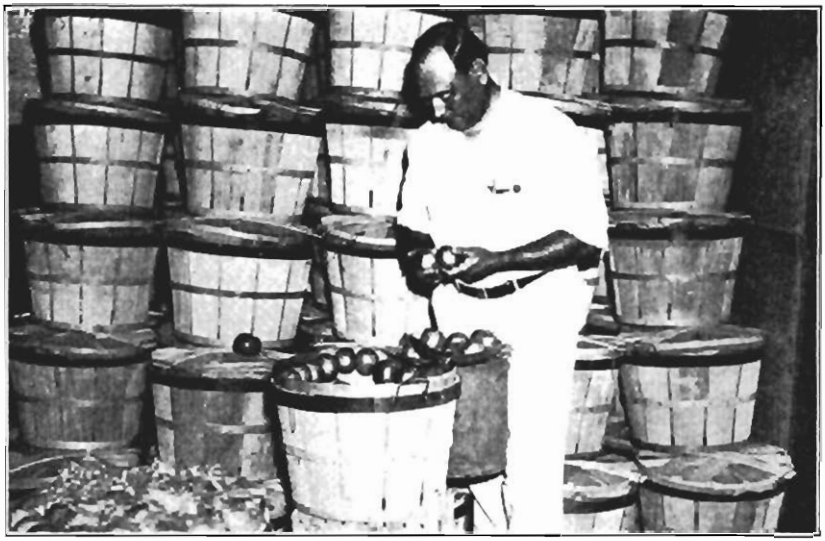
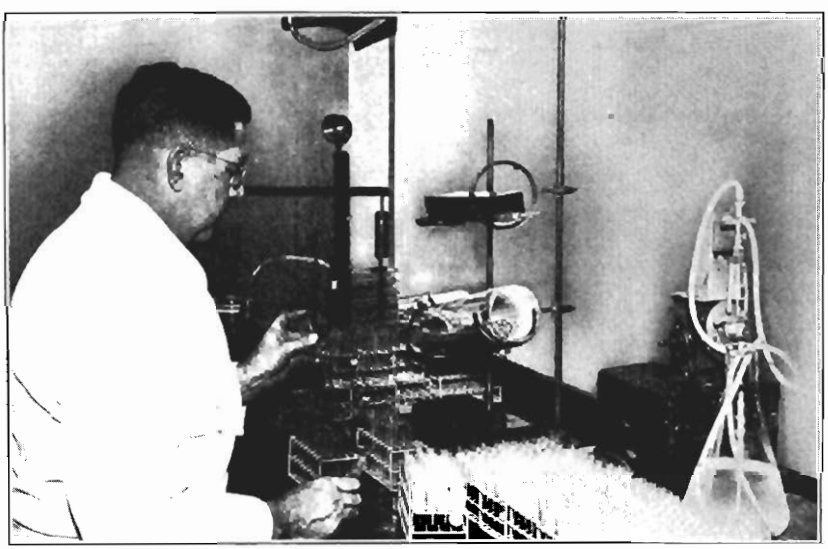


Shipping-Point Inspection of Apples Destined for Shipment Abroad.



Local Health Rules and Federal Indemnities for Reactors Nearly Doubled the Number of Animals Blood Tested for Bang's Disease Control Last Year.

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

Twentieth Annual Report

of the

New Jersey
State Department of Agriculture

July 1, 1934 June 30, 1935

Trenton, N. J., December, 1935

State Board of Agriculture

1934-1935

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STATE OF NEW JERSEY

DEPARTMENT OF AGRICULTURE

WILLIAM B. DURYEE, Secretary

Trenton

December 5, 1935.

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 Twentieth Annual Report of the New Jersey Department of Agriculture, for the fiscal year ended June 30, 1935.

Respectfully,

W. B. Duryee

TWENTIETH ANNUAL REPORT OF THE NEW JERSEY STATE DEPARTMENT OF AGRICULTURE

JULY 1, 1934—JUNE 30, 1935

Report of the Secretary of Agriculture

WILLIAM B. DURYEE

Regulation in agriculture can and should be carried on for the purpose of benefiting the general public, as well as the agricultural industry and the people engaged in it. While the work of the New Jersey Department of Agriculture is principally regulatory, its activities are carried on with constructive objectives. In enforcing the state laws and the orders of the State Board of Agriculture respecting cattle disease, the result is the production of safer and better milk and the development of a more productive dairy industry. In the enforcement of the State Fresh Egg Law, the purpose is to safeguard consumer purchases of eggs and to create a better demand for a quality product.

In the cooperative program of fruit and vegetable inspection, the objective is to establish quality standards, increase the demand for standardized products, and help the public to get complete food value for the money invested. In the programs for the eradication and control of insect pests, the perfectly apparent purpose is to protect uninfested areas from attack and prevent more serious attacks upon the food supply and upon foliage. In the licensing and bonding of dealers, the purpose is to permit the development of good business practices and safeguard the interests of those affected by distributors' operations.

In all of these procedures, certain individuals are inconvenienced, or restricted, or penalized for failure to comply with measures in the public interest. To these persons, regulation is often unwelcome and something to be evaded if possible. Effective prosecution of regulatory work frequently means the infliction of penalties in the enforcement of regulations which are intended to protect the law-abiding and constructive elements of the population from those destructive elements which would, if not controlled, throw agricultural activities into disrepute with the public and destroy confidence in them.

In the functions of the Bureau of Markets, for example, there is a constant striving to shorten the road between producers and consumers. Whenever a short-cut is established, it decreases costs to consumers, thereby stimulating consumption, and increases returns to producers, which they so greatly need. As we enter another era when the high cost of living will be heard of with increasing emphasis, these efforts to cut costs will be strengthened and reinforced at every possible point. The auction markets, which have clearly justified their existence on the basis of serving both producer and consumer interests, are examples of successful efforts in increasing the efficiency of distribution.

All the work of the department as outlined in succeeding pages is based upon serving some essential need, which can be met by governmental action alone. The department safeguards constructive efforts in many instances by curbing the desires and efforts of those who have no social instincts and who operate entirely on the basis of selfish exploitation. The department has served as a focal point for concentrating efforts of producers of all types of commodities for joint attacks upon common problems. The part which it plays is, we believe, the only part that it should undertake, leaving to those concerned with the particular industry involved the initiative and the driving force which lead to accomplishment.

In these days the field of statistical work is likely to receive scant attention. Such work does not produce, of itself, direct results for any particular group. However, the quality and breadth of the statistics obtained serve as a fundamental basis for activities in practically all fields of agriculture. It is fervently hoped that this important function of the department will not be further curtailed. Rather, it should be strengthened and made more effective because of its basic nature.

In the face of declining income as the result of a need for economy in government, the curtailed staff of the department has met increased duties with zeal and a determination to discharge well the duties devolving upon it. There is no tendency to accept the series of duties established years ago as meeting present-day needs or of getting into a routine frame of mind. New problems arise daily and must be met with new methods. Initiative, resourcefulness and honest effort are presumably rewarded in the commercial field. Members of the staff cannot be cast in the same mould nor standardized except with the complete loss of energy and initiative.

As private industry regains confidence and profits, men who can produce will be lost from state service to private industry if their efforts are continually deprecated and their daily activities subject to standardization rules. Brains cannot be regimented—only the lack of them—and the type of public service which the department is striving to render is certain to be weakened if unwise public procedure is adopted in regard to this matter. In the final analysis, the public is bound to lose by weakening

the spirit of and developing a feeling of futility on the part of those who would give their best to the common welfare.

EFFECT OF AAA POLICIES ON NEW JERSEY

While this report is on the functions of the New Jersey Department of Agriculture, a brief analysis of the effects of federal agricultural policies may be in order. The Agricultural Adjustment Administration has set for its goal the adjustment of agricultural production to the effective demand for food both by the people of the United States and for such foreign exportations as remain. Since the United States is no longer a large exporter of agricultural commodities, an adjustment program of this type means a reduction in the acreage of crops and in the production of crops and livestock.

Up to the present, the method of approach of the AAA has been to curtail the acreage of specific crops and the output of certain types of livestock. The plan being discussed for possible future adoption calls for an approach through individual farm operations and covering all of the output of individual farms. Those commodities which have been termed "basic" by Congress and therefore subject to regulation are: wheat, rye, flax, barley, cotton, field corn, grain sorghums, hogs, cattle, rice, potatoes, tobacco, sugar beets and sugar cane, peanuts, and milk and its products.

In the beginning, it was thought that the regulation of one crop, such as wheat, would be sufficient to balance production to demand in respect to that crop and at the same time benefit other agricultural industries. However, the regulation of one crop is bound to cause dislocations in regard to other crops. Frequently, it is not the land that is taken out of the production of a basic crop that is used for the production of other commodities thereby causing surpluses in those commodities, but it is formerly unused acres operated with the same labor and equipment that had been used in the production of the original basic crop. No matter how this has come about, the fact remains that dislocations in the production of crops and livestock have required one after another to be considered as basic and taken under regulation. It appears that, when regulation of this type is attempted, it must be practically all-encompassing in the end.

As a means of providing an incentive for reducing production, benefit payments to those who cooperate in the reduction program have been worked out. These benefit payments, which are approaching a total of $1,000,000,000, are obtained through processing taxes. The processing taxes are assessed on the basic commodity at the points where it is milled or processed on the way to market. The question of the cost of processing taxes to the people of this state has been frequently raised. Since the processing tax is in many respects similar to a sales tax, it seems that the only fair method of determining what New Jersey farmers and urban

residents pay should be based on the per capita cost of the total processing tax collected. Estimating, for example, that some $900,000,000 has been obtained from processing taxes for benefit payments, this represents a per capita tax of $7.50 on the people of the nation. If we multiply this tax by about 4,000,000 persons, the population of New Jersey, we find that the processing tax has cost the people of the State of New Jersey about $30,000,000.

It is true that some processors have absorbed a part of this tax and have not been able to pass it on in full to consumers of their products. Nevertheless, a very large proportion of the tax is paid, in the form of higher prices, by individual consumers and their families. Incidentally, funds used for relief must be used in part for the payment of processing taxes on the food supplied to indigent families. The amount of money received by New Jersey farmers in benefit payments is about $400,000. That this amount is small is largely because the basic commodities are not grown extensively in New Jersey.

The processing tax is, from the standpoint of the total tax involved, a liability. It absorbs a proportion of the consumer's food dollar that might be used for the purchase of products grown in the state, and it is a drain upon the incomes of all persons everywhere.

If we look at the assets of the plan of benefit payments and processing taxes, we find that farmers receiving the payments are in the market for farm machinery and for a wide variety of industrial products which they could not otherwise purchase. This has stimulated to some undeterminable degree the industries of the industrial areas of the country and has, of course, provided greater employment with greater purchasing power on the part of workers. The plan will be subjected to a great deal of debate and to many court actions in the near future. We can measure the cost of the tax to residents of New Jersey, but we cannot evaluate the stimulus to industrial output and to better purchasing power that has followed to some degree, at least, in its wake.

As has been stated, the beneficial results of the operation of the Agricultural Adjustment Administration have been confined principally to regions other than the Northeast. In only one field has there been an expressed desire for the administration's assistance in the agriculture of this state, and that has been in milk control. With the establishment of the Milk Control Board in 1933, the regulation of milk produced and sold within the state became an accomplished fact.

Within a year after the board had been created, it became apparent that there would be grave difficulty in controlling milk without regulation of interstate shipments, and such regulation is the direct responsibility of the federal government. Efforts were made time and again to get federal action on this phase of milk regulation. These efforts and other aspects of milk control are discussed in a report covering the first two

years' work of the State Milk Control Board, of which the writer has been chairman since its inception. In March, 1935, the writer was named by Governor Hoffman as his representative on the Seven States' Governors' Committee on Interstate Milk Relations, which was created for the specific purpose of securing federal control and preventing a collapse of the dairy industry in the Northeast because of unregulated interstate shipments.

It is not conceded that milk prices in New Jersey are on an artificially high level. Nevertheless, in periods of low buying power and low consumption, small surpluses of milk appearing on the market at such times and in such amounts as to preclude consumption in fluid form, cause serious dislocations of prices and create artificially low levels for the entire industry. Since approximately one-half of the milk consumed in New Jersey enters into interstate commerce, the problem has been a very real one for the State Milk Control Board and for the Department of Agriculture, and no efforts were spared to obtain cooperative action between the state and federal government. In spite of these efforts, no results in the way of federal regulation have been attained, and steps in which the Agricultural Adjustment Administration could act with benefit, and, to some extent, compensate the Northeast for the processing taxes collected from it were not taken.

The favorable effect of the Agricultural Adjustment Administration's programs on New Jersey farmers has been insignificant in comparison with the benefits obtained by states in other areas of the country, especially when direct benefits are being considered.

AIDING THE DAIRY INDUSTRY

Bovine Tuberculosis Eradication

One of the most important matters with which New Jersey's dairy industry is concerned is the complete eradication of bovine tuberculosis from herds producing milk for our numerous consuming markets. The State Department of Agriculture, in cooperation with the Federal Department of Agriculture, has for a number of years followed a program with this end in view. This program is based on accrediting producing areas in New Jersey until the entire state has been declared free of the disease. Much progress was made during the past year in this work, and the following areas were classified as "Modified-Accredited" areas by the federal government: Camden, Hudson and Gloucester counties; Ocean County with the exception of Plumstead Township, and 19 townships and the city of Burlington in Burlington County. This classification was made possible by tests which indicated that less than one-half of one per cent of the cattle in these areas reacted to the disease. In the previous fiscal year Atlantic, Cumberland and Cape May counties were accredited.

The initial testing work is approaching a conclusion since 193,178 animals were under supervision for the elimination of the disease by the end of the fiscal year. State indemnities were paid on 2,612 animals which reacted to the test and, consequently, were slaughtered. The United States Government paid an additional indemnity on these animals and the balance of the loss, if any, over the salvage value of the animals was borne by the dairymen, who thus contributed to the improvement of the dairy industry.

THE MILK CONTROL BOARD

This marked the second year of efforts of the Milk Control Board to aid in stabilizing conditions in dairy marketing. The board established and maintained regulations governing trade practices and minimum prices for purchases from producers and for sales to consumers. Through these efforts, milk producers found it possible to produce fluid milk at a price above the cost of production. This is the direct opposite of the situation existing immediately before the legislation setting up the Milk Control Board in 1933. Since its organization, the board has received considerable cooperation from the Department of Agriculture.

OFFICIAL NEW JERSEY GRADES

Adding to the improvement in the dairy industry has been the growth in the use of the official New Jersey grades for milk, "New Jersey Grade A Raw" and "New Jersey Grade A Pasteurized." At the end of the fiscal year, 210 producers were providing high quality milk under these grades for daily delivery to New Jersey consumers. The volume of milk sold under the grades increased more than 60 per cent during the year and the 50 dealers holding certificates enabling them to distribute this milk were handling more than 50,000 quarts daily. This daily volume was about 20 per cent of all the Grade A milk sold daily in New Jersey. A considerable part of this increase was due to the demands of CCC camps for this high quality milk. Official New Jersey Grade A milk is being produced and distributed in nearly every county of the state in some degree, and consumers using it have recognized the safeguards under which it is produced.

AIDING THE POULTRY INDUSTRY

STANDARDIZATION

New Jersey is a recognized leader in the poultry industry, particularly with reference to both egg production and the commercial hatching of baby chicks. The department's program has been a fundamental one in assisting in the development of improved stock and greater egg production. The standardization program along this line has been carried out in New Jersey,

not only under state supervision, but also on a private basis, so that, while official recognition may not be given in all cases to the work done, improvement has nevertheless occurred.

Better conditions were reflected in the poultry industry during the year, and the activity in the production and sale of baby chicks was pronounced. The State Poultry Association cooperated with the department in maintaining and furthering the entire program for the poultry industry.

EGG AND POULTRY AUCTIONS

Of decided benefit to the poultry producers have been the opportunities offered by the five egg and live poultry auction markets in the state. Inspection of eggs and determination of their grade before they are sold have contributed to the success which these markets have enjoyed, and have also influenced demands by new buyers. Comparisons between sales at these markets and in large distributing centers have been found to be much in favor of the operation of the auctions, which are located at or near the point of production.

FRESH EGG LAW

The department is charged with the enforcement of a new law, known as the "New Jersey Fresh Egg Law," which became effective at the beginning of the fiscal year. During the year, this law proved to be a definite factor in the improvement of conditions surrounding the sale of eggs to consumers. Through it, the quality of eggs offered to consumers in the state was materially improved in the 12-month period whether the eggs were sold as "fresh" or under some term which did not involve them under the act. A systematic method of inspection was developed whereby offerings at retail stores and roadside markets and on various retail routes were examined. Nearly 24,000 inspections were made which revealed violations in about 15 per cent of the cases. The demand for eggs from New Jersey and nearby sources increased with the enforcement of the act, and its provisions have been followed identically or closely in the development of similar legislation in a number of eastern states.

AIDING THE FRUIT AND VEGETABLE INDUSTRY

GRADES AND CERTIFICATION

The establishment of grades and the certification of farm products on the basis of uniform standards has been the foundation of the department's work in the fruit and vegetable field. One of its most important contributions to the industry has been its grading and classification of cannery products grown and processed in the state. New Jersey has long been recognized as one of the leading producers of cannery tomatoes, and more

than two-thirds of the entire production of the state in 1934 was contracted for on the basis that payment would be determined by inspections made under the department's supervision. Through this system, growers have received payments commensurate with the quality of the tomatoes that they deliver. More than 90,000 tons of the crop were inspected during the 1934 season. The inspection service has been extended to asparagus for canning or freezing, and the New Jersey product that has been commercially processed by either of these methods has met with increasing public favor.

The certification of apples according to recognized standards was continued at the request of individual fruit growers and shippers who, as in the case of canners, paid fees for the service that was provided to them. Under this method, those who were the users of the service and, therefore, the direct beneficiaries thus made the service self-supporting. Some of the fruit thus inspected reached export markets, the quantity in each season varying according to export demands and competition from other sources.

COUNTRY PRODUCE AUCTIONS

The nine farmer-owned fruit and vegetable auction markets with which the department is closely allied continued to operate with a high degree of success. Collectively, these markets did a business exceeding one and one-half million dollars. At least several of them have been recognized by the trade as leading centers for supplies of crops predominant in their respective localities.

MARKET NEWS INFORMATION

Available to New Jersey producers of fruits and vegetables during the year were reports provided by the department on crop conditions and market prices in New Jersey and competing areas. These reports were prepared and released at frequent intervals during the growing and marketing seasons of various crops and were available to those who have requested that the information be sent them. By analyzing conditions with which producers of certain commodities may be confronted in marketing their crops, the department has enabled producers to foresee to some degree what may be anticipated during the actual marketing period. Another type of report issued at weekly intervals has given brief reviews of market prices, not only on fruits and vegetables, but also on grain, feed and poultry products.

AIDING THE CONSUMER

The emphasis that has been laid on continuing and expanding the department's information service for consumers has met with great favor. Various channels of publicity offer an opportunity for acquainting con-

sumers with facts concerning their daily food. Increased attention was given during the year to the development of newspaper articles, radio talks and literature directed to consumers. The articles and talks were devoted to the quality and seasonal availability of various New Jersey fruits and vegetables, as well as to information concerning poultry products and milk which would be of daily use to consumers. Through the cooperation of the press of the state, weekly news articles were published by more than 400 papers and publications, with a circulation of about 4,000,000 weekly. Radio publicity was secured through Station WOR in conjunction with the programs offered by the New Jersey Federation of Women's Clubs. Retail stores have recognized the advantage of the consumer-service program that the department has undertaken, and they utilized to a great degree the monthly poster service which was made a feature of this project.

A separate and distinct phase of educational work for consumers has been talks and demonstrations on canned foods. Genuine interest has been manifested in the original endeavors along this line and demands for its continuation have been numerous. This type of information has long been desired by consumers, particularly in view of the fact that the canning trade has based its sales programs on brands rather than on public statements of quality.

THE CONTROL OF INSECT PESTS AND PLANT DISEASES

Efforts to control insect pests and plant diseases were continued during the year. Foremost among these were the measures aimed at the Japanese beetle, the gipsy moth, and the Dutch elm disease.

THE JAPANESE BEETLE

The department's Japanese beetle program is twofold: first, it includes the certification of farm products and sand and soil so that shipments of these commodities may be made to markets beyond the quarantined area, and, second, it includes spraying, trapping, and parasitical operations against the beetle.

The certification program, which is carried out in cooperation with the Federal Department of Agriculture, is of especial value to produce shippers at times when markets outside the quarantined area are certain to yield greater returns than those within the area.

Demands on the part of states that have not been infested with the Japanese beetle that an even more rigorous program of certification be developed have created the need for additional funds for inspection purposes, in order that New Jersey's fruit and vegetable industry may not be seriously handicapped by a limitation of the marketing field.

The spraying and trapping work have been found satisfactory to a limited degree and in certain areas, but it is anticipated that the preponderance of suppression work against this insect will be in combating it with parasitic enemies. The breeding of nematode parasites and their distribution in strategic locations have indicated the desirability of proceeding with this method beyond all others.

GIPSY MOTH

New Jersey's success in the extermination of the gipsy moth infestation of a decade ago has been recently threatened by the appearance of infestations in areas immediately adjacent to the state. During the year, careful watch was maintained on both the Pennsylvania and New York borders and thorough scouting of previously infested woodland areas was carried on in order to prevent, if at all possible, further outbreaks of this pest.

DUTCH ELM DISEASE

Of great economic importance to New Jersey has been the fairly recent but widely-spreading outbreak of the Dutch elm disease among the state's millions of elm trees, particularly those in the northern half of New Jersey. No means of eradication have been determined upon except the complete and immediate destruction of infected elms and all dead and dying elms that might be contributors to the spread of the disease. Efforts of the department have been supplemented by financial contributions on the part of the Federal Government in an attempt to prevent the spread of this disease, not only in New Jersey but in surrounding states as well. The rapidity with which the disease has spread to healthy trees through the activities of elm bark beetles has been one of the serious problems confronting the efforts to wipe out this menace.

DEVELOPMENTS IN ANIMAL DISEASE CONTROL

In addition to the work concerned with the eradication of bovine tuberculosis, other activities aimed at controlling diseases of dairy cattle, horses, swine and poultry were carried forward during the year with the object of minimizing losses to farmers and preventing outbreaks of disease.

BANG'S DISEASE CONTROL

The Federal Government has joined with the State Department of Agriculture in controlling Bang's disease in dairy herds. While progress has been somewhat handicapped by the low indemnities which have thus far been provided for animals reacting to the disease, the number of herd owners interested in control measures has been increasing moderately. It

is hoped that stimulus will be given to the control of this disease through the allocation of additional federal funds for indemnities to cover more than the first four tests.

Experiments in the vaccination of calves against this disease hold some promise for the reduction of infection on a basis other than that now existing; namely, the testing of herds and the slaughtering of reactors found.

ENCEPHALOMYELITIS

A serious outbreak of a disease among horses in the South Jersey counties adjacent to Delaware Bay resulted in great economic loss to many farmers in that section. This disease was diagnosed as encephalomyelitis, and in some cases it was acute and resulted in the rapid death of infected animals. Vaccination experiments were conducted jointly with the Rockefeller Institute for Medical Research in the hope of developing a resistance to the disease. Initial experiments along this line were sufficient to at least give hope for the control of future outbreaks through the vaccination of all animals during the early part of summer. The seriousness of the outbreak during the year is indicated by the fact that approximately 200 horses were lost to farmers and the loss of even one animal in many cases could be ill-afforded.

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

During the year, changes took place in the dairy industry that were advantageous to the farmers, dealers and consumers of the state. Producers have been in better financial condition to continue their operations since the milk industry has been greatly stabilized by the Milk Control Board; unfair competition has been reduced to a minimum among dealers through the same agency, and consumers are receiving, in general, a better grade of milk.

The policy of the department, started last year, of requiring all dealers who buy milk from farmers to be licensed, and of insisting that all dealers who purchase a considerable amount of milk from farmers file bonds in accordance with the value of milk purchased per month, was rigidly held to during the entire year. This provided a greater amount of protection to those to whom the act was intended to give a reasonable degree of security in the marketing of their milk.

Several important changes were made in the licensing law during the year by the enactment of Chapter 311, Laws of 1935. This act limits the surety to the license period for which the bonds are filed and definitely sets a time limit during which claims can be entered. In addition, it empowers the secretary of agriculture to disburse funds received from surety companies or obtained through the sale of securities deposited in lieu of surety bonds. Such securities are limited to United States Government issues.

During the fiscal year, three licensed dealers failed. Producers involved were paid pro rata from the proceeds of the bonds previously placed on deposit by these dealers. In the enforcement of the licensing act, 54 dealers who had failed to meet its provisions were penalized a total of $1,445.84. The department recovered for farmers, from dealers and surety companies, $21,556.46. Licenses were issued to 366 dealers, who filed bonds totaling $765,650, which is by far the greatest amount ever filed since the law became effective.

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

County	Licenses Issued	Bonds Filed	Amount of Bonds
Atlantic	2	2	$14,000
Bergen	14	4	11,100
Burlington	20	15	20,550
Camden	6	6	21,000
Cape May	4	1	700
Cumberland	21	14	16,850
Essex	35	12	73,150
Gloucester	16	11	15,200
Hudson	5	1	5,000
Hunterdon	9	9	69,500
Mercer	27	25	69,800
Middlesex	19	13	32,300
Monmouth	29	21	34,500
Morris	36	23	41,400
Ocean	3	2	4,000
Passaic	37	14	35,400
Salem	11	6	13,200
Somerset	19	15	27,500
Sussex	3	2	2,000
Union	25	7	13,300
Warren	17	13	35,200
Outside New Jersey	8	8	210,000
Totals, 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

One effect of the depression that has been apparent in the produce industry has been the interest of small buyers in purchasing or soliciting produce for resale. Very often this has been done on extremely limited capital and the extension of credit to buyers of this type has in many instances been financially disastrous to the producer.

The administration of the produce dealers' licensing and bonding act has been aimed in part at curbing operations of this type unless the transaction is strictly on a cash basis. Efforts have been successful in obtaining compliance by a number of firms whose places of business are outside the state of New Jersey but who have solicited produce from farmers of this state.

The effectiveness of this act is partly dependent upon the degree of cooperation given by the producers themselves. For this reason, producers were advised personally, as well as through the press and through advertising posters distributed throughout local production areas, to require any solicitors of farm produce to present credentials showing that they were licensed, before permitting the transaction to go further. Notwithstanding the precautions which the department attempted along this line, many sales were made to unlicensed dealers on a credit arrangement.

During the 1934-35 license year, 13 dealers were sued for violation of the act, and, in addition, the department turned over to producers of this state $2,009.19 collected on bad debts. Licenses were issued to 268 produce dealers, who filed a total of $804,000 in bonds under the provisions of the act.

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

County	Licenses Issued	Bonds Filed	Amount of Bonds
Atlantic	15	15	$45,000
Burlington	4	4	12,000
Camden	2	2	6,000
Cumberland	33	33	99,000
Essex	31	31	93,000
Gloucester	26	26	78,000
Hudson	1	1	3,000
Mercer	9	9	27,000
Middlesex	5	5	15,000
Monmouth	17	17	51,000
Passaic	11	11	33,000
Salem	14	14	42,000
Somerset	1	1	3,000
Union	2	2	6,000
Outside New Jersey	97	97	291,000
Totals, 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

There was a greater degree of activity in the cattle business during the 1934-35 fiscal year, largely because the farmers of the state had been receiving a higher price for milk during the preceding year and were in a better financial position to replace those cows in their herds that were low producers and to add to the number of their stock.

Seven complaints were received during the year against cattle dealers licensed by the department. Satisfactory settlements were made in all of these instances either by cash payments or replacements of animals. Five of the complaints involved actual violations of the licensing act, while the conditions concerned in the remaining two complaints were not within the scope of the statute. Adjustments, however, were made in these cases as well.

NUMBER OF LICENSEES UNDER CATTLE DEALERS' LAW (CHAPTER 28, LAWS OF 1931)

County	Licenses Issued
Bergen	5
Burlington	9
Camden	2
Cape May	3
Cumberland	14
Essex	12
Gloucester	5
Hudson	3
Hunterdon	12
Mercer	9
Middlesex	6
Monmouth	7
Morris	17
Ocean	5
Passaic	15
Salem	12
Somerset	9
Sussex	20
Union	10
Warren	18
Outside New Jersey	10
Total, 1934-35	203
1933-34	193
1932-33	187
1931-32	213
1930-31	169

AGRICULTURAL WEEK

The twentieth annual Agricultural Week was held during the fourth week in January under extremely unfavorable weather conditions. Heavy snowfalls throughout the state immediately followed by severe drifting made all roads temporarily impassable and resulted in what is probably the lowest attendance on record. The Farm Show, held in the Trenton Armory, comprised exhibits of New Jersey agricultural products and all types of modern farm machinery, as well as educational exhibits. A new feature of the show was the New Jersey Children's Science Fair, which was made up of several hundred exhibits planned and staged by New Jersey school children. The exhibits were on agriculture, conservation, and the natural sciences.

The first event of the "Week's" meetings was the twentieth annual State Agricultural Convention, at which delegates to the convention elected two new members to the State Board of Agriculture as prescribed by law. This was followed by meetings of the various state agricultural organizations. Another feature of the "Week" was the sixth annual Grange Spelling Bee, conducted by the department through the cooperation of the State Grange and subordinate granges.

THE NEW JERSEY JUNIOR BREEDERS' FUND

Greater use was made of the New Jersey Junior Breeders' Fund during 1934-35 than during any other year since the 1928-29 fiscal year. Dairy animals led in the number of purchases, 46 purebred calves having been bought through the fund. Eighteen loans were made for the purchase of baby chicks and five for the purchase of pullets twelve weeks old or over. Twelve of the baby chick loans, amounting to $505.99, were made to students of vocational agriculture and the remaining six were made to 4-H Club members. Interest in swine production was definitely lacking, only three swine loans having been made in the entire year.

To encourage interest in securing animals capable of high production, a silver cup was offered at the Trenton Interstate Fair for the prize-winning cow, purchased through the fund, that had the highest record of production over a period of a year. This cup was won by Joseph Hoser, of Washington, N. J., with his purebred cow, Shady Dell Jewell Beets, which had a year's production record of 13,069 pounds of milk and 459.6 pounds of fat. In addition to the cup, $400 was distributed in cash prizes at the fair to boys and girls whose stock had been purchased through the fund.

Only three loans were made from the fund of $500 set aside to permit the purchase of poultry feed by borrowers obtaining baby chicks through the fund. The total amount loaned for this purpose was $38.38.

At a meeting of the board of trustees on April 16, 1935, it was decided that a year's subscription to the breed magazine that would be most helpful to each borrower should be provided at the time future loans were made. This plan was effected through a special arrangement with each magazine concerned, and, in addition, a year's subscription to "New Jersey Farm and Garden" was offered free of charge to all future borrowers by the publisher.

The board of trustees provided that reactors resulting from the federal Bang's disease testing program should be treated like reactors to the tuberculin test. In other words, the total of salvage value and Federal indemnity are applied as partial indemnification to the owner of an animal that is slaughtered as a result of the test, and the remainder paid to him from the Calf Emergency Fund.

The receipts of the calf, swine and poultry emergency funds during the fiscal year 1934-35 were slightly above the amount of losses. The total receipts for the year from calf, swine and poultry loans were $454, and losses totaled $411.65.

The interest rate was continued at 4 per cent per annum during the year.

On June 30, 1935, the amount of outstanding indebtedness to the fund was $8,631.77, of which 14.06 per cent was classed as delinquent. However, a large portion of the delinquent amount is believed to be collectible. Of the $97,514.35 loaned by that date, only 1.5 per cent has had to be charged off as bad debts. During the fiscal year, three Guernsey animals reverted to the fund, because of the inability of their owners to pay their notes.

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
Totals...	856	$74,546.50	197	$11,312.78	254	$11,655.07	1,307	$97,514.35

SUMMARY OF LOANS, BY COUNTIES

County	Calf Previous	Calf 1934-35	Swine Previous	Swine 1934-35	Poultry Previous	Poultry 1934-35	Total
Atlantic	..	..	..	..	..	..	..
Bergen	..	..	1	..	..	..	1
Burlington	36	..	16	..	5	5	62
Camden	..	..	..	..	..	..	..
Cape May	7	..	..	..	3	1	11
Cumberland	59	2	9	1	25	..	96
Essex	..	..	..	..	19	..	19
Gloucester	23	1	2	..	7	..	33
Hudson	..	..	..	..	..	..	..
Hunterdon	72	9	3	..	1	1	86
Mercer	136	8	70	1	21	..	236
Middlesex	103	..	1	..	35	5	144
Monmouth	61	5	12	..	77	2	157
Morris	47	2	1	..	5	..	55
Ocean	17	..	..	..	9	..	26
Passaic	..	..	..	..	..	1	1
Salem	69	3	74	1	11	6	164
Somerset	29	..	1	..	..	..	30
Sussex	69	8	1	..	11	1	90
Union	..	..	..	..	..	..	..
Warren	82	8	3	..	2	1	96
Totals	810	46	194	3	231	23	1,307

PUBLICITY AND PUBLICATIONS

The department maintained a publicity service throughout the year in order that farmers in the state might become familiar with progress being made in various agricultural fields as well as with facts that would prove beneficial to the conduct of their business. One of the chief methods of disseminating such information was through the press of the state, and both daily and weekly newspapers cooperated heartily in presenting material of this type to their readers.

The *State Department Service,* a publication of the department that is issued to provide information direct to farmers of the state, was returned to a monthly basis after having been issued bi-monthly for a trial period of two years. Since this publication is limited to one page, its issuance each month was felt necessary in order that information and developments of interest in many agricultural fields might be presented.

Economy in the publication of circulars and bulletins was rigidly adhered to again during the year. Only nine publications were issued. All of these were of definite interest and benefit to the agricultural industry. They were as follows:

Circular No. 244—Suggestions for Retailers on Compliance with the New Jersey Fresh Egg Law.

Circular No. 245—The New Jersey Plan of Poultry Standardization and Accreditation and List of Breeding Flocks and Hatcheries Under Official Supervision, 1934-1935.

Circular No. 246—The 1935 New Jersey Children's Science Fair.

Circular No. 247—The Beekeeping Industry in New Jersey.

Circular No. 248—Roster of County Boards of Agriculture and State Agricultural Organizations for 1935.

Circular No. 249—Report of the Governor's Emergency Farm Mortgage Committee.

Circular No. 250—White Pine Blister Rust and Its Control in New Jersey.

Circular No. 251—Spraying for the Control of the Japanese Beetle on Ornamentals and Non-Commercial Fruit Holdings.

Circular No. 252—New Jersey Prices of Hired Farm Labor, Feedstuffs and Fertilizer Materials and Their Index Numbers, 1910-1934.

COOPERATION

The accomplishment of departmental objectives during the year in the face of many difficulties was due to genuine efforts on the part of the entire staff to be of service to New Jersey agriculture. It is a matter of gratification that assistance has been given to New Jersey farmers and consumers in many fields of endeavor. To members of the department staff sincere appreciation is expressed.

Many other individuals and agencies have, through their cooperation, been instrumental in furthering the work of the department. Some of these are the New Jersey State Grange, the New Jersey Farm Bureau, the State Agricultural College and Experiment Station, and the producers' organizations of the state.

Grateful acknowledgment is made of the cooperation of both Governor Moore and Governor Hoffman, and of the Legislature, without whose interest and financial support the accomplishments outlined in this report could not have been attained.

Report of the Bureau of Animal Industry

J. H. McNeil, *Chief*

TUBERCULOSIS ERADICATION

During the 1934-35 fiscal year, the United States Department of Agriculture certified as "Modified-Accredited" areas all or parts of five New Jersey counties. The accreditation followed the completion of tuberculin-testing in these areas by the Bureau of Animal Industry of the State Department of Agriculture. In order for the areas to be accredited, it was necessary that less than one-half of 1 per cent of their cattle react to the test. The following table shows what areas were accredited, the dates of accreditation, and the number of herds and cattle in the areas:

Area	Date Accredited	Number of Herds	Number of Cattle
Camden County	July 3, 1934	386	1,500
Burlington County Shamong Township Tabernacle Township Washington Township Woodland Township Bass River Township	November 9, 1934	83	350
Ocean County with the exception of Plumstead Township	November 9, 1934	365	933
Burlington County Beverly Township Chester Township Cinnaminson Township Delran Township Evesham Township Hainesport Township Lumberton Township Medford Township Moorestown Township Mount Laurel Township	January 29, 1935	401	3,177
Hudson County	March 1, 1935	25	166
Burlington County City of Burlington Burlington Township Florence Township Westhampton Township Willingboro Township	April 1, 1935	185	1,616
Gloucester County	June 1, 1935	1,241	5,247

In addition to the areas accredited during the year, there were in the state at the end of the year three additional "Modified-Accredited" areas, Atlantic County, Cumberland County, and Cape May County, all of which had been accredited during the 1933-34 year.

The bureau began the retesting of cattle in Cumberland County in an effort to have this area re-accredited. This work, however, will not be completed until the 1935-36 fiscal year.

The remainder of the work of tuberculin testing was largely comprised of testing herds initially, retesting herd additions and retesting herds that had previously been tuberculin-tested under supervision.

The percentage of reaction on initial tests has dropped steadily for the past three or four years. This is due to the fact that all of the larger herds have been tested and the initial tests that have been made recently have been on one- or two-animal herds, in which the percentage of tuberculosis runs low. A total of 2,514 herds of 9,850 cattle were initially tested during the year, and 274 animals, or 2.78 per cent of those tested, showed reactions.

The department continued to market reactors by consigning a portion to the Jersey City Stock Yards, where they are sold by commission firms on the hoof. It marketed the remainder by obtaining bids from local butchers and selling to the highest bidder. The average amount of salvage received for the sale of reactors in July, 1934, was $25.20 per head. By June, 1935, this had increased to $41.53 per head. The increase in the price of beef was caused by the scarcity of beef cattle as a result of the slaughter of millions of cattle in 1934 because of the drought in the Middle West. It will probably take a year or two to bring the supply up to its previous level.

The price of dairy cattle took a corresponding jump. It increased between 35 and 50 per cent at the point of origin.

Following is a comparative summary of the average prices received for reactors in New Jersey and in New York City, by months, from July, 1934, to June, 1935:

	July	August	September	October	November	December
New Jersey ...	$25.20	$17.45	$20.81	$17.55	$17.77	$20.15
New York	10.51	8.61	8.82	7.78	8.47	11.19
	January	February	March	April	May	June
New Jersey ...	$24.35	$33.14	$34.80	$30.25	$44.06	$41.53
New York	12.08	17.91	19.89	22.70	27.32	28.66

Following is a brief summary of the work accomplished in tuberculosis eradication during the year ending June 30, 1935:

At the close of the fiscal year ending June 30, 1934, there were under state and federal cooperative supervision in New Jersey 18,939 herds comprising 184,343 cattle. At the close of the fiscal year ending June 30, 1935, there were under supervision 19,687 herds comprising 193,178 animals, an increase of 3.95 per cent in the number of herds and 4.79 per cent in the number of animals.

During the past twelve-month period, 236,053 tuberculin tests were made of cattle under supervision, with 2,994 reactions resulting. Reactions were found in 1.27 per cent of the tests.

During the year 1933-34, the percentage of reactors on initial tests was 19.93, 4,336 herds of 20,536 animals having been tested and 4,092 animals having reacted. 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.

The percentage of reactors among out-of-state cattle added to herds under supervision during the fiscal year 1933-34 was 1.91. Of 18,809 cattle tested, 379 reacted. In the year 1934-35, 21,458 cattle were tested and 322, or 1.5 per cent, reacted.

Second, third and subsequent tests are made of herds already under supervision. During the fiscal year 1933-34, 166,380 animals were tested on retest and 3,223, or 1.94 per cent, reacted. During the fiscal year 1934-35, 204,745 animals were tested on retest and 2,398, or 1.17 per cent, reacted.

During the year 1933-34, indemnity was paid for 7,578 reactors, 309 of which were registered animals and 7,269 were grade animals. During the year 1934-35, indemnity was paid for 2,612 reactors, of which 214 were registered animals and 2,398 were grade animals.

Following is a summary of the total amounts received by dairymen and breeders for 2,612 reactors condemned and slaughtered as a result of tuberculin testing during the fiscal year 1934-35:

Amount Received from Salvage of Reactors	$69,676.23
Amount Paid by State of New Jersey in Indemnities	99,186.56
Amount Paid by the United States Government in Indemnities	46,470.26
Total	$215,333.05

This is an average of $82.44 per head.

TOTAL STATE INDEMNITY PAID, BY COUNTIES JULY 1, 1934—JUNE 30, 1935

Atlantic	$252.50
Bergen	740.17
Burlington	3,139.17
Camden	107.50
Cape May	.....
Cumberland	2,006.58
Essex	679.52
Gloucester	2,901.94
Hudson	131.64
Hunterdon	8,287.91
Mercer	7,909.31
Middlesex	2,742.64
Monmouth	8,393.79
Morris	2,536.81
Ocean	2,442.62
Passaic	303.87
Salem	9,635.23
Somerset	4,031.22
Sussex	33,251.55
Union	1,396.24
Warren	8,296.35
State	$99,186.56

TOTAL STATE INDEMNITY PAID, BY COUNTIES, FROM THE BEGINNING OF ACCREDITED HERD WORK IN 1916 TO JUNE 30, 1935

Atlantic	$6,626.66
Bergen	31,896.32
Burlington	301,789.12
Camden	13,170.46
Cape May	8,922.43
Cumberland	68,581.20
Essex	32,777.34
Gloucester	60,201.35
Hudson	4,350.60
Hunterdon	318,036.95
Mercer	167,596.47
Middlesex	65,396.46
Monmouth	99,793.91
Morris	117,291.35
Ocean	26,389.01
Passaic	31,660.45
Salem	315,248.40
Somerset	206,457.11
Sussex	851,983.94
Union	31,351.31
Warren	338,827.84
State	$3,098,348.68

The following summary indicates the amount of state indemnity paid for reactors resulting from the tuberculin test during the year ending June 30, 1935:

Class of Cattle	Number of Animals	Amount Paid
Registered Animals	214	$14,280.86
Grade Animals	2,398	84,905.70
Registered and Grade	2,612	$99,186.56

Average State Indemnity Paid Per Head—

Registered Animal	$66.73
Grade Animal	35.41
Registered and Grade	37.97

The following summary indicates the amount of salvage received by owners for reactors resulting from the tuberculin test during the year ending June 30, 1935:

Class of Cattle	Number of Animals	Amount Paid
Registered Animals	214	$6,846.69
Grade Animals	2,398	62,829.54
Registered and Grade	2,612	$69,676.23

Average Salvage Received Per Head—

Registered Animal	$31.99
Grade Animal	26.20
Registered and Grade	26.68

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

Class of Cattle	Amount Paid
Registered and Grade	$46,470.26

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)	$215,333.05
Average amount received per head by owners for reactors	$82.44

HERDS AND CATTLE UNDER STATE AND FEDERAL SUPERVISION, JUNE 30, 1935

County	Herds Under Supervision	Herds Fully Accredited	Cattle in County Under Supervision
Atlantic	352	303	612
Bergen	238	196	2,819
Burlington	1,430	1,152	20,354
Camden	389	290	1,493
Cape May	294	252	1,045
Cumberland	1,371	1,049	6,692
Essex	140	74	2,451
Gloucester	1,242	1,082	5,254
Hudson	25	21	158
Hunterdon	2,392	1,825	25,343
Mercer	1,118	856	10,583
Middlesex	1,487	948	6,556
Monmouth	1,449	976	8,583
Morris	1,073	755	11,392
Ocean	431	313	1,693
Passaic	276	250	2,930
Salem	1,467	1,231	14,346
Somerset	1,318	827	12,079
Sussex	1,406	900	32,090
Union	284	154	3,767
Warren	1,505	976	22,938
State	19,687	14,430	193,178

Animals in Herds Under Supervision		Animals in Herds Fully Accredited	
19,501	Registered	15,400	Registered
173,677	Grade	125,338	Grade
193,178	Total	140,738	Total

INITIAL TESTS MADE AND REACTORS RESULTING, BY COUNTIES, JULY 1, 1934—JUNE 30, 1935

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	2	2	6	..	..	..	..	8	..	..
Bergen	34	1	107	..	5	..	4.67	108	5	4.63
Burlington	144	12	641	..	3	..	.47	653	3	.46
Camden	4	..	7	..	..	..	..	7	..	..
Cape May	..	..	..	..	..	..	..	..	..	..
Cumberland	223	25	516	..	11	..	2.13	541	11	2.03
Essex	37	1	90	..	4	..	4.44	91	4	4.4
Gloucester	172	42	260	..	5	..	1.92	302	5	1.66
Hudson	3	..	7	..	..	..	..	7	..	..
Hunterdon	273	104	1,698	..	75	..	4.42	1,802	75	4.16
Mercer	162	34	533	..	9	..	1.69	567	9	1.59
Middlesex	297	9	552	..	30	..	5.43	561	30	5.35
Monmouth	265	58	605	..	27	..	4.46	663	27	4.07
Morris	164	23	587	..	21	..	3.58	610	21	3.44
Ocean	18	..	28	..	..	..	..	28	..	..
Passaic	20	1	93	..	2	..	2.15	94	2	2.13
Salem	127	16	446	..	6	..	1.35	462	6	1.3
Somerset	256	146	724	3	25	2.05	3.45	870	28	3.22
Sussex	134	175	1,304	8	16	4.57	1.23	1,479	24	1.62
Union	46	..	77	..	3	..	3.9	77	3	3.9
Warren	133	75	845	1	20	1.33	2.37	920	21	2.28
State	2,514	724	9,126	12	262	1.66	2.87	9,850	274	2.78

ATTLE TESTED IN NEW JERSEY UNDER THE ACCREDITED HERD PLAN BY VETERINARIANS ON THE STAFF OF THE STATE DEPARTMENT OF AGRICULTURE
JULY 1, 1934—JUNE 30, 1935

	INITIAL TESTS					HERD ADDITION TESTS					OTHER TESTS				
		Tested		Reactors			Tested		Reactors			Tested		Reactors	
34—	Lots	Registered	Grade	Registered	Grade	Lots	Registered	Grade	Registered	Grade	Lots	Registered	Grade	Registered	Grade
July	172	86	580	..	22	3	19	394	..	2	629	626	6,034	18	106
August	164	120	454	3	7	..	4	499	..	2	455	461	3,751	3	50
September	77	18	360	..	10	1	17	254	1	4	412	674	4,715	2	65
October	73	11	177	1	8	..	23	418	..	9	381	447	6,687	3	67
November	73	3	278	..	5	..	9	634	..	12	477	572	5,912	3	81
December	62	27	329	..	29	..	7	365	..	3	587	657	6,085	1	94
35—															
anuary	47	..	153	..	1	..	14	653	..	8	488	712	4,735	11	73
February	81	3	299	..	3	..	16	684	1	11	490	687	6,131	8	56
March	86	26	302	..	8	1	158	550	..	9	784	1,744	8,861	4	125
April	60	17	219	..	3	..	1	340	..	5	486	790	7,166	10	162
May	97	34	437	..	2	1	9	664	..	9	645	1,363	9,107	6	89
une	200	42	622	..	6	23	36	1,332	2	13	815	654	6,100	3	42
tals	1,192	387	4,210	4	104	29	313	6,787	4	87	6,649	9,387	75,284	72	1,010
rcentage of Reactors	..	..	..	1.03	2.47	..	..	..	1.28	1.28	..	..	..	.77	1.34
erage Percentage	..	..	..	2.35		..	..	..	1.28		..	..	..	1.28	

TTLE TESTED IN NEW JERSEY UNDER THE ACCREDITED HERD PLAN BY VETERINARIANS ON THE STAFF OF THE UNITED STATES DEPARTMENT OF AGRICULTURE
JULY 1, 1934—JUNE 30, 1935

	INITIAL TESTS					HERD ADDITION TESTS					OTHER TESTS				
		Tested		Reactors			Tested		Reactors			Tested		Reactors	
4—	Lots	Registered	Grade	Registered	Grade	Lots	Registered	Grade	Registered	Grade	Lots	Registered	Grade	Registered	Grade
uly	44	..	64	..	9	..	2	51	..	..	95	50	585	..	8
August	13	1	37	..	2	1	9	435	..	5	43	52	1,583	..	12
September	31	1	107	..	6	1	9	290	..	4	80	52	1,105	..	18
October	51	..	141	..	5	..	..	318	..	4	91	80	836	..	4
November	9	..	32	..	4	..	4	768	..	17	63	240	2,689	1	27
December	7	..	24	..	..	..	6	140	..	..	110	90	748	..	1
5—															
anuary	7	..	28	..	..	1	3	192	..	..	97	34	838	..	9
February	12	1	48	..	1	1	3	121	..	3	58	18	598	..	2
March	8	..	27	..	5	1	3	139	..	7	95	25	928	..	5
April	30	21	72	..	1	..	..	102	..	1	142	185	782	1	5
May	24	..	40	..	..	1	34	195	..	1	144	123	1,026	1	6
une	18	4	70	..	2	4	2	500	..	25	185	184	3,082	..	8
tals	254	28	690	..	35	10	75	3,251	..	67	1,203	1,133	14,800	3	105
rcentage of Reactors	..	..	..	..	5.07	..	..	..	..	2.06	..	..	..	.26	.70
erage Percentage	..	..	..		4.87	..	..	..		2.01	..	..	..		.68

CATTLE TESTED UNDER THE ACCREDITED HERD PLAN BY VETERINARIANS ACCREDITED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE
JULY 1, 1934—JUNE 30, 1935

	INITIAL TESTS					HERD ADDITION TESTS					OTHER TESTS				
		Tested		Reactors			Tested		Reactors			Tested		Reactors	
	Lots	Registered	Grade	Registered	Grade	Lots	Registered	Grade	Registered	Grade	Lots	Registered	Grade	Registered	Grade
4—															
uly	167	11	400	..	34	100	42	601	..	15	690	590	7,564	18	112
ugust	115	8	327	..	5	106	62	568	..	10	423	365	4,213	6	55
eptember	84	10	336	..	7	144	66	1,393	..	16	459	696	6,408	10	52
ctober	68	68	337	..	15	162	36	1,042	1	13	516	463	6,254	2	100
lovember	48	40	147	..	16	146	11	914	..	12	431	562	5,392	19	150
ecember	40	6	184	..	4	123	36	972	..	20	701	778	7,851	13	106
5—															
nuary	59	16	197	..	4	137	28	1,030	1	17	713	1,447	8,761	25	102
ebruary	65	40	486	8	12	96	35	750	2	6	954	703	9,453	5	78
larch	107	33	429	..	6	79	104	824	2	14	1,046	1,365	10,699	8	68
pril	47	15	253	..	2	48	23	488	1	6	573	662	8,070	7	89
lay	82	33	549	..	10	86	51	831	1	13	799	1,029	9,110	2	87
une	186	29	581	..	8	122	76	1,049	1	13	1,228	723	10,983	7	87
als	1,068	309	4,226	8	123	1,349	570	10,462	9	155	8,533	9,383	94,758	122	1,086
centage of eactors	..	..	..	2.59	2.91	..	..	..	1.58	1.48	..	..	..	1.30	1.15
rage Percentage	..	..	..	2.89		..	..	..	1.49		..	..	..	1.16	

SUMMARY OF CATTLE TESTED UNDER ACCREDITED HERD PLAN DURING THE YEAR ENDING JUNE 30, 1935

	Registered Animals	Grade Animals	Total
INITIAL TESTS			
Tested	724	9,126	9,850
Reacted	12	262	274
Percentage of Reactors—2.78			
HERD ADDITION TESTS			
Tested	958	20,500	21,458
Reacted	13	309	322
Percentage of Reactors—1.5			
OTHER TESTS			
Tested	19,903	184,842	204,745
Reacted	197	2,201	2,398
Percentage of Reactors—1.17			

TOTAL	
Tested	236,053
Reacted	2,994
Percentage of Reactors	1.27

TOTAL NUMBER OF REACTORS SLAUGHTERED BY MONTHS, 1934-1935

July	328
August	268
September	169
October	251
November	254
December	372
January	242
February	163
March	238
April	256
May	273
June	246
Total	3,060

TESTS MADE OF NATIVE CATTLE NOT UNDER STATE AND FEDERAL SUPERVISION, JULY, 1934-JUNE, 1935

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
——												
uly	1	2	..	..	..	..	..	..	..	..	..	..
ugust	5	9	..	..	..	..	..	..	..	..	..	..
eptember	4	19	..	..	..	..	..	..	..	..	..	..
ctober	1	13	..	..	..	..	..	..	..	..	..	..
ovember	2	15	2	13.34	..	..	..	..	..	..	..	..
ecember	1	1	..	..	..	..	..	..	..	..	..	..
5—												
anuary	1	1	..	..	..	..	..	..	..	..	..	..
ebruary	2	6	1	16.67	..	..	..	..	..	..	..	..
Iarch	7	43	..	..	..	..	..	..	..	..	..	..
pril	6	42	1	2.38	2	2	..	..	..	..	..	..
Iay	7	25	1	4	..	..	..	..	..	..	..	..
une	5	39	..	..	..	..	..	..	..	..	..	..
als	42	215	5	2.32	2	2	..	..	..	..	..	..

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 26,760 animals were released. However, during the year, 2,994 animals were condemned as result of the tuberculin test and were slaughtered, and 762 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	2,963	344	35
August	2,813	160	67
September	3,028	195	60
October	2,950	232	56
November	2,082	347	29
December	2,930	271	113
January	1,097	251	46
February	1,266	196	69
March	1,463	261	86
April	1,900	293	49
May	2,344	227	80
June	1,924	217	72
Totals	26,760	2,994	762

IMPORT CATTLE RECEIVED FROM VARIOUS STATES FOR DAIRY AND BREEDING PURPOSES, 1934-1935

POINT OF ORIGIN	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	Total
Athenia (Quarantine)	...	...	...	...	...	...	...	...	...	...	57	...	57
Canada	32	36	7	19	9	...	15	...	59	6	47	94	324
Connecticut	...	...	3	...	2	2	1	...	5	...	...	1	14
Delaware	...	...	...	...	...	1	...	3	1	...	1	...	6
Illinois	...	50	51	...	50	25	...	...	...	...	50	...	226
Indiana	8	...	...	...	...	19	...	...	...	...	...	...	27
Iowa	...	...	...	...	...	...	...	...	25	...	...	...	25
Kansas	...	...	...	...	...	...	...	...	...	...	...	16	16
Kentucky	18	...	...	20	...	...	...	...	...	...	14	...	52
Lancaster (Yards)	120	130	83	183	47	5	10	42	1	75	68	187	951
Maryland	100	83	61	115	81	126	43	25	56	52	86	133	961
Massachusetts	...	1	...	1	2	1	...	1	4	...	...	...	10
Michigan	530	615	638	430	370	611	259	382	294	463	468	293	5,353
Mississippi	...	...	...	1	...	...	...	...	...	...	...	...	1
New York	11	3	9	42	37	34	15	44	21	13	22	16	267
Ohio	585	560	811	753	524	621	121	170	347	306	381	448	5,627
Pennsylvania	244	284	203	211	213	166	162	123	145	264	281	237	2,533
South Dakota	...	21	...	...	...	...	...	...	...	...	...	...	21
Tennessee	52	70	241	45	78	28	31	...	...	28	57	70	700
Vermont	...	30	...	7	26	...	16	...	...	...	...	...	79
Virginia	16	...	9	9	...	12	...	7	...	...	4	4	61
Wisconsin	1,247	930	912	1,114	643	1,279	424	469	505	693	808	425	9,449
Totals	2,963	2,813	3,028	2,950	2,082	2,930	1,097	1,266	1,463	1,900	2,344	1,924	26,760

CATTLE SHIPPED OUT OF THE STATE DURING THE FISCAL YEAR 1934-35

Month	No. of Lots From Inshipped Cattle	Number of Animals From Inshipped Lots	No. of Lots From Herds Under Supervision	No. of Animals From Herds Under Supervision
July	7	24	6	11
August	9	45	9	22
September	14	39	11	21
October	10	52	4	4
November	5	15	5	14
December	10	46	20	67
January	11	37	7	9
February	2	10	8	59
March	7	25	14	61
April	7	17	10	32
May	8	25	19	55
June	10	45	13	27
Totals	100	380	126	382

BANG'S DISEASE CONTROL

Bang's disease control work has been conducted as originally planned by requiring all herd owners who desire to have their cattle tested to sign a contract placing their animals under supervision for the control of the disease. After the passage of the Jones-Connally Act, which makes it possible for herd owners whose herds are under state and federal cooperative supervision to receive indemnity from the Federal Government, the bureau placed under its supervision many of the herds that had been tested under the federal plan that was developed under the terms of the act. Forty million dollars was originally appropriated for indemnities by the Federal Government and allocated to the different states in proportion to their cattle population.

Under the Jones-Connally Act, the United States Department of Agriculture is authorized to pay a maximum indemnity of $50 for a registered animal and $20, which was later increased to $25, for a grade animal. The owner receives, in addition, the salvage value of the animal. The testing work has not progressed as rapidly in the East as it has in the West. This is because of the difference in the valuation of the dairy cattle. The dairymen interested in this work can be divided into two classfications: those who are required to have the test made in order to meet local board of health regulations, and those who are having trouble in their herds from Bang's disease infection.

In the original federal program, it was stipulated that the owners would receive indemnity for only two tests of their herds, but that "suspects" might be retested. A later ruling increased the number of tests to four, and the bureau was unofficially advised that regulations would soon be promulgated authorizing tests to be made until the funds are exhausted or until July 1, 1936.

During the year, 137 herds of 6,834 cattle were initially blood-tested by the bureau. A total of 861 animals, or 12.6 per cent of those tested, were found to be infected with Bang's disease. This low percentage was due to the fact that tests were made of animals in certified dairies that were free from infection. A total of 13,866 initial tests and retests were made of cattle under the bureau's supervision, and 1,096 reactors were found. Owners were compensated for their losses except in the case of a few animals that were still held in quarantine at the end of the year.

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..	125,878
Total number of animals showing positive reaction	8,654— 6.87%
Total number of animals showing negative reaction	111,269—88.39%
Total number of animals bled on initial test since the work commenced	20,222
Total number of animals showing positive reaction	4,084—20.2%
Total number of animals showing negative reaction	16,138—79.8%

HERDS AND ANIMALS UNDER STATE SUPERVISION FOR THE ERADICATION OF BANG'S ABORTION DISEASE, AND HERDS ACCREDITED AS BEING FREE OF IT, BY COUNTIES, JUNE 30, 1935

County	Number of Herds Under Supervision	Number of Herds Fully Accredited	Number of Animals Under Supervision
Atlantic	..	..	...
Bergen	14	1	348
Burlington	15	7	506
Camden	7	3	112
Cape May	6	2	96
Cumberland	7	2	299
Essex	3	1	183
Gloucester	11	2	339
Hudson	..	..	...
Hunterdon	19	3	495
Mercer	40	15	1,703
Middlesex	24	3	2,740
Monmouth	22	11	490
Morris	21	7	1,764
Ocean	4	1	41
Passaic	6	2	308
Salem	3	1	107
Somerset	72	15	1,787
Sussex	4	..	315
Union	..	..	...
Warren	13	1	608
State	291	77	12,241

AGGLUTINATION BLOOD TESTS MADE IN THE BUREAU LABORATORY FOR BANG'S ABORTION DISEASE, FISCAL YEAR 1934-1935

County	Number of Tests	Negative Reactions	Positive Reactions	Suspicious Reactions
Atlantic	...	...	...	...
Bergen	1,189	857	157	175
Burlington	1,218	1,064	75	79
Camden	227	184	14	29
Cape May	246	193	18	35
Cumberland	710	609	40	61
Essex	589	534	5	50
Gloucester	729	691	9	29
Hudson	...	...	...	...
Hunterdon	1,573	1,254	118	201
Mercer	3,121	2,789	139	193
Middlesex	1,829	1,519	159	151
Monmouth	1,309	1,143	53	113
Morris	6,935	5,958	301	676
Ocean	43	41	2	...
Passaic	981	879	44	58
Salem	325	310	3	12
Somerset	4,977	4,347	228	402
Sussex	1,110	831	181	98
Union	...	...	...	...
Warren	1,245	1,016	103	126
State	28,356	24,219	1,649	2,488

PHYSICAL EXAMINATIONS

Twice annually, in the spring and again in the fall, bureau representatives, working in cooperation with representatives of the Bureau of Markets, conduct physical examinations of herds of cattle producing "New Jersey Grade A Raw" and "New Jersey Grade A Pasteurized" milk.

Following is a table indicating the number of herd and cattle examinations made during the 1934-35 fiscal year, and the results of the examinations:

PHYSICAL EXAMINATIONS OF CATTLE, FISCAL YEAR 1934-35, BY COUNTIES

County	Number of of Herd Examinations	Number of Animal Examinations	Number of Animals Passed	Number of Animals Isolated	Number of Animals Condemned
Atlantic	..	..	..	..	..
Bergen	..	..	..	..	..
Burlington	10	202	184	7	11
Camden	..	..	..	..	..
Cape May	2	43	35	5	3
Cumberland	6	103	91	8	4
Essex	8	147	137	5	5
Gloucester	..	..	..	..	..
Hudson	..	..	..	..	..
Hunterdon	77	2,175	2,037	96	42
Mercer	13	365	335	17	13
Middlesex	5	444	426	14	4
Monmouth	2	33	33	..	..
Morris	120	3,356	3,188	121	47
Ocean	..	..	..	..	..
Passaic	..	..	..	..	..
Salem	13	239	221	8	10
Somerset	82	1,767	1,686	62	19
Sussex	5	176	165	7	4
Union	2	24	23	1	..
Warren	49	1,545	1,445	54	46
State	394	10,619	10,006	405	208

SUMMARY

Number of herd examinations made	394
Number of herds in which all animals passed	141—35.79%
Number of herds in which animals were isolated	203—51.52%
Number of herds in which animals were condemned	126—31.98%
Number of herds in which animals were both isolated and condemned	76—19.29%

SWINE DISEASE CONTROL

The vaccination of hogs to protect them against cholera was carried out during the year by private veterinarians, who reported that vaccinations were made as follows:

NUMBER OF HOGS INOCULATED AS A PROTECTION AGAINST CHOLERA INFECTION, BY MONTHS, JULY, 1934, TO JUNE, 1935

Vaccinations Made by Private Veterinarians

	Single Treatments	Double Treatments
July	..	213
August	..	153
September	..	329
October	..	273
November	65	171
December	9	5
January	10	347
February	..	49
March	..	109
April	..	404
May	54	315
June	75	2,144
Totals	213	4,512

Total Single	213
Total Double	4,512
Grand Total	4,725

HOGS INOCULATED AS A PROTECTION AGAINST CHOLERA INFECTION, BY COUNTIES, JULY, 1934—JUNE, 1935

Vaccinations Made by Private Veterinarians

	Single Treatments	Double Treatments
Atlantic	..	..
Bergen	..	..
Burlington	25	526
Camden	..	..
Cape May	..	520
Cumberland	..	..
Essex	100	..
Gloucester	..	1,537
Hudson	..	..
Hunterdon	..	33
Mercer	..	148
Middlesex	14	191
Monmouth	9	248
Morris	..	184
Ocean	..	16
Passaic	..	..
Salem	..	377
Somerset	..	91
Sussex	..	..
Union	65	605
Warren	..	36
State	213	4,512

Total Single	213
Total Double	4,512
Grand Total	4,725

ENCEPHALOMYELITIS

The year's first two cases of suspected encephalomyelitis were reported by a private veterinarian in Bridgeton on July 29, 1934. The bureau representative detailed to investigate the cases with the private veterinarian diagnosed both of the cases as typical of encephalomyelitis. One of the affected horses died and the other horse was in such poor condition that it was thought best to destroy it. Further investigations were made in that section and it was found that other horses had been affected and had died very quickly. This indicated that they had, no doubt, been suffering from a very acute form of the disease.

The bureau immediately communicated with Rockefeller Institute for Medical Research, which expressed a desire to cooperate in an attempt to produce a vaccine that will give permanent immunity against the disease.

In the study of the outbreak of encephalomyelitis, it was found that the area involved was more extensive than that of the previous year. It extended from Salem in an almost unbroken line to West Cape May and north on the eastern coast of the state, involving Cape May and Atlantic counties, and cases were found as far north as Toms River, Freehold, and Hightstown.

In cooperation with representatives of the Rockefeller Institute, the bureau vaccinated 68 horses. The first group of ten horses on five premises in the vicinity of Bridgeton was vaccinated on August 25, 1934, with attenuated virus furnished by the Rockefeller Institute. The second group of 58 horses on 34 premises was vaccinated with like material on September 17, 18 and 19, 1934.

The following table gives the results of the vaccinations of the first group of horses:

SULTS OF VACCINATIONS AGAINST ENCEPHALOMYELITIS, FIRST GROUP OF HORSES, FISCAL YEAR 1934-35

Rockefeller Institute Case Numbers of Vaccinated Animals, and Location of Premises	No. Horses on Farm	No. Vac.	No. Not Vac.	No. Lost Before Vac.	No. Sick Before Vac.	No. Sick After Vac.	No. Sick Vac. Horses Given Serum†	Date of Vac. (1934)	No. Vac. Animals Died	No. Controls Died	Date Controls Died (1934)	Date Vac. Horses Died (1934)	Case No. of Lost Animals	Probable Cause of Death	Temperatures
. 235, Newport	2	1	1	..	..	1	1	8–25	..	..	..	..	..	..	*
s. 236 and 237, Newport	3	2	1	..	..	..	..	8–25	..	1	9–2	..	..	..	*
s. 238 and 239, Bridgeton	4	2	2	..	..	1	..	8–25	1	..	..	9–1	238	Old Age	*
s. 240, 241 and 242, Bridgeton	6	3	3	..	..	..	..	8–25	..	..	..	..	..	..	*
s. 243 and 244, Bridgeton	3	2	1	..	..	..	..	8–25	..	..	..	..	..	..	*
Totals	18	10	8	..	..	2	1	....	1	1	..	..	..	..	*

* Temperatures of the above vaccinated animals were taken daily for 16 days following vaccination. Case No. 235, owned by Belford yhew, was found to have abnormal rise in temperature on August 31, 1934, the sixth day following vaccination. On August 31, 1934, vas given 300 cc. of serum (Rockefeller) intravenously.

† This animal, on August 31, 1934, was given 300 cc. of serum prepared by the Rockefeller Institute for Medical Research. The ım was administered by Doctor Traube, of the institute.

Not any of the horses on the premises noted were sick before vaccination, nor had any animals on these premises died before the vaccinations were performed. In the case of the Mayhew animal, a 300 cc. dose of serum was administered on August 31, the sixth day following vaccination, when it was found to have an abnormal rise in temperature. This animal recovered. Temperatures on the animals were noted daily for 16 days following the vaccination. Only one of the vaccinated animals died, and it was agreed that it died from other causes than the effects of the vaccination. One of the control animals died on September 2, 1934.

In cooperation with Rockefeller Institute, the bureau vaccinated the second group of 58 horses on September 17, 18 and 19. These represented about 50 per cent of the animals on each farm, the remaining 50 per cent being held as checks. There was a total of 109 horses on the 34 premises visited. Two of the 58 vaccinated died on two different premises a few days after vaccination. These animals were on premises where animals had previously been infected with the disease and had died. These animals were very old and whether the deaths were caused by vaccination is questionable.

On September 30, visits were made to the premises where animals had been vaccinated in August and September. Fifty-six of the animals were in good physical condition. One of the animals in the first group that was vaccinated gave a slight reaction to the virus injected, but it completely recovered. One black mare, an animal that had not been vaccinated, registered a temperature of 104.9 on September 18. Otherwise she appeared to be in good physical condition. However, she was given 500 cc. of serum intravenously at seven o'clock and 500 cc. additional at ten o'clock. Her temperature dropped two or more degrees at ten o'clock that night. The temperature was still lower on the day following. Thursday and Friday she showed symptoms of incoordination of movement, but these abated later and the temperature receded to normal. On September 30 she was eating and was apparently in good condition. In this case, recovery was attributed to the use of the large doses of monovalent encephalomyelitis serum, eastern type, given in the early stage of the disease.

The bureau received splendid cooperation from the Rockefeller Institute in carrying on experimental work in the institute's laboratory and in handling experimental animals. The bureau furnished the institute with specimens of brains to make this possible.

The Bureau of Animal Industry of the United States Department of Agriculture sent a representative into New Jersey, helped the state bureau examine material, and furnished information on the disease. The bureau received, from other laboratories to which material was sent, statements confirming the diagnosis made by the Rockefeller Institute that we have in New Jersey a type of virus known as the "Eastern Virus," which is much more virulent than the "Western Virus." Other laboratories are experimenting with a vaccine that, it is hoped, will be developed to produce a permanent immunity from encephalomyelitis.

The following table indicates the animals in the second group vaccinated by representatives of the Rockefeller Institute d the results of such vaccination:

RESULTS OF VACCINATIONS AGAINST ENCEPHALOMYELITIS, FIRST GROUP OF HORSES, FISCAL YEAR 1934-35

Rockefeller Institute Case Numbers of Vaccinated Animals, and Location of Premises	No. Horses on Farm	No. Vac.	No. Not Vac.	Date of Vac. (1934)	No. Lost Before Vac.	No. Sick Before Vac.	No. Sick After Vac.	No. Sick Vac. Horses Given Serum	No. on Farm Sick on Date of Vac.	No. Vac. Animals Died	Date Vac. Animals Died (1934)	No. Controls Died	Date Controls Died	Case No. Animals Died	Animals with High Temp. Given Serum on Date of Vac.
s. 01-02, 05-06, Bridgeton	7	4	3	9–17	..	..	..	..	..	..	..	..	..	..	..
s. 08-010, Bridgeton	4	2	2	"	..	..	..	..	..	..	..	..	..	..	..
. 013, Bridgeton	3	1	2	"	..	..	..	..	..	..	..	..	..	..	..
. 023, Bridgeton	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
. 015, Bridgeton	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
s. 017-019, Bridgeton	3	2	1	"	..	..	..	..	..	..	..	..	..	..	..
s. 020-021, Bridgeton	4	2	2	"	..	..	..	..	..	..	..	..	..	..	..
s. 027, 028, Bridgeton	4	2	2	"	..	..	..	..	..	..	..	..	..	..	..
s. 029, 031, Bridgeton	4	2	2	"	..	..	..	..	..	..	..	..	..	..	..
. 034, Bridgeton	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
s. 035-036, Bridgeton	2	2	..	"	..	..	1	..	..	1	9–20	..	..	035	..
. 037, Bridgeton	2	1	1	"	2	2	1	..	..	1	9–26	..	..	037	..
040, Bridgeton,	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
s. 043, 044-045, Bridgeton	5	3	2	"	..	..	..	..	..	..	..	..	..	..	..
s. 046-047, Bridgeton	3	2	1	9–18	1	1	..	..	..	..	..	..	..	..	.
s. 049, 050, Bridgeton	4	2	2	"	..	..	..	..	..	..	..	..	..	..	..
dgeton	1	..	1	"	..	..	..	..	..	..	..	..	..	..	..

s. 055-057, 059, Cedarville	5	3	2	"	..	..	..	..	..	..	..	..	..	..	..
s. 060-061, Cedarville	4	2	2	"	..	..	..	..	..	..	..	..	..	..	..
s. 064-066, Cedarville	3	2	1	"	..	..	..	..	..	..	..	..	..	..	..
. 067, Newport	4	1	3	"	..	..	..	..	..	..	..	..	..	..	..
. 071, Newport,	2	1	1	"	..	..	..	..	..	..	..	..	..	.	..
. 073, Newport	3	1	2	"	1	1	..	..	..	..	..	..	..	..	..
s. 076-077, Newport	3	2	1	"	..	..	..	..	..	..	..	..	..	..	..
s. 080-081, Newport	3	2	1	"	..	..	..	..	..	..	..	..	..	..	..
. 083, Dividing Creek	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
. 085, Dividing Creek	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
s. 089-092, 093, Port Norris	6	3	3	"	..	..	..	..	..	..	..	..	..	..	..
s. 094-097, Port Norris	4	2	2	"	2	..	..	..	..	..	..	..	..	..	..
s. 099*, 0100, 0101, Port Norris	4	2	1	"	1	1	..	..	1	..	..	..	..	..	*1
. 0102, Port Norris	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
. 054. Bridgeton	2	1	1	"	..	..	..	..	..	..	..	..	..	..	..
. 087, Port Norris	2	1	1	"	1	1	..	..	..	..	..	..	..	..	..
s. 0104, 0105, 0107, Bridgeton	5	3	2	9–19	..	..	..	..	..	..	..	..	..	..	..
Totals	109	58	51	..	8	6	2	..	1	2	..	..	..	..	1

* No. 099 was not vaccinated, but was given 1,000 cc. of serum by Doctor Doherty on the date that the two animals on this farm re vaccinated. This animal recovered.

The information given on the extent of the infection was collected by representatives of the bureau by making personal calls on the horse owners and soliciting information from county agents and private veterinarians in the section where the outbreak occurred.

Brain tissue was taken from a number of horses infected with encephalomyelitis and shipped to laboratories at different points for diagnosis and for determining the strain of virus involved. In all of the cases in which positive diagnosis was made by these laboratories only the eastern strain was found.

SUMMARY OF REPORT ON ENCEPHALOMYELITIS

County	Number of Premises	Horses on Premises	Horses Lost on Premises	Horses Remaining on Premises	Horses Recovered
Atlantic	22	41	24	17	
Burlington	7	33	6	27	2 on 2 premises
Cape May	28	61	33	28	1 on 1 premise
Cumberland	92	357	106	251	4 on 4 premises
Gloucester	4	12	4	8	
Ocean	1	1	1	..	
Salem	26	123	27	96	4 on 4 premises
Totals	180	628	201	427	11 on 11 premises

GLANDERS

Reports were received by the bureau during the fiscal year 1934-1935 of 257 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
FISCAL YEAR 1934-1935

Tests Made by Private Veterinarians

Month	Negative	Positive
July	11	..
August	13	..
September	2	..
October	41	..
November	21	..
December	69	..
January	43	..
February	..	..
March	13	..
April	13	..
May	5	..
June	26	..
Totals	257	..

DROUGHT-AREA CATTLE

Because of the long drought in the central and western parts of the United States, Congress authorized the purchase of cattle in this territory to be sent to areas where they could be pastured or to slaughtering houses for slaughter under federal inspection. The meat from slaughtered animals was to be canned and used for relief purposes.

The Federal Government requested permission to move western cattle into New Jersey for grazing purposes. This request was presented to the State Board of Agriculture for its consideration and action. In order to protect the cattle industry of the state, the board promulgated the following regulations:

> "By a ruling of the State Board of Agriculture, no cattle for grazing may be brought into the State of New Jersey unless protected against hemorrhagic septicemia.
>
> "All cattle for grazing brought into the State of New Jersey must be tuberculin tested either before shipment or at the unloading point before being put on pasture."

As result of this order, none of the animals were moved into the state for grazing purposes. There is no extra grazing land in New Jersey, and many of the farms upon which the cattle were to be grazed are not properly fenced for the pasturing of western range cattle.

Arrangements were made to move a certain percentage of the drought-stricken cattle to slaughtering points at Jersey City, Newark and Trenton. Some of the beef was canned in the state, but most of the animals slaughtered were shipped, under refrigeration, to Chicago or other western points for boning and canning.

Following is a summary of the carlots of drought-area cattle received at the yards indicated:

Jersey City Stock Yards	1,397
Union Central Stock Yards	159
N. Y. State Relief.....	16
Total	1,572

STALLION REGISTRATION

In accordance with the provisions of Chapter 212, Laws of 1908, every person offering for use any stallion or jack in New Jersey shall secure a license for such stallion and jack. Before this license can be issued, the animal must be examined to determine whether it is free from infectious, contagious, or transmissible diseases or unsoundness.

During the fiscal year, representatives of the bureau examined 24 stallions and one pony and license certificates were issued as follows:

STALLIONS LICENSED, YEAR ENDING JUNE 30, 1935—BY BREEDS

Breed	Number Licensed
Percheron (Purebred)	9
Belgian (Purebred)	2
Grade Drafts *	13
Pony (Grade—Breed not known)	1
Total	25

* Includes grade Percherons and Belgians.

STALLIONS LICENSED, BY COUNTIES, YEAR ENDING JUNE 30, 1935

Atlantic	..
Bergen	..
Burlington	6
Camden	1
Cape May	..
Cumberland	2
Essex	..
Gloucester	..
Hudson	..
Hunterdon	6
Mercer	1
Middlesex	..
Monmouth	1
Morris	..
Ocean	..
Passaic	..
Salem	4
Somerset	..
Sussex	..
Union	..
Warren	4
State	25

FORAGE POISONING

In July, 1934, the bureau received a call from the superintendent of the New Jersey Reformatory farm at Annandale, who reported that there was a sick horse on the farm and that the disease had been diagnosed by a private veterinarian as forage poisoning. A representative of the bureau called at the institution and found the horse down and, from the history he was able to obtain and the symptoms presented, the diagnosis was confirmed.

A second call was made at the premises of a farmer in Monmouth County who had lost a horse. Investigation revealed that the owner had turned the horse out on Saturday and it was found dead Monday morning. No diagnosis was made. Upon examining the food which the horse had been receiving, it was believed that it had died from acute indigestion and not forage poisoning or encephalomyelitis.

A third call was made at Three Bridges to see a horse that presented symptoms of forage poisoning. The horse had been taken sick the day previous to the call, and showed incoordination in movement, refusal of food, but no rise in temperature. While the food did not present evidence of contamination of any kind, a diagnosis of forage poisoning was made. The horse later recovered.

ANTHRAX

The annual vaccination of horses and cattle in the southern part of New Jersey to protect them against anthrax infection was carried out during April. Following is a summary of the vaccinations made during the fiscal year:

Number of Premises	Number of Horses Vaccinated	Number of Cattle Vaccinated
84	227	1,101

This work was done by bureau representatives at a cost of 22.17 cents per head, including the cost of the material used.

FOWL POX AND LARYNGOTRACHEITIS VACCINATION

Requests were received from poultrymen throughout the state for permits enabling them to vaccinate their personally owned flocks as a protection against fowl pox and laryngotracheitis. Following is a record of the permits issued during the calendar year 1934:

Fowl pox permits	658
Laryngotracheitis permits	81

POULTRY INSPECTION

The inspection of carlots of poultry arriving at railroad terminals in the state was continued throughout the year. The quality of the poultry shipped into the state has improved greatly, and very few cars contained birds that were condemned as being unfit for human consumption.

A summary of the poultry inspection work follows:

CARLOTS OF POULTRY FROM VARIOUS STATES RELEASED AT RAILROAD TERMINALS IN NEW JERSEY, JULY 1, 1934—JUNE 30, 1935

LACE OF ORIGIN	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	Total
bama	..	..	..	..	2	1	..	4	6	10	4	..	27
ansas	11	17	8	5	7	12	16	15	18	13	10	7	139
ıois	25	33	39	40	34	45	39	23	22	28	27	29	384
ana	21	26	33	37	47	45	28	14	13	15	8	14	301
a	4	10	8	6	3	1	..	..	..	..	1	2	35
rgia	..	..	..	..	..	..	..	1	..	1	..	1	3
ısas	..	..	..	2	5	4	7	5	3	2	..	..	28
tucky	..	..	..	2	7	11	12	13	18	24	11	2	100
nesota	..	1	..	..	..	..	..	..	..	..	..	..	1
sissippi	..	..	..	..	..	..	..	1	1	1	1	..	4
souri	27	34	25	18	24	25	24	19	17	19	18	14	264
raska	3	3	..	..	1	2	..	1	..	..	..	..	10
th Carolina	..	..	..	..	..	..	3	5	4	6	3	..	21
o	23	33	55	42	49	59	45	30	25	32	31	23	447
ahoma	..	..	..	..	1	1	..	..	..	..	..	..	2
th Carolina	..	..	..	..	..	..	3	10	13	6	1	..	33
th Dakota	5	8	7	4	5	5	6	4	4	..	..	..	48
nessee	2	1	..	1	38	19	26	45	59	96	116	41	444
ginia	..	..	..	..	23	6	..	1	..	1	1	..	32
Totals	121	166	175	157	246	236	209	191	203	254	232	133	2,323

NUMBER OF BIRDS CONDEMNED AND SLAUGHTERED AND THEIR APPROXIMATE WEIGHT, 1934-1935

Month	Number of Cars	Number of Birds	Approximate Weight In Pounds
July	..	..	..
August	1	33	99
September	..	..	..
October	10	1,027	3,278
November	3	320	1,092
December	3	214	1,061
January	1	56	184
February	1	33	109
March	..	..	..
April	..	..	..
May	..	..	..
June	..	..	..
Totals	19	1,683	5,823

CARLOTS OF POULTRY RELEASED AT THE VARIOUS RAILROAD TERMINALS IN NEW JERSEY, JULY 1, 1934—JUNE 30, 1935

Month	C. R. R. N. J. J. C.	C.R.R. Nrk.	D.L.&W. Boonton	D.L.&W. J. C.	D.L.&W. NDec.	Erie Jan.	Erie Feb.	Erie March	Pa. April	Pa. May	Pa. June	Total
.....	10	..	..	47	..	..	37	1	6	..	20	121
;ust	15	..	..	68	..	..	54	..	..	..	29	166
tember	12	6	..	48	1	..	53	..	12	12	31	175
ober	16	3	2*	36	..	1*	57	..	9	1	32	157
vember	61	1	6*	45	1	6	67	..	8	1	50	246
ember	28	19	4*	53	..	..	75	1	5	6	45	236
uary	39	17	..	51	..	1	58	..	6	10	27	209
ruary	44	16	..	48	..	..	54	..	6	8	15	191
rch	52	21	..	56	..	..	42	..	5	5	22	203
il	88	26	..	48	..	..	56	1	7	5	23	254
y	117	19	..	29	..	..	43	..	6	1	17	232
e	48	7	..	21	2	..	28	..	4	3	20	133
Totals	530	135	12*	550	4	8	624	3	74	52	331	2,323

* Carlots of geese.

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

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	Total
v Jersey	121	166	175	157	246	236	209	191	203	254	232	133	2,323
v York	389	561	614	634	530	586	525	328	317	320	282	284	5,370

PULLORUM DISEASE CONTROL

In cooperation with the Bureau of Markets, the Bureau of Animal Industry continued to blood-test chickens for the elimination of pullorum disease. Birds that the tests indicated were infected with the disease were slaughtered.

The short, plate, or field, test was used on all of the flocks tested. The tests on about 20 per cent of the birds were checked by the tube, or laboratory, test.

NUMBER OF FOWLS BLOOD-TESTED FOR PULLORUM DISEASE, NUMBER AND PERCENTAGE REACTING, FISCAL YEAR 1934-1935, BY COUNTIES

County	Number of Fowls Tested	Number of Fowls Reacting	Per Cent Reacting
Atlantic	416	...	...
Bergen	3,058	2	.065
Burlington	3,999	239	5.98
Camden	...	...	...
Cape May	...	...	...
Cumberland	5,172	150	2.9
Essex	1,672	2	.119
Gloucester	5,080	4	.078
Hudson	...	...	...
Hunterdon	6,973	38	.54
Mercer	9,583	305	3.18
Middlesex	160	1	.63
Monmouth	1,111	20	1.8
Morris	6,894	141	2.05
Ocean	...	...	...
Passaic	425	27	6.35
Salem	3,964	208	5.25
Somerset	4,006	88	2.2
Sussex	2,106	76	3.61
Union	...	...	...
Warren	594	1	.17
State	55,213	1,302	2.36

WORK DONE IN THE BUREAU LABORATORY

In addition to the making of agglutination blood tests for Bang's 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	168
Number of positive tests	35
Number of negative tests	124
Number of slightly suspicious tests	9

TESTING OF BLOOD SAMPLES FOR PRESENCE OF PULLORUM DISEASE IN POULTRY

Number of tests set up and read	1,304*
Number of tests positive	585
Number of tests negative	719

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

MICROSCOPIC EXAMINATIONS

Animal	Material	Condition Suspected	Finding
Bovine	Ear and blood	Anthrax	Negative
Bovine	Lymph glands	Tuberculosis	Positive

POST-MORTEM EXAMINATIONS

Animal	Number	Condition Suspected	Finding
Chicken	1	Parasitism	Coccidiosis and leukemia
Chicken	10	Pullorum disease	S. pullorum positive
Chicken	9	Pullorum disease	S. pullorum negative
Chicken	2	Unknown	Infectious leukemia
Cat	2	Unknown	Infectious enteritis
Pigeon	1	Unknown	Pigeon pox

Report of the Bureau of Markets

WARREN W. OLEY, *Chief*

INTRODUCTION

During the 1934-35 fiscal year, the Bureau of Markets tried to meet conditions as they developed. It greatly expanded certain helpful lines of work and temporarily laid aside some plans that undoubtedly have their place but were not a primary need. An indication of the popularity of the bureau's endeavors was the greatly increased demands for help from citizens of the state. The bureau is short-handed, both in field men and in clerical help, and this has meant long hours for both, but with the satisfaction of rendering service that has been appreciated, the employees have willingly done all that they could.

Six conferences of the bureau's project leaders were held during the winter and spring months. Each one was devoted to a review and analysis of a project, with the purpose of correlating the work with departmental policies and developing the project along lines of greater service to the state.

Some states have recently passed strict grading laws which have a tendency to restrict the flow of food products in interstate trade. Many produce men seem to believe that all marketing difficulties would be solved if only well-graded, high quality produce were permitted to come on their markets. In the opinion of the Bureau of Markets, this would be uneconomic, for we have with us, and always will have, a class of people who have to purchase fruits and vegetables of lower quality. In New Jersey, the bureau has tried to meet this situation. It has encouraged better grading and packing of all agricultural products in order to meet competition for better prices, but it has not hindered the sale of produce of lower quality. The nearness to our markets has permitted our farmers to sell lower grade produce with some profit. The bureau's grading work in all lines is based on sound economics and consumer demand.

The 1934-35 fiscal year was a period of increasing unrest among the farmers of New Jersey. Grave questions have arisen concerning the practicability of the federal government's agricultural policy. It is unfortunately true that that policy has not been directly advantageous to many New Jersey farmers. Federal loans, especially crop production loans, have greatly increased the production of many crops in other states so that New Jersey farmers have had to meet competition of a ruinous character. Crop

reduction programs among those commodities classed under the Agricultural Adjustment Act as "basic" have encouraged the increasing of the acreage of crops that are not classed as "basic" and are grown by eastern farmers. Although this is not recognized as permissible by the Agricultural Adjustment Administration and is even denied in some instances, evidence is constantly presented that shows it to be all too true. In general, New Jersey farmers have not been benefited by the A. A. A. They have received lower prices and paid higher costs of production as a result of national recovery codes.

Secretary of Agriculture Henry A. Wallace has sounded a call for unified action over the United States. He stated that we are in a period of confusion and urges that such unified action as would benefit agriculture in general be taken. Unfortunately, such unified action is generally a leveling process and we in New Jersey, because of our geographical position, would be forced to give up certain of our natural advantages for the benefit of those more distantly located.

All classes of New Jersey farmers have not fared alike. There is no question but that governmental aid within the state has been beneficial to agriculture. The Milk Control Board has helped dairymen greatly in the marketing of milk. The enforcement of the State Fresh Egg Law has substantially facilitated the marketing of New Jersey eggs.

Detailed reports on the bureau's projects follow.

CROPS AND MARKETS INFORMATION SERVICE

At the close of the fiscal year, June 30, 1935, the market news project of the Bureau of Markets was 15 years old. The service was established in 1919 and was one of the original divisions of marketing work in the bureau. During the 15 years that it has been in operation, various changes in the type of service rendered have been made. In the early years of the work most ideas and thoughts revolved around the collection and publication of daily price figures. Practically no attempts were made to interpret causes and effects of changes in prices or variations in the volume of commodities moving to various markets.

Concentration of effort on daily information continued until 1927, when a general reorganization of the project was made. It was felt then that the time had come when the service would be most valuable to the farmers of the state if information on conditions in competing areas were included in the reports. Proof that this belief was true is shown in the increasing number of growers making use of the service and the general satisfaction that they have expressed over the receipt of information on conditions in sections that compete with New Jersey in marketing crops.

As now set up, the crops and markets information service has two general objectives: first, to supply the farmers of the state with timely,

unbiased, and accurate information on current supplies, prevailing demand, and existing prices at leading markets; second, to furnish growers of farm products with economic information concerning conditions in New Jersey and competing areas.

During the 1934-35 fiscal year the objectives of the project were kept in mind and such changes in procedure were made as became necessary by varying economic conditions. The work was again carried on with all possible economies. No new services were started that would have entailed any additional expenses. Curtailments of services previously rendered were continued during the year.

Market news work has passed through the experimental stage and changes in the service from year to year are necessarily fewer than in the early years of the work. Some minor changes in the work were made during the year and proof that these changes were popular is shown in the increase in the number of names on the market news mailing lists. The lists were expanded to take care of requests for market information, and these requests were made without any solicitation on the part of the bureau.

One outstanding feature of the work during the year was the change and improvement in the set-up of the "Weekly Market Review." The publication of a mimeographed circular, "Marketing Apples, New Jersey and Competing States," which is a companion piece to the department's Circular No. 239, "Truck Crops in New Jersey and Competing Areas," received very favorable comment.

DAILY MARKET NEWS SERVICE

Cooperative agreements between the Bureau of Markets and the Bureau of Agricultural Economics of the United States Department of Agriculture were continued during the fiscal year for the collection of daily market information on New Jersey farm products. This policy has been in effect for several years and is believed to be the most economical and efficient method of obtaining daily market reports. The present plan of obtaining daily market information requires that a cooperative employee of the department be stationed at New York and Philadelphia for the purpose of collecting and disseminating New Jersey information.

The distribution of daily market information was again carried on entirely through the daily newspapers of the state. This was done in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture and one of the leading press agencies. This method of distribution is the most economical possible. By means of this service, the bureau is able to reach the greatest number of growers at practically no expense to the state. The cooperative employee at New York prepares a special early morning report, which is released to the press agency and is available to growers in various parts of the state late

the same afternoon. Approximately 35 daily newspapers are now making use of this service. Several large metropolitan dailies in New York and Philadelphia also print this information.

During the year, one addition was made to the radio broadcasting procedure followed in disseminating market news. This entailed a cooperative arrangement with nearby states and the Federal Department of Agriculture for broadcasting market reports over a Philadelphia station at 12:45 P. M. each day. This service is of particular value to the farmers of the southern part of New Jersey, who use the Philadelphia market as the main outlet for their products. Other broadcasts of market news continued as in the past, with a condensed report being issued from the New York office. Reports on the Trenton and Atlantic City markets were broadcast over local stations in those cities.

WEEKLY MARKET SUMMARIES

Under the present organization of the crops and markets information service, the issuance of weekly summaries of prices and market conditions constitute the most important part of the work. It is this branch of the project that attains the second of the two general objectives of the service. The first of the market summaries is known as "Market Conditions." These reports go a step further than ordinary market reports. In them an attempt is made to interpret some of the causes of price declines or advances, to give reasons for low prices at certain periods of the year, to point out variations in volume from that of previous years, and to give other information of a similar nature. Only one crop is covered by a report, and as much information as possible of an economic nature concerning that crop is included.

A total of 202 "Market Conditions" reports were issued during the year. This was an increase of 17 over the number issued during the previous year. The reports included: 39 on apples, 34 on sweet potatoes, 30 on white potatoes, 14 on lettuce, 13 on asparagus, 13 on spinach, 10 on onions, 10 on strawberries, 9 on tomatoes, 3 on peaches and 27 on miscellaneous truck crops. The reports on miscellaneous truck crops contained information on snap beans, lima beans, peppers, cabbage, root crops, celery, cauliflower, and other important truck crops of the state. As in previous years, a considerable number of visits to important areas was necessary to secure correct and timely information for these reports. It was also necessary to carry on correspondence with officials and growers in competing areas. Information concerning conditions in other producing areas was secured from members of the produce trade at leading markets, state officials in other states, county agents, shippers, and growers in competing districts.

The "Weekly Market Review," the second of the weekly market summaries, was issued regularly throughout the year. During the first half of the year no changes from the procedure followed in previous years were made. However, on January 1, 1935, the entire set-up of the "Review" was revised. The material contained in the report was enlarged to include a summary of conditions of the week in agriculture and other industries that might affect the average producer, a brief summary of dairy markets, and a statistical comparison of prices of leading agricultural products offered for sale at nearby markets. The base for grain prices was changed to Philadelphia, with freight differentials added as footnotes for those growers wishing to know the price delivered at their local stations. The material on eggs and poultry was rearranged in order to make the report read more logically and to group food and poultry material on the same sheet. Through the courtesy of the Milk Control Board, a monthly summary of prices for New Jersey milk was included in the dairy section. During the other weeks of the month the dairy section is comprised of a summary of conditions in eastern markets, including the condition of the New York and Philadelphia fluid milk markets as well as the situation in the butter markets of the country. Because of the heavy importation of butter during the winter months that particular item was watched carefully.

SPECIAL SERVICES

HIGHTSTOWN POTATO INFORMATION OFFICE

Potatoes are one of New Jersey's leading farm crops. The farm value averaged $7,524,000 annually during the ten-year period 1924-33. Because of the relative importance of the potato industry, the New Jersey Department of Agriculture has operated a potato market news station at Hightstown each year for the past seven years in order to aid growers and dealers in disposing of their crop in the most advantageous manner. The office has for its general purpose the collection and dissemination of daily shipment figures, data on primary destinations and prices, and other information of a similar nature. This information is of value to the growers throughout the large potato-growing area in the central section of the state. It is also of value to the dealers or shippers of potatoes in this area, and the service of the Hightstown office has been extended to growers and dealers in other sections whenever possible.

In 1934 the office was opened on July 19, and was operated for a period of approximately eight weeks, closing on September 16. The services rendered were much the same as in 1933, when the bulk of the crop was marketed through a cooperative organization known as the "Potato Sales Company." This organization was again active during the 1934 deal and proved to be the same price-stabilizing factor as in 1933. The Hights-

town office was primarily concerned with figures on shipments and destinations, as well as prices at city markets. Many special services were rendered to the Potato Sales Company in the way of informing growers of allotments, the dates of digging, and other developments in the deal. Spendid cooperation was again received from both growers and dealers in the maintenance of the service.

As in previous years, the man in charge of the office spent the first week in field work. Contacts with the various growers and dealers in the territory were renewed by him, regardless of whether they were members of the cooperative organization or not. It is estimated that approximately 1,200 contacts were made by the office during the eight weeks of its operation.

AUCTION MARKET QUOTATIONS

During that part of the 1934 season that was included in the past fiscal year and during the first part of the 1935 season, the Bureau of Markets continued to furnish the various produce auctions in the state with an early-morning report of prices at the New York market. The service was limited to the important commodities sold over the various auction blocks. Many growers using the auctions as an outlet for their produce found these quotations of considerable value as a guide in ascertaining proper values for their products. Many dealers buying at the auctions also found them of value. The service was carried on during the year on the same basis as in the 1933-34 fiscal year.

The advantage of the early-morning report to the growers was that it allowed them to make decisions regarding picking, harvesting and packing at an early hour, in the light of conditions at the most important market, New York. It aided the various market managers by enabling them to solicit increased shipments of those commodities for which there was a demand and to bring about a decrease in the shipments of commodities for which there was no demand. The auction masters also found the material of benefit because they were able to answer questions regarding probable values from buyers who telephoned to or made wire inquiries of the market. Moreover, they were able to induce growers to patronize the various markets by showing them comparative values at the local shipping auction and New York City.

HAMMONTON BERRY MARKET

As in previous years, the Bureau of Markets, in cooperation with the Philadelphia office of the Bureau of Agricultural Economics of the United States Department of Agriculture furnished the berry growers of Hammonton and vicinity with daily prices of blackberries, raspberries and huckleberries throughout the active marketing season. Prices were obtained for Philadelphia, New York, Pittsburgh and Boston and were available at

Hammonton shortly after noon each day. These prices guided the growers in disposing of their crop at the market. They also served the shippers by showing them the condition of various markets and the ability of such points to take shipments from day to day.

Because of the almost complete failure of the peach crop in 1934, the special service previously rendered to the peach auction at Hammonton was not carried on during the fiscal year.

PUBLICATIONS

In addition to the mimeographed circular entitled "Marketing Apples, New Jersey and Competing States," which has already been mentioned, a mimeographed potato marketing report was published. This included a summary of the operation of the Hightstown potato information office and a detailed summary of the 1934 New Jersey potato deal. The report gives much information relative to shipments of potatoes from competing states, destinations of all carlot shipments from New Jersey, prices, and daily shipments from the central New Jersey potato district.

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 the program is the supervision of the production and distribution of milk under the New Jersey official grades, "New Jersey Grade A Raw" and "New Jersey Grade A Pasteurized," 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 that meets high standards of quality. Other activities include cooperation with the Milk Control Board, the New Jersey Dairymen's Council, the New Jersey Junior Breeders' Fund and other agencies, and the operation of a surplus milk exchange whereby milk listed as surplus is placed with dealers needing it and markets are found for producers with no outlets.

During the fiscal year, considerable improvement occurred in the conditions facing New Jersey dairymen. Although the industry and commerce of the state showed only slight improvement during the year, it would appear that the continued drop in the consumption of milk was arrested. This indicates that consumer purchases are due to increase. Stabilization of the dairy industry through the operations of the Milk Control Board during the past two years has permitted dairymen and dealers to recover some of the ground lost during the disastrous 1932-1933 period. Operating under a stabilized price structure and under energetically enforced regulations governing relations between dealers and producers, New Jersey dairymen have been able to better establish themselves and New Jersey milk in the markets of the state.

The continuation of improvement in the milk marketing situation in New Jersey depends on several developments that have become of increasing importance and may become serious enough to precipitate another crisis. Foremost is the tendency of producers to increase the total annual production of milk and the production at certain periods of the year. Such continued increases at a time when consumption is lagging may threaten the present stabilized price structure. Similar increases in adjacent states, followed by court rulings that apparently make more liberal the regulations governing interstate movement of milk, point to the need for caution on the part of New Jersey producers.

Recognizing the need for maintaining and increasing levels of milk consumption at a period when the supply is excessive and the incomes of many families are below normal, the consumer information service of the bureau was continued and given added emphasis during the year. The advantages of fresh milk and the fact that it is needed in the average diet cannot be overemphasized, especially at a time when very keen competition for the consumer's food dollar prevails. Although primarily a milk-marketing project, the division of consumer information is discussed separately in this report.

NEW JERSEY OFFICIAL GRADES

The New Jersey grades are "New Jersey Grade A Raw" and "New Jersey Grade A Pasteurized" and there are no subgrades.

Use of the New Jersey grades is elective. They are used by those dealers who choose to be under the supervision that they entail and to pay an inspection fee, which varies from 35 to 50 cents per thousand quarts produced. The fees are paid entirely by dealers and involve no expense to the producers of the graded milk. Producers' herds are examined thoroughly every six months by veterinarians approved by the Bureau of Animal Industry.

The supervisory inspections are all made on a corrective basis, and definite aid and suggestions are offered to producers and dealers to enable them to correct conditions found to be detracting from high quality standards. Bacteria counts, for instance, are not only reported numerically, but types of bacteria causing high counts are identified according to the factor or condition involved. Such reports serve as definite clues by which the condition that causes high counts can be readily traced and corrected.

Since the New Jersey Grade A regulations were promulgated in 1931, a number of state and local milk codes have been revised. In keeping with these changes, the New Jersey Grade A regulations were revised in April. A booklet giving the full requirements for the production of milk so supervised was published by the bureau.

Considerable impetus was given to the increase in the volume of milk sold daily under the New Jersey grades by a ruling of Civilian Conservation Corps authorities that only "New Jersey Grade A" milk be furnished to the C. C. C. camps in northern New Jersey. After July 1, 1934, at the camps in that area, only "New Jersey Grade A" milk was served. A similar ruling became effective for camps in the southern New Jersey area on February 1, 1935. The camps are situated in rural districts where little or no supervision of retail milk supplies exists and where little pasteurized milk is available, and the C. C. C. camp authorities recognized that the New Jersey grades offered the protection they were seeking for their camp supplies.

In addition to the sales volume acquired as a result of the C. C. C. ruling, general improvement and stabilization of the dairy industry made it possible during the year to interest more dealers in the New Jersey grades. Consequently, "New Jersey Grade A" milk, by the end of the year was being produced and also distributed in nearly every county of the state.

The daily volume of milk sold under the grades on June 30, 1935, was 53,328 quarts as compared to 30,070 quarts a year previously. This means that the volume increased approximately 61 per cent during the year. Although several small dealers withdrew from selling the grades, the year closed with a total of 50 dealers holding certificates to distribute milk under the New Jersey grades as compared to 35 a year previously.

The daily volume handled by individual dealers, as of June 30, 1935, varied from 150 quarts in the case of the smallest to 5,310 quarts in the case of the dealer handling the greatest volume. The average volume handled per dealer was 1,062.5 quarts daily. The average handled per day by each dealer was 856.2 quarts as of June 30, 1934, and 630 quarts as of June 30, 1933. These figures indicate that there is a trend toward more of the graded milk being sold per dealer. They also indicate an increasing interest in the grades on the part of larger dealers.

The number of producers under the New Jersey grades supervision increased from 125 on June 30, 1934, to 210 producers on June 30, 1935. Since these producers are located in nearly every county of the state, including Cape May and Sussex counties, a considerable increase in travel for field inspections was made necessary.

Each semi-annual veterinary examination of herds has involved an increasing number of cattle. The examinations made in May and June, 1935, covered the herds of 210 producers, which included a total of 5,545 cows, or about 26.4 cows per herd. A year previously, 3,238 cows were examined in 125 herds, which averaged 25.8 cows each. While the averages of the number of cows per herd are not directly comparable, the slight increase in the period of a year is indicative of a trend toward higher production levels in New Jersey. The veterinary examinations were made under the supervision of the Bureau of Animal Industry and a detailed report on them is included in the report of that bureau.

Of the 53,328 quarts produced daily under the New Jersey grades on June 30, 1935, 17,844 quarts, or 33.4 per cent, were distributed as "New Jersey Grade A Raw" milk. While this volume exceeded that sold raw a year previously, the percentage of the total volume sold as raw at that time was greater, being 51.6 per cent. The volume of pasteurized milk sold daily increased from 15,540 quarts on June 30, 1934, to 35,484 quarts on June 30, 1935. This latter volume amounted to 66.6 per cent of the total volume sold under the grades. The increase in the proportion of pasteurized milk sold under the grades is in keeping with the general trend exhibited by the public in its preference for pasteurized milk. Of the 50 dealers distributing under the New Jersey grades, 13 sell raw milk only, 26 sell pasteurized milk only, and 11 dealers distribute both raw and pasteurized milk.

Four hundred and nine individual employees of farms and bottling plants in the case of "New Jersey Grade A Raw," and of bottling plants only in the case of "New Jersey Grade A Pasteurized," were examined by physicians twice during the year. Each employee must be pronounced a safe individual to handle milk, and, when he is found to be so, a card of identification is furnished to that effect. Laboratory examinations of specimens submitted by physicians in connection with these physical examinations are made by the New Jersey Department of Health.

A total of 1,116 samples of milk were collected for examination during the year in order to determine the quality of the delivered product. Prompt reports and immediate investigation of high counts served as means of maintaining quality standards.

A compilation of the butterfat content of the officially graded milk, as reported in the analyses of the 1,116 samples collected, indicates a continuation during the year of a relatively high butterfat content. All of the milk sold under the New Jersey grades averaged 4.08 per cent of butterfat. This figure was computed from weighted averages. The weighted-average butterfat content was 4.11 per cent during the previous year, 3.92 per cent during the 1932-33 fiscal year, and 3.74 per cent during the 1931-32 fiscal year. As the butterfat content is largely determined by competition, it would appear that the butterfat content has been stabilized at a figure slightly over 4 per cent.

"New Jersey Grade A" milk, by the end of the year, was being distributed by 50 dealers and 142 subdealers in 187 municipalities in the state.

The "New Jersey Grade A" project is self-supporting to a considerable degree. The income to the bureau from fees averaged $22.77 per day as of June 30, 1935.

In order to foster sales promotional efforts on the part of dealers distributing "New Jersey Grade A" milk, the bureau continued to cooperate with the New Jersey Official Grade A Milk Dealers' Association, whose membership includes dealers operating under the grades. Eleven monthly

meetings were held by the association during the year and a school, attended by 78 route salesmen, was conducted at Bernardsville in cooperation with the New Jersey College of Agriculture. Four copies of the film, "The Story of Better Milk," were continued in circulation and more than 44,000 leaflets on the New Jersey grades were distributed by the dealers at their expense.

The New Jersey grades program has demonstrated its soundness as a means of marketing high quality New Jersey milk. The project has been conducted on a commercial marketing basis. The nearly five-fold growth during the past four years of the volume of milk sold under the grades is testimony to the soundness of the program as a means of serving conscientious producers and dealers as well as discriminating consumers.

COMPARISONS SHOWING GROWTH IN THE "NEW JERSEY GRADE A" MILK PROJECT

	August 1, 1931	July 1, 1932	July 1, 1933	July 1, 1934	July 1, 1935
Dealers	12	30	37	35	50
Farms producing	38	102	121	125	210
Total cows	1,064	2,739	3,203	3,238	5,545
Cows per herd	28	27	26	26	27
Average quarts daily	11,729	24,709	23,300	30,070	53,328
Fee income daily	$5.85	$12.35	$11.65	$15.03	$22.77
Subdealers	...	56	73	89	142
Municipalities where sold	...	128	146	164	187

NEW JERSEY DAIRYMEN'S COUNCIL

The bureau continued to cooperate with the New Jersey Dairymen's Council, and one of the staff members again served as secretary of the council during the year. Although the general dairy situation was much more stable during the year than previously, the council found it necessary to meet at least once a month, in order to follow important federal and state legislation affecting the New Jersey dairy industry.

SCHOOL MILK SURVEY

To ascertain the actual consumption of fresh milk in the schools of the state, a survey was started in March, 1934, and completed in October of the same year. Replies were received from 51 per cent of the 2,231 schools in the state. In the schools which reported, there were 522,983 pupils enrolled, or 64 per cent of the total public school enrollment of the state. A review of the data reveals that a surprisingly small quantity of milk was being distributed in the schools. In the schools where milk was served, which totaled about 63.6 per cent of the number of schools replying, there were 418,013 pupils enrolled. The average consumption per day per pupil in schools where milk was served was 0.08338 half-pints on March 1, 1933, as compared to 0.08333 half-pints on March 1, 1934. The latter date fol-

lowed the establishment of prices by the Milk Control Board, but apparently the rulings of that agency had no significant effect upon the consumption in schools.

The average daily consumption per pupil of but 0.08333 half-pints per pupil raises the question as to means of increasing the use of milk in public schools. According to the survey, 48 pupils in New Jersey's public schools where milk is now served are each day sharing each quart of milk served. Information obtained in the survey points very definitely to severe curtailment of funds, both of public and private sources, with which milk is provided. No other beverage or food enjoys the entrance and sponsorship afforded milk in the schools, and it would appear that the dairy interests, both producers and distributors, cannot afford to overlook this opportunity to better establish the milk habit among school children. In compiling the returns of the survey, the bureau received valuable aid from the Bureau of Plant Industry.

SPECIAL SERVICES

The bureau continued its efforts to obtain markets for producers seeking them, and to help dealers obtain permanent or seasonal supplies. The bureau cooperated with the Milk Control Board and rendered considerable assistance to the New Jersey Junior Breeders' Fund, principally in collecting delinquent loans and interest.

ACTIVITIES, BY COUNTIES, IN THE DAIRY PRODUCTS MARKETING PROJECT, 1934-35 FISCAL YEAR

County	Dairy Farm Inspections	Milk Plant Inspections	Samples Collected	Milk Plant Visits	Dairy Farm Visits	Other Farm Visits
Atlantic	..	1	6	3	1	..
Bergen	..	..	5	2	..	..
Burlington	23	8	51	16	31	4
Camden	..	..	..	5	11	..
Cape May	2	1	6	..	..	..
Cumberland	5	1	6	2	14	3
Essex	26	17	74	30	48	7
Gloucester	..	..	..	..	10	5
Hunterdon	96	9	51	64	168	9
Mercer	23	8	31	27	46	9
Middlesex	8	2	22	24	33	13
Monmouth	3	1	9	5	11	..
Morris	350	75	424	136	289	6
Ocean	3	..	..	..	1	..
Passaic	..	..	6	11	10	4
Salem	13	..	..	..	16	3
Somerset	183	48	290	80	127	8
Sussex	7	5	37	4	10	4
Union	16	13	55	12	15	3
Warren	78	11	43	11	60	9
Totals	836	200	1,116	432	901	87

CONSUMER INFORMATION SERVICE

The objectives of the consumer information service are to promote the use of all New Jersey agricultural products, including milk and other dairy products, and to give consumers helpful information on the purchase of their food supply. Various media are used by the division in its dissemination of information, among them being newspapers, the radio, folders, booklets, and public talks.

Although the 1934-35 fiscal year witnessed considerable improvement in the New Jersey dairy situation, the continued high volume of milk production presents an urgent need for maintaining and increasing consumption levels. At the same time, such efforts are confronted with low consumer buying capacity. This situation emphasizes the need of cultivating and maintaining consumer interest in milk and dairy products.

In the case of milk, eggs, fruits, and vegetables, keen competition for the consumer's dollar makes necessary, now more than ever before, some very definite efforts to gain a share for New Jersey producers. Improved transportation and refrigeration have intensified competition and are overcoming advantages formerly enjoyed by nearby producers. Marketing services must be comprehensive enough to ultimately reach the consumer. The consuming population of New Jersey contributes very substantially to the state's revenue, and so can and will look to the Bureau of Markets for definite consumer services. Facing a serious emergency and depression since 1932, both the producer and consumer groups are seeking aid, a situation which the Department of Agriculture has recognized as urgent.

To that end the program of the division of consumer information was continued and expanded during the year to the limit permitted by available funds and personnel. In this project, the possibilities for service are almost unlimited. The continuation of the cooperation of the Milk Research Council, Inc., of New York City, made possible the issuance, during the year, of printed clip sheets and sets of mats for newspapers.

Without placing undue emphasis on milk, the entire program is devoted to, directly or indirectly, promoting the use of fresh milk and dairy products. These products are discussed either separately or in combination with other products, such as New Jersey eggs, fruits, vegetables, sea food, or canned goods. A continuous effort is made to present the material in the form of helpful information that will not only engage the housewife's interest in New Jersey products, but will aid her in making her selections and purchases.

NEWSPAPER RELEASES

The consumer information program has gained recognition on the part of the press and a similar service is contemplated in several other states. The increasing number of papers using the mats regularly and the

extension of the circulation of the service's newspaper releases outside of the state indicate that the press is one of the most effective media for the dissemination of information to consumers. During the past year an average of 177 papers made use of the mats offered with each issue of the clip sheet. In addition, 267 publications, syndicates, and individuals received the clip sheet regularly. Each of the clip sheets contained six articles dated for weekly release.

The total circulation of each feature of the clip sheets, based on collected clippings of published articles, was about 4,000,000 during the latter part of the year. It is significant that this circulation was gained and held in direct competition with a very large volume of reading column "handouts" submitted by commercial interests that were also purchasing advertising space. Furthermore, newspaper incomes have been relatively low and there has been a tendency to reduce the number of pages and the feature space.

During the year, a small weekly feature was prepared with the clip-sheet articles under the heading, "Food Facts." This feature contains odds and ends of facts about food, which number from four to six each week and include at least one item on milk. These "Food Facts" were well received.

While intensive coverage of the New York metropolitan market is the main objective of the clip-sheet service, clippings of the articles show that, during the past two years, they have been used in newspapers in nearly every state in the Union. In terms of direct response, such as mail inquiries, the press offers the most effective means of reaching the public.

LEAFLETS

During the year no funds were available for new editions of leaflets, with the exception of the leaflet issued as a supplement to the division's store-poster service. About 182,400 leaflets of previous editions were distributed. These leaflets were about New Jersey agricultural products.

RADIO

During the year, 13 radio talks were given on New Jersey products and consumer marketing problems. These broadcasts were given over Station WOR, and most of them were scheduled in the weekly program of the New Jersey Federation of Women's Clubs. This program is well established and has continuity.

RETAIL STORE POSTERS

In recognition of the fact that retail grocery stores present a desirable channel for the distribution of consumer literature, a plan was presented in May, 1935, to chain store executives and to officials of the independent grocery groups, according to which the stores would cooperate in the consumer information program.

The plan provides for a series of monthly food bulletins to serve as store posters and calls the attention of customers to timely information on seasonable New Jersey products. The plan also calls for the furnishing of counter hand-out leaflets for each store. The plan was inaugurated for the month of June, 1935, and was well received. The June poster was devoted to cream and some points to observe in whipping cream. The leaflet contained specific instructions on whipping cream. More than 9,500 stores posted the bulletins and distributed 669,350 of the counter leaflets. The response and cooperation of the stores proved excellent.

SUMMARY

Although increased consumption of milk and dairy products has been the primary motive of the consumer information program, overemphasis on any one commodity has been purposely avoided. In order to cultivate and sustain consumer interest in milk and dairy products, a background of all of the principal New Jersey commodities has been used, including fresh and canned fruits and vegetables, potatoes, eggs and poultry meat.

FRUIT AND VEGETABLE MARKETING

In its fruit and vegetable marketing activities, the Bureau of Markets endeavors to render assistance to growers, distributors, processors and consumers. Chief among the lines of work of the project are:

1. *Studies of city markets.*—The bureau studies established city markets in order to recognize proven methods of better and more profitable distribution. The results of such studies are used when market needs are analyzed and when new markets or reorganized markets are developed.

2. *Shipping-point markets.*—In order to make shipping-point markets most effective, the bureau obtains such information as is needed on potential supplies and methods of distribution. It also develops a clientele of buyers, gives advice on methods of operation, needed equipment, and management.

3. *Standardization.*—Standardization involves the promulgation of official grades and standards in New Jersey, and the certification of quality on the basis of these grades at auction markets and other shipping points, canneries, and the plants of processors of farm products. The grades increase the demand for New Jersey products on "outside" markets and facilitate f. o. b. sales. They are the basis of all large-scale trading in fruits and vegetables and also the basis for adjustments when difficulties arise.

4. *Consumer Education.*—The bureau's chief means of disseminating information to consumers is through the division of consumer information, already referred to under its own heading. However, in addition, separate news releases, talks and demonstrations are used for this purpose.

5. *Cooperative associations.*—The bureau helps groups of producers organize into associations for collective action. Such organizations are incorporated under the provisions of Chapter 12, Laws of 1924, and are empowered to carry out lines of work in collective buying and selling, and to encourage educational work. Such associations are an important factor in the marketing of agricultural products in the state.

CITY COOPERATIVE MARKETS

PATERSON MARKET

During the year the Paterson Farmers' Market operated most successfully. It filled the need of those farmers who in 1933 were forced to establish a market so that they could sell their crops economically. The market association now operates farmers' covered markets with accommodations for 200 farmers, and also owns 40 stores and leases them to dealers. The association has plans for the erection of additional buildings.

NEWARK MARKET

The association of farmers owning the Newark Farmers' Market has completed its fourth successful season. The bureau has cooperated closely with the directors of the market and helped them solve several problems that arose. The market's annual statement at the close of the calendar year 1934 showed that the market was in a stronger financial condition than previously. Assets were $444,825.43. Liabilities included a reserve for depreciation of $35,391.60. The total of capital stock issued was $169,675, and there was a surplus of $126,748.24.

MUNICIPAL MARKETS

The market masters at Atlantic City and Trenton again cooperated closely with the bureau in matters pertaining to management, policy, and improvements. A summary of the year's activities on these markets is found in the following table:

MUNICIPAL MARKETS

July 1, 1934—June 30, 1935

Market	Bushels or Packages of Produce	Dozens of Eggs	Pounds of Poultry	Pounds of Pork	Value of Sales
Atlantic City	305,197	154,891	58,074	1,400	$335,765.13
Trenton	314,275	56,230	170,700	....	373,066.00
Totals	619,472	211,121	228,774	1,400	$708,831.13

SHIPPING-POINT MARKETS

Nine shipping-point auction markets continued to serve their members during the past year. All of these markets have completed at least two years of selling. Some of them have added the purchasing of supplies for their members to their services. Toward the end of the year, plans for a new market at Cologne, in Atlantic County, were completed.

The auction markets have been aided greatly by the bureau's chief inspector in fruit and vegetable marketing. He has regularly attended directors' meetings, drawn plans for market improvements, and instituted new methods of checking buyers, encouraging growers, and generally assisting the management. In the spring of 1935 inspectors supervised by the bureau were employed at five of these markets. These men, in addition to making grades inspections, do much to develop the reputation of the markets for selling quality packs. A different type of inspection is in operation at the Cedarville market. At the request of buyers and auction market officials, the bureau again continued the inspection service at that market. This type of inspection was initiated at the beginning of the 1933 season and consists of line and check inspections of onions and strawberries, whereby all loads of these two commodities are inspected and graded before they are sold. The loads are reinspected at time of delivery to the car, truck, or platform in order that the grade may be checked by the examination in previously inaccessible packages. On all commodities besides onions and strawberries, the loads are inspected, after they are sold, when they are unloaded at the car, truck or platform, and a comparison is made between the samples and the load to ascertain that the pack is reasonably uniform and the produce of good quality. The inspection service was paid for by the buyer and the association.

Upon request, federal-state grades certificates were issued to shippers on car and truck lots at no additional cost. These certificates proved a great help to buyers and shippers in making f. o. b. sales and in eliminating complaints, rejections, and adjustments at terminal markets, and they resulted in a greater movement of New Jersey produce to distant markets. Through the bureau's inspection service, both the quality and pack of produce sold at the market made a noticeable improvement. This had a beneficial effect in general, as buyers can obtain greater distribution of high quality produce, thereby stabilizing the price to the farmer. Data on the volume of products inspected at the Cedarville Auction Market are as follows:

Product	Season of 1934	Season of 1935 Until June 30
Strawberries, crates	29,717	31,960
Peas, bushels	13,477	22,642
Squash, bushels	2,749	354*
Beans, bushels	151,617	29,482*
Onions, 50-lb. sacks	72,344	2,918*
Lima beans, bushels	58,612	*
Peppers, bushels	23,285	*
Lettuce, crates	2,644	994*
Romaine, crates	530	83*

* Not ready for harvest or harvest not completed at end of fiscal year, June 30, 1935.

The bureau continued a study of auction market prices for onions which was started in 1933. In this study the average daily price of onions of U. S. No. 1 quality and the average daily price of onions not meeting the requirements of U. S. No. 1 were compared. The results showed that the auction market price of onions of U. S. No. 1 quality was $1.087 and the price for stock not meeting U. S. No. 1 requirements was $1.008. The difference was eight cents per 50-pound sack in favor of grading according to U. S. No. 1 requirements. It amounts to approximately $40 a car. Practically all the loads that were not of U. S. No. 1 quality would have met the requirements of the grade by the removal of from 2 to 8 per cent of the onions. Many growers felt that with a normal crop of onions the spread of eight cents more than justifies the expense of proper grading and handling.

The bureau was called upon to provide inspection service at the Glassboro and Swedesboro markets during the 1934 season. An inspector was used to check loads for honest packing and was looked upon as the authority in adjusting differences between producers and buyers. The educational work done in conjunction with the inspection duties at all the markets receiving the inspection service had a beneficial influence on improving quality and pack.

At the beginning of the 1935 shipping season, the department received requests for inspection service on the Tri-County, Beverly, Glassboro, Swedesboro and Hammonton markets. By the end of the fiscal year, inspectors had been placed on the Tri-County and Hammonton markets, and plans had been made to place inspectors on the other markets when the supply of produce should become great enough to justify the expense.

The accompanying table shows the volume of sales at the nine auction markets operated in 1934. The figures cover the complete 1934 season but not the spring of 1935. The last two columns show the 1933 figures for the same markets.

SUMMARY OF SALES AT FRUIT AND VEGETABLE AUCTION MARKETS

Market	Season of 1934		Season of 1933	
	Number of Packages Sold	Value of Sales	Number of Packages Sold	Value of Sales
Cedarville	373,501	$427,418.17	383,726	$390,917.40
Vineland	262,130	129,655.34	178,188	88,355.13
Rosenhayn	53,667	86,485.61	58,596	60,640.24
Landisville	377,579	256,232.05	315,736	117,666.64
Glassboro	473,318	193,468.20	424,883	173,597.08
Swedesboro	90,131	47,004.33	128,853	59,346.93
Hightstown	515,512	236,686.11	337,992	183,621.01
Beverly	155,671	93,030.14	173,852	87,891.00
Hammonton	23,329	87,817.09	62,229	81,039.26
Totals	2,324,838	$1,557,797.04	2,064,055	$1,243,074.69

The business conducted on each of the auction markets is reported to the bureau on a daily basis by the markets. The figures are analyzed and the facts that are determined are used for the benefit of the markets. Some markets develop a reputation for having large volumes of certain commodities. This is an inducement to buyers specializing in certain commodities to buy on the particular markets where they are available in quantity. No other market in the United States can supply the volume of lima beans obtainable at Cedarville. Several carloads or thousands of bushels of onions, green beans, tomatoes, and other commodities are available daily at certain markets in season. This information is made available to the trade and brings buyers from distant points into New Jersey. For several years the bureau has made comparisons of sales at the auction markets and sales in New York City. Such comparisons are shown in the following tables. The tables show, not only the advantages in price to the farmer selling at a shipping point auction, but also the volume of certain commodities sold on these markets.

SUMMARY OF SALES OF FIVE PRINCIPAL CROPS AT CEDARVILLE AUCTION MARKET

Season of 1934

roduct	No. of Packages	Value at Cedarville	Selling Charges at Cedarville	Net Value at Cedarville	Gross Value at New York	Selling Charges: Commission 10 Per Cent	Selling Charges: Transportation	Net Value at New York	Margin at Auction
awberries	31,080	$80,243.14	$621.60	$79,621.54	$73,616.80	$7,361.68	$7,770.00	$58,485.12	$21,136.42
ppers	25,023	11,965.00	270.59	11,694.41	14,137.71	1,413.77	3,753.45	8,970.49	2,723.92
ions	70,246	75,836.77	1,319.06	74,517.71	78,798.65	7,879.87	10,536.90	60,381.88	14,135.83
ans, snap	167,783	123,084.38	2,037.85	121,046.53	120,313.55	12,031.36	25,167.45	83,114.74	37,931.79
ans, lima	57,852	117,515.41	1,112.27	116,403.34	130,295.04	13,029.50	8,677.80	108,587.74	7,815.60
Totals	351,984	$408,644.70	$5,361.37	$403,283.53	$417,161.75	$41,716.18	$55,905.60	$319,539.97	$83,743.56

The gross sales of all commodities at the Cedarville market totaled 373,501 packages, which sold for $427,418.17.

SUMMARY OF SALES OF SIX PRINCIPAL CROPS AT HIGHTSTOWN AUCTION MARKET

(Tri-County Cooperative Auction Market Association, Inc.)
Season of 1934

roduct	No. of Packages	Value at Hightstown	Selling Charges at Hightstown	Net Value at Hightstown	Gross Value at New York	Selling Charges: Commission 10 Per Cent	Selling Charges: Transportation	Net Value at New York	Margin at Auction
awberries	6,695	$15,653.01	$423.67	$15,229.34	$17,579.46	$1,757.95	$1,004.25	$14,817.26	$412.09
natoes	92,454	26,388.83	1,438.63	24,950.20	28,431.43	2,843.14	9,245.40	16,342.93	8,607.27
atoes	71,071	58,233.92	2,132.13	56,101.79	64,590.99	6,459.10	7,107.10	51,024.79	5,077.00
ples	28,770	30,460.66	1,246.71	29,213.95	34,215.75	3,421.58	2,877.00	27,917.17	1,296.78
eet corn	43,668	20,588.08	993.33	19,594.75	26,280.58	2,628.06	4,366.80	19,375.72	219.03
ans, snap	36,704	18,863.99	854.57	18,009.42	26,323.59	2,632.36	3,670.40	20,020.83	2,011.41
Totals	279,362	$170,188.49	$7,089.04	$163,099.45	$197,421.80	$19,742.19	$28,270.95	$149,498.70	$13,600.76

The gross sales of all commodities at the Tri-County market totaled 515,512 packages, which sold for $236,686.11.

The following table continues the information given in previous annual reports on the growth of the auction market system in New Jersey:

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
Totals	7,605,102	$6,124,850.14

STANDARDIZATION

Standards and grades for fruits and vegetables important in New Jersey were promulgated by the Department of Agriculture in 1930. In the five years since that time many changes in federal grades have been found desirable, and, therefore, in the spring of 1935 the state grades were rewritten and made more practical. The new grades, which in almost all cases conform to United States grades, were promulgated by the department and now form the requirements for all the bureau's standardization work in fruits and vegetables. They were printed in a handbook in May.

GRADING CANNERY TOMATOES

The purpose of contracting for tomatoes for canning on a grade basis is to improve production and handling methods. This results in the delivery of stock of higher quality. The grower who delivers high quality stock should be paid a premium, as such stock makes possible a high quality manufactured product, which can be canned with a minimum of loss and at a low cost. The practice of paying a flat price for all stock accepted by the canner discriminates against the good grower and pays a premium to the grower who delivers poor stock. This often results in the delivery of stock that will just "get by" and results in a high percentage of waste and a low-grade manufactured product. The use of recognized standard grades often eliminates misunderstandings between the canner and the grower, as the grower has a definite basis upon which to determine whether or not he is meeting the requirements of his contract. The various interpretations of the phrase "good, firm, sound, red ripe tomatoes" are eliminated, and the factors of seasonal conditions and varying prices do not enter into the fulfillment of an individual contract. The grading of a grower's stock by a person who is neutral has a tendency to eliminate the feeling that the

grower sometimes has, that the canner accepts or rejects his stock because "tomatoes are cheap" or that "the cannery has his pack for the season."

In New Jersey, the inspection of cannery tomatoes is done by the Bureau of Markets of the State Department of Agriculture with the cooperation of the Bureau of Agricultural Economics of the Federal Department of Agriculture. Inspectors who are trained and licensed by the United States Department of Agriculture and who work under the direction of the bureau supervisor, select representative samples from each load and classify the tomatoes in those samples as "U. S. No. 1," "U. S. No. 2" and "Culls." The tomatoes in each grade are weighed and the quality of the load is expressed in percentages of each grade. Should the grower or canner feel that the grade of any particular load is not a representative one, the interested parties may secure a regrading or reinspection, which is done by the inspector in charge of the work at the particular cannery involved or by the state supervisor.

The use of grades for tomatoes in New Jersey was first tried in 1929 at Bridgeton and was continued for two more years. The tomatoes, however, were paid for on a straight price basis, rather than on the basis of grades. In 1932, four canners in the state contracted on a price differential basis, using the United States grades as a basis of quality determination. During the 1934 season, these four canners and two additional ones who had formerly bought on a flat-rate basis, contracted on the quality differential basis. Approximately 65 per cent of the total tonnage of cannery tomatoes produced in the state was inspected during the season. The quantities inspected in New Jersey in recent years were as follows:

1930 (Tons)	1931 (Tons)	1932 (Tons)	1933 (Tons)	1934 (Tons)
*	*	151,140	62,979½	91,060

* Inspections made, but tomatoes bought on flat rate.

In New Jersey the general quality of cannery tomatoes in August and the first week in September was good, with a low percentage of waste and fairly good color. In some sections unfavorable conditions resulted in the delivery of low-quality stock at this time. A cloud-burst in Cumberland and Salem counties, with seven inches of rainfall, caused considerable damage. Many fields were completely "drowned out" and in others heavy defoliation resulted in sunburn and poor color. The quality of tomatoes delivered during this period varied considerably, depending largely upon whether the crop had been damaged by storms and upon the care used in picking.

During the week of September 10 to 15, heavy rains and cool, cloudy weather caused serious damage to the crop, and the average quality of the previous week of 59 per cent U. S. No. 1's, 38 per cent U. S. No. 2's, and 3 per cent Culls dropped to 44 per cent U. S. No. 1's, 50 per cent U. S.

No. 2's and 6 per cent Culls. With continued unfavorable conditions during the remainder of the season, most growers were evidently careful in harvesting the crop, for the season average is higher than would usually be expected when the many factors which were unfavorable to the production of high quality stock are taken into consideration.

The season's average of 58 per cent U. S. No. 1's, 39 per cent U. S. No. 2's, and 3 per cent Culls represents a wide variation in the quality of the stock delivered. This was probably caused by different conditions during harvest time in the various sections, and, to a large extent, to the care or supervision in picking. Growers' deliveries from the same sections showed wide variations, with some growers delivering loads that were uniform in quality and high in the percentage of No. 1's, and others delivering loads very irregular in quality with a low percentage of No. 1's. The presence of anthracnose on stock delivered during practically all the season probably was a factor in lowering the average grade for the season, as it caused considerable waste and lowered the grade on the tomatoes affected with it.

The weekly average percentages for the past three seasons indicate that deliveries during August and early September are of the highest quality of the season and that the quality goes down as the season advances. Weather and growing conditions cause this to vary from year to year, but evidently a grower who has "earlys" or "second earlys" delivers a higher-quality product to the canner and receives a greater price than the grower who has only late tomatoes. Records of deliveries made by various growers indicate that those who have a high yield per acre have a high average grade.

The accompanying table shows loads, tonnage and grade of stock inspected each week from July 30 to October 6. Deliveries during July were very light and are not listed on a weekly basis, but are included in the totals for the season.

DATA ON CANNERY TOMATO INSPECTIONS AND AVERAGE DAILY QUALITY, SEASON OF 1934

Week	Number of Loads Inspected	Tons Inspected	Percentage		
			U. S. 1	U. S. 2	Culls
July 30-August 4	393	719.5	59	39	2
August 6-11	1,732	4,007	59	38	3
August 13-18	3,367	7,900	56	41	3
August 20-25	5,466	14,996	63	35	2
August 27-September 1	7,360	21,647.5	63	35	2
September 3-8	5,546	14,539.5	59	38	3
September 10-15	3,484	6,639	44	50	6
September 17-22	4,666	11,396	55	41	4
September 24-29	2,904	6,680.5	54	41	5
October 1-6	1,068	2,038.5	49	44	7
Season Total	36,018	91,060.5	58	39	3
Season 1933	25,411	62,979.5	52	44	4
Season 1932	56,738	151,140.5	58	39	3

The bureau issued to interested growers and canners a mimeographed circular, "Marketing Cannery Tomatoes on the Basis of Grade in New Jersey and Other Tomato Canning States." This circular contained valuable information for canners, growers and public agents.

INSPECTION OF CANNERY ASPARAGUS

Contracting for cannery asparagus on the basis of official state grades started in New Jersey in the spring of 1933 and the volume so contracted for was increased considerably during the 1934 season. At the beginning of this season, the original grades were revised slightly to meet local conditions. The revision was duly approved and adopted by the department before the beginning of the cutting season.

The 1935 canning season extended from May 6 to July 6. During this period the bureau issued certificates on 4,619 growers' loads. Quality varied considerably throughout the season because asparagus is a product which reacts quickly to weather conditions. The best-quality asparagus was delivered during the period between May 18 and June 20. In this period, the quality was exceptionally good. Cool weather the first two weeks in May was the reason for a heavy percentage of cull stock during that time. This cool weather caused the spears to grow without enough green length to meet specified requirements. The percentage of culls was heavy from June 21 to the end of the season. This was caused by hot weather, which resulted in seedy or spreading tips.

As early prospects appeared unfavorable for a demand for the canned product, a comparatively small tonnage was contracted for at the beginning of the season. A Swedesboro canning company contracted with a number of growers. The contracts differed from those of previous years in that the maximum length of stalk was changed to 7 inches and the amount of green color required was 5 inches. A flat price was paid for all spears five-sixteenths of an inch in diameter or larger. The changes that were made in the specifications were permissible under the grades.

A Bridgeton packing company agreed to purchase asparagus from growers from day to day, paying according to the quality as determined by the bureau's inspection certificates. At this plant, the official grades were used with the permissible specifications that 5 inches of green was required and the grower was allowed to bring in the spear as cut in the field, but all length in excess of 9 inches was deducted from the net weight of the load.

As the season advanced, the fact became apparent that the probable pack for the United States would be below expectations, and both canners purchased each day large quantities of asparagus on the open market, paying according to quality as determined by the bureau's inspection certificate for each load. The removal of large quantities of surplus asparagus from

the open market daily was evidently a factor in stabilizing the market and relieving demoralizing conditions, which developed during the season, and was of great benefit both to growers who delivered to canners and to growers who sold on the open market.

The method of selling and buying asparagus on the basis of official grades, as determined by an impartial agency, was considered by canners and growers as the fairest system possible. A comparison of growers' loads inspected and certified is listed below.

Season	Growers' Loads	Pounds
1935	4,619	2,610,000*
1934	4,526	2,605,320
1933	1,934	900,000*

* Approximate.

The bureau cooperated with the Bureau of Agricultural Economics of the United States Department of Agriculture in studying the quality of asparagus for canning purposes, with the object of formulating a federal grade on this commodity. The official state grade promulgated by the department, which has proven satisfactory in New Jersey, will probably be adopted by the federal bureau after further studies are made in other sections of the country.

During the canning season, a study was made of the composition of young asparagus shoots at various stages of maturity. This was done with the object of securing some accurate method of determining stages of maturity of shoots or spears and establishing a line or degree of development at which stock might be canned and meet requirements of the United States standard quality insofar as this factor is concerned.

This study was made with a "Pressure Tester," which indicated the grams of pressure required to puncture spears at various stages of maturity. These tests, with additional information and tests, should prove valuable to canners and growers in the state, as they will give a means of measuring this factor of quality, which at this time cannot be determined in any definite way.

SHIPPING-POINT INSPECTIONS

In addition to the inspection of products at auction markets, which is part of the standardization work, inspections of fruits and vegetables were made at other shipping points in the state. These were usually made at the request of farmer-shippers, and were mostly on apples, both for domestic and export sale. A total of 58,851 bushels of apples were inspected and certified, principally in the fall months.

RECORD OF SHIPPING-POINT INSPECTIONS, BY MONTHS, 1934-1935 *

Product	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
Apples	19	3	10	42	2	..	..	..	4	14	..	..	94
Beans	20	56	10	..	..	..	..	..	..	..	..	5	91
Lima beans	1	..	..	..	..	..	..	..	..	..	..	..	1
Onions	35	1	..	..	..	..	..	..	..	..	..	..	36
Peas	..	..	..	..	..	..	..	..	..	..	..	2	2
Peppers	..	..	2	1	..	..	..	..	..	..	..	..	3
Potatoes	..	28	12	..	..	..	..	..	..	..	..	..	40
Strawberries	..	..	..	..	..	..	..	..	..	..	..	1	1
Totals, 1934-35	75	88	34	43	2	..	..	..	4	14	..	8	268

* Does not include inspections at auction markets.

TEN-YEAR RECORD OF SHIPPING-POINT INSPECTIONS, BY PRODUCTS *

Product	'25-'26	'26-'27	'27-'28	'28-'29	'29'-'30	'30-'31	'31-'32	'32-'33	'33-'34	'34-'35
Apples	124	..	25	13	1	549	168	230	91	94
Beans	..	..	..	..	..	11	33	40	162	91
Celery	..	..	..	..	..	..	..	1	..	..
Corn	..	..	..	..	..	..	..	..	1	..
Lima beans	..	..	..	..	..	..	..	..	75	1
Mixed fruit	..	..	..	..	..	..	11	9	1	..
Onions	..	..	..	..	..	2	16	30	223	36
Peaches	245	188	154	..	83	4	24	2	2	..
Pears	..	..	..	..	..	29	14	15	5	..
Peas	..	..	..	..	..	4	..	1	20	2
Peppers	..	..	..	..	..	..	..	..	18	3
Potatoes	27	423	757	789	312	911	217	10	20	40
Spinach	..	..	..	..	..	..	..	..	1	..
Strawberries	..	..	..	..	..	47	23	152	125	1
Sweet potatoes	..	..	..	..	1	..	6	..	..	..
Totals	396	611	936	802	397	1,557	512	490	744	268

* Does not include inspections at auction markets.

OTHER INSPECTIONS

A number of inspections of apples were made in cold storage plants to determine whether or not the fruit conformed with the official state grades as marked on the packages. The use of such grades is optional with the grower and they may be used without shipping-point inspection, but, when used, the stock in question must meet the specified requirements. The inspections made indicated that growers who use such marks pack their fruit to meet the requirements.

DEMONSTRATIONS AND EXHIBITS

A number of demonstrations and exhibits were set up at meetings indicating various features of fruit and vegetable marketing, grading, and standardization. They were as follows:

TRENTON: The bureau set up an exhibit of New Jersey tomato products at the Trenton Fair to acquaint visitors with the qualities that go to make good canned tomato products, to display the grades of tomatoes, and to indicate the grading method as a factor in improving quality for the consumer.

ATLANTIC CITY: At the annual meeting of the Horticultural Society in December, a display of commercial packs of New Jersey apples from storages and nearby markets gave the grower an indication of his pack as seen by the consumer.

TRENTON: The bureau conducted an apple-packing contest for vocational agricultural students, which was held at the New Jersey Farm Show.

TRENTON: A display of commercial packs of apples similar to the display in Atlantic City was shown at the meeting of the Horticultural Society in January.

CRANBURY: At Potato Field Day, a demonstration showing potatoes meeting requirements of the U. S. No. 1 grade and potatoes that constitute defects for the U. S. No. 1 grade was given.

CONSUMER EDUCATION

Many meetings of consumers were addressed by representatives of the bureau. At these meetings information on fruits and vegetables produced in New Jersey was given to those in attendance. A great deal of interest was shown by women's clubs in the results of the bureau's work with canned goods, and one talk, "Facts We Should Know About Canned Goods" was given at a dozen points in the state. The talk was supplemented with a demonstration of the quality of Jersey-packed asparagus and by the opening of cans of tomatoes of different prices to demonstrate quality.

One group of representatives of several women's clubs was conducted on a tour of inspection of modern marketing methods in New Jersey which are of special interest to consumers.

MISCELLANEOUS

Potato sales.—Mention is made in the report on the crops and markets information service of the continuance of the Hightstown Potato Information Office. For the second year, the Potato Sales Company, which was composed of all the central New Jersey potato dealers, operated out of two offices. All prices to buyers or brokers in distant markets were uniform. The bureau's representative aided in the task of analyzing daily reports that were sent in, and determining the quotas to be dug by farmers and the shipping quotas for dealers. The meetings of dealers or growers were always attended by a bureau representative. More than 6,000 cars of potatoes were sold by this one organization of dealers. While the season was one of low prices, it is felt that the market was greatly steadied by the operation of the central selling plan.

POULTRY PRODUCTS MARKETING

In the poultry division of the Bureau of Markets, the established program of standardization and marketing work was continued during the year in the same manner as during the previous several years, with the exception that an additional inspection service was added to the work as a result of the passage of the State Fresh Egg Law.

The program for the standardization and marketing of baby chicks, hatching eggs and breeding stock was continued under the same rules and regulations and in exactly the same way as in previous years. Excellent standardization work can be done by private poultrymen at a lower cost than is possible through the bureau, and the bureau has encouraged private initiative in such work. As a result, the number of flocks and hatcheries under the bureau's supervision was reduced still further during the year. The year marked the bottom of the depression for the poultry industry, and many of the bureau's former cooperators were unable financially to continue with their program.

The bureau had under supervision during the past fiscal year hatcheries with capacities of approximately 573,375 eggs. This compares quite favorably with the figure of approximately 600,000 for the previous year. These hatcheries produced during the season approximately 900,000 chicks for distribution as compared with approximately 1,000,000 chicks during the previous fiscal year. The distribution of these cooperators remained approximately the same, on a county basis. The unofficial, or private program, was increased to such an extent that practically the entire state was following an improvement program similar to the department's program but not as rigid as to quality of breeding stock nor the selection of eggs to be set. As conditions improve, the bureau believes, there will be a general return to the official program.

The bureau continued its Record of Performance inspections in about the same volume as in former years. This phase of the standardization program cannot be carried on successfully without some form of official supervision. It is the key to the department's program and the cornerstone of successful breeding. The number of breeders capable of carrying on this line of work is limited. Therefore, the increase or decrease in this very important phase of the bureau's work will not be very great.

The demand for heavy-laying, high quality stock, which was built up over a period of years by breeders who cooperate with the bureau, was reflected during the past fiscal year in a tremendous output and sale of baby chicks, most of the cooperating hatcheries operating from two to three weeks longer than in former years and operating at full capacity during the entire period. Many of these cooperators are increasing their capacities in order to take care of increased demands next year.

The New Jersey egg and live poultry auctions extended their service during the year and placed their operations on a more stable basis. The year was, by far, the most successful one experienced by all the egg and poultry auction markets since they began operations. Each of the markets now owns its own location and during the year each market followed more closely than ever before the original program set up by the bureau for the operation of these markets. Careful inspection of the products taken to the markets for sale has improved the quality of each producer's pack.

The operation of the Fresh Egg Law during the year was a factor of importance in increasing the demand for the eggs offered for sale at the markets. The distribution of market quotations by the bureau developed increasing confidence and demand on the part of more and more buyers in New Jersey. Because of the increased volume of both poultry and eggs on the auction markets, the statistical charts for these markets indicate that the gross charge against the producer for the services rendered to him was considerably less than in previous years. Instead of between 5 and 6 per cent of the gross receipts being required to operate these markets efficiently, in most instances the percentage was reduced to between 3½ and 5 per cent. This meant additional profit to the poultrymen using the markets.

The mergers that took place in the fiscal year between the Quality Egg Club and the Sunshine Club, and between the Cooperative Egg Auction Association of South Jersey, Inc., and Vineland Poultry Association, proved extremely beneficial to the groups merged.

The Flemington Auction Market Cooperative Association, Inc., in carrying out its policy of serving the farmers of Hunterdon County and vicinity in every way possible, added to its operations the sale of livestock other than poultry for slaughter. This operation started in a small way during the 1934 fiscal year, and, because of the increased returns that it brought to farmers, the auction management was requested to provide facilities for handling an increased volume. To meet this need, the market

built a new building, 50 by 80 feet, with ample facilities for handling all types of livestock, and, in addition, set aside a separate day for the sale of livestock other than poultry.

AUCTION MARKETS

Collectively, the egg and poultry auction markets sold 177,908 cases of eggs during the year as compared to 144,321½ cases of eggs during the previous year and 47,845 crates of poultry weighing 2,307,996 pounds as compared to 37,060 crates of poultry weighing 1,808,495½ pounds for 1934. The eggs were sold for a gross value of $1,611,481.78 and the poultry for $410,875.51. The total of egg and poultry sales at the auction markets during the year was $2,022,357.29, as compared to the total sales for the previous year of $1,336,292.49.

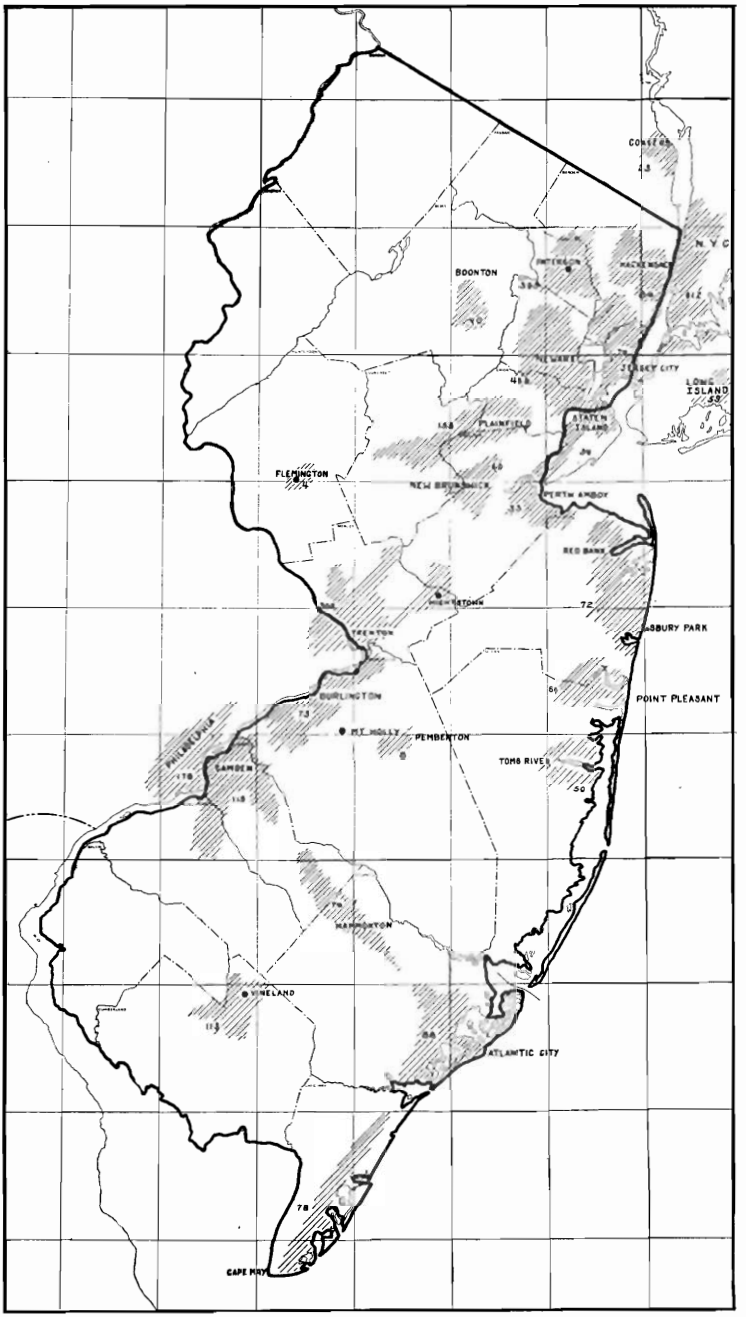
The accompanying map indicates the distribution of eggs sold through the auction markets. Only 7.5 per cent of the eggs sold at the New Jersey auctions are purchased by wholesalers, and 92.5 per cent of them are bought by retailers or brokers. The average number of buyers attending each sale during the year was as follows: Flemington, 90 to 100, of which about 5 per cent are wholesalers; Vineland, 75 to 80, of which about 10 per cent are wholesalers; Paterson, 40 to 50, of which about 5 per cent are wholesalers; Hightstown, 25 to 30, of which about 10 per cent are wholesalers. No information on buyers is available for the Mount Holly market.

The proportion of the total production of eggs in New Jersey that is sold through the auction markets has increased greatly. The bureau estimates that between 235,000 and 240,000 cases of eggs are produced in New Jersey for sale through wholesale channels.

The average number of buyers attending each sale at the live poultry auctions during the year was: Flemington, 80; Vineland, 35; Paterson, 40; and Mount Holly, 35. No poultry sale is held at the Hightstown auction. The distribution of live poultry sold through the markets was as follows: Newark area, 295 crates per week; New York and Jersey City area, 240 crates per week; Camden area, 79 crates per week; Trenton area, 211 crates per week; Paterson area, 75 crates per week; Passaic, northward, 25 crates per week; Atlantic City area, 90 crates per week; Philadelphia area, 76 crates per week; Ocean City area, 40 crates per week; and the northern portion of the Atlantic shore, 58 crates per week.

The second map indicates the distribution of New Jersey farmers who sell egg and poultry products through the several auction markets. It also shows the locations of the markets.

A careful study of the complete figures submitted to the bureau by the auction markets indicates that the tendency of poultry producers to patronize these auction markets to an increasing extent will be continued.



THE LOCATIONS OF NEW JERSEY'S EGG AUCTION MARKETS ARE INDICATED BY THE HEAVY DOTS. THE SHADED PORTIONS OF THE MAP SHOW THE AREAS WHERE THE EGGS ARE BEING SOLD. THE FIGURES SHOW THE AVER-

The total return to producers selling through the auctions during the year was $83,144.75 above what they would have obtained if they had sold their eggs at the highest quotations on the New York market and their poultry at the New York average price. To have received these prices, of course, transportation charges and commissions would necessarily have had to be paid, whereas in the case of the auction markets, they are located within a reasonable distance of the farms of a majority of the poultry producers of the state, and, where this is not the case, public carriers have been put in operation for hauling any products that the market sells and at very reasonable costs. Furthermore, a study of these markets shows that the gross selling charge, or the deduction from the gross receipts, was reduced materially in each instance, so that, on the average, nearly 96 per cent of the total amount of money received was returned to the individual poultry producer. It is interesting to note that in the five years that these auction markets have been in operation no losses have ever been experienced by any producer. Each producer is usually paid within a day or two after the sale.

The auction markets have brought into the State of New Jersey during the past five years a total of new wealth indicated to be over two million dollars. They have had a very definite effect on the communities where they are located and, of course, on each community in which producers are located, since they assure reasonable returns to the producers. The increased use of the department's official egg grades on the markets has established a reputation for the eggs sold under them, and such eggs are recognized as being of the finest quality obtainable anywhere in the nation.

SUMMARY OF EGG AND POULTRY AUCTION MARKETS
July 1, 1934—June 30, 1935

Market	Cases of Eggs	Value of Eggs	Crates of Poultry	Pounds of Poultry	Value of Poultry	Total Value	Difference in Favor of Auctions*
Flemington	73,558	$662,612.51	26,156	1,265,399	$224,799.29	$887,411.80	$42,492.83
Hightstown	13,063	117,302.45	.....	.....	.....	117,302.45	4,117.29
Mount Holly	6,508	55,731.96	8,239	457,078	90,728.04	146,460.00	3,316.59
Paterson	14,785	138,741.57	2,473	124,025	22,773.36	161,514.93	11,059.82
Vineland	69,994	637,093.29	10,977	461,494	72,574.82	709,668.11	22,158.22
Totals	177,908	$1,611,481.78	47,845	2,307,996	$410,875.51	$2,022,357.29	$83,144.75

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

SALES AT NEW JERSEY'S POULTRY AUCTION MARKETS
July, 1934—June, 1935

Market	Number of Crates	Pounds of Poultry	Gross Price at Market	New York Quotation	Difference in Favor of Auction
Flemington	26,156	1,265,399	$224,799.29	$217,733.05	$7,066.24
Vineland	10,977	461,494	72,574.82	75,594.41	—3,019.59
Burlington County	8,239	457,078	90,728.04	87,411.45	3,316.59
Paterson	2,473	124,025	22,773.36	22,037.89	735.47
Totals	47,845	2,307,996	$410,875.51	$402,776.80	$8,098.71

SALES ON A GRADED BASIS* AT NEW JERSEY'S EGG AUCTION MARKETS
July, 1934—June, 1935

Market	Number of Cases	Gross Price at Auction	New York Quotation	Difference in Favor of Auction
Flemington	73,558	$662,612.51	$627,185.92	$35,426.59
Vineland	69,994	637,093.29	611,915.48	25,177.81
Burlington County	6,508	55,731.96	.....	.....
Paterson	14,785	138,741.57	128,417.22	10,324.35
Hightstown	13,063	117,302.45	113,185.16	4,117.29
Totals	177,908	$1,611,481.78	$1,480,703.78	$75,046.04

* Eggs not sold on graded basis at Burlington County Auction during year 1934-35.

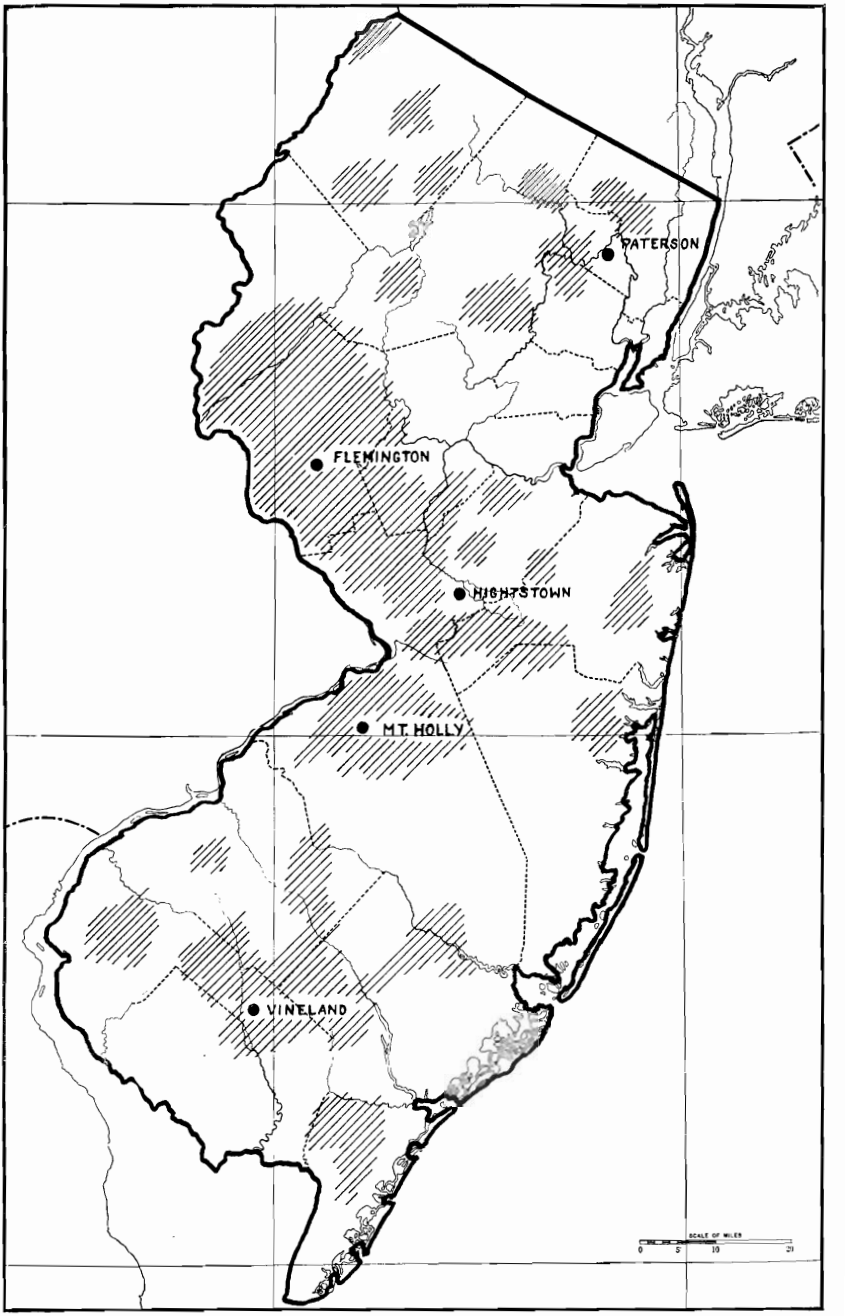
GRADING AND SELLING CHARGES AND AVERAGE PRICES AT NEW JERSEY'S EGG AUCTION MARKETS
July, 1934—June, 1935

Market	Grading and Selling Charges	Per Cent of Charges to Gross Receipts	Average Price per Case	Average Price per Dozen
Flemington	$29,908.79	4.51	$9.00	$0.30
Vineland	21,990.42	3.45	9.10	.33⅓
Burlington County	1,952.40*	3.5	8.56	.28½
Paterson	6,000.51	4.32	9.38	.31¼
Hightstown	4,368.62	3.72	8.98	.30

* No grading charge included since eggs were not sold on graded basis during year.

SELLING CHARGES AND AVERAGE PRICES AT NEW JERSEY'S POULTRY MEAT AUCTIONS
July, 1934—June, 1935

Market	Selling Charges	Per Cent of Charges to Gross Receipts	Average Price Per Pound
Flemington	$10,547.62	4.69	$0.1775
Vineland	3,596.95	4.95	.157
Burlington County	4,119.50	4.54	.198
Paterson	954.70	4.19	.1833



THE SHADED PORTIONS OF THE MAP SHOW THE POULTRY AND EGG PRODUCING AREAS SERVED BY AUCTION MARKETS. THE BLACK DOTS SHOW THE LOCATIONS OF THE MARKETS

The auctions render another important service to New Jersey poultrymen by establishing a true-value quotation for poultry products. This quotation is publicized by the bureau's crops and markets information service, the press and departmental publications, and over several radio stations. These prices are now used in almost every case by producers in New Jersey, whether or not they sell by auction.

A further decided benefit from the operation of the auction markets has been a general improvement in the production and packing of all eggs produced and the more careful selection of chickens to be sold as poultry meat, regardless of whether such products were to be sold through the auction markets or not. This has tended to improve the reputation of the state as a producer of high quality products.

The total active membership of the five egg and live poultry auction markets in New Jersey was 2,851 on June 30, 1935, as compared to 3,369 on June 30, 1934. In explanation of this decrease in membership, however, it should be pointed out that the auction market managements are more careful to eliminate inactive members than they have ever been and that this total represents only active membership. The Flemington Auction Market alone has approximately 400 inactive members who use the market only periodically and are not included in this list. The other markets have inactive memberships in proportion to their respective size.

The accompanying table on the distribution of auction members shows that each county in New Jersey has some members. Counties showing an increase in active membership are Atlantic, Hudson, Mercer, Middlesex, Monmouth, Ocean, Salem and Union.

AUCTION MARKET MEMBERSHIP, BY COUNTIES

County	Flemington Auction	Vineland Auction	Paterson Auction	Hightstown Auction	Mount Holly Auction	Total
Atlantic	..	109	3	..	..	112
Bergen	..	..	32	..	..	32
Burlington	7	..	..	17	481	505
Camden	..	..	..	..	9	9
Cape May	..	24	17	..	..	41
Cumberland	..	210	2	..	..	212
Essex	2	..	6	..	..	8
Gloucester	..	86	..	..	1	87
Hudson	..	..	1	..	..	1
Hunterdon	1,045	..	1	..	..	1,046
Mercer	103	..	..	76	..	179
Middlesex	10	..	1	25	..	36
Monmouth	4	..	5	72	1	82
Morris	19	..	39	..	..	58
Ocean	4	1	9	3	4	21
Passaic	1	..	64	..	..	65
Salem	..	67	..	1	..	68
Somerset	129	..	..	..	..	129
Sussex	9	..	22	..	..	31
Union	5	..	1	..	..	6
Warren	114	..	9	..	..	123
Totals	1,452	497	212	194	496	2,851

The auction markets are available to every poultry producer in New Jersey but they cannot sell eggs produced outside of New Jersey. Each market is set up to take care of the county in which it is located and its vicinity, the distance from the market being governed entirely by the board of directors of the respective associations.

FLEMINGTON EGG AND POULTRY AUCTION MARKETS

The Flemington Auction Market Cooperative Association, Inc., continued to set the pace for all auction markets in New Jersey and elsewhere, both in membership and the volume of products distributed. During the year, the Flemington market sold 73,558 cases of eggs for a total of $662,612.51 as compared to 64,744 cases of eggs with a gross value of $475,638.90 during the 1934 fiscal year. Its sales of poultry and livestock amounted to 26,156 crates containing 1,265,399 pounds of poultry and having a total value of $224,799.29 as compared with 21,059 crates containing 1,011,605 pounds of poultry with a value of $155,132.73 in 1934. The total value of sales made through this market during the fiscal year ending June 30, 1935, was $887,411.80 as compared to $630,771.63 during the previous year. This market maintained an average for all eggs sold, regardless of size or grade, of 30 cents per dozen as compared with 24½ cents per dozen during the previous year. The total deductions for selling, grading and service charges were 4.51 per cent as compared to 5.26 per cent during the previous year.

This market returned to its members during the year a total of $42,492.83 above the highest possible quotation for eggs and the average price for poultry of the same quality on the New York City market, as compared with $38,494.20 during the 1934 fiscal year. It should be understood that the highest possible quotation on the New York market could not have been received for but a small proportion of the eggs had they been sold at that market.

VINELAND EGG AND POULTRY AUCTION MARKETS

The Vineland and South Jersey Cooperative Egg Auction and Poultry Association, Inc., is the second largest egg auction in the state as well as in the United States, and, because of the supply of poultry and eggs in the Vineland area, it is expected to eventually become the largest selling agency of this type in the country. Increased confidence was shown during the year in this organization.

This association had a large and satisfactory increase in business during the fiscal year. Its sale of eggs increased from 58,297 cases and $428,826.87 for the fiscal year ending June 30, 1934 to 69,994 and $637,093.29 for the fiscal year ending June 30, 1935. Live poultry sales

increased to 10,977 crates of poultry weighing 461,494 pounds and $72,574.82 during the 1935 fiscal year as compared with 7,256 crates of poultry weighing 309,061 pounds and $40,148.34 during the 1934 fiscal year. The gross sales of the market totaled $709,668.11 as compared with $468,975.21 during the 1934 fiscal year. The market's return to producer-members for eggs during the year was $25,177.81 more than the highest quoted price for comparative goods on the New York City market. It maintained an average price of 30⅓ cents per dozen for all eggs sold, and its deductions for selling charges and service were 3.45 per cent of the receipts. The previous year's sales averaged 24½ cents per dozen and the selling charges were 4.41 per cent of the receipts.

The Vineland association was very efficiently managed during the year. Its operations have built for it a very satisfactory surplus, and, while the organization has purchased a building for its operations, it has, with a vision of future extensions, purchased a much larger site in a more desirable location which will be used sometime in the future for the erection of suitable buildings.

BURLINGTON COUNTY POULTRY AND EGG AUCTION

The Burlington County Poultry Meat Auction Association, Inc., whose market is located at Mount Holly, is one of the older associations. Its operations are limited chiefly to Burlington County. This association was organized as a poultry meat auction, but during the past year sold almost as many eggs as poultry. Eggs at this market were not sold on a graded basis during the year nor was there any official inspection made. The bureau believes that this association should seriously consider the use of grades and the grade labels in order to increase the returns to their producers. Buyers have indicated that they would be willing to pay considerably more for graded eggs on the Burlington County auction than they have been paying for the ungraded product.

This association is excellently managed, owns its own property, and continues to return a profit to its membership. The membership of this association received $3,316.59 more during the year than the average price for comparative poultry on the metropolitan markets. The average price for all eggs sold on this market was 28½ cents per dozen as compared with 30 cents as a minimum for the other markets. This seems to indicate that the producers selling eggs on this market lost 1½ cents per dozen, because they were not graded and inspected. This is a direct comparison because all eggs of all kinds are included in the price return on the other auctions. That this association was operated efficiently is indicated by the total charge of 4.54 per cent of the gross receipts for the sale of poultry and 3.5 per cent of the gross for the sale of eggs.

PATERSON EGG AND POULTRY AUCTION MARKETS

The North Jersey Cooperative Egg Auction Market Association, Inc., whose market is located at Paterson, sold a total of 14,785 cases of eggs during the year as compared to 12,667 during the previous year. It sold 2,473 crates of poultry weighing 124,025 pounds as compared with 1,754 crates of poultry containing 87,242 pounds during the 1934 fiscal year. The gross sales of eggs totaled $138,741.57 as compared with $96,615.71 during the 1934 fiscal year. The gross sales of poultry totaled $22,773.36 as compared with $12,889.21 during the 1934 fiscal year.

This market also purchased new quarters during the year. It maintained the highest average price for all eggs sold during the year on the auction markets of the state. This price was 31¼ cents per dozen. The charge for selling eggs was reduced from 5.59 per cent of the gross receipts during the 1934 fiscal year to 4.32 per cent during the past fiscal year. The charge for selling poultry was correspondingly reduced from 5.29 to 4.19 per cent. The price received for all eggs sold at this market was 1¼ cents per dozen more than at Flemington, approximately 1 cent more than at Vineland, and 2¾ cents more than at Burlington.

HIGHTSTOWN EGG AUCTION MARKET

The newest egg auction association, the Tri-County Cooperative Auction Market Association, Inc., while not large, increased its usefulness during the past year and sold 13,063 cases of eggs for $117,302.45 as compared to 5,148 cases for $36,128.99 during the fiscal year ending June 30, 1934. The market is located at Hightstown. It maintained an average price of 30 cents per dozen for all eggs sold. The price received for all eggs sold was in line with the prices at all other auction markets. Poultry producers in the Hightstown area should give increased support to this market.

This market is ideally located and is operated in connection with a fruit and vegetable auction market. A detailed record of the fruit and vegetable sales of the market is included in that part of this report devoted to fruit and vegetable marketing.

POULTRY STANDARDIZATION

The poultry standardization project divides poultry breeding flocks for the production of baby chicks into three general classes or grades, "Supervised," "Certified" and "Record of Performance." The chickens entered under the bureau's supervision are inspected and classified in accordance with the regulations for these grades. In addition, they are all tested for pullorum disease and those reacting to the test are sold for

slaughter. This testing phase of the work is carried out under the supervision of the Bureau of Animal Industry. The grades, or classes, and the regulations pertaining to them are considered in detail in the department's Circular No. 245, "The New Jersey Plan of Poultry Standardization and Accreditation and List of Breeding Flocks Under Official Supervision, 1934-1935."

The distribution of the poultry standardization work during the year is indicated in the tables included in this report. It was similar to that of the previous year. There was a reduction from 124 flocks to 112 flocks, and a reduction in the total number of birds from 71,868 to 62,159, and with an attendant reduction in hatcheries from 35 to 32. Official flocks were still maintained, however, in 16 counties. There was general improvement in the flocks under supervision as only 4,475 birds of the 62,159 inspected were rejected as compared with 6,008 rejected out of the 71,868 birds inspected during the previous year. Only 1,298 reactors to the pullorum test were located and sold. There were a total of 24 flocks free from pullorum disease. Eleven were "Accredited" flocks, of which eight flocks were tested for pullorum disease and three flocks were not tested. These three flocks will be tested next year.

All of the field work in connection with the standardization program was handled by the regular staff of the poultry division, as also was the division's work at auction markets. The inspectors made a total of 199 flock inspections, including inspections of flock additions. They also made a total of 231 sanitary inspections during the hatching season to see that the rules and regulations of the standardization program were complied with by poultry producers. They made 56 hatchery inspections during the same period for the purpose of checking the size of eggs, the removal of tinted eggs, etc. In addition, the staff made a total of 271 farm visits for other purposes, such as adjusting complaints, making explanations of various kinds, and rendering general service in connection with the departmental program.

In addition to the field inspection work, it was necessary to maintain a complete set of records on both standardization work and the marketing of chicks and breeding birds. These records show that the reaction to the pullorum test increased from 1.65 per cent in 1934 to 2.35 per cent in 1935. These percentages cover all birds tested. Of the 112 flocks inspected and tested, 43 contained less than 200 birds; 37, between 201 and 500 birds; 24, between 501 and 1,500 birds, and 8, more than 1,501 birds.

In the standard classes 39,754 birds, or the greatest number, were Single Comb White Leghorns. Barred Plymouth Rocks were second with 5,317 birds. There were 2,875 Rhode Island Reds, 959 Jersey Black Giants, 901 White Wyandottes, 294 Single Comb Black Minorcas, 264 White Plymouth Rocks, and 51 Light Brahmas. In the "Approved," or

non-standard class, were 7,004 birds of meat-producing varieties and 4,740 birds of egg-producing varieties.

The eggs from flocks under supervision supplied 32 hatcheries in whole or in part. These hatcheries have a total capacity of 573,374 eggs and are located in 16 counties. Twenty-six breeder hatcheries, with a total capacity of 324,400 eggs, received their total supply from flocks under state supervision, and six commercial hatcheries, with a total capacity of 248,974 eggs, received eggs from at least one breed under supervision. These hatcheries hatched a total of 857,140 chicks.

CLASSIFICATION AND DISTRIBUTION OF BIRDS UNDER SUPERVISON

County	No. of Flocks	Number of Birds							
		Supervised	Supervised Acc'd	Certified	Certified Acc'd	Certified Meat Production	Approved Breeding Flock (Egg)	Approved Breeding Flock (Meat)	Totals
Atlantic	1	...	401	...	...	...	15	...	416
Bergen	4	2,919	137	...	...	...	...	...	3,056
Burlington	7	301	...	2,137	...	...	...	1,086	3,524
Cumberland	13	1,571	...	2,305	...	...	726	421	5,023
Essex	2	...	...	992	682	...	...	...	1,674
Gloucester	3	1,082	...	3,994	...	...	...	300	5,376
Hunterdon	5	3,802	127	...	1,935	...	3,131	...	8,995
Mercer	31	3,263	402	4,171	833	538	...	99	9,306
Middlesex	1	159	...	...	...	...	...	...	159
Monmouth	2	...	554	1,086	...	...	...	...	1,640
Morris	4	5,862	...	...	...	...	769	121	6,752
Passaic	1	...	...	...	...	...	...	398	398
Salem	18	729	...	...	...	...	...	2,733	3,462
Somerset	10	3,721	...	...	...	155	...	51	3,927
Sussex	7	1,145	338	...	...	...	...	222	1,705
Warren	3	...	55	...	...	...	...	918	973
Totals	112	24,554	2,014	14,685	3,450	693	4,641	6,349	56,386

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	Light Brahmas	C.M.P.*	A.B.F.† Egg	A.B.F.† Meat	Totals
Atlantic	1	...	114	...	...	...	294	...	...	15	...	423
Bergen	4	3,127	99	...	...	...	...	...	...	...	...	3,226
Burlington	7	2,453	...	389	...	...	...	...	...	...	1,178	4,020
Cumberland	13	4,303	...	20	...	...	...	...	...	767	497	5,587
Essex	2	1,944	...	...	...	...	...	...	...	...	...	1,944
Gloucester	3	5,476	...	...	...	...	...	...	...	...	315	5,791
Hunterdon	5	4,016	1,308	1,197	...	140	...	...	...	3,177	...	9,838
Mercer	31	5,537	1,044	2,959	76	102	...	...	681	...	112	10,511
Middlesex	1	163	...	...	...	...	...	...	...	...	...	163
Monmouth	2	1,711	...	...	...	...	...	...	...	...	...	1,711
Morris	4	6,391	...	...	...	...	...	...	...	781	158	7,330
Passaic	1	...	...	...	...	...	...	...	...	...	428	428
Salem	18	...	...	...	188	610	...	51	109	...	3,026	3,984
Somerset	10	2,960	255	745	...	49	...	...	169	...	84	4,262
Sussex	7	1,673	...	...	...	...	...	...	...	...	242	1,915
Warren	3	...	55	7	...	...	...	...	...	...	964	1,026
Totals	112	39,754	2,875	5,317	264	901	294	51	959	4,740	7,004	62,159

* "Certified Meat Production" class—not inspected for breed characteristics.
† "Approved" breeding flock 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	2	2	..	24
Cumberland	3	3	..	35
Essex	10	10	..	142
Gloucester	7	7	..	94
Hunterdon	2	2	..	24
Mercer	12	10	2	196
Morris	4	4	..	47
Totals	40	38	2	562

The "Record of Performance" flocks produced a total of 24,051 eggs, of which 20,122 were set to produce 10,097 "Record of Performance" pedigreed 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 trap-nested. Of these 40 "Record of Performance" flocks, 38 were Single Comb White Leghorns and 2 Rhode Island Reds.

NEW JERSEY FRESH EGG LAW

One activity added to the work of the poultry division of the Bureau of Markets during the fiscal year was the inspection service for the New Jersey Fresh Egg Law, which became effective July 1, 1934.

In connection with the early enforcement of the law, the bureau published numerous articles in explanation of the act, and compiled a Circular No. 244, "Suggestions for Retailers on Compliance with the New Jersey Fresh Egg Law." A copy of this circular was left at each store upon the first inspection, and many copies were distributed by large chain store companies to their individual stores. Inspectors were instructed to explain the provisions of the law very carefully, to be very careful in their inspections, and to give all possible assistance to the retailer and others in the sale of eggs. In order to maintain uniformity in the inspections made under the law, the inspectors were given one week's intensive training with all types and kinds of eggs.

Demands on the time of bureau representatives were increased greatly because of the operation of the Fresh Egg Law and the desire on the part of the different divisions of the egg distributing trade for information and

assistance in meeting the requirements of this law. Representatives of the inspection service attended each hearing held under the law and presented the evidence obtained against violators. Bureau representatives made an effort to personally answer all inquiries requiring information on the selection of eggs that would meet the Fresh Egg Law's requirements. Many personal conferences were necessary to explain the terminology that could be used in connection with the sale of fresh or non-fresh eggs. In many instances large wholesalers asked to have their products from many different sources inspected in an attempt to determine which class of eggs could be used most satisfactorily. The bureau was also requested to instruct the candling services of many large wholesalers and all of the large chain store organizations in the method that should be used in candling eggs in order that the requirements of the law can be met.

Since the appropriation permitted the use of only four inspectors, the state was divided into four sections: the southern section comprising all the territory between and south of Mount Holly and Tuckerton; the second section, all of the territory between the southern section and a general line running from Phillipsburg to Elizabeth; the third section, the Newark metropolitan area and a narrow strip extending back to the Delaware River above Phillipsburg; and the fourth section, most of Passaic and Bergen counties, and all the rest of the territory to the Delaware River.

The early inspections in these territories indicated that chaotic conditions existed in respect to egg sales in New Jersey and, particularly, that unfair competition was experienced by honest merchants. The inspections made during the year showed that approximately 97 per cent of the vendors of eggs fall in the honest class, and less than 3 per cent attempt to violate the law.

In the southern territory, particularly, the early inspections showed that a large proportion of the eggs were in the baker-egg or trade-egg class with many "rots," "stuck yolks," and other inedible or nearly inedible products being sold for fresh eggs. At the end of the first general inspection of this district, nearly all of the stores were found to be selling good eggs. The same general condition was true in the central district, along certain portions of the seashore and in some parts of Trenton. The best conditions were found in the section containing Passaic and Bergen counties. Because of the size of the Newark metropolitan area, it was impossible to determine the average conditions in that location until nearly the end of the year.

The bureau received the cooperation of wholesalers and retailers from the very beginning of the enforcement of this law, and every one concerned was particularly anxious to know the provisions of the law and, generally, to abide by them.

General satisfaction was expressed by nearly all retailers and wholesalers with the conduct of the inspection work. The bureau inspected all

eggs at the places where inspections were made, whether or not the eggs were offered for sale as "fresh". Retailers used the inspection service to determine whether they were being supplied with the kind of eggs they ordered from their wholesalers. Wholesalers, on the other hand, because of the demand of these retailers, found it necessary to procure eggs of much finer quality than they had previously sold to retailers.

An effort was made to inspect, at least once during the year, all the stores in the State of New Jersey that were selling eggs. This goal was not quite reached, even though the bureau employed temporarily two additional inspectors from April 1 until June 30.

The accompanying table summarizes the work done and the results attained in the enforcement of the Fresh Egg Law. However, it does not indicate the amount of good that the law did. Toward the end of the year the inspectors were finding one or two minor violations in each five hundred inspections, and it is now possible for consumers of eggs in the state to obtain eggs of the quality they desire, either fresh or non-fresh, at almost

OPERATION OF NEW JERSEY FRESH EGG LAW
July, 1934—June, 1935

INSPECTIONS

Type	Number
Wholesale Stores	83
*Retail Stores	22,846
Roadside Markets	535
Retail Routes	158
Total Inspections	23,622
Total Violations Detected	3,508

* Individual stores inspected—12,839.

HEARINGS ON VIOLATIONS

Violations Heard:	
Individuals	369
Chain Stores	257
Total	626
Results:	
Warnings Issued	244
Penalty Cases	341
Penalties Assessed	$2,857.84
Cases Dismissed	25
Violations Referred for Legal Action	16
Settled Out of Court	8
Settled by Judgment	5
Suits Dropped (out of business)	1
Suits Pending	2

any store selling eggs in the state. Retailers now have more confidence and purchase eggs much more freely since they know that they can sell them at a fair profit. Wholesalers, because of the early loss of business, are particularly careful about the eggs that they put up for sale as "fresh," and are anxious to supply retailers with the quality of eggs they desire, and to sell the desired eggs at a fair price.

The demand on the egg auctions that sell eggs under the New Jersey grades improved as a result of the enforcement of the Fresh Egg Law, for these grades correspond to the requirements for "fresh" as given in the law. Moreover, many independent farmers have found a regular outlet for their egg production.

All retailers and wholesalers in New Jersey and those from outside of the state now have a general knowledge of the provisions of the Fresh Egg Law, as well as most of the terms that constitute violations of the law if the eggs sold under them do not meet the law's requirements. The effectiveness of this law has been recognized by eight other states in the northeastern part of the United States. These states have passed legislation similar to New Jersey's.

MISCELLANEOUS SERVICES

During the year the bureau made every possible effort to be represented at the directors' meetings of the various poultry and egg auction associations, and it gave such advice and assistance to the markets as it could. The bureau carefully checked the work of cooperating inspectors stationed at the various auction markets to make sure that grade requirements were complied with. Judging by the small number of complaints made by buyers and others, the bureau believes that the inspection service was entirely satisfactory during the past year. The bureau made 110 check inspections at the five auction markets and 106 additional general inspections of the auction markets in an advisory capacity.

The project supervisor received many requests for his attendance at meetings to address different groups of people on various poultry subjects. He was able to attend 63 such meetings and to address about 4,000 people. One hundred and twenty-four conferences were attended and 17 articles were written on the various phases of the bureau's poultry work. Correspondence required the writing of approximately 100 letters, of various lengths, per month. The bureau gave six demonstrations during the year at different meetings and, as usual, managed the baby chick and egg divisions of the New Jersey Farm Show.

The operation of the Fresh Egg Law brought many requests for assistance from nearby states, and various types of information were supplied. The bureau also received requests to have a representative in attendance at many meetings of poultry associations in these states.

Report of the Bureau of Plant Industry

HARRY B. WEISS, *Chief*

STATISTICAL AND RELATED WORK

CROP REPORTS

The "New Jersey Crop Report" was prepared, published and distributed monthly during the fiscal year with the cooperation of the crop reporters and the Bureau of Agricultural Economics of the United States Department of Agriculture.

Many objectives are served by the "Crop Report," but the outstanding one among them is to furnish fundamental current agricultural information to farmers, farmers' cooperative associations, agricultural schools, merchants dealing in farm products, railroads, banks, insurance companies and other institutions and agencies that are directly or indirectly engaged in agricultural activity. The reports covered the following: (1) the acreage of each commodity planted in New Jersey; (2) the yields per acre of each commodity in New Jersey; (3) the total production of each commodity in New Jersey; (4) current New Jersey farm prices of agricultural products; (5) current index numbers of these prices; (6) the economic condition of New Jersey farmers as measured by the index numbers of farm prices; (7) the number of livestock 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) the exchange value of the New Jersey farm dollar; (10) the acreage, condition, yields per acre, and total production of various agricultural commodities grown in competing states.

The December and January issues of the "Crop Report" were devoted to a detailed description of New Jersey agriculture during the 1933-1934 crop year.

CRANBERRY STUDIES

In order to acquaint New Jersey cranberry growers with the condition of the New Jersey cranberry industry as compared with the condition of the industry in other cranberry-producing states, data covering the period from 1910 to 1933 on acreage, average yield per acre, total production, and average farm price per barrel of cranberries were collected, and analyzed.

It was found that while Massachusetts' yield per acre is steadily increasing, New Jersey's yield is decreasing.

This study was printed in the "Proceedings of the Sixty-Fifth Annual Meeting of the American Cranberry Growers' Association."

THE CANNING INDUSTRY IN NEW JERSEY

New Jersey occupies a leading place among the states of the Union in the canning of vegetables and fruits. Tomatoes are the most important crop canned in New Jersey. Lima beans, peas, string beans, beets, pumpkins, squash, asparagus, strawberries, cranberries, blackberries, and other vegetables and fruits also are canned in large quantities. The Bureau of Plant Industry made a survey of the status of the New Jersey canning industry in 1934 as compared with 1933. The points surveyed were: (1) the number of cases of tomatoes canned in New Jersey whole, as puree, as catsup, as pulp, as tomato juice cocktail and as juice in 1934; (2) the number of cases canned in New Jersey during 1934 of lima beans, peas, string beans, beets, pumpkins, squash, asparagus, sweet potatoes, strawberries, cranberries, blackberries and pork and beans; (3) the average open-market prices received by farmers for crops for manufacture, and (4) the average contract prices received by farmers for crops for manufacture. The complete results of this survey were printed in the April 1, 1935, issue of the "New Jersey Crop Report."

THE POULTRY INDUSTRY IN CUMBERLAND AND HUNTERDON COUNTIES

The years of 1933 and 1934 witnessed an unusual decline in farm prices of eggs. Consequently, New Jersey poultry farmers were in an unfavorable financial condition. The bureau, in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture, surveyed the influence of low egg prices on the number of chickens kept by farmers. It was found that, while in Cumberland County the chicken population decreased, in Hunterdon County the number of chickens increased. The number of chickens in the state as a whole was nearly the same in 1934 as in 1933.

THE BEEKEEPING INDUSTRY IN NEW JERSEY

The bureau completed a survey of the beekeeping industry in New Jersey. The results were published in the department's Circular No. 247, "The Beekeeping Industry in New Jersey."

The survey was made in order to determine the number of beekeepers in the state, the number of colonies of bees, and the quantity of honey pro-

duced during 1933. The Bureau of Agricultural Economics of the United States Department of Agriculture and the New Jersey Beekeepers' Association cooperated in making the survey.

PRICES OF HIRED FARM LABOR, FEEDSTUFFS AND FERTILIZER MATERIALS

A study was made of important prices paid by New Jersey farmers. The findings were published as Circular No. 252, "New Jersey Prices of Hired Farm Labor, Feedstuffs and Fertilizer Materials and Their Index Numbers, 1910-1934."

WORK FOR THE MILK CONTROL BOARD

The bureau helped the New Jersey Milk Control Board during the 1934-1935 fiscal year in work pertaining to economics and statistics. The Milk Control Board regulates prices of milk to producers and consumers on the basis of the cost of production of milk and the purchasing power of the New Jersey factory payroll. Therefore, the bureau collected, tabulated, analyzed, plotted on charts, and submitted to the board each month data on the cost of production of milk in New Jersey, the purchasing power of the New Jersey factory payroll and the New Jersey farm price of milk.

To strengthen further the basis upon which prices are fixed, the bureau from time to time studied the retail prices of 22 food commodities in Newark, N. J. The aim of this study was to ascertain the relative position of the price of milk among the prices of the 22 commodities. The April, 1935, retail prices ranged from 41.5 per cent to 128.6 per cent of the April, 1923-1927, prices. The greatest decline took place in the price of white potatoes, and the greatest increase in price was registered for onions. The retail price of fresh milk stood approximately half way between the greatest decline and the greatest increase in price.

CONSUMPTION OF MILK IN SCHOOLS

A survey of the consumption of milk in New Jersey public and parochial schools was carried on in cooperation with the Bureau of Markets. A brief summary of findings is presented in the annual report of the Bureau of Markets. The Bureau of Plant Industry participated in this survey in the following manner: (1) It devised a plan for the tabulation of material, (2) supervised the tabulation, (3) analyzed the material, and (4) wrote a brief summary of it.

ECONOMIC STATUS OF NEW JERSEY FARMERS

The wealth of statistical data gathered by the Bureau of Plant Industry is used constantly to measure the economic position of New Jersey farmers. In this report an endeavor will be made to describe the economic condition of dairymen, poultrymen, vegetable and white potato growers of the state on the basis of data accumulated by the bureau.

CONDITION OF NEW JERSEY'S DAIRY INDUSTRY

The dairy industry is one of the most important branches of agriculture in the state. There are about 15,000 farmers who keep cows. Nearly 5,000 of them derive their entire income from dairying. The cow population consists of about 140,000 dairy cows, which produce about 400,000,000 quarts of milk annually valued at the farm at about $20,000,000.

The following figures show the average monthly number of quarts of milk required to buy 100 pounds of concentrates on New Jersey farms. On the basis of the prices paid by farmers for concentrates and prices received for milk, it has been possible to evaluate the economic condition of the dairymen. The period covered is from January, 1923, to May, 1935, inclusive.

TABLE I

AVERAGE MONTHLY PRICES PAID BY NEW JERSEY DAIRY FARMERS FOR 100 POUNDS OF CONCENTRATES

(Dollars)

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
January	2.4165	2.5060	2.6610	2.3475	2.0660	2.3500	2.5850	2.4320	1.8775	1.4410	1.2155	1.67	2.17
February	2.4500	2.4125	2.5915	2.3060	2.1080	2.4585	2.5725	2.3755	1.8560	1.3910	1.2370	1.71	2.07
March	2.4335	2.3045	2.4650	2.2765	2.1305	2.5200	2.5670	2.2615	1.8410	1.3355	1.2580	1.69	1.95
April	2.3500	2.2980	2.4185	2.1095	2.1305	2.5590	2.5325	2.4615	1.8385	1.4090	1.3010	1.69	1.90
May	2.2665	2.2685	2.5900	2.1020	2.2105	2.6130	2.4695	2.2650	1.8010	1.4020	1.4105	1.66	1.94
June	2.2835	2.2810	2.5890	2.1110	2.3020	2.6300	2.3730	2.2935	1.6615	1.4040	1.5140	1.74	...
July	2.3000	2.3770	2.6115	2.0900	2.2955	2.7150	2.4035	2.4300	1.6530	1.3070	1.6790	1.73	...
August	2.3835	2.7335	2.6115	2.1920	2.3700	2.7450	2.4725	2.2020	1.5950	1.3335	1.7285	1.94	...
September	2.4500	2.6680	2.6020	2.1290	2.3400	2.5300	2.4975	2.2645	1.5270	1.3655	1.6690	2.03	...
October	2.5335	2.5690	2.4590	2.0955	2.3075	2.5100	2.5215	2.1890	1.4005	1.3450	1.6250	2.03	...
November	2.6165	2.4930	2.5800	2.0245	2.1880	2.4835	2.4725	2.0505	1.3910	1.2330	1.6200	2.12	...
December	2.5500	2.6180	2.3500	2.0360	2.2780	2.5380	2.4380	1.9360	1.4620	1.1785	1.6600	2.26	...

TABLE II

AVERAGE MONTHLY FARM PRICES FOR 100 POUNDS OF MILK IN NEW JERSEY

(Dollars)

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	5-Year Average 1923-1927
January	2.63	2.43	2.76	2.78	2.92	3.07	3.11	2.88	2.35	1.79	1.27	2.33	2.59	2.70
February	2.69	2.36	2.68	2.69	2.92	3.01	3.08	2.77	2.30	1.75	1.32	2.32	2.57	2.67
March	2.57	2.35	2.65	2.63	2.81	2.79	3.03	2.71	2.19	1.62	1.26	2.29	2.53	2.60
April	2.54	2.31	2.57	2.56	2.77	2.60	2.88	2.64	2.08	1.52	1.31	2.20	2.52	2.55
May	2.37	2.08	2.41	2.28	2.69	2.54	2.69	2.41	1.95	1.44	1.31	2.18	2.42	2.37
June	2.54	2.04	2.35	2.27	2.56	2.47	2.61	2.33	1.88	1.34	2.02	2.19	...	2.35
July	2.63	2.09	2.38	2.45	2.63	2.62	2.87	2.42	1.98	1.35	2.13	2.49	...	2.44
August	2.70	2.24	2.55	2.59	2.75	3.05	2.81	2.66	1.97	1.41	2.41	2.51	...	2.57
September	2.77	2.38	2.62	2.78	2.97	2.95	3.04	2.86	2.02	1.44	2.53	2.56	...	2.70
October	2.78	2.39	2.68	2.85	3.06	3.03	3.44	2.81	2.01	1.42	2.37	2.61	...	2.75
November	2.71	2.65	2.79	2.95	3.15	3.15	3.16	2.82	2.00	1.41	2.43	2.68	...	2.85
December	2.59	2.75	2.84	3.01	3.13	3.14	2.98	2.45	1.83	1.41	2.44	2.64	...	2.86

TABLE III

NUMBER OF QUARTS OF MILK REQUIRED TO BUY 100 POUNDS OF CONCENTRATES ON NEW JERSEY FARMS DURING 1923-1934

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	5-Year Average 1923-1927
January	42.73	47.96	44.84	39.27	32.91	35.60	38.66	39.27	37.16	37.44	44.51	33.34	38.97	41.42
February	42.36	47.54	44.97	39.87	33.58	37.99	38.85	39.89	37.53	36.97	43.59	34.28	37.46	41.66
March	44.04	45.61	43.26	40.26	35.26	42.01	39.40	38.81	39.10	38.34	46.44	34.32	35.57	41.69
April	43.03	46.27	43.77	38.33	35.77	45.78	40.90	43.37	41.11	43.11	46.19	35.73	35.07	41.43
May	44.48	50.73	44.98	42.88	38.22	47.85	42.70	43.71	42.96	45.28	50.08	35.42	37.28	44.26
June	41.81	52.00	51.24	43.25	41.82	49.52	42.29	45.78	41.10	48.73	34.86	36.95	....	46.02
July	40.67	52.90	51.03	39.68	40.59	48.20	38.95	46.70	38.83	45.03	36.66	32.31	....	44.97
August	41.06	56.76	47.63	39.36	40.08	41.86	40.92	38.82	37.66	43.99	33.36	35.95	....	44.98
September	41.14	52.14	46.19	35.62	36.64	39.89	38.21	36.83	35.16	44.10	30.68	36.88	....	42.35
October	42.39	49.99	42.67	34.20	35.07	38.53	34.09	36.23	32.41	44.05	31.89	36.17	....	40.86
November	44.91	43.75	43.01	31.92	32.31	36.67	36.39	33.82	32.35	40.67	31.01	36.79	....	39.18
December	45.79	44.28	38.49	31.46	33.85	37.59	38.05	36.75	37.16	38.87	31.64	39.82	....	38.77

TABLE IV

PER CENT OF NUMBER OF QUARTS OF MILK REQUIRED TO BUY 100 POUNDS OF CONCENTRATES ON NEW JERSEY FARMS

1923-1927=100

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
January	103.2	115.8	108.3	94.8	79.5	85.9	93.3	94.8	89.7	90.4	107.5	80.5	94.1
February	101.7	114.1	107.9	95.7	80.6	91.2	93.3	95.8	90.1	88.7	104.6	82.3	89.9
March	105.6	109.4	103.8	96.6	84.6	100.8	94.5	93.1	93.8	92.0	111.4	82.3	85.3
April	103.9	111.7	105.6	92.5	86.3	110.5	98.7	104.7	99.2	104.1	111.5	86.2	84.6
May	100.5	114.6	101.6	96.9	86.4	108.1	96.5	98.8	97.1	102.3	113.1	80.0	84.2
June	90.9	113.0	111.3	94.0	90.9	107.6	91.9	99.5	89.3	105.9	75.7	80.3	...
July	90.4	117.6	113.5	88.2	90.3	107.2	86.6	103.8	86.3	100.1	81.5	71.8	...
August	91.3	126.2	105.9	87.5	89.1	93.1	91.0	86.3	83.7	97.8	74.2	79.9	...
September	97.1	123.1	100.1	84.1	86.5	94.2	90.2	87.0	83.0	104.1	72.4	87.1	...
October	103.7	122.3	104.4	83.7	85.8	94.3	83.4	88.7	79.3	107.8	78.0	88.5	...
November	114.6	111.7	109.8	81.5	82.5	93.6	92.9	86.3	82.6	103.8	79.1	93.9	...
December	118.1	114.2	99.3	81.1	87.3	97.0	98.1	94.8	95.8	100.3	81.6	102.7	...

Let us consider, on the basis of the data in Tables III and IV, the financial situation of New Jersey dairy farmers since 1930, when the economic depression began. During the years 1930 and 1931, the number of quarts of milk required to buy 100 pounds of concentrates in the majority of months was lower than the average for the five years, 1923-1927, which is taken as normal. Consequently, if the financial situation of dairy farmers is measured by the number of quarts of milk needed to buy 100 pounds of concentrates, the years 1930 and 1931 were favorable to New Jersey dairymen.

An entirely different condition arose in 1932 and the first five months of 1933. Beginning in April, 1932, the number of quarts of milk required to buy 100 pounds of concentrates was increasing, and in May, 1933, it was 13.1 per cent more than normal. In that month it took 50.08 quarts, as compared with the normal 44.26 quarts. The average farm price of milk sank to the lowest level of $1.31 (Table II) per 100 pounds, or 2.82 cents per quart. The situation reached a point where the dairy industry was threatened with collapse. At that time, to save New Jersey dairy farmers from ruin, the Milk Control Board was created, and it began to function at once.

June, 1933, marked the beginning of an entirely new phase in the history of the dairy industry in the state. Practice of the economic principle of laissez-faire was discontinued. The Milk Control Board began to regulate prices of milk and its products to farmers, dealers and consumers. The industry responded quickly to the governmental regulations. Chaos disappeared. Competition among milk dealers continued, not on the basis of price, but on the basis of quality and reputation. The financial status of dairy farmers improved considerably, because the farm price of milk almost doubled. Instead of 50.08 quarts of milk buying 100 pounds of concentrates, only between 30.68 and 39.82 quarts of milk were required to buy 100 pounds of concentrates. Farm prices, and the whole dairy industry, were stabilized. Consequently, the governmental regulations benefited dairy farmers, dealers and consumers.

CONDITION OF NEW JERSEY POULTRY FARMERS

There are about 21,000 farmers in the state who keep chickens. Nearly 5,000 farmers report that their principal source of income is chicken raising. About 40,000,000 dozen of eggs are produced annually, and the farm value of these eggs is over $10,000,000.

Retail Price of Chicken Feeds

A decline in the retail price of chicken feeds began in 1930 and continued until January, 1933. In January, 1930, New Jersey farmers paid, on the average, $2.42 for 100 pounds of feeds, and in January, 1933, $1.22. These two figures are the highest and the lowest during 37 months from 1930 to 1933. Consequently, the decline in price from the highest to the lowest point during 37 months was about 50 per cent. In February, 1933, the price began to rise and in January, 1935, it stood at $2.15, or 43 per cent higher than the January, 1933, price, which marked its lowest level. The drought in the Middle West and other causes were forcing the price of chicken feeds in an upward direction at that time. However, in February, 1935, the price began to decline slowly and it stood at $1.97 during July, 1935, as compared with $2.15 in January of the same year.

The data in Table V illustrate the trend of retail prices of chicken feeds.

TABLE V

AVERAGE RETAIL PRICES PAID BY NEW JERSEY FARMERS FOR 100 POUNDS OF CHICKEN FEED

(Dollars)

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	5-Year Average 1923-1927
January	2.38	2.32	2.99	2.54	2.39	2.53	2.54	2.42	1.86	1.42	1.22	1.69	2.15	2.52
February	2.42	2.34	2.95	2.51	2.43	2.59	2.57	2.35	1.79	1.39	1.24	1.71	2.14	2.53
March	2.44	2.31	2.88	2.42	2.40	2.69	2.54	2.26	1.81	1.39	1.29	1.75	2.12	2.49
April	2.46	2.26	2.68	2.41	2.38	2.75	2.44	2.29	1.79	1.39	1.42	1.75	2.10	2.44
May	2.48	2.18	2.82	2.35	2.49	2.94	2.34	2.23	1.73	1.36	1.62	1.70	2.12	2.46
June	2.46	2.24	2.84	2.33	2.58	2.84	2.31	2.20	1.64	1.32	1.63	1.83	2.04	2.49
July	2.41	2.49	2.71	2.43	2.62	2.77	2.45	2.13	1.58	1.31	1.87	1.81	1.97	2.53
August	2.36	2.64	2.64	2.40	2.67	2.55	2.50	2.23	1.46	1.33	1.79	1.92	...	2.54
September	2.43	2.56	2.56	2.34	2.56	2.53	2.56	2.17	1.42	1.35	1.72	2.01	...	2.49
October	2.50	2.65	2.45	2.36	2.50	2.58	2.53	2.06	1.38	1.32	1.62	1.99	...	2.49
November	2.42	2.71	2.53	2.33	2.49	2.54	2.47	1.97	1.49	1.25	1.63	2.05	...	2.50
December	2.33	2.87	2.50	2.40	2.54	2.49	2.45	1.90	1.45	1.24	1.64	2.13	...	2.53

Average New Jersey Farm Price of Eggs

The prices of eggs began to decline in 1930. The lowest average price received by New Jersey farmers was in February, 1933, when the price was 17.2 cents per dozen, as compared with 45 cents, the normal February (1923-1927) price. The decline amounted to about 62 per cent. The decline in price was checked during the last months of 1934 and the first six months of 1935.

In Table VI the behavior of egg prices from January, 1923, to June, 1935, inclusive, is presented.

TABLE VI

AVERAGE NEW JERSEY FARM PRICE OF EGGS, AS REPORTED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE ON THE 15TH OF EACH MONTH

(Cents Per Dozen)

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	5-Year Average 1923-1927
January	54	48	66	49	53	52	48	51	33	29.3	33.8	26.1	33.1	54.0
February	44	46	51	41	42	43	45	42	24	21.4	17.2	24.8	34.0	45.0
March	41	31	33	36	31	34	41	29	24.1	20.1	18.0	23.0	25.2	34.0
April	29	26	32	32	28	30	32	30	24.3	19.0	17.4	20.5	26.0	29.0
May	29	28	34	32	29	32	33	30	22.6	18.2	17.6	20.6	28.0	30.0
June	31	29	36	37	28	35	36	30	23.6	19.5	18.9	22.1	30.0	32.0
July	37	35	42	38	33	38	41	31	27.7	23.0	23.9	25.3	...	37.0
August	38	43	45	40	36	43	46	37	30.7	26.0	25.9	28.7	...	40.0
September	49	52	50	49	47	49	53	44	36.7	29.5	29.9	34.1	...	49.0
October	50	61	60	54	57	55	60	51	43.7	35.7	36.2	37.6	...	56.0
November	67	71	73	70	65	61	65	51	43.1	37.6	37.8	39.0	...	69.0
December	67	72	68	66	57	61	60	40	39.1	35.8	30.3	34.2	...	66.0

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.

An examination of Table VII shows that in 1933 and 1934 the poultry raisers of the state were obliged to exchange considerably more dozens of eggs for 100 pounds of feeds than the average. These two years were distressing to the poultry farmers.

TABLE VII

NEW JERSEY FEED-EGG RATIO

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	5-Year Average 1923-1927
January	4.41	4.83	4.53	5.18	4.51	4.87	5.29	4.75	5.64	4.85	3.61	6.48	6.50	4.69
February	5.50	5.09	5.78	6.12	5.79	6.02	5.71	5.60	7.46	6.50	7.21	6.90	6.29	5.66
March	5.95	7.45	8.73	6.72	7.74	7.91	6.20	7.79	7.51	6.92	7.17	7.61	8.41	7.32
April	8.48	8.69	8.38	7.53	8.50	9.17	7.63	7.63	7.37	7.32	8.16	8.54	8.08	8.32
May	8.55	7.79	8.29	7.34	8.59	9.19	7.09	7.43	7.65	7.47	9.20	8.25	7.57	8.12
June	7.94	7.72	7.89	6.30	9.21	8.11	6.42	7.33	6.95	6.77	8.62	8.28	6.80	7.81
July	6.51	7.11	6.45	6.39	7.94	7.29	5.98	6.87	5.70	5.70	7.82	7.15	...	6.88
August	6.21	6.14	5.87	6.00	7.42	5.93	5.43	6.03	4.76	5.12	6.91	6.69	...	6.33
September	4.96	4.92	5.12	4.78	5.45	5.16	4.83	4.93	3.87	4.58	5.75	5.89	...	5.05
October	5.00	4.34	4.08	4.37	4.39	4.69	4.22	4.04	3.16	3.70	4.48	5.29	...	4.44
November	3.61	3.82	3.47	3.33	3.83	4.16	3.80	3.86	3.46	3.32	4.31	5.26	...	3.61
December	3.48	3.99	3.68	3.64	4.46	4.08	4.08	4.75	3.71	3.46	5.41	6.23	...	3.85

The ratios presented in Table VII are expressed in Table VIII in terms of index numbers, or percentages. The index numbers are compiled in such a way that the figures for corresponding months of different years are comparable; *i. e.,* the index number for January, 1934, is comparable to the index numbers for January, 1933, 1932, 1931, etc. It must be kept in mind that the index numbers of 100 or below 100 indicate normal or favorable relationship between the price of feeds and the price of eggs. The months with index numbers higher than 100 were unfavorable to poultrymen because it took more than a normal quantity of eggs to buy 100 pounds of concentrates.

TABLE VIII

INDEX NUMBER OF FEED-EGG RATIO

1923-1927=100

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
January	94.0	103.0	96.6	110.4	96.2	103.8	112.8	101.3	120.3	103.4	77.0	138.2	138.6
February	97.2	89.9	102.1	108.1	102.2	106.4	100.9	98.9	131.8	114.8	127.4	121.9	111.1
March	81.3	101.8	119.3	91.8	105.7	108.1	84.7	106.4	102.6	94.5	98.0	104.0	114.9
April	101.9	104.4	100.7	90.5	102.2	110.2	91.7	91.7	88.6	88.0	98.1	102.6	97.1
May	105.3	95.9	102.1	90.4	105.8	113.2	87.3	91.5	94.2	92.0	113.3	101.6	93.2
June	101.7	98.8	101.0	80.7	117.9	103.8	82.2	93.9	89.0	86.7	110.4	106.0	87.1
July	94.6	103.3	93.8	92.9	115.4	106.0	86.9	99.9	82.8	82.8	113.7	103.9	...
August	98.1	97.0	92.7	94.8	117.2	93.7	85.8	95.3	75.2	80.9	109.2	105.7	...
September	98.2	97.4	101.4	94.7	107.9	102.2	95.6	97.6	76.6	90.7	113.9	116.6	...
October	112.6	97.7	91.9	98.4	98.9	105.6	95.0	91.0	71.1	83.3	100.9	119.1	...
November	100.0	105.8	96.1	92.2	106.1	115.2	105.3	106.9	95.8	92.0	119.4	145.7	...
December	90.4	103.6	95.6	94.5	115.8	106.0	106.0	123.4	96.4	89.9	140.5	161.8	...

In the spring of 1933 the New Jersey egg industry entered a long period of very severe economic depression. The main causes were: (1) the rising price of grain and, consequently, of chicken feeds and (2) the declining price of eggs. The duration of that depression was 23 months. It started in May, 1933, and continued through March, 1935. In December, 1933, it took 40.5 per cent more eggs than normally to buy 100 pounds of chicken feeds; in December, 1934, it took 61.8 per cent more eggs than normally to buy 100 pounds of feeds. There was not one month favorable to the farmers from May, 1933, to March, 1935. Those farmers who had savings in the bank, as well as those to whom credit was available, continued in business with the hope that sooner or later the economic stress would pass. On the other hand, poultrymen who did not possess these mentioned advantages were forced to diminish their flocks or to turn to some other branch of agricultural activity.

Encouraging signs appeared during April, 1935. That month, it is hoped, may be considered a turning point in the economic condition of the egg industry, which improved remarkably during April, May and June. In April it took only 97.1 per cent, in May, 93.2 per cent, and in June, 87.1 per cent of the normal quantity of eggs to buy 100 pounds of chicken feed. Such a condition as prevailed during these three months is absolutely necessary to New Jersey poultrymen, because they need cash to pay debts accumulated during the period of severe depression, as well as to continue in business.

CONDITION OF NEW JERSEY'S VEGETABLE INDUSTRY

Nearly every farmer in New Jersey grows vegetables. However, the commercial production of vegetables in the state is limited to about 6,000 farmers, who, on 140,000 acres, produce annually about 19,000,000 bushels of various vegetables, which are valued on the farms at almost $20,000,000. Only California, Texas, and Florida, in which states farmers are able to harvest two or three crops per year, outrank New Jersey in the total production of certain vegetables. During the summer, the population of the New York and Philadelphia metropolitan districts is fed to a large extent by New Jersey vegetables and berries.

The decline in New Jersey farm prices of vegetables began in 1931. In June, 1935, the average farm price of vegetables stood at 39 per cent of the June, 1923-1927, price. In Table IX the index numbers of the farm prices are presented.

TABLE IX

INDEX NUMBERS OF FARM PRICES OF NEW JERSEY VEGETABLES WHITE POTATOES EXCLUDED

1923-1927=100

Month	1929	1930	1931	1932	1933	1934	1935
January	93	87	78	38	38	48	59
February	87	84	85	32	41	50	61
March	72	79	82	26	36	43	46
April	85	106	65	35	46	58	74
May	83	71	66	54	37	40	48
June	78	64	53	46	55	34	39
July	99	65	60	52	71	44	..
August	104	89	71	58	55	53	..
September	108	95	58	65	63	51	..
October	98	79	62	47	52	49	..
November	80	68	50	44	58	52	..
December	92	79	48	41	53	57	..

THE CONDITION OF THE WHITE POTATO INDUSTRY

New Jersey occupies one of the most important places among the states that, under normal economic conditions, harvest and market white potatoes before the middle of September. There are about 47,000 acres of potatoes harvested in New Jersey. The average annual production amounts to about 7,200,000 bushels. More than 9,000 farmers are deriving their incomes, wholly or partially, from growing white potatoes. They are spending annually more than one million dollars for fertilizers and about the same amount for seeds and labor. The business condition of potato-growing sections of the state depends to a large extent on the well-being of potato growers. If they receive a fair return for potatoes, the business turn-over is intensive; on the other hand, if the farm price of potatoes is unreasonably low, business is at a standstill.

Records show that during the eight years from 1923 to 1930, inclusive, only two years were unfavorable to New Jersey potato growers. These years were 1924 and 1928, when the farm price of potatoes was low. The remaining six years were from fair to good. An entirely different situation has arisen since 1931. From that year to 1935 inclusive, only one year, 1933, was fair. The remaining four years witnessed unusually low farm prices for white potatoes. The data in Table X support the above description of the economic status of New Jersey potato growers.

To make the movement of farm prices of white potatoes clearer, the data are expressed in terms of index numbers, or percentages, in Table XI.

TABLE X

WHITE POTATOES

AVERAGE FARM PRICE IN NEW JERSEY AS REPORTED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE ON THE 15TH OF EACH MONTH

(Cents Per Bushel)

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	5-Yr. Av. 1923-1927
January	85	110	75	284	150	120	70	175	115	60	60	105	50	141
February	88	130	90	300	140	105	75	170	100	59	58	110	50	150
March	88	136	89	285	130	110	70	170	100	55	60	115	50	146
April	102	111	90	330	130	120	60	160	110	61	60	115	48	153
May	114	115	81	325	143	115	75	180	120	65	60	105	50	156
June	138	118	86	280	200	130	95	165	110	65	70	100	55	164
July	160	120	210	190	175	95	145	135	90	70	145	60	45	171
August	160	88	215	135	125	60	165	90	65	45	140	45	..	145
September	132	75	153	170	120	65	165	105	55	48	120	48	..	130
October	128	70	162	150	115	65	175	125	55	50	120	50	..	125
November	138	65	247	175	115	65	180	115	55	55	105	50	..	148
December	124	64	260	160	125	65	180	115	55	60	95	50	..	147

TABLE XI

INDEX NUMBER OF FARM PRICES OF WHITE POTATOES IN NEW JERSEY

1923-1927=100

Month	1929	1930	1931	1932	1933	1934	1935
January	49.6	124.1	81.6	42.6	42.6	74.5	35.5
February	50.0	113.3	66.7	39.3	38.7	73.3	33.3
March	47.9	116.4	68.5	37.7	41.1	78.8	34.3
April	39.2	104.6	71.9	39.9	39.2	75.2	31.4
May	48.1	115.4	77.0	41.7	38.5	67.3	32.1
June	57.9	100.6	67.1	39.6	42.7	61.0	33.5
July	84.8	78.9	52.6	40.9	84.8	35.1	26.3
August	113.8	62.1	44.8	31.0	96.6	31.0	...
September	126.9	80.8	42.3	36.9	92.3	36.9	...
October	140.0	100.0	44.0	40.0	96.0	40.0	...
November	121.6	77.7	37.2	37.2	70.9	33.8	...
December	122.4	78.2	37.4	40.8	64.6	34.0	...

It is evident from Table XI that the 1935 potato season was one of the poorest in history. During July, 1935, farmers received, on the average, only 26.3 per cent of the price that they received during the normal period, July, 1923-1927.

CONCLUSION

One very definite conclusion may be drawn from the data presented on the condition of the dairy, poultry, vegetable and white potato industries in New Jersey: Those branches of agriculture that, during the time of economic depression, are regulated by special governmental agencies, are recovering quickly; on the other hand, those agricultural enterprises that are subject to the laissez-faire, or non-interference, doctrine are in a prostrated economic condition for a longer time.

UPPER FREEHOLD TOWNSHIP SURVEY

Upper Freehold Township in Monmouth County is a typically rural community. As in many other rural townships, the citizens have been so taken up with the problems of farming that they have lost much interest in their township as a social unit. This township contains some of the finest and most valuable soil for farming in the state, and once a family establishes itself here, it is customary for it to remain. This characteristic stability is also apparent in the township governmental functions.

A group of progressive citizens of this township met and formed the Upper Freehold Better Township Association, in May, 1934, with the object of determining whether the people of a township interested in improving their community might proceed in an organized way to accom-

plish this. This group set up the improvement of the community as its ultimate goal and requested that a survey be made by some competent authority in rural life to determine in a general manner the assets and liabilities of the township and to recommend any changes that might prove beneficial. Accordingly, a survey of the township was undertaken through the cooperation of the Bureau of Agricultural Economics of the United States Department of Agriculture, the State Department of Agriculture, the Monmouth County Agricultural Extension Service, and the Upper Freehold Better Township Association. The field work of the survey and much of the tabulation of data were done by representatives of the Bureau of Plant Industry. During the year, the State Department of Agriculture made plans to publish the results of the survey under the title, "Upper Freehold Township. A Survey of the Life, Resources and Government of a New Jersey Rural Township, with a Program for Improvement."

FARM CREDIT AND FINANCE

The principal functions of the bureau's division of farm credit and finance are as follows: through and in cooperation with the Governor's Emergency Farm Mortgage Committee, to assist worthy farmers with their financial problems; to keep in close touch with the general farm credit situation in the state; to conduct research into the need for and the availability of agricultural credit; and to coordinate the financial requirements of New Jersey farmers with the sources of available funds.

GOVERNOR'S EMERGENCY FARM MORTGAGE COMMITTEE

The Governor's Emergency Farm Mortgage Committee was organized in December, 1932, at the instance of the state secretary of agriculture. Governor Hoffman continued the committee. The members of the committee are Paul H. Burk, of Beverly, chairman; Dr. Frank App, of Bridgeton; State Senator A. C. Reeves, of Lawrenceville; Clifford E. Snyder, of Pittstown, and Nathaniel A. Back, of the New Jersey Department of Agriculture, secretary. There is an advisory committee consisting of former State Senator David H. Agans, master of the State Grange; William B. Duryee, state secretary of agriculture; Charles H. Laird, Jr., of Moorestown; Dr. Jacob G. Lipman, dean of the State College of Agriculture, and William C. Spargo, of Dover.

The secretary of the committee is a regular employee of the New Jersey Department of Agriculture. Since the organization of the committee, he has given approximately half of his time to its work. In addition the committee has had the services of the department's clerical staff and office facilities.

It is difficult to keep accurate record of the results of the committee's work because many individuals, after receiving assistance, do not advise the committee of the final outcome of their difficulties. In such cases, the committee can only assume that such assistance as was rendered resulted in a favorable solution, since otherwise its further assistance would very likely have been requested.

During the year ending June 30, 1935, 235 requests for assistance were received by the committee. One hundred and twenty-five interviews were held at the secretary's office with persons seeking assistance. In 106 cases, field work was necessary, including investigations and meetings with individual creditors and groups of creditors.

In 46 cases, stays of instituted or threatened foreclosure actions were effected in order to provide an opportunity for refinancing or the adoption of an extension or composition agreement. The committee has record of 34 cases in which refinancing was completed, 14 in which extension agreements were effected, and 9 in which composition agreements were effected. In 31 cases, conditions were such that no relief could be extended to the debtors. In some of these cases, considerable work with creditors and refinancing agencies was done before they were given up as being hopeless of solution. Assistance in the remaining cases consisted of giving information about available sources of credit, about the procedure to be followed in making application for loans to the various federal farm credit agencies, and about the federal bankruptcy laws, the New Jersey tax and foreclosure laws, etc.

The committee continued to consider the subject of farm appraisals. Under the direction of the committee, two field trips were made to test the appraisal score cards that had been prepared by the Appraisal Score Card Committee. The results of the trips and the status of the work are summarized in the following quotation from a report of the committee:

> "Members of the committee made test appraisals in the field using the appraisal score cards. Two field trips were made. At the end of each trip, each person in the group made an individual appraisal of the last farm visited. In one instance, the total variance among a group of nine persons was less than 4 per cent; in the other instance, the total variance among a different group of 11 men was less than 5 per cent. Some work remains to be done on the appraisal score cards, principally in the matter of determining the agricultural value of various types of soil in various localities. The committee feels that further tests should be made of the score cards under practical conditions before it recommends their general usage."

During the year, the committee cooperated closely with the federal farm credit agencies and with the New Jersey Rural Rehabilitation Corporation in making the services of these agencies readily available to farmers in the state. The committee has maintained intimate contact with the Rural Rehabilitation Corporation since the inception of this organization,

in the consideration of border-line cases, that is, cases which were not clearly in the field of either agency.

FEDERAL FARM LOANS TO POULTRY FARMERS

In December, the Department was requested by the credit committee of the Northeastern Poultry Producers' Council to make a study of the adequacy of federal farm loans to poultrymen.

A study was made based on records obtained from several agricultural colleges and experiment stations in the northeastern and middle Atlantic states, on the loaning experience in poultry sections in the state, and on the existing regulations of the Federal Farm Credit Administration relating to poultry farm loans. A brief, incorporating the findings of this study, was prepared and submitted to the credit committee of the Northeastern Poultry Producers' Council. The brief was presented by the committee to officials of the Farm Credit Administration at a meeting in Washington, April 8, 1935. The brief contained the following recommendations:

"1. A system of careful, periodic inspection of all outstanding loans should be instituted. This should include a follow-up to determine that recommended repairs and changes are carried out.

"2. The total maximum loan on poultry farms should be increased from 50 per cent to 75 per cent of the appraised normal value.

"3. A reasonable portion of the total loan should be a long-term Federal Land Bank loan based on the value of the land and permanent improvements as a unit.

"4. Normal values for appraisal purposes should be based on and reflect actual costs of production over a period of years covering normal conditions.

"5. Only specialized appraisers should be employed in order that the values in each individual case and the safe amount to loan within the established limits may be determined.

"6. Loans to poultrymen for production purposes should be made for a sufficient period of time to enable repayment to be made from the normal returns of the business. The period should not be shorter than 18 months."

Shortly after the meeting with officials of the Farm Credit Administration the following regulations relating to loans on poultry farms were issued by the Farm Credit Administration:

"There appear to be some areas where loans may safely be made on specialized poultry plants for longer terms than 10 years and where Commissioner loans may safely 'exceed 50 per cent of the normal agricultural value of the farm for poultry production including the value of buildings thereto,' even though buildings make up a large proportion of the value of the property. Accordingly, where the poultry industry has a long and successful history in a community and where the principal buildings are very substantial and of durable construction, the term of years for which loans on such properties may be made and the amount which may be loaned are left to the discretion of the bank within the limits prescribed by law."

SURVEY OF FAMILIES MOVING TO FARMS

Great interest has centered during the past several years on the possibilities and advantages of the decentralization of urban populations and the establishment of indigent city families on small farms where in time they might become self-supporting. Partly under the pressure of economic necessity and partly as a result of governmental aid, many city families have recently taken up residence on farms, with the result that the decided movement of population from country to city which prevailed during the decade, 1920-1929, has been significantly reversed during the past several years. Much attention has been given to this movement *per se* and to its possible social and economic implications; relatively little study has been given to the measure of success or failure which has attended it in the past.

In an attempt to obtain information about the results of the movement of city families to farms, the department decided to survey a number of families that have moved to farms in New Jersey in recent years. At first it was decided to cover 25 families, but later the number was increased to 75 in order to obtain a better sample. The information about the 75 families has been assembled and, at the end of the year, was being compiled and analysed.

SURVEY OF MUTUAL FIRE INSURANCE COMPANIES

There are two sources of fire insurance on farm properties in New Jersey: (1) standard stock companies and (2) mutual associations.

In 1932, the department issued a circular about farm fires and farm fire insurance. This did not include any consideration of the mutual associations. In order to supplement the information contained in that circular, a survey of the Mutual Fire Insurance Associations of the state was begun during the year. There are 19 such associations doing business in the state; 14 were visited and the necessary information obtained from them.

FARM TAX DELINQUENCY SURVEY

It was found necessary to give up a survey of farm tax delinquency after considerable work had been done on it because of the discrepancies that were found in the reports submitted by local tax officials when compared with certain data obtained from the office of the state auditor.

MISCELLANEOUS REPORTS

From time to time, as conditions warranted, analyses were made and reports prepared covering a number of pertinent matters, such as new federal farm bankruptcy legislation, the National Housing Act, the procedure governing the foreclosure of real estate mortgages and chattel mort-

gages in New Jersey, and the economic condition of New Jersey farmers regarding taxation and indebtedness.

IDLE-FARMS-FOR-SALE LISTING SERVICE

This bureau's service of listing idle farms that are offered for sale was continued during the year. Requests for lists were received almost daily, and were complied with by the bureau.

SEED CERTIFICATION AND RELATED WORK

RASPBERRY PLANT CERTIFICATION

Five nurserymen applied to have raspberry plants certified. Such certification is necessitated by the demands of many states that raspberry plants be certified as to their freedom from transmissible disease before entry is permitted. One hundred and thirty-four acres were field-inspected twice. Of these 116½ were passed. Seventeen and one-half acres were rejected because of excessive mosaic content or were withdrawn for other reasons. The St. Regis, Latham and Chief were the principal varieties certified.

GRAIN CERTIFICATION

The grain certification service continued to grow during the year and more entries were received and more bushels of seed certified than during the previous year.

SUMMARY OF GRAIN CERTIFICATION
July 1, 1934—June 30, 1935

Crop	Variety	No. of Growers	Acreage Entered	Acreage Certified	Bushels Tagged and Sealed for Sale
Wheat	Leap's Prolific	10	92½	71½	1152
"	Poole	2	29	0	0
Oats	Keystone	5	77	77	1855½
"	Kanota	3	45	25	867
Barley	Velvet	5	33	30	477½
"	Bon Ami	2	17	0	0
Corn	Reid's Yellow Dent	2	52	52	261
"	Hulsart's Yellow Dent	1	12	12	27½
"	Mercer White Cap	1	14	14	226
"	Somerset Leaming	3	38	38	411
"	Lancaster Sure Crop	3	15	8	151
Flax	Linota	4	16¾	16¾	0
Soy Beans	Harbinsoy	1	14	14	100
	Total, All Grains	42	455¼	358¼	5528½

The chief reasons for rejection were excessive disease content, excessive weed seed contamination, and failure to meet germination standards. In the case of flax, all grain was sold to processors of linseed oil.

WHITE POTATO SEED CERTIFICATION

Weather conditions during the growing season of late-crop certified seed potatoes were not what might be termed ideal, although a fair yield was obtained. On August 2, a heavy rain in the Bridgeton area, 7.22 inches in 24 hours, caused bad field washes and affected the stand in all fields except those that had exceptionally good drainage. The Bridgeton weather station reports an excess in rainfall for both August and September with a falling off of precipitation in October (+4.44 inches, +2.39 inches, —0.28 inches, respectively). The rainfall in the central part of New Jersey was below normal in August, excessive in September, and below normal in October (—2.77 inches, +8.15 inches, and —1.04 inches, respectively). For both sections the frequency of rainfall caused much concern among the growers, because it prevented them from cultivating and spraying according to schedule and in keeping with the growth of the plants. Late blight and the steady increase of early blight added to this concern as growers were faced with the inability to get their spray outfits through the fields. Killing frost came later than the normal early killing frost dates, and in South Jersey fields that were planted late grew until they were killed by frost on October 29. This made for larger yields. Rainy weather during most of the harvest season hampered the digging operations and necessitated special efforts to dry out the mud-caked tubers before grading operations could be started.

Of special interest during the year was an entry of 75 acres in the Great Meadows area of Warren County. This seed was grown on black muck, and although the crop was planted late in relation to the shorter season that prevails in North Jersey and the grower experienced some difficulty in using regular machinery in handling the cultural and digging operations, a fair crop of nicely shaped tubers resulted. Apparently, the high water table of this soil, the ease of cultivation, and the relative coolness of the northern counties of the state provide certain favorable factors for the uninterrupted growth of potatoes. With an earlier planting date, it is probable that a good yield of nicely shaped tubers could be grown.

It has already been mentioned that early blight (*Alternaria solani*) and late blight (*Phytopthora infestans*) were present during the season. Early blight appeared to gain its strongest hold in the low parts of the fields that had been water-logged, or where some other factor adversely affected the growth of the plants. Some low fields, where little or no spray was applied, died early of early blight because they had suffered from water-logging and the spraying was not sufficient to retard the spread of the

disease. Late blight started to appear about the time that the early blight was gaining prominence and in some fields contributed to the premature dying of the vines. In other fields where spraying was insufficient, late blight gained a rapid hold and caused the premature death of the potato plants.

Approximately 135 acres were rejected or withdrawn on second inspection because of the excessive presence of the blights, and the large number of dead plants precluded the making of accurate virus disease counts. The anticipated amount of tuber rot failed to materialize; probably because of such factors as the rapid death of the plants, the timely killing of the plants by frosts, and the rapid drying up of the rotted vines at the time. However, a small amount of mahogany rot was found in some lots. Insects failed to present any very serious problems during the season. Aphids were apparently kept under control by the heavy rains. One or two fields were invaded by the Colorado potato beetle early in the season, but were brought under control. The green tomato worm fed heavily on the late seed potato fields in Central Jersey and did considerable damage.

Yields ranged from 81 bushels to 297 bushels per acre, the average for 622.5 acres certified being 171.6 bushels per acre. The relation of yields to the previous cropping of the fields was not as marked as it can be in a dry year. The well-drained, level fields and the fields of uniform, gentle slope gave the largest yields, irrespective of previous cropping. The figures on the average yield per acre according to the previous crop in the field are presented in the table headed "Previous Cropping of Field."

The use of seed disinfectants fell off in 1934 to 69.24 per cent of the seed being treated. The remainder received no treatment. The instantaneous-dip method employing organic mercury compounds was the only method used. Seed treatment was omitted by some growers as an economy measure.

A drop in the average pounds of fertilizer applied per acre was an economy measure. Fertilizers having analyses of 4-8-7, 5-8-7, and similar ratios were the principal ones used.

A major part (57.01 per cent) of the parent seed planted to grow the certified seed came from Prince Edward Island, home-grown seed was next in quantity (33.12 per cent), and small amounts came from New York (8.73 per cent) and Maine (1.14 per cent).

Virus diseases were for the most part relatively absent or present in only small amounts. It was necessary to reject only a few fields of small acreage because of excessive virus disease counts.

It is interesting to note that a good-sized order of New Jersey seed was shipped to Virginia and that New Jersey seed is also being shipped to Pennsylvania. It is expected that a demand will be evident later from the South for the Jersey Red Skin variety, which is becoming increasingly popular in some sections south of New Jersey. A few potatoes of the new

variety, Katahdin, were grown under certification and showed promise as a high yielding, smooth-skinned, round potato.

In marketing the crop, 100-pound sacks were generally used, and it is expected that this package will entirely replace the larger sizes used in the past.

POTATO ACREAGE ENTERED FOR CERTIFICATION, 1934

County	Growers	Cobblers	Green Mts.	Red Skins	Katahdins	Superbas	Total
Burlington	2	5.5	0	0	0	0	5.5
Camden	1	0	0	9	0	0	9.0
Cumberland	41	325	4.5	30	1	1	361.5
Mercer	2	14.5	0	0	0	0	14.5
Middlesex	5	30	1	0	0	0	31.0
Monmouth	2	19	0	0	0	0	19.0
Salem	20	248.5	8.5	0	1	0	258.0
Warren	1	75	0	0	0	0	75.0
Total	74*	717.5	14.0	39.0	2.0	1.0	773.5

* Actual number of growers.

ACREAGE FAILING AND PASSING CERTIFICATION

	Acres	Per Cent
Acreage rejected at first inspection	7.5	.97
Acreage withdrawn at first inspection	2.0	.26
Acreage rejected at second inspection	141.5	18.29
Total acreage rejected at end of two inspections	149.0	19.26
Acreage rejected at third (tuber) inspection	0	0
Acreage withdrawn and rejected, three inspections	151.0	19.52
Acreage passing three inspections	622.5	80.48

SUMMARY OF INSPECTION RESULTS, 1934

SEED POTATO CERTIFICATION

	Burlington	Camden	Cumberland	Mercer	Middlesex	Monmouth	Salem	Warren	Total
Acreage entered	5.5	9.0	361.5	14.5	31.0	19.0	258	75	773.5
Number of growers	2	1	41	2	5	2	20	1	74.
Average number of acres per grower	2.75	9.0	8.82	7.25	15.5	9.5	12.9	75	10.45
Acreage rejected first inspection *	0	0	9.5	0	0	0	0	0	9.5
Per cent rejected first inspection *	0	0	2.63	0	0	0	0	0	1.23
Acreage rejected second inspection *	0	0	44	11	6	0	80.5	0	141.5
Per cent rejected second inspection *	0	0	12.17	75.86	19.35	0	31.20	0	18.29
Acres rejected third inspection *	0	0	0	0	0	0	0	0	0
Per cent rejected third inspection *	0	0	0	0	0	0	0	0	0
Acres rejected total *	0	0	53.5	11	6	0	80.5	0	151.
Acres certified	5.5	9.0	308.0	3.5	25.0	19	177.5	75	622.5
Per cent certified	100	100	85.20	24.14	80.65	100	68.80	100	80.48

* Includes withdrawals.

VARIETAL DISTRIBUTION OF REJECTIONS AND WITHDRAWALS

	Acres Entered	Acres Rejected and Withdrawn — First Inspection	Second Inspection	Third Inspection	Acres Certified
Irish Cobblers	717.5	7.0	141	0	569.5
Red Skins	39	0	0	0	39.0
Green Mountains	14	1.5	.5	0	12.0
Katahdins	2	0	0	0	2.0
Superbas	1	1	0	0	0
	773.5	9.5	141.5	0	622.5

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

	1934*	1933	1932
Acres of seed certified	622.5	736.67	718.67
Total yield (field run) in bushels	106,823	123,908	83,899
Average yield per acre in bushels	171.6	168.21	116.7
Bags certified seed sold	21,297	15,941	8,261
Bags sold South Jersey	1,538	0	986
Bags sold Central Jersey	16,209	15,105	7,268
Bags sold out of state	3,550	836	7
Pennsylvania	974	836	0
New York	3	0	0
Virginia	2,537	0	7
Bags sold untagged (old sacks used) (tags not allowed)	2,664	2,091	3,476
Bags sold South Jersey	2,210	90	1,513
Bags sold Central Jersey	454	2,001	1,953
Total bags of seed shipped	23,961	18,032	11,737
Bags seed unsold Dec. 1st	21,781	11,301	10,227
Baskets of seed retained own use	27,451	52,531	34,393
Bushels of seed retained own use	17,157	32,582	21,495

* Nearly all seed sold in 1934 was packaged in 100-pound bags, and therefore, bag figures are for 100-pound sacks. For previous years the figures are for 150-pound bags.

SUMMARY OF SEED POTATO CERTIFICATION, 1934

Acres Entered for Certification

County	Acres	Per Cent
Burlington	5.50	.71
Camden	9.00	1.16
Cumberland	361.50	46.74
Mercer	14.50	1.87
Middlesex	31.00	4.01
Monmouth	19.00	2.46
Salem	258.00	33.35
Warren	75.00	9.70
	773.50	100.00

Seed Source

	Bags	Per Cent
Prince Edward Isle	3,398	57.01
New Jersey	1,974	33.12
New York	520	8.73
Maine	68	1.14
	5,960	100.00

Seed Storage

	Bags	Per Cent
Del Bay	3,073	51.56
Woodstown	531	8.91
Salem	529	8.88
East Bethany, N. Y.	500	8.39
South River	209	3.51
Pitman	200	3.36
Freehold	189	3.17
Newark	141	2.37
Philadelphia	126	2.11
Vineland	94	1.58
Jersey City	80	1.34
Bridgeton	75	1.26
Camden	50	.84
Swedesboro	40	.67
Glassboro	39	.65
Milltown	36	.60
Trenton	30	.50
Mt. Holly	18	.30
	5,960	100.00

Seed Treatment

	Bags	Per Cent
Semesan	4,127	69.24
None	1,833	30.76
	5,960	100.00

Previous Cropping of Field

	Acres	Per Cent	Average Yield Per Acre
Green Manure Crops	283.5	45.54	186.36
Fallow	137.	22.01	141.39
Sod	132.	21.20	161.48
Stubble	29.	4.66	156.34
Early Potatoes	24.	3.86	246.54
Truck	17.	2.73	167.94
	622.5	100.00	

Fertilization

Tons applied (622.5 acres)	600.33 tons
Average application per acre	1,929 pounds
Heaviest application per acre	2,500 pounds
Lightest application per acre	1,000 pounds

Rate of Planting

	150-lb. Sacks
Total number of bags of seed planted	5,960
Average number of bags per acre	7.71
Heaviest planting per acre (twin row)	12.50
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
7.71	1.029 ounces
12.50	1.669 ounces

Yield Per Acre (Bushels)

Average yield	171.6 bushels
Lowest yield	81.0 bushels
Highest yield	297.0 bushels

Preliminary Expenses Per Acre

Seed—7.71 bags at $5.00 per sack	$38.55
Fertilizer—1,929 pounds at $30.00 per ton	28.94
	$67.49

TOMATO SEED CERTIFICATION

The inspection season of 1934 was significant because of the considerable increase in the acreage of tomatoes certified for seed over the acreages certified in previous years. As usual, the fields were, for the most part, in Burlington, Mercer, Gloucester, Camden and Salem counties. The devastating storms of August of 1933 were responsible for the very short seed crop of that year. Consequently, the seedsmen were desirous of replenishing their depleted supplies of seed. The fields, generally speaking, were in excellent condition. Leaf spots, fruit spots, and stem cankers were noticeably absent.

New Jersey certified tomato seed is readily absorbed by the seed trade. As usual, a considerable volume was shipped to Mexico, Cuba and Bermuda. During the winter of 1934-1935, approximately 1,300 pounds of New Jersey certified tomato seed were exported to British South Africa.

The history of the tomato seed certification is as follows:

VARIETAL DISTRIBUTION OF CERTIFIED TOMATO SEED ACREAGES

Year	Bonny Best	J.T.D.	Baltimore	Marglobe	Break O'Day	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

THE 1935 NEW JERSEY CHILDREN'S SCIENCE FAIR

The first New Jersey Children's Science Fair was held January 22, 23, 24 and 25, 1935, as part of the New Jersey Farm Show, in Trenton. It was held by the New Jersey Department of Agriculture, with the cooperation of the New Jersey Department of Public Instruction.

The purpose of the fair was to help students to add to their scientific knowledge, and to exhibit their work in such a way that other students might benefit. It was also desired to bring before the public the achievements of children in the fields of agriculture and the natural sciences. A total of 240 exhibits all on agriculture, conservation, health, and the natural sciences, were shown. These consisted of 158 group exhibits and 82 individual exhibits, and they came from nearly every county in the state. A complete report on the fair is given in the department's Circular No. 246, "The 1935 New Jersey Children's Science Fair."

EUROPEAN CORN BORER SURVEY

Scouts connected with the Division of Cereal and Forage Insects, Bureau of Entomology and Plant Quarantine, United States Department of Agriculture, spent several days in Cumberland and Salem counties, in the early part of September, 1934. These men examined 46 fields having an approximate area of 306 acres. As a result of this work, an infestation of the European corn borer was reported from Cumberland County (Leesburg). This is the first record of this insect in this county. No infestation was found in Salem County.

A survey was also made by the same bureau to determine the status of the European Corn Borer in locations where it is known to exist. A group of four counties (Monmouth, Ocean, Burlington and Atlantic) was selected, and 40 fields examined. The percentage of plant infestation was determined by a count of 100 plants in each field, and the average number of borers

per infested plant was determined by the dissection of five infested plants. Eighteen of the 40 fields surveyed were infested, as compared with only four of 120 fields surveyed in these counties in 1932. The borer was found to be concentrated in Monmouth County and in the eastern portion of Ocean County. It was found that there was an increase in the borer population in this group of counties of from 0.3 borers per 100 plants in 1932 to 7.7 borers per 100 plants in 1934.

Various nurseries throughout the state that raise and offer for interstate shipment products that are under state quarantines on account of the European corn borer were examined by inspectors of the field office of the Bureau of Entomology and Plant Quarantine. Thirteen corn borer infestations were found. Twelve were on sweet corn and one was on field corn. Counts were made to determine the percentage of infestation, and this was found to range from 9.6 larvae per 100 stalks to 243.2 larvae per 100 stalks.

The following infestations were found during this work:

Address	Stalks Examined	Stalks Infested	Stalks Dissected	Larvae per Stalk (Stalks Dissected)	Larvae per 100 Stalks
Bergen County					
New Milford	100	31	10	1.4	43.4
Monmouth County					
Englishtown	100	8	0	1.2	9.6
Red Bank	100	28	20	1.5	42.0
Red Bank	100	32	20	1.5	48.0
Little Silver	100	63	20	2.6	164.0
Little Silver	100	63	20	2.6	164.0
Eatontown	100	10	10	2.5	25.0
Eatontown	100	10	10	2.5	25.0
Ocean County					
Osborneville	100	76	20	3.2	243.2
Atlantic County					
Scullville	50	14	10	1.4	39.2
Scullville	50	34	10	1.7	115.6
Linwood	100	48	20	1.55	74.4
Linwood	100	48	20	1.55	74.4

SCOUTING BY THE STATE DEPARTMENT OF AGRICULTURE

Scouting was done by the State Department of Agriculture to determine what gains, if any, the European corn borer had made in locations where it had previously been found. The department was especially interested in knowing whether the infested fields that were burned over in the spring seasons of 1926, 1927, 1928, 1929 and 1930 had remained free of the insect.

Intensive scouting was carried on in Bergen, Passaic, Morris, Hudson and Sussex counties, and, when all the known infestations were scouted, scattered fields were examined in these counties. This resulted in the finding of many new infestations. The abundance of larvae found in the northern and northeastern portions of Bergen County indicated that this area might well be kept under surveillance.

Heavy infestations of the European corn borer exist in Monmouth, Ocean, Burlington and Atlantic counties, according to the findings of inspectors of the United States Department of Agriculture. Because of the intensive investigational work carried on there by the federal inspectors, very little time was devoted to scouting in these counties by the state inspectors. It is quite evident that the corn borer population there has been very definitely on the increase. The high corn borer population in these four counties assumes a significant menace to agriculture in southern New Jersey, and steps should be taken to reduce the infestations.

During the 1934 season, 173 larvae of the European corn borer were found by the state scouts. Only six of these came from fields that had been known to be infested. One of these fields was burned over in the spring of 1929 and the other was burned over in the spring of 1930.

Other infestations were found as follows:

County	Town	Number of Larvae Found	Number of Fields in Which Larvae Were Found	Date Scouted 1934
Bergen	Old Tappan	30	7	Sept. 5
Bergen	Norwood	40	5	Sept. 6
Bergen	Norwood	10	1	Sept. 6
Bergen	Montvale	6	1	Sept. 7
Passaic	Wayne	2	1	Oct. 5
Passaic	Preakness	1	1	Oct. 5
Passaic	Preakness	7	1	Oct. 5
Passaic	Preakness	3	1	Oct. 5
Bergen	Paramus	2	1	Oct. 16
Bergen	Paramus	1	1	Oct. 16
Bergen	Paramus	2	1	Oct. 16
Bergen	Arcola	30	1	Oct. 16
Bergen	Lodi Borough	8	1	Oct. 22
Bergen	Warren Point	1	5	Oct. 22
Bergen	Paramus	9	1	Oct. 25
Bergen	Paramus	2	1	Oct. 25
Bergen	Glen Rock	2	3	Oct. 25
Morris	Towaco	3	1	Nov. 1
Bergen	Farview	2	1	Nov. 8
Bergen	Teaneck	1	1	Nov. 17
Bergen	New Milford	2	1	Nov. 17
Bergen	Emerson	2	1	Dec. 5
Hudson	Secaucus	1	1	Dec. 10
	Total	167	39	

Following is a summary, by counties, of the scouting done by the New Jersey Department of Agriculture. Ten fields were examined in Burlington, Monmouth and Ocean counties, which are known to have been infested. These fields seemed free of the European corn borer. However, these fields represent only a very small part of these counties, and the fact that federal inspectors scouted many more areas and found many heavy infestations leads to the conclusion that the results of their work in these counties are of greater significance.

SUMMARY, BY COUNTIES, OF SCOUTING DONE BY NEW JERSEY DEPARTMENT OF AGRICULTURE

County	Number of Fields Examined	Number of Fields Where Larvae Were Found	Number of Larvae Found
Bergen	76	34	153
Passaic	38	4	13
Hudson	13	1	1
Middlesex	4	0	0
Burlington	4	0	0
Monmouth	2	0	0
Warren	4	0	0
Essex	4	0	0
Morris	39	2	6
Ocean	4	0	0
Sussex	10	0	0
Totals	198	41	173

WHITE PINE BLISTER RUST CONTROL

White pine blister rust eradication work was continued in Sussex County by crews made up of CCC workers until the end of the fall season of 1934. A total of 381 acres were worked by crews for a total of 1,980 man hours, and 19,795 wild *Ribes* and 304 cultivated *Ribes* were pulled. A total of 12,314 acres were examined by scouts and 2,527 wild *Ribes* and 859 cultivated *Ribes* were pulled. In all, 2,712 acres of white pines were protected by the eradication of 23,485 *Ribes* bushes. The acreages of white pine thus protected, by townships, are: Montague, 2,262 acres; Sandyston, 379 acres, and Wallpack, 71 acres. Including those trees previously reported a total of 17 trees showing blister rust infection were located at several sites in Montague Township. None were found in Sandyston and Wallpack townships.

Following the completion of the eradication work in the above-mentioned townships, a pre-eradication survey was made in West Milford Township, Passaic County. Infection on white pine was located in several places in the township and a rather heavy concentration of pine infections was found on a property at West Milford.

With funds provided by the Public Works Administration, a temporary agent was hired. He started work May 1, 1935. Labor, also hired with PWA funds, worked 487 man hours to pull 4,582 *Ribes* bushes, thus protecting 212 acres of white pines. The acreage worked to gain protection was 1,242. The wild *Ribes* found were mostly the round leaf gooseberry (*R. rotundifolium*).

White pine blister rust has finally become established in New Jersey. The results of the eradication work will retard the progress of the disease. However, pine infection is likely to be found in other places where the two host plants *Ribes* and white pines, occur in close proximity. At the close of the fiscal year, pine infection was known to be established in Montague and Vernon townships of Sussex County; West Milford Township, in Passaic County, and Jefferson Township, in Morris County.

NURSERY INSPECTION SERVICE

The plant inspection activities of the bureau during the fiscal year ending June 30, 1935, included nursery inspections, domestic and foreign nursery stock inspections, the issuance of special certificates, special request inspections, the certification of stock consigned to Canada, inspections of Christmas trees, and the certification of narcissus bulbs in compliance with federal regulations.

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 1934	15
Spring of 1935	58

DOMESTIC STOCK INSPECTIONS (ORNAMENTAL)

	Cases	Cars	Bales	Trees
Fall of 1934	246	..	..	..
Spring of 1935	673	45	24	25
Totals	919	45	24	25

DOMESTIC STOCK INSPECTIONS (FRUIT)

	Bales	Trucks	Cases	Cars
Fall of 1934	..	..	..	..
Spring of 1935	35	1	71	1

NURSERY INSPECTION

The annual inspection of nurseries was begun in June, 1934, 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 injurious insects and diseases, 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.

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

General	531	Privet	3
Perennial	20	Orchid	1
Greenhouse	22	Roots	1
Dahlia	11	Evergreen	48
Rose	16	Herbaceous	2
Berry	8	Rhubarb	1
Bulb	7	Deciduous	2
Aquatic	3	Dealers	105
Fruit	3		
		Total	784

NEW ENGLAND STOCK INSPECTIONS

A total of 809 cases and 9 carlots 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 private citizens and to nurserymen who wished to ship nursery stock to other states and to foreign countries. A certificate was issued at the time of packing if the stock in question was found to be free from injurious insects and plant diseases. Two hundred and eighty-two 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. Forty-nine such visits were made during the year ending June 30, 1935.

CANADIAN STOCK INSPECTIONS

In compliance with Canadian regulations, 116 certificates were issued to cover stock consigned from New Jersey to Canada.

CHRISTMAS TREE INSPECTIONS

A total of 4,100 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

The inspection of narcissus bulbs destined for places outside of New Jersey is made necessary by the provisions of a federal quarantine. This inspection work is summarized as follows:

Total number of bulbs inspected—1,760,800
Total number of shipping certificates issued to growers—1,100
Total number of bulbs sterilized—782,500

Federal Quarantine No. 62, issued July 1926 to prevent the spread interstate of certain injurious bulb pests, was revoked April 1, 1935, because of the known wide distribution of these pests, and because of the impracticability of their eradication. The State Board of Agriculture, on April 1, 1935, revoked the state quarantine on narcissus bulbs that had been adopted July 27, 1926. Several states continued to require that incoming narcissus bulbs must be certified. This made it necessary for the bureau to continue its inspections of bulbs destined for shipment into states requiring this certification.

INSECT AND DISEASE INFESTATIONS OCCURRING IN NEW JERSEY NURSERIES DURING THE YEAR ENDING JUNE 30, 1935

Insect Pests	Number of Nurseries	Insect Pests	Number of Nurseries
Juniper Scale	74	San Jose Scale	4
Oyster Shell Scale	60	Fire Blight	4
Bag Worm	32	European Pine Shoot Moth	3
Rhododendron Lace Bug	26	Spruce Bud Scale	2
Spruce Gall Aphid	15	Pine Sawfly	2
Juniper Web Worm	13	Sycamore Lace Bug	2
Boxwood Leaf Miner	7	Azalea Lace Bug	1
Mottled Willow Borer	7	Golden Oak Scale	1
Lilac Borer	7	Rose Stem Girdler	1
Pine Leaf Scale	7	European Elm Scale	1
Sitka Spruce Gall Aphid	6	Tulip Lecanium	1
Euonymus Scale	6		
		Total	282*

* These infestations were found in 153 nurseries.

BEE INSPECTION SERVICE

After twenty-three years of efficient service, Elmer G. Carr, inspector of bee culture, resigned on December 31, 1934. Owing to the fact that his successor, Paul L. Holcombe, was not appointed until March 1, 1935, money was available for the employment of two men on a part-time basis for inspection work in May and June. Accordingly, two men were employed for such part-time work.

During the year, the calls for inspection and the number of samples of dead brood received by mail showed that the beekeepers of the state are interested in the control of bee diseases. The usual supervision was exercised over queen-rearing apiary areas. These were given careful inspection in order to guard against the entrance of contagious bee diseases.

INSPECTIONS

During the 1935 fiscal year, 784 apiaries were inspected. These had a total of 6,729 colonies. Two hundred and thirty-seven of these were in plain boxes and 283 were in hives with immovable combs. American foulbrood was found in 795 colonies located in 256 apiaries. European foulbrood was found in six colonies located in five apiaries.

An error in the report for the fiscal year 1933-34 states that 21 per cent of the colonies inspected were infected. This should have read "30 per cent." Twelve per cent of the colonies inspected during the 1934-35 fiscal year were infected with European foulbrood and 33 per cent of the apiaries were infected with American foulbrood. The increase of disease was brought about by the severe winters of 1933-1934 and 1934-1935. These winters destroyed a large number of colonies that might have lived longer, and diseased material was "robbed out" by other colonies.

Calls for inspections were received from all parts of the state. Microscopic diagnosis of 35 samples of brood showed 29 to be infected with American foulbrood and six to be negative.

QUEEN REARERS' CERTIFICATES

Four queen-rearing apiaries were certified. These were located at Glen Gardner, Pittstown, Pennington, Cape May Court House, and Stockton, R. D.

CERTIFIED HONEY

After proper examination of their apiaries, permits for the use of certified honey labels were issued to two beekeepers.

APIARY INSPECTIONS, JULY 1, 1934-JUNE 30, 1935

County	Apiaries	Colonies	Box	Cross Comb Hives	Apiaries Afb*	Colonies Afb*	Apiaries Efb†	Colonies Efb†	Colonies Sacbrood	Burned	Brood Samples Diagnosed*†
Atlantic	1	8	..	..	..	..	..	..	..	..	.....
Bergen	7	52	..	1	3	21	..	..	..	4	1 Afb
Burlington	73	877	58	12	34	73	4	5	19	6	2 Neg., 11 Afb
Camden	4	25	..	2	1	10	..	..	..	..	.....
Cape May	4	110	..	..	..	..	..	..	16	..	.....
Cumberland	32	233	8	11	6	28	..	..	..	11	1 Neg., 2 Afb
Essex	2	11	..	..	1	1	..	..	..	..	3 Afb
Gloucester	14	57	..	..	7	11	1	1	..	..	1 Afb
Hunterdon	115	1,732	12	92	17	38	..	..	28	3	5 Afb
Mercer	55	472	28	20	8	33	..	..	9	..	.....
Middlesex	25	140	1	10	8	25	..	..	6	1	3 Afb
Monmouth	40	266	10	4	19	76	..	..	6	8	1 Afb
Morris	296	1,818	80	87	103	295	..	..	118	..	1 Neg., 1 Afb
Passaic	8	41	..	..	2	2	..	..	..	..	.....
Somerset	77	533	33	48	37	140	..	..	5	18	1 Neg.
Sussex	8	108	..	..	3	15	..	..	..	..	.....
Union	19	107	..	..	7	27	..	..	..	2	2 Afb
Warren	6	139	..	..	..	..	..	..	..	..	1 Neg.
Totals	784	6,729	237	283	256	795	5	6	207	53	29 Afb, 6 Neg.

* Afb indicates American foulbrood.
† Efb indicates European foulbrood.

GIPSY MOTH WORK

ASSEMBLING CAGE WORK

During the month of July and the greater part of August, agents of the department made regular visits to the assembling cages that had been distributed in Morris, Sussex, and Warren counties. Toward the end of July, 19 adult male gipsy moths were captured in Mendham and Morris townships, in Morris county. These locations were in the vicinity of the gipsy moth infestation found in Mendham in 1932. It became evident that one or more small infestations had resulted from the large colony and that the adult moths were coming from the smaller infestations. In the first part of August, three more moths were captured in the Morris-Mendham area and one adult moth was captured in Pahaquarry township, on the Delaware river about seven miles north of the Delaware Water Gap. The season was very favorable for the flight of adult moths, for the temperature was high and there was much sunlight.

DISTRIBUTION OF ASSEMBLING CAGES

Warren County

Township	No. of Cages
Blairstown	40
Hardwick	40
Pahaquarry	30

Sussex County

Fredon	34
Green	32
Stillwater	45
Wallpack	45
Hampton	40
Sandyston	50
Montague	50
Wantage	77
Frankford	65
Andover	39
Sparta	69

Morris County

Mendham	36
Morris	27
Randolph	70
Denville	21
Hanover	23
	833

SCOUTING WORK

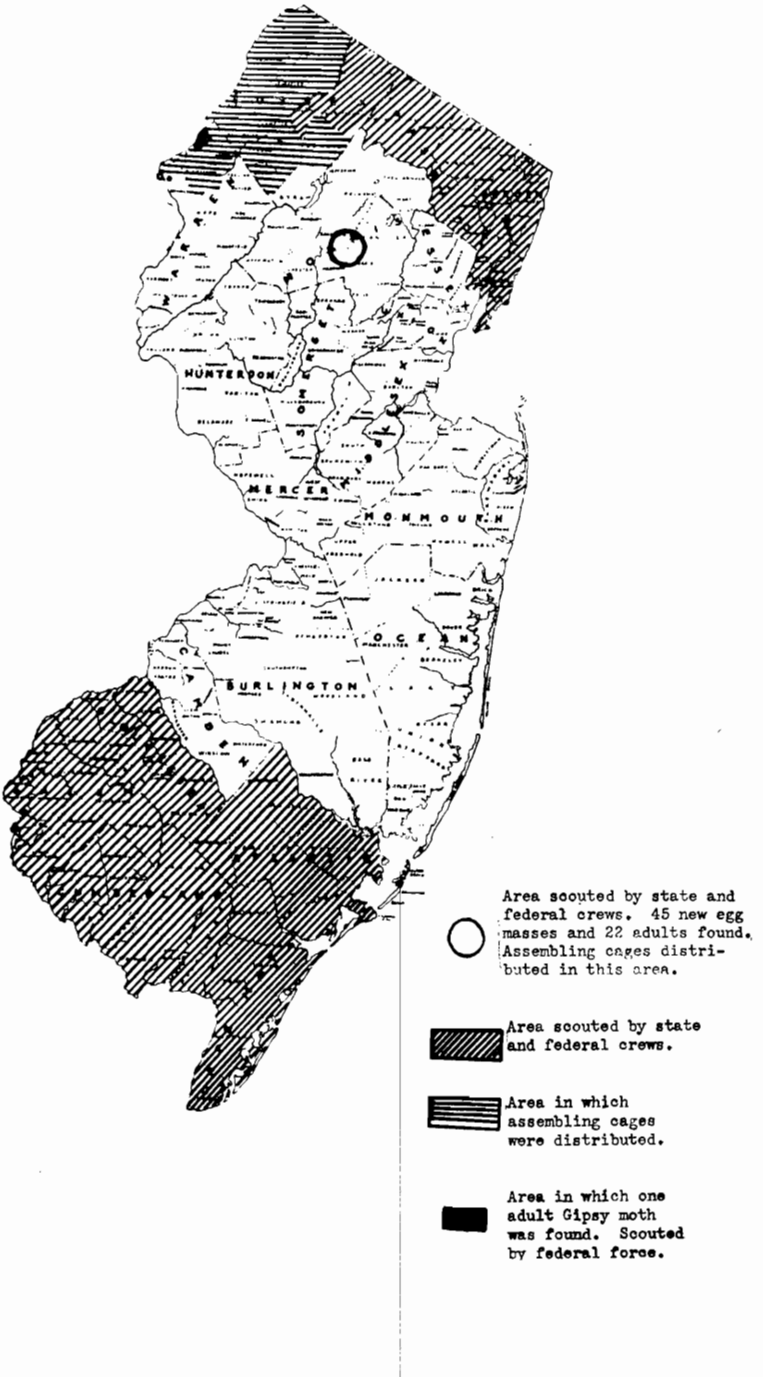
Because of the newly discovered gipsy moth infestation in the Bronx section of New York City, scouting operations were carried on in the Palisades area of New Jersey to learn whether the infestation had crossed the river into New Jersey. It is possible that the hundreds of visitors from the Bronx to the Palisades area may have carried egg masses, larvae, or other stages of the gipsy moth on containers bearing camping outfits, on boats, canoes, etc. An area from Edgewater to the New York State line, automobile route 9-W and vicinity, and routes 4 and 25 and vicinity were roughly scouted. Ferry docks, public boat landings, the west terminal of the George Washington bridge, and other points of entry were given special attention. The growth in this section is very favorable for the gipsy moth. When the foliage had dropped sufficiently to allow scouting in woodland areas, work was started in the Mendham section of Morris County. Operations were confined to the locations where adult gipsy moths had been captured, and in this area three separate infestations totaling 45 new gipsy moth egg masses, were found. About 1,500 acres of woodland were covered by the department's scouts.

Arrangements were made with the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture for the loan of one crew of scouts, one supervisor, and transportation. This crew of highly trained and experienced men did fine work in Mendham, Morris and Randolph townships. One of the infestations was located by them, and they found one new egg mass near one of the colonies that had been found by the state scouts. This crew covered more than 1,600 acres. The scouting done by the two forces showed the conditions in this particular area very well. Because of the adult gipsy moth that had been caught in Pahaquarry Township, the Bureau of Entomology and Plant Quarantine sent one crew of scouts with a supervisor to this township and the area for a considerable distance around the site of the cage that had attracted the moth was scouted. An equal area was scouted in Pennsylvania. In January, the federal bureau sent one man from the Greenfield office, and this man, together with one of the state inspectors who has considerable experience in gipsy moth work, covered a large area in the northern part of the state and also a large section in the southern part. The sections covered by this survey had never been scouted for the gipsy moth previously. While this work was not intensive, important places were covered. Railroad stations, assembling points for tourists, and other likely places were inspected, and the results indicate that no infestation of the gipsy moth of any size exists in the areas covered.

RESULTS OF GIPSY MOTH WORK IN NEW JERSEY, 1935

Area	Acres Woodland Scouted	Miles of Road Scouted	Miles of River Edge Scouted	Shade Trees Scouted	Fruit Trees Scouted	Infestations Found	Egg Masses Found New	Egg Masses Found Old	Acres Sprayed	Fruit Trees Sprayed	Larvae Killed	Burlap Bands Applied
New Jersey Force												
Palisades	532.0	32.75	6.00	8,492	338	0	0	0	0	0	0	0
Morris Township	539.5	2.50	0	2,981	109	1	24	1	77*	0	0	319
Mendham Township	60.5	0	0	0	0	1	14†	1	45‡	50	152	103
Randolph Township	60.5	0	0	0	0	0	0	0	28	0	0	0
Bernards Township	18.0	0	0	0	0	0	0	0	0	0	0	0
North Plainfield	24.0	0	0	0	0	0	0	0	0	0	0	0
Hanover Township	196.5	1.50	0	310	219	0	0	0	0	0	0	0
Denville Township	78.0	0	0	0	0	0	0	0	0	0	0	128
Bridgewater Township	5.0	0	0	0	0	0	0	0	0	0	0	0
Passaic, Morris Counties.	....	0	0	0	0	0	0	0	0	0	0	82
Sub-Total	1,514.0	36.75	6.00	11,783	666	2	38	2	150	50	152	632
Federal Force												
Mendham Township	545.0	4.00	0	125	1,290	0	0	11	0	0	0	0
Morris Township	479.0	4.00	0	1,129	526	1	7	6	28§	0	0	0
Randolph Township	639.0	2.50	0	115	425	0	0	0	0	0	0	0
Pahaquarry Township	435.0	1.50	0	720	255	0	0	0	0	0	0	0
Sub-Total	2,098.0	12.00	0	2,089	2,496	1	7	17	28	0	0	0
Grand Total	3,612.0	48.75	6.00	13,872	3,162	3	45	19	178	50	152	632

* Thirteen acres of this total were re-sprayed because of wash before drying.
† One new egg mass found by federal force and added to this colony.
‡ Three acres of this total re-sprayed because of wash before drying.
§ This area sprayed by New Jersey force.
(The federal force scouted 218 isolated oak trees in addition to above.)



CLEAN-UP WORK IN INFESTED AREA

At the close of the scouting season, the Bureau of Plant Industry patrolled the infestations for gipsy moth larvae. At the site of only one infestation were any larvae found. It seems likely that one egg mass may have been missed; probably it was underneath rocks or in some inaccessible location. Spraying of the three infestations was started the first part of June with two high power machines. These machines, with 4,000 feet of hose, three tons of arsenate of lead, three barrels of fish oil, and experienced operators for the machines, were furnished by the United States Department of Agriculture. This cooperation was of inestimable value to the New Jersey Department of Agriculture. Without the aid received in recent years from the federal department, the gipsy moth work would have been greatly curtailed in New Jersey. A rather wet season was experienced, but, because of the fish oil used as an adhesive, the spray material was not washed off the treated trees to any extent once it had dried. At the close of the spraying season, burlap bands were applied to likely places such as trees outside the sprayed areas, large oak trees with much loose bark, and ledges and other areas where egg masses could have been hidden.

JAPANESE BEETLE SUPPRESSION

The plan of trap distribution for the summer of 1934 represented a departure from the system previously employed. In the summers of 1932 and 1933, preliminary arrangements were made with farmers in the areas of heavy infestation for the placement of traps. Because of the steadily increasing size of the area of heavy infestation, the demand for traps was sufficient to absorb the department's supply. Consequently, the traps were distributed to residents of the state who made application for them.

The traps were distributed quite generally throughout the southern half of the state. The heaviest distribution was in Salem and Cumberland counties and in the Hightstown and Freehold section of central New Jersey.

The weather during the season of 1934 was decidedly adverse for trapping. High humidity coupled with frequent rainfalls rendered the traps ineffective. As a consequence, destructive beetle feeding continued despite the many traps placed throughout the state. It was hoped that weather such as was experienced during the trapping season of 1932 would occur at least every two or three days. Obviously, the vagaries of the weather are such that predictions regarding the accomplishments of traps are decidedly unreliable.

Previous experience with the capture-record charts submitted by trapping cooperators led to the abandonment of any attempt to tabulate the total captures in the state. In many instances no notations of captures were made on the charts even though a considerable number of beetles had

been trapped. The Japanese beetle trapping work of the general suppression program has resolved itself into the distribution of the state-owned traps to locations where economic crops susceptible to Japanese beetle damage may be given the utmost of protection.

The grub survey work during the 1934-1935 season was considerably curtailed. It was believed that the information collected from grub surveys that had previously been made supplied the department with the necessary information regarding the preparation of control conditions. Grub survey work, however, was conducted as an adjunct to the nematode distribution work. Obviously, the necessity of knowing the grub population of a pasture to be treated with nematodes is of prime importance.

The nematode propagation and distribution work was considerably expanded. A building at the Japanese Beetle Quarantine Headquarters, at White Horse, was renovated to meet the purposes of a nematode propagation laboratory. Preliminary nematode propagation work, which was done at the Rockefeller Institute for Medical Research, at Princeton, indicated that an expansion of this phase of the suppression work could be justifiably undertaken. The new laboratory at White Horse was equipped with a temperature-controlled incubation chamber.

The field experimental plots pertaining to the nematode work were continued. The Johnson plot at Yorktown was periodically examined to ascertain the accomplishments of the nematodes introduced in that location. The most significant revelation of the examinations made on the Johnson plot indicated that the nematodes had moved, either by virtue of their own locomotion or by having been transported by infested grubs, to a point 15 feet from the limit of the original introduction. The fact that lateral migration does occur is a basic principle in the planning of methods for large-scale field introductions.

The introductions made during the 1934-1935 season consisted of uniform volumes of infested soil placed into sub-surface openings nine feet apart. It was assumed that a heavy concentration of nematodes at one point would be conducive to a large survival and that the infestation of the intervening area would probably be taken care of by lateral migration. During the 1934-1935 fiscal year introductions of nematodes were made near Plainfield, Friesburg, Roadstown, Greenwich, Quinton, Salem, Hancocks Bridge, Shirley and Canton.

Parasitized grubs were founds during the spring of 1935 in locations that had been treated during the fall of 1934. It is reasonable to expect that the degree of parasitism will gradually and perceptibly rise during the next few years.

The nematode propagation work at the newly equipped laboratory at White Horse assumed two aspects: first the propagation of nematodes for field distribution, and second, extended and intensive research to develop more effective methods of nematode propagation. Every effort was made

to develop a three dimensional system by means of which the nematodes may be propagated on a truly wholesale basis.

In addition to the work of culturing the nematode parasite by the established technique, numerous tests were made in an effort to find a cheaper and more productive system of culture. Because of certain advantages in the handling of liquid media, an exhaustive program was undertaken in an attempt to find a satisfactory liquid medium for propagating the nematodes. A number of synthetic media were prepared and investigated, as were also many infusion media.

The results of the use of synthetic media were uniformly discouraging. This, it was thought, might result from an insufficiently vigorous growth of yeast. The United States Department of Agriculture and a prominent research laboratory were contacted in an effort to determine fully the requirements of a medium for vigorous reproduction of yeast cells. These agencies advised the bureau that, while purely synthetic media often support a vigorous fermentation, there is little or no reproduction of the yeast cell under these conditions. This phase of the investigation was discontinued.

The results of work with various infusion media (potatoes, oatmeal, soy beans, malt, nutrient veal bouillon, etc.) were more promising, as the nematodes could at least be maintained alive under these conditions. However, there was no reproduction of the nematodes in these media. It was noted that development of the nematodes always ceased at the free-living form (second stage), regardless of the stage at which they were introduced. This result pointed to an unsatisfactory physical environment rather than a nutritional deficiency. Accordingly, several methods were devised to test this hypothesis. The results showed quite conclusively that any liquid medium would be unsatisfactory because of the inability of the organism to molt in such medium from the second, or free-living stage.

Since in the established technique the nematodes propagate in a physical system consisting of a heavy aqueous suspension of yeast cells and metabolic debris, it was assumed that they might be propagated in a closed container of semi-solid medium. Very weak agar media were prepared, the assumed necessary accessory food factors for the yeast and nematodes added, and the yeast and nematodes introduced. However, after several days, the initially uniform semi-fluid mass disintegrated into two distinct phases, one quite solid, the other quite liquid. It was obvious that the nematodes would not find a suitable environment under these conditions, and further work in this direction was discontinued.

Next, an attempt was made to culture the nematodes on a heavy suspension of yeast cells alone, without the use of the underlying strata of agar. This work eventually culminated in results that will be of value in planning future work, since some rather definite information concerning the nutrition of the nematodes was obtained. It was found that live yeast

alone would not support growth, but that live yeast (not necessarily reproducing, however) plus a definite though small quantity of nutrient veal bouillon would result in a satisfactory reproduction. Furthermore, dead yeast cells (heat-killed—10 minutes at 80-85°C.) were of no value, either with nutrient bouillon or as an accessory to live yeast. As indicated, the nematode could be propagated on live yeast (such as may be obtained commercially as compressed yeast) plus a small amount of nutrient bouillon. While this offers some advantages, the disadvantages are greater in actual practice, and no practical result has as yet been obtained from this finding.

The advantages of a three-dimensional propagating system in large-scale practice are obvious. By such a system, a much larger number of nematodes could (theoretically) be grown than is possible by utilizing only the surface of a number of agar culture dishes. Several attempts were made to develop such a system, using the insight gained from the previous work regarding physical environment and nutritional requirements. Some degree of success was obtained, but more pressing and immediate work forced a temporary abandonment of this investigation. Furthermore, a good deal of fundamental work remains to be done before full success in this direction may be reasonably expected. Among the things yet to be discovered are: (1) a satisfactory "filler," which would allow aeration of the chamber or tower and still provide a satisfactory support for the nemas, yeast, and other nutrients; (2) a fungicidal agent that will function satisfactorily under these conditions, inhibiting the growth of contaminants without killing the yeast or injuring the nemas; (3) a satisfactory method of adjusting the hydrogen ion concentration of the entire mass during the process of cultivation.

Concurrently with much of the work just described, attempts to supplant the standard agar technique were made in an entirely different manner. During the year 1934-1935, a considerable degree of success had been obtained in the use of ground raw Irish potatoes, on which a growth of yeast had been established. This medium, being badly contaminated with bacteria and mold spores in the very beginning, usually became excessively moldy. This created an unfavorable environment because of the production of acids and, in addition, the formation of a mat over the surface which prevented the access of oxygen to the layer beneath. Also, the activity of the bacteria and molds soon resulted in the destruction of the cellular structure, with the result that in time the entire culture tray became liquid and many of the nemas drowned. A commercial compound recently placed on the market and used as a fungicide and bacterial static agent in the pharmaceutical field was obtained and tested. This did not prove satisfactory with potatoes for several reasons.

An oatmeal gruel (similar to that used as a breakfast cereal) was prepared and tested. This could be prepared in a sterile condition, and a pure culture of yeast obtained thereon by observing proper precautions. Further-

more, the process of liquefaction as a result of bacterial action did not progress so far in this medium as in the potatoes. However, the oatmeal was quite susceptible to accidental contamination with molds. After a great number of tests, it was determined that, using the proper concentration of a commercial compound, the nemas could be grown in as great numbers as without it (*i. e.*, there was no notable deleterious effect), and all ordinarily occurring molds could be controlled except one species of *Oidium,* which resisted all attempts at control. However, the investigations on this *Oidium* showed that, by the use of the proper technique, there was small chance of encountering this mold, as the spores are not notably air-borne.

Numerous experiments were begun in an attempt to adapt the use of oatmeal to the conditions desirable for its use as a large-scale propagating medium. Primarily, this necessitated a more rapid growth of yeast than occurred on the ordinary gruel. Several enriching materials were tried. This finally resulted in the use of dextrose in a concentration of 1-2 per cent, and the use of an inoculum of yeast grown pure in plugged flasks of thin oatmeal gruel enriched by the partial conversion to maltose by dimalt. These experiments are not complete. The bureau had hoped to use this method in the spring production of nematodes, but, unfortunately, an interval of warm weather ruined the cultures. It should be remarked that all attempts to propagate the nematodes at a temperature much in excess of 75° F. have failed. A culture chamber was constructed and equipped with air-conditioning apparatus which, it is hoped, will make it possible to propagate the nematode throughout the summer. This has been impossible in the past.

For the production of nematodes for establishing new foci of infection in the field, nutrient veal infusion agar on which a pure culture of yeast is grown has been used exclusively.[1] Various sized petri dishes have been used in this work. Aluminum pie plates have been used instead of the more expensive glass culture dishes, and several decided advantages have accrued therefrom.

Attempts were made to use one commercial brand of prepared nutrient agar. These were unsuccessful. Also, commercial meat extracts were used to make nutrient agar. Other agars, such as digest agar, were tried; these, too, failed to give satisfactory results. The conclusion is that veal infusion agar, even in view of the expense of the material and the labor involved in its preparation, is the only medium satisfactory for routine use.[2]

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[1] Even oatmeal, or a similar medium, may not be expected to replace this agar for any other than the last transfer before use in field work.

[2] Details on the use of this agar are given in the department's Circular No. 211, "Studies on *Neoaplectana glaseri,* a Nematode Parasite of the Japanese Beetle (*Popillia japonica*)."

One strain of the nematode was cultured continuously in the standard medium from September until June. Several difficulties were experienced during this period. First, a serious bacterial contamination of the cultures occurred; this was overcome. Then a species of mold became established and spread throughout the cultures; this was only overcome by getting some material of the same strain being used at the Rockefeller Institute for Medical Research. Finally, all the cultures began to wane. The remedy came almost by accident—it was found that alternate transfers from an acid to an alkaline agar restored the vitality of the nematode. Concurrently, new and vigorous material was obtained from the field and purified. In the latter part of the season, this new material was used. Yields were much heavier.

At the end of the fiscal year, ten strains were being cultured and studied with the object of determining the extent of adaptability which may exist in the organism. The experiences of the year certainly indicate that as a matter of routine, several strains should be cultured concurrently.

The entire production of nematodes for field use during the spring (the only period of introduction) was approximately 25 million nematodes. It is hoped that, with the equipment now at our disposal, and the experience of previous years, we can introduce an average of 4-6 million per week for 8 weeks in the spring, and again in the fall. This requires a production and distribution of approximately 80 million parasites per year, which, on this basis, would establish about 16-20 foci of infection.

Mention should be made that, during the year, a new scheme of introduction of the nematode in the field has been used. In the past, growing cultures of the organism have been taken to the field and applied; aqueous suspensions have been tried, both sub-soil and by spraying the surface. This year the nemas have been incorporated in soil, at the laboratory, and distributed sub-soil in the field. This gives several apparent advantages; the actual advantages remain to be seen from actual field parasitism.

JAPANESE BEETLE QUARANTINE WORK

(Calendar Year 1934)

The following report indicates the extent of the Japanese beetle quarantine work that was 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 during 1934. More detailed information is on record in the office files.

TRAPPING IN SUSSEX COUNTY, 1934

Actual trapping operations to determine the extent of infestation in the State of New Jersey began on July 2, 1934, with the result that eight beetles were collected on the very first day. Seven hundred traps, with liquid bait, were placed as near as possible to the 1933 locations in order to secure more accurate comparative data on the infestation in Sussex County. Only 826 beetles were collected during the 1934 season as compared with 1,032 collected in 1933, a decrease of approximately 20 per cent.

The greatest infestation was again found in Franklin, where 350 beetles were collected. However, this is a decrease of approximately 35 per cent from the number (545) found in 1933. The largest collection, 189 beetles, was reported from trap 504, located in Franklin.

The outstanding increase in infestation was noted at Newton, where 138 beetles were collected as compared with 95 in 1933. There was a decrease in the number collected at Andover of approximately 60 per cent.

REPORT ON TRAPPING IN SUSSEX COUNTY, 1932, 1933, 1934

Town	Number of Traps			Number of Japanese Beetles			Number of Traps with Japanese Beetles		
	1932	1933	1934	1932	1933	1934	1932	1933	1934
Andover	30	40	40	40	216	84	5	20	17
Branchville	23	20	20	0	3	1	0	3	1
Culvers	69	50	50	1	0	1	1	0	1
Franklin	202	100	100	62	545	350	24	23	20
Hamburg	61	60	60	2	10	35	2	7	17
High Point	56	30	30	2	0	0	2	0	0
Hopatcong	90	75	75	29	36	35	10	14	9
Lafayette	25	20	20	0	0	0	0	0	0
Mohawk	63	50	50	2	31	38	2	13	12
Netcong	25	20	20	9	24	35	7	13	11
Newton	250	100	100	32	95	138	20	37	40
Ogdensburg	45	30	30	2	5	3	2	5	3
Sparta	52	30	30	1	2	1	1	2	1
Stanhope	60	25	25	23	42	67	11	10	12
Sussex	50	40	40	3	10	21	2	7	11
Swartswood	18	10	10	5	13	17	1	1	2
Wawayanda	10	0	0	1	0	0	1	0	0
Totals	1,129	700	700	214	1,032	826	91	155	157

NURSERY AND GREENHOUSE SCOUTING

All Class I establishments were scouted during the summer, as well as an area of 500 feet surrounding each establishment. One crew, consisting of a foreman and three scouts, was stationed at Rutherford. No definite crew was assigned to work out of the White Horse office during the season, the few remaining Class I establishments being scouted by the regular

inspectors while engaged in work in the vicinity of the establishments in question. During the year, 354 scoutings were made at 103 establishments, or an average of 3.43 per establishment.

The following table shows the relative concentration of establishments in New Jersey as compared with the entire area under quarantine, as of December 31, 1934.

	Entire Area	New Jersey	Per Cent in N. J.
Number of Class I Establishments	1,830	73	3.99
Number of Class I and III Establishments	16	7	43.7
Number of Class III Establishments	455	271	59.5
Number of Classified Establishments	2,301	351	15.2

SAND, MOSS AND PEAT SCOUTING

Only one crew was specifically assigned to sand, moss and peat scouting during the year. This crew was stationed at Glassboro. At White Horse, this work was done by the regular inspectors, who devoted as much time as possible to scouting sand pits. This condition was also true at New Brunswick. When the inspector at New Brunswick became too busy with other duties, the pits in that vicinity were scouted by inspectors stationed at White Horse. As is customary, after the scouting of the pits was completed, the men were assigned to other phases of the quarantine work, chiefly the inspection of farm products.

In the fall, scouting was resumed to determine the absence of infestation and subsequent releasing of the pits from summer requirements.

FARM PRODUCTS

Because of inadequate funds, only 24 men were assigned to farm products work in New Jersey during the year, and only eight inspection points were operated.

A recurrence of the bean crop failure in the Midwest created a very good market for New Jersey beans. More than 93,000 bushels of beans were certified for shipment from New Jersey to points outside the quarantined area. Most of them were destined for the Midwest. In addition to certifying beans for New Jersey growers, inspectors from the White Horse office handled bean certification in the vicinity of Morrisville, Pa. More than 20,000 bushels of beans were inspected in that area.

Because requests for the inspection of beans were intermittent, depending on market and weather conditions, and because of a lack of funds, all temporary men were hired with the understanding that their hours would be irregular, depending entirely on the demand for bean inspection, and that they would be compensated only for the actual time they worked. This resulted in a substanial saving to the department.

On account of the increase in the number of Japanese beetles flying at the various bean-loading points within the state, precautionary measures were intensified to prevent the cars from becoming infested. As soon as information concerning the 'spotting' of the cars for loading was procured, an inspector was assigned to examine the ice bunkers and the car for live beetles. When satisfactorily examined and determined free from beetles, the hatches of the ice bunkers and the doors were closed and sealed until loading or icing was started. If beetles were flying, the loading was delayed until the flight had subsided. At one loading point, special beetle-proof canopies were constructed and interposed between the car being loaded and the truck carrying the produce. By the proper arrangement of canvas curtains, loading was allowed to proceed without the danger of the cars becoming infested during this operation. Shortly after this beetle-proof arrangement was put in use, a heavy wind storm occurred in the Cedarville area, and it was totally demolished. The local freight agent offered the use of a portion of the freight loading platform for quarantine work, and, with what screening material the quarantine division was able to salvage, together with several tarpaulins, the division was able to screen in an area and put to work a battery of bean machines. It was necessary that the division establish a central inspection point at Cedarville.

There was an increase of more than 30 per cent in the quantity of beans certified in 1934 as compared with 1933. There was an increase of more than 10,000 units in the total number of packages of farm products certified during 1934 as compared with 1933, although no peaches were certified in 1934.

During August, two men were assigned to gathering data on the movement of cars of potatoes from the heavily infested areas of New Jersey to points outside the area, especially to points in the vicinity of Chicago, St. Louis, Detroit and Indianapolis. The numbers of the cars suspected of being infested and other pertinent facts were telegraphed to inspectors stationed at these four cities in order that the cars might be examined upon arrival. Data on more than 500 cars were sent to the transit inspectors in the Middle West.

No berries were fumigated at Hammonton and only 1,987 crates were fumigated at New Lisbon.

FARM LAND SCOUTING

Very little scouting of farm land was done because of the general and heavy infestation of beetles in South Jersey. However, a few farms were scouted early in the summer to ascertain the time of heavy infestation. The scouting was resumed at the end of the season to ascertain the time of the disappearance of the adults.

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. 15	8	*	5,075	87
Camden	June 15 to Sept. 15	8	†	3,070	21
Cedarville	June 15 to Sept. 15	8	10	57,012	2,632
Glassboro	June 15 to Oct. 15	8	6	19,188	851
Newfield	June 15 to Sept. 15	8	†	1,110	0
Rutherford	June 15 to Oct. 15	8	1	176	0
Trenton	June 15 to Oct. 15	8	7	9,372	86
Wheat Road	June 15 to Sept. 15	8	*	552	201
Totals			24	95,555	3,878

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

† These points were taken care of from Glassboro, where a crew of 6 men was stationed.

TOTAL NUMBER OF PACKAGES OF FRUIT, VEGETABLES, AND CUT FLOWERS CERTIFIED IN THE REGULATED AREA OF NEW JERSEY, SUMMER OF 1934, AND NUMBER OF BEETLES REMOVED

Article	Number of Packages	Number of Beetles Removed
Corn	41	0
Lima Beans	1,917	87
String Beans	91,737	3,775
Apples	3	0
Blueberries	1,469	16
Cut Flowers	388	0
Totals	95,555	3,878

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	..	12	12
Louisiana	5	..	5
North Carolina	29	..	29
New York	9	..	9
South Carolina	20	..	20
Virginia	5	..	5
Foreign	2	..	2
Totals	70	12	82

One thousand nine hundred and eighty-seven crates of berries were fumigated with carbon disulphide at New Lisbon during 1934. No berries were fumigated at Hammonton during the year.

The following are the locations of Japanese beetle quarantine offices in New Jersey and the area under the jurisdiction of each: Trenton (White Horse) (State Headquarters), South Broad Street, Trenton—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, Rutherford—Sussex, Morris, Passaic, Bergen, Essex and Hudson counties; Glassboro, Kotler Building, Main and High Streets, Glassboro—lower half of 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	495,933	May	918,528	September	105,564
February	101,992	June	470,310	October	344,392
March	458,772	July	251,040	November	357,748
April	644,260	August	211,969	December	234,610

Plants Certified to Points Outside Area	4,595,118
Plants Certified to Other Dealers Inside Area	2,925,856
Total Plants Certified	7,520,974

SOIL TREATMENTS WITH VARIOUS SUBSTANCES

Nursery and Ornamental Stock Treated with Paradichlorobenzine	1,743
Total Plants Treated with Carbon Disulphide Dip	3,985
Total Plants Treated with Hot Water	1,696
Total Cubic Yards of Potting Soil Fumigated with Carbon Disulphide	1,659.65
Total Cubic Yards of Potting Soil Treated with Arsenate of Lead	77
Total Cubic Yards of Potting Soil, Steam Sterilized	100

Heeling-In Areas

Square Feet Re-Treated	88,743	
Square Feet Treated (New)	83,052	
Square Feet No Lead Required	393,051	
Total Square Feet Heeling-In Area		564,846

Areas Containing Growing Plants

Square Feet Re-Treated	801,560	
Square Feet Treated (New)	326,596	
Square Feet No Lead Required	2,653,331	
Total Square Feet Growing Plants		3,781,487
Total Square Feet Leaded Area in Certified Status		4,346,333

Plants

Number of Plants Re-Treated	110,178	
Number of Plants Treated (New)	78,807	
Total Plants Treated, 1934	188,985	
Number of Plants No Lead Required	256,592	
Total Plants Growing in Certified Status		445,577

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
California	..	1	4	..	5	10
Florida	..	..	1	..	..	1
Georgia	1	..	..	..	..	1
Illinois	..	85	5	3	..	93
Indiana	1	..	10	..	..	11
Iowa	..	..	2	..	..	2
Kansas	..	..	1	..	..	1
Kentucky	2	..	1	..	..	3
Louisiana	..	..	1	..	..	1
Maryland	3	6	..	..	..	9
Maine	4	8	..	15	..	27
Michigan	5	3	6	1	..	15
Minnesota	..	..	2	..	..	2
Missouri	..	..	1	..	..	1
North Carolina	7	..	1	..	..	8
New Hampshire	8	..	..	..	..	8
New Mexico	..	..	1	..	..	1
New York	62	188	2	47	..	299
Ohio	27	33	4	11	2	77
Pennsylvania	16	12	..	..	..	28
South Carolina	1	4	..	..	..	5
Tennessee	9	1	3	..	..	13
Texas	..	..	3	..	..	3
Virginia	4	16	1	1	..	22
Vermont	1	3	..	1	..	5
West Virginia	16	2	2	20	..	40
Wisconsin	..	1	1	..	..	2
Foreign Countries	37	164	4	40	..	245
Totals	204	527	56	139	7	933

CARLOADS OF MANURE CERTIFIED FOR SHIPMENT TO OTHER STATES

State	Carloads
Alabama	1
Kansas	1
Maryland	1
New York	5
Virginia	1
Vermont	2
Total	11

TOTALS OF ARTICLES CERTIFIED AND NUMBER OF BEETLES REMOVED IN NEW JERSEY DURING 1934

		Beetles Removed
Total Packages, Farm Products	95,167	3,878
Total Packages, Cut Flowers	388	0
Total Bales, Moss and Oak Leaves	82	0
Total Plants Certified	4,595,118	0
Total Carloads Sand, Soil, Etc.	926	0
Total Carloads Manure	11	0
Total Carloads Peat	7	0

NUMBER AND KIND OF PLANTS SHIPPED FROM NEW JERSEY UNDER CORN BORER CERTIFICATION DURING THE PERIOD JULY, 1934, TO JUNE, 1935

States	Dahlias	Zinnias	Chrysanthemums	Asters	Rhubarb Roots	Rhubarb	Carnations	Celery Plants	Dahlia Cut Flowers	Gladioli
Alabama	33	..	17	12	510	..	..	..	..	..
Arizona	57	..	90	1	..	..	..	..	..	..
Arkansas	590	..	71	28	12	..	..	..	..	..
California	249	..	466	481	..	..	18	..	1	..
Colorado	10	..	123	65	..	..	..	..	..	..
Florida	141	..	222	1,661	525	62	..	..	..	..
Georgia	1,295	..	823	2,631	600	1,000	..	..	10	..
Idaho	21	..	30	14	..	..	..	..	..	..
Illinois	2,354	..	2,105	1,193	54	6,808	..	..	6	..
Indiana	647	62	734	844	..	217	..	..	..	..
Iowa	223	..	789	3,233	..	8,395	..	..	1	..
Kansas	195	17	1,185	294	..	..	..	..	..	..
Kentucky	1,107	..	604	283	..	17	..	1,000	2	..
Louisiana	355	..	208	25	..	..	..	..	..	..
Maryland	6	..	..	..	..	..	..	..	..	..
Michigan	531	..	1,817	4,712	100	15	..	..	..	..
Minnesota	149	..	..	12	..	..	..	..	..	..
Mississippi	565	..	150	71	2	..	..	..	..	..
Missouri	538	..	815	1,831	..	269	..	..	..	..
North Carolina	42	..	367	1	..	350	..	..	..	..
Nebraska	67	..	312	143	..	..	..	..	..	..
Nevada	..	..	23	15	..	..	..	..	..	..
New Mexico	145	..	117	7	..	12	..	..	..	..
Ohio	986	..	4,126	4,230	100	24	..	..	..	..
Oklahoma	162	..	234	110	..	62	..	..	..	..
Oregon	38	..	126	237	..	2	..	..	..	..

South Carolina	442	..	517	154	..	50	..	..	..	..
South Dakota	11	..	..	57	..	50	..	..	..	..
Tennessee	781	..	609	622	201	..	24	10,000	..	100
Texas	318	..	780	233	..	287	..	..	..	..
Utah	10	..	..	20	..	..	..	..	..	..
Virginia	1,266	24	2,848	1,705	76	277	1	1,501	1	..
Washington	103	..	228	187	..	..	..	..	..	..
West Virginia	24	..	..	..	..	..	..	..	..	..
Wisconsin	758	..	346	154	..	5	1	..	..	..
Wyoming	..	..	4	6	..	..	..	..	..	..
Foreign Countries	23	..	..	..	..	..	..	..	..	..
Totals	14,242	103	20,886	25,272	2,180	17,902	44	12,501	21	100

NUMBER AND KIND OF PLANTS SHIPPED FROM NEW JERSEY UNDER CORN BORER CERTIFICATION DURING THE PERIOD JULY, 1934, TO JUNE, 1935—Continued

State	Hollyhocks	Shasta Daisy	Miscellaneous	Beans	Peppers	Beets	Parsley	Miscellaneous	Totals
Alabama	..	..	..	1,849	..	..	..	..	2,421
Arizona	..	..	..	..	..	..	..	..	148
Arkansas	..	..	..	..	..	..	..	..	701
California	1	..	..	..	..	..	..	..	1,216
Colorado	..	..	..	..	..	..	..	..	198
Florida	4	..	..	149	..	..	..	..	2,764
Georgia	21	..	..	..	..	..	..	..	6,380
Idaho	..	1	..	..	..	..	..	..	66
Illinois	22	..	50	58,162	410	..	1,059	535	72,758
Indiana	6	..	..	..	..	..	..	..	2,510
Iowa	5	25	100	..	..	..	..	..	12,771
Kansas	15	..	..	625	..	..	..	..	2,331
Kentucky	62	..	400	..	..	..	..	..	3,475
Louisiana	..	..	..	..	..	..	..	..	588
Maryland	..	..	..	150	..	..	..	..	156
Michigan	64	..	..	700	..	..	..	..	7,939
Minnesota	..	..	..	..	..	..	..	..	161
Mississippi	61	..	..	..	..	..	..	..	849
Missouri	..	..	..	11,934	..	..	..	..	15,387
North Carolina	12	..	..	..	..	..	..	..	772
Nebraska	36	..	..	..	..	..	..	..	558
Nevada	4	..	..	..	..	..	..	..	42
New Mexico	22	..	..	..	..	..	..	..	303
New York	..	..	..	656	..	..	..	..	656
Ohio	44	2	24	2,413	69	..	..	..	12,018
Oklahoma	..	..	..	..	..	..	..	..	568
Oregon	..	..	..	..	..	..	..	..	403

Pennsylvania	..	..	..	5,808	..	..	..	..	5,808
South Carolina	23	..	..	..	..	..	..	..	1,186
South Dakota	..	..	..	..	..	..	..	..	118
Tennessee	18	..	..	..	..	..	..	..	12,355
Texas	66	..	..	1,391	..	..	..	..	3,075
Utah	..	..	..	..	..	..	..	..	30
Virginia	94	1	1,752	..	..	200	..	103	9,849
Washington	..	..	..	..	..	..	..	..	518
West Virginia	..	..	..	..	..	..	..	..	24
Wisconsin	7	..	..	1	..	..	..	..	1,272
Wyoming	..	..	..	..	..	..	..	..	10
Foreign	..	..	..	..	..	..	..	12	35
Totals	587	29	2,326	83,838	479	200	1,059	650	182,419

NUMBER OF MEN EMPLOYED IN QUARANTINE WORK IN NEW JERSEY

Month	Nursery & Greenhouse	Maintenance	Soil Sampling	Farm Products	Trapping	Scouting	Total
January	19	2	..	..	..	..	21
February	19	2	..	..	..	..	21
March	25	2	9*	..	..	..	36
April	27	2	11*	..	..	..	40
May	29	3	..	..	..	..	32
June	26	3	..	9*	2	..	40
July	18	3	..	22*	2	3	48
August	16	3	..	20*	2	3	44
September	22	3	..	7*	..	..	32
October	22	3	..	..	..	..	25
November	23	2	..	..	..	..	25
December	23	2	..	..	..	..	25

* Intermittently employed.

DUTCH ELM DISEASE ERADICATION

QUARANTINE ON ACCOUNT OF THE DUTCH ELM DISEASE

A federal Dutch elm disease quarantine which became effective February 25, 1935, prohibits the movement of all species of elms, and parts of such plants, from the known diseased area within New Jersey to states outside the quarantined area. This quarantine applies only to that portion of New Jersey where the disease is known to exist, provided the New Jersey Department of Agriculture adopts measures adequate to prevent the spread of the disease to other parts of the state. A quarantine was, therefore, adopted by the State Board of Agriculture, effective April 16, 1935, prohibiting the movement of all species of elms and parts thereof, from the known diseased areas within the state to the disease-free areas within the state. The quarantined area may be extended or reduced as may be found advisable by the State Board of Agriculture.

The area under quarantine at the end of the fiscal year consisted of the counties of Bergen, Essex, Hudson, Passaic, Somerset and Union; the townships of Princeton and West Windsor and the Borough of Princeton, in Mercer County; the townships of East Brunswick, Lincoln, Milltown, North Brunswick, Piscataway, Raritan, Roosevelt, Sayreville, South Brunswick, South River and Woodbridge, the boroughs of Dunellen, Highland Park, and Metuchen, and the cities of New Brunswick, Perth Amboy, and South Amboy, in Middlesex County; the townships of Boonton, Chatham, Chester, Denville, Hanover, Jefferson, Mendham, Montville, Morris, Passaic, Pequannock, Randolph, Rockaway, and Roxbury, the boroughs of Dover, Florham Park, Mendham, and Madison and the Town of Morristown in Morris County.

ERADICATION ACTIVITIES

In the summer of 1934 work to eradicate the Dutch elm disease was undertaken by the State Department of Agriculture. The Governor and the Legislature provided an appropriation of $30,000 to be expended in this work. An office was immediately established in the Post Office Building at East Orange.

The primary purpose of the state's activities in the eradication program was to pave the way for eradication activities conducted by the Federal Department of Agriculture. It logically became the duty of the state department to enforce the State Plant Act in order to enable condemnation orders to be issued and executed without delay. The principal weapon of control in the Dutch elm disease eradication project is the eradication of condemned trees. This procedure has often been referred to as a primitive method of plant pathology. However, an examination of all the factors pertaining to the problem of eradicating the disease led to the conclusion that the removal of foci of infection is vastly more important than an attempt to protect healthy trees. The removal and destruction by burning of infected trees is the means of removal of foci of infection.

The appropriation of $30,000 became available July 15, 1934. At that time, approximately 1,200 diseased elms were standing awaiting removal and burning. Federal scouting activities were in full progress and the list of 1,200 diseased trees was daily increased by the confirmations that were received from the Morristown Laboratory.

The initiation of the work of July, 1934, was premised on the desirability of the destruction of all beetle-infested diseased elm trees. It was realized that the carriers of the disease, namely, the elm bark beetles were just as important a factor in the dissemination of the disease as the infected tree itself. Therefore, the field scouts were instructed to notify the East Orange office in their daily reports, of the diseased trees that were beetle infested. The eradication work was immediately concentrated on such infested trees.

Twenty-eight contractors and 18 shade tree commissions participated in the work of removing 1,081 trees. Men employed by the department removed a total of 760 trees. The total result of all expenditures made possible by the $30,000 appropriation was the eradication of 1,841 trees at an average cost per tree of $14.55, or an average price per inch of diameter, breast high, of $0.976. This eradication work was done between July 15 and October 1, 1934. During the same period, 308 trees were eradicated at federal expense by federal emergency crews.

Trained, experienced, tree men were employed for the dangerous tasks in the eradication work. The general benefit derived from the use of trained men by the various eradication agencies may best be shown by the fact that in the felling of 2,000 trees there was no accident of consequence.

During the first few days several men were slightly burned on the arms through mishandling of the creosote used to sterilize the stumps. Several men contracted ivy poison. One man injured his foot with a climbing spur, but required no surgical attention. Two men contracted typhoid fever while working with an eradication crew, and, although the drinking water was suspected, it was not definitely found to be the source of infection. Incidentally the danger from typhoid fever had been anticipated by the procurement of a gallon thermos bottle for each crew.

Approximately 20 per cent of the trees felled require topping, with climbing and working the top of trees necessary, especially in cities where wires and nearby buildings require very careful work.

The actual eradication work that was done by state-employed eradication crews and by the letting of contracts to arborists and shade tree concerns permitted the making of several deductions. Contract work by bidders was found generally satisfactory, but a few cases showed the need of better qualifications on the part of the bidders. Shade tree commissions in most cases cooperated effectively in the work, but in some cases their costs were found to be high, possibly as a result of looseness of organization. The state eradication crews were well organized and highly efficient as was shown by the cost per tree and per inch of diameter.

By October 1, the $30,000 state appropriation had been diminished to $3,384.36. Active eradication work by the state was, therefore, abandoned. This balance was assigned to finance the administration work and the clearance of trees in the general eradication program. On October 1, 1934, 1,444 diseased trees remained standing. Federal eradication funds were practically depleted at that time. Efforts were made to enlist the services of various E. R. A. organizations in the several counties. After considerable preliminary maneuvering, this effort collapsed and subsequent thought was concentrated on the possibility of the resumption of the work by the Federal Department of Agriculture.

The State Department of Agriculture made arrangements with the Union County Shade Tree Commission for the removal of trees infected with the Dutch elm disease and of dead and dying elms. As a result, 112 elms were cut down and destroyed. Through similar arrangements with other shade tree commissions and private owners, a total of 303 trees were eradicated by January 1, 1935, leaving 1,320 trees infected with the Dutch elm disease standing as of that date.

In January, 1935, the Federal Department of Agriculture received an allotment of $247,000 for eradication activities in New Jersey. It immediately adopted a sanitation program that called for the removal of dead and dying elm trees in the area of infection, which was approximately 2,251 square miles in size. The State Department of Agriculture continued its clearance work so that the 68 federal eradication crews proceeded without delay. The 1,320 diseased elms were destroyed. The federal eradication

effort continued until May 10, at which time the funds were exhausted. During the period of activity terminated at that time 478,352 dead and dying trees were felled and removed.

On June 10, the State Department of Agriculture received a $25,000 supplemental appropriation for use until June 30, the end of the fiscal year. This money was used to resume the work that had been reluctantly abandoned by the federal department. The work that was sponsored and financed by the state department consisted of scouting for diseased elms and the eradication of diseased, dead, and dying elms. The piles of wood that remained unburned after May 10 were destroyed.

The supplemental appropriation permitted the employment of 90 scouts and 25 eradication crews of 6 men each. The scouts worked in nine counties and inspected all elms, tagging and collecting samples from trees having the symptoms of the Dutch elm disease. The work accomplished during the 20-day period is set forth below:

RESULTS OF WORK FROM JUNE 10, 1935, TO JUNE 30, 1935

1. Cleared for Eradication by Mail and Contact Men.. 44,882 trees

2. Scouting:

County	Square Miles
Bergen	86.67
Passaic	39.64
Essex	40.86
Morris	86.08
Middlesex	17.80
Mercer	4.05
Hudson	18.16
Union	27.67
Somerset	29.51
Total	350.34

Total Graphium Elms Found and Confirmed 660

3. Eradication—Dead and Dying Elms 2,392
Graphium Elms 19

Burning of Trees Left by Federal Crews Previous to Lay-off, May 13 ..... 30,718 trees

REPORT OF FEDERAL AND STATE DUTCH ELM DISEASE ERADICATION WORK, COVERING THREE STATES, FOR WEEK ENDING JUNE 29, 1935

	Week Ending June 29, 1935				
	Conn.	New Jersey	New York	Outside	Totals
Number of Employees					
Appointed, Federal Dept. Funds..	10	20	18	....	48
Per Diem, Federal Dept. Funds...	10	44	26	....	80
Work Relief Funds.....	261	1,214 (Max.)	573	....	2,048
CCC* from DED† Camps.....	0	0	0	....	0
CCC* from Other Camps	0	85	0	....	85
State Appointed Personnel	0	2	16	....	18
State Per Diem Personnel	0	219	8	....	227
Work Assignments					
Scout Crews	46	31	5	....	82
Laboratory Technicians	0	18	0	....	18
Eradication Crews	0	0	1	....	1
Sanitation Crews	6	64	17	....	87
Scouting Project					
Suspects Collected This Week....	188	306	380	....	874
DT‡ Tagged This Week	184	1,218	146	....	1,548
Total DT‡ Tagged to Date	141,528	482,606	253,319	....	877,453
Sq. Miles Scouted This Week....	1.77	73.96	11.7	....	87.43
Laboratory Identification					
Confirmed DED† This Week	1	299	131	....	431
Total Elms Confirmed DED† to Date	61	5,796	3,004	....	8,861
Total Reported Not DED† to Date	2,169	3,355	4,561	....	10,085
Suspects Unreported to Date....	189	562	507	....	1,258
Total Suspects Collected to Date..	2,419	9,713	8,072	....	20,204
DED† Eradication Project					
DED† Removed This Week	0	19	69	....	88
Total DED† Removed to Date...	57	5,259	2,819	....	8,135
Total DED† Standing to Date...	4	537	185	....	726
Sanitation Project					
DT‡ Removed This Week	94	8,510	1,617	....	10,221
Total DT‡ Removed to Date.....	89,938	208,456	165,655	....	464,049
Total DT‡ Standing to Date....	51,590	274,150	87,664	....	413,404

* Civilian Conservation Corps Workers.
† Dutch elm disease, or trees infected with the disease.
‡ Diseased trees.

Official Proceedings of the Twentieth Annual State Agricultural Convention

TRANSACTION OF BUSINESS

The twentieth annual State Agricultural Convention was called to order in the Assembly Chamber of the State Capitol, at Trenton, at 9:30 o'clock, Tuesday morning, January 22, 1935, by Charles D. Barton, President of the State Board of Agriculture. The meeting was opened with a prayer by the Rev. Edward A. Morris, of Trenton.

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 STATE AGRICULTURAL CONVENTION

FROM COUNTY BOARDS OF AGRICULTURE

Name	Address	Term	County
H. O. Packard	Hammonton	2 Years	Atlantic
William J. Slack	Hammonton	1 Year	Atlantic
Wm. F. Ehret	Harrington Park	2 Years	Bergen
Arthur Lozier	Hackensack, R. D.	1 Year	Bergen
Roy Kinsley	Columbus	2 Years	Burlington
Harold J. Pew	Mount Holly	1 Year	Burlington
Thomas Iulincci	Waterford	2 Years	Camden
Maurice Collins	Merchantville	1 Year	Camden
Edward Phillips, Jr.	Cape May, R. D.	2 Years	Cape May
C. N. Shellenger	Green Creek	1 Year	Cape May
Howard Sheppard	Cedarville	2 Years	Cumberland
Milton C. Tice	Deerfield St.	1 Year	Cumberland
Herbert Francisco	Fairfield Ave., West Caldwell	2 Years	Essex
Marcus DeCamp	Roseland	1 Year	Essex
Ernest Sykes	Williamstown	2 Years	Gloucester
A. Clinton Clement	Westville	1 Year	Gloucester
George A. Veltman	33 Garrison Ave., Jersey City	2 Years	Hudson
**			Hudson
Charles Burd	Pittstown	2 Years	Hunterdon
Harold B. Everitt	Flemington	1 Year	Hunterdon
Robert Dilatush, Jr.	Trenton, R. D. 2	2 Years	Mercer

Name	Address	Term	County
Russell Applegate	Robbinsville	1 Year	Mercer
Lawrence J. Smith	So. River, Box 222	2 Years	Middlesex
J. Edward Chamberlain	Cranbury, R. D.	1 Year	Middlesex
George C. Richdale	Phalanx	2 Years	Monmouth
Reuben G. Dorrer	Freehold, R. D. 4	1 Year	Monmouth
Herman Herklotz	Dover	2 Years	Morris
Charles Broadhead	New Vernon	1 Year	Morris
Erwin Clement	Lakehurst	2 Years	Ocean
Harry H. Ober	Lakewood	1 Year	Ocean
Walter Sikkema	Paterson, R. D. 1	2 Years	Passaic
Arthur Butt	Clifton, R. D. 1	1 Year	Passaic
Alfred F. Sloan	Elmer, R. D.	2 Years	Salem
Edward Broomell	Woodstown	1 Year	Salem
E. E. Cooper	Plainfield, R. D. 3	2 Years	Somerset
F. M. Van Derveer	North Branch	1 Year	Somerset
W. W. Elliott	Andover, R. D.	2 Years	Sussex
John S. Katzenstein	Franklin	1 Year	Sussex
Charles H. Brewer	Rahway, R. D. 2	2 Years	Union
John Kulp	119 S. Maple Ave., Springfield	1 Year	Union
George E. Edgar	Belvidere	2 Years	Warren
Gilbert Hartung	Phillipsburg, R. D.	1 Year	Warren

FROM POMONA GRANGES

Name	Address	Term	County
Martin Decker	204 London Ave., Egg Harbor City	1 Year	Atlantic
Edward Thomas	Forest Rd., Allendale, R. D. 1	1 Year	Bergen and Passaic
**			Burlington
William J. Whitall	Magnolia	1 Year	Camden
J. Reid Chambers	Eldora	1 Year	Cape May
**			Central District
Ernest C. Fiedler	Millville	1 Year	Cumberland
Clement R. Budd	Woodbury	1 Year	Gloucester
Theodore H. Dilts	Three Bridges	1 Year	Hunterdon
Eugene P. Drake, Jr.	Trenton	1 Year	Mercer
J. V. S. DuMont	Somerville, R. D. 3	1 Year	Middlesex and Somerset
Howard Clayton	Freehold	1 Year	Monmouth
*Dewey Elwell	Harmersville	1 Year	Salem
Bruce Penney	Port Jervis, N. Y., R. D.	1 Year	Sussex
*Harvey Cole	Broadway	1 Year	Warren

FROM OTHER ORGANIZATIONS

American Cranberry Growers' Association—James D. Holman, Whitesville, 2 years; Theodore H. Budd, Pemberton, 1 year.
New Jersey State Horticultural Society—Lewis N. Barton,* Marlton, 2 years; Howard F. DeCou,* Merchantville, 1 year.
New Jersey State Grange—Henry M. Loveland, Bridgeton, 1 year; William H. Blackwell, Titusville, 1 year.
New Jersey State Poultry Association—Charles Cane, Rosemont, 1 year; Henry Rapp, Jr., Farmingdale, 1 year.
New Jersey Agricultural Experiment Station—Dr. William H. Martin, New Brunswick, 1 year.
New Jersey State College of Agriculture—Dr. William H. Martin, New Brunswick, 1 year.
Holstein-Friesian Cooperative Association—Stanley Roberts, Port Jervis, N. Y., R. D. 1, 1 year.
New Jersey Guernsey Breeders' Association—William M. Nulton, Jr., New Brunswick, 1 year.
New Jersey Alfalfa Association—D. S. Croshaw, Wrightstown, 1 year.
New Jersey State Potato Association—Spencer W. Perrine, Cranbury, 1 year.
Cooperative Growers' Association of Beverly—J. Cresswell Stuart, Beverly, 1 year.
New Jersey Beekeepers' Association—Elmer G. Carr, Pennington, 1 year.
E. B. Voorhees Agricultural Society—Clarence M. Alles, Flemington, R. D. 3, 1 year.

APPOINTMENT OF COMMITTEES

The following committees were appointed by President Barton:

GOVERNOR'S ESCORT

Lawrence J. Smith, South River
W. W. Elliott, Andover
Theodore H. Budd, Pemberton

COMMITTEE ON CREDENTIALS

C. N. Shellenger, Green Creek
Elmer G. Carr, Pennington
Howard Clayton, Freehold

TELLERS

Erwin Clement, Lakehurst
Theodore H. Dilts, Three Bridges
Alfred F. Sloan, Elmer

REPORT OF CREDENTIALS COMMITTEE

After examining the credentials of the delegates the Credentials Committee reported that they were all correct.

ELECTION OF BOARD MEMBERS

Nominations for two members of the State Board of Agriculture were called for by President Barton. Edward E. Cooper, of Plainfield, and Charles Fitting, of Hammonton, were nominated. A motion was regularly made and seconded that the nominations be closed and that the secretary cast a ballot electing the two nominees. This motion was passed and President Barton declared Mr. Cooper and Mr. Fitting elected to four-year terms on the State Board of Agriculture. They will succeed Charles B. Probasco, of Hightstown, and H. B. Scammell, of Toms River, whose terms expire June 30.

MISCELLANEOUS

A motion was regularly made and seconded that the Legislature be asked to restore state appropriations to county boards of agriculture. It was stated that these appropriations used to total $1,500 for all counties and that they were discontinued three years ago. This motion was voted upon and carried.

The Honorable Theron McCampbell, assemblyman from Monmouth County, spoke in favor of having legislation enacted that would limit the amount of taxes assessed per dollar of assessed valuation.

Brief talks were given by Mr. Cooper and Mr. Scammell. No further business came before the convention, and, after a speaking program, it was adjourned by President Barton at 12:10 o'clock P. M.