornworm, *Protoparce sexta*.

Catches in 1959 were superior to those obtained during the previous summer because of improved trapping procedures. Catches of corn earworm were higher than usual in 1959. Late catches of European corn borer indicated a partial third generation. This is believed to have contributed to the high overwintering larval population encountered later, in the fall corn borer survey. In 1960, seven insects were added to those counted in 1959: yellow striped armyworm, *Prodenia ornithogalli*; tobacco hornworm, *Protoparce quinquemaculata*; glassy cutworm, *Crymodes devastator* and variegated cutworm, *Peridroma margaritosa*. By June 23, all but the glassy and variegated cutworms had been caught in numbers ranging from two to 66. Except for corn earworm catches, which were slightly greater, all were much below those in 1959. It seems probable that this reduction was due, primarily, to the relatively cool weather in May and June 1960.

Insects on Corn

Field observations of corn earworm, fall armyworm and European corn borer damage were conducted for the second year in 1959. This supplemented the light trapping. Nine Burlington County corn fields were visited twice each week from July through September and scouted for eggs of the corn earworm and fall armyworm, and damage by the corn borer and its stage of development. The average number of corn earworm eggs found ranged from 1 to 3.5 per 25 silks per field; no fall armyworm egg masses

were found. It was concluded that the potential value of this survey is relatively low in comparison with that of the light trapping method, although it did reveal that heavy corn borer damage apparently corresponded to high levels of corn borer light trap catches about one month previously.

Potato Aphid

The potato aphid, *Macrosiphum solanifolii*, injures tomatoes, potatoes, sweet potatoes, eggplants and peppers. It has been reported to reduce the set on the first clusters of tomato blossoms by as much as 50 per cent. Furthermore, potato aphids are capable of transmitting virus diseases, especially of the white potato. A survey for this insect has been conducted each year since 1957. Its purpose is to predict the spring threat on the basis of the overwintering egg population. Between February 4 and March 8, samples of swamp rose, *Rosa palustris*, were collected at a total of 18 sites in the seven counties concerned and egg counts were made. The data obtained showed that the threat for 1960 was much reduced from that in 1959 and more closely approached that in 1958.

Potato Leafhopper

First surveyed in 1958, the potato leafhopper, *Empoasca fabae*, is particularly injurious to alfalfa, clovers, white potatoes and snap beans. Control of this pest has resulted in improved quality and increases in hay yields of up to 20 per cent. In the 1959 survey, in addition to collecting leafhoppers, the height of the alfalfa was measured as a possible index of leafhopper infestation. Data obtained revealed a relatively high leafhopper population. Weather conditions very favorable to alfalfa growth masked the effect of the insects on the height of the alfalfa.

Meadow Spittlebug

The meadow spittlebug, *Philaneus leucophthalmus*, is capable of reducing yields of alfalfa and clover by as much as 90 per cent. Since the inception of population studies of this pest in 1954, the spittlebug threat has declined steadily. Apparently the insect has been well controlled with the recommended insecticides. The fall 1959 survey was conducted between November 18 and December 15. Egg masses on clover plants in alfalfa fields were counted. The average number of egg masses per 15 red clover plants per field ranged from none to only 1.3. In late April, the number of nymphs on dandelion plants in these fields were counted. The average number of nymphs per five dandelion plants per field in late April 1960 ranged from 1.6 to 79.4, with a State average of 22.8. Variability in the results of the spring surveys is apparently due to greater variations in spring and overwintering weather conditions than those occurring during the fall.

Spotted Alfalfa Aphid

The spotted alfalfa aphid, *Theriacaphis maculata*, while not known to occur in New Jersey or immediately surrounding states, has caused heavy financial losses to alfalfa growers in this country since its discovery in New Mexico in 1954. Subsequently it has spread to northernmost Virginia. To detect its possible presence in New Jersey at the earliest moment, surveys have been conducted annually since November, 1956, with negative results. The 1960 survey was concentrated in the critical areas of Gloucester and Burlington counties within seven miles of the Delaware River. Fifteen fields well distributed over this area were sampled for aphids between April 28 and June 1. Results were again negative.

Asparagus Beetles

Asparagus shoots in New Jersey are attacked to a serious degree by the common asparagus beetle, *Crioceris asparagi*, and the spotted asparagus beetle, *Crioceris duodecimpunctata*. Their populations vary widely in New Jersey from year to year and their damage is said to be reduced in wet seasons. An overwintering beetle population survey has been conducted in the six main asparagus counties each year since 1957. Information obtained indicates the threat for the following season.

RESULTS OF ASPARAGUS BEETLE SURVEYS, 1957-1960*

County	No. Locations		Average No. of Beetles per 100 Stalks per Field							
	1957	1960	Common Asparagus Beetle				Spotted Asparagus Beetle			
			1957	1958	1959	1960	1957	1958	1959	1960
Cumberland	10	15	34.4	2.3	13.5	4.5	0.6	0.3	0.1	...
Salem	10	15	23.2	1.2	5.6	1.3	1.5	0.3	...	...
Gloucester	10	15	78.0	3.3	15.1	0.8	9.7	0.3	0.2	0.1
Atlantic	5	5	70.6	5.6	55.0	13.2	4.0	0.6	0.6	...
Camden	5	5	78.8	5.6	73.2	1.0	3.8	0.2	0.4	...
Burlington	5	5	51.4	11.8	53.2	10.0	2.0	1.2	0.2	...
Totals	45	60								
Average per field, statewide			53.3	4.1	27.8	3.7	3.8	0.4	0.2	...

* Inclusive dates of surveys were as follows:

1957: December 17, 1956—February 13, 1957

1958: January 3, 1958—February 5, 1958

1959: December 17, 1958—January 15, 1959

1960: December 15, 1959—January 29, 1960

Each year the spotted asparagus beetle has been less numerous. The 1960 threat from the common asparagus beetle was expected to be less than for 1959, and about the same as for 1958.

European Apple Sawfly

The European apple sawfly, *Hoplocampa testudinae*, was first found in New Jersey in Bergen County in 1951, apparently confined to an area north of Teaneck and Hackensack until 1955, when it was discovered in the vicinity of Preakness, Passaic County. To delineate the infestation of this sawfly, surveys were begun in 1957. By 1959 spread had advanced (1) across Passaic County and into northeastern Sussex County, (2) across Essex County and well into Morris, Somerset and Middlesex counties and (3) into northern Monmouth County.

In 1960, apple trees were examined at 132 sites in seven counties from Sussex County in the north to, and including, Burlington County in the south. A new advance to the Colesville section of northern Sussex County and two possible new infestations in the Tennent section of northern Monmouth County were found. The spread of the European apple sawfly from year to year appears to be erratic, ranging from about five to 20 miles per year.

Mexican Bean Beetle

In order to forecast the degree of threat which growers in the principal producing areas of the State might expect from the Mexican bean beetle, *Epilachna varivestis*, a survey was initiated in 1957 in Cape May, Cumberland and Salem counties. Between 10 and 53 square yards of wooded area duff were examined at 18 sites. To date, the results of these surveys have shown the population of the overwintering beetles to be very low, thus indicating only a slight threat. The 1960 survey was conducted between February 2 and February 25. A maximum of two beetles was found at two sites and none at the others. This result was lower than last year but the same as in 1958.

During the 1960 survey, in addition to examining duff in wooded areas near bean fields, bean stubble in the fields themselves was examined in an effort to develop an improved survey procedure. Except that fields left in bean stubble over the winter were much fewer in number than anticipated, the results of the "stubble" method of surveying are encouraging to its continued use for purposes of early detection of any unexpected, cyclic upsurge in the population of this pest.

Carrot Weevil

The carrot weevil, *Listronotus oregonensis*, appears to be causing increasing damage to parsley, celery and carrots in New Jersey. The first survey to evaluate the carrot weevil problem in New Jersey was undertaken in May, 1959. Evidence of the pest was found in Bergen, Gloucester, Atlantic, Cumberland and Salem counties. The infestation was greatest in

overwintered parsley in the Vineland area where as many as 75 eggs per 100 plants were found in one field. In May, 1960, 10 fields of overwintered parsley in the vicinity of Vineland were sampled. The results indicated that the potential for damage by this pest is determinable by sampling methods.

COOPERATIVE ECONOMIC DISEASE SURVEYS

Tomato and Pepper Bacterial Spot

Bacterial spot of tomato and pepper, a disease caused by the bacterium, *Xanthomonas vesicatoria*, flared severely in New Jersey, as well as in other eastern states, in 1958 and 1959. It has been estimated that approximately one-third of the New Jersey pepper crop, valued at about one million dollars, was lost to this disease in each of these years. Scabby spots on tomato and pepper fruits, leaves and stems result from infection by this bacterium. It can be more serious on peppers than on tomatoes because, on the former, defoliation and failure of the plant soon follow leaf infection. In general, peppers appear to be much more susceptible to the disease.

A study to evaluate bacterial spot of tomatoes and peppers in New Jersey was begun in early June, 1959. An ultimate objective was to pinpoint sources of New Jersey infections. Extensive field survey work and a pepper grower interview survey comprised the 1959 effort. In 1960, a four phase survey program was launched.

1959 Field Inspections

The 1959 field work involved bacterial spot inspections of plant beds in Atlantic County and of fields in Burlington, Camden, Atlantic, Gloucester, Salem and Cumberland counties. The June inspections failed to reveal the disease in plant beds or fields until June 30, when four pepper fields were found to be lightly to severely affected. By the end of August, severe bacterial spot was observed in practically all of the 70 pepper fields under observation. Early season evidence indicated southern plants to be the source of the disease in at least one field, but as the season progressed, the disease appeared to be equally severe whether plants were of home-grown or southern source. Yet, bacterial spot was practically non-existent in New Jersey tomato fields.

1959 Grower-Interview Survey

On September 25 a grower-interview survey of the pepper bacterial spot situation was started. Questions were asked regarding (1) pepper varieties currently grown, (2) severity of bacterial spot, if any, (3) closeness in time of any preceding pepper or tomato crop in the same field and its condition relative to bacterial spot, (4) seed and plant source of currently grown peppers, and (5) status of seed treatment of those plants. Growers representing two-thirds of the State crop, located in eight counties, were interviewed. The major statistics developed may be found in the following table:

PEPPER BACTERIAL SPOT SURVEY, FALL 1959

County	No. Acres Surveyed	No. Farms Surveyed	No. Fields Surveyed	Bacterial Spot Severity <i>No. Fields in Disease Severity Class</i>					No. Fields with Plants from:			
				Severity Index ¹	None	Trace	Medium	Severe	Very Severe	North	South	Combination ²
Middlesex	55.00	14	35	0.3	30	...	3	2	...	34	1	...
Monmouth	222.00	15	56	1.1	31	4	5	16	...	54	2	...
Burlington	13.25	3	8	1.8	4	1	...	...	3	5	3	...
Camden	124.50	21	32	2.2	4	7	6	8	7	14	17	1
Gloucester	285.00	31	46	1.9	5	15	10	10	6	17	13	16
Atlantic	393.75	34	89	2.6	10	8	21	19	31	59	28	2
Cumberland	529.25	36	68	2.6	4	13	14	14	23	58	8	2
Salem	434.00	32	75	2.5	2	4	34	28	7	44	30	1
Totals	2,056.75	186	409	2.0	90	52	93	97	77	285	102	22

¹ "Severity index" was computed by (1) assigning the values 0-4 to the severity classes, none-very severe, respectively, (2) multiplying the number of fields in each class by its assigned value, and (3) dividing the total number of fields involved.

² "Combination" fields contained some plants from a northern and some from a southern source.

Eight conclusions were drawn from the results as follows:

1. Middlesex and Monmouth county growers reported considerably less pepper bacterial spot than growers in the other six counties, especially Atlantic, Cumberland and Salem.

2. Middlesex and Monmouth counties and, to a lesser extent, Cumberland County, were planted largely with New Jersey-grown plants rather than southern plants.

3. Bacterial spot was not clearly indicated to be correlated with (a) plant source, (b) locus of start of field infection, (c) pepper and tomato history of the field or (d) seed treatment, although Monmouth and Middlesex data suggest proper seed treatment was partially responsible for the low level of bacterial spot in those counties.

4. Fields in which bacterial spot appeared early in the season became more severely diseased than the others.

5. Sweet peppers were indicated as somewhat more susceptible to bacterial spot than hot types.

Georgia Pepper Plant Survey

In mid-March, 1960, special pepper bacterial spot study plots were seeded at two Georgia locations in cooperation with the New Jersey Agricultural Experiment Station, a commercial New Jersey pepper seedsman, and the Georgia State Department of Agriculture. Duplicate paired seedings of Yolo Wonder pepper seed were sown near Valdosta and Claxton, Georgia. One lot of seed was from a western source and was treated with Arasan; the other lot was produced in the east and was treated with bichloride of mercury and Arasan. Inspectors of the Georgia Department of Agriculture made semi-weekly inspections from the time of emergence and more frequently during the two weeks prior to pulling. The New Jersey supervisor of plant pest surveys devoted eight days, May 19 - 26, to inspection of the special plots, adjacent peppers and Georgia pepper plant growing operations in general. No evidence of bacterial spot was found or reported in the special plot plants at any time. Furthermore, in the more than five major Georgia plant growing areas inspected, only one pepper field was found to be infected with bacterial spot, the only other known infected field already having been plowed under. Both of these fields were in the Tifton area. On May 24 and May 25, a total of approximately 14,000 certified, apparently bacterial spot-free pepper plants, was shipped by the cooperating seedsman from the special plots to New Jersey for planting in specially selected fields.

New Jersey Pepper Plant Bed Survey

Between May 1 and June 7 a total of 141,686 square feet of New Jersey pepper plant beds was inspected for bacterial spot. Bacterial spot was found

in one grower's beds. Located in the Vineland section of Cumberland County, this grower had planted early some untreated seed in a small section of his beds, the apparent source of subsequent infection in all of his beds. The counties included in this survey were Atlantic, Cumberland, Gloucester, Salem, Monmouth and Middlesex. Pepper seed was found to have been improperly treated at a total of eight seed bed locations, distributed among four counties. Relative to crop history, it was found that at 20 bed sites distributed among Atlantic, Cumberland, Gloucester and Salem counties peppers were seeded following peppers without more than one year intervening. Furthermore, it was generally found that no soil treatment capable of eradicating the bacterial spot organism had been used.

Special New Jersey Pepper Plots

Paired plots composed of approximately 2,000 of the Yolo Wonder pepper plants especially grown in Georgia (1,000 plants from each of the two seed sources, eastern and western), were planted in each of 11 previously selected fields between May 26 and May 28. These 11 fields were located as follows:

- A. In fields not in peppers or tomatoes for at least three years.
 1. Matawan, Middlesex County
 2. Milltown, Middlesex County
 3. Keyport, Monmouth County
 4. Cologne, Atlantic County
 5. Mullica Hill, Gloucester County
 6. Swedesboro, Gloucester County
 7. Penns Grove, Salem County
 8. Bridgeton, Cumberland County
 9. Bridgeton, Cumberland County
- B. In a field in peppers with severe bacterial spot two years ago.
 10. Cologne, Atlantic County
- C. In a field in peppers with severe bacterial spot last year.
 11. Swedesboro, Gloucester County

In addition to these full-size plots, plantings of 450 plants or less of each seed source were made on the Rutgers University College Farm near New Brunswick, on the Milltown farm in Middlesex County, and in one of the Bridgeton fields in Cumberland County.

As of June 30, 1960, in spite of at least two, and in most cases three, close inspections, no bacterial spot had been found in any of the special plots nor in any of the nearest adjacent peppers.

Sweet Potato Yellow Dwarf

Although no longer known to exist in New Jersey, sweet potato yellow dwarf, a relatively new sweet potato virus disease, could be ruinous to the New Jersey sweet potato industry. In September 1957, this disease was identified near Newfield. Survey, quarantine and eradication work reduced the affected area from nine farms scattered across South Jersey to one Newfield planting by 1959.

In August and September, 1959, the Georgia Red planting of the affected Newfield grower was inspected and a total of four diseased plants was found. All of these plants were immediately destroyed and the farmer decided to discontinue growing the Georgia Red variety.

SHADE AND FOREST TREE PEST SURVEYS

*Dutch Elm Disease**(Calendar Year 1959)*

Elms dying of the Dutch elm disease can be found every year in almost every county in New Jersey. The current program includes survey work and control recommendations only, with the responsibility for tree removal, cut elm wood disposition and spray work left to county, municipal and individual property owners.

During the period of the statewide eradication program, July 15, 1934 to May 12, 1941, the spread of the Dutch elm disease was being slowed. Since 1946, with improved spray control methods available, the disease has been greatly curtailed in localities where funds have been available and where proper control measures have been operative. In other places elm destruction has increased each year.

The program of this Division can be described as follows: (1) Inspection for Dutch elm disease of the elms under the jurisdiction of cooperating county park commissions, municipal shade tree commissions and individual property owners; (2) notification to the person in charge of the trees regarding (a) trees which are diseased and (b) diseased trees which require only pruning or other treatment, and those requiring removal; (3) recommendations to the person in charge of the trees regarding (a) the disposition of any cut elm wood still having tight bark, and (b) a spray program to protect the remaining elm trees considered to be healthy.

In addition, in accordance with all State highway contracts, inspectors are assigned to supervise the disposition of elm wood encountered in woodland clearing operations connected with highway construction.

The results of the 1959 survey work, listed by county, were as follows:

DUTCH ELM DISEASE SCOUTING—1959			
County, and Park, Municipality, or Property	No. of Elms Examined	Diseased	1959 Incidence Compared with 1958
Burlington United States National Cemetery (Beverly)	222	22	Not available
Essex County Parks	6,021	174	Similar
Hudson County Parks	2,500	15	Lower
Bayonne	600	2	
Jersey City	2,000	5	
Hunterdon Annandale State Reformatory	250	5	Lower
Middlesex Perth Amboy	350	14	Lower
Monmouth Manasquan	300	7	....
Passaic Ringwood State Park	500	15	Lower
Somerset DunWalke Farms (Far Hills)	600	...	Lower
Union County Parks	2,522	102	Lower
Baltusrol Country Club	300	4	
Totals	16,165	365	

Additionally, 365 trees of small property owners were inspected, and 32 were found to be diseased.

Worthy of particular mention are the results in the Union County parks, where inauguration of State recommendations was accompanied by a 7 per cent drop in disease incidence. In Hudson County the application of State recommendations, together with the purchase of a new hydraulic sprayer, was accompanied by a reduction in the number of diseased trees of more than half. Finally, the Baltusrol Country Club has had a third year with only about 1 per cent of disease incidence among its elms.

Inspection of elm wood encountered was provided in connection with the following highway construction work: (1) Realignment of Route N. J. 208 near Hawthorne and (2) highway construction near Hopewell.

London Plane Canker Stain
(Calendar Year 1959)

The deadly canker stain disease of plane tree, while practically state-wide, is most prevalent on London plane, a button ball-type tree, in the Camden area. The disease is caused by the fungus *Ceratocystis fimbriata*

f. *platani* (formerly *Endoconidiophora* sp.) which is easily and rapidly transmitted from diseased to healthy trees through injuries such as pruning cuts, bruises by lawn mowers, or scrapes and cuts by passing vehicles or playing children. Probably a disease native to the eastern United States and established in some plane trees in the "Main Line" district of the westerly suburbs of Philadelphia as early as 1925 or 1926, canker stain was first encountered as a problem of planes in New Jersey in Gloucester City in 1929. However, the problem was not clearly recognized as a fungus disease of plane trees until 1935.

The first organized canker stain survey was reported in 1947 at which time the work was concentrated in Camden and Burlington counties. The disease is still concentrated in that area. However, in view of the largely unsatisfactory control results obtained there, current survey emphasis has been shifted more to the North Jersey area where not only is the disease much less prevalent, but diseased tree removals are more prompt, due to more adequate municipal appropriations. These factors promise satisfactory control of the disease in that area.

CANKER STAIN SCOUTING, 1959

County	Total Number of Trees Infected in 1959	Number Diseased Trees	
		Standing from 1958	Located in 1959
Bergen	5,829	...	...
Burlington	31,734	2	25
Camden	4,013	...	42
Essex	32,889	...	3
Hudson	1,493	...	...
Mercer	3,407	...	3
Middlesex	4,000	...	...
Monmouth	800	...	...
Salem	750	...	...
Somerset	257	...	...
Sussex	457	...	...
Union	1,000	...	...
Totals	86,629	2	73

*Oak Wilt**(Calendar Year 1959)*

Although not yet known to occur in New Jersey, the oak wilt disease constitutes a deadly new threat to New Jersey oaks of all species. It is caused by the fungus *Ceratocystis fagacearum*, which is closely related to the Dutch elm disease and plane tree canker stain fungi. As close to New Jersey as a short distance west of the Susquehanna River in Pennsylvania, oak wilt is known usually to kill individuals of the red and black oak group within the same season they first show symptoms, and other species more slowly. The disease is not considered to spread as fast as either Dutch elm disease or canker stain. In 1959 during the month of August, oak wilt

scouting was conducted in the major wooded areas of Hunterdon, Warren, Sussex, Passaic, Morris and Somerset counties. No suspects were found.

Red Pine Sawfly Surveying and Aerial DDT Control Spraying

The red pine sawfly, *Neodiprion sertifer*, has been destructive to red and Scotch pine in northern Jersey for many years. In March and April, 1960, a survey of the abundance of sawfly eggs in red pine plantings was made, and in May aerial DDT sprays were applied by commercial operators to certain of them.

RED PINE SAWFLY SURVEY AND SPRAYING, 1960

County	Number Plantations Inspected	Number Plantations in Sawfly Infestation Severity Class				Number Sprayed Plantations	Acres
		None	Trace	Light	Medium		
Sussex	8	1	6	1	...	1	30
Passaic	3	...	3	...	...	...	...
Morris	3	...	2	1	...	1	40
Essex	1	...	...	...	1	1	300
Warren	12	1	9	2	...	3	60
Somerset	5	...	2	1	2	1	18
Hunterdon	11	...	6	2	3	1	30
Mercer	...	...	...	...	...	1	18
Totals	43	2	26	7	6	9	496

Cooperative Tri-State Pine Sawfly Study

In view of a recent outbreak of the pine sawfly, *Neodiprion pratti paradoxicus*, in southern New Jersey, a cooperative survey with the United States Department of Agriculture Northeastern Forest Experiment Station at New Haven, Conn., and with the United States Department of Agriculture Insect Pathology Laboratory, Beltsville, Md., was initiated to determine the rate of development of a population of this pest, the severity of its damage and the prevalence of its parasites. Thus, in February, 1959, five plots were established in the vicinity of the Lebanon State Forest which is located in Burlington and Ocean counties. On October 16 defoliation in these plots was estimated to average approximately 22 per cent, and in November a total of 681 cocoons collected during the second week of October was examined and classified as follows:

- 156 (about 20 per cent)—Normal emergence
- 4 (about 0.8 per cent)—Larvae in diapause
- 208—Parasitized by insects
- 300—Damaged by predators
- 13—Fungus filled

Other Forest Pest Surveys

The forest tent caterpillar, *Malacosoma disstria*, was considerably more abundant than in recent years. One area of approximately 19,000 acres,

mostly oaks, bordered by Manalapan, Englishtown, Applegarth, Perrineville, Roosevelt, Clarksburg and Smithburg (Monmouth—Middlesex area) was found to be severely defoliated—much of it 90 per cent or more. Another infested area of about 25 acres occurred at the intersection of Routes 528 and 539. Twenty-five acres were defoliated near the six-mile marker north of Exit 1 of the New Jersey Turnpike. Collected cocoons began to hatch on June 16, 1960. Several cocoons were parasitized by hymenoptera.

Pines in a 50-acre section of the Bass River State Forest, Burlington County, were found to be severely infested with a pine needle miner. Infestations of a pine sawfly, a pine bark beetle, and a moth thought to be the pine looper, *Lambdina athasaria pellucidaria*, were also found.

Tulip trees in an area of about 500 square yards adjacent to the Hop-pock Picnic Grove in Voorhees State Park, Hunterdon County, were inspected on June 1, following receipt of a report from the park manager that they were dying. A high percentage of the trees was found to be affected with a canker and some large specimens as well as a number of the smaller tulip trees were dead. Samples were taken for culturing and an as yet unidentified fungus thought to be an Ascomycete has been isolated.

PLANT PATHOLOGICAL DIAGNOSTIC SERVICES

The Division laboratory has been equipped to permit a limited amount of plant pathological diagnostic isolation and identification work.

Several canker stain and Dutch elm disease samples were cultured and diagnoses given.

Possible Soybean Seed Disease

In cooperation with the Bureau of Seed Certification, Clark variety soybean seed showing germination as low as 58 per cent is being studied for a possible disease. Forty-seven seeds from a 58 per cent germination lot and 10 seeds from a 93 per cent germination lot were cultured in order to determine if the low germination was a symptom of a fungus or bacterial disease. Of the 47 seeds from the low germinating lot, approximately 34 per cent produced fungus growth; whereas, of the 10 high germination lot seeds, 20 per cent (two seeds) produced fungus growth.

The general types of fungus isolates obtained from the two lots of seed, and their frequency, appeared to have some significance. In the case of the low germination seed lot, one group of fast growing, brown fungi comprised 37.5 per cent of the isolates and another group of relatively fast growing white fungi comprised approximately 18.0 per cent of the isolates. Certain of the brown isolates in particular were seen to kill the germinating radicles.

On the other hand, in the case of the high germination lot, both fungus isolates were very slow-growing black types which appeared to be entirely non-pathogenic to the germinating seedling.

BUREAU OF SEED CERTIFICATION

GRAIN SEED CERTIFICATION

Seed certification services are provided to maintain, and make available to the public, sources of high quality seed and propagating materials of superior varieties, so grown and distributed as to insure genetic identity. While varietal purity is the first consideration, other factors such as weeds, diseases, viability, mechanical purity and grading are important in providing seed that can be planted with maximum assurance.

In the past only varieties developed by the Agricultural Experiment Stations have appeared in the certification program, but more recently superior varieties of vegetables that have been developed by private plant breeders have been included.

Barley

A total of 475 acres of barley was entered for certification in 1959, compared with 625 acres the previous year. The reduction is attributed to an early fall freeze and little snow cover during the winter months, which caused considerable winter killing. Thin stands of barley allowed weeds to grow freely, reducing yields and necessitating special processing to remove noxious weed seeds during the cleaning operations.

During field inspection 99 acres, or about 20 per cent of the total entered for certification, was rejected because of inseparable weeds and improper roguing. One field containing 45 acres was rejected because of volunteer rye. Several fields were contaminated with mixtures of wheat. During bin inspection all seed met the requirements for certification.

Loose smut inspections were made during May and the hot water treatment for the control of this disease was again adequate. No loose smut disease was found in the registered fields and the certified plantings contained only five to 10 heads per acre.

Two acres of a new variety called Early Wong were certified for the first time. Early Wong is a selection of the regular Wong variety. It matures approximately one week earlier and has a heavier test weight, but the yields are slightly less. This variety appears to have a place in New Jersey agriculture because the early harvest allows the farmer to plant soybeans or a short season corn after the barley crop. A total of 159 bushels of Early Wong seed was produced which should plant approximately 75 acres for the coming year.

A total of 19,969 bushels of barley was certified this year, compared with 22,659 bushels in 1958. This represents an average yield of 53 bushels of cleaned seed per acre, which is seven bushels more per acre than in the previous year. Seed was insufficient to meet the market demand. Some 10,000 additional bushels could have been sold.

The following is a summary of the winter barley program:

Variety	Acres Entered	Acres Rejected		Acres Passed	Bushels Sealed
		Field	Bin		
Wong					
Registered	41	6	...	35	2,126
Certified	432	93	...	339	17,684
Early Wong					
Registered	2	...	...	2	159.5
Totals	475	99	...	376	19,969.5

Wheat

A total of 862 acres was entered for certification, compared with 773 acres entered the previous year. The acreage of wheat entered for certification has increased 33 per cent in the past two years.

During field inspection 62.5 acres or 7 per cent were rejected because of disease and mixtures of other crops. Although the Pennoll variety has been relatively resistant to loose smut, this year it showed signs of being susceptible to certain strains of the disease. Most fields contained two or three hundred smut heads per acre. Two fields which were rejected contained over 500 heads per acre. This was the first year that the Dual variety was certified in New Jersey.

The hot water treatment of all the wheat varieties was effective in reducing the amount of loose smut infection within the tolerance permissible for certification. The New Jersey Crop Improvement Association made arrangements to have hot water treatment done by the Pennsylvania Foundation Seed Stock Cooperative.

Prolonged rainy weather during the harvest period caused deterioration of wheat quality. All wheat harvested after July 16 was rejected from certification. These rejections totaled 290.5 acres or 33 per cent. The total acreage rejected in both field and bin inspection was 353 acres or 40 per cent. This represents the highest loss, due to rejections, in recent years.

Unseasonably warm weather during September caused a build-up of storage insects which decreased the germination of some lots by 5 per cent. In lots where control measures were practiced, little or no insect damage was noted. More serious than the loss of germination by insect infestation was the resulting poor appearance of the high quality seed.

Seed treatment was monitored with the help of the Division laboratory. Some samples were found to be improperly treated. There is evidence that the dust type treaters are not capable of applying chemicals uniformly.

Approximately 32 bushels of clean seed were sealed for each acre passing certification.

The following is a summary of the 1959 certified wheat program :

Variety	Acres Entered	Acres Rejected		Acres Passed	Bushels Sealed
		Field	Bin		
Pennoll					
Registered	5	...	...	5	243
Certified	758	62.5	271.5	424	13,078
Carry-over	...	...	...	...	322.5
Seneca					
Registered	9	...	...	9	210
Certified	71	...	9	62	2,085
Dual					
Registered	10	...	10	...	...
Certified	9	...	...	9	370.5
Totals	862	62.5	290.5	509	16,309

Oats

The winter oat crop in New Jersey was almost a complete failure due to the early freeze in the fall of 1958 and the lack of a snow cover. Encouraging for this crop is the development of a new variety called Norline, which was released jointly by the New Jersey Agricultural Experiment Station and Purdue University. This variety survived the winter in locations where LeConte oats were killed. The winter oat program will be rebuilt around this new variety.

The following is a summary of the winter oat program:

Variety	Acres Entered	Acres Rejected	Acres Passed	Bushels Sealed
LeConte	1	1	...	...
Dubois	4	4	...	...
Norline	8	...	8	257
Totals	13	5	8	257

All the Norline oats were processed and sealed as registered seed. One hundred bushels were returned to Purdue University and the remainder was planted for certification in New Jersey.

Field Corn

A total of 437 acres was entered for certification, an increase of 124 acres or 40 per cent over the previous year. This increase resulted from the high demand for New Jersey hybrids. Two new varieties which had

been produced under experimental numbers were named as New Jersey No. 11 and New Jersey No. 12. During the harvest seasons these varieties were examined carefully by the Varietal Release Committee and it was determined that New Jersey No. 12 was not sufficiently superior to the existing hybrids to warrant further production. Thus, New Jersey No. 12 has been eliminated from the recommended list of New Jersey hybrid corns. During field inspection it was necessary to reject 18 acres for improper detasseling. An inadequate amount of Connecticut No. 554 was available to New Jersey farmers.

The following is a summary of the 1959 field corn program by acreage:

Hybrid	Acres Entered	Acres Rejected	Acres Passed
New Jersey No. 8	117	...	117
New Jersey No. 9	283	...	283
New Jersey No. 10	15	...	15
New Jersey No. 11	6	6	...
New Jersey No. 12	7	7	...
Connecticut No. 554	9	5	4
Totals	437	18	419

Weather conditions during the growing and harvest season appeared to be ideal. However, a high incidence of stalk rot disease, *Gibberella zeae*, caused the seed ears to mature rapidly, resulting in small and light weight kernels. These small kernels were removed during the processing which increased waste and decreased the percentage of quality seed.

Several lots of seed were harvested with moisture content readings of 16 per cent. This resulted in an abnormally high amount of shelling and loss of yields. Ideally, the seed growers should harvest the corn crop early, when the moisture content is near 25 per cent.

A total of 13,109 bushels of flats was sealed, producing an average of 31.3 bushels of flats per acre, which is considerably lower than the 41 bushel average of the previous year.

The following is a summary of the field corn seed certified in 1959.

Hybrid	New Crop		Carry-over		Bushels Sealed
	Flats	Rounds	Flats	Rounds	
New Jersey No. 8	4,318	150	1,073	15	5,556
New Jersey No. 9	7,836	257	114	39	8,246
New Jersey No. 10	813	85	28	...	926
New Jersey No. 11	...	...	...	...	...
New Jersey No. 12	...	...	...	...	...
Connecticut No. 554	142	3	48	...	193
Totals	13,109	495	1,263	54	14,921

A major problem in the hybrid seed corn program is the prevention of overproduction with expensive large carry-over, or underproduction with the resulting loss of markets. A method of solving this problem was ad-

vanced and attempted this year. As in the past, the number of bushels needed for the following year's sale is determined, and the number of acres to produce this quantity of seed is contracted. This acreage is determined by using the average yields of the different hybrids over the past years of production. Of course, weather conditions during the growing season can cause wide variations in yield. In order to minimize these variations a system of "buffer acreage" has been instituted, which provides extra acres, if needed for seed production. At detasseling time the sales of previous years are analyzed and the anticipated yield of the crop under production is determined. If weather conditions have been unfavorable and increased sales are anticipated, this buffer acreage is detasseled and used as seed; however, if it appears that there will be an adequate supply of seed, this acreage is not detasseled and it is used for common field corn. The small added expense in producing this buffer acreage is borne by the New Jersey Crop Improvement Association.

Research has been conducted to determine how long seed can be used without affecting the quality of the resulting crop. After careful consideration, it has been decided to continue the present policy of only certifying seed for two years. Three year or older seed having good appearance and germination does produce weak plants with lower yields.

Again this year, New Jersey hybrids proved to be superior in the variety trials conducted throughout the State. They also performed well in trials conducted in the States of West Virginia, Maryland and Delaware.

Sweet Corn

The sweet corn seed production program for 1959 was reviewed by the Foundation Seed Committee and the following acreage was approved for production:

New Jersey No. 106	—13 acres
New Jersey No. 109	—45 acres
New Jersey No. 109-A	— 1 acre
New Jersey No. 111	— 2 acres
Inbred No. I-5125	— 2 acres
	—
Totals	63 acres

This acreage represented an increase of 28 acres and is the largest sweet corn acreage ever to be entered under a certification program. All but 19 acres were planted in areas where irrigation was available. The growing season developed very satisfactorily and seed fields were not in need of water at any period during their growth. Insect damage was held at a minimum by properly applying the recommended insecticides. Bird damage was controlled by patrolling and noise makers.

During field inspection of commercial plantings of New Jersey certified hybrids, a method was developed to distinguish inbreds in New Jersey Nos. 101, 109, 114 and 111. Inbreds in these hybrids have pigment characteristics (xanthophyll) at the base of the leaves (light green to white), whereas the hybrid or properly made seed have red pigment. This fact enabled the inspectors to determine the degree of "selfing" by the time the plants were four to six inches high.

Detasseling was required to be completed by 9 a. m. in all seed fields, to lessen the opportunity to produce inbred seed. A small percentage of white tassels was observed in the pollinator of New Jersey No. 109 and every effort was made to rogue these plants from the field before pollen was shed. Detasseling was conducted most efficiently by the seed producers. Representative samples from each lot of seed were collected and sent to Florida to confirm the degree of proper detasseling. Only a fraction of 1 per cent of inbreds was noted in the seed production.

Very little difficulty was experienced in the harvesting, drying and shelling of the sweet corn seed. The following quantities of New Jersey certified seed were produced:

New Jersey No. 106	— 7,920 pounds
New Jersey No. 109	—18,790 pounds
New Jersey No. 109-A	— 275 pounds
New Jersey No. 111	— 200 pounds
New Jersey No. J-830	— 500 pounds
New Jersey No. I-5125	— 810 pounds
New Jersey No. J-216-A	— 150 pounds
New Jersey No. 212	— 30 pounds
New Jersey No. J-216	— 680 pounds
Totals	<u>29,355 pounds</u>

It was recognized by those working with the New Jersey sweet corn hybrids that more uniform maturation is needed. After several meetings with plant pathologists of the New Jersey Agricultural Experiment Station, an improved seed treatment process was suggested and placed in use. The new method of seed treatment employs both a dust and a chemical dip. Greenhouse tests proved conclusively that this treating method greatly improves the growing of the seed.

Many problems exist in the sweet corn seed program that only experience and research can overcome. To date the work is satisfactory and without doubt a greatly improved sweet corn product is being offered.

Soybeans

A total of 642.6 acres of soybeans was entered for certification, a decrease of 371.6 acres. This acreage reduction is the result of one grower reducing his planting from approximately 500 to 100 acres.

The Clark variety, a good yielding long season soybean, comprises 84 per cent of the total acreage. During field inspections it was revealed that the Clark variety had an unusually high percentage of genetic purity. This was accomplished by maintaining one foundation field as the source of seed for the certified fields. The field inspections were verified for varietal purity by the seed laboratory. The resulting seed was made available to all seed growers who had significant amounts of off-variety in their soybean crop.

Slight genetic changes have taken place through the years in the Hawkeye variety due to cross pollination and segregation. These changes are not detectable in the field by ordinary inspection procedures. However, the seed analyst can distinguish the difference by seed examination. Since these changes have become more prevalent, greater emphasis must be placed on purification and selection of foundation seed.

The growing season for soybeans was excellent with ample rainfall causing an abundance of vine growth. These conditions were also favorable for disease and one 30-acre field had to be rejected for stem canker, *Dia-phorthe phaseolorum*.

The harvesting of the soybean crop was completed amid ideal combining conditions. However, during bin inspection it was apparent that considerable mechanical damage had been done to the seed, resulting in cracked seed coats and excessive "splits."

Germination tests indicated that much of the seed was of poor quality and would not meet the minimum requirement for certification. Some authorities believe that alternating wet and dry weather after the soybeans have matured causes unusual pressure upon the seed coat. This pressure causes dead lesions to appear, affording an entrance for disease organisms.

Of the 642 acres entered for certification, a total of 520.6 acres, or 80 per cent, was rejected. This resulted in a very short supply of New Jersey soybean seed. However, the name "certified" has come to mean quality to New Jersey farmers and a lowering of the standards would dispel this confidence.

The following is a summary of the certified soybean program:

Variety	Acres Entered	Acres Rejected		Acres Passed	Bushels Sealed
		Field	Bin		
Clark					
Registered	1	..	..	1	43
Certified	542.6	13.6	409	120	4,243.5
Hawkeye					
Registered	1	..	..	1	43.5
Certified	84	30	54	..	..
Lincoln	14	..	14	..	..
Totals	642.6	43.6	477	122	4,330

Summary

The total bushels of certified grain seed sealed was reduced by approximately 10,000 bushels in 1959, mainly because of the failure of the soybean crop and excessive winter killing of oats and barley.

A summary of the certified seed grain sealing from 1955 to 1959 follows:

Year	Total Sealed (bushels)	Corn (bushels)	Oats (bushels)	Wheat (bushels)	Barley (bushels)	Soybeans (bushels)	Sweet Corn (bushels)
1959	56,373	14,921	257	16,309	19,969	4,330	587
1958	66,251	14,654	1,275	16,583	22,659	10,854	226
1957	67,518	15,005	2,568	16,803	23,171	9,421	550
1956	84,281	28,972	3,456	14,356	19,478	18,019	...
1955	56,955	8,309	5,289	17,324	22,033	4,000	...

SEED POTATO CERTIFICATION

The acreage entered for seed potato certification was about the same as for the previous four years. There was little change in the number of growers or in the number of varieties produced. Favorable weather produced an excellent stand and very good yields. No rejections were necessary during the first inspection, although a number of defects were noted and correction had to be made before the second field inspection.

During the late period of plant growth, aphids built up to an uncontrollable point in most fields. The old control measures proved unsuccessful in killing the aphid population. Some new insecticides were employed and these proved satisfactory. However, in a number of fields the aphids were responsible for transmitting virus diseases. Testing in Florida was necessary to determine the amount of disease. Samples thus tested confirmed a high rate of virus disease, causing most of the fields to be rejected from certification. The benefits of the winter virus test were well demonstrated this year.

No late blight developed in the seed fields and the harvest was completed under ideally dry conditions. Seed went into storage dry with very little dirt.

The acceptance of New Jersey certified potato seed is good over the entire State. The problem of sufficient financial returns per acre for seed and the lack of storage throughout the winter months restrict greater seed production.

PRODUCTION OF CERTIFIED WHITE POTATO SEED IN NEW JERSEY

Variety	1959		1958	
	Passed	Production (bushels)	Passed	Production (bushels)
Cobbler	...	...	2.50	300
Katahdin	13.50	2,835	37.50	5,062
Chippewa	19.50	4,290	31.50	4,095
Kennebec	...	...	3.50	455
Jersey Red Skin	...	...	5.00	575
Totals	33.00	7,125	80.00	10,487

INSPECTION AND CERTIFICATION WORK OF NEW JERSEY
LATE CROP WHITE POTATO SEED IN 1959

Seed Source	100-lb. Bags	Per Cent
Maine	1,095	80
New Jersey	270	20
Totals	1,365	100

TOMATO SEED CERTIFICATION

A total of 1,737 acres met the requirements for certification, 46 acres more than the previous year. The seed acreage was composed of eight varieties. This was the first year since 1940 that the Rutgers variety did not lead all other varieties in acreage certified. The Rutgers variety dropped from 659 acres in 1958 to 318 acres in 1959. The varieties certified in New Jersey closely parallel the varieties that are in demand by the local tomato processing plants. The demand for Rutgers seed on a national level remains strong. All New Jersey seedsmen were sold out of Rutgers seed very early in the season.

A total of 213 fields, averaging eight acres per field, met the certification requirements for 1959. Seed saved from this acreage amounted to 41,537 pounds. This is a decrease of 18,062 pounds of seed from the 1958 crop.

All New Jersey certified seed was laboratory tested for adequate seed treatment. Three lots were treated in such a manner that retreatment was required.

TOMATO SEED CERTIFICATION FOR 1959

ACREAGE CERTIFIED

Seedsman	Rutgers	Queens	No. 135	No. 146	Improved Garden State	Mar- globe	Home- stead	Valiant	Total
Campbell Soup Company	...	...	338	387	120	...	...	...	845
Ritter Seed Company	148	...	81	102	...	...	...	...	331
Francis C. Stokes Company	55	...	86	97	...	...	57	43	338
Swedesboro Seed Company	115	13	...	32	...	48	15	...	223
Totals	318	13	505	618	120	48	72	43	1,737

TOMATO SEED CERTIFICATION FOR 1959

POUNDS OF SEED CERTIFIED

Seedsman	Rutgers	Queens	No. 135	No. 146	Improved Garden State	Mar- globe	Home- stead	Valiant	Total
Campbell Soup Company	...	...	5,505	5,385	2,250	...	...	...	13,140
Ritter Seed Company	4,600	...	2,562	2,240	...	...	...	...	9,402
Francis C. Stokes Company	1,325	...	2,550	3,500	...	...	2,560	1,125	11,060
Swedesboro Seed Company	3,130	750	...	2,270	...	1,550	235	...	7,935
Totals	9,055	750	10,617	13,395	2,250	1,550	2,795	1,125	41,537

POUNDS OF NEW JERSEY CERTIFIED TOMATO SEED VALIDATED
FOR EXPORT SHIPMENT

July 1, 1959-June 30, 1960

	Ceylon	Union of South Africa	Mauritius	Southern Rhodesia	Mexico	Chile	Venezuela	Netherland Guiana	Italy	For Export Texas	Total
1959											
July	102	25	...	...	...	...	...	...	...	...	127
August	...	5	...	...	36	1	...	...	...	...	42
September	...	...	...	20	100	...	...	...	...	...	120
November	...	...	1	...	...	...	24	...	...	25	50
December	...	400	...	...	...	...	...	...	200	...	600
1960											
January	96	...	...	...	...	...	...	...	...	127	223
February	...	...	...	...	...	...	...	4	...	...	4
March	...	...	...	...	...	...	...	...	...	25	25
Totals	198	430	1	20	136	1	24	4	200	177	1,191

POUNDS OF NEW JERSEY VEGETABLE SEED EXPORTED FOR WHICH
PHYTOSANITARY CERTIFICATES WERE ISSUED

	Italy	England	Mauritius	Mexico	Colombia	Haiti	Total
1959							
October	...	...	...	14	...	...	14
November	400	...	...	15	...	2	417
December	280.50	...	...	...	...	...	280.50
1960							
February	150	.75	...	...	...	...	150.75
March	...	...	...	...	20	...	20
April	...	...	...	1.50	...	...	1.50
May	...	...	2	...	...	...	2
Totals	830.50	.75	2	30.50	20	2	885.75

LABORATORY ACTIVITIES

SAWFLIES IN NATIVE PINE AND THEIR BIOLOGICAL CONTROL

The recent outbreak of the sawfly *Neodiprion pratti paradoxicus* in New Jersey's native pine area has been reported in the past three annual reports of the Department.

The accompanying map shows the present known infested area in the State, unchanged since 1959, and covering approximately 2,340 square miles. It also shows the pattern of distribution of the cocoon parasite, *Dahlbominus fuscipennis*, for the calendar years 1957, 1958 and 1959. These laboratory rearings and field distributions now number 1,863,000 parasites. A total of 256,000 *Dahlbominus* was reared during the current year, the field releases being made in September, 1959.

The population density of *Neodiprion pratti paradoxicus* has been steadily declining for the past several years. By June, 1960, damage over most of the area would not be apparent to the casual observer. A complex of insect parasites has been responsible for this control. Most important of these parasites is probably the dipterous insect, *Villa sinuosa* (formerly named *Anthrax sinuosa*). Second most important is probably the hymenopteran, *Exenterus canadensis*. Also, *Aptesis basizonius* and *Mastrus argeae*, both cocoon parasites of *N. pratti paradoxicus*, have been increasing in numbers and are now common over the entire area. The parasite *Dahlbominus* is now also common and can be recovered from almost any point in the area. The biology of these parasites was presented in the 43rd annual report of this Department.

The preceding annual report mentions an unidentified sawfly of the genus *Neodiprion*, first discovered in the Folsom area. This has been identified as *Neodiprion pini-rigidæ* (Nort.). This species feeds primarily on pitch pine, and by August, 1959, had been found in an area covering 963 square miles. This seems to be a species of extremely destructive habits. Because of differences in life cycle, it is largely escaping parasitism by some of the species so successful and well established on *Neodiprion pratti paradoxicus*. The known limits of infestation by *N. pini-rigidæ* as determined in August, 1959, and June, 1960, are shown on the accompanying outline map of the State. It is seen that a spread has occurred and that the insect was far more conspicuous in June, 1960, than previously.

Extreme damage by *N. pini-rigidæ* has been noted along route U. S. 322 from Penny Pot to just south of Williamstown; in the vicinity of Bamber Lakes; and along the Garden State Parkway near the Pomona exchange. Seven study plots, with marked trees, have been established in these areas to determine the ultimate fate of trees having known histories of severe and repeated sawfly defoliation. Previous experience indicates

that sawflies alone may severely restrict the growth of pitch pine but will not kill the trees. However, the weakened trees are subject to attack by bark beetles and other invaders which are capable of killing the already weakened trees. There is good evidence that this process is now occurring in the South Jersey pine area.

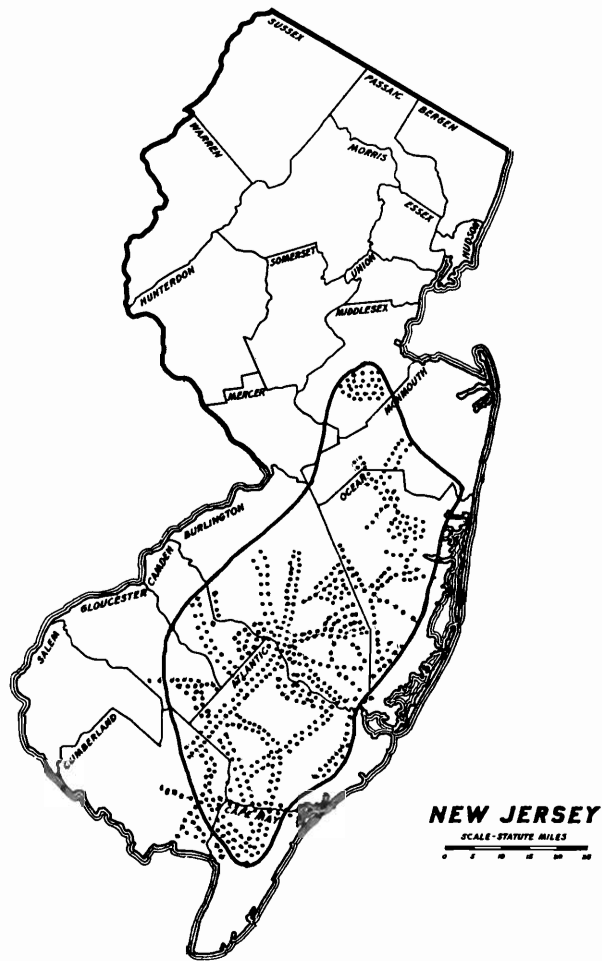
In the same general area of attack by *N. pini-rigidae*, another sawfly, known as the red-headed sawfly, *Neodiprion lecontei*, is rapidly increasing in numbers. This sawfly also has two generations per year in New Jersey. It is primarily a pest of younger, or reproductive, stands of the several species of pines it attacks.

In June, 1960, one of the webbing sawflies, *Acantholyda* sp., was also noted in scattered areas feeding on pitch pine.

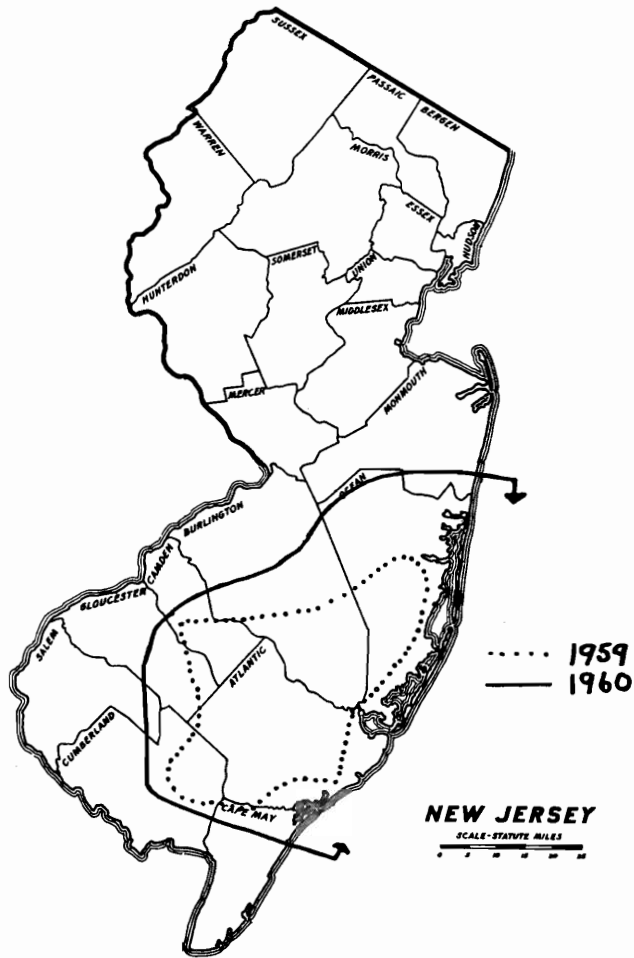
Outbreaks of these and other sawflies on an unprecedented scale are now occurring from Maine to Florida and around the Gulf Coast to Texas. The seriousness of the situation has been confirmed by Dr. Ray Brown of the United States Forest Service, who visited our laboratory in August. Since biological control methods are the only ones practicable for the solution of this problem in New Jersey, every effort is being concentrated along these lines.

Field and laboratory trials of the bacterial disease of insects, *Bacillus thuringiensis*, demonstrated that this organism at a concentration of four pounds of spore dust per 100 gallons of water will kill the smaller instars of *N. pini-rigidae* in less than 18 hours. Each gram of the commercial preparation used contained 70 billion spores. Lesser dosages gave erratic results, and an epizootic could not be started by any of our efforts. Further work along this line was abandoned because the results did not appear promising under forest conditions.

Attempts were also made to transfer the polyhedral virus disease of *N. pratti pratti* (inoculum obtained from the Beltsville Laboratory of the United States Department of Agriculture) to the larvae of *N. pini-rigidae*. Similar trials were made using the polyhedral virus of *N. sertifer*. These attempts were failures, demonstrating only the extreme specificity exhibited by this group of insect diseases.



Distribution of a pine sawfly, *Neodiprion pratti paradoxicus*, in 1960, and cumulative pattern of introduced parasites for years of 1957, 1958 and 1959.



Known distribution of the pitch pine sawfly, *Neodiprion pini-rigidae*, for the years 1959 and 1960.

BIOLOGICAL CONTROL OF THE EUROPEAN PINE SAWFLY

For many years attempts have been made to bring the perennial outbreaks of the European pine sawfly, *Neodiprion sertifer* (Geoff.), a pest of red and Scotch pine in particular, under control. A number of parasitic species of insects have been reared and released in the State during these attempts. In the spring of 1960 these efforts appeared for the first time to be bearing fruit. The population of the pest was showing a precipitous decline over the entire infested area. Biological control is a complex problem, dependent upon many factors. So far as we can ascertain, a slow but constant change in the character of the forest duff layer has been occurring, which has allowed the parasites more ready access to their hidden prey, the sawfly cocoons.

In addition, a most promising development is occurring in the use of a polyhedral virus disease specific for this sawfly. In May, 1960, two areas, each of about 10 acres of red pines heavily infested by this sawfly, were airplane-sprayed with a water suspension of this virus material. An epizootic occurred in both areas, decimating the pest population. There is no upset in the so-called "balance of nature" by the use of this agent. It does not cause any disease in any other known organism except a very closely related sawfly which is also a pest insect. Enough virus material has been obtained and is now in storage in the laboratory to spray the entire red and Scotch pine acreage within the State.

One area, experimentally sprayed with this virus in 1952, has been closely observed for the past three years. Apparently the disease has kept the sawflies under control in the intervening years since the pines do not show any evidence of severe past defoliation, and growth has been excellent. It appeared that a damaging sawfly population would occur in this plantation in the spring of 1960. The disease appeared spontaneously and practically wiped out an incipient outbreak of the sawfly, *Neodiprion sertifer*. This type of work will be expedited at every opportunity, as funds are available. The Department of Conservation and Economic Development has been kept informed of this work, is vitally interested, and every indication points to an accelerated program under the joint support of both Departments.

SURVEY OF NURSERIES FOR PLANT PARASITIC NEMATODES

The survey of nurseries for plant parasitic nematodes undertaken in 1958 had largely ignored the cyst and root-knot nematodes, because the methods used in detecting these various types of plant parasites are not mutually compatible. During the past year, more attention has been given to the detection of the cyst nematodes, *Heterodera* spp., and the root-knot nematodes, *Meloidogyne* sp. In examining numerous samples for cyst nema-

todes, only *Heterodera weissii* (the smartweed cyst nematode), and *Heterodera trifolii* (the clover cyst nematode) were encountered, with the former being the more common. These forms are parasites on the indicated common name hosts, and not on the nursery plants themselves. They may, therefore, be ignored.

Combining all past information on root-knot nematodes in New Jersey grown nursery plants, a list of the most likely host plants was compiled and made available to the nurserymen of the State. Plants most likely to harbor root-knot nematodes are abelia, barberry, clematis, deutzia, dogwood, forsythia, honeysuckle, kolkwitzia, mockorange, peony, privet, rose, snowberry, viburnum and weigela. The incidence of root-knot in these 15 kinds of plants is much higher than the 5 per cent found when making a general sampling of all kinds of nursery stock. Where nurserymen are having difficulty with regulatory officials in other states because of root-knot infestations on shipped plants, they would do well to pay especial attention to the condition of the roots of the above-mentioned plants.

STRAWBERRY PLANT EXAMINATIONS FOR NEMATODES

The main purpose of this work was to determine the proper timing for the application of nematicides in the control of root-knot on strawberries being grown under the virus-free propagating program. Presently available nematicides are all fumigants, quickly lost from the soil, and it is imperative that they be applied at just the time the migrant root-knot invasive stage larvae are most numerous in the soil. A calendar specified date is not adequate for such critical requirements.

CERTIFIED SEED EXAMINATIONS

A total of 117 lots of seed was submitted for examination to assure that an approved disinfectant had been used to prevent the dissemination of seed-borne diseases of plants. Lots found inadequately treated required retreatment as a condition for eligibility under the certified seed program.

A serious misconception on the part of seedsmen in the application of the bichloride of mercury treatment to pepper seed was uncovered. Improper use of this treatment seemed general among the larger commercial seedsmen. This condition has now been rectified.

BEE DISEASE EXAMINATIONS

All bee disease material that could not be readily classified in the field by the regular inspectors was submitted for laboratory diagnosis. In addition, material sent in by individual beekeepers was examined. A total of 45 such microscopical examinations was made during the current fiscal year. Results of these examinations were transmitted to the supervisor of bee culture for appropriate action.

Report of the Division of Information

FRED W. JACKSON, *Director*

Two new units have been added to the Division of Information during the past fiscal year. The New Jersey Apple Industry Council was formed in late June, 1959, and its staff, like those of the Department's other three promotional councils, was assigned to this Division. The other new unit is the staff of the State Soil Conservation Committee, which was transferred to the Department of Agriculture in June, 1959.

In addition, the Division of Information includes the Rural Advisory Council and State personnel of the New Jersey Crop Reporting Service, as well as the general information and public relations staff.

INFORMATION ACTIVITIES

The primary function of the Division of Information is to keep the residents of the State, particularly the farmers, fully and promptly informed about the activities and services of the Department of Agriculture. Regular news services are maintained for press and radio, many special articles and services are provided for newspapers, trade papers and farm magazines, and photographs and mats related to Department work or to farming in New Jersey are supplied to the press. The Information section is also responsible for editing and processing all Department publications.

NEWS SERVICES

Press releases are mailed at least once each week to a list of about 300. About 175 of these are daily and weekly newspapers and radio stations in New Jersey, New York City and Philadelphia. Much of the balance of the list is composed of farm magazines, special commodity publications, and trade journals. The 17 newsmen at the State House, representing the major wire services, as well as State and metropolitan dailies, are serviced several times each week by messenger.

During 1959-60, a total of 316 releases, covering Department activities or general news of New Jersey agriculture, was distributed. This amounts to an average of six a week. The releases were widely and regularly used in news columns and radio broadcasts.

In conjunction with the regular news service, approximately 1,000 photographs or mats were issued. Division personnel supervised the taking of

pictures at numerous agricultural meetings and were responsible for their distribution. In addition, many requests for photographs for special purposes were filled.

Numerous requests from editors of farm and general publications seeking articles, and information on the Department or the State's agricultural industry, were serviced.

In cooperation with the Agricultural Communications Office of the New Jersey College of Agriculture, taped radio programs were produced on a regularly scheduled basis. Thirty-eight five-minute programs were produced during the year and were sent to 11 key radio stations in New Jersey.

In addition, 36 three-minute programs and six one-minute "spots" went to 18 stations which reach a wide New Jersey audience.

Four 15-minute television programs on New Jersey agriculture were provided for the Governor's weekly television report. Various members of the staff participated in these telecasts.

FARMERS WEEK

Advance, current and follow-up publicity for the more than 40 agricultural groups meeting during the annual New Jersey Farmers Week is a service of the Division of Information. In addition, the Division has much of the responsibility for program planning and arrangements for the week.

A total of 71 press releases was issued in connection with the 1960 Farmers Week and Farm Show. In addition to these general mailings, special articles were prepared for magazines and for the publications of various groups interested in individual meetings. Especial acknowledgment should be made of the generous cooperation of *Business Farming* which devoted much space in its January issue to advance publicity.

In addition to a daily five-minute radio tape of Farmers Week "Hilites," recordings were made of the principal speakers of the various meetings during Farmers Week. Those were kept on file and used in producing subsequent radio programs.

PUBLICATIONS

The Division edits and handles the processing details for all printed Department reports, circulars and other publications.

It prepares six issues of *Farm Service News* each year. This four-page illustrated publication, devoted to news of the Department, and articles of current interest on New Jersey agriculture, is mailed to approximately 18,000 farm and rural readers in New Jersey.

The following circulars and reports were edited and published during 1959-60:

- Circular 409—New Jersey Agricultural Statistics, 1957-1958
- Circular 410—New Jersey Apple and Peach Tree Surveys
- Circular 411—Nematodes and the Nursery Industry in New Jersey
- Circular 412—New Jersey Meat Chicken Survey
- Circular 413—1959-60 List of Licensed Agricultural Dealers: Milk Dealers, Produce Dealers, Egg and Live Poultry Dealers, Cattle Dealers, Disposal Plant Operators
- Circular 414—New Jersey Flower and Plant Production
- Circular 415—New Jersey Nursery Production
- Circular 416—New Jersey Agricultural Statistics, 1958-59
- Report —Forty-fourth Annual Report of the New Jersey Department of Agriculture—July 1, 1958-June 30, 1959

Publications prepared in connection with the 1960 Farmers Week and Farm Show were as follows:

- 1960 Farmers Week Program
- Homemakers' Program—1960 Farmers Week
- Highlights of Your Convention
- Citations for Distinguished Service to New Jersey Agriculture, 1960
- Premium lists for six commodity shows: hay, honey, seed and grain, apple, sweet potato, egg

PROMOTIONAL ACTIVITIES

New Jersey's programs of farm products promotion and market expansion originated in all instances with the several commodity groups which sought State government assistance in such self-help activities. The farmers asked for the programs, and prevailed upon the State Legislature and Governor to enact enabling legislation providing for mandatory financial support. The legislation was assigned for administration to the State Department of Agriculture.

Four commodity Councils conducted sales promotion programs during fiscal year 1959-60, functioning as official agencies within the Department. These, in the order of their creation, are the Poultry Products Promotion Council, the White Potato Industry Council, the Asparagus Industry Council, and the Apple Industry Council.

Administration of the State laws includes both the collection of the tax revenues and the expenditure of all such funds under strict fiscal control. The same fiscal control policies and procedures govern the payment of all promotional and market expansion program activities as govern other State expenditures.

The Department also cooperated with other commodity groups which conducted promotional programs financed by voluntarily subscribed funds.

In some instances the Department gave technical assistance; in others, space was provided at expositions and fairs; and help was given in developing exhibits and displays promoting specific products. On a dollar-matching basis, small grants from funds provided by the State Promotion Section, New Jersey Department of Conservation and Economic Development, were allotted for product promotion literature and to pay for advertising space and time. The purpose of these grants was to encourage the development of comprehensive programs by each commodity or marketing group participating.

An important aid in the overall program was the grant of funds by the Agricultural Marketing Service of the United States Department of Agriculture for market expansion activities through which the regular marketing services and the new promotional services are being supplemented by services to encourage quality improvement, and by product merchandising services.

The Federal grant was greatly overmatched by the State. Several regular Department staff members, both in marketing work and information service, have been working on market expansion and promotion programs as part of their duties, and that part of their time so devoted is charged as a "matching fund" offset. Plans are to employ additional manpower from the Federal side of the ledger and to broaden the market expansion type of service so that any commodity group which wants to develop a program may benefit under this plan.

The various commodity promotional groups put forth joint efforts in which regular staff members, official Councils' employees, and "matching fund" workers cooperated. Examples of interrelated activities included promotional exhibits, attended by a quarter of a million; two television programs, whose principal participants were the Governor and Secretary of Agriculture, in which all New Jersey farm products were covered; promotion of nutritional information; and the development with State funds of the "Farmobile," a traveling showcase of New Jersey agriculture.

Many other examples of one promotional group helping another may be cited. An egg poster included potato salad in its illustration. A potato recipe leaflet featured asparagus and eggs as companion foods. Asparagus recipes helped to promote egg sauces. A potato merchandising worker developed lists of key buyers of produce for use of the apple and asparagus projects.

Many minds are brought to bear upon the problems of expanding the markets for the products promoted by the four official Councils. Industry representatives give direction to the activities of the working staffs, and judge the quality and effectiveness of advertising copy, media, methods and all elements of each program.

The active participation of many persons on the New Jersey Department of Agriculture regular staff has been an important factor in developing the new lines of work. Although the regular marketing services and the new market expansion services are administratively separated, their interdependence has resulted in close teamwork.

All programs involving expenditures of State appropriated funds and use of official agency manpower were submitted through the Secretary of Agriculture to the State Board of Agriculture for authorization. Plans of work were developed in consultation with the producers' organizations, official agencies, and special committees.

POULTRY PRODUCTS PROMOTION

Completing its third year of performance, the Poultry Products Promotion Council achieved definite advancement in pursuit of its objectives, despite continual adverse economic conditions in the poultry industry. Its staff remained unchanged, consisting of the executive director, his assistant, one fieldman and one clerical worker paid from Council funds. Three fieldmen and one clerical worker paid from the Federal grant for market expansion services were assigned principally to the poultry products project.

The Council retained its advertising agency, with State Board approval, for professional services. During fiscal 1959-1960, expenditures for advertising and promotion amounted to \$125,114.52. Of this total, \$55,455.68 was spent for newspaper space, \$19,534.14 for radio time and \$36,079.51 for television time. An additional \$8,241.43 was expended for point-of-purchase material.

Recognizing New Jersey's relationship and responsibility to the national poultry industry, contributions from Council funds were made to the Poultry and Egg National Board, the National Turkey Federation, and to Douglass College which is conducting an egg-freezing research project.

The field representatives continued to visit farms where the needs of technical advice and assistance were indicated. Egg quality improvement at the farm level was the purpose of services rendered during 1,148 farm visits.

Merchandising efforts were intensified. One fieldman worked full time on merchandising and sales promotion.

Expansion of retail outlets for New Jersey eggs, identified by the State Seal of Quality, was encouraged by 1,399 calls on retailers. Lending advertising support in the areas of distribution, the Council added 10 newspapers covering the Westchester County (N. Y.) and Long Island areas to its regular schedule. State seal eggs were introduced in the Levittown (Pa.) area, and sales expansion in the general Philadelphia market is anticipated.

Cooperating with Jersey Egg and Poultry Producers, Inc., the Council sold approximately 250 metal frames for permanent truckside poster display to egg and feed distributors. The Council furnished 24 by 56-inch color posters, featuring the sales message: "Buy New Jersey fresh eggs with the State Seal of Quality." Posters will be replaced four times a year.

The Council's promotional policy shifted slightly in the direction of stimulating the consumer at the point-of-purchase. More than 12,000 full-color posters, calling attention to New Jersey fresh eggs, were distributed to chain and independent retail outlets with cooperation of the licensed distributors of State Seal of Quality eggs, the Council's field staff and store management.

In addition, 10,000 pieces of display material—window streamers, hanging cards, decals, back-bar strips and shelf-talkers—were distributed.

Additional volume of identified New Jersey fresh eggs reached consumers through dairy home delivery routes. To assist in this effort, more than 200,000 milk bottle hangers were allocated to cooperating dairy companies. The 60 companies handling State seal eggs on their routes represent an increase of about 100 per cent from the preceding year.

Special promotional events included New Jersey Egg Month and the annual "EGGtober" campaign. The Council cooperated with a leading New Jersey department store in an egg-decorating contest at Easter time. The success of this event indicates a possible annual undertaking.

Organizations allied with the poultry industry are recognizing the value in promoting the end products, as well as their own. An outstanding example was a month-long promotion held during May. Advertising and publicity were geared to the theme "Maytime . . . anytime . . . enjoy the Golden Goodness of New Jersey fresh eggs." The New Jersey Department of Agriculture Farmobile was adapted to the egg theme for appearances in five major shopping centers. Fifteen service clubs invited Council representatives to their May meetings to describe the marketing program. The Rutgers film, "The Egg, a Prize Package," was shown at these meetings.

A new form of promotional effort, initiated toward the end of the year, employs a portable, insulated egg-merchandising unit, together with an egg-candling demonstration. Fieldmen conducted three such in-store promotions. Interest on the parts of both store owners and licensed distributors has been very encouraging.

Twenty-one turkey growers participated in the State Seal of Quality program. Their turkeys were identified with a parchment breast label incorporating the New Jersey Department of Agriculture seal and the Department of Health plant license number.

The high degree of cooperation among growers, staff veterinarians of the Division of Animal Industry, and Department of Health officials resulted in a sound turkey marketing program. Each State seal turkey was processed in a plant licensed for sanitation and inspected for wholesomeness. Newspaper and radio advertisements were prepared specifically for this promotion. Using the theme "Drive out to the farm for your oven-ready New Jersey turkey," advertisements were placed in nine dailies and six weeklies. These papers covered the growers' immediate marketing areas. Advertisements included names and locations of the participating farms. Spot announcement radio commercials invited listeners to write for a list of State seal turkey growers.

The State's specialized poultry meat growers faced difficult marketing problems. Late in 1959 the Federal Food and Drug Administration requested the manufacturers of diethylstilbestrol for use in poultry to suspend sale of the product, and requested the producers of treated birds to discontinue sales to consumers. Plans that had been underway to establish a central sales agency for State seal poultry, including the development and approval of marketing agreements, were temporarily disrupted.

In its efforts to keep all segments of the industry abreast of its activities, the Council prepared and issued seven interim progress reports entitled "Promotion Matters." Approximately 2,000 persons receive these reports.

WHITE POTATO PROMOTION

Marketing service workers, the inspection service and promotional workers have cooperated in the development of the program of the White Potato Industry Council. A share of the time of one field representative, supported by Federal-State matching funds, was devoted to producer education and to merchandising white potatoes to food distributors. This Council had no administrative employees. An advertising agency was retained under contract. The advertising and administrative expenditures totaled \$8,500.

Original plans were to promote State Seal of Quality potatoes in paper bags in 10-pound and 50-pound sizes. Conferences with buyers for chain stores confirmed that they would favor potatoes packed to official specifications.

A market expansion project merchandising agent called on potato buyers of chains and independent stores to acquaint them with the program. The merchandising kit included proofs of the proposed newspaper advertising and samples of the point-of-sale posters.

Potato growers' attitudes toward the comprehensive program of quality control plus promotion were mixed. The Council, therefore, set up an

alternative plan under which "New Jersey potatoes" would be advertised separately from "State seal" potatoes. The Department recommended advertising only the inspected product, of which 100,000 ten-pound bags were marketed late in the season. In the middle of harvest, the Council decided to cancel all uncompleted advertising schedules, and to hold the unexpended balance of approximately \$10,000 of its 1959 funds in reserve for 1960.

Research to determine the potential role of potatoes in modern "slimming diets" was undertaken at Douglass College with grants of money from 11 sponsors, including the New Jersey White Potato Council. Twelve overweight female college students taking part in carefully supervised nutrition tests lost an average of more than 11 pounds each on an adequate calorie diet containing one-half pound of white potatoes daily for eight weeks. Dissemination of this information is expected to improve the status with consumers of the white potato which has been popularly incriminated in obesity.

Small grants of Council funds were made to aid the work of the National Potato Council, and to support the potato variety testing project at the Agricultural Experiment Station.

ASPARAGUS PROMOTION

The Asparagus Industry Council promotes asparagus on a year-round basis, using proportionate amounts of tax money (according to source of contributions) to move fresh asparagus in season, and processed products the rest of the year.

Advertising is kept to a minimum, the emphasis falling upon magazine and newspaper publicity and merchandising at the retail level.

During the past fiscal year it is estimated that 82,500,000 readers were exposed to the Council's newspaper publicity; 24,000,000 to magazine publicity; 16,000,000 viewers saw and heard the Council's television commercials; 22,500,000 shoppers saw point-of-purchase material; 250,000 families heard Council members on local radio stations; and 138,500 fair-goers saw the Council's exhibit.

The Council purchased television time on WRCA-TV, Channel 4, New York, and WRCV-TV, Channel 3, Philadelphia. In New York, 25 ten-second spot commercials per week were telecast over a two-week period. Spots consisted of a slide of "Gus" (a personified stalk of asparagus) with a printed sales message while the announcer urged viewers to serve New Jersey asparagus. In Philadelphia, 30 ten-second spot commercials per week ran for two weeks. These commercials reached 16,000,000 people each week at an average cost of 25 cents per thousand viewers.

Asparagus was featured twice on the "Hi-Mom Show", in New York, plus an interview with a farmer's wife on asparagus, and announcements on a Broadway spectacular sign. Philadelphia and Baltimore television stations also featured asparagus six times on cooking shows.

A total of 214,000 window banners, produce cards, shelf-talkers and tear-off recipe cards promoting New Jersey fresh asparagus were placed in retail food stores during the fresh market season. Seven thousand menu tip-on sheets and table tents were distributed for use in restaurants.

An attractive recipe folder designed to interest food editors, home economists and others able to influence consumer buying habits was prepared by the Extension Service of Rutgers University at the request of the Council. The folder promoted the use of fresh asparagus in salads and similar warm-weather dishes. Fifteen thousand copies were printed, half of which were distributed by the Council during the fresh market season. Half were allocated to the Extension Service.

During the fresh market season, 720 bunches of New Jersey asparagus were delivered to food editors in the New York, Philadelphia, Baltimore and Washington areas. These personal contacts with editors of major newspapers and national magazines were also used to urge more frequent mention of asparagus in staff-developed photographs and recipes. Six hundred glass containers of asparagus were delivered during the processed season, prior to the holidays.

Contests to discover unusual asparagus recipes were held in conjunction with New Jersey county fairs. Modest prizes were awarded to first, second and third place winners, in each contest, plus 25 honorable mentions.

In addition to stimulating interest in the Council's program among local farmer's wives, the contests provided more than 100 interesting asparagus recipes, suitable for publication. These are being released to newspapers and magazines at periodic intervals.

The Council displayed representative samples of each New Jersey processor's pack during the New Jersey State Fair and New Jersey Farmers Week. Informative literature, including recipe booklets, was distributed. These shows also provided an opportunity to conduct a survey on consumer acceptance of cuts and tips packaged in a clear plastic bag, ready for the pot. The Council also exhibited at the Cumberland, Gloucester and Salem county fairs.

Each month the Council mailed a photograph of an attractive asparagus recipe to 105 metropolitan daily newspapers serving areas where New Jersey processors have established retail outlets. Approximately 20 per cent of these selected publications (average circulation 250,000) used the photo and recipe, giving Council-initiated photographic material a potential readership of 5,000,000 persons per month.

A separate mailing of "Prize Winning New Jersey Farm Kitchen Recipes" was issued every two weeks to the major newspapers mentioned above and also to a list of smaller (average 50,000 circulation) dailies and weeklies, and 28 television cooking shows. Acceptance was approximately 30 per cent bringing the readership to a potential 35,000,000 per month.

A second recipe booklet, featuring processed asparagus for cold-weather dishes was prepared by the Council to promote the versatility of asparagus in soups, casseroles and as a main vegetable. Thirty-five thousand were printed and distributed.

Growers were kept informed of Council activities through a monthly bulletin, "Tips," which was mailed to their homes. These bulletins contained actual samples of point-of-sale pieces, recipe booklets, and similar Council-sponsored printed literature. Supplementary bulletins were also mailed whenever an important issue arose.

News stories on Council activities were also released, whenever warranted, to local and city newspapers, farm publications, radio and television farm programs.

The Council is sponsoring accelerated research in cooperation with the New Jersey Agricultural Experiment Station. A test plot was established in Florida using selected seed from promising European varieties. Hybrid and all-male plant research has been underway in Rutgers greenhouses and fields for more than a year. These seeds have provided crowns for planting in New Jersey.

Strains of the fungus *Fusarium oxysporum* *F. asparagi* from New Jersey, Illinois, Michigan and California were compared in greenhouse tests to determine whether symptoms are the same. Although there are great differences in the levels of pathogenicity among strains, root rot problems are practically the same in all asparagus producing areas. Thus, developments will benefit growers everywhere. Fourteen soil fungicides were tested for effectiveness, and several seem promising.

In the post-harvest quality research project, 21 chemicals, with and without a spreader-sticker, were evaluated for control of decay. Only one material, an experimental product, gave highly significant reduction in decay. However, no toxicological data are available on this material.

The effects of pre-cooking and refrigeration on the keeping qualities of bunched and prepackaged asparagus were studied. The results of these experiments showed that at least two factors, refrigeration and turgidity, are important in maintaining a high, post-harvest quality in asparagus.

A preliminary model of a non-selective mechanical harvester has been developed at the Experiment Station and demonstrated to Council members.

Although crude in its present state, this working model suggests that a low-cost asparagus harvester is possible.

The problem of increasing retail sales of fresh asparagus through more attractive packaging is being studied by Rutgers University marketing specialists. In addition to smaller bunches, possibilities include prepackaging spears in brand-name cartons, washed spears, and cuts and tips in plastic bags, ready to empty into the pan for cooking.

Because both consumers and buyers are very much interested in a clearly-labeled, uniform size spear in bunches and packages, efforts are being made by the Council's Fresh Market Committee to standardize sizes in several suitable categories. Size classification for prepackaged cuts and tips is also under study. A program has been initiated which would establish size and quality standards for a superior package to be sold under the New Jersey State Seal of Quality. One processor identified canned-in-glass asparagus under the State seal, producing nearly two million containers.

The Department took the initiative in setting up a special project to solve a marketing problem of the asparagus industry resulting from new processing contract specifications. A principal processor of frozen asparagus required $5\frac{1}{4}$ inches of green color on spears, $\frac{3}{4}$ -inch more than previously. Research on cutting and utilization to place a monetary value on the extra length of green spear was determined to be essential by a conference of growers, processors, Agricultural Experiment Station representatives and the New Jersey Department of Agriculture.

However, no funds or research personnel were available to do the cutting and fieldwork. A Department employee, paid from the Federal grant, was redeployed from less urgent work to make possible an immediate undertaking of the project. Inspectors of the Division of Markets sized and graded the experimental cuttings from 16 test plots on two widely separated farms. Experiment Station research workers will evaluate the findings for a report to the industry to guide the development of contracts next year. The processor representative reports that 7,000,000 pounds of asparagus butts were discarded last year by his company at a handling cost of 30 cents per hundredweight. There were further losses, incurred by farmers, in the soil moisture and fertility wasted in producing the excess spear length, as well as extra trucking and handling labor costs.

APPLE PROMOTION

The New Jersey Apple Industry Council has completed its first year of operation. The Council has a salaried manager and one clerical worker, and retains an advertising agency under State contract for professional

advice and services. The Council's work was initiated with a State Treasury loan of \$60,000, which is to be repaid from tax revenues collected from growers.

Expenditures of \$18,181 were made on an advertising and promotion campaign which was conducted in three phases, coinciding with the three marketing peaks of New Jersey apples.

The summer campaign was a combination promotion-research program devoted to increasing the market distribution of green cooking apples through reduction of bruising by better packaging, development of an effective store-door delivery program and creation of point-of-purchase material and package inserts. Consumer interest in summer apples was generated through distribution of a green apple recipe leaflet and through an extensive schedule of radio advertising aimed at the New York City, New Jersey and Philadelphia markets.

An autumn campaign was conducted, using both radio and newspaper media, to promote the sale of Greening, McIntosh, Red Delicious, Cortland and Stayman varieties. The fall season is the period of heaviest sales for New Jersey apples. The campaign ran from September 24 to December 10 with special emphasis being given to the period just before Thanksgiving. Based on recent consumer surveys by the United States Department of Agriculture, the advertising stressed the final use aspects of apples by means of recipes and pictures.

A third program of newspaper and radio advertising, promoting the sale of Rome Beauty and Jerseyred apples through the selling peak of these varieties from late February through mid-April, was initiated. Eastern apples, including those from New Jersey, which were removed from cold storage during this period, became subject to severe scalding. The condition limited their saleability. Therefore, the Council discontinued the consumer advertising campaign and began a program of educating the wholesalers in the buying and handling of these apples. This was accomplished through special meetings with market representatives, through newsletters and fact-sheets to produce buyers and through field visits by the manager. A point-of-sale card was developed and distributed which emphasized the economy as well as the final use aspects of the apples.

The Council recognizes that increased consumption of apples cannot be achieved entirely by promotions on a local basis. Therefore, financial support has been given to the National Apple Institute and the Apple Kitchen for their work in promoting apples nationally.

Apples have long been known as important adjuncts to good health and dental hygiene. Through cooperation of the National Apple Institute, the Council has available copies of a film, "Gateway to Health"; two filmstrips, "Billy Meets Tommy Tooth" and "How Apples Grow"; and numerous

teaching aids that illustrate these facts. These visual aids have been given wide distribution and usage throughout the State's school system. Teachers and educators were made aware of and encouraged to use these teaching aids through the Council's participation in the New Jersey Education Association Convention in Atlantic City.

The education of future homemakers on the uses of apples in cooking is an important part of maintaining and increasing home consumption of the fruit. The Council supplied cooking apples to many of the 867 home economics classes in the New Jersey schools. Interesting and helpful information about apples was also supplied to these young people.

The fine relationship established by the apple growers with the food publicists and trade representatives of the area was continued through a Food Editors Conference and Tour in October at a local orchard. Recipes, photographs and general news releases about apples were sent to and used by newspapers and radio stations in the area. Further publicity was gained through the Council's participation in National Apple Week, in exhibits at farm shows, in cooperation with the New Jersey Dental Association's school program and in tie-in promotions with national food manufacturers.

Liaison with the growers was maintained through periodic bulletins and through a brief annual report covering the activities of this initial year.

Food distribution methods, both wholesale and retail, are engaged in an accelerated evolution. Techniques of apple selling, merchandising, advertising and transport must change to meet the competition of other food products. To help meet this challenge, the Council contributed to the efforts of the Market Research Committee of the National Apple Institute and also allotted about a fifth of its receipts to Rutgers University for research in apple marketing. This allotment has made it possible to add a full-time apple marketing specialist to the Experiment Station staff. Preliminary work on summer green apples has already revolutionized the marketing methods of these varieties and has expanded their distribution among local retailers.

Quality apples, packed under uniform standards in containers with a New Jersey trademark, would result in much more effective promotional campaigns for winning and holding a place on the market for New Jersey apples. To achieve this, the Council is examining the possibilities of creating a quality control program, is guiding the research effort at Rutgers University in the development of more efficient packaging, and is creating a unifying symbol for consideration by the growers and packers.

MILK PROMOTION

With representatives of other public agencies and of the dairy industry, New Jersey Department of Agriculture works with the Garden State Milk

Council, an autonomous group concerned with promoting the consumption of milk and dairy products and also the economic welfare of farmers and distributors. This Council has a relatively small budget, voluntarily subscribed by the dairy industry. All work is done by the members and the organizations they represent.

A major activity was the promotion of June Dairy Month in New Jersey. Publicity photographs of the Governor signing the proclamation of the special month were issued, and the text of the proclamation was widely used by press and radio. Large reprints of the proclamation were displayed in more than one thousand food stores and in other public places. An exhibit promoting the uses and nutritive values of milk was on display in the rotunda of the State House for two weeks.

Information relative to the School Milk Program, a main project of the Council, was disseminated through the Department's facilities.

FARMOBILE

The Department's Farmobile made its debut during Farmers Week. A traveling showcase of New Jersey agriculture as well as describing the functions of the State Department of Agriculture, the Farmobile is designed as a self-contained display unit. A two-wheel trailer, 20 feet long by 8 feet wide, it is towed by a station wagon. The unit can be parked, opened and ready for viewing in one-half hour. The entire right side of the trailer opens for viewing instead of requiring persons to pass through the trailer. Public reacting studies indicate that many persons do not like to go into closed exhibit areas.

The narrated slide presentation may be changed when the occasion requires. During May and June, the Farmobile made one-day stands at 10 shopping centers in connection with the "Golden Goodness of New Jersey Fresh Eggs" promotion. Special illustrations and narration on the egg theme were used. This show was repeated at the College of Agriculture field day at New Brunswick.

The narrated slide presentation was changed to an all-commodity story of New Jersey agriculture for a tour of nine county fairs, and the State Fair. Recipe booklets and educational material provided by the commodity groups were distributed.

NEW JERSEY CROP REPORTING SERVICE

The New Jersey Crop Reporting Service is operated jointly by the New Jersey and United States Departments of Agriculture. Through the co-operation of the two agencies, maximum statistical service to New Jersey agriculture and its related enterprises is possible with minimum cost and

elimination of duplication of effort. Federal funds provide for crop and livestock estimates for the State as a whole comparable to estimates for other states. State funds enable the Crop Reporting Service to provide more detailed information such as crop and livestock estimates by counties and special statistics on farm products of particular importance to New Jersey.

The Crop Reporting Service published 129 reports during the 1959-60 fiscal year, covering some 25 different phases of New Jersey agriculture. Reports of milk and egg production, chicks hatched, livestock slaughtered and agricultural prices are issued monthly. Through the growing season, monthly crop reports show production forecasts for nine grain and feed crops, five fruit crops, 20 vegetable crops, potatoes and sweet potatoes. Reports on cash receipts, grain stocks, pig crops, turkeys, honey, meat chickens and other commodities were also published during the year.

These reports are mailed free of charge to farmers, marketing organizations, college officials, other State and Federal Departments of Agriculture and anyone else requesting them. In serving New Jersey agriculture this last year, the Crop Reporting Service office handled nearly one-third of a million pieces of mail.

CROP REPORTERS

The backbone of the Crop Reporting Service continues to be the voluntary reports from crop and livestock producers, farm marketing organizations, enterprises buying and selling farm products, and related farm industry organizations. During the year about 7,500 New Jersey farmers received one or more of 40 different sets of questionnaires. Occasionally farmers may receive more than one questionnaire a month, others are sent monthly and still others only once or twice a year, depending on the type of enterprise or information desired.

Just as important are the reports on prices received by farmers for farm products. These are submitted by local buyers, marketing cooperatives and others. Prices being paid by farmers are reported by feed mills, implement dealers and many others supplying goods and services to farmers. Credit should also be given to those who report items such as monthly slaughter of meat animals and poultry to provide the basic data for comprehensive agricultural statistics. The Department of Agriculture takes this opportunity to express its sincere and grateful appreciation to these reporters for their public service to agriculture, offered voluntarily without pay. Without their voluntary reports, the broad program of statistics of the Crop Reporting Service could not be made available except at exorbitant costs.

SPECIAL SURVEYS AND REPORTS

Expansion of statistical services for New Jersey agriculture beyond the basic program is made possible through the cooperation of New Jersey State and Federal Departments of Agriculture under matched funds projects. The Agricultural Marketing Act of 1946 provides for Federal funds to be used in matching State funds for marketing service work, including the collection and publication of additional basic statistics.

The most important contribution to New Jersey agriculture under provisions of the matched funds project has been the annual report, "New Jersey Agricultural Statistics." This report meets the ever-increasing demand for agricultural statistics at the county level. In the 1959-60 fiscal year, data was compiled and the report "New Jersey Agricultural Statistics, 1958-59" was published as Circular 416 of the New Jersey Department of Agriculture. A new feature in the 1958-59 report was the ranking of major counties in the production of crops and livestock. Also new was the listing by townships of the number of cattle under test by the Division of Animal Industry.

Also made possible through matched funds was the report, "New Jersey Flower and Plant Production," New Jersey Department of Agriculture Circular 414, published in November 1959. This report summarizes the operations of New Jersey commercial flower and plant growers. It includes, not only statistics on flowers and plants grown in greenhouses, but for the first time figures on the acreage, production and sales of leading outdoor-grown flowers and bulbs. The value of land, buildings and equipment utilized by the 592 growers in the survey exceeded \$24,000,000. The total sales of all florist products in 1957 was in excess of \$15,000,000.

The report "New Jersey Nursery Production," Circular 415, published in March 1960 was another matched funds project. This survey of the nursery growers provided information on the production and sale of nursery stock. Six hundred and sixty-three had sales in excess of \$1,000 in 1958 and had a total of 6,802 acres in nursery stock. The total value of sales of nursery stock, both grown and purchased, including receipts from landscape services and sale of products allied to the nursery business, grossed almost \$16,000,000. Bergen County led all counties in sale of nursery products followed by Monmouth, Middlesex, Passaic and Mercer counties.

The meat chicken survey instigated in 1958 was conducted again in 1959 but at a less comprehensive level. The 1959 survey provided State estimates only on number and pounds sold, average price and gross income from sale by class of meat chickens.

The publication in season of the weekly report "New Jersey Truck Crop News" is another cooperative project. The up-to-date information on crop

prospects, harvest date, progress of harvest and other pertinent information on vegetable and fruit crops in important areas of the State continues to be a valuable contribution. The report also summarizes weekly weather data for about 15 stations in New Jersey.

RURAL ADVISORY COUNCIL

The Rural Advisory Council has completed its first year of operation as a permanent unit within the New Jersey Department of Agriculture. As an initial function, the Council undertook the completion of several study projects initiated by the former Rural Advisory Committee.

The planning study sponsored by the Council through the Rutgers Planning Service has been completed. The study develops a new criteria for planning in rural municipalities, and explains how the natural resources of a farming area should be incorporated within the planning process. A published report will be forthcoming in the next few months.

Because planning and zoning in many rural New Jersey areas have gained ever widening interest and acceptance, the Council supported a survey of zoning in New Jersey. Results of the survey, which was conducted by the State Planning Bureau, will soon be made available for use by those interested in zoning in New Jersey.

There continues to be a great need to stimulate and encourage more rural areas to utilize the advantages of planning and zoning. Through cooperation with the State Planning Bureau, the Council has devoted much time and resources to the promotion of rural planning and zoning. Material and data on agriculture are made available to interested persons as well as planning groups.

With the continued growth and expansion of population into rural areas, municipal costs and services have come under the scrutiny of the Council. A study of local governmental services and taxation has been initiated. The study objectives are to determine the type of growth generally faced by rural areas and the service requirements related to population levels. Another objective is to measure the relationship between the services local government is required to render and the tax derived by assessment categories. The results of the study should clearly portray the problems being faced by rural municipalities.

A preliminary analysis of existing data is being made prior to the selection of several representative municipalities for the revenue cost portion of the study. Selected data on farmland, school and municipal services, population and tax ratables, are being studied prior to the final determination of study units. In general terms, municipalities will be selected that are faced with varying intensities of rural and urban development.

Many rural areas are and will continue to be confronted with problems of growth stemming from urban expansion into rural areas. It is rewarding to see that a great number of rural municipalities have accepted planning and zoning regulations to guide and establish standards for this new development.

However, there will be many continuing problems, especially in the transition areas bounding the metropolitan suburban areas. Problems of water supply, sanitation and pest control, drainage, and conflict of land use, as well as problems of new school construction and increased service requirements from population growth and movement will tax the ingenuity of rural areas to meet these changing conditions.

The Rural Advisory Council has continued to sponsor a study program of vertical integration in New Jersey agriculture. The study of vertical integration within the New Jersey poultry industry has been completed. Results will be made available through the College of Agriculture. A second phase of the program, integration within the vegetable industry, is currently being studied. The Department of Agricultural Economics, Rutgers University, is the agency conducting the studies.

Because New Jersey's poultry industry has been in a depressed condition the past few years, the Council has initiated and sponsored a study of competitive production and marketing situations. New Jersey will be compared with several of its major competitive areas in order to determine how producers and marketing agencies can best meet the current intensive competitive conditions. Results of the study will be forthcoming late in 1960.

Many segments of New Jersey agriculture are similarly affected by current adverse economic conditions. The Council is determining those areas that need study and investigation in order that proper attention and recommendations can be made to those agencies which are active within the agricultural field. In order to determine the problem areas which are currently and will foreseeably be facing New Jersey agriculture, a survey of farm organizations and leaders is presently being made. The results of the survey will form the basis for a large portion of the Council's activity during the coming year.

A close liaison has been maintained with other State agencies in developing study projects of mutual interest. In addition to the zoning study and the promotion of rural planning, the Council continues to cooperate with the State Planning Bureau in development of the agricultural elements of the State planning program.

The Council staff has actively cooperated in State and local meetings dealing with farm credit, rural safety and education, farm assessment and taxation, rural planning and zoning, and a host of related meetings dealing with urban-rural conflicts. Most of the activity has been of an educational nature, since this has been the area of greatest need.

STATE SOIL CONSERVATION COMMITTEE

The State Soil Conservation Committee was established as an agency of the State in 1937. Originally its duties included the furtherance of soil conservation, the control and prevention of soil erosion, and the creation of local Soil Conservation Districts. Subsequently, its responsibilities were expanded to include the prevention of damage to soil and soil resources by floodwater, or by sediment and the furtherance of conservation of water for agricultural purposes. The agency was transferred from the Department of Conservation and Economic Development to the Department of Agriculture on July 1, 1959, by legislative action.

The State Committee consists of 11 members including the director of the New Jersey Agricultural Experiment Station; the associate director of the Extension Service, Rutgers University; the State Secretary of Agriculture; the Commissioner of the Department of Conservation and Economic Development; a Governor's appointee and six soil conservation district supervisors. Three of the district supervisors must be from the northern region of the State and three from the southern region. They are elected to the State Committee by the district supervisors from those regions. In addition, one *ex officio* member representing the United States Department of Agriculture is appointed by the United States Secretary of Agriculture.

THE RELATIONSHIP OF THE STATE COMMITTEE TO THE DISTRICTS

One of the most important functions of the State Soil Conservation Committee is its work with the Soil Conservation Districts. The Committee has the general direction of district activities. It acts in behalf of the State in creating new districts. It appoints and sets the term of office of a board of supervisors to govern each district. It consults with and advises district governing bodies and promotes their local program. The Committee coordinates the activities of the several districts and manages the State funds appropriated for district operations. In addition, the State Committee secures the cooperation and assistance of Federal and State agencies to work with the districts. Finally, it disseminates information throughout the State concerning the activities and programs of the Soil Conservation Districts.

To date, the State Committee has created 14 Soil Conservation Districts, covering all the land area of the State, except metropolitan Hudson County. These districts conduct soil and water conservation programs on the local level. They accomplish their objectives by deciding upon a district-wide plan of action and then arranging for technical assistance from public or private sources to put its program into effect.

In order to coordinate the activities of the 14 districts and to facilitate their operation, the State Committee employed an executive secretary this

year. In addition to working with the Districts, his duties include the administration of the policies and business of the Committee.

ANALYTICAL STUDY OF THE SOIL CONSERVATION PROGRAM

Many changes in land-use and farm technology have taken place since the soil conservation program was initiated in 1937. With a view to revising the State program, the committee has undertaken a study to determine the status of conservation activity in the 14 districts. Through its sub-committee it is considering: how much of the conservation job has already been accomplished; how much is being obliterated by changes in land use; and how much remains to be done. To date, it has completed studies in Camden and Cape May counties. The project is scheduled for completion in the 1960-61 fiscal year.

REVISION OF THE SOIL CONSERVATION ACT OF 1937

The Committee worked with the various districts and agencies of State and local governments in preparing revisions to up-date the 1937 Act to meet current conditions. The Governor and the Legislature granted an amendment which authorizes the districts to use the land condemnation power to ensure the completion of watershed protection and flood prevention projects. Seven other amendment proposals were sent to the Legislature for its consideration.

LIAISON WITH FEDERAL, STATE AND LOCAL AGENCIES

A concerted effort has been made this year to inform officials at all levels of government of the technical services which are available to them. County and municipal officials, for example, participated in all of the district's annual plan of operation meetings. As a direct result of these meetings several flood control and a number of drainage projects were undertaken cooperatively. The establishment of good liaison with these organizations had already proved itself to be mutually beneficial.

FARMER'S GUIDE TO CONSERVATION ASSISTANCE

A directory or guide which tells the farmer and other landowners where they may obtain help with their conservation programs, was prepared during the year by the committee.

The publication lists the names and addresses of all Federal, State and local agencies which provide the landowner with technical aid or financial assistance. It is expected to fill a long existing need for this type of information.

IN-SERVICE TRAINING PROGRAM FOR SUPERVISORS

The State Committee in conjunction with the New Jersey Association of Soil Conservation Districts sponsored two one-day training sessions for all District Supervisors. Discussions covered in the meetings included developing an annual plan of operation, a conservation education program and the annual budget. The recommendations from these training sessions were carried back to the individual districts and formed the basis of planning their operations for the year.

CONSERVATION ON THE LAND

By the end of 1959-60 fiscal year, 8,400 landowners were cooperating with the districts. Of these, 569 are new cooperators with New Jersey's 14 soil conservation districts this year.

The districts, through the technical assistance rendered by the United States Soil Conservation Service, assisted 391 cooperators to make basic conservation plans for their land. Major revisions were made to 42 old basic plans as well as minor revision to many others.

Another 3,600 landowners were aided in applying conservation practices to their land. Included among the new practices were the following:

- 2,032 acres of land were contoured farmed.
- 1,746 acres were stripcropped.
- More than 6,000 acres were retired to permanent vegetation.
- 27.8 miles of terraces and 12 miles of grassed waterways were constructed.
- 176 ponds were built; 116 of which were for irrigation.
- 242 acres of land were leveled to remove wet pockets and, in addition, more complex drainage practices were carried out on 2,500 acres. This involved 32 miles of tile, 53 miles of open ditches, 1.5 miles of dikes and 2 tide gates.
- 299 acres were cleared for better use and 537 acres had miscellaneous rocks and trees removed so they could be contoured.

Districts were also active in the wildlife field. Two hundred and fourteen acres of land planted to wildlife shrubs or otherwise improved for wildlife purposes; 2,200 feet of wildlife hedge were planted; 228 ponds were stocked with fish.

In forestry activities districts, cooperators planted 244 acres of trees and established over seven miles of windbreaks.

In addition to these structural practices, farmers improved their soil management through better rotation, the use of plant residues and the use of cover crops.

Three thousand, three hundred and fifty acres of less desirable crop land were converted to grass and 69 acres to woods. At the same time 564 acres

of better grade land were converted to grass or woods to cropland. Many suburban landowners were helped with small problems on which no detailed records were kept.

WATERSHED PROJECTS

Districts were also active in the small watersheds program. The Mercer County District constructed two more silt reduction dams on the Stony Brook Watershed. Two flood prevention dams are now under construction by the Sussex County Soil Conservation District on the Paulins Kill Watershed above Newton. The Salem-Cumberland District completed the Locust Island Dike and have the Silver Lake Dike under construction. In addition to dikes, this project involved the installation of a new system of tide gates. The Salem-Cumberland District also awarded a contract for construction of the pumping plant for the Town Bank Watershed. In the same district a watershed plan is being made for the Tributaries of Maurice River Cove which involves drainage as well as diking to improve wildlife habitat.

CONSERVING SOIL AND WATER IN RURAL-URBAN AREAS

The expansion of urban development into rural areas is a familiar sight. However, the detrimental effects which this development frequently causes upon local land and water resources are often overlooked. Generally, experience has shown that the more urbanized these communities become, the greater the problems of sedimentation, flooding and pollution. Because the State Committee and the districts are charged with erosion control on all lands—agricultural and non-agricultural—they have assumed the leadership in combating these conditions.

The Northeast Soil Conservation District, which has had the most experience with these problems, was designated as a pilot study area. As a pilot urban district, it is receiving special technical assistance from the Federal Government, which will enable it to develop new soil and water management techniques in development areas.

CONSERVATION EDUCATION COMMITTEE

A series of exploratory meetings were held with educators, scientists and resource managers to determine the need for a conservation education advisory committee for the State of New Jersey. There was general agreement among the participants that an advisory committee would be most helpful to the school districts. It was their opinion that the committee could function as a sounding board—sampling the teachers' needs and acting as a coordinating agency—locating sources of materials and technical assistance for them.

As an outgrowth of these meetings an unofficial interdepartmental committee has been established and is working with the New Jersey Department of Education.

APPOINTMENT OF NEW SUPERVISORS

The terms of office for 14 supervisors expired this year. The State Committee, acting on recommendations of the County Boards of Agriculture, reappointed 10 supervisors and selected four new replacements. Their terms commence July 1, 1960, and continue through June 30, 1963.

Report of the Office of Milk Industry

FLOYD R. HOFFMAN, *Director*

The Office of Milk Industry was created by an Act of the Legislature to control the production, distribution and sale of milk in New Jersey. To accomplish this purpose, the Office is composed of five bureaus: Administration, Enforcement, Auditing, Licensing and Milk Economics.

BUREAU OF ADMINISTRATION

This Office operates on a budget separate from that which provides funds for the Department of Agriculture. The appropriation for the Office of Milk Industry for 1959-60 was \$210,414. The agency was self-sustaining for this fiscal year in that the total receipts amounted to \$209,231.40 while expenditures totaled \$206,530.73, leaving a balance of \$2,700.67. The revenue was derived as follows: License fees, \$188,226.00; penalties imposed for violations of the orders and regulations, \$20,855.00; and calibration of glassware, \$150.40.

Expenditures were somewhat increased as the result of the change of location of the Office. In addition to the costs involved for moving from One West State Street to the new address, 2303 Brunswick Avenue, an additional \$2,059.81 had to be provided from Office of Milk Industry funds to supplement the amount provided for rent of office space.

The Office has 39 full-time positions. At the close of the fiscal year, all positions were filled except three. Three temporary clerical positions were created for a short period to assist with licensing work.

Personnel problems have been encountered which have hampered the progress in work procedures. The ratio of personnel turnover during the fiscal year was about 20 per cent. Eight resignations were tendered, six of these in the Bureau of Auditing because of lack of opportunity for advancement, and two because of the new location of the office. Vacancies have existed for long periods of time because of the difficulty in securing replacements.

A management analysis group appointed by the Department of the Treasury has been assigned to survey the present method of issuing licenses and the auditing program of the Office of Milk Industry with a view to simplifying the work procedures. This work will be re-evaluated and recommendations submitted to the director when the study has been completed.

MILK INDUSTRY TRENDS

The dairy industry continues to rate second among New Jersey's agricultural enterprises in value of production. Although the number of dairy herds supplying milk to New Jersey handlers continues to decrease each year, the average production per dairy has increased because of larger herds and higher average production per cow. At the end of the fiscal year, there were approximately 120 less herds than one year ago, and more than 900 less than five years ago. The total production of milk for the fiscal year was slightly higher than for the previous year.

Modern methods of transportation and handling of milk have tended to increase the number of bulk tank installations. At the end of June, 1960, 1,023 dairymen in New Jersey were using the bulk tank method rather than the can method, compared with 888 last year, 775 in June, 1958, and 634 in June, 1957. The rate of increase in New Jersey for the past year was about 15 per cent as compared to a 20 per cent average for the nation.

The number of producers transferring from one market to another in New Jersey was slightly greater this year than last year. The reasons given for these changes were price advantages, inability to install bulk tanks where required by dealers, or dropping of producers by dealers because of over-supply of milk.

Milk consumption in New Jersey varied slightly from the previous fiscal year. The percentage of total production sold as fluid milk was less, resulting in a lower return to producers.

As in the previous year, the actual retail prices charged for milk sold to New Jersey consumers in most cases were somewhat higher than the minimum prices fixed by the Office of Milk Industry. Changes in types of packages and methods of marketing milk at the resale level have created problems in minimum price fixing.

The price of milk to New Jersey consumers, in terms of the amount a week's wages will buy, is at one of the lowest levels in the history of the State. In 1939, the average weekly wage of a factory worker would buy 117 quarts of milk. In 1959, the average weekly wage would buy 314 quarts of milk.

Since the promulgation of the present milk control law in 1941, changes in the industry have antiquated many of the definitions and other specifications in this law. The Office of Milk Industry has conferred with the Attorney General's office regarding these matters, and in cooperation with that office, is preparing a compendium of orders and regulations in effect.

Milk consumers were threatened twice during the fiscal year with delivery stoppage. The first concerned the contract between milk industry

employers and plant and delivery employees. Negotiations lasted for several weeks in October and November. The second, which occurred in March, was a labor dispute between the International Union of Operating Engineers and dairy plant owners. However, in both cases, the old labor contracts were continued until agreements were reached.

In an effort to obtain accurate cost figures for processing, bottling and distributing milk, the director inaugurated a cost study, headed by the Office of Milk Industry milk economist. Field audits were made of the records of various types and sizes of milk companies. This project was started in October but the procedure was greatly impeded due to the shortage of auditors and because of the unavailability of records and the variance in the types of records maintained. The results of this study as it progressed were presented by the Office of Milk Industry at the public hearings to establish an average cost basis to be considered in adjusting minimum resale prices.

NORTHEASTERN DAIRY DIVISION

Because of the growing trend in interstate shipments of milk and the proposed national milk sanitation laws, the National Association of State Departments of Agriculture formed a Dairy Division. The deputy director was assigned to represent New Jersey at meetings of both the National Dairy Division and the Northeastern Dairy Division Section. The main matter of concern was the proposed legislation known as the "Johnson Bill". This bill would set minimum health standards for milk on a national basis and would permit unlimited shipment of the so-called approved milk in interstate commerce. The United States Surgeon General would specify the minimum sanitation requirements. Officials of the state of origin of the milk would certify that the milk was produced in compliance with the proposed code, and the recipient state would be obliged to accept such milk. The Northeastern Dairy Division strongly opposed this type of legislation at the hearings held in Washington, D. C.

An effort is being made by the Northeastern Dairy Division to establish uniform standards and policies regarding pesticides and antibiotics in milk. Also, the group is considering the advisability of standardizing the methods for sampling and labeling milk.

Twenty-four out-of-state conferences and hearings were attended by the director, deputy director or other representative. These included the Federal-State joint activities pertaining to the New York-New Jersey marketing order which are explained in detail in a separate section of this report. Also included in this group were the hearings held at Philadelphia pertaining to Federal Milk Marketing Order 61. This order affects the returns to many South Jersey dairymen whose milk is purchased by

handlers who are regulated by Order 61. The Pennsylvania Milk Control Commission also held a number of hearings on resale milk prices, especially for gallon jug milk sales and price differentials. That agency fixes minimum, but not maximum prices, and because of the similarity of that market to New Jersey milk marketing, the developments at the hearings were closely observed by this Office.

The Office of Milk Industry was represented at 29 other affairs and meetings held within the State by other government agencies and milk industry organizations to keep advised of marketing conditions and other matters that affect the milk industry in New Jersey.

The director held 11 conferences during the year with producer, dealer, subdealer and consumer groups to discuss petitions received for price hearings; marketing area boundary changes; proposed amendments to regulations; and the procedure followed regarding unlicensed stores selling milk.

Much time was devoted to appointments scheduled by the director or deputy director with producer and dealer organizations seeking statistical information; government agents investigating milk licenses; and other individuals where questions arose regarding proper license classification and interpretation of orders and regulations.

NEW YORK-NEW JERSEY MILK MARKETING ORDER 27

During the past year, because of the increase in inter-state shipment of milk and the variance in the provisions for milk pricing under Federal orders in effect in the Northeast, the necessity for alignment of prices has been recognized by the United States Department of Agriculture. The pricing provisions for Class I milk, which is milk used fluidly, have been reviewed by the Federal Department's Dairy Division. The Office of Milk Industry was represented at a meeting in Washington, D. C., last fall to discuss contemplated hearings on this subject. As a result, public hearings were held in the New England and Philadelphia markets in an effort to establish an appropriate relationship between the Federal orders in this area and to prevent handlers from shifting producers from one order to another to gain a price advantage, thus disturbing the economic balance in the milkshed. The hearing to consider adjusting the formula for Class I (fluid) milk pricing in Order 27 had been held in January, 1959 and a recommended decision was issued in May, 1959. However, the order has not been amended on the basis of the recommended decision during the year 1959-60 because the hearings in the other northeastern markets had not been completed. At the close of the fiscal year, the United States Secretary of Agriculture announced a joint public hearing to be held in New York City beginning October 3, 1960. The subject of this hearing will be Class I milk prices under the Federal orders regulating milk handling in

the following markets: New York-New Jersey, Boston, Springfield, Worcester, Connecticut, southeastern New England (Rhode Island and part of Massachusetts), Philadelphia and Wilmington. From this hearing, it is intended that a Class I pricing formula can be developed which will make all of the orders in the Northeast compatible.

Based on a hearing held prior to the fiscal year 1959-60, an amendment to both the State and Federal orders was issued, effective August 1, 1959, which reduced transportation differentials allowed North Jersey dairymen. The rate of transportation differentials was changed from 1.4 cents to 1.2 cents per ten-mile zone. This resulted in an average reduction of approximately three cents per hundredweight to New Jersey dairymen.

A joint Federal-State hearing was held in Newark in October, 1959, to receive testimony concerning an adjustment of the nearby differential allowed producers. The nearby differential is an additional price allowance paid to producers who are located within a certain radius of the metropolitan market. All New Jersey dairymen are considered to be in the 1 to 50-mile zone, and therefore receive a higher return for their milk based on this nearby differential.

The October hearing developed after an amendment had been issued, effective September 1, 1958, which resulted in an increase in the number of producers eligible to receive the nearby differential. This increased the quantity of milk involved in this category, automatically reducing the amount of the nearby differential. Therefore, the amendment was suspended from June through December, 1959, and the suspension was continued indefinitely by an order issued in December, 1959. A decision was rendered on the October hearing, effective on March 1, 1960, and both the State and Federal orders were amended changing the adjustment factor involved in figuring the nearby differential. This change would have no effect on the nearby differential paid to New Jersey producers unless the volume of nearby milk in the pool increased in relation to the total Class I or fluid sales plus non-pooled milk in Class I-A. This condition did not occur until June, 1960, when production increased to the extent that the reduction provision applied, thus decreasing the nearby differential.

The Office of Milk Industry participated with the United States Department of Agriculture and the New York State Department of Agriculture in a joint hearing held at Elmira and Utica, N. Y., which began on February 2 and continued through February 12. At this hearing, testimony was received primarily on proposals for a procedure for pricing milk handled in bulk tanks. The Market Administrator reported that as of January, 1960 there were about 3,900 Order 27 producers using bulk tanks. This was an increase of about 400 in the past year. They represent 8 per cent of the producers and 16 per cent of the milk in the New York-New Jersey pool.

Under Order 27, all milk is priced f.o.b. receiving plant. Producers at the hearing requested that the point of pricing for bulk milk be changed from the receiving plant to the point where the milk is pumped from the producer's holding tank to the handler's bulk tank truck. No decision had been released by the United States Secretary of Agriculture at the close of the fiscal year.

The Office of Milk Industry has joined the United States Department of Agriculture in appealing a recent court decision in which compensatory payment provisions of Order 27 were declared illegal. The provisions stipulate that milk handlers must pay into the producers' settlement fund the difference between the Class I price and the Class III price on all non-pool fluid milk distributed as Class I-A in the Order 27 area. This provision has served to protect producers whose prices are regulated by this order. The effect of the loss of the compensatory payments would be to add to the flood of milk already sold in the marketing area. The decision which was handed down by the United States District Court of Eastern Pennsylvania on civil action involving Lehigh Valley Cooperative Farmers, Inc., and Suncrest Farms, Inc., vs. United States Secretary of Agriculture Ezra Taft Benson stated that the compensatory payments were illegal in that the final payment for the milk by these Pennsylvania handlers was in excess of the prices paid for fluid milk by Order 27 pool handlers. The appeal will be heard during the fall term of the United States Court of Appeals for the Third Circuit in Philadelphia.

During the year, additional meetings have been held regarding a program for fluid milk promotion and research. A program had been undertaken by the Producers' Milk Market Development Board, Inc., composed of dairy farmers, but was not successful because members of the four large cooperative associations could not agree on how to support the project. At present, the American Dairy Association and the National Dairy Council have inaugurated a sales promotion plan operated on a voluntary basis. Both Federal and State officials are cooperating with dairy groups in an endeavor to find a plan acceptable to all concerned.

A conference was held at the Market Administrator's office in New York City with officials from the Office of Milk Industry to study reports filed with both agencies in an effort to eliminate the necessity of handlers duplicating figures submitted to both agencies.

PUBLIC HEARINGS AND DECISIONS

As required by law, public hearings are held before price changes may be made by the Office of Milk Industry. These hearings are advertised and notice circulated throughout the industry to afford all interested parties an opportunity to present testimony. It is mandatory that the decision, which

must be based on the hearing record, be announced within 15 days following the close of the hearing.

The first hearing of the fiscal year was held August 18, 1959, and was called as a result of a Supreme Court decision regarding Regulation F-22. Only three dealer witnesses testified. This regulation prohibited wholesale deliveries of milk on Sunday in certain areas, and had been appealed by a North Jersey milk dealer. The Supreme Court decision pointed out that the regulation was discriminatory, but offered the director an opportunity to present evidence on the reasonableness of the provisions. Most of the testimony at the hearing advocated prohibition of wholesale deliveries of milk on Sunday in all areas of New Jersey, except during the period from June 15 to September 15, the summer vacation season. Therefore, the regulation was amended making the provisions uniform throughout the State, allowing Sunday wholesale deliveries during the summer months.

A three-day public hearing was held by the director to receive testimony concerning the establishment of a method to relate minimum resale milk prices in Area 1 to the price paid to dairy farmers for Class I (fluid) milk, and to consider the adjustment of the minimum resale prices as fixed at that time. Area 1 consists of all the upstate counties including Bergen, Passaic, Hudson, Essex, Union, Morris, Sussex, Warren, Hunterdon, Somerset, Middlesex, Monmouth and the upper portion of Ocean County. In this area, prices to dairy farmers are governed by Federal Order 27.

Briefs were presented by 12 witnesses. These included seven dealers, one subdealer, two consumers and two State witnesses. The Office of Milk Industry economist submitted results of a cost study of three different types of operations; and John W. Carncross of the New Jersey Agricultural Experiment Station testified on the cost of operating outdoor vending machines. The industry representatives cited increased costs of labor and raw milk, recommending increases in resale prices, including sales made through vending machines.

After a study of the record of the hearing, the director issued Order No. 59-3, effective January 1, 1960, which did not change the prices, but continued those which were in effect from August 1, 1959 (27 cents per quart for regular milk, home-delivered, and 25½ cents if purchased at the store).

At the request of the South Jersey Milk Dealers' Association, a hearing was held beginning March 2, 1960. The hearing notice requested testimony on three subjects: (1) minimum prices to be paid to producers in South Jersey; (2) resale milk prices in South Jersey; (3) differentials between resale prices in all areas of New Jersey. Representatives of dealer organizations requested a recess to provide more time to prepare testimony. This request was granted, and a new hearing date was set for April 4, 1960.

The hearing was continued on April 4 and 5, at which time 10 witnesses appeared and testified. At this session, the attorney for a group of North Jersey milk dealers made a motion for a further recess, stating that adjustment of resale prices should be considered on a statewide basis and not be confined to South Jersey only, if resale price differentials were to be considered for the entire State. The motion was granted and the hearing again recessed until May 2.

An amended hearing notice was issued by the director adding two more subjects to the three in the original hearing notice. One was retail milk prices for the entire State rather than only the South Jersey areas. The other was to consider changes in the boundary between Areas 2 and 3. The Egg Harbor City and Mays Landing communities had requested that this be studied so that the residents of these two cities could have the advantage of the lower milk prices in Area 3 rather than the higher prices in the seashore resort area.

The hearing was resumed and completed after a three-day session. A total of 28 witnesses testified during the three periods of the hearing. These included two subdealers, seven dealers, ten producers, six consumers, one producer-dealer and two State or public witnesses. One of these last two was the Office of Milk Industry economist, who presented the results of his study of the costs of processing and distribution of milk based on the records of 20 New Jersey milk handlers. The other public witness was John W. Carncross of the New Jersey Agricultural Experiment Station who testified on producers' costs.

After a careful study of the lengthy hearing record, two orders were issued and the regulation defining the boundaries of the milk marketing areas was amended, all effective July 1, 1960. Order 60-1 specified the minimum resale prices in northern Jersey and Order 60-2 provided the same information for the two South Jersey areas.

Those two orders provided for a one-cent increase in minimum resale prices for regular pasteurized milk. However, the one-cent differential permitted for milk containing vitamin D was removed, thus bringing the price for regular pasteurized milk, homogenized milk and vitamin D milk to the same level.

Regulation H-7 which defines the milk marketing areas in the State was amended putting Egg Harbor City, Mays Landing and some small nearby communities in Milk Marketing Area 3. Because of the permanent year-round population in these communities, it was decided that they should be in the inland area where minimum prices are two cents less per quart than in the seashore area.

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RETAIL AND PRODUCER PRICES

Below is a table showing the minimum resale prices as fixed by the director in the orders previously explained.

RETAIL PRICE CHANGES (Bottled Milk)						
Area No.	Order No.	Effective Date	Dealer to Consumer		Store to Consumer	
			Grade "A"	Regular	Grade "A"	Regular
1	57-1	4/1/57	\$.28	\$.26	\$.26½	\$.24½
	59-2	8/1/59	.29	.27	.27½	.25½
	59-3	1/1/60	.29	.27	.27½	.25½
	60-1	7/1/60	.30	.28	.28½	.26½
2	58-3	7/1/58	.31½	.28½	.30	.27
	59-1	5/1/59	.30½	.27½	.29	.26
	59-1	7/1/59	.31½	.28½	.30	.27
	60-2	7/1/60	.32½	.29½	.31	.28
3	58-3	7/1/58	.29½	.26½	.28	.25
	59-1	5/1/59	.28½	.25½	.27	.24
	59-1	7/1/59	.29½	.26½	.28	.25
	60-2	7/1/60	.30½	.27½	.29	.26

The orders provide that the price for milk sold in gallon jugs shall be one cent per quart less than the price listed in the orders. Half-gallon jugs shall be one-half cent per quart less than the prices listed. Also, milk may be purchased at the farm of a licensed producer-dealer at one cent per quart less than the store-to-consumer prices. Milk sold out of vending machines is priced the same as the store-to-consumer prices.

Prices to producers in Area 1 are regulated by Federal Order 27 and Office of Milk Industry Order 57-3 and these prices fluctuate each month.

Order 60-2 stated that the price to producers in the area of New Jersey not regulated by Federal Order 27 would not be changed. Therefore, dairymen in the southern part of the State (Areas 2 and 3) continued to receive for Class I or fluid milk testing 3.5 per cent butterfat \$6.27 per hundredweight for Grade "A" and \$5.87 per hundredweight for regular grade milk. These prices remained the same throughout the fiscal year. The Class II price paid for that milk separated into cream and the Class II-A price paid for milk used for manufacturing purposes are figured on a formula basis and fluctuate each month.

FORMAL HEARINGS, APPEALS AND LEGAL DECISIONS

The matter of O'Dowd's Dairy of Pine Brook which began in December, 1957, for failure to pay farmers properly was finally terminated in February, 1960. This case started with a formal hearing for improper payments to

producers for milk delivered during February, 1957. A penalty of \$50 and costs was assessed and, in addition, this handler was ordered to pay his producers the additional amount due within 30 days or the license would be revoked. O'Dowd's Dairy appealed the decision to the Appellate Division of the Superior Court. The Court granted a stay against the revocation of the license in March, 1958, but the decision was not rendered until October, 1958. The Court decided that producers should be paid the money due them, and in view of the dispute regarding the amounts, that steps be taken to ascertain proper payments.

Therefore, the director held a further formal hearing in an effort to determine the actual money due producers. Audits were made by the Office of Milk Industry, the results of which were submitted at the hearing. It was determined that the amount owed producers was \$1,259.21, and a deadline for payment was set for November 19, 1959. O'Dowd's Dairy again filed an appeal and was granted a second stay by the Court.

While the aforementioned O'Dowd case was awaiting the action of the Court, a second formal hearing was held by the director in September and October, 1959. The charge this time was that producers had not been paid the proper amounts in accordance with the provisions of State Order 57-3, which concurs with Federal Order 27. It was also charged that payments to producers were not made on or before the required dates as set forth in both the State and Federal orders. Since this handler operates in the area regulated by Federal Order 27, representatives from the Market Administrator's office in New York City attended all sessions of the hearing.

The violations involved milk delivered from December, 1958, through June, 1959. The producers concerned appeared at the hearing and testified, thus creating a long and detailed record of the proceedings. It was determined that the amount of money owed was \$17,939.39. During the period of the hearing O'Dowd's Dairy paid \$11,841.93 of this amount, leaving a balance due of \$6,097.46 owed to nine producers. On January 28, 1960, the director issued the Findings and Order denying the issuance of a milk dealer's license for the year 1959-60, as previously applied for by this dairy. A Notice of Appeal was filed by O'Dowd's Dairy immediately following the decision, and this automatically stayed the action ordered by the director.

In February, 1960, the legal representative for this handler petitioned the director for an informal hearing on both of the pending appeals, and the hearing was granted on February 16. As a result of this informal action, O'Dowd's Dairy paid all producers in full, plus a penalty of \$5,000. The attorney for the handler then withdrew the two appeals from the Court, and the director of the Office of Milk Industry canceled the two formal decisions previously rendered. The milk dealer's license was issued to O'Dowd's Dairy with the understanding that monthly reports be properly completed

and filed on time, and that all producers would be paid in accordance with the orders of the Office of Milk Industry.

The New Jersey Supreme Court unanimously upheld Regulation F-22, as amended, effective September 1, 1959. Action had been taken originally against this regulation in March, 1958, by Hamilton Farms, Inc. The Court's opinion rendered in June, 1959, held that certain geographic distinctions made by the regulation appeared to be discriminatory because the restrictions regarding wholesale deliveries of milk on Sunday differed in the various milk marketing areas. The Court offered the opportunity to the Office of Milk Industry to supplement the hearing record with additional testimony to substantiate the regulation. Following the public hearing held for this purpose in August, 1959, the regulation was amended making the provisions uniform throughout the State, as explained previously in this report. However, Hamilton Farms, Inc., petitioned for a re-hearing, favoring removal of all restrictions on Sunday wholesale deliveries, but the Court denied this petition. Therefore, beginning September 16, 1960, the clause prohibiting Sunday wholesale deliveries will be enforced.

The resale prices in the 13 northern counties of New Jersey known as Area 1 had not been changed since March, 1957. Order 59-2 was issued by the director increasing minimum prices one cent per quart, beginning August 1, 1959, to remain in effect until December 31, 1959. In most cases, consumers were already paying more than the minimum prices fixed by this order. The order was based on the record of the hearing held in May, 1959, which indicated that there had been increases in processing and distributing costs during the two-year period since the last resale price change.

Order 59-2 was appealed by three licensees, and a temporary stay was granted for the first 10 days of August, after which the new prices went into effect. The appeal was held in October, 1959, but the legal proceedings were not completed by December 31, 1959, the expiration date of the order, and the case was therefore dismissed in January, 1960.

The New Jersey Supreme Court heard the appeal of E. J. McGovern Dairy Products, Inc., a subdealer of Bayonne, regarding the director's order, following a formal hearing, to revoke their license to sell milk. The Appellate Division of the Superior Court had upheld the director's decision before the appeal was taken to the higher Court. The McGovern firm had been charged with purchasing milk at prices lower than the minimums fixed by the Office of Milk Industry and filing false reports. The attorney for this subdealer told the Supreme Court that the Federal milk marketing order preempted State powers in the 13 northern New Jersey counties and that State control should not be in effect in that area. The Supreme Court held that the Federal order did not preempt the State program, and therefore affirmed the revocation of McGovern's license.

Since E. J. McGovern Dairy Products, Inc., had continued to operate in the milk business, an injunction was sought by the Office of Milk Industry in the Chancery Division of the Superior Court and it was granted.

A Petition for Declaratory Judgment was filed with the Appellate Division of the Superior Court by the Pied Piper Super Market, Inc., of Linden against the price order fixing retail prices for gallon jugs of milk. The plaintiff contended that because a 1912 law giving the Division of Weights and Measures authority to regulate sales of milk in various size containers did not include gallon jugs, this size was illegal and the fixing of price for it also illegal. The Superior Court ruled that the law does not prohibit the sale of milk in gallon jugs in New Jersey.

The balance of formal legal proceedings which developed during the 1959-60 period all pertained to Order to Show Cause hearings held by the director. In each of these cases, the licensee involved was required to show cause why his license should not be revoked or suspended; or in the case of applicants for license, to show why the license should not be denied. Following is a brief summary of these hearings:

Edward Gilmartin of Jersey City, a subdealer, purchased the business of another subdealer whose license was revoked and then leased this business to the seller, thus creating a subterfuge to allow the seller to operate without a license. The hearing had not been completed at the close of the fiscal year.

David Feldman and Francis E. Finck, two Bayonne subdealers, were found guilty of purchasing milk at prices below the fixed minimums and filing false affidavits with the Office of Milk Industry. In both cases, licenses were revoked.

Marion Roche and Stephen Brignola, also both licensed as subdealers of Bayonne, were charged with entering into agreements in violation of the milk control law in that they employed former licensees whose licenses were revoked. In the Brignola case, an additional charge of failure to keep proper and complete records was made. These cases were heard in June, 1960, and decisions have not yet been rendered.

An additional formal hearing was scheduled to be held in June in the matter of another Bayonne subdealer, Mrs. Anna Fico, based on the same charges as the Brignola case, but a postponement was granted.

Two of the formal hearings which were pending at the close of the last fiscal year were settled. In one case, Findings and Order were issued by the director denying a license to a subdealer applicant, Joseph Pallante of Nutley. The license was denied because the subdealer had been operating a milk business without a license and had committed other acts injurious to commerce or trade.

The second case was that of Cream-O-Land Dairy of New Brunswick which had been charged with violating the regulation prohibiting a milk licensee from providing free refrigeration to a milk customer. Following the formal hearing, Cream-O-Land Dairy requested that the matter be reverted to an informal hearing. This request was granted, and a penalty of \$200 was assessed.

BUREAU OF AUDITING

Reports are required to be filed monthly by dealers and processors showing the production, purchases and sales of milk. During the fiscal year 1959-60, 2,938 reports were audited, or an average of about 245 each month.

Statistics are prepared monthly from the figures accumulated from the reports. They indicate the changes in trends in the New Jersey dairy industry, and are supplied to other State agencies, the United States Department of Agriculture, and to milk industry organizations.

In addition to the statistical value, these reports are used to check prices charged for milk and cream sold by dealers and processors to subdealers; prices charged to stores and other wholesale outlets; and prices for retail sales to consumers. However, the more important purpose is to determine if producers have received proper prices for the milk shipped to handlers. It was ascertained from the reports audited that, during 1959-60, dairymen were underpaid a total of \$851.21. This does not include discrepancies in payments to producers regulated by Federal Orders 27 and 61. The outstanding balance due producers as of July 1, 1959 was \$285.23, making a total of \$1,136.44 for the fiscal year. Payments totaling \$629.70 have been made, leaving a balance of \$506.74 still unpaid as of June 30, 1960. Dealers have been notified to make these additional payments to farmers.

The license fees paid by dealers are based on the average monthly quantity of milk sold as shown on the reports filed with this Office. These fees, together with other data submitted on applications for licenses, were checked by this Bureau.

While fewer field audits were made in the 1959-60 period than during the previous fiscal year, the work involved was more complex in many cases. Fifty-eight field audits were made during the year. In addition, 26 producers were visited for verification of payments for their milk.

Because of lack of personnel, it has been impossible to make routine audits on a regular schedule. Therefore, audits were made only where certain conditions warranted this action. The most prevalent reasons for the audits made during the year were:

1. To determine if producers had been properly paid.
2. To ascertain correct balances of money owed by subdealers to dealers for milk and dairy products purchased where disputes occurred.

3. To check products sold and prices charged where reports indicated discrepancies.
4. To check source of supply in cases where there was an indication of an unapproved source.
5. To ascertain if proper and complete records had been maintained as required by this office.
6. For instructions on proper completion of reports.
7. To investigate types of operation for proper license classification.
8. For examination of management operations of subdealers who purchased businesses of former licensees whose licenses were revoked.

Some of the audits disclosed violations of the orders and regulations, in which cases the licensees were cited for informal hearings and penalized accordingly.

If a subdealer wishes to discontinue purchasing milk and milk products from his present supplier or to add an additional supplier, or if a dealer wishes to discontinue serving a subdealer, application must be made 60 days in advance of the intended change. Forms for this purpose are provided by this Bureau to ascertain if bills have been paid in full before permission for the change is granted. Just prior to the expiration of the 60-day period, a conference is held at the request of this Office and is attended by the subdealer making the change, the dealer losing the account and the dealer gaining the account. At this meeting, it is determined if there is a bona fide reason for the request and if there is any outstanding debt. In many cases, the waiting period and right to the conference were waived by the dealer losing the account.

During the past fiscal year, 113 applications of this type were received, an increase of 73 over the previous year. Of these, 83 subdealers and two dealers were granted permission to change, either as a result of conferences held or through waivers granted. Five were canceled for failure to file the necessary forms; 28 decided to remain with their present suppliers; and one was canceled as the dealer did not wish to supply the subdealer.

BUREAU OF LICENSING

In accordance with the milk control law, any milk dealer, processor, subdealer or store buying milk for resale in New Jersey is required to be licensed. All licenses must be renewed annually, and expire on June 30 regardless of the date of issuance. License fees paid by dealers are based on the quantity of milk sold; subdealer fees are based on the number of routes operated at \$15 per route; the processor fee is \$325; the manufacturer fee is \$75; and the store fee is \$5 for each store selling milk for consumption off the premises.

As the result of a ruling by the Office of the Attorney General in March, 1960, all vending machines operated in New Jersey which dispense milk for consumption off the premises must also be licensed beginning July 1, 1960. The ruling stated that vending machines would be classified as stores, and

the fee would be \$5 for each machine. A form letter was mailed to all dealers, processors and subdealers requesting a list showing the location and serial number of each machine operated. It is estimated that there are between 1,500 and 2,000 of these vending machines in the State. Failure to obtain licenses for vending machines will be considered the same violation as unlicensed stores.

Applications for renewal of licenses to cover the fiscal year 1960-61 were mailed in April, 1960. Because of the limited time period during which applications must be processed and licenses issued, temporary help was employed and additional assistance given by members of other bureaus of the Office.

The following table shows the number of applications processed and licenses issued for the year July 1, 1959 to June 30, 1960, as compared with the previous year.

Type of License	1959-60	1958-59	Change
Dealers, processors, producer-dealers, subdealers and manufacturers	2,234	2,323	— 89
Stores	14,286	12,647	+1,639
Butterfat testers	399	408	— 9
Weighers and samplers	391	379	+ 12
Permits to purchase	138	143	— 5

Despite the decrease of 89 licenses in the higher fee brackets, the net revenue received from license fees for the year 1959-60 was \$6,597.50 more than the previous year. This increased revenue was due mainly to the fact that 1,639 additional store licenses were issued, and that refunds during the 1959-60 period were much less than the previous year. Following is a comparison of the revenue derived from license fees as of June 30 of each year.

	1959-60	1958-59	1959-60 Compared with 1958-59
Total license fees	\$188,226.00	\$182,728.50	+\$5,497.50
Refunds	1,530.50	2,630.50	— 1,100.00
Net revenue from license fees	186,695.50	180,098.00	+ 6,597.50

A new set of records for licensing was imprinted during the past year by the IBM section of the Department of Agriculture. These records had previously been maintained by the Department of the Treasury. There is a tremendous turnover in the ownership of stores licensed to sell milk, thus necessitating frequent changes in the records. By having these records handled within the Department of Agriculture, the transmittal of these changes is more efficient and permits a more accurate and up-to-date record of all milk licensees in New Jersey.

BUREAU OF INVESTIGATIONS AND ENFORCEMENT

During the fiscal year, a total of 8,700 calls were made by investigators. Most of these were made to check complaints or alleged violations and to make routine examinations. In many cases while doing this work, evidence was obtained on additional infringements of the orders and regulations of this Office. Licensees, consumers and representatives of school boards, banks and other institutions were visited and subpoenas were served to witnesses by the investigators.

Informal hearings were held in 461 cases. Charges included distribution of free merchandise; selling below minimum prices as fixed in the orders; failure to keep complete records as required; and failure to file monthly reports and forms as required. Stores selling milk for consumption off the premises without a license and the dealers and subdealers selling milk to these unlicensed stores were the cause for many of the hearings. Also, some hearings were held in cases where dealers and subdealers served wholesale accounts without following the procedure required by the regulations.

The total penalties assessed as a result of the informal hearings amounted to \$19,815. The balance of unpaid penalties at the beginning of the fiscal year carried over from the previous year was \$5,225, making a total due of \$25,040. Of this amount, it was necessary to write off as uncollectible \$1,405, leaving a balance due of \$23,635. The total collected for penalties was \$20,855, and the outstanding balance as of June 30, 1960 was \$2,780.

Creamery inspectors called on 517 creameries to check the composite samples of the milk shipped by New Jersey producers to ascertain if proper butterfat tests had been accredited to these producers. In addition, 243 farms were visited, 108 for the purpose of taking fresh milk samples and 135 to check the agitation in new bulk tanks that had been installed. The total number of bulk holding tanks for milk in New Jersey is ascertained from the reports of the creamery inspectors.

A total of 3,664 pieces of glassware for testing milk was received and calibrated for use by the industry.

Approximately 1,200 forms were received giving notice that stores or other wholesale accounts would change source of supply or take on an additional supplier for milk. The regulations require that these forms be filed 60 days in advance of the intended date for the change. During this period, this Bureau obtains information by questionnaire or personal contact regarding money owed, if any, or the possibility of illegal offers. Of the 1,200 forms received, 865 were given approval, and the balance were either withdrawn, canceled or approval denied.

More than 25,000 H-1A forms were checked during the year by this Bureau. These forms contain data on accounts lost or acquired and price

information, and are required to be completed, notarized and filed by all licensees except stores before the tenth of each month.

BUREAU OF MILK ECONOMICS

PRODUCTION

New Jersey producers and producer-dealers produced a total of 1,133,562,973 pounds of milk during the 1959-60 fiscal year, an increase of 5.79 per cent over the previous year. In North Jersey, an increase of 7.59 per cent occurred, while milk production in South Jersey declined 1.03 per cent.

In part, these changes can be attributed to the shifting of producers from South Jersey markets to markets in North Jersey. The movement of South Jersey producers into the North Jersey markets originated shortly after Official Order 57-3 became effective in August, 1957, and has continued up to the present time. A large number of the producers who have shifted markets were previously delivering milk to handlers regulated by Federal Order 61.

Chart 1 shows monthly production totals for the fiscal years 1958-59 and 1959-60, and the averages for the latest five-year period. Total production during 1959-60 exceeded both the previous year and the five-year average.

The peak in milk production in New Jersey has usually occurred during the month of May. The fiscal year 1959-1960 was no exception. During the month of May, 1960, New Jersey dairy farmers produced more milk than in any other month since the origin of milk control in New Jersey. Total milk production for May, 1960, exceeded by 1.28 per cent the previous monthly high of 109.7 million pounds, set in May, 1955.

Since the number of producers has steadily declined in recent years, the increase in milk production can be attributed to increased production per herd and to the increased efficiency of those producers remaining in the business.

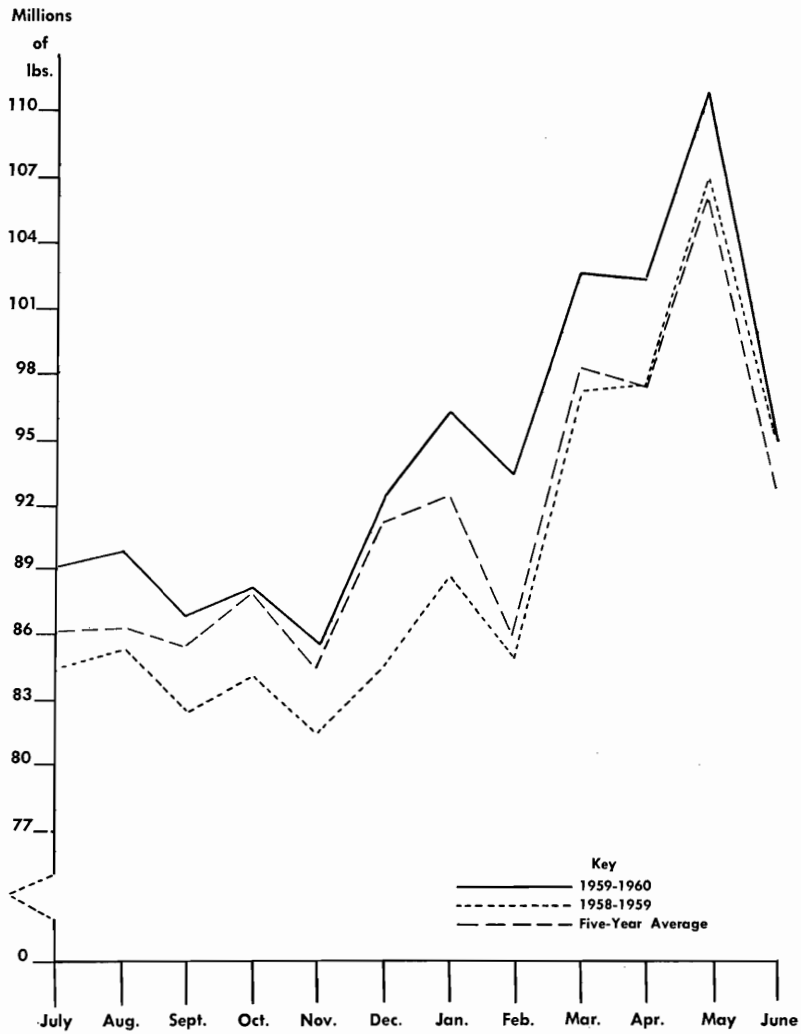


Chart 1. Comparison of Monthly Milk Production in New Jersey 1959-60, 1958-59 and Latest Five-Year Average.

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TABLE 1. PRODUCTION OF MILK AS REPORTED BY DEALERS AND PRODUCER-DEALERS IN NEW JERSEY (POUNDS)

	1959-60		
	North Jersey	South Jersey	New Jersey Total
1959			
July	70,351,467	18,798,369	89,149,836
August	70,668,045	19,296,400	89,964,445
September	68,731,463	18,140,188	86,871,651
October	70,694,550	17,604,798	88,299,348
November	68,729,015	17,017,561	85,746,576
December	74,365,411	18,238,693	92,604,104
1960			
January	78,226,044	18,185,733	96,411,777
February	75,794,469	17,606,755	93,401,224
March	83,659,616	18,997,322	102,656,938
April	83,245,891	19,199,626	102,445,517
May	90,335,516	20,798,324	111,133,840
June	77,143,184	17,734,533	94,877,717
Yearly total	911,944,671	221,618,302	1,133,562,973
Monthly average	75,995,389	18,468,192	94,463,581
Total 1958-59	847,629,342*	223,928,342*	1,071,557,684*
Per cent change 1959-60 as compared to 1958-59	+7.59%	-1.03%	+5.79%

* Revised total for 1958-59.

PRODUCER DELIVERIES OF MILK TO HANDLERS

New Jersey producers, exclusive of producer-dealers, delivered a total of 1,080,481,000 pounds of milk to handlers reporting to the Office of Milk Industry during 1959-60. Total deliveries of milk exceeded total deliveries made during the previous fiscal year by 6.24 per cent.

It has already been shown that total milk production, including the output of both producers and producer-dealers, increased only 5.79 per cent during the fiscal year just ended. Since deliveries of milk to handlers by producers increased 6.24 per cent, it may be concluded that producer-dealers have not increased production in the same proportion as have those producers who deliver their milk to handlers.

The average milk delivery per producer per month to North Jersey handlers was 29,785 pounds during 1959-60. The average milk delivery per producer per month to South Jersey handlers was 3,431 pounds less than the average delivery to North Jersey handlers.

STATE DEPARTMENT OF AGRICULTURE

TABLE 2. NUMBER OF PRODUCERS, TOTAL AMOUNT OF MILK DELIVERED, TOTAL AMOUNT OF MONEY PAID AND AVERAGE PRICE PER MONTH, NORTH JERSEY, YEAR 1959-60

	Number of Producers	Total Amount of Milk (Pounds)	Total Amount of Money	Price Per Hundred-weight
1959				
July	2,444	66,672,741	\$3,442,286.23	\$5.16
August	2,441	66,995,344	3,723,390.18	5.56
September	2,453	65,112,182	3,767,142.52	5.79
October	2,425	66,774,270	3,983,059.48	5.97
November	2,417	64,951,296	3,898,611.90	6.00
December	2,421	70,474,947	4,060,259.75	5.76
1960				
January	2,426	74,297,267	4,096,647.54	5.51
February	2,420	72,162,413	3,894,941.54	5.40
March	2,425	79,755,295	4,133,822.71	5.18
April	2,418	79,350,393	3,875,881.84	4.89
May	2,405	86,378,197	4,019,695.17	4.65
June	2,391	73,455,916	3,426,932.30	4.67
Total		866,380,261	\$46,322,671.16	
Average	2,424	72,198,355	\$3,860,222.59	\$5.38
Total 1958-59	2,489*	801,018,623*	\$42,834,660.57*	\$5.38*
Per cent change 1959-60 as compared to 1958-59	-2.61%	+8.16%	+8.14%	0

* Revised totals for 1958-59.

TABLE 3. NUMBER OF PRODUCERS, TOTAL AMOUNT OF MILK DELIVERED, TOTAL AMOUNT OF MONEY PAID AND AVERAGE PRICE PER MONTH, SOUTH JERSEY, YEAR 1959-60

	Number of Producers	Total Amount of Milk (Pounds)	Total Amount of Money	Price Per Hundred-weight
1958				
July	699	18,208,368	\$1,022,726.15	\$5.62
August	697	18,703,198	1,051,539.02	5.62
September	704	17,587,493	1,015,246.10	5.77
October	696	17,020,961	1,011,551.34	5.94
November	691	16,464,435	985,456.07	5.99
December	690	17,657,039	1,040,380.64	5.89
1960				
January	665	17,548,540	1,021,096.33	5.82
February	667	17,009,268	978,866.47	5.75
March	659	18,346,066	1,052,120.87	5.73
April	654	18,544,796	1,034,175.88	5.58
May	647	19,874,044	1,072,300.22	5.40
June	649	17,136,531	949,473.91	5.54
Total		214,100,739	\$12,234,933.00	
Average	677	17,841,728	\$1,019,577.75	\$5.72
Total 1958-59	732*	215,992,070*	\$12,345,568.10*	\$5.72*
Per cent change 1959-60 as compared to 1958-59	-7.51%	-0.88%	-0.90%	0

* Revised totals for 1958-59.

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TABLE 4. NUMBER OF PRODUCERS, TOTAL AMOUNT OF MILK DELIVERED, TOTAL AMOUNT OF MONEY PAID AND AVERAGE PRICE PER MONTH, NEW JERSEY, 1959-60

	Number of Producers	Total Amount of Milk (Pounds)	Total Amount of Money	Price Per Hundred-weight
1959				
July	3,143	84,881,109	\$4,465,012.38	\$5.26
August	3,138	85,698,542	4,774,929.20	5.57
September	3,157	82,699,675	4,782,388.62	5.78
October	3,121	83,795,231	4,994,610.82	5.96
November	3,108	81,415,731	4,884,067.97	6.00
December	3,111	88,131,986	5,100,640.39	5.79
1960				
January	3,091	91,845,807	5,117,743.87	5.57
February	3,087	89,171,681	4,873,808.01	5.47
March	3,084	98,101,361	5,185,943.58	5.29
April	3,072	97,895,189	4,910,057.72	5.02
May	3,052	106,252,241	5,091,995.39	4.79
June	3,040	90,592,447	4,376,406.21	4.83
Total		1,080,481,000	\$58,557,604.16	
Average	3,100	90,040,083	\$4,879,800.34	\$5.44
Total 1958-59	3,222*	1,017,010,693*	\$55,180,228.67*	\$5.45*
Per cent change 1959-60 as compared to 1958-59	-3.79%	+6.24%	+6.12%	-0.18%

* Revised totals for 1958-59.

PRICES

The average monthly prices received by New Jersey producers during the fiscal year 1959-60 were closely in line with the average monthly prices received during the previous fiscal year, but higher than the average price received during the five-year period ending June 30, 1959.

Prices received by New Jersey producers generally increase during the June to November period and decline during the December to May period. This was true during the past year. Milk producers in both North and South Jersey during the 1959-60 fiscal year received the same average price for their milk as they received during the previous fiscal year. However, the average price for the entire State was one cent less than the average price for the previous fiscal year. Actually, the one cent decrease is attributed to fractions and the rounding of fractions and should be considered as such.

New Jersey producers selling milk to handlers regulated by the Office of Milk Industry continued to receive a price advantage over producers delivering milk to handlers regulated by Federal Orders 61 and 27. In the

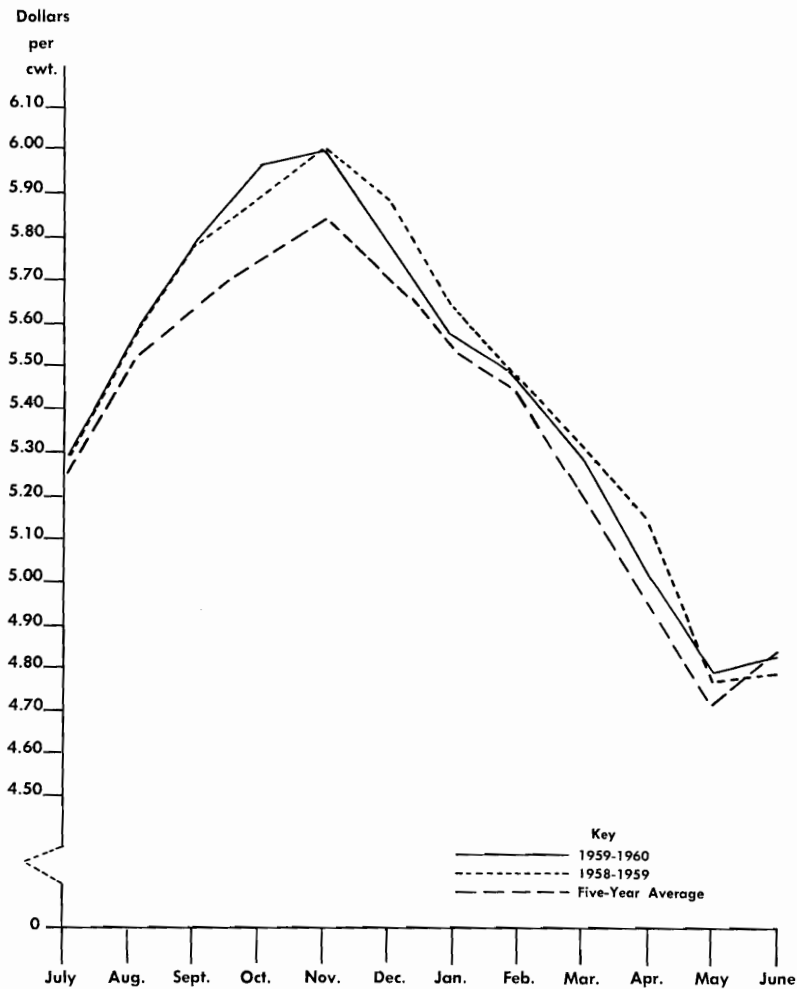


Chart 2. Comparison of Average Monthly Prices Received by New Jersey Producers for Milk, 1959-60, 1958-59 and Latest Five-Year Average

12-month period ending June 30, 1960, producers delivering milk to plants regulated by the Office of Milk Industry received an average monthly price of \$5.77 per hundredweight while producers delivering milk to Federal Order 61 and 27 plants received an average price of \$4.87 and \$4.59 per hundredweight, respectively. In the fiscal year 1958-59 the prices received by producers delivering to handlers regulated by this Office exceeded the prices received under Federal Order 61 and 27 by \$.81 and \$.74 per hundredweight, respectively.

TABLE 5. COMPARISON OF PRICES PAID TO PRODUCERS BY HANDLERS REGULATED BY NEW JERSEY OFFICE OF MILK INDUSTRY WITH PRICES PAID TO PRODUCERS UNDER FEDERAL ORDERS 61 AND 27, FOR 3.5 PER CENT MILK, 1959-60

	Blend Prices Paid Producers			Amount New Jersey Price Exceeded	
	N.J. Handlers ¹	Order 61 ²	Order 27 ³	Order 61	Order 27
1959					
July	\$5.71	\$4.88	\$4.506	\$.83	\$1.204
August	5.71	4.89	4.858	.82	.852
September	5.84	5.06	5.058	.78	.782
October	5.94	5.33	5.198	.61	.742
November	5.96	5.33	5.208	.63	.752
December	5.88	5.24	4.968	.64	.912
1960					
January	\$5.87	\$4.84	\$4.728	\$1.03	\$1.142
February	5.81	4.77	4.548	1.04	1.262
March	5.78	4.73	4.318	1.05	1.462
April	5.66	4.49	4.028	1.17	1.632
May	5.48	4.37	3.808	1.11	1.672
June	5.64	4.50	3.888	1.14	1.752
Average	\$5.77	\$4.87	\$4.59	\$.90	\$1.18

¹ Average price paid New Jersey producers for Grade B milk by New Jersey handlers not regulated by either Federal Order 61 or Federal Order 27.

² Blend prices paid producers by Order 61 handlers converted to a 3.5 per cent butterfat basis.

³ Blend prices paid producers by Order 27 handlers at the 61-70 mile zone.

GROSS INCOME

New Jersey milk producers, exclusive of producer-dealers, realized a gross income exceeding 58.5 million dollars for milk delivered to handlers during the fiscal year 1959-60. This was an increase of 6.12 per cent above the gross income received for milk delivered during the previous fiscal year.

The increase in gross income is attributed to increased production of milk. Although the average price received by producers for milk delivered to handlers was the same as the previous year, production was more than 6 per cent greater than the previous year.

Producers delivering milk to North Jersey handlers increased their gross incomes by 8.14 per cent during 1959-60. During that period, these producers realized a gross income per producer of \$19,110.01 or \$1,900.42 more than was realized from deliveries of milk during the previous fiscal year.

During 1959-60 producers delivering milk to South Jersey handlers realized a gross income of 0.90 per cent less than the previous fiscal year. However, since the decline in the number of producers delivering milk was greater than the decline in gross income, the average gross income per producer delivering to South Jersey handlers during 1959-60 was \$18,072.28 or \$1,206.75 more than in the previous 12-month period.

SALES OF FLUID MILK AND CREAM

Fluid milk sales during the year exceeded 840 million quarts. Sales of fluid milk followed the same seasonal pattern as has been established in recent years.

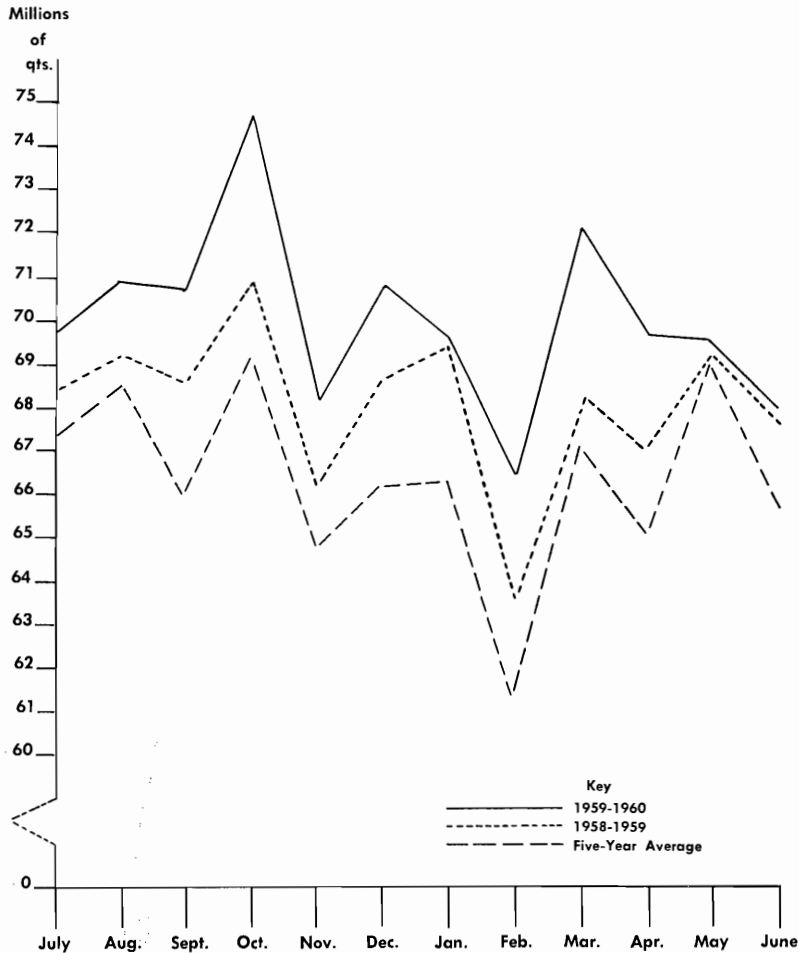


Chart 3. Comparison of Monthly Sales of Fluid Milk in New Jersey, 1959-60, 1958-59 and Latest Five-Year Average

The peak of fluid milk sales during the past year occurred in October. Fluid milk sales during this month exceeded the fluid milk sales reported for any other month since the origin of milk control in New Jersey and exceeded the previous monthly high established in August, 1957, by 4.26 per cent.

Total fluid milk sales for the fiscal year 1959-60 were 2.8 per cent above total fluid milk sales for 1958-59. The increase in fluid milk sales was greater percentage-wise in South Jersey where sales increased approximately 5 per cent than in North Jersey where sales increased 2.25 per cent.

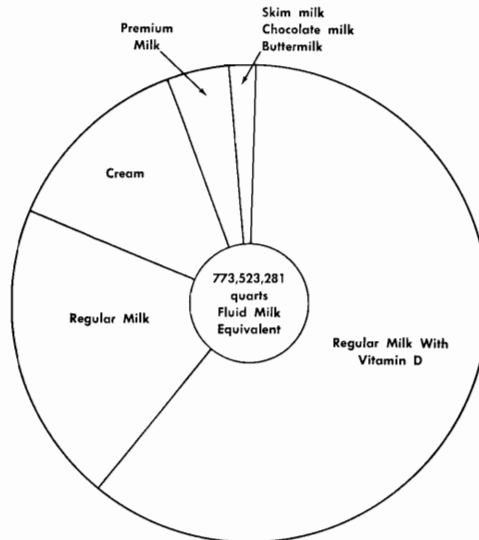


Chart 4. Dealer Sales by Type of Product, North Jersey, 1959-60

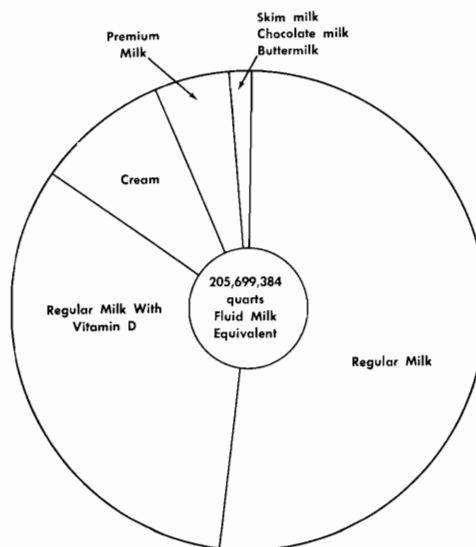


Chart 5. Dealer Sales by Type of Product, South Jersey, 1959-60

NEW JERSEY STATE LIBRARY

Sales of the various milk products distributed by dealers and producer-dealers in North and South Jersey have been analyzed to determine the relative proportion of each product to total sales. This comparison is shown in Charts 4 and 5.

In South Jersey sales of regular milk were larger percentage-wise than any of the other products sold. In North Jersey sales of regular milk with Vitamin D added accounted for the larger proportion of sales. Cream sales in North Jersey are larger percentage-wise than are cream sales in South Jersey. Sales of premium milk are larger as a percentage of the total in South Jersey than they are in North Jersey.

Total cream sales in New Jersey during 1959-60 were slightly above the previous year. The increase in cream sales was centered in South Jersey where sales of cream increased 4.5 per cent. Sales of cream in North Jersey decreased slightly.

EXPORTS AND IMPORTS OF MILK AND CREAM

New Jersey producers exported more than 263.9 million pounds of milk during 1959-60. Exports of New Jersey-produced milk exceeded exports during the previous fiscal year by 10.11 per cent.

Imports of milk into New Jersey during the fiscal year ending June 30, 1960, were 1,099.5 million pounds or 1.91 per cent greater than the previous fiscal year. South Jersey dealers imported 9.35 per cent more milk, while imports in North Jersey increased only slightly.

Imports of cream declined on a statewide basis during the 12-month period. North Jersey handlers imported 9.74 per cent less cream in the fiscal year 1959-60 than the previous fiscal year. The decrease in cream imports in North Jersey more than offset the 7.87 per cent increase in cream imports by South Jersey handlers. A total of 212.4 million pounds of cream was imported during the year.

Official Proceedings of the Forty-fifth Annual State Agricultural Convention

The forty-fifth annual State Agricultural Convention was held in the Assembly Chamber of the State Capitol in Trenton, on Tuesday, January 26, 1960. The meeting was called to order at 9:40 A. M. by Herbert O. Wegner, president of the State Board of Agriculture. The invocation was offered by the Reverend Henry Voigt, pastor of the Vineland Redeemer Lutheran Church.

The roll of delegates was called by Secretary of Agriculture, Phillip Alampi as follows:

DELEGATES OF THE STATE AGRICULTURAL CONVENTION

From County Boards of Agriculture

Name	Address	County
Delmo Muzzarelli	Vineland	Atlantic
Louis J. Sanguinetti	Minotola	Atlantic
Henry B. Kellog	Tenaflly	Bergen
Richard L. Sylstra	Wyckoff	Bergen
Barclay H. Allen	Mount Holly	Burlington
Clement B. Lewis	Riverton	Burlington
Ernest C. Bell	Bellmawr	Camden
Samuel C. DeCou	Haddonfield	Camden
Russell E. Taylor	Cape May	Cape May
Felix E. Wuerker	Cape May	Cape May
Wesley McCloskey	Millville	Cumberland
Wilbert C. Newkirk	Bridgeton	Cumberland
William A. Crane	West Caldwell	Essex
Ernest J. Ricca	West Orange	Essex
Joseph Maccarone	Swedesboro	Gloucester
Ralph B. Starkey	Mullica Hill	Gloucester
Elias Poulette	Jersey City	Hudson
Dr. Morris Ziskind	Secaucus	Hudson
William W. Phillips	Milford	Hunterdon
Fred H. Totten	Ringoes	Hunterdon
Robert N. Simpkins	Yardville	Mercer
Leonard Van Hise	Cranbury	Mercer
Alex Dembeck	New Brunswick	Middlesex
J. Edward Chamberlin	Cranbury	Middlesex
Walter W. Lott	Freehold	Monmouth
William Schlechtweg	Freehold	Monmouth
Jerry Suk	Denville	Morris
Karl Wentorf	Whippany	Morris
Daniel Crabbe	Toms River	Ocean
Martin Schubkegel, Jr.	Lakewood	Ocean
Ernest Hausamann	Wayne	Passaic
Charles W. M. Hess	Wayne	Passaic
John Catalano	Woodstown	Salem
Samuel M. Dare, Jr.	Monroeville	Salem
David W. Amerman	Neshanic	Somerset
Gilbert I. Runyon	Skillman	Somerset
George H. Clark	Sussex	Sussex
Herman Kleindienst	Newton	Sussex
Herbert H. Ditzel, Jr.	Cranford	Union
John Koscielny	Scotch Plains	Union
Henry Douma	Hackettstown	Warren
Lloyd W. Heritage	Bloomsbury	Warren

From State and Pomona Granges

W. Ellsworth Oberly	Stewartsville	State Grange
Kenneth T. Stretch	Mullica Hill	State Grange
Martin Decker	Hammonton	Atlantic
John Clauss	Fairlawn	Bergen-Passaic
Lester C. Jones	Medford	Burlington
Reuben H. Dobbs	Marlton	Camden
Allan McClain	Green Creek	Cape May
Edward Kielblock	Gillette	Central District
Robert P. Wheaton	Bridgeton	Cumberland
Kenneth T. Stretch	Mullica Hill	Gloucester
John T. Hudnett	Flemington	Hunterdon
Charles M. Ewart	Yardville	Mercer
J. V. S. Dumont	Somerville	Middlesex-Somerset
Howard P. Story, Sr.	Freehold	Monmouth
Harvey M. Beal, Sr.	Elmer	Salem
John P. Cowan	Newton	Sussex
Charles S. Smith	Broadway	Warren

From Other Organizations

- American Cranberry Growers' Association—Hobart R. Gardner, Indian Mills; Edward V. Lipman, New Brunswick.
- Jersey Chick Association—Clifford K. Darby, Somerville; William Rapp, Farmingdale.
- New Jersey Association of Nurserymen—William Flemer, III, Princeton; George F. Runge, Elizabeth.
- New Jersey State Florists' Association, Inc.—Michael J. Klein, Blairstown; George H. Masson, Jr., Yardville.
- New Jersey State Horticultural Society—C. William Haines, Masonville; Charles E. Maier, Pine Brook.
- New Jersey State Poultry Association—Bernard Struthoff, Vincentown; Martin Berwin, Vineland.
- United Milk Producers of New Jersey—Calvin Danberry, Ringoes; Henry Zdancewic, Freehold.
- Blueberry Cooperative Association—Fred E. Scammell, Toms River.
- Cooperative Growers' Association, Inc.—Placidio Varsaci, Beverly.
- The Cooperative Marketing Associations in New Jersey, Inc.—Theodore Ritter, Vineland.
- New Jersey Agricultural Experiment Station—George G. Trautwein, Closter.
- New Jersey Beekeepers Association—Porter H. Evans, Morristown.
- New Jersey College of Agriculture—Ordway Starnes, New Brunswick.
- New Jersey Crop Improvement Association—Thomas H. Sutton, Burlington.
- New Jersey Guernsey Breeders' Association, Inc.—Harvey C. Dreibelbis, Colts Neck.
- New Jersey Holstein-Friesian Cooperative Association, Inc.—Charles Kirby, Harrisonville.
- New Jersey State Potato Association—John Pollak, Cranbury.
- E. B. Voorhees Agricultural Society—William M. Nulton, Jr., New Brunswick.

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APPOINTMENT OF COMMITTEES

The following committees were appointed by President Wegner :

NOMINATING COMMITTEE FOR MEMBERS OF THE STATE BOARD OF AGRICULTURE

Clement B. Lewis, <i>Chairman</i>	Burlington County Board of Agriculture
Charles E. Maier, <i>Vice-Chairman</i> ...	New Jersey State Horticultural Society
John Catalano	Salem County Board of Agriculture
J. Edward Chamberlin	Middlesex County Board of Agriculture
John P. Cowan	Sussex County Pomona Grange
William A. Crane	Essex County Board of Agriculture
Clifford K. Darby	Jersey Chick Association
Reuben S. Dobbs	Camden County Pomona Grange
Henry Douma	Warren County Board of Agriculture
Ernest Hausmann	Passaic County Board of Agriculture
Allan McClain	Cape May County Pomona Grange
William W. Phillips	Hunterdon County Board of Agriculture
Theodore Ritter	The Cooperative Marketing Associations in New Jersey, Inc.
George F. Runge	New Jersey Association of Nurserymen
Louis J. Sanguinetti	Atlantic County Board of Agriculture
Martin Schubkegel, Jr.	Ocean County Board of Agriculture
Robert N. Simpkins	Mercer County Board of Agriculture
Ralph B. Starkey	Gloucester County Board of Agriculture
Howard P. Story, Sr.	Monmouth County Pomona Grange
George G. Trautwein	New Jersey Agricultural Experiment Station
Dr. Morris Ziskind	Hudson County Board of Agriculture

COMMITTEE ON RESOLUTIONS

Martin Decker, <i>Chairman</i>	Atlantic County Pomona Grange
David W. Amerman	Somerset County Board of Agriculture
John Clauss	Bergen-Passaic Pomona Grange
Calvin Danberry	United Milk Producers of New Jersey
Samuel C. DeCou	Camden County Board of Agriculture
Herman Kleindienst	Sussex County Board of Agriculture
W. Ellsworth Oberly	New Jersey State Grange
William Schlechtweg	Monmouth County Board of Agriculture

COMMITTEE ON CREDENTIALS

Charles Kirby, <i>Chairman</i>	New Jersey Holstein-Friesian Cooperative Association, Inc.
Samuel M. Dare, Jr.	Salem County Board of Agriculture
C. Harold Joyce	Burlington County Pomona Grange
Edward V. Lipman	American Cranberry Growers' Association
Karl Wentorf	Morris County Board of Agriculture

COMMITTEE TO WAIT ON THE GOVERNOR

C. William Haines, <i>Chairman</i>	New Jersey State Horticultural Society
Charles M. Ewart	Mercer County Pomona Grange
Michael J. Klein	New Jersey State Florists' Association
Wilbert C. Newkirk	Cumberland County Board of Agriculture
Felix E. Wuerker	Cape May County Board of Agriculture

REPORT OF COMMITTEE ON CREDENTIALS

The credentials committee examined the certificates of delegates and reported them to be in order.

ELECTION OF MEMBERS OF THE STATE BOARD OF AGRICULTURE

The chairman of the nominating committee placed three names in nomination for membership on the State Board of Agriculture. Charles A. Collins was nominated to serve the unexpired term of Aubrey S. Walton, Jr. For the regular terms, Reginald V. Page, Ocean County poultryman, and Azariah M. Frey, Warren County dairy farmer, were nominated. There being no further nominations, the Secretary cast a ballot to make this election unanimous.

CITATIONS

Citations for distinguished service to agriculture were awarded to the following: William H. Martin of New Brunswick; Thurlow C. Nelson of Cape May Court House; Emmor Roberts of Vincentown; and Herbert W. Voorhees of Hopewell. The citation to Mr. Voorhees was made posthumously.

The citations, read by Secretary of Agriculture, Phillip Alampi, were as follows:

CITATION OF WILLIAM H. MARTIN

Your illustrious career of over 45 years, dedicated to advancement of the diversified agriculture of your adopted State is worthy of the highest commendation.

As a gifted instructor in both the lecture room and the laboratory you have inspired class after class of students to the attainment of a fuller knowledge. Likewise, in the field of research you have demonstrated the same zeal to promote efficient production.

Your loyalty to your colleagues is well-known. You have won the high regard and respect of your co-workers. They cite with enthusiasm your tolerance, genial personality and willingness to share every burden.

As an able administrator, you have carried on the tradition of Cook, Voorhees and Lipman, adding much to the high renown of the New Jersey Agricultural Experiment Station. You have consistently fostered a strong three-fold program of resident instruction, research and extension teaching, all welded into a single unit dedicated to the advancement of agriculture and related sciences.

You have aided countless farmers facing difficult adjustments concerned with the transition from the arts and skill of the husbandman to the science of modern commercial agriculture. You are counted as a sincere friend and benefactor by two generations of farmers whose lives have been enriched and whose enterprises have prospered under your guidance.

On the occasion of your pending retirement and in the presence of these delegates representing the diverse agricultural interests of our State, the members of the State

Board of Agriculture acknowledge your many valuable contributions and, as an expression of their gratitude, award to you this CITATION FOR DISTINGUISHED SERVICE TO NEW JERSEY AGRICULTURE.

CITATION OF THURLOW C. NELSON

Yours has been a long and noteworthy career at Rutgers University high-lighted with honors and punctuated by your contribution of valuable scientific papers. Most commendable has been your role as teacher, counsellor and friend of countless students, many of them destined to become outstanding authorities in their respective fields of science.

As a research biologist of renown, you are a worthy and talented son of a distinguished father who gained national recognition for his early studies of bovine tuberculosis and became the world-wide authority on the scientific culture of oysters. As his successor, you too have won acclaim for your 40 years of fruitful research in establishing sound cultural practices in oyster farming.

As one of New Jersey's pioneer conservationists, you have inspired many to a greater appreciation of our natural resources, particularly our soil and water. For over 30 years as a member of the Water Policy and Supply Council and as its chairman, you have demanded correction of wasteful practices and pursued diligently a policy of conservation and fair distribution. Farmers thus have been assured supplies of water for irrigation purposes.

Since your recent retirement you have demonstrated your lasting interest in our agriculture and the economic welfare of New Jersey by continuing in public service as a member of the State water authority.

In the presence of these delegates representing the principal farm organizations of our State, the members of the State Board of Agriculture desire publicly to commend you and to express their gratitude for your many contributions with this award for DISTINGUISHED SERVICE TO NEW JERSEY AGRICULTURE.

CITATION OF EMMOR ROBERTS

For nearly three centuries, members of each generation of your distinguished family have won wide recognition for their many contributions to the advancement of New Jersey agriculture. You, too, have fulfilled that tradition in good measure. New Jersey is proud of you as an outstanding son of her soil.

Your fellow farmers have honored you repeatedly with high offices in which you have demonstrated a remarkable capacity for leadership. Likewise, throughout your career in public affairs, particularly as a member of both houses of the Legislature, you established a commendable record of integrity and service.

Successful as a grower, you have been prompt to adopt new practices and have generously offered your own orchards for tests and experiments, thus encouraging others and sharing with them such new knowledge. Also in the field of marketing you have been alert to the need for keeping step with new trends.

Gracious, ever modest and self-effacing, you have demonstrated the true principles of your faith as a member of the Society of Friends, striving unselfishly to advance the welfare of others. Your associates acclaim your irrepressible spirit, enthusiasm and optimism.

It is most fitting that we pause in our proceedings in this Assembly Chamber where you formerly represented Burlington County, to commend you for your lifetime of service. The members of the State Board of Agriculture pay tribute to your example and express our gratitude with this CITATION FOR DISTINGUISHED SERVICE TO NEW JERSEY AGRICULTURE. This occasion has a special significance in view of your past service as a member of this Board.

CITATION OF HERBERT W. VOORHEES
(Awarded Posthumously)

Widely known for his dynamic leadership, his vision and resolution, Herbert W. Voorhees was a vigorous and active worker, ever seeking to further the interests and the welfare of New Jersey agriculture. His thinking was keen and clear, and his talent for effectively expressing his views won him wide recognition as an able advocate of the farmer.

Fearless, he never shirked a task nor lacked the courage to challenge an issue or to support to the utmost a deserving cause. He resolutely stood for self-help with a minimum of government direction when others were willing to yield to the blandishments of Federal aid.

In national farm affairs, he answered every call with boundless energy, ever seeking the betterment of agriculture throughout the Nation. He rebuilt and strengthened the New Jersey Farm Bureau, expanded its services and established its headquarters in The Farmhouse, itself a lasting monument to his achievements.

A tireless worker, he never weighed the sacrifices of countless days of absence from his family and farm nor the long hours of weary travel. He lived a full life and accomplished much despite the unfortunate curtailment of his promising career.

His voice was frequently heard in this Assembly Chamber where he effectively testified at hearings and conferred with members of the Legislature. For nearly a score of years he participated in the proceedings of this Convention and took a prominent part in other Farmers Week sessions.

Saddened at his untimely passing, the members of the State Board of Agriculture join on this occasion the host of friends of the late Herbert W. Voorhees in paying tribute to his memory with this CITATION FOR DISTINGUISHED SERVICE TO NEW JERSEY AGRICULTURE.

REPORT OF THE COMMITTEE ON RESOLUTIONS

The following resolutions, presented by Martin Decker and reported favorably by the committee, were adopted by the State Agricultural Convention:

WHEREAS, Governor Robert B. Meyner continues to demonstrate his sincere interest in the agriculture of New Jersey, by conferring with our Secretary of Agriculture and other farm leaders upon the problems at hand and of mutual concern; therefore be it

Resolved, That this Agricultural Convention, officially assembled by law in Trenton on January 26, 1960, commend our Chief Executive for his assistance to agriculture in the past, and respectfully entreat his continued attention to this important segment of the economy of the Garden State; and be it

Further Resolved, That we request our Secretary of Agriculture, the Honorable Phillip Alampi, to forward to Governor Meyner a copy of this resolution conveying to him our esteem and high regard, along with our best wishes for a continuation of this pleasant and valuable relationship which has existed during his occupancy of office.

Resolved, That we welcome as participants in Farmers Week two organizations holding meetings here for the first time, namely, the New Jersey Vocational Agriculture Teachers Association and the New Jersey Poultry Meat Growers Association,

and wish them all of the benefits from their conferences which the many other organizations enjoy through exchange of information and ideas for the improvement of their respective fields of endeavor.

WHEREAS, The 1959 Convention of Agricultural Delegates resolved to endorse the efforts of the State Board of Agriculture and the Secretary of Agriculture to obtain adequate laboratory and administrative facilities in a rural location accessible to farmers from any part of the State; and

WHEREAS, That resolution urged State government fiscal authorities to provide the necessary funds for these facilities; and

WHEREAS, Considerable progress has now been made towards the possible construction of a Department of Agriculture Building to include essential service facilities at a more suitable location; therefore be it

Resolved, That this Convention of Agricultural Delegates commend Governor Robert B. Meyner and State Treasurer John A. Kervick for their interest and persistent efforts to provide suitable facilities for the Department of Agriculture and express anticipation of occupancy of the new building on or about July 1, 1961.

WHEREAS, There is now functioning in the Department of Agriculture a State Soil Conservation Committee; and

WHEREAS, This Committee is actively engaged in an effort to be of greater benefit to New Jersey farmers and all citizens of the State in fulfilling to the utmost the objectives for which it was originally created; and

WHEREAS, Governor Robert B. Meyner and the Legislature contributed materially to obtaining revisions in the State Soil Conservation Act which resulted in furthering the Soil Conservation program in New Jersey; therefore be it

Resolved, By this Agricultural Convention, that Governor Meyner and the Legislature be commended for their interest and support of the State Soil Conservation program; and be it

Further Resolved, That copies of this resolution be sent to Governor Meyner and members of the New Jersey Legislature.

WHEREAS, State marketing orders and agreements are being effectively used in other states to achieve orderly marketing and expand outlets for agricultural products; therefore be it

Resolved, That this Agricultural Convention now in session request our Secretary of Agriculture, the Honorable Phillip Alampi, to survey existing marketing orders and agreements for possible adaptation to the marketing needs of New Jersey farmers; and be it

Further Resolved, That if determined feasible, enabling legislation be introduced and supported by all farm organizations.

WHEREAS, The practice of buyers purchasing fruits and vegetables on an inspection on arrival basis has been abused by ordering more loads of a commodity than required; accepting only best quality even though all lots may have met the specifications for delivery; accepting only loads that are purchased in the lowest range of prices thereby getting favorable cost advantages, and by unwarranted rejections which cause

a loss to the shipper and which if handled for the shipper in an amply supplied market may contribute to depressed prices of the commodity thereby causing losses to a whole industry; and

WHEREAS, Numerous complaints of unwarranted rejections by wholesalers have been processed by the offices which administer The Perishable Agricultural Commodities Act to the satisfaction of the seller and, on the other hand, very few complaints have been registered against chain store buyers as a result of unwarranted rejections because of the fear of reprisals and loss of future business, even though the rejections are numerous; therefore be it

Resolved, That this Agricultural Convention now in session request all farm organizations to seek the enactment of such amendments to the Perishable Agricultural Commodities Act as are necessary to require chain store buying or warehousing operations to keep records of any and all intentions to reject, and that such commodities identified in the record be submitted to an impartial Federal fruit and vegetable inspector who shall determine the grade and condition or other terms of quality and who shall compare them with the grade and condition or other terms of quality in the purchase order or agreement of sale; and if the grade and condition or other terms of quality of the commodity are equal to or better than the grade and condition or other terms of quality in the purchase order or agreement of sale, the commodity is to be accepted by the chain store buyer or warehouse receiver on order of the United States Secretary of Agriculture without action or complaint by the shipper; or if below the grade and condition or other terms of quality in the purchase order or agreement of sale, the shipper shall be notified immediately of the reasons for failure to meet the requirements of sale and a copy of the certificate issued shall be mailed to the shipper; and be it

Further Resolved, That this resolution be sent to the American Farm Bureau, National Grange and commodity organizations concerned.

WHEREAS, The migrant labor situation is becoming more difficult each year through demands for increased housing requirements and wage regulations; and

WHEREAS, Farmers in the State have made great progress in raising both housing standards and wage returns to migrant workers; and

WHEREAS, The State Migrant Labor Board establishes minimum housing and sanitary requirements for migratory farm housing; and

WHEREAS, Farmers have but one official farm representative on the Migrant Labor Board; therefore be it

Resolved, That farmers be granted a greater share in the regulation of farm labor problems by the appointment of at least three farmer members to the Migrant Labor Board; and be it

Further Resolved, That a copy of this resolution be forwarded to Governor Robert B. Meyner, members of the New Jersey Legislature and the Commissioner of Labor and Industry.

WHEREAS, The impact of present local taxing methods has caused a continually increasing burden on farm businesses; and

WHEREAS, The movement into and settlement of urban people in rural communities add to the impact of the tax burden on farmers; and

WHEREAS, Agriculture in general is adversely affected by a cost-price squeeze of increasing costs and decreasing prices received for its products; and

WHEREAS, A productive, flourishing agriculture is a valuable asset to the total economy of the State of New Jersey; therefore be it

Resolved, That various methods and alternatives be explored in order to obtain an equitable sharing of the costs of governmental services to the end that farmers do not bear an unjust share of local taxation; and be it

Further Resolved, That a copy of this resolution be sent to Governor Robert B. Meyner and the members of the Legislature.

WHEREAS, The Rural Advisory Council has become a permanent element within the Department of Agriculture; and

WHEREAS, The Council is actively engaged in studying social and economic problems confronting rural areas of New Jersey; therefore be it

Resolved, That Governor Robert B. Meyner and members of the Legislature be commended for their interest and participation in establishing a permanent Rural Advisory Council; and be it

Further Resolved, That copies of this resolution be sent to Governor Meyner and the members of the Legislature.

WHEREAS, The production of cranberries is an important segment of New Jersey's agricultural economy; and

WHEREAS, The industry has been done irreparable harm by the untimely and indiscriminate announcement by an agency of the United States Government concerning alleged contamination of cranberries and cranberry products; and

WHEREAS, New Jersey cranberries were not contaminated as alleged; and

WHEREAS, It was impossible to market them due to this action; therefore be it

Resolved, That this Agricultural Convention strongly urge the Department of Agriculture and the Congress of the United States to indemnify the industry for its actual monetary losses; and be it

Further Resolved, That a copy of this resolution be sent to the President of the United States, the Vice-President, the Secretary of Agriculture, the Secretary of Health and Welfare, and each Senator and Representative.

WHEREAS, Since our last convention, God in His infinite wisdom has taken from our midst a number of friends and leaders in their respective fields of endeavor among whom were Aubrey S. Walton, Jr., prominent vegetable grower of Burlington County who was elected to the State Board of Agriculture in January 1957 and served one year and seven months; Roscoe C. Clayton of Monmouth County, also a former member of the State Board of Agriculture; Herbert W. Voorhees of Mercer County, well known president of the New Jersey Farm Bureau; Orley Bowen, county agent of Middlesex County for many years; Dr. James W. Crouse of Lawrenceville, career veterinarian with the State Department of Agriculture; Thomas L. Lawrence of Sussex County, long-time general manager of the United Milk Producers of New Jersey; Henry H. Albertson of Burlington County, well-known cherry, apple and peach grower who was a former president of the New Jersey Horticultural Society; Louis M. Hardin of Sussex County, a founder of and long-time vice-president of the Dairymen's League Cooperative; and Richard J. Stevenson of Hunterdon County, vice-president of the Hunterdon County Board of Agriculture at the time of his passing; and

WHEREAS, The passing of these friends has caused sorrow that is best alleviated by the remembrance of their fellowship and service to others; therefore be it

Resolved, That we pause in our proceedings for a moment of silence as a respectful tribute to their memories.