

THE STATE BOARD OF AGRICULTURE, 1936-1937

STATE OF NEW JERSEY
DEPARTMENT OF AGRICULTURE
WILLIAM B. DURYEE, SECRETARY



Twenty-first Annual Report
of the
New Jersey
State Department of Agriculture

July 1, 1935—June 30, 1936

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Trenton, N. J., December, 1936

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1935-1936

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STATE OF NEW JERSEY
DEPARTMENT OF AGRICULTURE
WILLIAM B. DURYEE, Secretary
Trenton

November 18, 1936.

*To 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 Twenty-first Annual Report of the New Jersey Department of Agriculture, for the fiscal year ended June 30, 1936.

Respectfully,

W. B. Duryee

TWENTY-FIRST ANNUAL REPORT OF THE NEW JERSEY STATE DEPARTMENT OF AGRICULTURE

JULY 1, 1935—JUNE 30, 1936

Report of the Secretary of Agriculture

WILLIAM B. DURYEE

The total value of farm commodities produced on New Jersey farms in 1936 shows, on the whole, a definite turn for the better for the agriculture of the state. Comparison of the value of the total agricultural and horticultural products with the latest available figures for the commercial products of the state shows that the farm output ranks second in the long list of commodities produced in New Jersey, being exceeded only by the products of oil refineries. If the computation of values is based on commodities that are both produced and processed in this state, the output from New Jersey farms tops the list of all our industries.

The value of farm products, nursery, greenhouse and forest products amounts to \$118,000,000, as compared with \$74,000,000 in 1932, an increase of 60 per cent. The value of farm products alone is \$108,000,000 this year, as compared with \$64,000,000 in 1932. This increase is due largely to the effect of the greatest national drouth in recent history, the production of fairly good crops in New Jersey and the higher prices caused by scarcity. Another factor in the increased value of crops this year is due to greater industrial activity with consequent greater consumer buying power.

Not all New Jersey farmers have shared in this increase in values of farm crops, since some areas and some crops have been particularly hard hit by drouth and in some instances by low prices. Furthermore, there have been decided increases in the costs of production. These increased costs are shown in the higher cost of labor, feed, seeds and other products which are purchased by New Jersey farmers in their intensive farming practices.

In the case of particular commodity groups, it was estimated that the farm value of milk this year approximates \$26,000,000, as compared

with \$14,500,000 in 1932. This increase is due to the higher prices being received for milk this year, as compared with 1932 when the dairymen were in genuine distress, and also to an increase in production during the current year. The value of eggs produced on farms approximated \$13,500,000 in 1936, as compared with less than \$9,000,000 in 1932, an increase of over 50 per cent. The value of white potatoes this year is in excess of \$9,000,000, as compared with somewhat over \$3,000,000 in 1932, which was a disastrous season for New Jersey potato growers. The value of livestock and all livestock products will exceed \$50,000,000 this year, while the value of truck crops, excluding white and sweet potatoes, is about \$21,000,000. Over \$10,000,000 represents the value of nursery, greenhouse and forest products this year, an indication of the importance of these industries to New Jersey. In the order of importance from the standpoint of income received by producers, dairying ranks first, truck crops second, poultry and eggs a close third, followed by grain crops, white potatoes, hay, tree fruits and grapes, sweet potatoes and berries.

The activities of the department and of the Milk Control Board have been closely allied to the stimulus that has been given to agriculture in New Jersey during the year. The close cooperation of state agricultural agencies with the farmers has been a helpful factor in the present improved status of agriculture generally in New Jersey.

REPORT OF PROGRESS—CLASSIFICATION OF FUNCTIONS AND PURPOSES—DEFINITE OBJECTIVES

Created by the legislature, the State Department of Agriculture has a well-defined legal background and is charged with numerous functions designed to benefit the people of the state. Because agriculture in New Jersey is perhaps more diversified and at the same time more intensive than in any other state in the union, the policy of the department must be equally diversified and progressive.

Without clear-cut objectives, no farm nor business nor department of government can capitalize on its investment of funds and human resources. There may be only partial success in obtaining the objectives due to various limitations and handicaps; but, if a program is lacking and hit-or-miss procedure is the order of each day and each year, worthwhile accomplishment is almost unattainable.

In this, the twenty-first annual report of the Department of Agriculture, it appears very much in order to call special attention to some of the principal objectives and the progress made during the year toward the attainment of these objectives.

TUBERCULOSIS ERADICATION

The objective in this project, begun in earnest in 1917, is to remove the menace of tuberculosis from all the herds in the state. Notable progress was made during the year. As the result of applying 212,996 tuberculin tests to cattle throughout the state, the counties of Atlantic, Cumberland, Cape May, Passaic, and the townships of Easthampton, Mansfield, New Hanover, Pemberton, Southampton and Springfield in Burlington County were recognized as accredited by the federal government during the year, making a total of nine counties now accredited or eligible for accreditation in New Jersey. The testing of cattle must be continued to insure that the ground gained can be held and the full program completed.

BANG'S DISEASE CONTROL

The objective in the efforts against this disease, also known as contagious abortion, is to furnish a safe and effective eradication procedure for herd owners of the state. The facilities of the department have been used by 325 owners of herds, comprising 13,258 head, in detecting reactors and slaughtering them. Some experimental work has also been done in inoculating calves against the disease.

MARKETING

The objective of the marketing activities of the Department of Agriculture is, expressed broadly, to enable growers of all commodities to dispose of them in an orderly and profitable manner and to get these commodities to consumers by the shortest possible route and in the most economical way. Because of the wide diversity of New Jersey's farm products, the marketing program must be of sufficient scope to meet the peculiar distribution problems involved in our entire agricultural output. The success that has attended the establishment of collective sales markets has attracted national attention to our marketing program. By working through cooperative associations of producers, these markets furnish an outlet for all of the farmers within many miles of their locations. Some of these markets are engaged in the selling of fruits and vegetables to the highest bidder; some are devoted to the distribution of eggs and poultry, and in some instances all of these functions are combined in one market. The total receipts of products sold by farmers through these markets during the past year amounted to \$4,566,071.39.

Egg and poultry markets are established at Flemington, Vineland, Paterson, Mount Holly and Hightstown. Fruit and vegetable markets are established at Cedarville, Landisville, Hightstown, Glassboro, Vineland, Hammonton, Rosenhayn, Beverly, Swedesboro and Cologne. Nearly

3,000,000 packages of fruits and vegetables were sold at these auctions during the year at a total sales value of nearly two million dollars. A total of more than six and one-half million dozens of eggs were sold at the egg and poultry auctions. Mention is made of other activities of the marketing staff in the detailed report of that Bureau.

The objectives of the Crops and Markets Information Service are to supply accurate information on supplies, demand and prices at important markets and to furnish information concerning conditions in areas that compete with New Jersey. Such information is essential to the orderly marketing of our crops.

In addition to the development of public markets for eggs and poultry, a highly successful program has been undertaken to develop uniformly high standards of quality in the state's baby chick industry. In the administration of the Fresh Egg Law, the objective is to extend the demand for New Jersey poultry products, build consumer confidence in egg brandings and to promote the poultry industry of the state. During the year nearly 24,000 inspections were made of eggs offered for sale to consumers as "fresh." Approximately 90 per cent of all eggs so branded were fresh, according to the standards of the department. This is a great improvement over the previous year.

The objective of the milk marketing project is to promote the sale of New Jersey-produced milk of definite quality standards. Thirty-five per cent of all Grade A milk produced in the state is now sold under these department standards and the milk is distributed in 210 municipalities of the state. The headway that has been made in the sale of this milk is remarkable when it is considered that the entire milk supply of the state is backed by high standards, although they are not official except in this particular supply.

MONTHLY CROP REPORT

In this report estimates of volunteer crop correspondents are assembled to give information on the total production of all farm crops, the farm price per unit, the number of livestock and the value thereof in the state. The objective is to present accurate and timely information for the use of farmers in planning their operations and for the use of a wide number of government and private agencies which are making increasing use of these agricultural statistics.

CANNING INDUSTRY PROMOTION

New Jersey is becoming increasingly important among all the states of the union as a source of processed foods. Some of the best known food products and brands originate in this state. The objectives in gathering data on our present industry, in working out cooperative relations with food processors, and in making studies to determine the feasibility of

further expansion in this field are all intended to promote agriculture, to increase employment and to establish for the food products of the state a reputation for quality second to none.

CERTIFIED SEED

The objective in certifying seed on the basis of standard state specifications is to furnish homegrown supplies of dependable seed potatoes, tomato seed and seed grains. By thus developing a seed industry within the state, both the producer and the user of the seed so certified are directly benefited.

NURSERY INSPECTION

New Jersey ranks near the top among all states in the extent of its nursery industry. The purpose of the inspection of the 758 nursery establishments is to prevent the development of serious plant pests, to assure purchasers of disease-free and insect-free plants, to comply with the regulations of other states relative to shipping requirements and to promote generally the nursery industry.

GIPSY MOTH

The present objective in our gipsy moth work is to prevent the introduction and spread of this pest, through constant watchfulness over formerly infested areas in Somerset, Hunterdon, Essex, Union and Morris counties and through checking imported plants, especially Christmas trees, to see that the insect is not present in any form. When this insect pest was at its height it was costing this state \$125,000 annually to hold it within bounds. The amount now being spent is small but serves as the "ounce of prevention."

BEE INSPECTION

The objective of the bee inspection service is to prevent the spread of disease among bees, which not only produce a valuable crop of honey but serve as pollinators for the state's great fruit areas. There are nearly 8,000 colonies of bees under inspection and every effort is made to carry on this program from the constructive viewpoint.

JAPANESE BEETLE CONTROL

There are two main objectives in the Japanese beetle project—(1) to carry on the necessary inspection work so that the products from New Jersey may be shipped to clean areas, and (2) to develop methods of control and destruction of the insect. During the year, 128,000 packages of farm products and over 7,000,000 nursery plants were certified for shipment outside of the quarantined area. The most effective control measure in

the United States is that developed through the Department of Agriculture, namely, the breeding and distribution of millions of nematodes which are parasitic upon the Japanese beetle. Definite progress is being made in this field and results were noteworthy this year.

DUTCH ELM DISEASE

The objective in this project lies in performing the state's service so that large federal funds may be effectively spent in eradication. During the year more than 18,000 property owners were contacted with notices regarding the suspected presence of Dutch elm disease and the subsequent removal of the trees. By the use of federal funds, 3,400 diseased elm trees and 558,246 dead and dying elms were removed. The objective of the entire federal-state campaign is to locate diseased trees, remove them promptly and prevent the spread of the disease by sanitation measures. To date the work has been carried on most intensively in Morris, Bergen, Essex, Somerset and Passaic counties, although thirteen counties in all have shown infestation.

EUROPEAN CORN BORER

The present objective in the project is to determine the extent of the infestation by this serious pest and the extent of the damage it has caused. There has been an alarming extension of this pest during the year. Of 102 townships scouted throughout the state, all but 13 showed infestations. It is now apparent that means will have to be employed to check the spread of this pest and to follow such eradication measures as are practical in present areas of infestation.

LICENSING AND BONDING

The objective in the licensing and bonding of milk dealers and produce dealers is (1) to create a financially responsible group of buyers for farm products in the state, and (2) to have each buyer post a bond to insure payment of obligations that he may not meet. At present there are filed with the department bonds having a total value of \$1,825,450, which have been filed by 350 milk dealers and 296 produce dealers as a guarantee of good faith.

The purpose of licensing cattle dealers is to adequately police the shipment of cattle and to prevent the distribution of diseased animals. Unless the requirements of the statute and the orders promulgated therewith are complied with, the operator may lose his license to do any business in this field. In recent years there has been very little loss sustained by farmers of the state as the result of nefarious acts of dealers through whom their products and livestock are sold.

AGRICULTURAL WEEK

The twenty-first annual Agricultural Week, held from January 28 to February 1, was marked by a series of successful meetings and increased interest by farmers of New Jersey. Eighteen state organizations met during the week with programs which attracted producers of various farm products. The events of the week were climaxed at its close by the Agricultural Convention, at which the official delegates elected two new members to the State Board of Agriculture as provided by the organic law.

Unusual or outstanding features included the seventh annual Grange spelling bee, sponsored by the department and the state and subordinate Granges, for school children representing local Granges; the apple-packing contest for vocational boys studying agriculture, and a potato-cutting contest for New Jersey producers.

The New Jersey Farm Show, held concurrently in the Trenton Armory, was acclaimed more successful than any preceding shows. It was made up of three types of displays, the first being an array of all kinds of modern farm machinery and agricultural equipment. Another group was the educational and competitive exhibits of apples, corn, potatoes, sweet potatoes and grains. The other component part of the Farm Show was the second Science Fair for New Jersey schools; this comprised 327 exhibits, both individual and group, many of which reflected studies of an agricultural nature. More than 15,000 persons visited the Farm Show while it was in progress.

THE NEW JERSEY JUNIOR BREEDERS' FUND

A fund that is privately endowed is administered by the department for the purpose of enabling farm boys and girls in the state to get started in agriculture. While there has been some decline in the total number of loans made during the year, the number of loans made since the fund was established totals 1,356. More than \$100,000 has been borrowed from this revolving fund for the purchase of purebred calves, swine and poultry. The interest paid by the borrower-members of the fund is used for the purpose of offering prizes to exhibitors at the New Jersey State Fair. The awards offered annually total nearly \$1,000 in cash, and a silver loving cup is awarded to the owner of the cow, purchased through the fund, having the best production record.

In order that the fund may operate in close conjunction with the needs of the borrowers, an advisory committee of young people has been appointed to confer with the trustees of the fund, who are members of the State Board of Agriculture and the secretary.

PUBLICITY AND PUBLICATIONS

For the dissemination of current information on agricultural topics of interest to the citizens of the state, the department depends upon the press of the state and upon a monthly, one-page publication, which is sent to a large mailing list. Information on the important crops and livestock industries is sent to producers in the state who request information on the specific commodities treated in these mimeographed statements.

In addition, the department has continued its policy of publishing, so far as funds permit, certain circulars dealing with particular phases of agriculture in the state. The circulars published during the year are as follows:

- Circular No. 253—Survey of Mutual Fire Insurance Associations in New Jersey Which Insure Farm Properties.
- Circular No. 254—Marketing Tomatoes for Canning in New Jersey on the Basis of Standard Grades—Results During the 1935 Season.
- Circular No. 255—New Jersey Farm Prices and Their Index Numbers, 1931-1935.
- Circular No. 256—The New Jersey Plan of Poultry Standardization and Disease Control.
- Circular No. 257—New Jersey List of Breeding Flocks and Hatcheries Under Official Supervision—1936.
- Circular No. 258—New Jersey Nurserymen and Dealers Certified, 1935-1936.
- Circular No. 259—New Jersey Science Fair.
- Circular No. 260—Department of Agriculture Laws.
- Circular No. 261—Fruit and Vegetable Auction Markets of New Jersey.
- Circular No. 262—Spraying for the Control of the Japanese Beetle on Ornamentals and Non-Commercial Fruit Holdings.
- Circular No. 263—Roster of County Boards of Agriculture and State Agricultural Organizations for 1936.
- Circular No. 264—The Canning Industry in New Jersey.

A number of additional projects which are carried on in the department have not been included in this brief survey. Enough have been given, however, to indicate the wide diversity of the department's operations and its contact with producers and consumers generally throughout this state.

THE MILK CONTROL BOARD

While a separate report will be filed with the legislature by the Milk Control Board, reference should be made to this phase of state activity in this report. The secretary of the department has been chairman of the control board since its inception in 1933. In view of the extraordinarily arduous work and the complex problems of regulating the great milk production and distribution industry of the state, it has been necessary to give a great deal of time and overtime to it. The secretary has served by designation of the Governor as his representative on a Seven States Committee to endeavor to develop a cooperative plan with the federal government on interstate commerce for milk.

THE ASSOCIATION OF COMMISSIONERS AND SECRETARIES
OF AGRICULTURE OF THE NORTHEASTERN STATES

At a meeting called by the Agricultural Adjustment Administration in New York City for the discussion of problems of northeastern agriculture, the secretaries and commissioners of agriculture of the northeastern states voted in conference to organize an association for the discussion of problems common to the states, and to function in concert in relation to the federal program. The states included in this group are: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Delaware and West Virginia. Meetings of the association are held quarterly. The secretary of this department has been made secretary of the association and has been in charge of the preparation of the programs for the meetings.

The topics that have been discussed by this group include:

- Developments in the State Administration of the Soil Conservation and Domestic Allotment Act.
- Current Trends in the Regulation of Milk by Markets and in States.
- A Policy for the Northeastern States on Bang's Disease Control.
- Using Regulatory Acts for Improving Consumer Demand for Our Products.
- Cooperative Relations Between the Northeastern Poultry Producers' Council and Departments of Agriculture.
- Progress in Combating the Dutch Elm Disease.

A field trip was made to New Jersey by the association to investigate the progress being made on Dutch Elm Disease control and the methods being employed in the effort at eradication. All of the northeastern states have similar problems in agriculture. The opportunity that the association affords for discussing these matters and for formulating state and regional policies is certain to be helpful to the entire northeastern area.

RELATIONSHIPS WITH THE FEDERAL GOVERNMENT

Many of the important activities of the department are carried on in cooperation with the United States Department of Agriculture. This is especially true in instances where Congress has formulated programs and made funds available for animal disease control, insect pest quarantine and control, and in certain marketing activities. The existence of such cooperative arrangements necessitates close coordination between federal and state activities to prevent duplication of effort and to make progress in the various fields affected.

A new type of state and federal coordination was developed in the field of milk control during the year. Following certain Supreme Court decisions there was recognition of the inability of states to control milk in interstate commerce and lack of jurisdiction of the federal government in regard to marking boundaries in intrastate trade. At a conference called by Governor Lehman of New York, in New York City, which was attended by the governors of seven northeastern states, it was voted to establish the Seven States Governors' Committee. The duty of this committee was to endeavor to work out with the Agricultural Adjustment Administration a basis for action which would leave to the states intrastate regulation and place under federal control the milk passing between states. This effort by all the states was in line with an earlier effort by New Jersey to bring about a similar relationship affecting this state and immediately adjoining states. The states represented at the New York meeting were Vermont, Massachusetts, New York, Pennsylvania, New Jersey, Maryland and Delaware. Governor Hoffman designated the secretary of the department to be his representative in these negotiations. The committee has worked wholeheartedly under the chairmanship of Commissioner of Agriculture TenEyck of New York to develop the type of program which the governors had outlined. A series of meetings were held in New York and Washington and tentative drafts of methods of control were prepared. No agreement has been reached, however, as a result of conflicting interests within the industry and the lack of harmonious federal and state viewpoints on control. The effort has not been dropped, and continued studies are planned in this field. It is apparent that state control encounters grave difficulties if milk can move from one state to another without regulation and beyond the jurisdiction of state control bodies and if no federal agencies undertake the work of regulating that milk which is established as in interstate commerce.

Similar efforts to those made in the New York milk shed have been applied also to Philadelphia and the area supplying that market with milk. As a means of approaching the problems involved in this area accurately, a complete study of the Philadelphia market was made under the joint direction of the Agricultural Adjustment Administration, the New Jersey

Milk Control Board and the Pennsylvania Milk Control Board. For several reasons there has been greater progress in this area than in the New York area, and preparations are being made for the holding of a joint public hearing again under the direction of the three government bodies to present a plan for the control of all milk being sold in this area.

Recognition should be given to the entire department personnel for the progress that has been made during the year and for the results recorded in this annual report. There has been a reaching out to encompass every proper and possible service that would be useful to the farmers and to the citizens generally of this state. This spirit has been manifested in spite of reductions in the department appropriations and with no increase in personnel. Private industry and other governmental agencies which are better financed are taking some of the specialists in the department who have made outstanding records. We wish that in some way recognition could be given to public service of high caliber in this day of apparent public cynicism toward publicly maintained agencies.

* * * * *

Tribute should be paid to the extraordinary public service rendered by Alben E. Jones, who worked unceasingly for ten years to develop a better poultry industry in New Jersey. His untimely death on May 16, 1936 removed from state service one of the outstanding national characters in the poultry field. It was his service as an employe of the Department of Agriculture in his own state which brought him recognition throughout the country as a leader in thought and action.

Obituary notice is regretfully given of Miss Mary R. Flynn, who died on May 23 after six years of work in the department.

LICENSING AND BONDING

The Department of Agriculture is charged with the enforcement of acts providing for the licensing and bonding of produce dealers and milk dealers and for the licensing of cattle dealers. This regulatory work has represented an important phase of departmental activity and has a far-reaching effect in building up conditions for more satisfactory business transactions.

MILK DEALERS

By the end of the fiscal year 1935-36, it was apparent to anyone connected with the milk industry that the various adjustments gradually taking place in this business during the previous year had produced many of the benefits that were intended by the various agencies having control over the industry.

Since the chaotic conditions that existed in 1933, previous to the time the Milk Control Board came into existence, the dealers have had the opportunity not only to continue in business on a more stabilized footing

but also to attain a better financial position, which permitted them to improve and enlarge their business. In numerous instances this could not have been possible had the unrestricted competition continued that existed in the years immediately preceding the functioning of this body.

The beneficial effects were felt in the work of this division by the promptness with which those dealers, who must also comply with the bonding requirements of our Act, were able to obtain their surety bonds or had sufficient surplus to purchase a United States Government Bond. The vast majority of the dealers much prefer to comply with our requirements rather than take the risk of being penalized for failure to do so, it has been clearly shown by the decided drop in the number of penalties imposed this year over that of the previous year. The reason in almost every instance of failure to comply was due to inability to obtain surety bonds or deposit with us United States Government Bonds.

The industry has also been benefited by the decided decrease in the number of dealers who would have entered the business with little or nothing in the way of working capital, which sooner or later would result in losses to those producers who would have entrusted the disposal of their products to them.

Many of our licensees are of the producer-dealer type and some of these have changed their method of operating during the past year in that they have added to their herds and are now producing all the milk required to supply their retail customers. By doing this it is not necessary for them to procure a license, thus saving the license fee and the premium on a bond.

By definitely limiting the types of bonds acceptable to us by an amendment to the law which became effective July 1, 1935, all confusion regarding this point has been eliminated. The amendment which became effective on the same date limiting the time for filing claims to the license period, plus 90 days immediately following, has proved to be an important factor in the underwriting of this type of business.

For failure to comply with the provisions of this Act, the Department penalized eighteen dealers a total of \$575.00. Claims amounting to \$1,816.49 were filed with us for the entire year. Both of these amounts are small in comparison to those of the previous year. Fewer penalties were imposed as the dealers obtained their licenses on time. Also, because they paid their producers themselves it was not necessary to call upon the surety companies to pay as many debts as in 1934-35. This shows that the milk industry as a whole is in a much better financial condition than it was last year.

Licenses were issued to 350 dealers who had filed bonds amounting to \$937,450.00.

TWENTY-FIRST ANNUAL REPORT

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NUMBER OF LICENSES UNDER MILK DEALERS' LAW
(CHAPTER 74, LAWS OF 1917)

County	Licenses Issued	Bonds Filed	Amount of Bonds
Atlantic	2	2	\$14,000
Bergen	14	6	22,200
Burlington	21	17	28,650
Camden	6	6	25,500
Cape May	4	1	900
Cumberland	21	18	20,650
Essex	35	13	90,450
Gloucester	17	9	13,400
Hudson	5	1	9,000
Hunterdon	12	10	88,500
Mercer	28	27	91,900
Middlesex	19	14	33,500
Monmouth	25	21	44,000
Morris	31	27	59,700
Ocean	3	2	4,000
Passaic	32	14	47,600
Salem	10	5	9,500
Somerset	18	12	33,300
Sussex	4	3	4,000
Union	21	5	15,300
Warren	12	11	38,400
Outside of New Jersey	10	10	243,000
<hr/>			
Totals, 1935-36	350	234	\$937,450
1934-35	366	224	765,650
1933-34	327	173	518,050
1932-33	204	163	513,575
1931-32	223	156	492,625

PRODUCE DEALERS

During the past year we have been able to obtain considerable information on the activities of the milk dealers throughout the state without taking the time to investigate them individually, thus giving us more time for checking up on unlicensed produce dealers with the result that we increased the number of our licensees by 12 per cent. over that of last year.

There were certain sections of the state where the Act was not taken seriously. Some dealers in those areas had been operating without licenses, and since they had been successful in evading compliance for so long, they began to feel safe from prosecution. However, the large number of penalties that have been imposed on various unlicensed dealers in these areas during the past two years has not only changed their opinions but has convinced them that it is more advantageous financially to obtain licenses. Furthermore, in the collection of evidence against these violators, personal contacts have been made with a great many farmers at which time the benefits of dealing with licensed buyers have been explained.

Soon after the beginning of the fiscal year, arrangements were made whereby the State Police cooperated in checking on trucks traveling the highways loaded with produce to determine whether or not the produce had been obtained by unlicensed dealers. By the end of the season they had reported having stopped 451 trucks. The lists of names were submitted to us and after eliminating duplications, cash buyers, licensed dealers, farmers who were trucking their own produce and others who were buying for home use, or, in other words, eliminating all those who were not affected by the Act, we had 84 persons who were later interviewed by our own field men regarding the necessity of obtaining a license. Although the number decreased considerably the service of the State Police was greatly appreciated and its full value in the enforcement of the Act was much greater than can be shown by these figures.

The wine-manufacturers operating plants in this state have been given more attention than in previous years, for many tons of grapes grown in New Jersey are bought for the manufacture of wine. Some of these manufacturers felt that their industry was taxed too much now, but as this is not a sufficient reason for allowing them to operate in violation of the Act, we will require licenses of all those who obtain their grapes in this state.

An additional field man was temporarily added to the personnel of this division to do investigational work during the most active months of the growing season. Most of his time was spent with dealers who are in business in Philadelphia, New York City and Brooklyn but who buy considerable produce in New Jersey.

TWENTY-FIRST ANNUAL REPORT

During the license year 1935-36, nine dealers were sued for violation of the Act and additional cases are pending trial against two second offenders. Claims totaling \$752.99 were filed with the department against several dealers; all of these claims have been paid in full.

Licenses were issued to 296 dealers representing \$888,000.00 in bonds.

NUMBER OF LICENSES UNDER PRODUCE DEALERS' LAW
(CHAPTER 93, LAWS OF 1930)

County	Licenses Issued	Bonds Filed	Amount of Bonds
Atlantic	17	17	\$51,000
Burlington	4	4	12,000
Camden	2	2	6,000
Cape May	1	1	3,000
Cumberland	33	33	99,000
Essex	35	35	105,000
Gloucester	27	27	81,000
Hudson	1	1	3,000
Mercer	11	11	33,000
Middlesex	6	6	18,000
Monmouth	17	17	51,000
Passaic	10	10	30,000
Salem	12	12	36,000
Somerset	1	1	3,000
Union	3	3	9,000
Outside of New Jersey	116	116	348,000
Totals, 1935-36	296	296	\$888,000
1934-35	268	268	804,000
1933-34	265	265	795,000
1932-33	306	304	914,000
1931-32	363	363	1,105,000

CATTLE DEALERS

Although the number of cattle dealer licensees has increased over that of previous years, we have quite a number of dealers who purchase a considerable number of animals for slaughter only; under the provisions of the Act such dealers are not required to have a license. However, it is desirable to have as many of these dealers as possible obtain licenses.

Several important hearings were held before the Secretary of Agriculture due to alleged infractions of the Act on the part of six licensees, with the result that one dealer's license was revoked, one dealer was placed on probation, and decisions are pending in the cases of three others, all of whom are alleged to have imported cattle into this state illegally and failing to keep accurate records required by the Secretary of Agriculture.

Although numerous complaints were received against our dealers, only six involved infractions of the law and satisfactory adjustments have been made in every instance.

NUMBER OF LICENSES UNDER CATTLE DEALERS' LAW

County	Licenses Issued
Bergen	5
Burlington	11
Camden	1
Cape May	3
Cumberland	15
Essex	12
Gloucester	5
Hudson	3
Hunterdon	14
Mercer	8
Middlesex	5
Monmouth	7
Morris	20
Ocean	6
Passaic	13
Salem	15
Somerset	8
Sussex	21
Union	10
Warren	14
Outside of New Jersey	5
Total, 1935-36	201
1934-35	203
1933-34	193
1932-33	187
1931-32	213
1930-31	169

THE NEW JERSEY JUNIOR BREEDERS' FUND

During the 1935-36 fiscal year there was a drop in the number of loans made. The total loans during the year were 49, as compared with 72 the previous year. The decline took place chiefly in the number of loans for calves, 26 having been made, as compared with 46 in the 1934-35 fiscal year. The increased price of dairy animals following the drouth of 1934, when thousands of cattle from the west were sent to slaughter, probably accounted for a part of the decline. The numbers and amounts of loans for calves, pigs and poultry for each year since the establishment of the fund are listed in the following table:

TWENTY-FIRST ANNUAL REPORT

SUMMARY OF LOANS BY YEARS

Fiscal Year	Calf Loans		Pig Loans		Poultry Loans		Total Loans	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1920-21.....	30	\$2,815.00	..	.....	..	.....	30	\$2,815.00
1921-22.....	92	7,985.00	16	\$1,074.98	16	\$824.25	124	9,884.23
1922-23.....	81	6,365.00	21	1,267.25	13	636.25	115	8,268.50
1923-24.....	96	8,670.00	10	409.50	14	932.00	120	10,011.50
1924-25.....	81	7,065.00	26	1,320.00	17	1,183.50	124	9,568.50
1925-26.....	71	6,639.50	25	1,684.30	32	1,563.10	128	9,886.90
1926-27.....	83	7,444.00	19	1,240.00	28	1,112.50	130	9,796.50
1927-28.....	54	4,644.00	10	620.00	31	890.70	95	6,154.70
1928-29.....	55	4,960.00	13	805.00	15	680.65	83	6,445.65
1929-30.....	37	3,317.50	15	876.00	17	692.20	69	4,885.70
1930-31.....	38	3,467.50	12	769.00	7	308.00	57	4,544.50
1931-32.....	38	2,875.00	8	415.00	9	394.00	55	3,684.00
1932-33.....	24	1,820.00	10	426.75	8	323.00	42	2,569.75
1933-34.....	30	2,310.00	9	295.00	24	940.43	63	3,545.43
1934-35.....	46	4,169.00	3	110.00	23	1,174.49	72	5,453.49
1935-36.....	26	2,050.00	5	297.00	18	797.85	49	3,144.85
Totals...	882	\$76,596.50	202	\$11,609.78	272	\$12,452.92	1,356	\$100,659.20

The number of loans by counties during the year and for all the previous years is shown in the following summary:

County	Calf Loans		Swine Loans		Poultry Loans		Total Loans
	Previous Years	1935-36	Previous Years	1935-36	Previous Years	1935-36	
Atlantic .....	..	..	..	..	..	..	..
Bergen .....	..	..	1	..	..	..	1
Burlington	36	1	16	..	10	3	66
Camden .....	..	..	..	..	..	..	..
Cape May	7	..	..	..	4	..	11
Cumberland	61	..	10	..	25	..	96
Essex .....	..	..	..	..	19	..	19
Gloucester	24	..	2	..	7	..	33
Hudson .....	..	..	..	..	..	..	..
Hunterdon	81	7	3	..	2	2	95
Mercer	144	6	71	5	21	..	247
Middlesex	103	..	1	..	40	..	144
Monmouth	66	..	12	..	79	4	161
Morris	49	..	1	..	5	1	56
Ocean	17	..	..	..	9	..	26
Passaic .....	..	..	..	..	1	..	1
Salem	72	5	75	..	17	7	176
Somerset	29	3	1	..	..	..	33
Sussex	77	1	1	..	12	1	92
Union .....	..	..	..	..	..	..	..
Warren	90	3	3	..	3	..	99
Totals	856	26	197	5	254	18	1,356

The number of loans to vocational high school students increased from 12 in 1934-35 to 17 in 1935-36. The number of loans to 4-H Club members, however, decreased from 60 in 1934-35 to 32 in 1935-36. Sixteen of the vocational loans were for poultry and one for a dairy animal.

At the close of the fiscal year the amount outstanding was \$7,626.52, of which 16.13 per cent was delinquent. On June 30, 1935, there was \$8,631.77 outstanding, of which 14.06 per cent was delinquent.

The usual awards, amounting to nearly \$1,000, were offered at Trenton Interstate Fair. Not all of the classes were filled, however, and the total amount of cash prizes paid was \$391.88. A silver loving cup was again awarded for the animal having the best production record. This was won by John Katzenstein, of Andover, Sussex County, with his purebred cow, "Franklin Zilla Pontiac Doede," which had a twelve-month record of 12,115 pounds of milk and 414.6 pounds of butterfat.

Two accounts were charged against reserve for bad debts during the year, the total amount so charged being \$74.37. This brings the total amount charged off since the fund was established to \$1,471.43, or 1.46 per cent of the total amount loaned during the 15-year period. The reserve for replacement of animals had one charge of \$60.00 made against it during the year.

One animal was taken over by the fund on account of the owner's inability to pay. This animal is now in the possession of the fund.

The continued reduction of the interest rate on bank deposits of the fund has greatly reduced the annual income which is used for prize awards and expenses of administration. The auditor's report for the calendar year of 1935 showed a net loss of \$141.66. The interest rate for borrowers has been continued at 4 per cent.

At the June meeting of the Board of Trustees it was decided to appoint an Advisory Committee to be composed of members and former members of the Junior Breeders' Association to consider matters that arise in connection with the operation of the fund, such as methods of obtaining better animals, the possibility of finding some means of recognizing high production records of animals purchased through the fund and their offspring, and other matters that should have consideration by the trustees of the fund. A committee of ten was duly appointed.

Report of the Bureau of Animal Industry

J. H. McNEIL, *Chief*

TUBERCULOSIS ERADICATION

The first laws and regulations looking to the organized control of bovine tuberculosis were promulgated in 1911 and were enforced by the Commission on Tuberculosis among Animals, primarily as a public health measure.

The original statutes have been modified from time to time to meet the ever changing conditions. In 1917, the actual work of eradicating tuberculosis from the cattle population of the state was organized on a cooperative basis with the United States Bureau of Animal Industry. An agreement between the owner and the state and federal governments provided for the payment of indemnities for cattle condemned as a result of the tuberculin tests.

Much of the success of the work has been due to a desire on the part of dairymen to maintain herds of cattle free from disease, the activities of the state and local boards of health, milk companies, medical milk commissions and the New Jersey Tuberculosis League.

Practically all of the initial testing of herds was conducted on an individual or annual test basis. In 1927 the Area Test Law was placed on the statute books but the actual testing on an area basis did not commence until 1932.

Since intensive tuberculin testing began in 1917 and diseased cattle eliminated, deaths among humans from the extra pulmonary forms of tuberculosis, presumably from bovine origin, have been on a downward trend, decreasing in 17 years from 21.4 to 5.4 per 100,000, an average decrease of .89 annually as shown in more detail in the report of a survey made by the Bureau of Plant Industry.

We have concentrated our efforts in tuberculin testing of cattle throughout this year on areas which were fairly clean in order to bring as many counties and townships as possible into the modified accredited area classification. We have been successful in accrediting the following areas:

Area	Date Accredited	Number of Herds	Number of Cattle
Passaic County	May 4, 1936	251	2,832
Burlington County			
Easthampton Township	May 4, 1936	483	11,562
Mansfield Township			
New Hanover Township			
Pemberton Township			
Southampton Township			
Springfield Township			

Retests were made of all cattle in the following accredited areas and these counties were re-accredited:

Atlantic County	November 25, 1935	344	581
Cumberland County	November 24, 1935	1,385	6,503
Cape May County	June 26, 1936	268	939

Thus, the entire southern half of the state with the exception of Salem County, and also the counties of Hudson and Passaic are now classified as modified accredited areas.

The entire cattle population of Ocean County was retested and this county recommended for re-accreditation.

Testing in Mercer and Bergen Counties, as well as a number of townships in Sussex, Warren, Hunterdon and Somerset will be completed early next fiscal year.

We have been seriously handicapped in our work this year by the impassable condition of back roads throughout the winter months. We were further handicapped by the lack of funds for veterinary service. This prohibited the employment of private veterinarians to assist with the work and, necessarily retarded the progress.

The percentage of reaction on all tests has dropped from 1.27 for 1934-1935 to .75 for this fiscal year. With fewer cattle lost as a result of the tuberculin test, fewer cattle have been imported into the state for replacement purposes. This fiscal year 24,626 cattle were brought in as compared with 26,760 in the previous fiscal year.

We have continued to market reactors to advantage both by sale on bids locally and consignment to the Jersey City Stock Yards where they are sold on the hoof. The following summary gives the average net returns to the owner for reactors sold in New Jersey as compared with those sold on the New York City Stock Yards:

	July	August	September	October	November	December
New Jersey	\$36.03	\$35.29	\$38.86	\$37.93	\$36.31	\$36.64
New York	26.78	27.32	25.88	23.79	25.65	27.79
	January	February	March	April	May	June
New Jersey	\$40.22	\$43.20	\$41.97	\$41.08	\$40.29	\$41.38
New York	27.60	31.65	29.53	28.38	28.61	30.01

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The amount of state indemnity paid during this fiscal year for reactors condemned has increased from an average of \$37.97 for last fiscal year to \$44.38 for the present year. We believe this is justified by the fact that the price of dairy cattle has increased from thirty-five to fifty per cent over corresponding prices last year. Appraisements are made on the dairy, beef or breeding value of the animal.

Following is a brief summary of the work accomplished in tuberculosis eradication during the year ending June 30, 1936:

At the close of the fiscal year ending June 30, 1935, there were under state and federal cooperative supervision in New Jersey 19,687 herds comprising 193,178 cattle. At the close of the fiscal year ending June 30, 1936, there were under supervision 19,718 herds comprising 196,672 animals, an increase of .16 per cent in the number of herds and 1.8 per cent in the number of animals.

During the past twelve-month period, 212,996 tuberculin tests were made of cattle under supervision, resulting in 1,604 or .75 per cent reactions.

During the year 1934-35, the percentage of reactors on initial tests was 2.78, 2,514 herds of 9,850 animals having been tested and 274 animals having reacted. During the year 1935-36, the percentage of reactors on initial tests was 1.11, 1,730 herds of 7,946 animals having been tested and 88 animals having reacted.

The percentage of reactors among out-of-state cattle added to herds under supervision during the fiscal year 1934-35 was 1.5. Of 21,458 cattle tested, 322 reacted. In the year 1935-36, 16,360 cattle were tested and 214 or 1.3 per cent reacted.

Second, third and subsequent retests are made of herds already under supervision. During the fiscal year 1934-35, 204,745 animals were tested on retest and 2,398 or 1.17 per cent reacted. During the fiscal year 1935-36, 188,690 animals were tested on retest and 1,302 or .69 per cent reacted.

During the year 1934-35 indemnity was paid for 2,612 reactors, 214 of which were registered animals and 2,398 grade animals. During the year 1935-36, indemnity was paid for 1,344 reactors, of which 104 were registered animals and 1,240 grade animals.

The following is the total amount received by dairymen and breeders for 1,344 reactors condemned and slaughtered as a result of tuberculin testing during the fiscal year 1935-36:

Amount received from salvage of reactors	\$52,579.35
Amount paid by the State of New Jersey in indemnities....	59,646.55
Amount paid by the United States Government in indemnities	27,819.66
	<hr/>
Total	\$140,045.56

This is an average of \$104.20 per head.

STATE DEPARTMENT OF AGRICULTURE

TOTAL STATE INDEMNITY PAID, BY COUNTIES
JULY 1, 1935—JUNE 30, 1936

Atlantic	\$175.34
Bergen	95.00
Burlington	1,600.63
Camden .....	.....
Cape May	1,389.85
Cumberland	2,245.14
Essex	717.66
Gloucester	607.03
Hudson	105.18
Hunterdon	4,680.04
Mercer	4,143.69
Middlesex	1,279.12
Monmouth	6,873.41
Morris	2,938.44
Ocean	580.69
Passaic	631.51
Salem	9,654.10
Somerset	3,161.43
Sussex	12,520.47
Union	1,309.13
Warren	4,938.69
State	<hr/> \$59,646.55

TOTAL STATE INDEMNITY PAID, BY COUNTIES, FROM THE
BEGINNING OF ACCREDITED HERD WORK IN 1916
TO JUNE 30, 1936

Atlantic	\$6,802.00
Bergen	31,991.32
Burlington	303,389.75
Camden	13,170.46
Cape May	10,312.28
Cumberland	70,826.34
Essex	33,495.00
Gloucester	60,808.38
Hudson	4,455.78
Hunterdon	322,716.99
Mercer	171,740.16
Middlesex	66,675.58
Monmouth	106,667.32
Morris	120,229.79
Ocean	26,969.70
Passaic	32,291.96
Salem	324,902.50
Somerset	209,618.54
Sussex	864,504.41
Union	32,660.44
Warren	343,766.53
State	<hr/> \$3,157,995.23

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The following summary indicates the amount of state indemnity paid for reactors resulting from the tuberculin test during the year ending June 30, 1936:

Class of Cattle	Number of Animals	Amount Paid
Registered Animals	104	\$7,803.65
Grade Animals	1,240	51,842.90
Registered and Grade	1,344	\$59,646.55

Average State Indemnity Paid Per Head—

Registered Animal	\$75.04
Grade Animal	41.81
Registered and Grade	44.38

The following summary indicates the amount of salvage received by owners for reactors resulting from the tuberculin test during the year ending June 30, 1936:

Class of Cattle	Number of Animals	Amount Paid
Registered Animals	104	\$4,975.78
Grade Animals	1,240	47,603.57
Registered and Grade	1,344	\$52,579.35

Average Salvage Received Per Head—

Registered Animal	\$47.84
Grade Animal	38.39
Registered and Grade	39.12

The following summary gives the estimated total federal indemnities received by owners of condemned cattle:

Class of Cattle	Amount Paid
Registered and Grade	\$27,819.66

The following summary shows the total amount of money received by owners of condemned animals:

Total Amount Received by Owners for Reactors (Sum of salvage, federal and state indemnity)	\$140,045.56
Average amount received per head by owners for reactors	104.20

STATE DEPARTMENT OF AGRICULTURE

HERDS AND CATTLE UNDER STATE AND FEDERAL
SUPERVISION, JUNE 30, 1936

County	Herds Under Supervision	Herds Fully Accredited	Number of Cattle Under Supervision	Number of Cattle Fully Accredited
Atlantic	344	252	584	411
Bergen	251	213	2,875	2,668
Burlington	1,398	1,190	20,904	19,478
Camden	396	294	1,515	1,245
Cape May	268	227	939	816
Cumberland	1,384	1,077	6,594	5,571
Essex	171	118	2,586	1,574
Gloucester	1,254	1,089	5,338	4,993
Hudson	25	22	134	126
Hunterdon	2,474	2,067	26,277	23,573
Mercer	1,135	986	10,145	8,412
Middlesex	1,473	1,190	7,899	4,675
Monmouth	1,599	1,191	8,912	6,899
Morris	1,112	846	12,075	10,202
Ocean	402	341	1,735	1,525
Passaic	252	227	2,833	2,265
Salem	1,402	1,240	14,654	12,884
Somerset	1,291	1,081	11,622	10,387
Sussex	1,301	1,067	31,730	25,337
Union	288	193	3,847	1,192
Warren	1,498	1,248	23,474	19,794
State	19,718	16,159	196,672	164,027

Animals in Herds
Under Supervision18,960 Registered
177,712 Grade

196,672 Total

Animals in Herds
Fully Accredited17,209 Registered
146,818 Grade

164,027 Total

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INITIAL TESTS MADE AND REACTORS RESULTING, BY COUNTIES,
JULY 1, 1935—JUNE 30, 1936

County	Number of Herds Tested	Animals Tested		Animals Reacting		Percentage Reacting		Total Animals Tested	Total Animals Reacting	Percentage of Total Reacting
		Registered	Grade	Registered	Grade	Registered	Grade			
Atlantic	97	1	119	..	..	..	..	120	..	..
Bergen	19	..	110	..	2	..	1.82	110	2	1.82
Burlington	45	34	376	..	2	..	.53	410	2	.49
Camden	5	..	7	..	..	..	..	7	..	..
Cape May	38	..	69	..	..	..	..	69	..	..
Cumberland	102	6	201	..	3	..	1.49	207	3	1.45
Essex	40	3	125	..	1	..	.8	128	1	.78
Gloucester	6	3	32	..	..	..	..	35	..	..
Hudson .....	..	..	..	..	..	..	..	..	..	..
Hunterdon	179	36	908	..	4	..	.44	944	4	.42
Mercer	96	24	353	..	5	..	1.42	377	5	1.33
Middlesex	101	3	626	..	7	..	1.12	629	7	1.11
Monmouth	282	137	727	7	15	5.11	2.06	864	22	2.55
Morris	123	38	508	..	7	..	1.38	546	7	1.28
Ocean	54	..	206	..	3	..	1.46	206	3	1.46
Passaic	28	5	77	..	4	..	5.19	82	4	4.88
Salem	107	10	514	1	4	10.00	.78	524	5	.95
Somerset	131	142	402	1	1	.7	.25	544	2	.37
Sussex	106	40	992	1	14	2.5	1.41	1,032	15	1.45
Union	42	2	61	..	2	..	3.28	63	2	3.17
Warren	129	94	955	..	4	..	.42	1,049	4	.38
State	1,730	578	7,368	10	78	1.73	1.06	7,946	88	1.11

CATTLE TESTED IN NEW JERSEY UNDER THE ACCREDITED HERD PLAN BY VETERINARIANS ON THE STAFF OF THE UNITED STATES DEPARTMENT OF AGRICULTURE
JULY 1, 1935—JUNE 30, 1936

	INITIAL TESTS				HERD ADDITION TESTS				OTHER TESTS							
	Lots	Tested Registered Grade		Reactors Registered Grade	Lots	Tested Registered Grade		Reactors Registered Grade	Lots	Tested Registered Grade		Reactors Registered Grade				
January	24	..	57	..	1	5	1	77	..	1	89	25	500	..	1	
February	47	..	197	..	4	4	8	75	..	1	194	30	857	1	3	
March	12	4	23	..	..	1	..	198	..	2	82	13	911	..	9
April	7	11	17	..	..	..	8	212	..	..	85	182	853	1	5
May	33	1	88	..	1	1	..	205	..	4	81	95	1,052	..	10	
June	13	..	43	..	..	..	..	569	..	12	58	184	733	..	7
July	12	1	29	..	..	..	4	112	..	3	152	76	1,009	3	14
August	4	..	7	..	..	1	6	238	..	3	64	96	605	..	1
September	2	..	2	..	..	1	..	414	..	4	25	7	974	..	14
October	19	4	46	..	..	1	1	193	..	4	146	38	1,111	..	2
November	12	..	126	..	1	2	2	291	..	2	97	80	1,004	1	10	
December	20	1	49	..	..	..	2	165	..	2	144	102	904	..	5
Total	205	22	684	..	7	16	32	2,749	..	38	1,217	928	10,513	6	81	
Percentage of Reactors	1.02	1.3865	.77
Average Percentage99	1.3776	

TITLE TESTED IN NEW JERSEY UNDER THE ACCREDITED HERD PLAN BY VETERINARIANS ON THE STAFF
OF THE STATE DEPARTMENT OF AGRICULTURE
JULY 1, 1935—JUNE 30, 1936

	INITIAL TESTS					HERD ADDITION TESTS					OTHER TESTS				
	Lots	Tested—		Reactors—		Lots	Tested—		Reactors—		Lots	Tested—		Reactors—	
Registered		Grade	Registered	Grade	Registered		Grade	Registered	Grade	Registered		Grade	Registered	Grade	
July	94	38	263	..	2	1	7	325	..	4	512	483	3,893	..	22
August	148	53	393	..	1	14	24	325	1	1	754	467	6,103	1	25
September	73	9	231	1	8	4	25	549	..	3	569	454	7,035	1	39
October	92	41	296	7	14	5	8	322	..	14	573	566	5,947	4	52
November	87	46	356	..	7	3	28	759	..	4	694	626	8,862	7	101
December	60	30	379	..	4	3	23	878	..	4	551	846	7,818	1	65
January	40	61	323	..	2	1	28	854	..	4	469	1,029	7,058	4	58
February	31	20	174	..	..	2	20	528	..	11	421	1,100	6,357	12	84
March	32	24	424	..	10	2	9	297	1	7	453	761	6,712	4	21
April	128	19	474	..	2	1	3	278	..	4	795	1,545	7,320	5	65
May	112	7	472	..	8	2	25	409	..	12	827	985	8,307	5	70
June	93	73	423	1	2	1	15	525	1	3	593	643	5,549	3	40
Totals	990	421	4,208	9	60	39	215	6,049	3	71	7,211	9,505	80,961	47	642
Percentage of Reactors .....	..	..	..	2.14	1.43	..	..	..	1.4	1.17	..	..	..	.49	.79
Average Percentage..	..	..	..	1.49	..	..	..	..	1.18	..	..	..	..	.76	..

CATTLE TESTED UNDER THE ACCREDITED HERD PLAN BY VETERINARIANS ACCREDITED BY
THE UNITED STATES DEPARTMENT OF AGRICULTURE
JULY 1, 1935—JUNE 30, 1936

	INITIAL TESTS					HERD ADDITION TESTS					OTHER TESTS				
	Lots	Registered		Grade Reactors		Lots	Registered		Grade Reactors		Lots	Registered		Grade Reactors	
July		109	2	315	..		3	75	84	574		1	7	761	729	7,647	1	32
August	121	22	368	1	1	112	31	610	..	3	719	805	6,316	9	46
September	24	12	161	..	..	60	30	597	..	5	349	487	5,762	3	29
October	30	26	168	..	1	82	23	562	1	8	289	425	5,440	3	25
November	35	4	161	..	..	141	23	865	1	2	682	1,017	9,109	1	62
December	34	9	214	..	..	83	6	514	..	10	561	538	5,677	..	28
January	37	9	308	..	1	122	22	741	..	11	625	468	7,965	4	44
February	20	17	141	..	..	101	47	562	..	9	494	629	7,048	4	52
March	47	1	200	..	4	51	67	655	1	11	824	1,135	9,935	5	32
April	52	31	300	..	..	60	43	491	..	22	842	1,034	9,746	7	92
May	5	2	38	..	1	64	2	231	..	2	7	28	488	..	3
June	21	..	102	..	..	84	9	526	..	8	290	265	4,090	2	42
Totals	535	135	2,476	1	11	1,035	387	6,928	4	98	6,443	7,560	79,223	39	487
Percentage of Reactors74	.44	1.03	1.4152	.61
Average Percentage..46	1.3961	..

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SUMMARY OF CATTLE TESTED UNDER ACCREDITED HERD PLAN,
JULY 1, 1935—JUNE 30, 1936

	Registered Animals	Grade Animals	Total
INITIAL TESTS			
Tested	578	7,368	7,946
Reacted	10	78	88

Percentage of Reactors—1.11

HERD ADDITION TESTS

Tested	634	15,726	16,360
Reacted	7	207	214

Percentage of Reactors—1.31

OTHER TESTS

Tested	17,993	170,697	188,690
Reacted	92	1,210	1,302

Percentage of Reactors—.69

TOTAL

Tested			212,996
Reacted			1,604

Percentage of Reactors—.75

TOTAL NUMBER OF REACTORS SLAUGHTERED,
BY MONTHS, JULY 1, 1935—JUNE 30, 1936

July	88
August	100
September	85
October	120
November	166
December	142
January	180
February	150
March	149
April	198
May	125
June	60
Total	1,563

TESTS MADE OF NATIVE CATTLE NOT UNDER STATE AND FEDERAL SUPERVISION,
JULY 1, 1935—JUNE 30, 1936

Tested by Private Veterinarians

	HERD TESTS				TESTS FOR EXPORT				OTHER TESTS			
	Number of Lots	Animals Tested	Animals Reacted	Per Cent Reacted	Number of Lots	Animals Tested	Animals Reacted	Per Cent Reacted	Number of Lots	Animals Tested	Animals Reacted	Per Cent Reacted
5—												
July	3	13	1	7.69	..	..	..	..	..	..	..	..
August	3	22	..	..	..	..	..	..	..	..	..	..
September	1	1	..	..	..	..	..	..	..	..	..	..
October	2	16	..	..	..	..	..	..	..	..	..	..
November	2	8	..	..	..	..	..	..	..	..	..	..
December	3	5	..	..	..	..	..	..	..	..	..	..
5—												
January	2	3	..	..	..	..	..	..	..	..	..	..
February	2	2
March	2	46
April	6	29	1	3.45
May	3	25	1	4.00	1	1
June	1	2
Totals	30	172	3	1.74	1	1

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INSPECTING AND RELEASING INSHIPPED CATTLE

During the fiscal year, bureau representatives inspected and released, if existing regulations were complied with, all cattle shipped into the state from other states. A total of 24,626 animals was released. During the fiscal year 1,604 animals were condemned as a result of the tuberculin test and slaughtered, and 890 cattle were consigned from New Jersey to other states.

The following summary indicates the number of cattle shipped into New Jersey, the number condemned as result of the tuberculin test and the number consigned out of the state.

Month	Number of Cattle Shipped into New Jersey	Number of Cattle Condemned on Tuberculin Test	Number of Cattle Shipped out of New Jersey
July	1,944	75	43
August	2,496	98	92
September	2,412	100	73
October	3,196	135	81
November	2,524	200	169
December	2,165	131	55
January	1,253	148	58
February	810	176	33
March	1,300	114	65
April	1,558	203	83
May	2,162	115	37
June	2,806	109	101
Totals	24,626	1,604	890

IMPORT CATTLE RECEIVED FROM VARIOUS STATES FOR DAIRY AND BREEDING PURPOSES,
JULY 1, 1935—JUNE 30, 1936

POINT OF ORIGIN	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
Athenia (Quarantine) . . .	...	...	...	...	...	...	...	...	...	21	...	...	21
Canada	49	45	6	31	35	27	20	52	8	52	34	232	591
Connecticut . . . . .	...	16	...	2	1	...	1	...	...	...	3	2	25
Delaware	1	3	...	...	...	2	16	...	2	...	...	3	27
Illinois . . . . .	...	...	...	...	...	...	...	...	...	...	19	105	124
Indiana . . . . .	...	40	...	...	...	...	...	...	...	...	...	...	40
Icwa . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1
Kentucky . . . . .	...	...	17	...	...	...	...	...	...	...	37	...	54
Lancaster (Yards)	57	47	171	255	76	...	24	53	...	...	...	56	739
Maryland	167	138	92	175	83	41	61	51	125	153	82	174	1,342
Massachusetts . . . . .	...	14	...	...	...	...	...	...	...	...	1	20	35
Michigan	251	506	311	435	569	489	220	182	286	182	364	476	4,271
Missouri . . . . .	...	...	...	...	16	...	...	...	...	...	...	...	16
Montana	36	...	...	48	...	...	...	...	...	...	...	...	84
New York	43	25	17	34	24	6	23	9	6	17	40	2	246
North Carolina	4	...	...	...	...	...	...	...	...	5	...	...	9
Ohio	497	1,018	660	1,010	850	571	374	245	333	419	554	559	7,090
Oregon . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Pennsylvania	293	298	266	381	264	216	158	138	246	330	242	414	3,246
South Carolina . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1
Tennessee	126	...	49	49	...	...	...	...	23	21	25	68	361
Vermont . . . . .	...	26	4	...	9	...	...	4	...	1	...	...	44
Virginia	26	12	...	4	2	43	...	...	...	1	24	28	140
Wisconsin	394	308	819	772	595	770	355	76	270	356	736	667	6,118
Totals	1,944	2,496	2,412	3,196	2,524	2,165	1,253	810	1,300	1,558	2,162	2,806	24,626

CATTLE SHIPPED OUT OF THE STATE, JULY 1, 1935—JUNE 30, 1936

Month	Number of Lots From Inshipped Cattle	Number of Animals From Inshipped Lots	Number of Lots From Herds Under Supervision	Number of Animals From Herds Under Supervision
July	2	4	10	39
August	9	63	5	29
September	7	44	8	29
October	12	52	14	29
November	12	65	19	104
December	8	30	11	25
January	5	21	11	37
February	2	4	7	29
March	3	3	22	62
April	6	24	15	59
May	6	23	11	14
June	7	41	23	60
Totals	79	374	156	511

BANG ABORTION DISEASE CONTROL

The program as previously outlined for the control of Bang abortion disease in cattle has been carried out. There has been less interest manifested than was originally anticipated because the program was undertaken as a cattle reduction measure rather than for disease control.

At the inauguration of this program, many of the western states, because of the shortage of feed and the low dairy value of cattle at that time, together with the high price of beef, took advantage of the situation and carried on extensive blood testing, eliminating many of the positive animals by slaughter. Conditions have since changed in the west and the value of dairy cattle now has increased.

These conditions did not obtain in the herds in the eastern states where the value of live stock on the farms is much higher and the cost of replacements correspondingly high.

Blood testing in New Jersey has been done by those desiring to maintain herds free from infection, or in herds where abortion disease has existed, or where it has been necessary to conduct the tests because of board of health requirements for the sale of raw milk.

Of the total number of herds under state supervision for the eradication of Bang's disease, 177 herds of 7,672 cattle are also being tested under state and federal cooperative supervision—48,267 tests have been made on these cattle with 2,393 positive animals resulting.

STATE DEPARTMENT OF AGRICULTURE

The following summary shows the work accomplished since the inauguration of the program for the control of Bang's disease in the state in 1926:

Total number of animals bled since the work commenced	156,648
Total number of animals showing positive reaction	9,894— 6.31%
Total number of animals showing negative reaction	136,597—87.2 %
Total number of animals bled on initial test since the work commenced	21,011
Total number of animals showing positive reaction	4,588—21.84%
Total number of animals showing negative reaction	16,423—78.16%

HERDS AND ANIMALS UNDER STATE SUPERVISION FOR THE ERADICATION OF BANG ABORTION DISEASE AND HERDS ACCREDITED AS BEING FREE OF IT, BY COUNTIES, JUNE 30, 1936

County	Number of Herds Under Supervision	Number of Herds Fully Accredited	Number of Animals Under Supervision
Atlantic .....	..	..	..
Bergen	14	..	313
Burlington	19	7	908
Camden	8	2	156
Cape May	6	1	91
Cumberland	8	2	388
Essex	3	1	178
Gloucester	9	2	368
Hudson .....	..	..	..
Hunterdon	22	2	573
Mercer	48	14	1,548
Middlesex	26	3	2,758
Monmouth	25	10	567
Morris	25	6	1,838
Ocean	3	..	42
Passaic	7	2	339
Salem	3	1	123
Somerset	79	18	1,997
Sussex	4	..	395
Union	1	..	4
Warren	15	1	672
State	325	72	13,258

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AGGLUTINATION BLOOD TESTS MADE IN THE BUREAU
LABORATORY FOR BANG ABORTION DISEASE,
JULY 1, 1935—JUNE 30, 1936

County	Number of Tests	Negative Reactions	Positive Reactions	Suspicious Reactions
Atlantic .....	..	..	..	..
Bergen	1,052	784	79	189
Burlington	1,213	946	121	146
Camden	135	125	..	10
Cape May	179	137	3	39
Cumberland	971	788	26	157
Essex	474	401	3	70
Gloucester	1,102	972	2	128
Hudson	5	5	..	..
Hunterdon	1,694	1,349	92	253
Mercer	5,360	4,333	313	714
Middlesex	1,048	825	57	166
Monmouth	1,344	1,200	6	138
Morris	6,993	5,881	138	974
Ocean	50	39	2	9
Passaic	1,700	1,441	57	202
Salem	351	279	10	62
Somerset	4,987	4,127	223	637
Sussex	1,239	1,020	68	151
Union	5	5	..	..
Warren	868	671	40	157
State	30,770	25,328	1,240	4,202

EXPERIMENTAL VACCINATION OF CALVES

The experimental vaccination of calves was brought about by a demand on the part of a number of dairymen who have had considerable trouble with contagious abortion in their herds and by those who have felt that they could not afford to attempt to establish an abortion-free herd by using the agglutination test.

The abortion vaccine used in this work has been prepared and furnished us by the United States Bureau of Animal Industry. All vaccinations made have been under the direct supervision of the Bureau of Animal Industry although several private veterinarians have cooperated because of their interest in determining the value of this vaccination.

Although the calves used in this experimental work ranged from four to twelve months of age, we believe that calves should not be under five months or over eight months of age.

All animals are bled on the vaccination day prior to vaccination and rebleedings have been made at approximately thirty-day intervals. This is purely experimental work and the value of the vaccination cannot be determined until the animals have calved normally.

Following is a record by counties of the herds and calves vaccinated and the number of calves which have been released for breeding purposes:

RECORD BY COUNTIES OF THE NUMBER OF HERDS AND CALVES
VACCINATED AS A PROTECTION AGAINST BANG ABORTION
DISEASE, JULY 1, 1935—JUNE 30, 1936

County	Number Herds Vaccinated	Number Calves Vaccinated	Number Calves Released for Breeding
Atlantic .....	..	..	..
Bergen .....	..	..	..
Burlington	6	49	24
Camden	1	7	..
Cape May	2	8	..
Cumberland	26	66	54
Essex .....	..	..	..
Gloucester	14	54	37
Hudson .....	..	..	..
Hunterdon	26	209	116
Mercer	2	51	44
Middlesex	1	4	4
Monmouth	1	8	8
Morris	1	8	8
Ocean .....	..	..	..
Passaic .....	..	..	..
Salem	36	130	106
Somerset	5	45	18
Sussex	2	14	14
Union .....	..	..	..
Warren .....	..	..	..
State	123	653	433

Of the above number of calves vaccinated, twenty-eight have been disposed of as follows:

- 15 Calves died
- 1 Calf withdrawn from experiment
- 4 Calves slaughtered
- 4 Calves moved away
- 4 Calves sold

PHYSICAL EXAMINATIONS

Veterinarians authorized by the bureau again have made physical examinations of herds of cattle producing milk under the New Jersey official grades. These examinations are made twice during the year in cooperation with representatives of the Bureau of Markets, and a complete report of that work will be found in the report of that bureau.

ENCEPHALOMYELITIS

The vaccination of horses in the southern part of the state as a protection against encephalomyelitis was commenced on June 9, 1935, in conjunction with representatives from the Rockefeller Institute of Medical Research, Princeton. The material used in this first vaccination work was furnished by the Institute and administered by their representative working in cooperation with the bureau representative to 608 horses on 245 premises in Cumberland County. Two types of virus were used in the vaccination designated as types, "A" which required one vaccination and, "B" which required two vaccinations. Of the 608 horses vaccinated, 289 received type "A" and 319 type "B". At the time of the second vaccination of the horses with type B virus, one animal was not available for re-vaccination and two animals had been sold. Therefore only 316 received the second vaccination which was completed on June 27th.

At the time of the first vaccination both types of virus were used on each premise where more than one horse was maintained. Blood was drawn from 23 horses on 14 farms to determine if any immunity existed **in the animals before vaccination.**

On August 1, 1935, a bureau representative, together with the representative of the Rockefeller Institute re-bled 22 of the 23 head on 13 premises and on September 5, 1935, 9 of the horses were again re-bled.

Observations of the animals were made on the premises where the animals were re-bled. As far as we have been able to learn there has been no loss following vaccination.

Following this vaccination numerous requests were received from owners of horses in Salem, Cape May, Atlantic and Cumberland counties for the vaccination of horses in that area as a protection against encephalomyelitis. Accordingly the bureau purchased vaccine for experimental use and vaccination was commenced July 22, 1935. This vaccine is prepared in accordance with the method employed by the Federal Bureau of Animal Industry and differs somewhat from the method used by the Rockefeller Institute in the preparation of their vaccine. The dosage used

was 25 cubic centimeters except in the case of colts when this was reduced to 15 cubic centimeters. Two vaccinations were required for each animal, the second vaccination being completed, August 10, 1935.

Following is a record of the vaccinations made, by counties:

FIRST VACCINATION

County	Farms	Horses	Doses of Vaccine
Salem	85	318 (3 colts)	316
Cape May	106	207 (2 colts)	206
Atlantic	113	169	169
Cumberland	136	323	324 (1 dose lost)
Totals	440	1,017	1,015

SECOND VACCINATION

County	Farms	Horses Vaccinated	Withdrawn*	Doses of Vaccine
Salem	85	316 (3 colts)	2	314
Cape May	106	204 (2 colts)	3	203
Atlantic	113	169		169
Cumberland	135	317	4	317
Totals	439	1,006	7	1,003

* Withdrawn: Horses sold, died from causes other than vaccine, or second vaccination not desired.

Following the first vaccination, observations were made on horses on two premises. No losses were reported either from the vaccination or of unvaccinated horses on adjoining farms. Veterinarians have reported the existence of the disease in other sections of the state but only two cases were officially diagnosed as encephalomyelitis by the Rockefeller Institute. One of the animals was found in the southern section of the state while the second case appeared in the northern part. There were other cases of paralysis or evidence of a disease which presented similar symptoms but which were probably cases of forage poisoning.

While the disease has been in a quiescent state along the eastern seaboard, cases were officially diagnosed in Canada, the Dakotas, Montana and several other states in the western and northwestern part of the United States.

Inasmuch as positive cases of the disease were diagnosed in otherwise free areas in New Jersey, we believe that careful consideration should be given to the possibility of it appearing during subsequent seasons in the Summer and Fall months and that funds should be provided for any emergency which may arise.

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SWINE DISEASE CONTROL

The vaccination of hogs as a protection against cholera has been carried out by private veterinarians who report vaccinations made as follows:

NUMBER OF HOGS INOCULATED AS A PROTECTION AGAINST CHOLERA INFECTION, BY MONTHS, JULY 1, 1935—JUNE 30, 1936

Vaccinations Made by Private Veterinarians

	Single Treatments	Double Treatments
July .....	..	267
August .....	..	406
September .....	..	145
October .....	..	272
November .....	..	87
December .....	..	266
January .....	..	14
February .....	..	160
March .....	..	201
April .....	..	582
May	27	364
June	7	261
Totals	34	3,025
Total Single	34	
Total Double		3,025
Grand Total	34	3,059

STATE DEPARTMENT OF AGRICULTURE

HOGS INOCULATED AS A PROTECTION AGAINST CHOLERA
INFECTION, BY COUNTIES, JULY 1, 1935—JUNE 30, 1936*Vaccinations Made by Private Veterinarians*

	Single Treatments	Double Treatments
Atlantic .....	..	..
Bergen .....	..	..
Burlington .....	..	..
Camden .....	..	..
Cape May	18	412
Cumberland .....	..	..
Essex .....	..	44
Gloucester .....	..	..
Hudson .....	..	..
Hunterdon	7	133
Mercer .....	..	184
Middlesex .....	..	430
Monmouth .....	..	254
Morris .....	..	169
Ocean .....	..	106
Passaic .....	..	..
Salem	9	183
Somerset .....	..	425
Sussex .....	..	..
Union .....	..	660
Warren .....	..	25
State	34	3,025
Total Single	34	
Total Double		3,025
Grand Total		3,059

GLANDERS

Reports were received during the fiscal year 1935-36 of only 88 mallein tests of horses made by private veterinarians to determine whether or not the horses were infected with glanders. No positive cases were reported.

MALLEIN TESTS CONDUCTED AND REPORTED,
JULY 1, 1935—JUNE 30, 1936

Tests Made by Private Veterinarians

Month	Negative	Positive
July	7	..
August .....	..	..
September .....	..	..
October	4	..
November	2	..
December .....	..	..
January	9	..
February	3	..
March	11	..
April	10	..
May	16	..
June	26	..
Total	88	..

ANTHRAX

The annual vaccination of horses and cattle in the southern part of New Jersey as a protection against anthrax infection was carried out this year during the latter part of March and the early part of April. No cases of anthrax were reported to the bureau during the year.

Following is a summary of the vaccinations made during the fiscal year by a representative of the bureau:

Number of Premises	Number of Horses Vaccinated	Number of Cattle Vaccinated
71	114	1,094

LIVE STOCK SOLD AT THE JERSEY CITY STOCK YARDS

JULY 1, 1935—JUNE 30, 1936

The bureau representative stationed at the Jersey City Stock Yards made a tabulation throughout the year of the live stock sold at that point. Following is a record of the various classes of stock sold:

Animal	Calves	Sheep	Cows	Bulls	Hogs	Steers	Total
No. Sold	17,687	27,926	6,985	1,166	3	2,786	56,553

STALLION REGISTRATION

There has been increased interest displayed in horses during the past year as evidenced by the number imported into the state. During the fiscal year we received reports of physical examinations made on 373 horses to be consigned to New Jersey. A few of the horses were saddle horses but the majority of them were draft horses, evidently for use on farms.

Even with the addition to the horse population, we were asked to examine for health status only 26 stallions and one pony to be used for public service in New Jersey. Following is a record of the licenses issued:

STALLIONS LICENSED, BY BREEDS, JULY 1, 1935—JUNE 30, 1936

Breed	Number Licensed
Suffolk (Purebred)	1
Percheron (Purebred)	10
Belgian (Purebred)	4
Grade Drafts*	11
Pony (Grade—Breed not known)	1
Total	<u>27</u>

* Includes grade Percherons, Belgians, Jacks and Thorobreds.

STALLIONS LICENSED, BY COUNTIES, JULY 1, 1935—JUNE 30, 1936

Atlantic .....	..
Bergen .....	..
Burlington	4
Camden	1
Cape May .....	..
Cumberland	3
Essex .....	..
Gloucester .....	..
Hudson .....	..
Hunterdon	7
Mercer	1
Middlesex	1
Monmouth
Morris	1
Ocean
Passaic
Salem	3
Somerset
Sussex	1
Union
Warren	5
State	<u>27</u>

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FOWL POX AND LARYNGOTRACHEITIS VACCINATION

The bureau continued to issue permits to poultrymen making requests for the vaccination of their personally owned flocks as a protection against fowl pox and laryngotracheitis.

Following is a record of the permits issued during the calendar year 1935:

Fowl pox permits	543
Laryngotracheitis permits	76

POULTRY INSPECTION

The inspection of carlots of poultry arriving at railroad terminals in the state was continued throughout the year. The method of transportation of poultry, however, has changed considerably, a quantity being trucked into the state, but on account of government regulations, truck lots are required to undergo an inspection at certain designated points.

The poultry received continued to be of high quality. Very few birds were condemned following inspection, as will be noted from the summary following:

CARLOTS OF POULTRY FROM VARIOUS STATES RELEASED AT RAILROAD TERMINALS IN
NEW JERSEY, JULY 1, 1935—JUNE 30, 1936

STATE OF ORIGIN	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
Alabama	..	..	..	..	5	1	7	3	1	4	6	..	27
Arkansas	8	11	8	1	..	3	16	10	13	14	5	4	93
Connecticut	2	2	2	4	1	2	..	..	..	1	..	3	17
Delaware	2	7	3	3	2	2	8	7	8	11	4	8	65
Florida	..	..	..	..	..	..	..	..	..	1	..	..	1
Georgia	..	..	..	..	..	1	..	5	5	5	3	..	19
Illinois	33	42	55	68	51	34	40	21	25	31	12	17	429
Indiana	20	30	39	45	34	30	22	7	11	26	23	20	307
Iowa	7	3	3	2	1	..	1	..	..	..	..	1	18
Kansas	2	..	..	..	..	..	..	..	..	..	..	..	2
Kentucky	5	2	5	7	6	8	6	5	4	10	12	3	73
Louisiana	..	..	..	..	1	..	..	..	..	..	..	..	1
Maine	1	2	..	..	5	4	1	1	1	6	2	1	24
Massachusetts	1	2	2	8	3	2	1	..	..	3	..	2	24
Mississippi	..	..	..	1	..	1	..	1	3	1	..	..	7
Missouri	20	19	18	19	19	17	14	9	7	14	8	6	170
Montana	..	..	..	..	..	..	..	1	..	..	..	..	1
New Hampshire	..	..	..	..	..	..	..	..	..	..	..	2	2
New Jersey	..	..	..	..	1	..	..	..	..	..	..	..	1
New York	..	..	..	1	3	..	1	1	1	2	4	2	15
North Carolina	..	..	..	..	2	..	6	8	8	9	..	..	33
North Dakota	24	29	36	55	58	51	36	19	25	32	14	16	395
Ohio	..	..	..	..	..	..	3	..	..	..	..	..	3
Pennsylvania	..	6	3	5	6	5	9	5	7	8	4	2	60
South Carolina	..	..	2	..	..	5	..	6	..	..	..	..	13
South Dakota	..	..	..	..	..	..	..	..	1	1	..	3	5
Tennessee	14	3	1	1	44	23	17	21	23	74	51	19	291
Virginia	1	1	2	6	23	7	3	3	6	6	5	5	68
Totals	140	159	179	226	265	196	191	133	149	259	153	114	2,164

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NUMBER OF BIRDS CONDEMNED AND SLAUGHTERED AND THEIR
APPROXIMATE WEIGHT, JULY 1, 1935—JUNE 30, 1936

Month	Number of Cars	Number of Birds	Approximate Weight in Pounds
July .....	..	..	..
August .....	..	..	..
September	3	403	1,095
October	4	186	519
November	1	45	180
December .....	..	..	..
January	1	58	232
February	2	117	432
March .....	..	..	..
April .....	..	..	..
May .....	..	..	..
June .....	..	..	..
Totals	11	809	2,458

CARLOTS OF POULTRY RELEASED AT THE VARIOUS RAILROAD TERMINALS IN NEW JERSEY,
JULY 1, 1935—JUNE 30, 1936

	C. R. R. N. J. J. C.	C. R. R. Nrk.	D. L. & W. Boonton	D. L. & W. J. C.	Erie Caldwell	Erie Nrk.	Erie Whkn.	Pa. Eliz.	Pa. J. C.	Pa. Nrk.	Total
th	26	9	..	34	..	40	1	9	..	21	140
st	21	21	..	48	..	34	..	10	..	25	159
mber	22	9	..	58	..	48	..	11	1	30	179
ber	38	19	3	44	6	62	..	4	3	47	226
mber	86	13	9	33	4	54	..	1	9	56	265
mber	49	17	1	34	..	45	..	..	3	47	196
ry	45	18	..	48	..	45	..	1	2	32	191
ary	43	3	..	28	..	35	..	1	1	22	133
h	43	..	..	29	..	48	..	1	1	27	149
	106	23	..	44	..	53	1	..	..	32	259
	58	16	..	21	..	29	..	2	2	25	153
	16	6	..	19	..	36	..	..	..	37	114
Totals	553	154	13	440	10	529	2	40	22	401	2,164

Following is a comparison of the number of carlots of poultry released monthly at the New Jersey and New York railroad terminals during the fiscal year:

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
Jersey	140	159	179	226	265	196	191	133	149	259	153	114	2,164
York	287	266	358	467	410	343	332	213	269	354	241	206	3,746

PULLORUM DISEASE CONTROL

In cooperation with the Bureau of Markets, the Bureau of Animal Industry continued to blood test poultry for the elimination of pullorum disease. All birds reacting to the agglutination test were slaughtered and the flocks recommended for certification to the Bureau of Markets.

The short, plate or field test was used on all the flocks, with about twenty per cent of the birds check tested by the tube or laboratory test.

NUMBER OF FOWLS BLOOD-TESTED FOR PULLORUM DISEASE,
NUMBER AND PERCENTAGE REACTING, BY COUNTIES,
JULY 1, 1935—JUNE 30, 1936

County	Number of Fowls Tested	Number of Fowls Reacting	Per Cent Reacting
Atlantic	594	1	.17
Bergen	2,050	18	.88
Burlington	6,565	191	2.9
Camden .....	...	..	...
Cape May .....	...	..	...
Cumberland	3,977	94	2.36
Essex	1,539	2	.13
Gloucester	6,815	44	.65
Hudson .....	...	..	...
Hunterdon	8,740	139	1.59
Mercer	9,923	299	3.01
Middlesex	199	..	...
Monmouth	991	44	4.43
Morris	7,841	199	2.54
Ocean .....	...	..	...
Passaic .....	...	..	...
Salem	3,527	286	8.11
Somerset	3,922	231	5.89
Sussex	3,151	154	4.89
Union	408	7	1.72
Warren	1,163	10	.86
State	61,405	1,719	2.8

WORK DONE IN THE BUREAU LABORATORY

In addition to conducting agglutination blood tests for Bang abortion disease, the following work was performed in the laboratory of the Bureau of Animal Industry:

TESTING OF MILK SAMPLES FOR PRESENCE OF AGGLUTININS FOR B. ABORTUS (BANG'S DISEASE)

Number of samples of milk received	25
Number of positive tests	9
Number of negative tests	16

TESTING OF BLOOD SAMPLES FOR PRESENCE OF PULLORUM DISEASE IN POULTRY

Number of tests set up and read	8,487*
Number of tests positive	1,551
Number of tests suspicious	267
Number of tests negative	6,669

* This number does not include the rapid or plate tests conducted.

BACTERIOLOGICAL EXAMINATIONS

Animal	Material	Number	Condition Suspected	Finding
Bovine	Ear and Blood	2	Anthrax	Negative
Goat	Ear and Blood	2	Anthrax	Negative

MICROSCOPIC EXAMINATIONS

Animal	Material	Number	Condition Suspected	Finding
Bovine	Lung	2	Tuberculosis	Negative
Caprine	Feces	2	Parasitism	Eggs of stomach worm
Canine	Feces	2	Parasitism	Confirmed

POSTMORTEM EXAMINATIONS

Animal	Number	Condition Suspected	Finding
Avis	1	Pullorum Disease	S. Pullorum positive
Avis	4	Unknown	Coccidiosis
Avis	2	Unknown	Infectious leukemia

Report of the Bureau of Markets

WARREN W. OLEY, *Chief*

INTRODUCTION

There have been three outstanding items in agriculture over the country as a whole that have vitally affected marketing in New Jersey. One of these is the increased activity in cooperative marketing and in the cooperative purchase of farm supplies. Another is the recognized need of a certain amount of government supervision in the solving of production and marketing problems. The most valuable instance of this in New Jersey is the aid to dairymen through a system of milk control. The third is the abandonment of most of the A. A. A. activities in the country. These activities, as they were developing, were detrimental to New Jersey agriculture by forcing on our producers competition in our markets through government aid, thereby minimizing the advantages of nearness to market.

With reference to cooperative marketing, it is felt that the A. A. A. activities along this line were sound. It is of considerable pride, however, to point to the fact that this movement in New Jersey was instituted long before, and without federal aid.

Cooperatives in New Jersey were organized on a plan of open and voluntary membership. The bureau has not bound the members by contracts, but has insisted that the results of cooperation must be the means of increasing business activities. The cooperatives have democratic control in which each member regardless of his size or importance has equal rights and have limited the dividends derived from sales or purchases so that the motive of organization is economies in operation for the benefit of producers rather than a profit making scheme as exists in capitalized business. These three principles constitute the whole philosophy of the cooperative movement as illustrated in fourteen auction market associations and one city farmers' market association, organized during the past few years with aid from this department. The cooperative movement is not limited to these fifteen organizations. In the state there are cooperative purchasing associations serving the farmer members just as efficiently but not as closely connected with the bureau as cooperatives organized for selling purposes chiefly.

The cooperative movement is here to stay. Probably the greatest problem among cooperatives from now on is economic competition in their

business operations. It is more and more essential that farmer owned marketing associations develop their efficiency and constantly adapt their operations to the rapidly moving changes in market requirements. This applies to farmer markets in cities as well as to auction markets and purchasing associations throughout the state.

In some instances associations have been organized by public-spirited producers, who have fought the battles for their membership through the long years of the depression, but who now show signs of tiring in continuation of unselfish activities and who feel that recognition of their work should be made in paying jobs and in prestige and leadership. In such cases, producers should recognize their services in fitting ways, and should be ready to distribute the burden of leadership on others coming along who already have benefited from the efforts and experience of their predecessors.

The cooperatives in this state have produced many beneficial results as is evidenced in the following reports on poultry products marketing and on fruit and vegetable marketing. These results have been attained by the application of united effort and good business practices. The chief problems in front of them, as brought out during the year in conferences and meetings, are: in adjusting production to market demands, in selling in units and in packages to meet market demand, in recognizing mass buying power of chains and others and in meeting it through combined sales to such organizations, and in standardizing quality to meet competitive districts.

In general, producers must meet another problem. It is that of closer cooperation with the ultimate consumer. Probably this can best be met through a planned course in supplying timely information to consumers as is being done through our division of consumer information.

All of these problems can be met by the united efforts of farmers' organizations and service agencies.

The part of the bureau in solving problems in marketing, most of which have had a place in relation to the foregoing statements, are given in the following project reports which show definite progress in accomplishments for the past fiscal year.

CROPS AND MARKETS INFORMATION SERVICE

The market news project of the Bureau of Markets is one of its oldest lines of work, and, in the course of years, has become very much standardized. It has been ten years since the present policy was established. This policy is to lay less stress on the collection and dissemination of daily information, and to attempt to analyze and interpret the figures which are presented in weekly reviews.

In contrast to other projects, the market news service covers a wider field. Information is collected which is distributed to fruit growers, vegetable growers, poultrymen and dairymen.

In spite of the fact that the project has become standardized, efforts have been made to prevent it from becoming stereotyped. It is not always an easy task to present facts and figures in such a way that they are valuable and at the same time readable and interesting. Statistics are naturally the basis of the reports issued, and sometimes figures make dry reading. However, in addition to figures, material has been incorporated in many reports which has made them more readable.

The two objectives of the crops and markets information service, as presented in each monthly report, are as follows: First, to supply the farmers of the state with timely, unbiased and accurate information on current supplies, existing demand and prevailing prices at leading markets; and second, to furnish growers of farm products with economic information concerning conditions in New Jersey and competing areas.

During the fiscal year, 1935-36, these two objectives were kept in mind and carried out in as economical a way as possible. Some new services were started, but these are self-supporting, so that no additions to the project appropriations were necessary.

Market news work is now well established, and changes from year to year are necessarily few. No attempts were made during the year to broaden the work without first taking into consideration the cost of such new work.

The mailing list for market news reports now totals about 2,500 names. This includes 1,500 for the "Weekly Market Review," 550 for "Market Conditions" and 450 for the "Auction News." Reports are sent only to those requesting them, and proof that the present set-up is popular is shown in the growing lists for each of these reports.

The "Auction News" is one of the new reports issued this year, being added in June, 1936. It is a weekly news letter published for the aid of the cooperative produce auction markets of the state. This report has a two-fold object. The first is, to more closely tie together the various members of the auction markets now operating throughout the state; and the second, to inform buyers and prospective buyers of the volume and variety of produce available to them at each auction market. The mailing costs of this report are paid by the auction markets.

As the year closed, a further service was under consideration. This will be the publication of a short report on field crops for the benefit of those farmers who are raising certified seed for sale. This report will be a concise review of the crop situation on grains, a brief analysis of the important grain markets and a table of prices of grains at representative markets, together with comparisons. This is the first attempt to help the growers of field crops directly, but the outline of the intended report was favorably received by the Field Crop Improvement Association.

The services rendered during the winter months were curtailed somewhat due to illness of the supervisor. No special reports were issued dur-

ing this period, and the usual summaries presented on various crops, with the exception of the Hightstown Potato Report, were omitted this year.

DAILY MARKET NEWS SERVICE

Several years ago a cooperative arrangement was made with the United States Bureau of Agricultural Economics, whereby the collection of daily market news would be carried on at leading markets by their representatives, with especial attention paid to New Jersey products, at New York and Philadelphia. This arrangement was continued during 1935-36. The cost to the New Jersey Department of Agriculture under this arrangement is small, and is probably the most economical method for securing market prices and conditions at these points. Such a system prevents the duplication of efforts and allows us to concentrate more on weekly analyses.

The distribution of daily information was again carried on entirely through the newspapers of the state. This represents the most satisfactory and most economical method of dissemination of daily market reports. The project is carried on in conjunction with the United States Bureau of Agricultural Economics offices at New York and Philadelphia. The cooperative employee at these markets prepares a special early morning report of sales of New Jersey produce, which is released to the press and becomes available to farmers of this state late that same afternoon in their newspapers. Over 35 newspapers of the state use this service. Several daily papers in New York and Philadelphia also print this material.

The personnel of the service at New York was changed during the year. Under the new arrangements, the man in charge of that office for the United States Bureau of Agricultural Economics is also our cooperative representative. This arrangement will give greater stability to the New Jersey service, as the assistant is subject to frequent changes, while the man in charge of the office is more or less permanent.

WEEKLY MARKET SUMMARIES

The second major objective of the crops and markets information service is attained through two types of weekly market summaries. The first of these is known as "Market Conditions." As explained in previous reports this summary is limited to one crop. In this manner the various types of news concerning this crop and the market for this crop are more fully covered than by attempting to include news on several crops in one report.

A total of 150 "Market Conditions" reports were issued during the year. This is a considerable reduction from previous years, due to the curtailment of the service during the winter months. The reports issued were as follows: 28 on white potatoes, 28 on apples, 16 on sweet potatoes, 12 on peaches, 10 on asparagus, 9 on strawberries, 8 on lettuce, 7 on onions, 6 on

spinach, 6 on tomatoes and 20 on miscellaneous truck crops. This last group included information on snap beans, lima beans, cabbage, root crops, celery, peppers and other leading truck crops of the state.

Most of the information contained in these reports was obtained through correspondence and personal contacts. The produce trade and officials of other states cheerfully rendered hearty cooperation. Shippers in competing areas supplied us with much helpful data. First-hand information on conditions of leading truck crops of the state was secured by travel throughout producing areas.

The "Weekly Market Review" was issued each week of the year, presenting a digest of prevailing prices of New Jersey products in eastern markets. The change made during the previous year was continued. This was the presentation of a table showing comparative prices for New Jersey's leading products during the current week, the preceding week and the corresponding week of the previous year. The "Weekly Market Review" contains prices on grains, feeds, hay, straw, eggs, live and dressed poultry, livestock, fruits, vegetables, and egg and poultry auction market quotations. Poultry news has a prominent place in the "Review" due to the many requests for information from this industry. The growth of the auction markets has stimulated interest in this report as it is a source of complete information on all markets.

SPECIAL SERVICES

HIGHTSTOWN POTATO INFORMATION OFFICE

This was the eighth season that the New Jersey Department of Agriculture has maintained a temporary office at Hightstown during the active marketing season for white potatoes. The general purposes of this office are to collect and disseminate market information to growers and dealers throughout the Central New Jersey potato belt, and to aid all other sections of the state whenever possible. The same temporary employee who has served for the past seven years was again in charge of the office.

The office was opened during the week of July 22 and closed on September 21. The first week was spent in field work making contacts with numerous growers and dealers in the potato industry in order to become thoroughly acquainted with the general potato situation. From these contacts, it was evident that New Jersey would have a large crop to market, because the acreage showed some increase over the previous season, and heavy yields were expected due to favorable growing conditions. These opinions of growers were later substantiated, for the final estimates of the federal-state crop reporting service placed the yields at 200 bushels per acre compared with 185 bushels in 1934.

The cooperation of growers and dealers with the office was again very satisfactory. Approximately 1,200 contacts, either by telephone or personal visit, were made with the office during the period of its operation. At

the beginning of the season the Potato Sales Company, which had been operated for two years, was not active and each dealer sold his own share of the crop. Later the company was reorganized and operated in much the same manner as previously.

The season was unsatisfactory for the majority of growers. In spite of the fact that acreages had been cut by the more southerly states, competition at the opening of the New Jersey deal was more severe than for many seasons. This was due to the very large carry-over of northern potatoes and a growers' strike in Virginia, which held the crop of that area from the market for a considerable period during the normal marketing season and prolonged the movement from the Eastern Shore district well into the New Jersey deal. The market became stagnant as terminal market buyers refused to handle potatoes at the high figures demanded by the shipping point sellers. After the end of the strike, the market sagged to very low levels, and never recovered during the period when New Jersey potatoes were offered for sale.

AUCTION MARKET QUOTATIONS

In addition to supplying the produce auction markets with a weekly bulletin on conditions and prices, the Bureau of Markets furnished a daily report of early sales at New York City. This report was supplied during the active marketing season from the time strawberries began to move until the first fall frosts ended the shipping season for most commodities.

During the past fiscal year, the various auction markets in the southern part of the state received reports shortly after 8:30 A. M. each day through the cooperation of the county agent's office at Bridgeton. These early morning reports proved to be helpful to growers and buyers patronizing these markets by giving both a basis of value for selling or buying produce. In some instances the market masters have been able to increase offerings by growers at the auctions by showing them probable values that particular day.

HAMMONTON BERRY MARKET

As in former years, the bureau, in cooperation with the Philadelphia office of the United States Bureau of Agricultural Economics, furnished the berry growers of Hammonton and vicinity with the daily price of raspberries, blackberries and huckleberries, throughout the active shipping season. These prices covered sales at New York, Philadelphia, Boston and Pittsburgh, and were available shortly after noon each day.

DAIRY PRODUCTS MARKETING

The objective of the dairy products marketing project is to aid in the development of a practical milk marketing program for the state. The major activity of our program is the supervision of the production and distribution of milk under the New Jersey official grades and the expansion of the sale of such milk. These grades represent an effort on the part of the Bureau of Markets to recognize and to identify nearby-produced milk of definite quality standards. Other activities include cooperation with the Milk Control Board, New Jersey Dairymen's Council, New Jersey Junior Breeders' Fund and other agencies, and the operation of a surplus milk exchange whereby milk, now listed as surplus, can be placed with dealers needing it and markets found for producers with no outlets.

During the past fiscal year, the lot of the New Jersey dairyman, as compared to those in surrounding states, was an enviable one. The stabilization of prices by the Milk Control Board brings to the New Jersey farmer the highest prices for milk in the United States. Due also to the stabilizing influence of the Milk Control Board, and to some extent to the increasing purchasing power in the state, consumption is increasing quite appreciably. The situation of the New Jersey dairyman, however, must be watched closely during the next two years if this enviable position is to be retained. The New Jersey Milk Control Board Act expires in 1937, and if it is to be continued, public sentiment must be aroused to fight for it in the legislature. There is another factor that has greatly aided in controlling the New Jersey market for milk. We have always recognized the fact that less than the needed fluid milk supply has been produced in New Jersey. At the present time there seems to be an uncontrolled increase in production. During the past three years, July 1, 1933, to June 30, 1936, production on New Jersey farms has increased 14 per cent. A continued increase will rapidly wipe out this factor which has been the means of successfully controlling our market.

In this rather involved picture of the future of the milk industry in New Jersey, the marketing program of the New Jersey official grades stands out with increasing clarity. During the past fiscal year, all dealers previously licensed under the grades continued under supervision and seven new dealers applied for supervision. The volume of milk handled under official grade supervision showed a steady increase, the daily volume as of June 30, 1936, being 56,372 quarts, an increase of 5.39 per cent during the year. Comparing this with figures of the Milk Control Board, shows that 26 per cent of all Grade A milk sold in the state, and 34.5 per cent of all Grade A milk produced in the state is under New Jersey Official Grade A supervision.

NEW JERSEY OFFICIAL GRADES

Dealers and producers concerned in the production and distribution of milk under the New Jersey grades are quite evenly distributed in all milk-producing counties of the state. The bulk of the milk is produced in the counties of Somerset, Hunterdon, Morris and Warren. The heaviest distribution is in the northern metropolitan area, although South Jersey and seashore points are using a greater volume than in previous years.

There are now 57 dealers processing 56,372 quarts of milk daily under the New Jersey grades. Of these 57 dealers, 26 sell raw milk only, 18 sell pasteurized milk only, and 13 distribute both raw and pasteurized milk. The volume of milk distributed is 62.07 per cent pasteurized and 37.93 per cent raw. The number of producers increased to 219, a gain of only nine as compared with a gain of seven dealers. There is a tendency on the part of the dealers to eliminate the smaller producers, replacing them with the larger producers, and, on the part of the producer-dealers, to produce a larger supply of milk on their own farms thereby increasing their profits considerably.

The 57 dealers processing New Jersey Official Grade A milk sell in turn to 226 sub-dealers, the milk being distributed in 210 municipalities of the state.

One of the important functions of the New Jersey Grade A inspection is the physical examination of cattle to eliminate diseased cows. During 1936, 11,942 cattle were inspected by private veterinarians designated by the Bureau of Animal Industry, the work being supervised by a representative of the Bureau of Markets and paid for by fees collected from the New Jersey Official Grade A dealers.

The veterinary inspection is made twice a year; in the spring and in the fall. The figures include a number of replacement herds and for that reason do not check with the number of permanent producers. The average number of cows per herd in the spring inspection was 27.7 as compared with 26.4 cows per herd in the previous fiscal year, indicating a decided trend to larger production herds.

Under a cooperative arrangement with the representative of the Federal Bureau of Animal Industry in New Jersey owners of cows condemned by our veterinarians for mastitis were reimbursed out of the Federal Indemnity Funds authorized by the Jones-Connally Act. Only herds under supervision for Bang abortion disease were eligible for indemnity under the federal regulations and this limited the number receiving indemnity. A total of 66 cows condemned were eligible, the amount of indemnity returned to New Jersey dairymen being \$2,577.43. This indemnity applied to the spring inspection only.

One of the requirements of the New Jersey official grades is the physical examination twice each year of all employees of farms producing

New Jersey Grade A Raw milk and of employees of bottling plants handling New Jersey Grade A Pasteurized milk. This involved the examination of 516 individuals, the medical certificates being on file in the Bureau of Markets.

During the past fiscal year, 1,231 samples of milk were collected for examination and analysis. With few exceptions, bacteria counts were maintained well below the standards of 30,000 per cubic centimeter for New Jersey Grade A Raw and 20,000 per cubic centimeter for New Jersey Grade A Pasteurized. All counts were not only reported numerically but the types of organisms were identified and so served as clues to factors contributing to high counts. Consequently, indications of trouble were readily traced and conditions immediately corrected. Counts on New Jersey Grade A Pasteurized milk before pasteurization were also made in order that the bureau might know that conditions surrounding production of milk to be pasteurized were practically the same as for New Jersey Grade A Raw. The average butterfat content of the 1,231 samples collected for analysis was 4.097 per cent, an increase of .017 per cent over the previous fiscal year, indicating that the butterfat average has stabilized itself very definitely between 4.00 per cent and 4.10 per cent.

The New Jersey Grade A project is self-supporting to a considerable degree. Fees, based on the amount of milk processed by the distributor, are collected on the presentation of monthly bills.

SPECIAL SERVICES

NEW JERSEY DAIRYMEN'S COUNCIL

The bureau continued to cooperate with the New Jersey Dairymen's Council, and one of the staff members served as secretary of the council until May, 1936.

NEW JERSEY JUNIOR BREEDERS' FUND, INC.

The bureau has cooperated with the administrators of the New Jersey Junior Breeders' Fund, Inc., by supplying the services of the supervisor of dairy products standardization in carrying out certain of the field activities necessary in the administration of this fund.

MILK EXCHANGE

For several years the Bureau of Markets has conducted a milk exchange whereby assistance is extended to producers seeking markets and to dealers who have surplus milk for sale. This service was continued during the past year. One service rendered by this milk exchange was the placing with a dealer in Atlantic City of a truck load, averaging 100 cans of milk daily, during the 1935 summer season in that resort. This milk was the excess supply of dealers in Hunterdon and Somerset counties.

CONSUMER INFORMATION SERVICE

The objectives of the service are to promote the increased use of milk and dairy products, especially as a measure of health and food economy, and to promote the increased use of all other New Jersey agricultural products by using every possible means of disseminating information concerning their availability and food value, through the use of radio, news releases, booklets, circulars, public talks, demonstrations and exhibits.

Although the past year has witnessed considerable improvement in the New Jersey dairy situation, the higher volume of production, both within the state and in adjoining states, continues to present an urgent need for maintaining and increasing present consumption levels. As stated in the report on dairy products marketing, consumer buying capacity has improved and the per capita consumption of milk is on the upturn. However, the competition of evaporated milk and the intensive campaigns used to promote other food products require continued efforts to cultivate and maintain consumer interest in milk and dairy products.

New Jersey producers of milk, eggs, fruits and vegetables, and other farm products cannot consider as competitors only those farmers who are growing similar products in other states and distributing them in New Jersey markets in competition with New Jersey products. Every food item, regardless of its source, is a direct competitor for a share of the housewife's food dollar. Of these competing food products, those which are processed are the most serious competitors because they are promoted by liberally financed educational and sales campaigns.

The intensive advertising and promotional drives of the processed food distributors are successful in their appeal to the housewife. Her disbursements are naturally favorable toward those products to which she has been attracted. Further, she will be inclined to consider less favorably those products about which she hears or knows little. She may remain neutral or have only a casual interest in them. Most of New Jersey's agricultural products can be included in the latter group. Growers, distributors and marketing officials are confronted with the need to develop and cultivate consumer interest in the raw, natural food products if any considerable share of the housewife's food dollar is to be saved for unadvertised fresh fruits, vegetables, milk and eggs.

Recognition of that problem prompted the establishment of the consumer information service in the Bureau of Markets in November, 1932. Operating on a modest scale, without extra funds or personnel, the program has expanded each year. The plan was original and somewhat of a departure as a marketing activity within a state agency, but at present eight neighboring states are considering the establishment of a similar service.

It is of interest to note that the basic law establishing the Bureau of Markets includes a clause which reads "to furnish advice and assistance to the public with reference to buying of farm products and other matters relative thereto." This provision acknowledges an obligation to the urban population on the part of the Department of Agriculture.

The program is an effort to meet the foregoing obligation and is based on the assumption that an informed housewife is a better prospective customer than one who is not familiar with the values, quality factors and availability of New Jersey products. Home state pride is not over-emphasized nor is an attempt made to arouse her against the products of other states. Aid is offered in the performance of shopping duties with suggestions as to what to seek and what to avoid when buying.

PROGRAM

During the past year the cooperative arrangement with the Milk Research Council, Inc., of New York City, was continued. Supported by distributors and producers interested in the metropolitan New York market, that agency has printed leaflets, posters, clip sheet releases and met other expenses involved in issuing literature prepared by the consumer service of the Bureau of Markets. This arrangement has involved no restrictions, and milk and dairy products have been given prominence only to a degree in keeping with their actual importance in the state.

METHODS OF DISTRIBUTION

The channels used for publicity have included newspaper feature stories, newspaper spot news releases, radio talks, leaflets, circulars, posters, exhibits and talks before consumer groups. How they have been used during the past year is described as follows:

1. *The Press.* The press has continued to provide the most effective means of publicity and the greatest coverage. Weekly feature articles have been furnished in clip sheet series, each covering a six weeks' period. These have been mailed to all editors with an inclosed return post card with which requests for mats are made. The mats are furnished free to those papers requesting them and save the expense of setting type. At present, there are 174 publications using mats regularly and 267 other publications, syndicates and interested individuals receiving only the clip sheets.

Reports on circulation of the releases, as furnished by a clipping service agency, based on collected clippings of published articles, have indicated a total coverage circulation of about 24,000,000 for each clip sheet, or about 4,000,000 for each week for the months of July, August and September, 1935. Clipping service has been discontinued since then, but a moderate increase in circulation

is estimated since December, 1935. It is significant that this circulation has been gained and held in direct competition with a very large volume of reading column "hand-outs" submitted by commercial interests, which were also purchasing advertising space. This response of the editors may be considered as one measure of that part of the program which is prepared for the press. A permanent place in the reading columns of the papers of the state has been gained. An effort is made to use a "live" picture with each story.

For nearly two years a small weekly box feature, of a sort of "Ripley" style, has been issued with the clip sheet articles under the heading of "Food Facts." These odds and ends of food items, numbering from four to six each week, and including at least one item on milk, have been well received.

Feature story releases which include a "by" line are not so well received by the larger metropolitan dailies, so special spot news stories are occasionally sent to them.

2. *Leaflets and Circulars.* During the past 44 months, over 12,000,000 leaflets have been distributed. Of this number, over 7,000,000 were distributed during the fiscal year ending June 30, 1936. Channels utilized for distribution included milk dealers, stores, egg retailers and direct distribution at meetings.

A new and revised edition of 45,000 copies of "Healthful Foods—How to Buy Them" has been prepared and will be distributed, commencing September, 1936, through cooking classes in the public schools and organized women's groups. This booklet contains specific information on how to buy the principal New Jersey farm products, each discussed in terms of what the housewife should seek or what to avoid in selecting them.

3. *Radio Talks.* Only 4 radio talks were given during the past year. These broadcasts covered New Jersey products and consumer marketing problems, and were given without cost over Station WOR either in special programs or by guest speakers in scheduled programs.

Results of radio activities are very difficult to evaluate because of the limited response, lack of continuity and none too favorable hours. It is difficult to offer programs which can compete or compare favorably with those sponsored by commercial concerns.

4. *Stores.* Many meals are planned in the store where the modern housewife shops for food almost every day. She is an opportunist and readily responds to displays or posters. Recognizing that the retail grocery stores present a desirable channel for the direct distribution of consumer literature, a plan was presented a year ago to chain store executives and to officials of the independent grocery groups soliciting the cooperation of the stores in the consumer information program.

The plan provided for a series of monthly food bulletins to serve as store posters, calling the attention of customers to timely information on the New Jersey products in season. A supply of counter hand-out leaflets was also provided for each store. These call attention to the products in season with added suggestions on how to select, to purchase or to use them. The plan was inaugurated with the issue of June, 1935, and was well received. About 9,000 stores posted the bulletins and distributed an average of 669,350 of the counter leaflets each month. The response and cooperation of the stores proved excellent. The monthly schedule was continued to date and both the store and customer acceptance has been good.

5. *Exhibits.* On a number of occasions exhibits have been prepared on New Jersey products, principally vegetables, fruit and canned goods. A permanent, attractive and portable exhibit is being considered and will probably be prepared early in the new year.

SUMMARY

The experience of the past three years would indicate that there is a very definite field for the Bureau of Markets in establishing the consumer information project on a permanent basis. While the department has supplied personnel and a limited amount of money for printing, the larger part of the expense has been carried by outside sources. It is hoped that an appropriation may be made by the legislature to enlarge the department's part in the work.

The past year or two has witnessed the growth of a consumer cooperative movement. At first the movement was dominated largely by leaders who were insistent on radical changes in the economic set-up and trade channels of the nation. The administration at Washington has given some encouragement to this movement, which in the past year has been tempered somewhat by the improvement in the buying capacity of consumers. At the present time, the leadership rests in the hands of a more conservative group and a steady normal growth can be expected. In New Jersey there are 18 organized consumer groups which are now forming a state organ-

ization. In addition, a considerable number of the members of women's organizations are taking an interest in the consumer movement within their own ranks. In developing the project in the Department of Agriculture, it is essential that the original objective, the promotion of New Jersey products, be attained. Such a program will involve cooperation with producer, distributor and consumer interests, with the possibility that no two of these will have very much in common.

Further, it might be added that the field for consumer information service is unlimited and that the Department of Agriculture is a logical source to which consumers can turn for aid. Reader columns of the press are open to state agencies provided definite bias is avoided. In addition, there is the advantage to the department of establishing favorable contacts and sentiment in suburban and urban areas where but little of its marketing activities is known.

CLASSIFICATION OF SUBJECTS OF WEEKLY CLIP SHEET ARTICLES

July 1, 1935—June 30, 1936

Fruits and Vegetables	21
Eggs and Poultry Products	8
Milk and Dairy Products	15
Canned Goods	4
Miscellaneous	4
Total	<u>52</u>

MONTHLY DISTRIBUTION OF STORE POSTERS AND CONSUMER HAND-OUT LEAFLETS

Month	Stores Receiving Posters	Counter Hand-out Leaflets
July	8,900	572,000
August	8,760	583,000
September	8,775	584,500
October	8,790	592,500
November	8,850	594,600
December	8,850	595,000
January	9,450	637,000
February	9,410	602,000
March	9,414	602,240
April	9,430	603,360
May	9,430	603,360
June	9,430	603,360
Totals	<u>109,489</u>	<u>7,172,920</u>

FRUIT AND VEGETABLE MARKETING

In the fruit and vegetable marketing field in New Jersey, there seems to have been the greatest opportunity for recognized services in further developing and improving its shipping point markets. The bureau has, therefore, worked closely with the associations operating shipping point markets and has extended to them such services as came within its powers. One development of aid to these associations has been the use of standards and grades in the sale of fruits and vegetables from their markets. This work has been increased during the past year, and in addition to the work on the markets, the bureau has developed its shipping point inspection service in connection with the shipment of crops sold on the basis of standard grades, and also further developed the use of grades as a basis for the purchase of tomatoes and asparagus at the canneries. It has also cooperated with associations of farmers operating city farmers' markets and with cooperative buying and selling associations.

In this report, under fruit and vegetable marketing are combined those activities in market organization and supervision work pertaining to the shipping point produce markets of the state.

STANDARDIZATION

One of the necessities of successful fruit and vegetable marketing work is the development and use of practical standards or grades. One of the most important problems in marketing New Jersey produce is to pack and grade products so that they can compete successfully with standardized packages from any other area. The buyer in any market selects produce which is of the quality and condition most favored by the outlets to which he caters. Produce packed and graded to meet this demand may be distributed in nearby and distant markets efficiently and economically, thereby giving a higher net return to the producer. The inspection and certification of grade, and buying and selling on the basis of grades are the practical applications of the standardization program in the state. In the inspection during the past fiscal year of more than 70,000 cannery lots, growers' lots, lots on markets, and lots shipped by rail or truck, with a total value of more than \$3,000,000, the bureau has rendered a distinct service to growers and shippers in the state.

INSPECTION ON AUCTION MARKETS

At the request of buyers and auction market officials, the department continued the inspection service on the Cedarville Auction Market. This type of inspection has been in operation since the beginning of the 1933 shipping season. All strawberries and onions are inspected and classified according to the New Jersey standards before sale, and checked for uniformity of pack and quality when delivered to the car, truck or buyer's unloading platform. All other commodities are inspected for uniformity of quality and pack as delivered to the buyer after the sale. When requested,

federal-state certificates of quality and condition are issued to growers or buyers on car or truck lots sold through the market. The inspection on this market has been a great factor in securing a wide distribution and has stabilized prices. Growers and buyers state that the service has proven of great benefit and is essential to continued movement of the produce through trade channels which have been developed over a wide area during the past few years.

The following is a list of the quantities of different commodities covered in 16,442 growers' lots inspected during the 1935-36 fiscal year.

Snap Beans	156,852 bushels
Onions	113,787 50-lb. sacks
Squash	4,358 bushels
Peppers	26,480 "
Peas	17,419 "
Strawberries	15,154 32-qt. crates
Lettuce	2,843 crates
Asparagus	185 "
Lima Beans	67,327 bushels
Tomatoes	1,160 12-qt. baskets
Miscellaneous	9,236 packages

During the 1935 season, inspectors, licensed by the United States Department of Agriculture to inspect fruits and vegetables and employed by the department, were placed on the Cedarville, Hightstown, Beverly, Glassboro and Swedesboro markets. With the exception of the complete inspection work as outlined at Cedarville, these inspectors acted chiefly as arbitrators between buyer and grower in disputes on uniformity of quality and pack of lots sold on the market. By working with the growers, both on the market and by visits to farms, these inspectors assisted in improvement in grading, packing methods and packages. On the Hightstown and Beverly markets, the inspectors issued certificates on lots sold on the basis of grade for the domestic and export markets. This work will be continued on the Cedarville and Hightstown markets during the 1936 season. The Glassboro, Beverly and Swedesboro markets have requested the service beginning in July for the remainder of the 1936 season.

GRADING CANNERY TOMATOES

Department of Agriculture Circular No. 254, published in February, 1936, included a detailed report on the results of cannery tomato grading in 1935. The material in that circular should be given in an annual report, but in order to avoid repetition, the accompanying summary in chart form only is included.

It is of particular interest to note the continued improvement in quality which is due to the increased price paid for No. 1 grade over No. 2, and also to the fact that, the majority of growers now being sold to the system of selling on a quality basis, take greater pains in so harvesting their crop that a higher percentage of No. 1 quality may be obtained.

GRADING OF TOMATOES FOR CANNING
 NUMBER OF TONS OF TOMATOES GRADED WEEKLY, AVERAGE GRADE AND CUMULATIVE PERCENTAGE
 OF TONNAGE GRADED IN 1935, AND A 3-YEAR COMPARISON

Week Ending	Total Tons	Cumulative Percentage of Total Tonnage	U. S. No. 1		U. S. No. 2		Culls	
			Tons	Per Cent	Tons	Per Cent	Tons	Per Cent
July 27	188.43	.15	146.65	77.65	38.10	20.21	3.67	2.14
Aug. 3	2,852.93	2.45	2,078.27	72.86	731.14	25.63	43.57	1.51
10	6,847.73	8.13	4,328.68	63.21	2,352.25	34.35	166.80	2.44
17	19,645.89	24.42	13,083.43	66.59	6,095.73	31.04	466.74	2.37
24	27,428.05	47.20	18,040.58	65.79	8,827.66	32.18	559.80	2.03
31	32,021.46	73.80	20,634.15	64.46	10,698.78	33.40	688.53	2.14
Sept. 7	12,273.85	83.99	7,244.24	60.33	4,676.95	38.09	352.66	1.58
14	3,161.95	86.62	1,218.28	38.58	1,736.89	54.91	206.77	6.51
21	6,531.35	92.05	3,115.09	47.72	3,075.66	47.08	340.58	5.20
28	6,036.42	97.06	3,095.69	51.27	2,704.64	44.83	236.08	3.90
Oct. 5	3,289.30	99.79	1,504.41	45.73	1,638.94	49.83	145.93	4.44
10	246.60	100.00	84.02	34.07	147.01	59.63	15.55	6.30
Season Total	120,524.00		74,573.00	61.88	42,723.00	35.45	3,226.00	2.67
Season 1934	91,060.50		52,815.09	58.00	35,513.60	39.00	2,731.81	3.00
Season 1933	62,979.50		32,749.34	52.00	27,710.98	44.00	2,519.18	4.00

INSPECTION OF CANNERY ASPARAGUS

Contracting for cannery asparagus on the basis of official state grades started in New Jersey in the spring of 1933. Previous to this time no grading work had been done in the United States on asparagus for canning. Consideration by growers and canners of this method of contracting led to the drafting and promulgation by the department of "New Jersey Standards for Cannery Asparagus." In formulating these standards, the principle of payment for deliveries according to quality was the same as on other cannery crops; that is, the payment of a premium for delivery of high quality stock and no payment for culls, to discourage delivery of stock which does not return enough to justify processing or manufacturing. The standards measure quality and value according to the size of the spear, length of green, condition and formation of the tip, and the waste or loss in processing.

In New Jersey, the canning or quick freezing of all green asparagus is each year increasing and indications are that, in a few years, it will be one of the major agricultural industries of the state. (The popularity of the "all green" pack has increased greatly, and with a large supply of high quality stock available, the volume processed evidently will increase considerably in the future and result in a larger income for the growers in the state.) The removal of large quantities of asparagus from the fresh market daily during the past four years has proven a factor in stabilizing the market, and was of great benefit both to growers who contracted their production for processing and to growers who sold on the fresh market.

During the 1936 season, the Edgar F. Hurff Company, of Swedesboro, and the Deerfield Packing Corporation, of Bridgeton, contracted a considerable acreage in the state. All contracts were for delivery and payment according to the official state grades as determined by bureau inspectors. The canning season extended from April 29 to July 10. During this period, the department issued certificates on 7,616 growers' loads, or a total of approximately 5,764,200 pounds. This volume is approximately double that inspected during any previous season.

Asparagus is a product which reacts quickly to weather conditions, and production and quality vary considerably from day to day, according to temperatures and humidity. During the 1936 season, the quality obtained was relatively good, when the unusual and variable weather during most of the season is taken into consideration. During the first two weeks of the season, weather conditions were most favorable to high quality and the production during this period was the best of the season. The continued drought late in the spring caused a smaller production and a gradual decrease in the size of the spears, with a lower percentage of "N. J. No. 1 Large" grade. The average grade for the last week of the season shows a higher percentage of "Large" spears. This represents a comparatively small

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tonnage and was probably caused by the discontinuance of cutting of old and unproductive beds which produce a large percentage of the small size stock.

The method of selling and buying asparagus on the basis of official state grades, with inspection and certification of quality by an impartial agency, is generally considered by growers and canners as the fairest system possible, and conducive to the improvement and continuation of the industry in the state.

The following table shows the number of loads inspected and average grade each week during the season:

Week Ending	Inspections	N. J. Large Per Cent	N. J. Medium Per Cent	N. J. Small Per Cent	Culls and Butts Per Cent
May 2	303	26.81	44.77	4.11	24.31
9	891	30.10	43.62	2.63	23.63
16	820	27.91	41.50	2.21	28.38
23	780	24.84	41.14	2.00	30.02
30	804	25.08	41.06	2.28	31.58
June 6	846	24.25	42.97	3.23	29.55
13	809	21.03	42.33	2.52	34.12
20	700	19.90	46.53	3.73	29.84
27	661	17.47	45.72	5.20	31.61
July 4	460	16.71	48.12	4.83	30.34
11	104	22.28	45.99	4.14	27.59
Season	7,616	24.79	42.98	3.04	29.19

A comparison of growers' loads, and pounds inspected and certified annually is listed below:

Year	Growers' Loads Inspected	Pounds
1936	7,616	5,764,200*
1935	4,619	2,610,000*
1934	4,526	2,605,320
1933	1,934	900,000*

* Approximate.

SHIPPING POINT INSPECTIONS

In addition to the inspection of cannery crops, and of products at auction markets, inspections were made at other shipping points in the state. These were usually made at the request of farmer-shippers and produce dealers who trade in interstate commerce and on the export market. Shippers have found by experience that such trading is necessarily done on the basis of commonly understood grades or definitions of pack, quality and condition. As the official state standards are commonly understood and recognized by various members of the produce trade, a large volume of buying and selling of produce in the state is done on the basis of these grades. When the farmer-shipper or dealer requests inspection on a

car or truck lot, he receives a certificate which is prima facie evidence in federal courts and in all courts in New Jersey, stating the quality and condition of the products inspected. This certificate is used as a basis of determining whether or not the shipper has delivered the quality and pack of produce sold. It also (under the Perishable Agricultural Commodities Act of 1930) insures the shipper against rejection by the receiver without reasonable cause.

The largest volume of shipping point inspections during the past season was on apples. With a favorable export market, New Jersey fruit growers shipped to foreign countries, mostly the British Isles and Continental Europe, the largest volume ever exported from the state. All stock exported was inspected and export form certificates issued by the bureau. In addition to inspections of stock for export, a considerable volume going into the domestic market was inspected and certified for grade. Early in the spring, the Emergency Relief Administration contracted for a considerable volume of New Jersey apples to be purchased subject to certain specifications, with compliance determined by our inspectors. The department, through the Bureau of Markets, agreed to issue certificates and make inspection charges only on lots which met the requirements of the government purchase order. This was done by the bureau as many growers faced serious conditions in a disastrous market with abnormally large storage holdings. Under this arrangement more than 100 inspections, covering approximately 40,000 bushels, were made without charge to the grower applying for the inspection.

The following table shows the number of packages of apples certified for export each month; also, the number of packages certified for the domestic market and the Emergency Relief Administration.

APPLES INSPECTED AND EXPORT FORM CERTIFICATES ISSUED

Month	Bushel Baskets	Standard Boxes	Standard Barrels
July, 1935	6,144	.....	.....
August	19,979	13,669	90
September	19,835	5,732	.....
October	25,174	300	719
November	13,829	16,434	553
December	118	.....	.....
January, 1936	2,375	.....	.....
February .....	.....	.....	90
March	9,320	.....	1,067
April	2,801	2,564	.....
May	2,420	.....	.....
June .....	.....	.....	.....

APPLES INSPECTED AND DOMESTIC CERTIFICATES ISSUED

No. of Inspections	Bushel Baskets	Standard Boxes	Standard Barrels
78	52,982	2,484	

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INSPECTION OF POTATOES

During the 1935 shipping season, two large potato shippers in Central New Jersey, contracted with the department for inspection and certification of all car lots of potatoes shipped during the season. The inspection and certification was satisfactory to the dealers and most of the growers, and rejections and adjustments were entirely eliminated on all lots inspected and sold according to grade as determined by the state inspectors. The inspections under this contract were discontinued early in August so that the dealers and growers could cooperate with other dealers and growers in reorganizing the Potato Sales Company. In addition to the above tonnage, a small volume was inspected and certified for the Emergency Relief Administration purchases, and for dealers and growers in the state.

The following table shows the number of lots and grades of potatoes inspected:

Number of Inspections	Sacks U. S. No. 1	Sacks U. S. Commercial	Sacks U. S. No. 2	Sacks Unclassified
121	29,440	1,750	3,785	2,148

TEN-YEAR RECORD OF SHIPPING POINT INSPECTIONS,
BY PRODUCTS

Product	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34	34-35	35-36
Apples	25	13	1	549	168	230	91	94	333
Beans	11	33	40	162	91	17
Celery	1	..	..	..
Corn	1	..	..
Lima Beans	75	1	..
Mixed Fruit	11	9	1	..	..
Onions	2	16	30	223	36	55
Peaches	188	154	..	83	4	24	2	2	..	..
Pears	29	14	15	5	..	16
Peas	4	..	1	20	2	2
Peppers	18	3	..
Potatoes	423	757	789	312	911	217	10	20	40	121
Spinach	1	..	..
Strawberries	47	23	152	125	1	1
Sweet Potatoes	1	..	6	..	..	..	..
Cabbage	1
Cucumbers	1
Totals	611	936	802	397	1,557	512	490	744	268*	547*

* Does not include inspections at auction markets for which no certificates were written as included in the columns for 1932-33 and 1933-34.

NEW GRADE DEVELOPMENTS

During the 1935 season, the official state grades for apples in boxes were revised to meet existing conditions. The grades formerly applied only to certain early varieties. As several growers planned to use boxes for all varieties during the season, the revision was necessary. The revised grades are "New Jersey Fancy," and "New Jersey Extra Fancy," with a combination grade which requires at least 50 per cent of the apples to be of the Extra Fancy grade.

The department, at the request of the New Jersey State Horticultural Society, promulgated standards for new varieties of peaches developed at the New Jersey Agricultural Experiment Station. These grades will be used on these special varieties and an official state label will be placed on all packages which meet the requirements of the grades.

The studies of quality factors on asparagus for canning have been continued, with samples of various degrees of quality being canned and examined after processing at various times during the season. The information gained so far is not sufficient to draw any conclusions or to suggest any revision of the standards which have been used in a satisfactory manner for four seasons.

POTATO SALES COMPANY

The bureau again cooperated in the arrangement whereby the dealers in potatoes in Central New Jersey worked together out of common offices. Under this arrangement but one price was supposed to be quoted in any market for New Jersey potatoes. At the beginning of the season the dealers worked from their individual offices, but as the price situation declined and both dealers and growers became desperate, the plan of the Potato Sales Company, which had been used for two previous years, was again put into effect.

The sales under this plan were commenced on August 12 and the deal broke up on September 15. During this five-week period, prices were stabilized, but at a very low figure. Sales through the Potato Sales Company for the period were as follows. Figures include car and truck sales.

Week of	100-lb. Sacks	Car Equivalents
Aug. 12-17	66,465	221.55
19-24	169,169	562.83
26-31	113,136	377.12
Sept. 3- 7	77,970	259.90
9-14	91,272	304.27
Totals	518,012	1,725.67

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Of these 518,012 sacks, 32,015 were exported and moved to the port by truck, 155,397 were trucked to domestic markets, and 330,600 were loaded on cars for market.

SHIPPING POINT MARKETS

The greatest contributions of the bureau to fruit and vegetable marketing in New Jersey during the past few years have been the development and supervision of the use of grades and standards at shipping point and cannery markets, and in the organization and development of produce auction markets.

During the year, Circular No. 261, "The Fruit and Vegetable Auction Markets of New Jersey" was published and widely distributed among the buyers of farm produce in this and nearby states. It was written with the intention of advertising these markets. Each of the ten shipping point auction markets in the state has a page devoted to its accomplishments during 1935. In order to avoid repetition, those interested in auction market development may refer to that circular for details of each market operation.

For this report, a table has been prepared which lists each market and includes the number of packages of all commodities sold and the value of each market's sales together with corresponding figures for the previous year in order to show growth.

SUMMARY OF SALES AT FRUIT AND VEGETABLE
AUCTION MARKETS

Market	Season of 1935		Season of 1934	
	Number of Packages Sold	Value of Sales	Number of Packages Sold	Value of Sales
Beverly	166,491	\$78,212.20	155,671	\$93,030.14
Cedarville	424,250	444,572.17	373,501	427,418.17
Cologne	9,518	4,184.13	.....	.....
Glassboro	644,011	268,392.95	473,318	193,468.20
Hammonton	66,713	139,668.43	23,329	87,817.09
Hightstown	632,580	286,666.65	515,512	236,686.11
Landisville	519,762	368,768.64	377,579	256,232.05
Rosenhayn	67,841	130,251.40	53,667	86,485.61
Swedesboro	75,676	37,319.46	90,131	47,004.33
Vineland	373,320	209,092.67	262,130	129,655.34
Totals	2,980,162	\$1,967,128.70	2,324,838	\$1,557,797.04

Four of the auction markets have increased their services to members by buying supplies for them. They are those at Beverly, Vineland, Glassboro and Hightstown. Each member buying through the cooperative has

saved on price and oftentimes bought better goods because of careful buying on the part of the management.

At Beverly, sales of supplies to members amounted to \$123,739.40. Important commodities among these supplies were fertilizer and lime, baskets, crates, seed, and spray material. At Glassboro supplies valued at \$200,045.61 were sold to members. These consisted chiefly of packages, fertilizer, spray material, and seeds. The Tri-County market at Hightstown purchased \$15,728.73 worth of packages for its members, and the Vineland association sold to its members fertilizer and packages valued at \$23,854.42. Thus one more step in reducing the cost between production and consumption has been made.

Each year certain figures for information purposes have been compiled. Among these are the checking of prices received at the auctions by farmers with prices which they might have received if the same goods were shipped to New York to be sold by a commission house. The accompanying table summarizes the sales of the principal commodities at the Cedarville and Hightstown markets.

The auctions continue to grow indicating the confidence of the producers and buyers in this method of sale. The table showing eight years' results definitely illustrates this growth.

COMPARISON OF RETURNS FOR SIX PRINCIPAL CROPS AT CEDARVILLE AUCTION MARKET AND
NEW YORK MARKETS
Season of 1935

Product	Number of Packages	CEDARVILLE			NEW YORK				Gain at Auction
		Gross Value	Selling Charges	Net Value	Gross Value	Selling Charges		Net Value	
						Transportation	Commission 10 Per Cent		
Strawberries	31,831	\$99,474.68	\$636.62	\$98,838.06	\$97,113.32	\$4,774.65	\$9,711.33	\$82,627.37	\$16,210.99
Peas	105,877	77,968.35	1,058.97	76,909.38	94,285.74	10,587.70	9,428.57	74,269.47	2,639.91
Map Beans	127,897	98,392.98	2,556.62	95,836.36	112,725.60	12,789.70	11,272.56	88,663.34	7,173.02
Ma Beans	67,292	115,258.93	1,259.89	113,999.04	115,119.70	6,729.20	11,511.97	96,878.53	17,120.51
Peppers	27,262	11,877.82	513.85	11,363.97	14,946.61	2,726.20	1,494.66	10,725.75	638.22
As	23,084	20,457.73	402.69	20,055.04	24,938.00	2,308.40	2,493.80	20,135.80	-80.76
Totals	383,243	\$423,430.49	\$6,428.64	\$417,001.85	\$459,128.97	\$39,915.85	\$45,912.89	\$373,300.26	\$43,701.89

COMPARISON OF RETURNS FOR SIX PRINCIPAL CROPS AT HIGHTSTOWN AUCTION MARKET AND
NEW YORK MARKETS
(Tri-County Cooperative Auction Market Association, Inc.)
Season of 1935

Product	Number of Packages	HIGHTSTOWN			NEW YORK				Gain at Auction
		Gross Value	Selling Charges	Net Value	Gross Value	Selling Charges		Net Value	
						Transportation	Commission 10 Per Cent		
Strawberries	11,219	\$32,685.56	\$890.35	\$31,795.21	\$35,584.96	\$1,121.90	\$3,558.50	\$30,904.56	\$890.65
Peas	4,458	4,387.48	163.08	4,224.40	4,371.75	445.80	437.18	3,488.77	735.63
Map Beans	20,146	15,887.65	623.14	15,264.51	18,840.20	2,014.60	1,884.02	14,941.58	322.93
Sweet Corn	49,343	29,103.35	1,314.18	27,789.17	28,266.85	4,934.30	2,826.69	20,505.86	7,283.31
Peas	132,425	37,929.74	1,934.03	35,995.71	43,679.81	6,621.25	4,367.98	32,690.58	3,305.13
Peas, No. 1	85,314	68,835.44	2,837.30	65,998.14	77,609.84	8,531.40	7,760.98	61,317.46	4,680.68
Totals	302,905	\$188,829.22	\$7,762.08	\$181,067.14	\$208,353.41	\$23,669.25	\$20,835.35	\$163,848.81	\$17,218.33

STATE DEPARTMENT OF AGRICULTURE

EIGHT YEARS' RECORDS OF SALES AT
NEW JERSEY PRODUCE AUCTIONS

Year	Packages	Gross Sales
1928	160,656	\$274,711.09
1929	246,925	455,532.98
1930	594,062	816,712.08
1931	902,637	839,604.32
1932	1,311,929	937,417.94
1933	2,064,055	1,243,074.69
1934	2,324,838	1,557,797.04
1935	2,980,162	1,967,128.70
Totals	10,585,264	\$8,091,978.84

MUNICIPAL MARKETS

The market masters at Atlantic City and at Trenton continued their fine cooperation with the bureau by filing weekly reports of products sold and prices received. In turn the bureau aided, especially in the case of Trenton, in supplying prices daily as received for similar products in large terminal markets. A summary of the year's activities on these markets is found in the following table:

MUNICIPAL MARKETS

July 1, 1935—June 30, 1936

Market	Bushels or Packages of Produce	Dozens of Eggs	Pounds of Poultry	Value of Sales
Atlantic City	440,737	168,551½	129,611	\$452,620.03
Trenton	187,728	48,865	111,760	246,780.00
Totals	628,465	217,416½	241,371	\$699,400.03

DEMONSTRATIONS AND EXHIBITS

Many requests came to the bureau for exhibit material and demonstrations. We have not been able to comply with all requests, but have done so whenever possible. The following demonstrations and exhibits were made:

TRENTON:

At the Trenton Fair, the bureau assisted in developing the department exhibit, supplying needed quantities of graded fruits and vegetables for show purposes.

At the New Jersey Farm Show, the bureau again conducted the apple packing contest for vocational agricultural students and supervised the apple and sweet potato exhibits.

- CRANBURY:** At the Annual Potato Field Day of the New Jersey State Potato Association, a demonstration was given of the official grades for potatoes and illustrations of the appearance of clean and dirty potatoes as a factor of value and net return were shown.
- GLASSBORO:** A demonstration of the requirements of the official grades for northern grown onions was made.
- NEW BRUNSWICK:** At the request of the Horticultural Department of the State Agricultural College, a demonstration of New Jersey packs and grades of apples was given, which was followed by discussion conducted by this bureau.
- MOORESTOWN:** A demonstration of grading and packing apples and the requirements of the official state grades was made.
- RIVERSIDE:** A display in connection with the State Horticultural Society, Summer Meeting, of New Jersey apples purchased on the Philadelphia market illustrated the value of care in packing and grading.
- ATLANTIC CITY:** At the annual meeting of the Horticultural Society in December, a display of packages recommended for New Jersey fruits and vegetables was staged. Lots of apples illustrating the minimum requirements of the different official grades were shown.

PUBLICITY

The circular, "Marketing Tomatoes for Canning in New Jersey on the Basis of Standard Grades" (Circular No. 254, February, 1936) has been mentioned in the report on the inspection of canning crops. This circular has been of considerable benefit to growers in drawing attention to facts which affected the percentage of No. 1's and No. 2's obtained. Illustrations in that circular have been especially convincing.

. Circular No. 261, "The Fruit and Vegetable Auction Markets of New Jersey" has also been mentioned as a source for information relative to the volume of work carried on by the auction markets in this state in 1935. A great deal of interest has been developed by the use of this circular among buyers in this and surrounding states.

POULTRY PRODUCTS MARKETING

The work in poultry products marketing has been carried on in the bureau along the same lines as in past years. As in the past, it is felt that the standardization program is the basis for improving quality for all poultry products in the state. The auction method of selling both poultry and eggs is the next step and is of equal importance because in all industry both production and marketing must go hand in hand. The fresh egg law enforcement, which was reported as a new project last year, has been continued along the same definite lines without interruption.

Mr. Alben E. Jones, supervisor of this project, died on May 16 and his death was a great loss to the bureau. Coming as it did, near the close of the year, his death did not affect in any way the actual completion of the year's work. The position has not yet been filled due to the necessity of obtaining a man with the best qualifications possible for this position in order that the same projects may be carried on another year with able leadership and without any reduction in efficiency in these services to the poultrymen of the state.

New Jersey was the first state to accept the National Poultry Improvement Plan which was put into effect during the past year. This, was not unexpected inasmuch as the new plan has taken into consideration practically all features of the original New Jersey plan, and with the revisions made in the plan just as the year drew to a close, it is still more similar. It is the hope in this state that a national plan will develop a quality consciousness among the producers and purchasers of baby chicks, stimulating increased use of high grade pedigreed stock in building up profitable laying flocks. In New Jersey, the official state agency in the enforcement of the national plan, is the Bureau of Markets of the State Department of Agriculture whose duty is to direct, supervise and be responsible for flock selection, testing for pullorum disease and all other administrative work provided for in the National Poultry Improvement Plan.

The bureau had under supervision, during the fiscal year, hatcheries with capacities of approximately 579,135 eggs, a slight increase over 1934-35. These hatcheries produced 1,081,156 chicks, which is approximately twelve per cent more than the preceding season.

The Record of Performance inspections were carried out exactly as in former years. The indications at the close of the year are that there will be additional interest in this part of the program another year.

The egg and live poultry auctions in the state show a marked increase in services rendered to the producers. Each year, since the organization of these associations, the volume of business conducted has increased. There is no doubt but that the operation of the fresh egg law aided in building up demand for auction inspected eggs. It was quite evident during the past year that eggs sold more easily, on the auction markets even in the

flush period, than ever before. While this may be partly due to the effect of the fresh egg law, there is no doubt but that it is also due to the care given by the auction inspectors in putting out a product, under the state label, that will meet the requirements of a discriminating buyer.

The New Jersey Fresh Egg Law has been enforced in this state under the same plan in the department as in the previous year. The Bureau of Markets has handled the actual field inspection work and has kept all records relative to compliance with the law. During the year, 23,844 inspections were made by four full-time inspectors and one temporary man employed during the months of July, August, April, May and June which showed a lessened number and severity of violations. Complaints, after being carefully scrutinized in the bureau, were passed on to the administrative branch of the department. The administrative office held hearings of 203 violations, issuing 152 warnings, assessing 48 penalties and dismissing three cases.

AUCTION MARKETS

Again the egg and poultry auction markets of the state showed a very satisfactory increase in volume of sales during 1935-36. A total of 225,721½ cases of eggs was sold as compared with 177,908 cases in 1934-35. This increase of 47,814 cases is considerably higher than the increase in 1933-34 of 33,587 cases. The value of the eggs sold on the auction markets during the past year was \$2,015,968.64, which is \$404,486.86 more than for 1934-35. The auction markets also sold 59,438 crates of poultry, weighing 2,815,167 pounds for \$582,974.05. In the previous year 47,845 crates of poultry, weighing 2,307,996 pounds, were sold for \$410,875.51. The totals of egg and poultry sales for the last three years at the auction markets are as follows:

Year	Value
1935-36	\$2,598,942.69
1934-35	2,022,357.29
1933-34	1,336,292.49

It is interesting to note that the average sale price per case of eggs during 1935-36 was \$8.93 while for 1934-35 it was \$9.057. This is based on the total volume of all eggs sold on the auction markets of the state during the two respective years.

It is with considerable satisfaction that the bureau can report the continued increase in volume of sales on the auction markets in the state because it proves that this method of selling, proposed by the bureau, is definitely successful. The fact that the system has been copied so generally in other states is an indication of its wide recognition by poultrymen.

The distribution of eggs from the auction markets has been practically the same as the preceding year. There has been some increase in purchases made in the New York and Long Island areas. The proportion of the total production of eggs in New Jersey, sold through the auction markets, has increased greatly.

There has not been any great increase in the number of buyers attending the sales, either at the live poultry auctions or at the egg markets. A few new buyers have more than made up for those lost during the year.

The figures in the tables show the increase in sales made on all of the auction markets of the state. Part of this may be due to some increases in the poultry population on the farms from which sales have been made through the auctions in previous years, but considerable gains have been made in the membership in each of the associations. As has been the case with all new methods of selling, certain conservative producers have held back in order to make sure that the new methods are practical and worthy of their support. This has now been definitely proven in the egg and live poultry auctions of the state. The considerable increase in membership from all counties in the state and the distribution by markets as well as by counties is shown in the accompanying table.

AUCTION MARKET MEMBERSHIP, BY COUNTIES

County	Flemington Auction	Hightstown Auction	Mount Holly Auction	Paterson Auction	Vineland Auction	Total
Atlantic .....	..	..	..	3	206	209
Bergen .....	..	..	..	40	..	40
Burlington	7	20	678	..	3	708
Camden .....	..	..	9	..	..	9
Cape May .....	..	..	..	17	28	45
Cumberland .....	..	..	..	2	257	259
Essex	2	..	..	6	..	8
Gloucester .....	..	..	1	..	96	97
Hudson .....	..	..	..	1	..	1
Hunterdon	1,201	..	..	1	..	1,202
Mercer	138	99	..	..	..	237
Middlesex	10	34	..	1	..	45
Monmouth	4	92	7	5	..	108
Morris	19	..	..	44	..	63
Ocean	4	3	26	9	1	43
Passaic	1	..	..	74	..	75
Salem .....	..	1	..	..	96	97
Somerset	203	203
Sussex	9	49	..	58
Union	5	1	..	6
Warren	224	9	..	233
Totals	1,827	249	721	262	687	3,746

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Each year a close record of the highest quotations for eggs of a similar quality or grade on the New York market has been kept for comparative figures and the returns to the auctions through the auction method of selling have been computed. There is no doubt that the figures given, which have always been in favor of the auction markets, do not tell the entire story, inasmuch as previous to the establishment of the auction market method of sale, returns to producers were in many instances lower than the quoted New York prices. Also, keeping a large volume of eggs from the New York market tended to increase the price of eggs on that market, and there is no doubt but that there has been an attempt on the part of some of the New York receivers to encourage direct shipments to New York by making better price returns. During the past year the sales on the auction markets in New Jersey showed that the auction markets received for their producers \$121,089.96 more than was received for the same quality eggs and poultry sold in New York for the account of the producer. Other advantages recognized by the producer are lower transportation charges to the auction and prompt money returns. There has never been a loss to a producer selling on the auction markets in New Jersey.

Accompanying tables show the volume of business conducted at the various egg and poultry auctions of the state through the past year, comparisons in prices received at the market and in New York, and the increased money returns through the sale by auction.

SALES ON A GRADED BASIS AT NEW JERSEY'S EGG
AUCTION MARKETS

July 1, 1935—June 30, 1936

Market	Number of Cases	Gross Price at Auction	New York Quotation	Difference in Favor of Auction
Flemington	93,831	\$830,949.28	\$779,932.75	\$51,016.53
Hightstown	19,027	169,752.89	160,398.32	9,354.57
Mount Holly	8,992½	77,379.48	74,338.51	3,040.97
Paterson	18,992	175,423.45	160,617.24	14,806.21
Vineland	84,879	762,463.54	725,523.98	36,939.56
Totals	225,721½	\$2,015,968.64	\$1,900,810.80	\$115,157.84

SALES AT NEW JERSEY'S POULTRY AUCTION MARKETS

July 1, 1935—June 30, 1936

Market	Number of Crates	Pounds of Poultry	Gross Price at Market	New York Quotation	Difference in Favor of Auction
Flemington	32,894	1,527,469	\$315,729.14	\$311,348.96	\$4,380.18
Mount Holly	10,651	590,513	133,834.77	131,282.28	2,552.49
Paterson	4,440	214,867	44,505.83	43,576.96	928.87
Vineland	11,453	482,318	88,904.31	90,833.73	—1,929.42
Totals	59,438	2,815,167	\$582,974.05	\$577,041.93	\$5,932.12

SUMMARY OF EGG AND POULTRY AUCTION MARKETS
July 1, 1935—June 30, 1936

Market	Cases of Eggs	Value of Eggs	Crates of Poultry	Pounds of Poultry	Value of Poultry	Total Value	Difference in Favor of Auctions*
Flemington	93,831	\$830,949.28	32,894	1,527,469	\$315,729.14	\$1,146,678.42	\$55,396.71
Hightstown	19,027	169,752.89	.....	.....	.....	169,752.89	9,354.57
Mount Holly	8,992½	77,379.48	10,651	590,513	133,834.77	211,214.25	5,593.46
Paterson	18,992	175,423.45	4,440	214,867	44,505.83	219,929.28	15,735.08
Vineland	84,879	762,463.54	11,453	482,318	88,904.31	851,367.85	35,010.14
Totals	225,721½	\$2,015,968.64	59,438	2,815,167	\$582,974.05	\$2,598,942.69	\$121,089.96

* Computed by subtracting total value at auctions from total highest quotation for eggs on the New York market and the average New York prices for poultry.

ENFORCEMENT OF GRADES ON THE AUCTION MARKETS

The use of grades and standards, whether it be for baby chicks, for eggs, or for any other farm products, can be of value only insofar as the standards that have been previously determined are protected through some follow-up method, guaranteeing uniformity in interpretation to the user. The reputation of a grade is made or lost on the ability of the producer to constantly adhere to the requirements of that grade. In the use of grades for eggs on the auction markets, we have insisted that the inspectors employed by the auction be men of real ability in their particular line of work and that they be employed only with approval of the supervisor of poultry products marketing in this bureau. In the selection of these men, extreme care has been taken to obtain reliable persons. In addition, one man in this division has been assigned the particular responsibility of constantly checking the work of the various inspectors employed on the auction markets. It is his job to see that the grades are interpreted universally in the same way so that none can claim that "New Jersey Fancy" or "New Jersey Grade A" does not mean the same in Paterson that it means in Vineland. It is because of the untiring efforts on the part of the inspector in this work that the use of New Jersey state grades is so well recognized by the buyers of eggs wherever they may come from. The chief inspector made 104 check inspections of the work of the auction market inspectors during the past year and, in addition to that, other persons of the poultry division made 78 general inspections of the work as carried on at the auction markets.

The auction markets wish to protect buyers on their markets. They investigate every claim made by a buyer on purchases made and determine whether or not the complaint against a grade is justified. In every case where the buyer may possibly be right, even though some buyer may take advantage of this action, the markets settle the claim. As an indication of how little complaint there is by reputable buyers, and how well the grades are maintained, the following statement is of interest. For the three-month period, including April, May and June, 1936, total sales on the Flemington market were approximately \$233,000. Claims settled for this period were \$28.90. The small amount of these claims may be realized better if expressed as; for every thousand dollars of sales made, twelve cents was returned on claims against the quality in grades. This included some cracked eggs.

Sometimes the producers of eggs feel that the requirements for the "New Jersey Fancy" grade are too strict and they would like to see a lowering of the requirements for such certified eggs so that a larger proportion of their production could make the higher grade. It is our belief that anything that is done to lower the standard for these grades, which have so well proven themselves in the past, will without question lower the

price returns that the producer will obtain for those grades. We believe that it is better to uphold the "Fancy" grade and to offer something that the producer of "Fancy" eggs can obtain rather than to lower the standards and permit the man not so particular to obtain the same recognition that the high quality producer obtains. After all, the reputation of the producer is made on the quality that he maintains, and grades to be of value must be protected.

The progress made by the individual auction markets during the past year is indicated in the following short series of comments relative to each market.

FLEMINGTON EGG AND POULTRY AUCTION MARKETS

The Flemington Auction Market Cooperative Association, Inc., continued the leader in volume of business during the past year. This market increased its sales of eggs over the preceding years by more than 20,000 cases and increased its poultry sales by nearly 300,000 pounds. In addition to the figures that may be obtained by a study of the accompanying tables showing the volume of business and profits accruing to the market patrons, it is interesting to note that this market maintained an average price for all eggs sold, regardless of size or grade, of \$8.855 per case or \$0.2950 a dozen. The charges made by the association to its members was 4.6 per cent of the gross receipts. The average price received by this market for the live poultry sold was \$0.2066 per pound and the selling charges to its members were 4.16 per cent of the gross receipts. The market has continued the improvements made in its physical property and now has an establishment where its business can be conducted with the greatest economy for its members.

HIGHTSTOWN EGG AUCTION MARKET

The Hightstown Market is operated by the Tri-County Cooperative Auction Market Association, Inc. While its egg business is not large, it has shown very satisfactory growth in the past year. The price per case for eggs sold on this market over the year was \$8.92 or \$0.2975 per dozen, and the cost to its members was 3.76 per cent of the gross receipts.

This market is operated primarily as a fruit and vegetable auction but is rendering a valuable service to the poultrymen among its members in conducting an egg auction.

MOUNT HOLLY POULTRY AND EGG AUCTIONS

The Burlington County Poultry Meat Auction Association, Inc., located at Mount Holly, was established originally as a live poultry auction. Poultry of the highest type is sold on this market and the prices received for live poultry are higher than at any other auction in the state. The

average price per pound for poultry received was \$0.2266 per pound. This market has the distinction of having the lowest charges to its members of the gross receipts received. The charge for poultry sales last year was 3.18 per cent. The Mount Holly Market has conducted its egg sales during the past year on a graded basis. Previous to this year, egg sales were of secondary importance, but the volume has increased year by year so that the directors felt that inspection and graded sales would be worth while. For the first few months, this market obtained the services of the inspector stationed at the Hightstown Market, but as the year closed they found that it would be mutually more acceptable to have their own inspector so arrangements have been made whereby they have a man of their own stationed at Mount Holly. The average price per case for eggs sold on this market was \$8.61 or \$0.2875 per dozen. The cost of selling these eggs was 3.5 per cent of the gross receipts.

PATERSON EGG AND POULTRY AUCTION MARKETS

The North Jersey Cooperative Egg Auction Market Association, Inc., commonly called the Paterson Market, has the distinction of receiving the highest price for eggs of any of the markets during the past year. This is undoubtedly due to its position in the metropolitan area. The average price per case was \$9.24. This amounts to \$0.3075 per dozen. The cost of selling these eggs was 4.41 per cent of the gross receipts. At this market the average price per pound for live poultry was \$0.207 and the charges were 3.86 per cent.

VINELAND EGG AND POULTRY AUCTION MARKETS

The Vineland and South Jersey Cooperative Egg Auction and Poultry Association, Inc., also made a very satisfactory growth in volume of sales during the past year. The records show that it increased its egg sales by approximately 15,000 cases and its live poultry sales by approximately 21,000 pounds. The average price per case for all eggs sold on the Vineland Market during the past year was \$8.98 per case, or approximately \$0.30 per dozen, and the charges to the producers for the services of selling were 3.56 per cent. The average price per pound, live weight, for poultry received on the Vineland auction was \$0.184 and the charges to the producers for the services of selling were 5.0 per cent of the gross receipts.

The representatives of the Bureau of Markets are very well pleased with the type of management found on all of the egg auctions of the state. Evidently they are being conducted in a thoroughly efficient manner and there is a fine spirit of cooperation shown by the management and the directors.

At various times during the year, applications or inquiries are made relative to the possibilities of establishing new auction markets. It is the

policy of this bureau to limit the number of auctions in such a way that the entire producing areas of the state are adequately supplied with marketing facilities without competing one with another. Additional markets, with a possible exception, are unneeded in this state as it is better for the poultry industry to concentrate their sales and their buyers at the five points already served. As now located, markets are available within reasonable distance to the great majority of poultry producers of the state.

POULTRY STANDARDIZATION

As has been previously stated, the work in poultry standardization has been carried on in practically the same way as in former years. The change to the terminology of the National Poultry Improvement Plan has made some slight difference. The actual field work, however, has been carried on along the identical lines as in former years. In order to show these changes in terminology and to emphasize the fact that the New Jersey plan has been practically accepted as a national plan, the following comparison of terms is given:

<i>The National Poultry Improvement Plan</i>	<i>The New Jersey Plan</i>
1935-36 (Standard Classes)	1934-35 (Standard Classes)
New Jersey—U. S. Approved	New Jersey Supervised
New Jersey—U. S. Certified	New Jersey Certified
New Jersey—U. S. Record of Performance	New Jersey Record of Performance
New Jersey—U. S. Register of Merit	New Jersey Certified Meat Production
	1934-35 (Non-Standard Class)
	Approved Breeding Flocks
	Meat Production
	Egg Production

The original term "Accredited" in pullorum control work has, under the National Poultry Improvement Plan, been divided into three stages. The first stage is called Pullorum-Tested, which indicates that pullorum reactors have been found. However, should the reaction be greater than ten per cent, a retest may be made at thirty-day intervals until the reaction is less than ten per cent. The second stage is called Pullorum-Passed and indicates that all birds on the premises have been subjected to the pullorum test and no reactors found. The third stage is called Pullorum-Clean. This classification is applied only to those flocks in which no reactors have been found in at least two consecutive tests at least six months apart, the first of these two tests having met the requirements of a Pullorum-Passed flock. Once a flock becomes Pullorum-Clean, it remains so as long as no reactors are found in the annual test of birds used as breeders.

In place of one circular, which the department has published each year and which has combined the New Jersey plan of poultry standardization and accreditation and the list of breeding flocks and hatcheries under supervision, this year two circulars were published in the interests of economy. It was felt that the actual plan of work need not be distributed anywhere near as widely as the lists of breeding flocks and hatcheries which are used for sales purposes. Circular No. 256, "The New Jersey Plan of Poultry Standardization and Disease Control" was sent out only to parties interested in actual supervisory work and to leading poultrymen, county agricultural agents, college officials and others desiring such material for informational purposes. The companion circular, No. 257, entitled, "The New Jersey List of Breeding Flocks and Hatcheries Under Official Supervision, 1936," was mailed to our poultry producer list. This circular has great value in the actual sale of chicks hatched from breeding flocks under supervision but in order to be of greatest value, this circular should be available to the poultrymen of the state at a much earlier date. For the coming year, an additional circular in the form of a handbook is contemplated, as is the procedure in some other states. This handbook will contain the names of the breeders and hatcheries under supervision, the breeds and varieties of poultry handled, the classification and other pertinent information which will aid a prospective customer to make his selections before the complete list, which includes the pedigrees and other records, is issued.

In our poultry standardization work, the chickens entered under the bureau supervision are not only inspected and classified according to the regulations but are all tested for pullorum disease under the supervision of the Bureau of Animal Industry. The reactors are slaughtered according to regulations, as has been the practice in the past.

The distribution of the poultry standardization work during the year is indicated in the tables included in this report. The work done in the past year showed an increase over 1934-35. This year, 142 flocks were supervised as compared to 112 flocks in the 1934-35 season. The average number of birds in the flocks, however, was somewhat smaller inasmuch as the 142 flocks contained 68,452 birds while the 112 flocks, of the previous year, contained 62,159 birds. Stated in a different way, this year, 53 flocks of less than 200 birds were supervised, while last year the number in this classification was 43. This year, 52 flocks of between 201 and 500 birds were supervised while last year the number was 37, and there were 29 flocks of from 501 to 1,500 birds in comparison with 24 flocks of that size in the previous year. The number of flocks of over 1,501 birds was 8, which is the same number as the preceding year. In the inspection work the identical number of birds were rejected each year which indicates a higher quality in birds entered for supervision than in the previous year. The number rejected was 4,475. There were 1,705 reactors to the pullorum test, compared with 1,298 the previous year. Office records have been main-

tained in the standardization program as well as in all other lines of work of this department. These show that the reaction to the pullorum test increased again over the preceding year to 2.77 per cent in 1935-36. These reactions include all those of the birds tested. Twenty-one flocks out of the total of 142 were free from pullorum disease. Of this number, 11 would have been classified under the New Jersey terminology as "Accredited" flocks. Under the new terminology of the National Poultry Improvement Plan now in use, they are classified as "Pullorum-Clean."

All of the field work in connection with the standardization program was handled by the regular staff of the poultry division. Inspectors made a total of 208 flock inspections. They also made 260 sanitary inspections during the hatching season in order to uphold the rules and regulations of the standardization program. The inspectors made 69 hatchery inspections during the year. The purpose of these inspections is to make sure that the regulations relative to the size of eggs and tinted eggs are upheld. An additional 259 farm visits were made by poultry inspectors for the purpose of rendering service in furtherance of the programs of the bureau.

In addition to these field inspections, inspections at 31 hatcheries were made during the year. The total capacity of these hatcheries is 579,134 eggs. The 31 hatcheries under supervision are divided into 25 breeder hatcheries having a total capacity of 250,734 eggs and 6 commercial hatcheries having a capacity of 328,400 eggs. These 31 hatcheries produced 1,081,156 chicks for sale during the past year.

The regular project work has been carried on in 15 counties of the state during the past year. Supervision of this work entailed considerable travel so it was advisable to purchase a state-owned car in the interest of economy.

Although the following information is contained in a table which follows, it is of interest to include here some outstanding figures relative to the distribution in breeds of the birds in the standard classes. Forty-two thousand four hundred and ninety-nine were Single Comb White Leghorns, and Barred Plymouth Rocks included 5,770 birds. There were 2,814 Single Comb Rhode Island Reds, 1,376 Jersey Black Giants, 630 White Wyandottes, 301 Single Comb Black Minorcas, and 273 White Plymouth Rocks. In addition to these in the standard classes, 14,789 New Jersey crossbred birds were inspected.

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

County	No. of Flocks	N. J. or U. S. Approved			Number of Birds			N. J. Certified Meat Production	N. J. Crossbred	Totals
		Pullorum Tested	Pullorum Passed	Pullorum Clean	Pullorum Tested	Pullorum Passed	Pullorum Clean			
Atlantic	3	167	...	360	...	...	...	...	...	527
Bergen	4	1,714	...	746	...	...	...	...	261	2,721
Burlington	12	473	...	...	2,936	...	...	310	2,464	6,183
Cumberland	10	...	...	...	4,152	...	...	...	171	4,323
Essex	3	...	...	...	998	...	589	...	...	1,587
Gloucester	4	...	...	2,267	4,110	...	...	...	719	7,096
Hunterdon	7	3,828	...	91	...	...	2,066	...	3,064	9,049
Mercer	33	3,636	192	77	3,642	...	2,346	559	332	10,784
Middlesex	1	197	...	...	...	...	...	...	...	197
Monmouth	5	154	...	...	...	...	...	194	663	1,011
Morris	8	6,498	...	...	...	...	...	...	1,129	7,627
Salem	18	592	...	...	...	...	...	...	2,324	2,916
Somerset	17	2,714	...	...	1,051	...	...	171	163	4,099
Sussex	15	1,701	...	249	...	...	...	...	1,049	2,999
Warren	2	...	...	...	...	...	...	...	1,153	1,153
Totals	142	21,674	192	3 790	16,889	...	5,001	1,234	13,492	62,272

NUMBER OF BIRDS INSPECTED, BY COUNTIES AND BREEDS

County	No. Flocks Inspected	S. C. White Leghorns	R. I. Reds	Barred Rocks	White Rocks	White Wyandottes	Black Minorcas	C. M. P. *	N. J. † Crossbred	Totals
Atlantic	3	201	72	...	...	...	301	...	...	574
Bergen	4	2,575	101	...	...	...	...	...	287	2,963
Burlington	12	3,144	...	540	...	...	...	351	2,652	6,687
Cumberland	10	4,437	...	...	...	...	...	...	213	4,650
Essex	3	1,829	...	...	...	...	...	...	...	1,829
Gloucester	4	6,816	...	...	...	...	...	...	798	7,614
Hunterdon	7	3,849	1,543	1,046	...	...	...	...	3,196	9,634
Mercer	33	6,533	850	3,302	...	239	...	629	375	11,928
Middlesex	1	212	...	...	...	...	...	...	...	212
Monmouth	5	...	...	168	...	...	...	207	749	1,124
Morris	8	7,009	42	17	...	...	...	...	1,174	8,242
Salem	18	...	...	...	273	391	...	...	2,770	3,434
Somerset	17	3,468	206	697	...	...	...	189	168	4,728
Sussex	15	2,426	...	...	...	...	...	...	1,173	3,599
Warren	2	...	...	...	...	...	...	...	1,234	1,234
Totals	142	42,499	2,814	5,770	273	630	301	1,376	14,789	68,452

* "Certified Meat Production" class—not inspected for breed characteristics.

† "N. J. Crossbred" class—not inspected for breed characteristics.

DISTRIBUTION AND BREEDS OF RECORD OF
PERFORMANCE FLOCKS

County	Total Number of Flocks	S. C. White Leghorns	S. C. Rhode Island Reds	Number of Birds
Burlington	1	1	..	14
Cumberland	3	3	..	25
Essex	13	13	..	151
Gloucester	9	9	..	123
Hunterdon	2	2	..	26
Mercer	12	11	1	161
Morris	6	6	..	77
Totals	46	45	1	577

These flocks produced a total of 28,438 eggs, of which 22,422 were set to produce 12,429 Record of Performance pedigree chicks, which in turn will produce the males heading Certified flocks, and in the case of exceptionally fine specimens, those heading future Record of Performance flocks. Pullets resulting from these matings quite often are used in progeny testing. Egg laying contest entries throughout the country come largely from this group. A definite indication of the value of the flock and of male birds to head other flocks can be determined quite closely by the conduct of these individual birds when trapnested.

NEW JERSEY FRESH EGG LAW

The department has completed the second year of enforcement of the fresh egg law of this state. The results of the year show that there has been a decided improvement in the quality of eggs which sold for higher prices in the state. Consumers have received a very definite benefit from this act and producers of quality eggs in this state have been paid a higher price in proportion to the general trend of egg prices because of the enforcement of the law.

From reports made by inspectors working throughout the state, it is indicated that the greatest improvement has been made in the metropolitan districts. It was in these districts that, during the first year of the operation of this law, the greatest percentage of violations were. In the rural districts, where a larger proportion of eggs was sold direct from farms, there was a continued use of higher quality eggs. Inspections were concentrated in the seashore districts during the summer months, only casual inspections being made there during the balance of the year. Taking the state as a whole, there were very few serious violations as compared with the previous year.

The bureau has continued to receive the cooperation of wholesalers and retailers in almost all cases, and the opinion has been expressed that the enforcement of the law has tended to eliminate unfair competition in the sale of quality eggs in this state.

In the handling of violations, the system originated at the beginning of the enforcement of the act was continued. The inspectors make their daily reports to this office. These reports are carefully scrutinized and violations, after the first offense, are passed on to the administrative department. In order that retailers are put to a minimum of inconvenience, the administrative department instituted the plan of holding hearings on violations in Newark as well as in Trenton during the past year. A total of 203 hearings of individual violations has been held, of which 125 were in individual stores and 78 in chain stores. As a result of these hearings, 152 warnings have been issued, and in 48 cases, penalties amounting to \$334.37 have been assessed. This amount includes certain small court awards. Three cases have been dismissed, and three cases were settled out of court. As the year closes two cases are pending and two cases have been referred to the Attorney-General's office for legal action.

In order to cover the states satisfactorily during the past fiscal year, it was necessary to employ a temporary inspector for five months who aided the other inspectors by making separate inspections, chiefly in the metropolitan area of northern New Jersey.

At the beginning of this year, one of our regular inspectors was promoted to the position of chief inspector. This man covers the Central Jersey territory and devotes part of his time to checking the work of the other inspectors to insure uniformity in interpretations throughout the state.

The following table shows the actual coverage of the inspectors assigned to this work:

OPERATION OF NEW JERSEY FRESH EGG LAW

July 1, 1935—June 30, 1936

Type	Inspections	Number
Wholesale Stores		37
*Retail Stores		23,000
Roadside Markets		569
Retail Routes		238
Total Inspections		23,844
Total Violations Detected		2,240

* Individual stores inspected—17,315.

The operation of the fresh egg law has entailed considerable office work, which has been carried out in an efficient manner and from which was obtained very valuable data relative to the effect of the operation of the law. One item of information which has been secured is the total amount of eggs sold in the stores in the different districts. In compiling this in-

formation the inspectors have been instructed to separate their reports showing the amount of eggs sold as fresh eggs and those classified as non-fresh eggs. In many cases the non-fresh eggs have been eggs of high quality but have been sold as selected eggs, or under some other term not classified as fresh. The non-fresh eggs also include cold storage eggs and eggs of low quality. The accompanying table shows the retail distribution by districts as determined from the reports of the individual inspectors on a daily basis. This has been made up according to months, and in order that it may be more easily visualized, a graph prepared, also included in this report, showing the distribution of fresh and non-fresh eggs on a percentage of the total eggs sold in these stores. The variations in the lines are easily explained when one takes into consideration the period of the year in which the information was obtained. Non-fresh eggs naturally were sold in larger quantities during the season when eggs were highest in price, and in lesser amounts during the flush season. In order that a comparison in percentage of fresh and non-fresh eggs might be made over the same period of time in 1936, as in the preceding year, the information contained in the table and graph is carried over a fifteen-month period. This shows that in April, May and June of 1936, approximately 6½ per cent less eggs were sold as fresh as compared to the same period in 1935. A partial explanation of this fact is that more eggs which undoubtedly are of fresh egg quality, were sold as selected eggs, or under a similar term, than during the first year of the enforcement of the act.

In the interests of economy, all of the fresh egg law inspectors use state-owned cars. By the use of these cars, they can carry out the provisions of this act in an efficient manner at less expense to the people of the state.

The enforcement of this act will be continued in the same rigid manner as in the past. Some states and some nearby dealers object to our requirements relative to tremulous air cells. Strict adherence to the policy as established in the past is of decided benefit not only to producers who can meet the requirements in this particular matter, but to consumers as well.

The effect of the fresh egg law in New Jersey has been watched with a great deal of interest by those interested in the industry in nearby states; so much so in fact, that several other states have enacted similar laws. The law as established in New Jersey has been pointed out by leaders of the industry in our chief eastern markets and in other states as the most ideal type of egg legislation of this nature.

RETAIL DISTRIBUTION OF FRESH AND
April, 1935—

Month	Number of Stores Inspected	Newark District		Rural District		Seashore District	
		Fresh	N-Fresh	Fresh	N-Fresh	Fresh	N-Fresh
Apr.	1,823	43,113	73,415	10,300	4,726	649	454
		*36.99	63.01	68.55	31.45	58.55	41.15
May	2,976	68,602	100,807	4,595	2,662	2,950	1,438
		40.09	59.91	63.32	36.68	67.23	32.77
June	2,215	38,499	52,551	1,910	1,495	28,983	20,214
		42.29	57.71	56.27	43.73	58.90	41.10
July	2,051	34,054	38,378	13,960	5,033	30,537	20,413
		47.01	52.99	73.50	26.50	59.94	40.06
Aug.	2,237	40,414	59,451	3,293	3,545	30,960	22,442
		40.47	59.53	48.16	51.84	57.98	42.02
Sept.	1,561	20,853	45,399	4,746	7,362	3,550	4,043
		31.57	68.43	39.19	60.81	46.78	53.22
Oct.	2,150	26,596	82,282	90	....	6,750	8,385
		24.43	75.57	100.00	....	47.44	52.56
Nov.	1,438	19,141	44,999	6,054	11,044	5,596	7,349
		29.84	70.16	35.40	64.60	43.23	56.77
Dec.	1,848	19,886	52,840	3,889	4,352	2,771	3,806
		27.35	72.65	47.19	52.81	42.13	57.87
Jan.	1,559	20,522	59,002	3,242	2,803	....	....
		25.80	74.20	53.63	46.37	....	....
Feb.	1,313	21,200	40,464	2,558	2,739	10,927	11,233
		34.38	65.62	48.29	51.71	48.85	51.15
Mar.	1,742	42,553	66,192	9,243	6,129	2,221	1,638
		39.13	60.87	60.12	39.88	57.55	42.45
Apr.	2,308	39,606	82,440	12,948	7,471	1,382	291
		32.72	67.28	63.42	36.58	82.62	17.38
May	2,002	28,884	67,718	11,148	4,503	10,208	8,539
		29.90	70.10	71.24	28.76	54.45	45.55
June	1,941	20,640	45,842	4,202	2,624	23,831	23,006
		31.04	68.96	61.56	38.44	50.88	49.12

* Second line under each month is percentage of fresh and non-fresh eggs sold.

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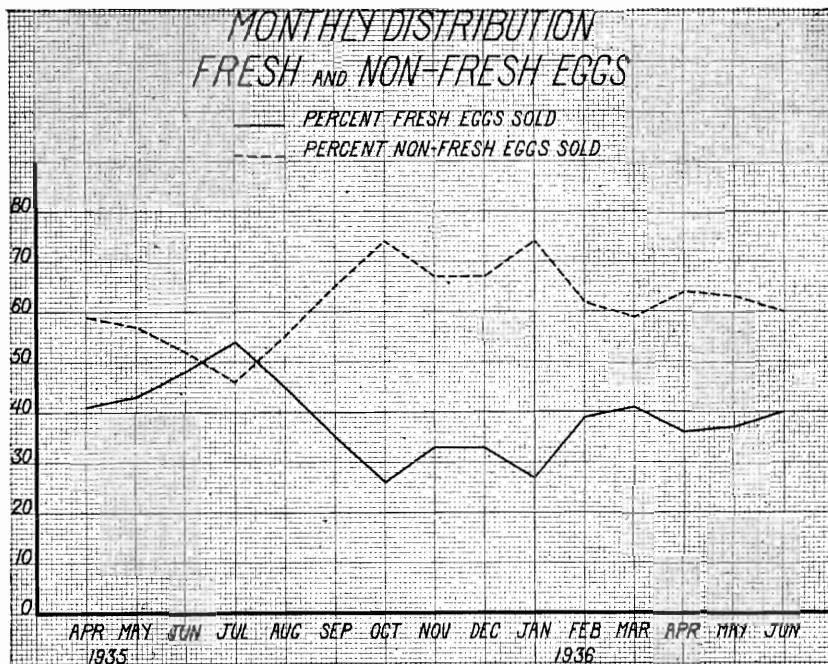
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NON-FRESH EGGS IN DOZENS BY DISTRICTS

June, 1936

Philadelphia Fresh	District N-Fresh	Total Fresh	Volume N-Fresh	Per Fresh	Cent N-Fresh	Average Sold Fresh	Dozens per Store N-Fresh
4,972	6,940	59,034	85,535	40.84	59.16	32.38	46.91
41.71	58.29						
24,841	26,590	100,988	131,497	43.46	56.54	33.96	44.18
48.30	51.70						
5,531	6,675	74,923	80,935	48.20	51.80	33.82	36.35
45.31	54.69						
1,559	5,577	80,110	69,401	53.58	46.42	39.05	33.83
21.84	78.16						
3,935	9,888	78,602	95,326	45.19	54.81	35.13	42.61
28.46	71.54						
8,310	13,664	37,459	70,468	34.70	65.30	23.99	45.14
37.81	62.19						
8,294	28,652	41,730	119,319	25.91	74.09	19.41	55.49
22.45	77.55						
2,605	3,033	33,396	66,425	33.45	66.54	23.22	46.19
46.21	53.79						
17,378	28,752	43,924	89,750	32.85	67.15	23.76	48.56
37.67	62.33						
8,852	28,643	32,616	90,448	26.50	73.50	20.92	58.01
23.57	76.43						
2,635	4,483	37,320	58,919	38.78	61.22	28.42	44.87
36.94	63.06						
9,457	15,809	63,474	89,768	41.41	58.58	36.43	51.53
37.45	62.55						
17,353	36,356	71,289	126,558	36.03	63.97	30.88	54.83
32.30	67.70						
3,595	11,152	53,835	91,912	36.94	63.06	26.89	45.91
24.38	75.62						
3,437	6,382	52,110	77,854	40.09	59.91	26.84	40.11
35.00	65.00						

Total number of stores inspected, 15 months, 29,164. Total volume reported sold as fresh, 860,810 dozens. Total number reported sold as non-fresh, 1,344,115. Per cent fresh, 39.04; per cent non-fresh, 60.96.



MISCELLANEOUS SERVICES

Bureau representatives have attended as many directors' meetings at the auction markets as possible. There have been numerous other poultry meetings requiring the presence of some representative of the bureau. During the year 57 poultry meetings, or directors' meetings, were actively participated in, with an estimated attendance of approximately 3,000. There have been 69 conferences attended at which policies or plans for furthering the poultry marketing work of the state have been discussed. The correspondence on poultry matters has continued to be heavy. The bureau has closely cooperated with the extension division in the various counties and at the college in promoting the poultry industry through aid in demonstrations and in exhibits staged in various parts of the state.

Report of the Bureau of Plant Industry

HARRY B. WEISS, *Chief*

STATISTICAL AND RELATED WORK

CROP REPORTS

The primary objective of the monthly crop reporting service is to gather, tabulate, interpret and disseminate basic, fundamental data on the number of farms, acreage of each commodity planted and harvested, yields per acre, total production of each commodity, average farm price per unit of each commodity, total farm value of each crop, and number of livestock and their value.

These statistics are indispensable in any intelligently conducted farm activity whether it is direct or indirect. The great importance of this service was emphasized in the middle of the nineteenth century by the state agricultural societies which undertook the work of crop estimates. The president of the Maryland Agricultural Society was the leader of this movement and, in circularizing other societies about 1855, he said in part: "For the promotion of the farming interest of the country, we are anxious to procure the earliest possible information of the crops that the same may be laid before the farmer to guide him in the selection of the best time to dispose of the fruits of his labor. The duty should properly be imposed upon an agricultural department of the general government, but in the absence of such provision, and in view of the artful practices of speculators and others, operating most disastrously through the base venality of the public press, upon this leading interest, the obligation is devolved upon us." In 1862 the United States Department of Agriculture undertook the duty of crop reporting service.

Up to May, 1906, the reports on the condition of New Jersey crops were issued by the "Climate and Crop Service of the United States Weather Bureau in cooperation with the New Jersey Weather Service." In May, 1906, these agencies discontinued their report and the State Board of Agriculture began to issue reports on the condition of crops six times a year from May to November, inclusive.

In 1916, the New Jersey Department of Agriculture was established. One of its functions, as stated in the law is, "To investigate, ascertain and publish information and statistics relating to the promotion of agriculture and the advancement of agricultural interests in the various branches

thereof, as it may deem proper, including the acreage under cultivation, in general and as to specific crops of agricultural use, crop adaptation of land, agricultural land for sale and its adaptation, the improvement of agricultural methods tending to advance the quantity and quality of agricultural products." (L. 1916, Chapter 268).

Since that time great effort has been made to collect, summarize, analyze and disseminate information on agriculture in New Jersey by the State Department of Agriculture in cooperation with the United States Department of Agriculture. New Jersey produces a great variety of agricultural commodities. The New Jersey Crop Reporting Service gathers and disseminates information on 55 different crops and 8 different kinds of livestock. The information covers the following points: (1) acreage of each commodity planted and harvested in New Jersey; (2) yields per acre of each commodity; (3) total production of each commodity; (4) current New Jersey farm prices of agricultural products; (5) current index numbers of these prices; (6) economic condition of New Jersey farmers measured by the index numbers of farm prices; (7) number of livestock and its value on New Jersey farms; (8) comparisons of the economic status of New Jersey farmers with the economic status of farmers in the country as a whole; (9) exchange value of the New Jersey farm dollar; (10) average condition, yields per acre, and total production of various agricultural commodities grown in competing states.

As our economic and social life becomes more and more complex, the value of a crop reporting service becomes more and more essential to many branches of activity. Among the many services which agricultural statistics render, it is proper to list:

- (1) Furnishing official and accurate agricultural business reports to farmers.
- (2) Preparing basic crop data which the National Farm Board needs to form its policy.
- (3) Accumulating fundamental data on agricultural production essential in a marketing program. No marketing program can be successfully carried on without a knowledge of what, in what quantity, and when and where, agricultural products are available for sale.
- (4) Checking the issuance of untruthful, biased, misleading crop reports, which are detrimental to the farmers' interest and if they are issued, minimizing their effect.
- (5) Regularly issuing the crop report, which gives a certainty of supply, stabilizes prices and reduces wide margins due to uncertainty.
- (6) Making essential agricultural statistics available to departments of agriculture, agricultural colleges, agricultural secondary schools and extension organizations which use them intensively and extensively in ascertaining the progress or regress made in farmers' practices and for timely knowledge of the economic condition of each group of farmers. This knowl-

edge gives the weak points in each branch of agriculture, which may be eliminated or partially corrected. Extension workers utilize agricultural statistics in planning their local programs.

These services are used by many different groups of people, some of whom are listed below:

(1) Legislators use agricultural statistics as a basis for laws pertaining to agriculture;

(2) Bankers and financiers base on them their policies for extending credit to farmers and farm produce dealers;

(3) Railroads use agricultural statistics in estimating the number of cars needed at each point for moving crops and livestock and in rate making and adjustments;

(4) Insurance companies utilize them as a basis for crop insurance and making farm loans;

(5) Manufacturers and merchants find agricultural statistics valuable on account of the following points:

(a) Knowing the agricultural situation and consequently the farmers' ability to buy, manufacturers estimate the quantity of products to be manufactured and shipped into each state, and

(b) Merchants, having the knowledge of the agricultural condition in each state, concentrate selling campaigns at the most advantageous points;

(6) Local Chambers of Commerce utilize agricultural statistics in advertising commodities which are produced in a given area, and in this way attract buyers;

(7) Prospective farmers may use agricultural statistics to a great advantage. Knowledge of the kind of crops, yield per acre and farm prices in a given county or state may help them to decide where to settle;

(8) Economists and business analysts cannot discuss their problems intelligently without a knowledge of the facts given in agricultural statistics;

(9) The government utilizes agricultural statistics before and during the time of war to know the actual and potential food supply.

These are just a few of the services rendered to many agencies and persons dealing directly and indirectly with agricultural problems.

MONTHLY RETAIL PRICES OF 80 FOOD ARTICLES IN NEWARK AND PHILADELPHIA SINCE 1913

The Department of Agriculture serves not only farmers, but consumers of farm products as well. The department for many years has gathered information on prices received by farmers, thus enabling farmers, government agencies, various farm organizations, and others, to judge the financial

status of New Jersey farmers from month to month, and from year to year. The data on the income of farmers has been used as a basis for numerous governmental measures aimed to help the farmers.

We are living through a period when prices fluctuate violently. Especially is this true in regard to the prices for food articles paid by consumers, who are becoming more and more concerned and demand unbiased information on the degree of price change. As a result of this demand, the statistical branch of the Bureau of Plant Industry was requested to make a study of retail food prices in New Jersey. Due to the very small number of workers who could devote their time to an investigation of this problem, and to the drastic cutting of its appropriation, the statistical branch could not pursue this objective on a wide scale.

The method described below was selected because it required the smallest amount of money and time. The United States Department of Labor has published data on retail prices of food for many years which were gathered from scattered publications of the United States Department of Labor for two cities, Newark and Philadelphia, and tabulated from 1913 to April, 1936. Since April, 1936, the data on about 80 food articles have been gathered by the bureau force from chain stores in Newark and Philadelphia. At the present time, we possess the monthly retail food prices in Newark and Philadelphia from January, 1913, up to date. By the proper combination of Newark and Philadelphia prices we are able to trace the monthly retail price changes. A statement on these changes is made public every month.

NEW JERSEY FARM PRICES AND THEIR INDEX NUMBERS, 1931-1935 INCLUSIVE

Monthly data on the average prices received by New Jersey farmers for 30 of the most important commodities during 1931-1935 were gathered. Price relatives were tabulated and the index numbers of prices were calculated. This was published as Circular No. 255, "New Jersey Farm Prices and Their Index Numbers, 1931-35," supplementing Circular No. 221, which contains similar information from 1910 to 1930, inclusive.

CANNING INDUSTRY SURVEY

The quantity of the various agricultural commodities canned in New Jersey during 1935 was ascertained and the results printed in the April, 1936, copy of the New Jersey Crop Report.

THE CANNING INDUSTRY IN NEW JERSEY, 1924-1935

The canning industry in New Jersey is of vital interest to the farmers, canners and the community as a whole. Farmers have a market to sell part

of their products. Cannery, by operating canneries, are enabled to earn their livelihood. The community benefits through the employment of about 7,000 persons, the supplying of canned foods to the population and the collection of taxes from canners.

For the past 12 years this bureau has carefully gathered statistical data from each cannery in the state on the quantity of each commodity canned there. These facts were published as Circular 264, "The Canning Industry in New Jersey," the contents of which are as follows: (1) Importance of the crop of New Jersey tomatoes for manufacture; (2) location of canning factories in New Jersey; (3) quantity of various tomato products canned in New Jersey; (4) farm price of tomatoes for manufacture, and (5) quantity canned and farm price of green peas, snap beans, asparagus, sweet potatoes, cranberries, beets, rhubarb, lima beans, pumpkins, squash, pears, peaches, cherries, blackberries, strawberries, raspberries, spinach, pickles, carrots and peppers.

THE BEEKEEPING INDUSTRY IN NEW JERSEY

Upon the request of the New Jersey Beekeepers' Association, this bureau made a study of the condition of the beekeeping industry in New Jersey during the seasons of 1934 and 1935, in cooperation with the United States Department of Agriculture, which furnished franked envelopes. More than 2,700 questionnaires were sent to beekeepers asking the following information: (1) location of bee colonies; (2) number of colonies; (3) winter losses and their causes; (4) other than winter losses and their causes; (5) amount of comb honey, extracted honey and wax harvested; (6) number of colonies used for pollination of fruit trees, berries and vegetables, and (7) methods of marketing honey.

The work on this project has progressed satisfactorily, and it is hoped that the results of the survey will be published during the next fiscal year.

DEATH RATE IN THE UNITED STATES FROM HUMAN TUBERCULOSIS

The Bureau of Animal Industry requested this bureau to make a statistical analysis of the data on the death rate from human tuberculosis. The results are as follows:

Death Rate per 100,000 Population, Caused by other than Respiratory Forms of Tuberculosis

During the period of 17 years, 1900-1916, i.e., before the cattle testing was inaugurated, the death rate was slightly increasing. It ranged from 21.4 to 26.5 per 100,000 of population. The average annual increase was 0.071 deaths per 100,000 population. Since 1917, when the testing of cattle began, the picture has changed entirely. The death rate began to decline steadily. In 1917 it was 22.5 and in 1934 only 5.4 per 100,000 of population. The average annual decrease during the 18-year period,

1917-1934, was 0.89. It is evident that cattle testing for tuberculosis has diminished considerably the human death rate.

Death Rate per 100,000 Population Caused by Respiratory Tuberculosis

The death rate caused by respiratory tuberculosis shows a definite decrease from 1900 to 1916 and from 1917 to 1934. During the period from 1900 to 1916, the highest rate occurred in 1900, when it stood at 180.5, and the lowest in 1916, when it was 119.9 per 100,000 population. The average annual rate of decrease during that period was 4.25.

From 1917 to 1934 the death rate continued to decline. The highest point was in 1918, when it stood at 128.6, and the lowest in 1934, when it was 51.2. The average annual rate of decrease during that period was 3.94 per 100,000 population.

TOTAL IMPORT OF CATTLE FROM VARIOUS STATES INTO NEW JERSEY FOR DAIRY AND BREEDING PURPOSES FROM SEPTEMBER, 1925, TO JULY, 1935

The total number of cattle imported into New Jersey during the ten-year period from September, 1925, to July, 1935, amounted to 236,590. The cattle were imported from 39 states and localities outside of New Jersey.

The heaviest import took place during the 1931-1932 fiscal year and it totaled 30,616 cattle, as compared with the lightest import of 16,673 cattle during the 1925-1926 fiscal year.

Wisconsin contributed 96,684 cattle, or 40.87 per cent of the total. Michigan was second with 44,022 cattle, or 18.61 per cent; Ohio, third, with 28,476 cattle, or 12.04 per cent of the total; Pennsylvania, fourth, with 25,145 cattle, or 10.63 per cent. Such states as Georgia, Texas, Oklahoma and Louisiana exported into New Jersey a very small number, not exceeding five cattle during the ten-year period.

The heaviest importation month is September, and the lightest January. In the following table the monthly figures are presented:

Month	Total Number of Cattle Imported from September, 1925 to June, 1935	Per Cent of Total	Rank
July	19,297	8.16	7
August	24,315	10.28	3
September	30,288	12.80	1
October	28,054	11.86	2
November	21,494	9.08	4
December	17,694	7.48	8
January	10,869	4.59	12
February	12,104	5.12	11
March	15,213	6.43	10
April	16,358	6.91	9
May	19,741	8.34	6
June	21,163	8.95	5

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WORK FOR THE NEW JERSEY MILK CONTROL BOARD

This bureau rendered considerable assistance to the New Jersey Milk Control Board in the organization of its statistical branch during the past two years and made available its historical and contemporary information on the condition of the dairy industry, which served as a starting point for the board regulations of the dairy industry in the state.

The assistance of this bureau has been gradually curtailed, because of pressure of other work, and also because the Milk Board acquired its own specialists, who were assisted only twice during the past fiscal year. The first service consisted of gathering and plotting on charts the following data: (1) Monthly retail prices per quart of grade "B" milk in Newark, and the monthly average farm prices per quart of milk in New Jersey since 1923; (2) monthly retail prices of grade "B" milk per quart in Camden since 1923; (3) monthly average farm prices of milk per 100 pounds in New Jersey, monthly retail prices of concentrates per 100 pounds in New Jersey, and number of quarts of milk required on New Jersey farms to buy 100 pounds of concentrates since 1923; (4) monthly trend in milk production on New Jersey farms from July 1, 1933, to July 1, 1935.

The second service dealt with (1) supplying information on the trend in the cost of production of milk in New Jersey as measured by index numbers of prices of concentrates, hay, labor, taxes and milk cows from January 1, 1923, to July 1, 1935, and (2) comparison of trends of cost of production of milk, farm prices of milk and purchasing power of factory payrolls in New Jersey from January 1, 1923, to July 1, 1935. Explanatory text accompanied the data.

ECONOMIC STATUS OF NEW JERSEY FARMERS

In the previous annual report of this bureau, descriptions of the conditions of New Jersey dairy, poultry, vegetable and white potato industries were presented, covering the period from January, 1923, to June, 1935. The present report gives a brief discussion of conditions of important branches of New Jersey agriculture from June 1, 1935, to June 30, 1936.

CONDITION OF NEW JERSEY'S DAIRY INDUSTRY

Average monthly farm prices for 100 pounds of milk

1935		1936	
June	\$2.37	January	\$2.62
July	2.46	February	2.61
August	2.43	March	2.43
September	2.55	April	2.39
October	2.63	May	2.33
November	2.68	June	2.31
December	2.65		

During the four months, March-June, 1936, the farm price of milk was about 9.5 cents lower per 100 pounds than during the corresponding months last year.

*The Average Monthly Prices Paid by New Jersey Dairy Farmers
for 100 Pounds of Concentrates*

The prices paid by farmers for feed-concentrates were declining until June, 1936, when they went up considerably. The prices are as follows:

1935		1936	
June	\$1.86	January	\$1.55
July	1.73	February	1.58
August	1.69	March	1.56
September	1.63	April	1.54
October	1.58	May	1.55
November	1.58	June	1.67
December	1.57		

*Number of Quarts of Milk Required to Buy 100 Pounds of
Concentrates on New Jersey Farms*

The relationship between the price received by farmers for milk and the price paid by them for concentrates is expressed in terms of the number of quarts of milk required to buy 100 pounds of concentrates. The number of quarts is as follows:

1935		1936	
June	36.50	January	27.52
July	32.71	February	28.13
August	32.35	March	29.86
September	29.73	April	29.97
October	27.94	May	30.94
November	27.42	June	33.62
December	27.55		

Comparing the number of quarts of milk required to buy 100 lbs. of concentrates during June, 1935-June, 1936, with the corresponding months of 1923-1927, shows that New Jersey farmers exchanged a smaller quantity of milk for concentrates in June, 1935-June, 1936 than in 1923-1927. The per cent of the number of quarts of milk required to buy 100 lbs. of concentrates is as follows:

1935	Per Cent	1936	Per Cent
June	79.3	January	66.44
July	72.7	February	67.52
August	71.9	March	71.62
September	70.2	April	72.34
October	68.38	May	69.91
November	69.98	June	73.06
December	71.06		

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This means that, for example, in January, 1936, New Jersey farmers exchanged only 66.44 per cent as much milk for 100 lbs. of concentrates, as they did during January, 1923-1927. Consequently, it is possible to state that the economic condition of dairy farmers in New Jersey during June, 1935-June, 1936 was fair.

As this report is written the prices of concentrates are soaring because of a very short crop of corn and hay and burned up pastures. To counterbalance this rise in price of concentrates, the New Jersey Milk Control Board increased the farm price of milk. No doubt, the dairy industry is entering into a critical period. It will last at least until next year's prospects of corn, hay and pasture are known.

CONDITION OF NEW JERSEY'S POULTRY INDUSTRY

Average Farm Price of Eggs

The farm price of eggs began to decline in 1930 and continued until the last months of 1934. In 1935 prices were slowly recovering. During the first six months of 1936 they were about 2 cents per dozen lower than during the corresponding months of 1935. The farm prices per dozen were as follows:

1935		1936	
June	\$.30	January	\$.32
July .....	.315	February .....	.32
August .....	.34	March .....	.263
September .....	.38	April .....	.24
October .....	.40	May .....	.25
November .....	.40	June .....	.28
December .....	.37		

Retail Price of Chicken Feeds

The retail prices of chicken feeds fluctuated quite intensively during June, 1935-June, 1936. In the following table the retail prices are given per 100 pounds of chicken feeds:

1935		1936	
June	\$2.04	January	\$1.99
July	1.97	February	1.91
August	1.96	March	1.85
September	1.92	April	1.83
October	2.06	May	1.93
November	2.01	June	1.88
December	2.00		

New Jersey Feed-Egg Ratio

The relation between prices of feeds and prices of eggs is expressed in terms of the "feed-egg ratio," which means the number of dozens of eggs required to buy 100 pounds of chicken feeds at a given time. The feed-egg ratio was as follows:

1935		1936	
June	6.80	January	6.22
July	6.25	February	5.97
August	5.76	March	7.03
September	5.05	April	7.63
October	5.15	May	7.72
November	5.03	June	6.71
December	5.41		

Expressing the June, 1935-June, 1936 feed-egg ratio as per cent of the corresponding months, 1923-1927, shows the following:

1935	Per Cent	1936	Per Cent
June	114.8	January	75.4
July	110.1	February	94.8
August	109.9	March	104.1
September	100.0	April	109.1
October	86.2	May	105.2
November	71.9	June	116.4
December	71.2		

These percentages mean that, for example, in June, 1935, it took 14.8 per cent more eggs to exchange for 100 pounds of feeds than during June, 1923-1927, and in January, 1936, it took only 75.4 per cent as many eggs to exchange for 100 pounds of feeds as it did in January, 1923-1927, which is considered as 100 per cent. The steady rise in the quantity of eggs required to buy 100 pounds of feeds, which began in March, 1936, and which, no doubt, will be continued at least up to the new 1937 harvest of feeds, indicates clearly that the economic condition of poultry farmers will be poor during the next 12 months.

CONDITION OF NEW JERSEY'S VEGETABLE INDUSTRY

The June, 1935-June, 1936 economic condition of vegetable growers in the state was very unsatisfactory. Prices received by farmers were low and in many instances not even sufficient to cover the cost of production. The following index numbers of prices show the situation:

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1923-1927=100

1935	Index Number	1936	Index Number
June	39	January	52
July	44	February	50
August	50	March	47
September	62	April	68
October	52	May	48
November	45	June	54
December	53		

These index numbers mean that, for example, during August, 1935, farmers sold vegetables at a price equal to 50 per cent, or one-half of the August, 1923-1927 price.

Indications are that 1936 prices of vegetables during the peak of the season, i.e., July, August, September and October, will be better than during the corresponding months last year. Since 1931 the vegetable growers have been in a state of economic depression.

CONDITION OF THE WHITE POTATO INDUSTRY

The economic condition of white potato growers during June, 1935-June, 1936 was very poor. The prices received by the farmers for potatoes during the peak of marketing, i.e., during July, August, September and October, ranged from 36 to 50 cents per bushel. Such a price does not cover the cost of production. The average prices received by New Jersey farmers per bushel of potatoes were as follows:

1935		1936	
June	\$.55	January	\$.85
July .....	.45	February .....	.85
August .....	.36	March .....	.90
September .....	.45	April .....	.95
October .....	.50	May	1.10
November .....	.80	June	1.55
December .....	.85		

The June, 1935-June, 1936 prices expressed in per cent of the 1923-1927 prices are as follows:

1935	Per Cent	1936	Per Cent
June	33.5	January	60.3
July	26.3	February	56.7
August	24.8	March	61.6
September	34.6	April	62.1
October	40.0	May	70.5
November	54.1	June	94.5
December	57.8		

It is evident that New Jersey farmers received in July, 1935, for example, only 26.3 per cent of the 1923-1927 price for white potatoes.

CONCLUSION

The statistical data presented above show clearly that dairy farmers were in good economic condition, poultry farmers in fair condition, vegetable and white potato growers in very poor economic condition.

GOVERNOR'S EMERGENCY FARM MORTGAGE COMMITTEE

Thirty some requests for assistance were received by the committee. These involved field work, investigations and meetings with individual creditors and groups of creditors. Stays of foreclosure were obtained in some cases, debt compositions were attempted in others, refinancing of existing debts was attempted in still others, and extension agreements were arranged in other cases. One case involving 25 creditors was successfully handled in order to obtain federal financing.

Owing to the reduction in the number of requests for assistance, the committee was discontinued on February 3, 1936, with appreciation to the members for their services. It was decided also that the federal debt adjustment supervisor connected with the Rural Resettlement Administration could handle successfully the work formerly done by the committee.

MUTUAL FIRE INSURANCE ASSOCIATIONS

A survey of such associations in New Jersey which insure farm properties was completed during the year and the results were reported in detail in Department Circular 253, "Survey of Mutual Fire Insurance Associations in New Jersey Which Insure Farm Properties."

THE 1936 CHILDREN'S SCIENCE FAIR

The second state-wide New Jersey Science Fair was held January 28 to February 1, at the Second Regiment Armory, Trenton, New Jersey. It was arranged as part of New Jersey Agricultural Week by the New Jersey Department of Agriculture, with the cooperation of the New Jersey Department of Public Instruction and the Plan Committee for 1936.

The second Science Fair was even more successful than the first. The exhibits, showing wide diversification, and care and thought in preparation, came from every county of the state. A total of 330 was on display for five days, this being an increase of 90 over the number shown in 1935. Most of them came from Junior and Senior High Schools and credit is due the science teachers and students for their splendid cooperation. Approximately 15,000 visitors viewed the Fair. The new entry class, entitled Mechanics, that was added this year was productive of 26 exhibits.

A more extended account of the exhibits and awards will be found in Department Circular 259, "New Jersey Science Fair."

WHITE PINE BLISTER RUST CONTROL

Just prior to the beginning of the fiscal year, the Federal Division of Blister Rust Control received a sizeable Works Progress Administration appropriation. Of this, \$2,958.00 were allocated to New Jersey. This amount was in addition to the regular cooperative funds that have been granted for the past several years. Workers were procured from the National Reemployment Service according to W. P. A. regulations and crew eradication was performed in West Milford Township in Passaic County, Vernon Township in Sussex County and Jefferson Township in Morris County. These townships are adjacent and may be considered as constituting one area.

One supervisor (and scout) and twelve laborers were hired and operated as two crews which worked 4,540 man-hours to eradicate currant and gooseberry bushes from 2,052 acres of land to protect 586 acres of white pines of various ages. In all 15,483 ribes were pulled, all but 100 of which were wild species, the latter being cultivated bushes.

The white pines in this section occur in scattered groups of various ages and range from two to approximately 50 acres in area. This accounts for the relatively low acreage of pines protected. However, the pines in this area, while they do not occur in large tracts and do not have a large potential timber value, are nevertheless of great value in that they occur mostly around the two large watersheds of the City of Newark and the North Jersey Water Commission. Those pines that are not owned by the watersheds are around the summer resort lakes and are particularly prized for their scenic value. The stands range from small reproduction to trees of merchantable size. White pines were once a prominent species in this section and, judging by the areas seeding in, will become more plentiful in future years.

Pine infections were found throughout the area, generally light, but rather heavy infection centers on properties near West Milford and DeKays. An analysis of the frequency of pine infections would indicate that infection has been building up in recent years in that portion of the state near the New York State line and gradually spreading southward. Undoubtedly these pine infections would become more serious if control measures had not been applied.

Ribes infection which was light early in the summer of 1935 became heavier as the season progressed, and in the spring of 1936 appeared earlier and was more severe. Most of the bushes pulled were *R. rotundifolium* occurring on rocky ledges and other rough and rocky sites. Fewer bushes of *R. cynosbati*, *R. hirtellum* and *R. Americanum* were pulled; the latter two species occurring in swamps and wet sites.

An application for a federal pine-shipment permit for the newly established Soil Conservation Service Nursery at New Brunswick was received.

With Civilian Conservation Corps labor furnished from the Freehold camp, 16 men spent 684 man-hours crew-eradicating approximately 200 acres of land in the 1,500 foot protective zone. The mile zone was scouted and the cultivated European black currants removed. In all 1,538 wild Ribes and 65 cultivated Ribes were pulled to complete the job. The wild Ribes were mostly escaped cultivated gooseberries and a few escaped currants.

Circular 250, "White Pine Blister Rust and Its Control in New Jersey," was prepared, printed, and mailed to New Jersey pine owners and planters. News articles dealing with the present status of the disease and its control were released to the papers of the state and articles outlining the control program were printed by the local papers in the area in which the work was performed.

SEED CERTIFICATION AND RELATED WORK

RASPBERRY PLANT CERTIFICATION

Five nurserymen applied for this service in order to be able to ship plants into some 13 states which require a certificate attesting that raspberry plants have been twice field-inspected and found practically free from virus diseases. One hundred and thirty-four acres were inspected, of which 116½ acres were certified. In the berry growing area about Hammonton there has been a change from the old St. Regis variety to other varieties such as Latham, Chief and Viking which are more susceptible to Mosaic and other virus diseases. Because of this, and to protect the growers from purchasing questionable plants from states where no certification is offered, the State Board of Agriculture promulgated a quarantine order prohibiting the interstate and intra-state movement of raspberry plants except in cases where they had been field-inspected and certified by an official of the state of origin. Following is the quarantine order.

QUARANTINE ON SHIPMENTS OF RASPBERRY PLANTS

The fact has been determined by the New Jersey State Board of Agriculture, that virus diseases of the raspberry constitute a menace to the berry industry in the State of New Jersey.

Now, Therefore, we the New Jersey State Board of Agriculture, under authority conferred by Chapter 268, Laws of 1916 and amendments thereto, for the purpose of preventing the further introduction and spread of these diseases within the State, do hereby forbid the shipment into the State of New Jersey from any outside point or from point to point within the State of all varieties of raspberry plants (roots and tips), except under and in compliance with the rules and regulations issued by this Department covering the inspection and certification of raspberry plants.

Regulation 1.

Raspberry plants (roots and tips) may be brought into the State of New Jersey or moved from point to point within the State only after they have been twice field inspected during the previous growing season by an official State in-

spector of the State in which they were grown, and found to be practically free from the virus diseases known to infect plants of the genus *Rubus*.

Regulation 2.

Such shipments of raspberry plants must have attached thereto a copy of a special certificate issued by the proper State official of the State of origin, attesting that the plants contained in the shipment have been twice field inspected by an official State inspector and found to be practically free of virus diseases. The State Department of Agriculture reserves the right to return to the point of origin any raspberry plants received in the State of New Jersey without such a certificate.

These rules and regulations, effective March 24, 1936, shall be in force until further notice.

(Signed) CHAS. D. BARTON,
President.

(Signed) W. B. DURYEE,
Secretary.

GRAIN SEED CERTIFICATION

This service, started several years ago, has continued to grow. The demand for New Jersey certified grain seed exceeded the supply for each crop, which may be interpreted as meaning that farmers are interested in procuring better field crop seeds. A comparison of the annual seed requirements for New Jersey with the quantity of certified seed produced in New Jersey shows that there is plenty of room for expansion. To this end, the New Jersey Field Crop Improvement Association was formed by the growers of certified grain seeds to accept for membership qualified growers and to disseminate information which will foster the use of certified seed. The winter meeting held in conjunction with Agricultural Week had a large attendance of farmers who displayed considerable interest.

The following table presents the figures for 1935-36.

SUMMARY OF GRAIN SEED CERTIFICATION

JULY 1, 1935—JUNE 30, 1936

Crop	Number of Growers	Acreage Inspected	Acreage Rejected	Acreage Certified	Bushels Sealed
Wheat	7	195	..	195	1,759
Rye	1	3	..	3	*
Corn	8	196	87	109	1,426.5
Soybeans	5	49	49	0	..
Timothy	1	9.5	..	9.5	Withdrawn
Oats	8	111	..	111	3,013
Barley	4	28	..	28	435.5
Totals	34	591.5	136	455.5	6,634

*Used for building up source of seed of new variety, "Raritan."

STATE DEPARTMENT OF AGRICULTURE

A REVIEW OF THE
INSPECTION AND CERTIFICATION WORK
OF NEW JERSEY LATE CROP WHITE POTATO SEED IN 1935

Acres Entered for Certification

County	Acres	Per Cent
Burlington	2.50	.49
Camden	4.00	.79
Cumberland	269.375	53.33
Middlesex	19.50	3.86
Monmouth	10.00	1.98
Salem	199.75	39.55
	505.125	100.00

Seed Source

	Bags	Per Cent
New Jersey	2,635	67.03
Prince Edward Isle	961	24.45
Maine	330	8.39
Washington, D. C.	5	0.13
	3,931	100.00

Seed Storage

	Bags	Per Cent
Del Bay	2,661	67.69
Woodstown	404	10.28
Salem	251	6.38
South River	247	6.28
Pitman	122	3.10
Vineland	88	2.25
Newark	81	2.06
Bridgeton	65	1.65
Camden	7	.18
Washington, D. C.	5	.13
	3,931	100.00

Seed Treatment

	Bags	Per Cent
Semesan	2,311	58.79
None	1,620	41.21
	3,931	100.00

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Previous Cropping of Field

	Acres	Per Cent
Green Manure Crops	280.125	55.46
Fallow	86.250	17.07
Sod	75.125	14.87
Grain Stubble	57.125	11.31
Early Potatoes	6.500	1.29
	505.125	100.00

Fertilization

Tons applied (\$505.125 acres)	496.52 tons
Average application per acre	1,965 pounds
Heaviest application per acre	2,500 pounds
Lightest application per acre	1,400 pounds

Rate of Planting

	150-lb. Sacks
Total number of bags of seed planted	3,931
Average number of bags per acre	7.78
Heaviest planting per acre	10.00
Lightest planting per acre	5.00

CALCULATED WEIGHT OF SEED PIECE

(Spacing 11x32 in.—17,968 hills per acre)

Bags per Acre	Weight of Seed Piece
5.00	0.668 ounces
7.78	1.039 ounces
10.00	1.336 ounces

Yield per Acre (Bushels)

Average yield	92.14 bushels
Lowest yield	42.00 bushels
Highest yield	218.75 bushels (Red Skins)

Preliminary Expenses per Acre

Seed—7.78 bags @ \$2.50 per sack	\$19.45
Fertilizer—1,965 pounds @ \$30.00 per ton	29.47
	\$48.92

General Comments

The production of certified seed potatoes in 1935 was approximately 60 per cent less than the 1934 production and the five-year average. This is due to several factors. First, because of the unsatisfactory market conditions of the previous year, the acreage entered for certification was reduced approximately 35 per cent. Second, the weather conditions during the growing season were none too favorable, and third, an exceptionally early killing frost, October 4 and 5, prevented growth late in the season. From observations made during the growing season and at digging time it is considered that drainage of the individual fields was the most important factor during the season. The weather bureau records for the Bridgeton and Hightstown stations show a below normal rainfall during July and August with an excess of rainfall during September. The rains which came mostly in the first week of September caused drowning out in some fields and a water logged condition in other fields which did not have good drainage.

Aphids were particularly bothersome, appearing in large numbers following the rainy spell early in September and were unquestionably responsible for reduction in yields. Many growers used contact sprays and dusts in fighting this insect. The results of the use of nicotine preparations varied widely, however, some growers obtained excellent control. Better results could be had if the sprays were applied sooner, before the aphid population is large and before the leaves become curled.

Leaf diseases were present but were kept under control with Bordeaux mixture. Two growers, hampered by wet fields, tried airplane dusting with Bordeaux dusts. From these two cases it is difficult to evaluate the results, but it is doubtful if the results measure up to the application of arsenicals by airplane which is considered a success for the green tomato worm.

The Chippewa variety was tried by 5 growers each having a barrel of seed. The yields were better than from other varieties grown on the same farm and the tubers were exceptionally bright and well formed.

Yields for the whole acreage ranged from 42 to 218.7 bushels per acre with an average of 92.1 bushels per acre. The extremely low yields were mostly on late planted fields which were killed by frost early in October. In some sections the fields escaped the first frost and the higher yields are among these.

The use of seed disinfectants dropped to 58.19 per cent treated, as compared with 69.24 per cent last year and higher percentages in previous years. The instantaneous dip method employing organic mercury compounds was the only method used.

Fertilizers were used at rates of 1,400 to 2,500 pounds per acre and averaged 1,965 pounds per acre. Analyses of 4-8-7 and 5-8-7 were most commonly used, a few growers using double strength mixtures however.

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Approximately two-thirds (67.03 per cent) of the seed planted to grow the certified seed crop was home grown seed. Prince Edward Island furnished 24.45 per cent and Maine 8.39 per cent. The few bags of Chippewa seed were from the United States Department of Agriculture.

Virus diseases were the cause of a few rejections but for the most part field readings showed only small amounts present.

Because of the short crop and the need for seed in South Jersey, many growers had no seed or but a few sacks to sell. Growers who do not plant a large commercial acreage, and who had more seed to offer for sale had little trouble in finding a demand. Some seed still remains to be sold in the spring.

POTATO ACREAGE ENTERED FOR CERTIFICATION 1935

County	Growers	Cobblers	Red Skins	Katahdins	Green Mts	Chippewa	Total
Burlington	1	2.5	..	..	..	..	2.5
Camden	1	..	4	..	..	..	4.0
Cumberland	33	244.75	27	14.25	3	.375	289.375
Middlesex	2	16.5	..	3	..	..	19.5
Monmouth	2	10	..	..	..	..	10.0
Salem	14	171	..	6.5	2	.25	179.75
	53*	444.75	31	23.75	5	.625	505.125

* Actual number of growers.

ACREAGE FAILING AND PASSING CERTIFICATION

	Acres	Per Cent
Acreage rejected at first inspection	0	0.00
Acreage withdrawn at first inspection	2	.40
Acreage rejected at second inspection	21	4.15
Total acreage rejected at end of two inspections	18.5	3.66
Acreage rejected at third (tuber) inspection	0	0.00
Acreage withdrawn and rejected three inspections	23	4.55
Acreage passing three inspections	482.125	95.45

STATE DEPARTMENT OF AGRICULTURE

WHITE POTATO SEED CERTIFICATION
ACREAGE AND VARIETAL DISTRIBUTION FROM 1929 TO 1935

(For first 10 years, see 1929 report)

Year	No. of Growers	Acres Entered	Percentage Rejection	Varietal Distribution	
1929.....	64	621	12.64	Green Mts.	19.0
				Cobbler	584.5
				Red Skins	17.5
1930.....	64	593	12.65	Cobbler	584.5
				Green Mts.	2.5
				Red Skins	6.0
1931.....	77	904.5	5.86	Cobbler	874.5
				Green Mts.	1.0
				Red Skins	29.0
1932.....	63	729.17	1.44	Cobbler	672.0
				Green Mts.	3.5
				Red Skins	53.67
1933.....	60	784.62	6.12	Cobbler	683.50
				Green Mts.	20.00
				Red Skins	80.50
				Katahdins	.62
				Cobbler	717.50
1934.....	64	773.50	19.50	Green Mts.	14.00
				Red Skins	39.00
				Katahdins	2.00
				Superba	1.00
				Cobbler	444.75
1935	47	505.12	4.54	Green Mts.	5.00
				Red Skins	31.00
				Katahdins	23.75
				Chippewa	0.625

SUMMARY OF INSPECTION RESULTS, 1935
SEED POTATO CERTIFICATION

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	Burlington	Camden	Cumberland	Middlesex	Monmouth	Salem	Total
Acres entered	2.5	4.0	289.375	19.5	10.0	179.75	505.125
Number of growers	1	1	33	2	2	14	53
Average number of acres per grower	2.5	4.0	8.77	9.75	5.0	12.84	9.53
Average rejected first inspection *	0	0	0	0	0	2	2
Per cent rejected first inspection *	0	0	0	0	0	1.11	.40
Acres rejected second inspection *	2.5	0	7.5	0	0	11	21
Per cent rejected second inspection *	100	0	2.59	0	0	6.12	4.15
Acres rejected third inspection *	0	0	0	0	0	0	0
Per cent rejected third inspection *	0	0	0	0	0	0	0
Acres rejected total *	2.5	0	7.5	0	0	13	23
Acres certified	0	4.0	281.875	19.5	10.0	166.75	482.125
Per cent certified	0	100	97.41	100	100	92.77	95.45

* Includes withdrawals.

VARIETAL DISTRIBUTION OF REJECTIONS AND WITHDRAWALS

	Acres Entered	Acres Rejected and Withdrawn by Inspections			Acres Certified
		First	Second	Third	
Irish Cobblers	444.75	2	19	0	423.75
Red Skins	31.00	0	0	0	31.00
Katahdins	23.75	0	0	0	23.75
Green Mountains	5.00	0	2	0	3.00
Chippewas	0.625	0	0	0	0.625
	505.125	2	21	0	482.125

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STATE DEPARTMENT OF AGRICULTURE

PRODUCTION AND DISTRIBUTION OF NEW JERSEY
CERTIFIED CROP OF WHITE POTATO SEED

	1935*	1934*	1933
Acres of seed certified	482.12	622.5	736.67
Total yield (field run) in bushels	44,422	106,823	123,908
Average yield per acre in bushels	92.14	171.6	168.21
Bags of certified seed sold	6,463	21,297	15,941
Bags sold South Jersey	1,522	1,538	0
Bags sold Central Jersey	4,503	16,209	15,105
Bags sold out of State	438	3,550	836
Pennsylvania	435	974	836
New York	3	3	0
Virginia	0	2,537	0
Bags sold untagged**	996	2,664	2,091
Bags sold South Jersey	405	2,210	90
Bags sold Central Jersey	591	454	2,001
Total bags of seed shipped	7,459	23,961	18,032
Bags seed unsold December 1st	6,114	21,781	11,301
Baskets of seed retained own use	28,224	27,451	52,531
Bushels of seed retained own use	17,640	17,157	32,582

* Seed was packed and sold in 100-pound bags, in previous years 150-pound bags were used.

** Old sacks used, tags not allowed. .

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TOMATO SEED CERTIFICATION

The history of the tomato seed certification work is as follows:

VARIETAL DISTRIBUTION CERTIFIED TOMATO SEED ACREAGES

Year	Bonny Best	J. T. D.	Balti- more	Mar- globe	Break O'Day	Rutgers	Pritchard	Total
1925	344	..	238	..	..	..	..	582
1926	274	..	171	..	..	..	..	445
1927	207	110	121	431	..	..	..	869
1928	208	55	150	329	..	..	..	742
1929	133	123	87	360	..	..	..	703
1930	363	162	250	620	18	..	..	1,413
1931	219	292	106	689	127	..	..	1,433
1932	34	61	18	562	..	..	..	675
1933	12	..	15	543	..	..	99	669
1934	28	155	91	2,046	2	..	182	2,504
1935	5	247	61	1,519.5	8	730	192.5	2,763

Pounds of certified seed produced in 1935 were as follows:

Break O'Day	395
Bonny Best	700
Marglobe	50,869
Pritchard	3,602
Rutgers	11,862
J. T. D.	1,846
Baltimore	1,200
	<hr/>
	70,524
	<hr/>

THE EUROPEAN CORN BORER

During the fall of 1934, inspectors of this bureau scouted many corn fields, particularly in the northern part of the state, for the purpose of determining the status of the European corn borer in locations where it was known to have existed. On many of the fields so scouted, attempts had been made in the past to control this insect by burning the corn stubble and thus destroying the larvae in hibernation. A summary of the work conducted in 1934 by workers of this bureau and also by scouts and inspectors of the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture, may be found in the monthly report of this bureau for March, 1935.

It appeared from the small amount of scouting done by our inspectors that this insect was again present in large numbers in Bergen and nearby counties.

In July, 1935, funds were made available by the Works Progress Administration for a survey to be conducted by the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture to determine whether or not the insect had spread to areas not previously known to be infested. In the course of this survey, 102 townships were scouted, and in only 13 of these townships were the inexperienced scouts unable to find the European corn borer. Listed below are 89 townships where the insect was found for the first time, and also 13 townships where none of the borers was found in five days of actual scouting in each township. Certainly these records of new infestations indicate that this insect is spreading rapidly, and that we even might expect that soon it will become established over the whole state.

Starting in 1932, the Division of Cereal and Forage Insects, of the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture, has conducted surveys to determine the status of the European corn borer over the territory known to be infested. In New Jersey this agency has confined its work to the following counties—Monmouth, Ocean, Burlington and Atlantic. Because the infestations in the latter three counties were not especially heavy, these counties were treated as a group. In this work 20 fields picked at random in Monmouth County are surveyed annually, and likewise 40 fields are surveyed in the Ocean, Burlington and Atlantic group of counties. The per cent of plant infestation is determined by a count of 100 plants in each field, and the average number of borers per infested plant is found by a dissection of 10 infested plants in each field. The following table shows quite clearly what this insect is doing in these particular counties:

	Average Number of Borers per 100 Plants			
	1932	1933	1934	1935
Monmouth	0.9	..	20.4	43.4
Ocean, Burlington, Atlantic ..	0.1	..	3.4	33.3

It may be concluded that the European corn borer rapidly is becoming a menace to agriculture in New Jersey.

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TOWNSHIPS FOUND INFESTED WITH THE EUROPEAN
CORN BORER IN 1935

(These are new records of infestations)

<i>Atlantic County</i>	<i>Burlington County</i>	<i>Cumberland County</i>
Hamilton	Burlington	Child
	Chester	Commercial
<i>Bergen County</i>	Cinnaminson	Deerfield
Alpine *	Delanco	Downs
Closter *	Delran	Fairfield
Cresskill *	Easthampton	Greenwich
Dumont *	Evesham	Hopewell
E. Rutherford *	Florence	Landis
Harrington Park *	Hainesport	Lawrence
Haworth *	Lumberton	Millville
Hillsdale *	Mansfield	Stowe Creek
Montvale *	Medford	
Northvale *	Moorestown	<i>Gloucester County</i>
Norwood *	Mt. Laurel	Washington
Old Tappan *	Northampton	
Paramus *	Springfield	<i>Hunterdon County</i>
Ramsay *	Westhampton	Alexandria
Rockleigh *	Willingboro	Clinton
Tenafly *	Woodland	Highbridge
Hohokus		
Lyndhurst	<i>Camden County</i>	<i>Mercer County</i>
Park Ridge	Winslow	Hamilton
Upper Saddle River		
Washington	<i>Cape May County</i>	<i>Middlesex County</i>
Woodcliff Lake	Middle	Madison
Wyckoff		Monroe
	<i>Salmon County</i>	Sayresville
<i>Morris County</i>	Alloway	
Boonton	Pilesgrove	<i>Monmouth County</i>
Montville	Pittsgrove	Marlboro
Passaic	Upper Pittsgrove	Matawan
Pequannock		Millstone
	<i>Sussex County</i>	Upper Freehold
<i>Passaic County</i>	Green	
Clifton		<i>Ocean County</i>
Little Falls	<i>Warren County</i>	Plumstead
North Haledon *	Allamuchy	
Pompton	Blairstown	
Totowa *	Hope	
	Knowlton	
	Liberty	
	Oxford	

* Indicates Borough.

TOWNSHIPS IN WHICH NO EUROPEAN CORN BORER WAS FOUND

<i>Bergen County</i>	<i>Camden County</i>	<i>Gloucester County</i>
Franklin Lakes *	Berlin	Franklin
Demarest *		Harrison
	<i>Sussex County</i>	Mantua
<i>Morris County</i>	Wallpack	West Deptford
East Hanover	Stillwater	Woolwich
<i>Passaic County</i>		
Hawthorne *		
Franklin Lakes		

* Indicates Borough.

PHONY PEACH DISEASE SCOUTING

The phony peach disease, classified in the peach yellows group of virus diseases, is difficult to determine by untrained men, since the external symptoms are neither very evident nor conclusive. Because the Dominion of Canada requires certification by this department that peach stock shipped into that country is free from this disease, and because this disease, which has been responsible for the destruction of more than 1,000,000 peach trees in Georgia, where the disease was first found, is now present in some 15 Southern states, and appears to be spreading northward, this department was glad to obtain the cooperation of the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture in conducting a survey to determine whether or not the disease exists in this state. An inspector of the federal bureau was assigned to New Jersey for one month, starting July 1, 1935, and with the assistance of the regular nursery inspectors of this bureau, many of the peach orchards and young plantings in the state were carefully scouted. Most of the work was done in Burlington, Cumberland, Gloucester and Atlantic counties, where our largest peach plantings are located. A total of 202,005 trees, on 1,904 properties, were examined, and none was found infected with the disease.

Following is a summary, by counties, of the inspections:

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PHONY PEACH DISEASE

County	Number of Properties Examined	Number of Trees Examined
Atlantic	63	21,401
Bergen	75	225
Burlington	242	60,750
Camden	85	13,270
Cumberland	80	39,482
Essex	106	1,782
Gloucester	311	35,637
Hunterdon	97	7,301
Mercer	59	2,774
Middlesex	334	11,179
Morris	84	510
Passaic	2	4
Salem	79	335
Somerset	97	623
Sussex	79	2,106
Union	54	140
Warren	93	4,486
Total	1,940	202,005

CEDAR RUST LAW

In recent years many commercial apple growers in New Jersey have sustained serious losses in yield because of damage caused by a disease known as "Cedar Rust" (*Gymnosporangium juniperi-virginianae*). This disease alternates between common red cedar (*Juniperus virginiana*) and apple. Several of the larger growers requested aid from the department in controlling this disease, so a survey was made in 1934 by members of this bureau to determine the status of the disease and the practicability of proposed control measures. Many states are carrying this kind of project at the present time, and it is known that the removal of red cedar trees growing within one mile of apple orchards will give very good control of the disease.

Under the provisions of a bill introduced in the Senate, cedar tree owners must remove any such trees growing within one mile of an apple orchard which is found to be suffering severe rust damage. The bill provided an appropriation of \$5,000 to cover the cost of a small compensation to owners for such removal. It was referred to the committee on appropriations upon introduction and never reported out.

NURSERY INSPECTION SERVICE

The plant inspection activities of the bureau for the year ending June 30 included nursery inspections, domestic and foreign nursery stock inspections, the issuance of special certificates, special request inspections, the certification of stock consigned to Canada, and Christmas tree inspections.

FOREIGN AND DOMESTIC STOCK INSPECTIONS

The following tables summarize the work done by the bureau in inspecting nursery stock shipped into New Jersey from other states and from foreign nations:

* FOREIGN STOCK INSPECTIONS

Fall of 1935	47
Spring of 1936	129

DOMESTIC STOCK INSPECTIONS (ORNAMENTAL)

	Cases	Cars	Bales	Truck	Bags	Bbls.
Fall of 1935	121	13	4	..	9	..
Spring of 1936	507	19	64	8	..	20
Totals	628	32	68	8	9	20

DOMESTIC STOCK INSPECTIONS (FRUIT)

	Bales	Trucks	Cases
Fall of 1935	12	..	6
Spring of 1936	18	1½	95
Totals	30	1½	101

NURSERY INSPECTION

The annual inspection of nurseries was begun in June and finished in September, except in the case of a number of new nurseries, which were inspected after that month. In nurseries where growing stock is found to be infested with insects and diseases that are injurious, the owners are requested to destroy or spray the infested plants. Later, a reinspection is made and, if the bureau's recommendations have been followed, a certificate is issued. Certificates are issued when possible on September 1 of each year and are valid until the following September.

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Seven hundred and fifty-eight nurseries and dealers' establishments were inspected and certified, and certificates issued as follows:

General	444	Fruit	6
Perennial	27	Rhododendron	2
Greenhouse	39	Roots	4
Dahlia	9	Collected Stock	6
Rose	3	Evergreen	86
Berry	11	Deciduous	12
Bulb	13	Dealers	90
Aquatic	6		
		Total	758

NEW ENGLAND STOCK INSPECTIONS

A total of 16 shipments and 1 carlot of nursery stock shipped into New Jersey from the quarantined gipsy moth area of the New England States was inspected. Each plant was individually examined.

SPECIAL CERTIFICATES

Special certificates were issued to nurserymen and others who wished to ship nursery stock to other states and to foreign countries at the time of packing if the stock in question was found to be free from injurious insects and plant diseases. Three hundred and sixteen of these certificates were issued.

SPECIAL REQUEST INSPECTIONS

Each year numerous requests are received for advice on the control of various insects and on nursery and horticultural problems. In most cases they necessitate visits to the person requesting aid. Fifty-two such calls were made during the year ending June 30, 1936.

CANADIAN STOCK INSPECTIONS

In compliance with Canadian regulations, 117 certificates were issued to cover stock consigned from New Jersey to Canada.

CHRISTMAS TREE INSPECTIONS

A total of 6,783 Christmas trees shipped into New Jersey from the slightly infested gipsy moth area of the New England States was examined for gipsy moth infestations. No infestations were intercepted.

NARCISSUS BULB INSPECTIONS

Although Federal Quarantine No. 62, issued July, 1926, to prevent the spread interstate of certain injurious bulb pests was revoked, effective April 1, 1935, some inspection work is still being done, because several

states have promulgated quarantines affecting incoming bulb shipments. It has not been necessary, however, to inspect so large a number of bulbs. A total of 1,000,000 bulbs were inspected and 150,000 bulbs were sterilized.

INSECT AND DISEASE INFESTATIONS OCCURRING IN NEW JERSEY NURSERIES DURING THE YEAR ENDING JUNE 30, 1936

Insect Pests	Number of Nurseries	Insect Pests	Number of Nurseries
Juniper Scale	81	White Pine Weevil	2
Oyster Shell Scale	50	San Jose Scale	10
Bag Worm	31	Euonymus Scale	10
Rhododendron Lace Bug ...	18	European Pine Shoot Moth .	8
Spruce Gall Aphid	32	Spruce Bud Scale	1
Juniper Web Worm	20	Azalea Lace Bug	6
Boxwood Leaf Miner	8	Rose Scale	2
Mottled Willow Borer	5	European Elm Scale	7
Lilac Borer	4	Tulip Lecanium	2
Pine Leaf Scale	14		
Sitka Spruce Gall Aphid ...	21	Total	332*

* These infestations were found in 147 nurseries.

GIPSY MOTH WORK

Inspectors made regular visits to the gipsy moth assembling cages put up in Morris and Warren counties, and in the Palisades section of the state. Those in Morris County were used as a check on the infestation which has existed there since 1932. A few cages were placed on both sides of the Delaware River near the site of the cage which attracted a male gipsy moth adult last summer. Those in the Palisades area were to check on the possibility of introduction of the gipsy moth from the Bronx infestation across the Hudson River. No adult gipsy moths were captured this season.

DISTRIBUTION OF CAGES

Morris County	580 cages
Warren County	20 cages
Palisades area	190 cages
	790 cages

Federal W. P. A. funds were made available for gipsy moth work in New Jersey the first part of August and plans were formulated at the United States Bureau of Entomology and Plant Quarantine office at Greenfield, Mass., for the New Jersey Department of Agriculture to handle the work in cooperation with the federal bureau. The bulk of the scouting work was planned for Morris County in and around the rather persistent

infestation first discovered in Mendham Township by the New Jersey department scouts in 1932. A less amount of work was planned for Bernards Township in Somerset County, and one crew was detailed to scouting work in Readington Township, Hunterdon County.

The first of the W. P. A. workers was employed in August and increased to approximately 57 by mid-winter. From the start the new men responded readily to training and were soon able to locate the artificial gipsy moth egg masses put in natural places by the supervisors. One cleaning crew was organized and did very good work at some of the old infestations in Mendham, Randolph and Morris Townships. Many hundreds of old stumps were removed and burned, underbrush cut, and favored food plants of the gipsy moth removed, thus making it possible to re-scout the areas in much less time and with more accuracy. A severe pay cut was meted out to the W. P. A. workers in November and although the work went along without interruption, the men were very much discouraged and the morale suffered greatly. Because of persistent efforts by Mr. Burgess of the federal bureau at Greenfield, Mass., this reduction of wages was restored to the workers with an additional ten per cent increase, so that the men were more satisfied and the work benefited greatly by it. The ground conditions were very bad from January to March because of snow and ice, extremely low temperatures with high winds, and by two heavy crusts which would not bear a man's weight, thus making walking very difficult. Because of inability to obtain W. P. A. workers from relief rolls promptly, it was necessary to increase the force to 160 men about April 1st, and this force worked through to June 30.

Two crews were assigned scouting duty in outside territory, one in Essex and one in Union County. Certain areas were infested here some years ago and it was believed necessary to do some checking work at this time. As the snow left the crews speeded up some, and the daily average of acreage covered was considerably increased. The men were, by this time, more experienced and sure of themselves. They continued to pick up the artificial gipsy moth egg masses and also to locate readily egg masses, pupae, etc. of many of our local insects.

The appearance of foliage slowed up the scouting work some but the temperature was not high which made the woodland scouting work quite bearable. To sum up the work as a whole for the entire season, a fair amount of territory was covered and from personal observations, reports of the supervisors, results of checking of the foremen and supervisors, it is believed that a fair quality of work was obtained. Owing to the necessary reduction of personnel on June 30th, a force of 50 scouts and five foremen was retained for scouting burlap and assembling cage work on July 1st.

It is hoped that we may continue with the W. P. A. force now employed and scout areas adjacent to those just completed in Morris County and in Bernards Township in Somerset County. Unless severe infestation

is located, there is no reason to maintain a cleaning crew at this time. The state of New Jersey appreciates greatly the fine cooperation of the Federal Bureau of Entomology and Plant Quarantine through Mr. A. F. Burgess and Mr. H. L. Blaisdell. The season's work just completed has furnished this state with valuable data concerning the gipsy moth situation in the northern part of the state. Inasmuch as no sign of the gipsy moth was located it is evident that thorough clean-up work has been done in the infested section of Morris County.

SUMMARY OF GIPSY MOTH SCOUTING WORK

July 1, 1935—June 30, 1936

Town	County	Open Acres Scouted	Miles of Road Scouted	Apple Trees Scouted	Oak Trees Scouted	Shade Trees Scouted	Woodland Acres Scouted	Ground Work Acres
Denville	Morris	141	4.00	950	95	1,718	568	197.50
Hanover	Morris	719	13.00	1,358	878	6,726	2,143	177.00
Morris	Morris	661.5	24.75	1,864	2,828	14,600	1,168.5	202.25
Mendham	Morris	409	6.50	2,409	247	749	1,105.5	119.50
Randolph	Morris	1,218	21.00	5,252	2,332	30,653	2,331	54.50
Bernards	Somerset	3,876	32.25	8,518	1,834	39,667	2,164	404.00
Readington	Hunterdon	20,682	54.00	8,873	187	65,984	625	262.50
Bridgewater	Somerset	340	.00	450	115	575	33	25.00
Fanwood	Union	82	4.25	323	124	1,881	516	.00
Millburn	Essex	23	1.75	0	51	271	379	.00
Totals		28,151.5	161.50	29,997	8,691	162,824	11,033	1,442.25

SUMMARY OF CLEANING, FENCING AND BANDING WORK

July 1, 1935—June 30, 1936

Town	Chopping Work			Banding Work			
	Acres Woodland Thinned	Acres Brush Cut	Trees Cut in Open	No. of Burlap Bands Applied	No. of Burlap Bands Removed	No. of Pupae Crushed	No. of Larvae Crushed
Mendham	39.75	9.25	0	300	0	0	0
Randolph	45.00	3.50	0	1,005	0	0	0
Morris	1.50	3.50	0	3,783	0	0	0
Hanover	0	0	0	5,076	0	0	0
Totals	86.25	16.25	0	10,164	0	0	0

A total of 152 cords of wood was cut during duration of above work.

BEE INSPECTION SERVICE

Calls for inspection and routine work occupied all the time of one bee inspector. In addition, two men were employed for seventeen days each, to inspect bees in **Morris County**.

The number of letters to the Department of Agriculture asking for circulars on bee culture, the requests for inspection and the number of dead bee brood smears submitted for diagnosis show that the beekeepers are interested in the bee inspection service.

The usual supervision was exercised over queen-rearing apiary areas by giving them very careful inspection to guard against contagious bee diseases.

INSPECTIONS

During the fiscal year 1935-36, 7,668 colonies of bees were inspected in 891 apiaries.

Of these, 171 were in hives with immovable combs and 184 were in plain boxes. The remainder were in some type of movable comb hive.

American foulbrood was found in 764 colonies in 286 apiaries; European foulbrood in 4 colonies in 3 apiaries, and sacbrood in 462 colonies. One hundred and nine colonies infected with American foulbrood were burned because their owners failed to take proper steps to eradicate the disease.

Microscopic diagnosis of 52 samples of dead bee brood showed 23 to be infected with *B. larvae*, the germ causing American foulbrood; 8 were infected with *B. Pluton*, the organism causing European foulbrood and 21 showed no evidence of either of these diseases.

QUEEN REARER'S CERTIFICATES

Five queen rearing apiaries were certified. These were located at Glen Gardner, Pittston, Pennington, Cape May Court House and Stockton.

CERTIFIED HONEY

After proper examination, one permit for the use of a certified honey label was issued.

Three certificates were issued for bees to be moved out of the state from Berlin (98 colonies), Burlington (11 colonies), Phillipsburg (21 colonies).

Field meetings and demonstrations were held at Lebanon July 25, Stillwater August 21, Moorestown May 7, Vineland May 21, and Caldwell June 20.

An exhibit of bees and honey was staged at the Flemington Fair August 27 to September 2, and a live bee demonstration was given each day at the Trenton State Fair September 24 to September 28.

APIARY INSPECTIONS BY COUNTIES, JULY 1, 1935—JUNE 30, 1936

County	Apiaries	Colonies	Box Hives	Cross Comb Hives	Apiaries Afb*	Colonies Afb*	Apiaries Efb†	Colonies Efb†	Colonies Sacbrood	Burned	Brood Afb*	Samples Neg.	Diagnosed Efb†
Atlantic .....	..	..	..	..	..	..	..	..	..	..	1	..	..
Bergen	4	5	..	..	1	1	..	..	..	..	3	1	..
Burlington	74	935	8	16	47	31	2	3	5	5	3	1	7
Camden	29	194	2	6	14	17	..	..	45	..	..	1	..
Cape May	9	115	..	1	2	5	..	..	18	..	..	..	..
Cumberland ...	8	86	..	..	4	15	..	..	6	..	10	6	1
Essex	50	224	10	5	6	9	..	..	11	2	2	2	..
Gloucester	18	242	3	3	7	66	..	..	8	29	..	..	..
Hunterdon	157	2,002	37	14	22	58	1	1	75	6	1	1	..
Hudson .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Mercer	59	504	4	22	21	92	..	..	6	20	1	..	..
Middlesex	72	346	15	5	37	121	..	..	19	29	1	..	..
Monmouth	38	296	..	3	18	66	..	..	12	6	..	..	..
Morris	297	1,594	39	73	67	175	..	..	164	7	4	5	..
Passaic	12	34	1	..	3	9	..	..	..	..	1	..	..
Salem	9	144	..	7	2	3	..	..	8	..	..	..	..
Somerset	44	234	6	9	18	31	..	..	16	5	2	2	..
Sussex	20	312	53	..	4	30	..	..	31	..	..	..	..
Union	63	144	..	2	10	29	..	..	25	..	4	2	..
Warren	28	227	6	5	3	6	..	..	13	..	..	..	..
Totals ...	991	7,638	184	171	286	764	3	4	462	109	33	21	8

* Afb indicates American foulbrood.

† Efb indicates European foulbrood.

DUTCH ELM DISEASE ERADICATION

The second year of cooperative Dutch elm disease eradication work with the United States Department of Agriculture has been completed. During the second year the speed of the work was vastly accelerated because of the effectiveness of the federal organization and the availability of adequate federal funds due to public approval of this project.

The Dutch elm disease eradication office of this department was located at East Orange until March 1, 1936, and since then in Bloomfield. An average number of six contact men were employed during the year who were engaged primarily in ascertaining the names of property owners, where such information was obscure or lacking for the federal scouts and in adjusting difficulties with property owners whose interpretation of condemnation notices led them to temporarily refuse permission to carry out an order. During the year it was necessary for the contact men to arrange for a settlement with 315 tree owners who objected to the departmental procedure. In all cases an amicable understanding was reached which did not in any way jeopardize the objective of the project. During the year 10,952 tree owners were contacted by mail and 7,255 by contact men which led to the clearing of 3,401 Dutch elm diseased trees and 558,246 dead and dying trees.

The scouting experiences in the swamps of North Jersey during the summer of 1935 strongly led to the conclusion that these frequently inaccessible areas should be freed of elms so that this scouting burden could be eliminated. Accordingly, with the friendly cooperation of a large percentage of owners, arrangements were made and the clean-cutting of elms in seven swamps within the area of infection accomplished, as the following summary will indicate:

A SUMMARY OF THE SWAMP CLEAN-CUTTING WORK

Great Piece Meadows	(Essex County)	3,600 acres—100 owners
Great Swamp	(Morris County)	8,488 acres—146 owners
Kinnelon	(Upper Morris)	12,504 acres— 48 owners
Paramus Swamp	(Bergen County)	2,236 acres— 99 owners
Ash & Dismal Swamp	(Union & Middlesex)	3,239 acres—114 owners
Lincoln Park Swamp	(Morris County)	3,221 acres— 85 owners
Longmeadow Swamp	(Essex County)	2,584 acres—110 owners
		35,872 702

This clean-cutting project involved the eradication of 385,000 elms. The wisdom of this decision was conspicuously demonstrated by trunk sampling which was made in several of the areas. Because of root grafting or indirect infection, these areas showed from seven to twenty-five per cent of the elm population infected with the Dutch elm disease.

The sanitation phase of the Dutch elm disease eradication project necessitates the removal and destruction of a considerable number of elms, which have a D. B. H.* of ten inches and more. Frequent speculation regarding the possible commercial utilization of the elm wood resulted in a research study in cooperation with the United States Forest Service and the Department of Conservation and Development of the State of New Jersey. A detailed report of the investigation was prepared, which showed that not one single channel of elm wood utilization could be evolved that would alleviate the financial burden of the project without the dissemination of infected wood.

A considerable number of watersheds occur in the area of infection. The authorities in charge of these watersheds are extremely reluctant to permit repeated trespassing by the scouts on watershed property. Accordingly, a plan for complete elm removal on all watersheds in North Jersey has been inaugurated, which will considerably lessen the total area to be scouted.

The work accomplished during the year may be summarized as follows :

WORK ACCOMPLISHED

Clearance Work

Dead and Dying Elms	558,246	Trees
Dutch Elm Diseased	3,401	Trees
Notified by Mail	10,952	Tree Owners
Contacted by Agents	7,255	Tree Owners
Adjusted and Answered	315	Complaints
Special Trap Locations	250	
Clean Cutting, 35,872 Acres	702	Owners
Field Supervision Under Federal	5,243	Man-days
Field Research Wood Utilization 1 man	4	Months

ERADICATION REPORT

County	Dutch Elm Disease Infected Trees				Dead and Dying
	1933	1934	1935	To June 30, 1936	Trees to June 30, 1936
Bergen	13	691	609	35	66,381
Essex	609	1,462	1,143	137	33,114
Hudson	9	32	16	0	146
Hunterdon	0	0	6	1	5,153
Mercer	0	1	0	0	28,654
Middlesex	2	100	230	17	18,082
Monmouth	0	0	3	0	584
Morris	9	497	704	42	169,576
Passaic	37	600	359	21	62,927
Somerset	3	96	495	63	71,965
Sussex	0	0	10	0	24,254
Union	58	898	534	34	13,624
Warren	0	0	3	0	2,602
Total	740	4,377	4,112	350	497,062

* Diameter breast high.

DUTCH ELM DISEASE WEEKLY REPORT FOR ENTIRE AREA
FOR WEEK ENDING JUNE 27, 1936

	Last Week Report	Con- necticut	New Jersey	New York	Outside	Present Totals
Number of Employees						
Appointed Dept. Funds ...	55	8	20	15	4	47
Per Diem Dept. Funds ...	251	10	207	0	14	231
Work Relief Funds	890	77	376	284	127	864
CCC from DED Camps ..	901	110	483	217	0	810
CCC from other Camps ...	0	0	0	0	0	0
State Appointed Personnel.	19	0	4	14	1	19
State Per Diem Personnel .	155	1	107	110	1	219
Work Assignments						
CCC ..	100	7	60	33	0	100
Scout Crews WPA ..	226	15	103	98	25	241
Laboratory Technicians ...	7	0	7	0	0	7
Eradication Crews	4	2	9	2	0	13
Sanitation Crews	13 CCC	2	0	4	2	8
Scouting Project						
Suspects Coll. This Week.	3,053	818	1,964	1,533	142	4,457
DT Tagged This Week ...	2	837	0	2	124	963
Total DT Tagged	1,654,691	242,989	807,563	589,176	15,926	1,655,654
Sq. Mi. DT Scouted This Week	420.37	74.28	409.08	298.19	0	781.55
Sq. Mi. DT Scouted to date	595.78	140.19	663.78	573.36	0	1,377.33
Laboratory Identification						
Confirmed DED This Week	564	13	243	179	0	435
Total Elms Confirmed DED	15,037	160	10,109	5,144	60	15,473
Total Reported Not DED.	46,785	13,502	15,018	16,371	4,791	49,682
Suspects Unreported	4,654	1,119	2,382	1,810	467	5,778
Total Suspects Collected .	66,476	14,781	27,509	23,325	5,318	70,933
DED Eradication Project						
DED Removed This Week	23	13	106	89	4	212
Total DED Removed	14,456	158	9,561	4,889	60	14,668
Total DED Standing	581	2	548	255	0	805
Sanitation Project						
DT Removed This Week ..	875	1,018	374	746	137	2,275
Total DT Removed	1,286,912	197,672	550,595	525,226	15,694	1,289,187
Total Tagged DT Standing	367,779	45,317	256,968	63,950	232	366,467
Elms removed in clear cut area to date						
	385,209	0	385,127	0	0	385,127
Total trees removed to date in clear cutting, eradication and sanitation activities ..						
	1,686,577	197,830	945,283	530,115	15,754	1,688,982

JAPANESE BEETLE SUPPRESSION

MECHANICAL TRAPPING

The departmental supply of mechanical Japanese beetle traps was distributed generally throughout the state of New Jersey with a concentration of distribution in the southwestern, central and northeastern counties. The trapping weather of the summer of 1935 was the most adverse and unsatisfactory yet encountered. Defoliation was noticeable and quite damaging in many parts of the state. During the period of beetle feeding, the traps displayed little magnetism for the beetles because, first, the generally prevailing high humidity made the beetles sluggish and disinterested in bait attraction, and secondly, the generally prevailing high humidity drastically interfered with the rapid vaporization of the bait liquid. When the traps were recalled for reconditioning and refinishing many of the bait bottles carried approximately one-half of the bait unused.

The plan of trap distribution for the season of 1935 was based on the request of individuals for this service. Because of the uncertainties of the weather during a trapping season it is inadvisable to continue methodical trapping work such as was begun in the summer of 1932.

Generally speaking, very few grub surveys were made in the state. The limited grub survey work which was done was made in connection with the nematode distribution project. The few surveys made, however, indicated that the sub-zero weather of the winter of 1935-1936 drastically reduced the Japanese beetle grub population in the area south of Trenton. Continued sub-zero weather occurred during the latter part of January at a time when the area south of Trenton did not have a surface cover of snow as did the area north of Trenton.

NEMATODE PROPAGATION WORK

The nematode propagation work was continued at the White Horse Laboratory with facilities considerably improved over those of the year preceding. The progress of the work unfolded several unexplained complications which immediately demanded critical investigation. Accordingly, the following investigational endeavors were conducted in the hope, and incidentally with considerable success, that the few remaining barriers in the path of efficient and large-scale nematode production could be overcome.

The developmental laboratory work for the year may be considered under five classifications:

(A) A study of nematode dissemination through the agency of infected adult beetles was made. During the summer of 1935 a large number of adult beetles were captured in a location known to be infected with the nematode (*Neoplectana glaseri*). These beetles were dissected to determine whether any adults were infected with the parasite. The results

indicated that some adults are infected, but due to the method used in collection, no statement of the extent of parasitism can be made. Furthermore, it is not certain that such infected adults aid in parasite dissemination, since no tests were made to prove these adults capable of initiating new foci of infection.

(B) Several methods were devised and tested in an effort to find a satisfactory method of storing the cultured nematodes before being used in field distribution. This is a highly desirable condition, since it eliminates the necessity of an absolute synchronization of production and distribution, and allows more efficient procedure both in the laboratory and in the field. The most promising method is to partially clean the nemas from the culture debris, suspend in water, and thoroughly aerate during the storage period. The indications are that this method may be used to store the nemas for periods up to one month.

(C) Sufficient information has been collected to show a difference in the cultural characteristics of nematodes derived from different sources. This work shows promise for developing future strains of the parasite, more ideally suited to the work than is the random collected material now available.

(D) Several minor improvements in the agar culture technique have been partially evolved. One of these is the substitution of a material for the ovarian substance hitherto used. The results appear more consistent, as well as being far cheaper. A method of washing the cultures, using a series of graduated sieves, has been developed, which offers advantages both in thoroughness of the cleaning and rapidity of operation.

(E) During the year a successful large-scale culture procedure was developed and extensively used during the spring of 1936. The culture medium, which replaces the rather expensive agar medium and difficult technique, consists of a yeast fermented mixture of ground, raw, Irish and sweet potatoes, protected chemically from injurious mold growths. This medium is cheap and readily prepared. The nemas cultivate very heavily upon it, and much larger cultures may be handled than is possible with the agar medium.

Field distribution of the nematodes for the spring of 1936 began on March 30th. The material distributed was all cultured by the newly devised potato method. Production for the season is estimated at 625 millions of nematodes, or about a ten-fold increase over the amount of material distributed during the previous two seasons.

NEMATODE FIELD DISTRIBUTION WORK

The nematode field distribution work was extended in the direction of an increase of introductions in various localities in the state. Heretofore, considerable effort was directed to the annexation of research data pertaining to the parasitism accomplished by field introductions. In view of the costliness of such investigations it was decided to curtail this phase of

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the work and expend the available funds on actual field introductions. However, the basic experimental plot on the Johnson farm at Yorktown was investigated with the same degree of diligence as heretofore.

Surveys made in the experimental plot on the Johnson farm indicated that during the past three years the grub population in the untreated area has declined from 87.1 grubs to 7.9 grubs per square foot, while in the nematode treated area the grub population has declined from 87.1 to 1.8 grubs per square foot. A considerable number of parasitised cases were found in the treated area. It is conceivable that many grubs were unrecognizably decomposed because of parasitism before the survey was made. Another interesting observation was that a gradual increase in the population occurred as the survey location was more distantly removed from the treated area. Parasitised cases have been recovered ten feet outside of the treated area which points to the fact that the nematodes either moved, or were moved by the grubs, laterally in the soil. This finding lends considerable support to the adopted practice of making field introductions at nine foot intervals, hoping that the lateral spread of the nematodes would be such that the inter-foci untreated area will become infested within a short time.

As previously stated the curtailed survey work did not permit an intensive and careful examination of the areas in which nematodes had been previously introduced. However, examinations made at nine different locations in the state revealed parasitised grubs in seven of them and no parasitised grubs in the remaining two.

During the year the following turf and pasture introductions were made:

FALL OF 1935

No. of Introductions	County	Area in sq. ft.	No. of 8" Dishes	Method of Application
5	Salem	57,525	104	sub-sur.
2	Mercer	42,250	68	sub-sur.
1	Somerset	16,500	31	sub-sur.
2	Cumberland	37,250	67	sub-sur.
3	Monmouth	31,550	70	sub-sur.
1	Hunterdon	11,000	36	sub-sur.
14		196,075	376	

SPRING OF 1936

No. of Introductions	County	Area in sq. ft.	No. of Trays	Method of Application
6	Salem	309,688	30	sub-sur.
6	Mercer	171,100	19	4 surf., 2 sub-sur.
3	Somerset	130,275	12	sub-sur.
7	Monmouth	429,260	36	sub-sur.
4	Hunterdon	150,200	13	sub-sur.
1	Middlesex	65,610	6	sub-sur.
27		1,256,133	116	

Farmers attempting to grow strawberry plants within the area of Japanese beetle infestation have encountered very annoying losses because of root destruction of the plants by Japanese beetle grubs. Because of the absence of a satisfactory chemical control of the grub on the roots of vegetable plants, the strawberry growers were quite helpless in their control endeavors. The puddling in nematode suspensions of the roots of strawberry plants about to be set in the field provided a promising clue to the solution of this problem. At the request of many strawberry growers in the state, nematodes were supplied to growers for the puddling of plants. The following table presents a summary of these introductions:

No. of Plants Treated	County	Area in sq. ft.	No. of Introductions	No. of Trays	Date
71,128	Cumberland	293,566	14	46	Spring 1936
9,450	Burlington	55,416	2	7	Spring 1936
9,300	Mercer	65,700	3	5	Spring 1936
2,200	Hunterdon	15,000	1	1	Spring 1936
<hr/> 92,078		<hr/> 528,682	<hr/> 20	<hr/> 59	

JAPANESE BEETLE QUARANTINE WORK

(*Calendar Year 1935*)

The following report covers the quarantine work conducted jointly by the Bureau of Plant Industry of the New Jersey Department of Agriculture and the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture. More detailed records may be found in office files.

TRAPPING

Trapping activities were discontinued in New Jersey during 1935.

SCOUTING

NURSERY AND GREENHOUSE SCOUTING

Two crews, consisting of a foreman and one scout each, were stationed at Rutherford, New Jersey, to scout all Class I establishments (including several sand pits). These crews combined and were operated as one crew while scouting the larger establishments. During the year, 328 scoutings were made at 91 establishments or an average of 3.6 per establishment.

	Entire Area	New Jersey	Per Cent in N. J.
No. Class I establishments	1,725	32	1.85
No. Class I and III establishments	29	5	17.24
No. Class III establishments	525	305	58.10
Totals	<hr/> 2,279	<hr/> 342	<hr/> 15.0

SAND, MOSS AND PEAT SCOUTING

The scouting of sand pits to determine the date of fumigation requirements and the subsequent release therefrom was abandoned in 1935. These restrictions were imposed simultaneously on all pits as soon as beetles appeared in numbers. The same applied in releasing the pits from fumigation requirements.

FARM PRODUCTS

Owing to the inadequacy of state funds, all temporary farm products inspectors were paid from federal funds. The inclusion of all farm products in the quarantine regulations made it necessary to increase personnel as well as the number of inspection points.

There was considerable confusion early in the season with regard to the fumigation of refrigerator cars for the shipment of potatoes. These difficulties were gradually adjusted as the season progressed; although to the last day, it was impossible to ascertain just what the next day would bring in the way of a new problem.

With special reference to potatoes, the situation was handled by using ventilated box cars, which obviated the necessity of fumigation. An obscure tariff regulation required the railroad to charge the shipper \$2.50 for each car fumigated. The shippers and buyers rebelled and refused to pay the fee, utilizing the ventilated box cars. Nevertheless, the railroads procured the necessary fumigant and materials and were prepared to fumigate, should the trend change to refrigerator cars.

Some shippers reported considerable damage and loss of potatoes which were shipped in the ventilated box cars. The principal complaint was lack of sufficient ventilation on the bottom tier of potatoes and consequently they arrived at destination in a very poor condition. The accumulation of cinders and dust in the bags caused by transportation in the open cars was also a source of complaint. Another complaint was that the cars were previously used for the shipping of chemicals and salt and, although they seemed apparently clean at the time of loading, the moisture caused the potatoes to absorb some of the chemicals, such as sulphur and calcium salts.

As previously stated, the principal objection to using refrigerator cars was the \$2.50 fee for fumigation. If the market prices were normal, this fee would be overlooked but this year the profit on a car of potatoes frequently did not exceed \$6.00 or \$7.00 to the shipper. When New Jersey potatoes went on the market there already was a surplus, caused by some 500 or 600 cars from the Eastern shore. In the middle of August, the market price for potatoes stood at 50 cents a hundred. Later, the prices rose to \$1.00 and \$1.25.

Refrigerator cars were used for the shipment of other commodities such as beans. In these cases, the cars were fumigated while empty and held in readiness to supply the needs of the shippers. Ninety-four empty refrigerator cars were fumigated under our supervision during the season. In addition, 36 cars of potatoes and 18 of onions were fumigated during the season.

Precautionary measures instituted last year were continued this year. Cars were allowed to be iced only during the periods when beetle flight did not create a hazard. The same applied to the loading of cars. In the latter case, however, special screens were constructed at several of the points to permit the uninterrupted loading of cars. A portable unit, mounted on a truck, was constructed to be used at points where the platforms were not screened.

The increase in the units of farm products certified is attributed to the inclusion of all farm products in the quarantine regulations. Poor market conditions were responsible for this figure not reaching greater proportions.

The Hammonton fumigation house was overhauled and put into service because of renewed activity in connection with carlot and truck shipments of berries. The New Lisbon fumigation house was also very active. Reports were that their berry crop this season was one of the finest during the past five years. At Hammonton 580 crates of berries were fumigated and at New Lisbon 3,440, making a total of 4,020.

FARM LAND SCOUTING

A general and heavy infestation of beetles in South Jersey made it inadvisable to carry on farm land scouting as a basis of granting certification.

Number of men employed in connection with the inspection and certification of cut flowers, fruits and vegetables:

Location	Administrative Supervisors	Foremen	Inspectors	Total
Glassboro	1	1	14	16
Trenton		2	13	15
Rutherford			1	1
Total	1	3	28	32

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INSPECTION POINTS, NUMBER OF PACKAGES CERTIFIED, AND
NUMBER OF BEETLES REMOVED

Place	Period Operated	Hours per Day** Open	Number of Men	Packages Certified	Beetles Removed
Bridgeton	June 15 to Sept. 18	8	*	7,200	0
Camden	June 15 to Sept. 18	8	*	3,194	0
Cedarville	June 15 to Sept. 18	8	6	44,550	750
Glassboro	June 15 to Oct. 15	8	10	13,521	95
Hammonton	June 15 to Sept. 18	8	*	912	30
Landisville	June 15 to Sept. 18	8	*	3,904	28
Newfield	June 15 to Sept. 18	8	*	5,125	15
Norma	June 15 to Sept. 18	8	*	770	2
Rutherford	June 15 to Oct. 15	8	1	289	0
Swedesboro	June 15 to Sept. 18	8	*	27,205	0
Trenton	June 15 to Oct. 15	8	15	20,035	30
Wheat Road	June 15 to Sept. 18	8	*	1,345	7
Totals			32	128,050	957

* These points were taken care of from Glassboro, where a crew of 10 men were stationed.

** Inspection service available at any hour by previous appointment.

TOTAL NUMBER OF PACKAGES OF FRUIT, VEGETABLES AND CUT
FLOWERS CERTIFIED IN THE REGULATED AREA OF
NEW JERSEY, SUMMER, 1935, AND NUMBER
OF BEETLES REMOVED

Article	Number of Packages	Number of Beetles Removed
Apples	13,603	81
Asparagus	265	0
Beans, Fava	25	0
Beans, Lima	1,462	120
Beans, String	24,949	468
Beets	101	0
Blackberries	260	29
Blueberries	1,789	20
Broccoli	38	11
Cabbage	2,560	101
Cantaloupe	2,321	0
Carrots	2,150	0
Cherries	10	0
Corn	17	0
Cucumbers	2,102	33
Egg Plants	736	0
Huckleberries	1	0
Onions	9,784	0
Parsley	10	0
Peaches	1,363	0
Peas	728	0
Peppers	13,509	50
Pickles	7,190	36
Potatoes, Sweet	15,887	0
Potatoes, White	22,371	0
Raspberries	610	1
Rhubarb	9	7
Spinach	100	0
Squash	21	0
Strawberries	1,322	0
Tomatoes	2,206	0
Vegetables, Mixed	2	0
Cut Flowers	549	0
Total	128,050	957

NUMBER OF BALES OF OAK LEAVES AND MOSS CERTIFIED BY ALL
OFFICES IN THE REGULATED AREA OF NEW JERSEY
FOR SHIPMENT TO EACH STATE

State	Moss	Oak Leaves	Total
Colorado .....	..	4	4
Florida	205	..	205
Indiana	7	..	7
Michigan .....	..	2	2
New York	106	..	106
North Carolina	853	..	853
Ohio	10	5	15
Pennsylvania	25	..	25
South Carolina	28	..	28
Virginia	29	..	29
Totals	1,263	11	1,274

Japanese beetle quarantine offices in New Jersey and the area under the jurisdiction of each are as follows: Trenton (White Horse) (State Headquarters), South Broad Street—Mercer, Monmouth, Middlesex, Somerset, Hunterdon, Warren, Union Counties and as far south as the fortieth degree of latitude in Burlington and Ocean Counties; Rutherford, Lawrence Building, 13-15 Orient Way—Sussex, Morris, Passaic, Bergen, Essex and Hudson Counties; Glassboro, Kotler Building, Main and High Streets—Burlington and Ocean Counties, south of the fortieth degree of latitude, Camden, Gloucester, Atlantic, Salem, Cumberland and Cape May Counties.

NUMBER OF PLANTS CERTIFIED FOR SHIPMENT TO VARIOUS
STATES, BY MONTHS

January	72,579	May	508,091	September	64,547
February	219,190	June	946,110	October	678,214
March	384,841	July	193,047	November	458,516
April	404,003	August	48,378	December	299,342
Total plants certified to points outside of area				4,277,038	
Total plants certified to other dealers inside area				2,856,034	
Total plants certified				7,133,072	

FIELD TREATMENTS

Plants treated with miscible carbon disulphide	21
Plants treated with paradichlorobenzene	53,232
Plants treated with miscible carbon disulphide dip	9,913
Plants treated with hot water	2,892
Cubic yards of potting soil fumigated with carbon disulphide	1,222
Cubic yards of potting soil treated with arsenate of lead	50
Cubic yards of potting soil treated with steam	31

ESTABLISHMENTS TREATED WITH ARSENATE OF LEAD

Heeling-in Areas

Square feet retreated	145,154	
Square feet treated (new)	25,341	
Square feet no lead required	333,526	
	<hr/>	
Total square feet heeling-in area		504,021

Areas Containing Growing Plants

Square feet retreated	612,607	
Square feet treated (new)	850,087	
Square feet no lead required	2,023,698	
	<hr/>	
Total square feet growing plants		3,486,392
		<hr/>
Total square feet leaded area in certified status		3,990,413
		<hr/> <hr/>

Plants

Number of plants retreated	82,013	
Number of plants treated (new)	155,591	
	<hr/>	
Total plants treated, 1935		237,604
Number of plants no lead required		138,811
		<hr/>
Total plants growing in lead		376,415
		<hr/>
Total plants growing in certified status		376,415
		<hr/> <hr/>

PLANTS SHIPPED FROM NEW JERSEY UNDER CORN BORER
CERTIFICATION, JULY 1, 1935—JUNE 30, 1936

Asters	6,136	Rhubarb	28,465
Chrysanthemums	19,410	Hollyhocks	30
Dahlias	56,980	Zinnias	66
Celery	4,300	Cut Flowers	3
String Beans	18,603		
Lima Beans	944		
Beets	96		
		Total	<hr/> 135,033

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NUMBER OF MEN EMPLOYED IN QUARANTINE WORK
IN NEW JERSEY DURING 1935

	Nursery & Greenhouse	Main- tenance	Farm Products	Soil Sampling	Scouting	Total
January	17	2	..	..	..	19
February	17	2	..	..	..	19
March	18	3	..	6*	..	27
April	25	3	..	10*	..	38
May	25	3	..	..	..	28
June	23	3	11	..	..	37
July	15	3	35**	..	4	57
August	15	3	28**	..	4	50
September	23	3	6	..	..	32
October	28	2	..	..	..	30
November	28	2	..	..	..	30
December	27	2	..	..	..	29

*Intermittently employed, dependent on weather conditions.

** 15 men full time—balance intermittently employed.

CARLOADS OF EACH CLASS OF SAND, SOIL, MARL, PEAT, ETC.,
CERTIFIED FOR SHIPMENT FROM THE REGULATED
AREA OF NEW JERSEY

Destination	Processed Material	Molding	Marl	Clay	Peat	Total
Alabama	1	..	..	..	..	1
California .....	..	..	4	..	4	8
Florida	1	..	1	..	..	2
Georgia .....	..	..	2	..	..	2
Idaho .....	..	..	..	1	..	1
Illinois	2	..	4	6	..	12
Indiana	2	..	3	..	..	5
Iowa .....	..	..	1	..	..	1
Kansas .....	..	..	1	..	..	1
Kentucky	5	3	1	..	..	9
Louisiana .....	..	1	1	..	..	2
Maryland	2	17	..	1	..	20
Maine	22	7	..	1	..	30
Michigan	14	8	4	5	..	31
Minnesota .....	..	..	2	..	..	2
Missouri .....	..	..	2	..	..	2
North Carolina	6	..	2	..	1	9
New Hampshire	1	1	..	..	..	2
New York	58	218	3	61	..	340
Ohio	47	67	5	15	2	136
Pennsylvania	9	40	..	..	..	49
South Carolina .....	..	5	..	..	..	5
South Dakota .....	..	3	..	..	..	3
Tennessee .....	..	..	2	..	..	2
Texas	1	..	5	..	..	6
Virginia	9	19	2	1	..	31
Vermont .....	..	2	..	1	..	3
West Virginia	8	4	2	20	..	34
Wisconsin .....	..	3	2	1	..	6
Foreign	30	212	2	120	1	365
Totals	218	610	51	233	8	1,120

Official Proceedings of the Twenty-first Annual State Agricultural Convention

The twenty-first annual New Jersey State Agricultural Convention was called to order in the Assembly Chamber of the State Capitol at Trenton at 9:35 a. m. Friday, January 31, 1936, by Charles D. Barton, President of the State Board of Agriculture. The meeting opened with a prayer by the Rev. Edward A. Morris of Trenton.

The official welcome of the City of Trenton to the convention delegates was extended by Paul Morton, City Manager.

William B. Duryee, state secretary of agriculture, called the roll of delegates. Delegates whose names are marked with a single asterisk (*) were absent and were not represented by alternates; those whose names are unmarked were present. Two asterisks (**) indicate a vacancy for which no delegate was certified.

DELEGATES TO THE STATE AGRICULTURAL CONVENTION FROM COUNTY BOARDS OF AGRICULTURE

Name	Address	Term	County
W. J. Slack	Hammonton	2 Years	Atlantic
H. O. Packard	Hammonton	1 Year	Atlantic
Arthur Lozier	Hackensack, R. D.	2 Years	Bergen
William F. Ehret	Harrington Park	1 Year	Bergen
*Harry R. Haines	Moorestown	2 Years	Burlington
Roy Kingsley	Columbus	1 Year	Burlington
Samuel DeCou	Merchantville	2 Years	Camden
Thomas Iulicci	Waterford	1 Year	Camden
C. Newton Schellinger	Green Creek	2 Years	Cape May
Norman S. Taylor	Cape May	1 Year	Cape May
Kenneth S. Roberts	Bridgeton, R. D.	2 Years	Cumberland
Howard Sheppard	Cedarville	1 Year	Cumberland
C. E. Baldwin	Livingston	2 Years	Essex
Herbert Francisco	West Caldwell	1 Year	Essex
John Davis	Monroeville	2 Years	Gloucester
Ernest Sykes	Williamstown	1 Year	Gloucester
George A. Veltman	Jersey City	1 Year	Hudson
Harold B. Everitt	Flemington	2 Years	Hunterdon
Charles Burd	Pittstown	1 Year	Hunterdon
*Russell Applegate	Robbinsville	2 Years	Mercer
Robert Dilatush, Jr.	Trenton, R. D. 2	1 Year	Mercer
James C. Ewart	Cranbury	2 Years	Middlesex

STATE DEPARTMENT OF AGRICULTURE

Name	Address	Term	County
J. Edward Chamberlain	Cranbury, R. D.	1 Year	Middlesex
Tunis D. Smith	Freehold, R. D.	2 Years	Monmouth
George C. Richdale	Phalanx	1 Year	Monmouth
Scott Parks	Chester	2 Years	Morris
Herman Herklotz	Dover	1 Year	Morris
Raymond Block	Lakewood	2 Years	Ocean
Ervin Clement	Lakehurst	1 Year	Ocean
Arthur Butts	Clifton	2 Years	Passaic
Walter Sikkema	Paterson, R. D. 1	1 Year	Passaic
Dewey Elwell	Salem, R. D. 3	2 Years	Salem
Alfred F. Sloan	Elmer, R. D. 3	1 Year	Salem
Edward M. Haynes	Skillman	2 Years	Somerset
E. E. Cooper	Plainfield, R. D. 3	1 Year	Somerset
Clinton Hardin	Newton, R. D. 2	2 Years	Sussex
W. W. Elliot	Andover, R. D.	1 Year	Sussex
John Kulp	Springfield	2 Years	Union
Charles H. Brewer	Rahway, R. D. 2	1 Year	Union
Frank L. Pursell	Phillipsburg, R. D.	2 Years	Warren
George E. Edgar	Belvidere	1 Year	Warren

FROM POMONA GRANGES

Martin Decker	Egg Harbor City	1 Year	Atlantic
Arthur Butts	Clifton	1 Year	Bergen and Passaic
Fred Lippincott	Moorestown	1 Year	Burlington
William J. Whittall	Magnolia	1 Year	Camden
A. S. Walker	Cape May City, R. D.	1 Year	Cape May
William C. Spargo	Dover	1 Year	Central District
Leon Spencer	Millville, R. D. 2	1 Year	Cumberland
Robert Duffield	Mullica Hill	1 Year	Gloucester
Theodore H. Dilts	Three Bridges	1 Year	Hunterdon
**			Mercer
*J. V. S. DuMont	Somerville, R. D.	1 Year	Middlesex and Somerset
W. W. Nicholas	Freehold, R. D.	1 Year	Monmouth
Harvey M. Beal	Elmer, R. D.	1 Year	Salem
John Katzenstein	Franklin	1 Year	Sussex
William Apgar	Washington, R. D.	1 Year	Warren

FROM OTHER ORGANIZATIONS

- American Cranberry Growers' Association—Theodore H. Budd, Pemberton, 2 years; James D. Holman, Whitesville, 1 year.
- New Jersey State Horticultural Society—Edgar D. Reid, Tennent, 2 years; C. B. Lewis, Riverton, 1 year.
- New Jersey State Grange—Walter H. Whiton, Neshanic, 1 year; Henry M. Loveland, Bridgeton, 1 year.
- New Jersey State Poultry Association—*Charles Cane, Rosemont, 1 year; Andrew Cray, Stockton, 1 year.

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New Jersey Agricultural Experiment Station—Jacob G. Lipman, New Brunswick.
 New Jersey State College of Agriculture—James Neilson, "Woodlawn," New Brunswick.
 Holstein-Friesian Cooperative Association—S. B. Roberts, Port Jervis, R. D. 1, N. Y.
 New Jersey Guernsey Breeders' Association—*William M. Nulton, Jr., New Brunswick.
 New Jersey Alfalfa Association—*David S. Croshaw, Wrightstown.
 New Jersey State Potato Association—*Clendon Danser, Cranbury.
 Beverly Cooperative Growers' Association—Elgar L. Buzby, Rancocas.
 New Jersey Beekeepers' Association—Harold Horner, Mount Holly.
 E. B. Voorhees Agricultural Society—H. Malcolm Adams, Franklin Park.

President Barton appointed a Committee on Credentials: C. Newton Schellinger of Cape May, S. B. Roberts of the Holstein-Friesian Cooperative Association, and John Kulp of Union County.

After examining the credentials of delegates, the Committee reported all were correct.

ELECTION OF BOARD MEMBERS

A Nominating Committee of five delegates was appointed by President Barton: Theodore Budd of Pemberton, chairman; Clinton Hardin of Newton, Kenneth S. Roberts of Bridgeton, Harvey Beal of Elmer, and Walter Sikkema of Paterson.

The Nominating Committee, reporting through Mr. Budd, unanimously recommended the elections of Howard Sheppard of Cumberland County and Walter Sikkema of Passaic County.

Authorized by motion to do so, the secretary cast a ballot for Mr. Sheppard and Mr. Sikkema as members of the State Board of Agriculture for the term July 1, 1936, to June 30, 1940. The president declared the two new members elected.

CITATIONS

Walter L. Minch of Cumberland County and Clifford E. Snyder of Hunterdon County, cited by the State Board of Agriculture for distinguished service to the agriculture of New Jersey, were presented to the Convention during the reading of the following citations:

CITATION OF MR. MINCH

It is with a sense of peculiar and sincere pleasure that the State Board of Agriculture greets you on this occasion. Born in Hopewell Township, Cumberland County, during the period of the Civil War, you have directed your energies toward agricultural progress in that area for more than a generation. You have served your community in many ways and exceedingly well. You have been secretary of the Cumberland County Board of Agriculture for ten years and active in every movement that has for its pur-

pose the welfare of your neighbors. As a farmer, engaged in large-scale agricultural enterprises, you have made the name of Minch a household word in the agricultural life of this State. You have been principally responsible for the great fruit and vegetable industry of Cumberland County, having pioneered in that field as well as in alfalfa growing and in the production of reliable seed crops. You have been, and are, such an authority on these matters that much of your time is given to advising others on successful methods of culture. We are glad to have this opportunity of paying tribute to your progressive spirit, to your friendly and helpful cooperation with hundreds, and perhaps thousands, of your friends, and most of all to your indomitable courage and forward-looking viewpoint. I now hand to you this certificate as a measure of recognition of your outstanding contribution to the agriculture of this State.

CITATION OF MR. SNYDER

Occasionally the State Board of Agriculture calls public attention to certain individuals who have made outstanding contributions to the advancement of agriculture in New Jersey. It is because of your accomplishments as a successful practical farmer and unselfish service in advancing the welfare of all farmers in the State that we have asked you to come here today. A native son of Hunterdon County, educated in the schools of that county and later at Massachusetts Institute of Technology and Cornell University, you have returned to your homeland to demonstrate that intensive, intelligent and diversified agriculture is still the best solution of what is called the farm problem. In the field of service to others, you have served for fifteen consecutive years as president of the Hunterdon County Board of Agriculture, as a director of the Grange-League Federation, as a member of the school board of your township, among other local activities. For eight years you served as a member of the State Board of Agriculture, having been elected to that post by the farmers of the State, and part of that time as president of the Board. In now presenting this certificate we pay tribute to your qualities of individual initiative and capacity, to your strong sense of cooperation with others so as to secure better conditions and concerted action, and to your noteworthy contributions to the betterment of your community, your county, and **your State.**

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MISCELLANEOUS

The Convention discussed the organization of a committee representing the various agricultural associations and commodity groups of the state to act in an advisory capacity on New Jersey farmers' interests in national legislation. Mr. Fred Lippincott of Burlington County moved, and it was carried unanimously, that the State Board of Agriculture be responsible for creating such a committee representing the various organizations.

A resolution was adopted by the Convention urging that the appropriation for the Department of Agriculture be retained in full amount for the state budget for 1936.

No further business came before the Convention, and, after a speaking program, it was adjourned by President Barton at 12:30 o'clock P. M.