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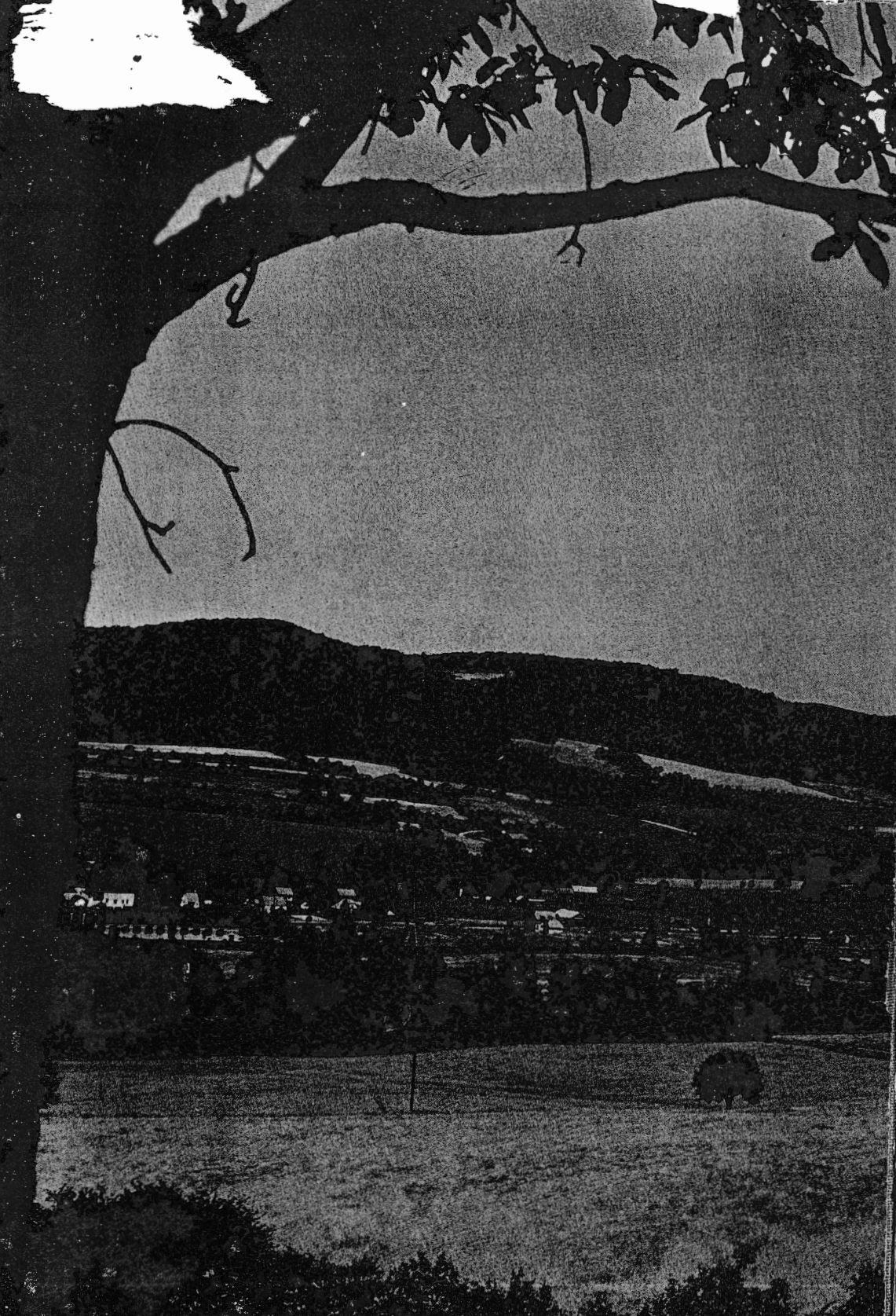
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THE NEW JERSEY DEPARTMENT
OF AGRICULTURE
TRENTON, N. J.
W. H. ALLEN · Secretary ·
MAY 1941



NEW JERSEY DEPARTMENT OF AGRICULTURE

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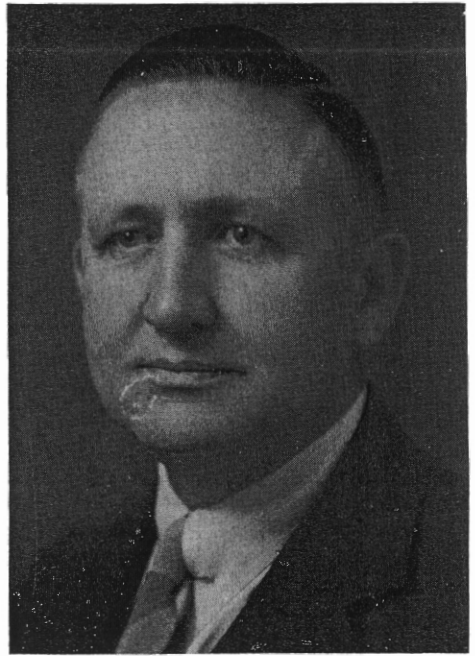
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R. A. HENDERSHOTT, *Chief, Bureau of Animal Industry*
WARREN W. OLEY, *Chief, Bureau of Markets*
HARRY B. WEISS, *Chief, Bureau of Plant Industry*

THE economic life of New Jersey is basically one of agriculture and industrial manufacture. Both contribute in substantial fashion to the welfare of the state and its people, and place New Jersey in an enviable rank among other states in the nation.

The natural assets of this state are many. Its varied soils and suitable climate make possible a wide range in the crops that can be produced practically and commercially. Its geographical location within the most densely populated large area of the country, and neighbor to two great world cities, gives it a commanding position in the marketing of its agricultural products. Seashore and mountain, lakes and state parks, offer a vacation land and recreational opportunities to its citizens and many thousands of visitors alike.

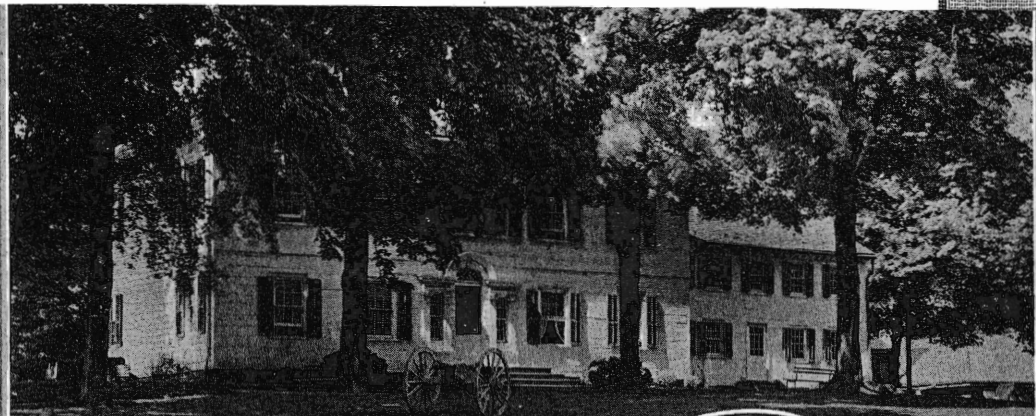
Harbor terminals on both east and west borders, railroad facilities throughout the state, and the vast network of unsurpassed highways, have served to advance the agricultural and industrial development of New Jersey.

To portray our agriculture in adequate fashion would require much more than this small booklet permits. There are, among many people in New Jersey and elsewhere, those who seek a broader concept of this great enterprise in so small a state. For them it is hoped that this brief insight into the various pursuits which collectively form the agricultural business of New Jersey will present a keener understanding of the reason why New Jersey, among all the states of the Union, is appropriately known as the "Garden State."

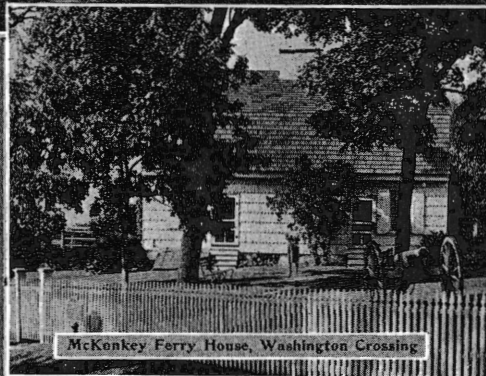


W. H. ALLEN, *Secretary*

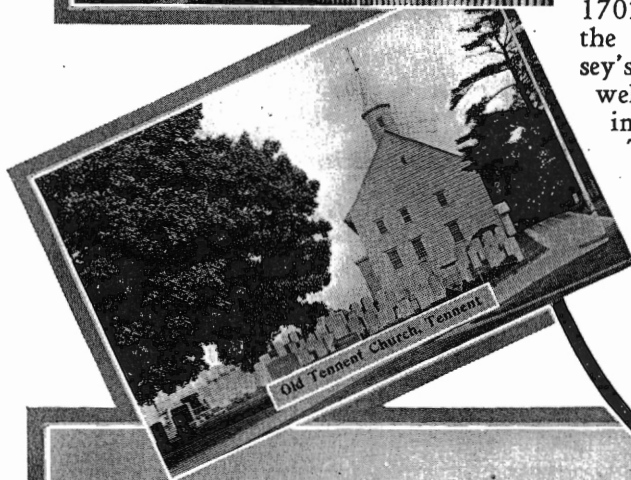
W. H. Allen



Washington's Headquarters, Morristown



McKonkey Ferry House, Washington Crossing



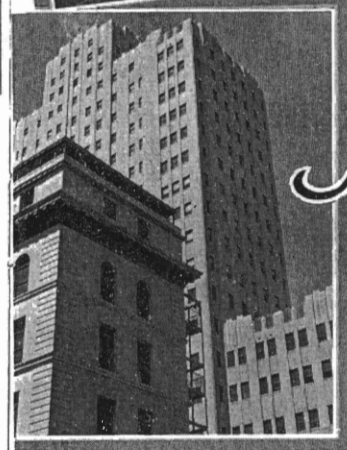
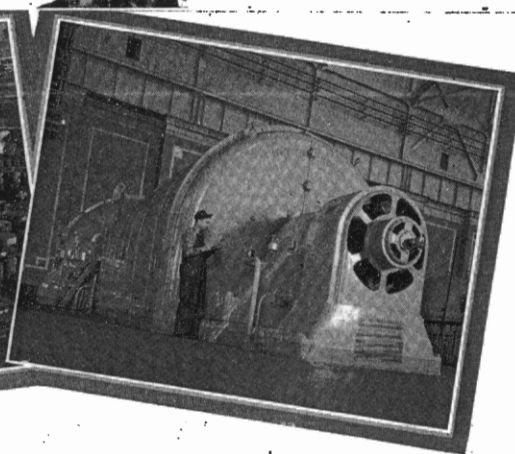
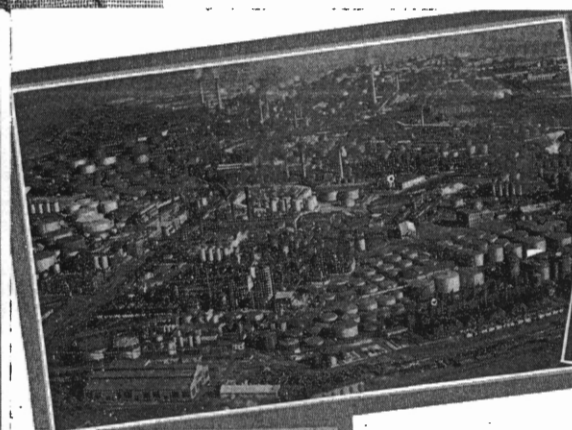
Old Tennent Church, Tennent

Historical

First settled in the early 1600's by the Dutch in the north and by Swedes around Swedesboro, New Jersey soon became a New World haven for settlers from Europe. It was established as a royal colony in 1702 and continued as such until the Revolutionary War. New Jersey's role in the war for freedom is well known. Washington's crossing of the Delaware, the battles of Trenton, Princeton and Monmouth, the winter encampment at Morristown in 1777, and Washington's farewell to his army at Rocky Hill are only highlights. As a result, New Jersey is rich in places of historic interest.

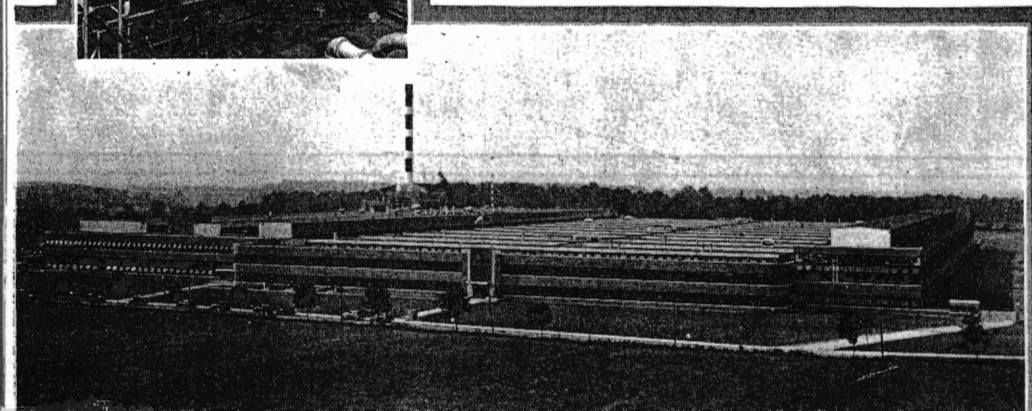
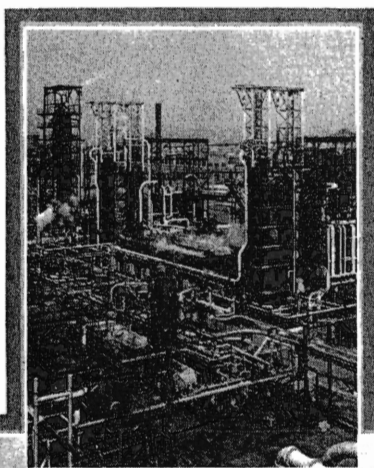


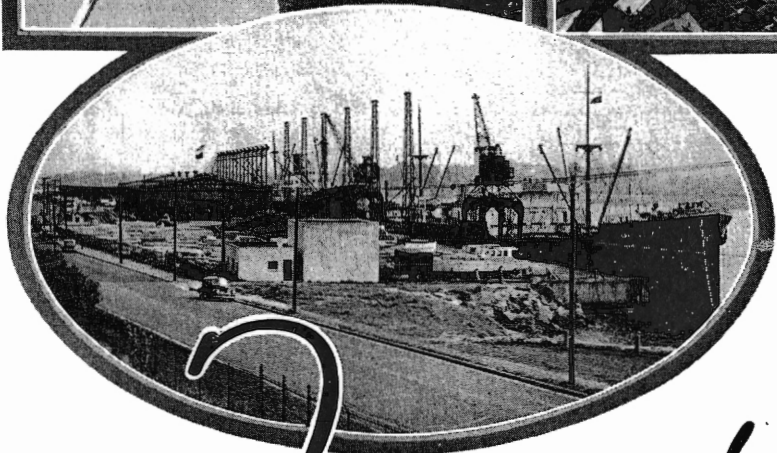
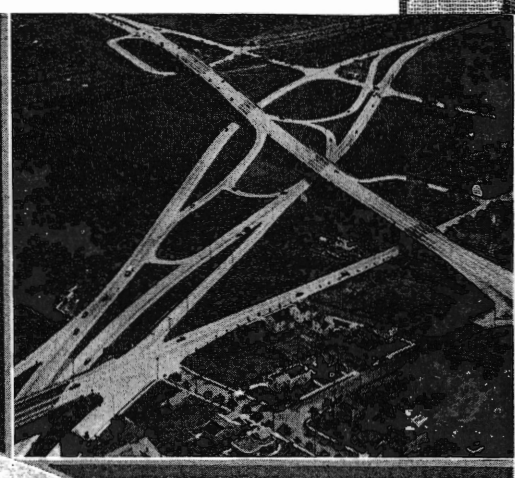
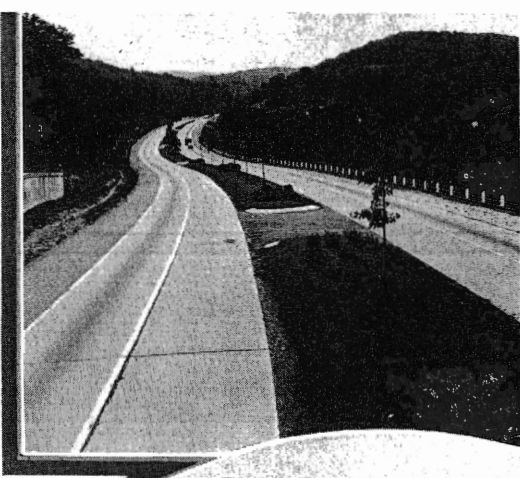
The Barracks, Trenton



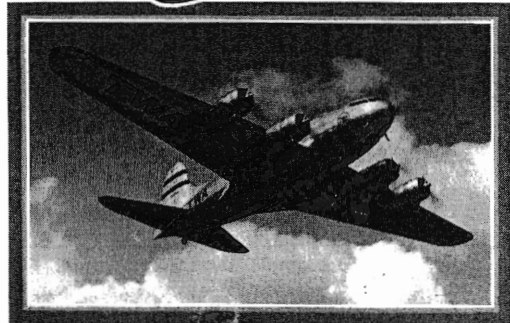
Business & Industry

New Jersey produces a wider diversification of industrial products than any other state. It has over 10,000 industrial concerns in which more than 600,000 men and women are employed, with an annual payroll in excess of \$800,000,000. These figures are minimum and do not include increases brought about by activity in the national defense program, for which in the value of contracts for materials this state ranks at the top. In 1939, the latest year for which census figures are available, the value of all products manufactured was \$3,428,947,188, and the value added by manufacture was \$1,524,113,554. New Jersey industry furnishes tremendous sums in taxes for local, state and federal government, aggregating over \$170,000,000 annually.

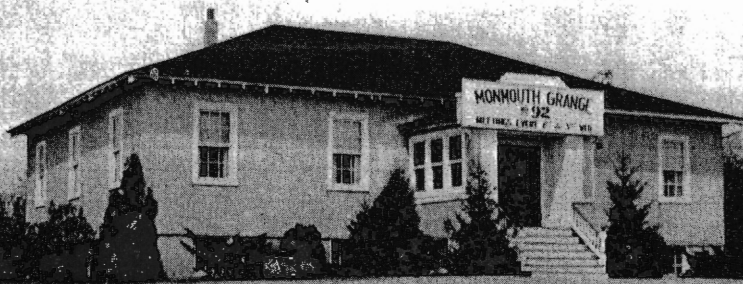




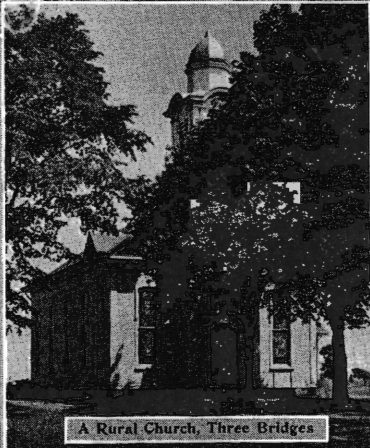
Transportation



In the construction of super-highways, divided roads, traffic circles, clover-leaf intersections, bridge and tunnel approaches, sub-surface roadways, and viaducts, New Jersey is far in advance of other states. Agricultural interests, daily transporting perishables to the vast consuming centers within and just outside the state, have benefitted by this comprehensive system of well-constructed all-year highways. Also closely connected with New Jersey's agriculture and industry are the railroad facilities, for six trunk lines cross the state with terminals on the Jersey shore of the Hudson River. Camden, Trenton, and the New Jersey portion of the Port of New York are regular ports for ocean-going vessels. The Newark airport is an important center for aerial passenger traffic, and serves a number of transcontinental airlines.



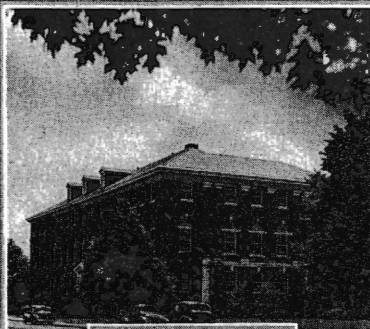
A Grange Hall



A Rural Church, Three Bridges

Community Interests

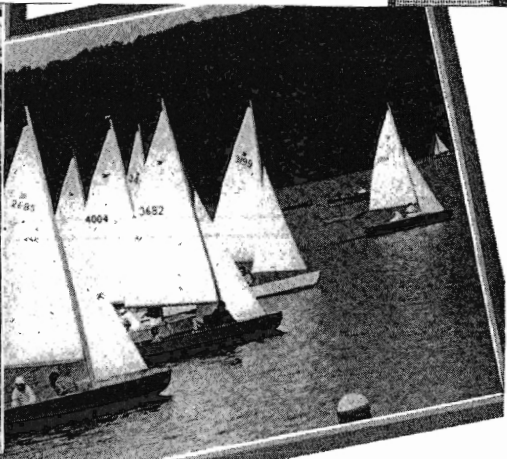
New Jersey's system of public schools is among the best in the nation, modern school buildings and good teaching existing in rural sections as well as in cities and towns. Princeton University, Rutgers University, Stevens Institute of Technology, Drew University, and the New Jersey College for Women are among the outstanding institutions of higher education. Churches of all faiths meet the religious needs of the people. Libraries and museums are available to all residents of the state. Community houses and many civic and religious organizations provide additional contributions to the life of the people.



Administration Building,
College of Agriculture, Rutgers University

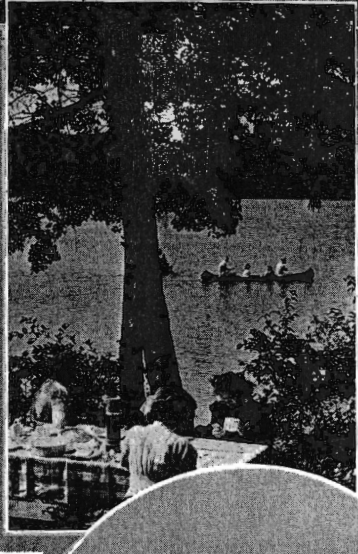


Howell Township School, Monmouth County



Recreation

Few states have as much to offer in recreation as New Jersey. Atlantic City—"The Playground of the World"—and Asbury Park are but two of the many resorts along the famed Jersey coast. A comprehensive system of state parks has an appeal for the picnicker, the hiker, the angler, the bather and the nature lover. Northern New Jersey, with its numerous picturesque lakes nestling among the wooded slopes of unspoiled hills, welcomes the vacationer and week-end, not only in summer for its variety of outdoor activities, but also in winter for the ever-growing popular pastimes of skiing, tobogganing, ice boating and skating.





New Jersey Agriculture

NEW JERSEY has always been important in the agricultural life of the nation. In the early days, when villages were first springing up and expanding, certain areas in the state were sources upon which the communities in this colony and nearby depended for a portion of their daily food needs. Today, as then, the Garden State produces vast quantities of foodstuffs for its own population and other consuming areas of the East.

In a number of phases of farming, New Jersey holds a most prominent position, even though it is one of the smallest states of the Union. Some of its counties are among the leaders of the country in the production of several crops. Likewise, the state itself holds high rank among the forty-eight in the volume and value of some of its agricultural output. This is so in spite of the fact that only a portion of the state is devoted to agriculture, whereas in other states some of the individual agricultural sections alone are much larger in area than the entire state of New Jersey.

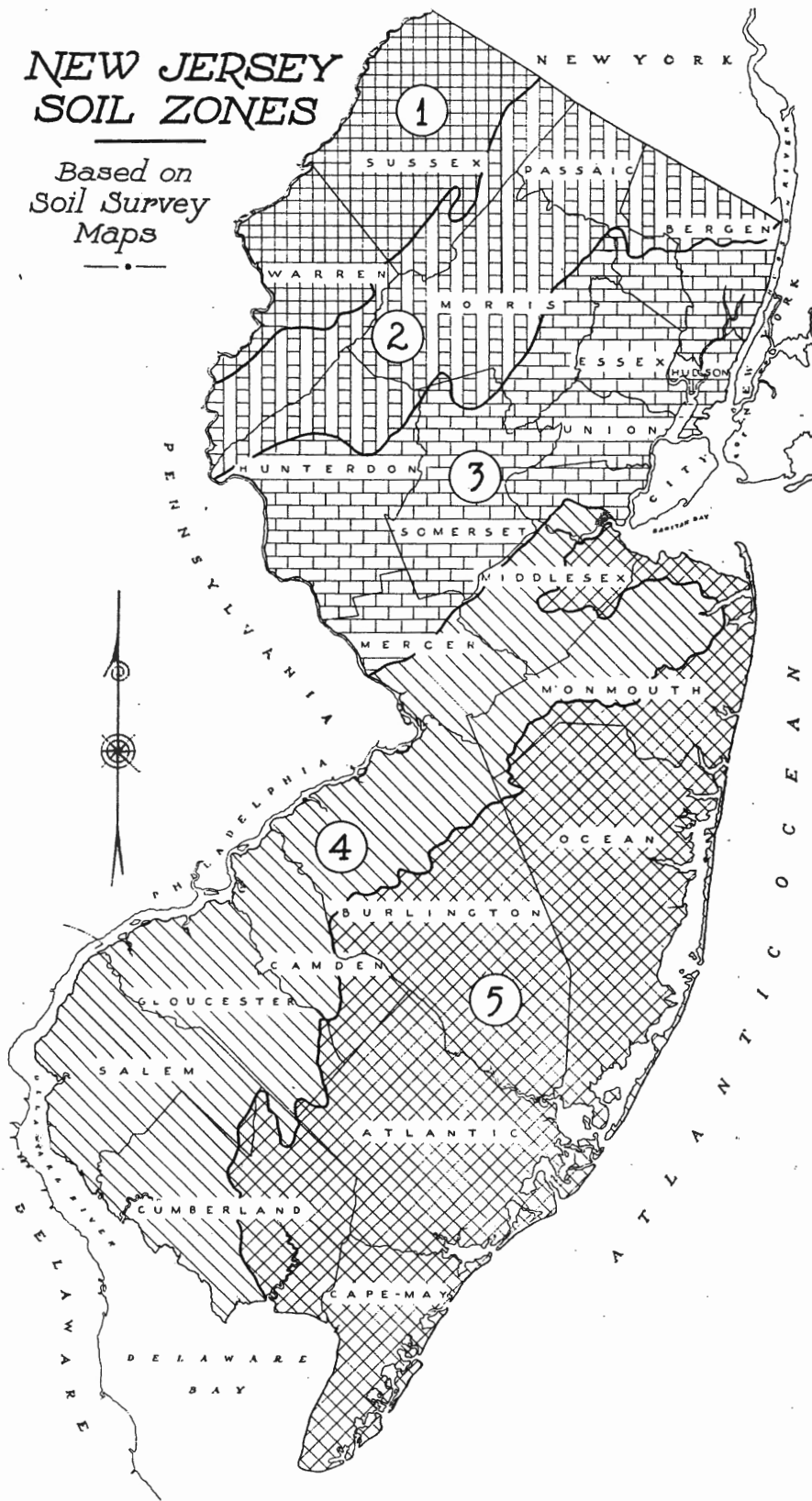
The total land in farms comprises about 2,000,000 acres, three-fifths of which is crop land devoted to the diversified branches of New Jersey's agricultural industry, and the value of its land and buildings exceeds \$250,000,000. The annual value of its products is estimated at well over \$100,000,000. In recent years, at least, New Jersey has exceeded all other states in its farm income per acre; against this, however, must be reckoned higher costs for investment, labor and other overhead effected by agriculture's proximity to industrial and consuming centers. Mechanization of farm operations, the application of research findings and sound business methods, and the benefit of a high degree of rural electrification and other factors, all have aided in bringing about management efficiency.

Nearness to the unsurpassed metropolitan markets of New York City and Philadelphia and to heavily populated consuming areas of the state provides New Jersey farmers with good outlets for their products. The state's modern system of highways, its railroad lines, and its ship transportation facilities constitute unexcelled routes for the distribution of agricultural as well as other commodities.

Considerable diversity is exhibited by New Jersey's agriculture. In addition to numerous farms devoted to general agriculture, those in many sections of the state are of highly specialized types. Vegetable farms, poultry farms, dairy farms, fruit farms, and potato farms are centered in many areas which are particularly adapted to the production of specific commodities. The state's varied topography and soils account to a large extent for the diversification of its farming operations.

NEW JERSEY SOIL ZONES

Based on
Soil Survey
Maps





New Jersey Its Soil Types

DUE largely to New Jersey's geological origin and topographic position, there are five distinct soil zones. In each zone similar types and combinations of soils and topography have a decided effect on the type of farming most suitable. Zones 1, 2 and 3 are contained in the Appalachian Province, zones 4 and 5 are parts of the Coastal Plain with differing characteristics. They are shown on the accompanying map and may be described as follows:

Zone 1 occupies the northwestern corner of the state, its southeastern boundary extending from a point on the New York state line near Quarryville to the Delaware just north of Belvidere. This is a rolling to hilly and occasionally mountainous country. The soils of the region are predominantly heavy and are derived from glaciated shales, limestones and sandstones. The zone is called the "Kittatinny Mountain and Valley Belt." There are in it considerable areas of muck land, developed and undeveloped.

Here, as in Zone 2, the hillsides and extensive valleys are used for dairying, while numerous apple orchards are found throughout the region. Market gardening is carried on where the rich muck land is available.

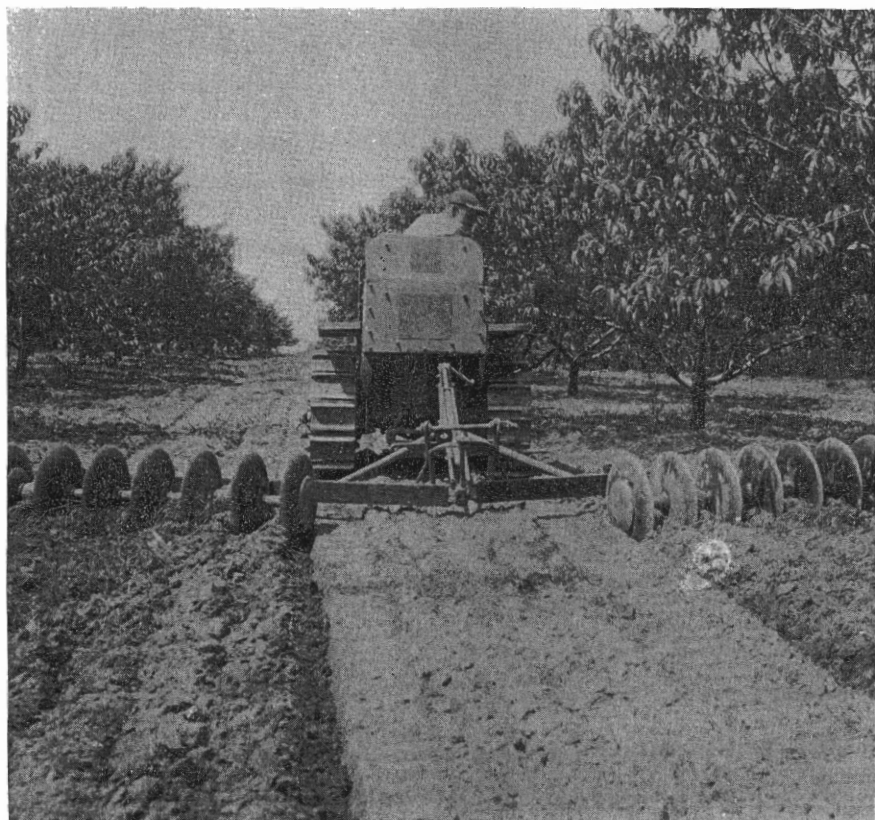
Zone 2 lies immediately southeast of Zone 1, extending along the New York state line from a point near New Milford east to the Hudson, thence southwestward to a point on the Delaware about midway between Phillipsburg and Frenchtown and north along the Delaware to a point south of Belvidere. This is also a rolling, hilly and occasionally mountainous region. The soils on the uplands are predominantly heavy, well drained and usually are loams derived from granite and gneiss, while limestone soils occupy the valleys. This zone is the "Highland Gneiss and Limestone Valley Belt."

This section offers picturesque stretches of hills, valleys and rich pasture land. Here the gently sloping hillsides constitute ideal sites for fruit orchards and dairy farming. The generally narrow valleys in the northern portion and the broader limestone valleys further to the south contain some of the most fertile soil in the Appalachian Province.

Zone 3 lies immediately to the southeast of Zone 2, extending along the Hudson River south to Perth Amboy, thence southwestward to Trenton and north along the Delaware to a point midway between

Phillipsburg and Frenchtown. This is a gently rolling region with some relatively low, stony ridges. The soils are predominantly derived from red sandstone and shales, with some grayish shales and sandstones. The soils of the stony ridges owe their origin to the disintegration of dense trap rock. The loams, rich in plant food, are, at their best, capable of producing large yields of hay, corn, grain and forage crops.

Zone 4 lies immediately to the southeast of Zone 3, extending southwestward in a belt from Raritan Bay to the Delaware River and Delaware Bay between Trenton and Port Norris. This is a level to gently rolling region having soils which are predominantly loams and sandy loams, sometimes containing green sand marl. It is called the "Heavy Coastal Plain Belt." This section is known for its large crops of truck, potatoes, tomatoes, fruit and corn. In the hands of skilled farmers, its extremely fertile soils are among the most productive in the country.



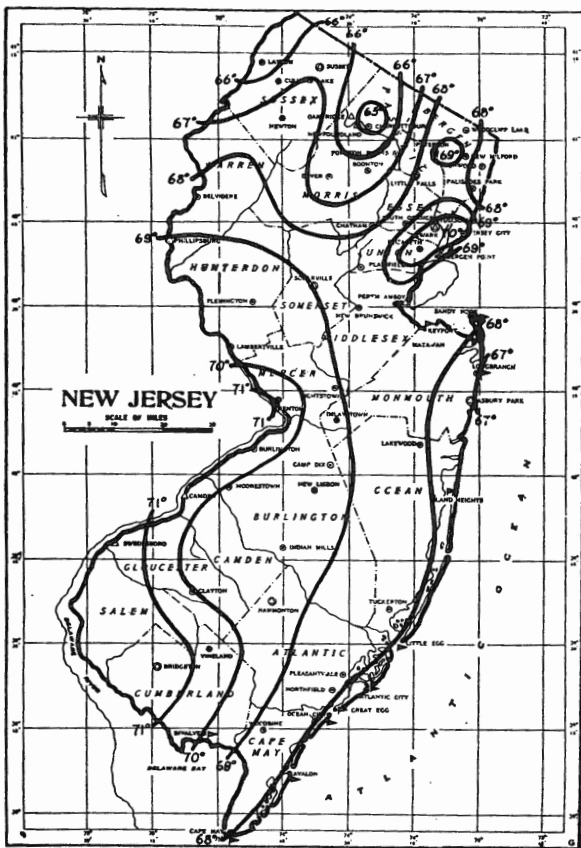
*Disking in an orchard eliminates weeds and
conserves moisture*



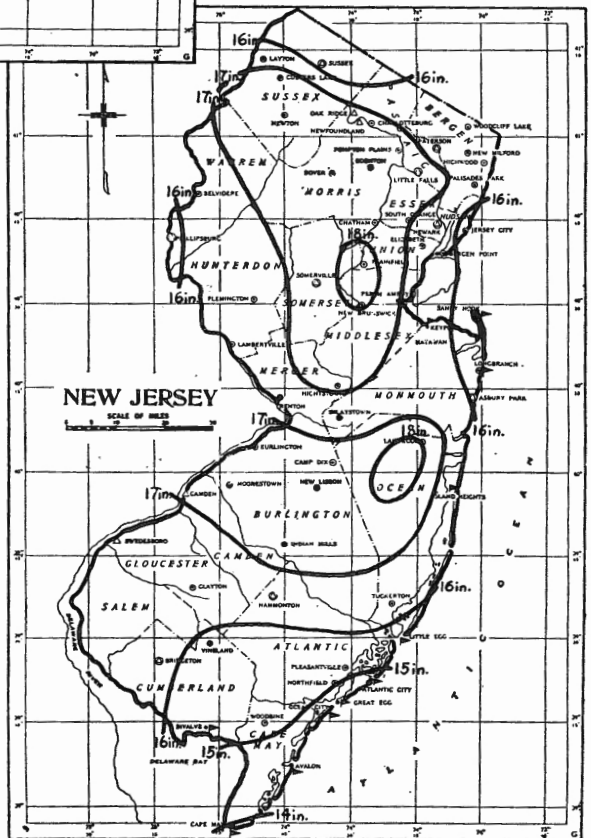
Contour farming is the modern method of preventing soil erosion on sloping ground

Zone 5 lies immediately southeast of Zone 4 and extends from the Atlantic Coast inland to the southeasterly boundary of Zone 4. This is a flat, level to very gently rolling region in which the soils are light, sandy and in places non-agricultural in character. Zone 5 is known as the "Sandy Coastal Plain Belt."

This area is famous for its production of market garden crops, tree fruits, small fruits, cranberries and poultry, and bids fair to rank among the first of the farming sections along the Atlantic Coast. Here progressive farmers have taken the light, warm lands, and, by skillful handling and the use of modern methods, including the application of fertilizers, the growing of cover crops, and sometimes the installation of irrigation, have produced crops of a far greater value than those grown on the naturally rich lands of other states. Certain parts of this section are non-agricultural in character and should remain in forest.



Left—Normal average temperature, May to August, inclusive.



Right—Normal total precipitation, May to August, inclusive.

(Maps furnished by U. S. Weather Bureau, Trenton, N. J.)



Geography and Climate

NEW JERSEY is a portion of the Atlantic Slope of North America. The state is 166 miles long at its greatest length from a point near Port Jervis, N. Y., on the north to the southerly tip of Cape May. It is 32 miles across the narrowest part, from Trenton to the head of Raritan Bay. New Jersey's total area is 8,224 square miles, consisting of 7,514 square miles of land and 710 square miles of water—bays, harbors and lakes.

Two geographic and geologic regions traverse New Jersey: (1) the Coastal Plain, which borders the Atlantic from the Gulf of Mexico to the Hudson, and (2) the Appalachian Province, which extends from the Coastal Plain westward to the Mississippi lowland and from central Alabama northeastward into Canada.

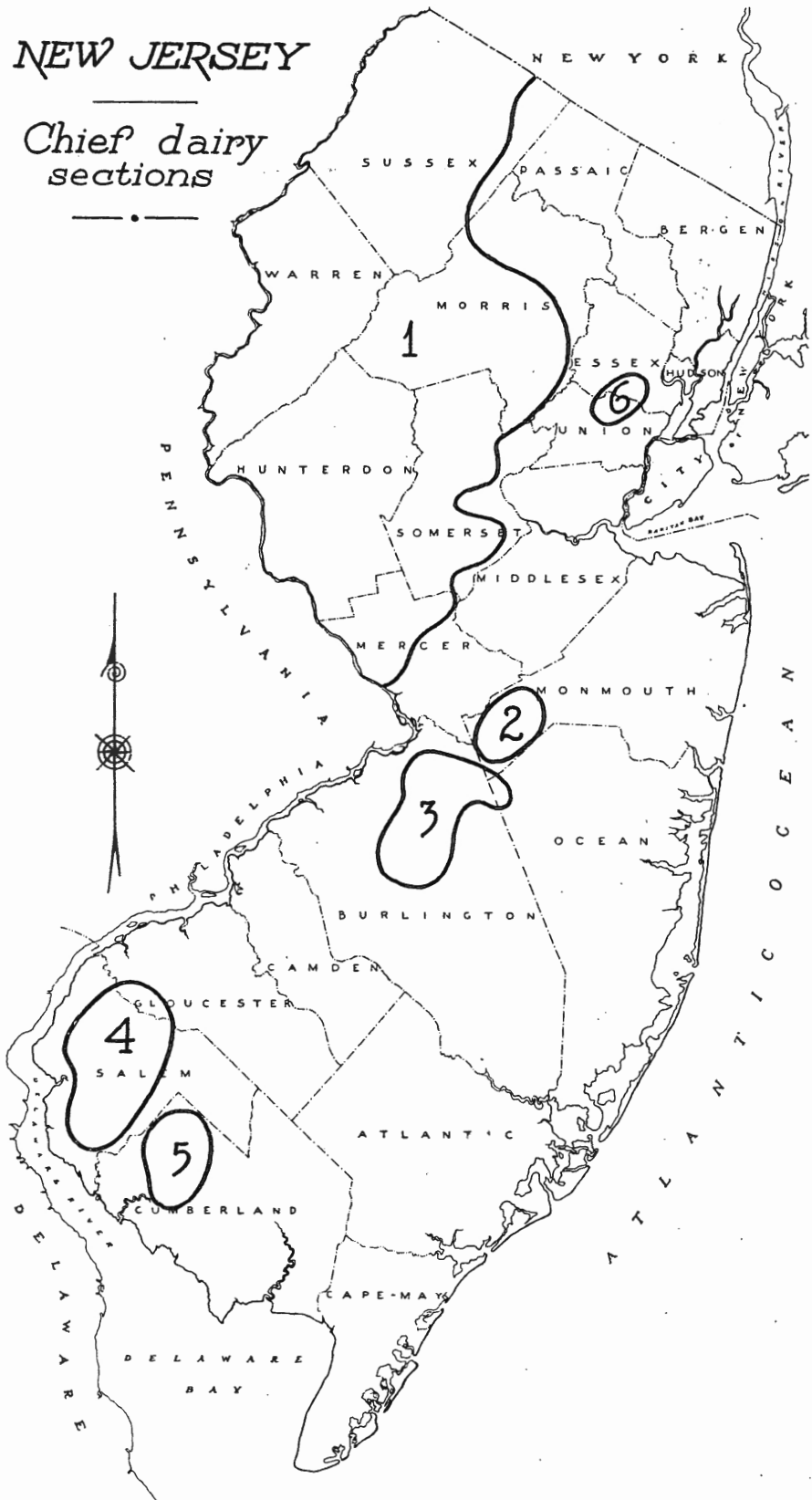
All of New Jersey southeast of a line through Trenton and New Brunswick, about three-fifths of the entire area of the state, belongs to the Coastal Plain. It includes the southern portions of Mercer and Middlesex and the whole of the counties farther south. Its surface is in general a dissected plain that rises gradually from sea level at the coast to about 300 feet in central New Jersey. At its inner margin, where it borders upon the Piedmont Plain to the northwest, it includes a broad shallow depression lying less than 100 feet above sea level and extending from Raritan Bay to the Delaware at Trenton. The southwestward continuation of this low belt forms the lower Delaware Valley, the Delaware River for this distance being tidal to Trenton. Hence, the Coastal Plain of New Jersey falls to sea level on the east, west and south and rises barely to 80 feet along the axis of the depression at its northern border.

The northern two-fifths of the state lie in the Appalachian Slope. This area is divided into sections of mountains, valleys and lowlands with hills and ridges, all running in general obliquely across the state from northeast to southwest. The elevation varies considerably, ranging from less than 100 feet in the southern area of this section to the high elevations found in Sussex County, the greatest of which is at High Point Park, 1,802 feet.

The climate of New Jersey is moderate and does not vary greatly throughout the state. The monthly precipitation averages about four inches, and there is always plenty of water everywhere for agricultural purposes. The first killing frosts vary from September 25 to October 15, and the last from April 15 to May 2, the growing season of the southern portion of the state being several weeks longer than that of the northern part.

NEW JERSEY

Chief dairy sections





Dairying

DAIRYING occupies a prominent place in New Jersey's agriculture. It is estimated that about \$100,000,000 is invested in land, buildings and equipment given over to the state's dairy industry, and the cows in the state produce about 130,000,000 gallons of milk annually. There are about 210,000 cattle

on New Jersey farms, and of this number about 158,000 are milking cows which are kept for milk production.

New Jersey ranks high among the states of the Union in several branches of dairying. It is one of the leaders in the amount of advanced registry work done and has a high percentage of purebred animals, the principal dairy cattle breeds being well represented. The breeds in the state, in order of importance, are Holstein-Friesian, Guernsey, Jersey, Brown Swiss and Ayrshire.

In addition to farms that produce market milk, there are in New Jersey several of the largest producers of certified milk in the country. There are 25 cow-testing associations, and both local and state dairy organizations.

Four distinct types of dairy farming are found in New Jersey. The type that prevails in north Jersey consists primarily of dairying operations, with 90 per cent or even more of the farm receipts coming from the sale of fresh milk. In south Jersey, however, in addition to receipts from the dairy enterprise, a considerable part of the farm income may be from cash crops such as potatoes, cannery tomatoes and vegetables for market. In many instances, sales of poultry and eggs contribute substantially to the receipts.

In the third type, general farming is practiced and the herds are smaller than in the first two types. There is some selling of general commodities, including grain, hay and eggs, but the volume of sales is rather small as a rule. The fourth type is made up of highly specialized dairy farms in various localities, which produce milk of "Grade A" quality.

All types of dairying in the state enjoy excellent markets because of the proximity of the dairy sections to the New York and Philadelphia metropolitan areas. Most of the municipalities in these areas have rigid requirements for their milk supplies and New Jersey dairymen are outstanding in the production, under clean, sanitary conditions, of high-quality market milk.

Outstanding work has been accomplished in New Jersey in the control of diseases of dairy cattle. About 17,000 herds, comprising practically all the cattle in the state, are under federal-state supervision for the eradication of bovine tuberculosis, and a state law requires that all milk sold in the state must come from tuberculin-tested cows. The entire state became a "Modified-Accredited" area in 1937 because of

the elimination of tuberculosis from its cattle. Nearly 20,000 cattle in the state are under supervision for the control of Bang's disease, and an eradication program supported by indemnification funds, similar to the tuberculosis eradication program, is further safeguarding the industry and enhancing its value.

New Jersey dairymen have been leaders in adopting recent practices in pasture and hayland improvement through fertilization and management. Many acres of legumes and grasses are being ensiled annually with preservatives for winter feeding.

DAIRY SECTIONS

Section 1 The northern New Jersey dairying area includes Sussex, Warren, Hunterdon, Morris and Somerset counties and the northern half of Mercer County. Nearly 60 per cent of the state's cow population is located in this one area. The country is rolling in Mercer, Somerset and Hunterdon counties and hilly and rugged in Morris, Warren and Sussex counties, with much good pasture land, and many small streams throughout. Well-known breeders located in this section furnish foundation stock for other states.

Sussex County is one of the leading dairy counties in the United States, having approximately 35,000 cows within its borders. The average production per cow here, and in several other leading dairy counties as well, is considerably above the state average of approximately 6,500 pounds per cow. There are a large number of dairy farms with modern barns and equipment.

About 25,000 dairy cows are found in the wide fertile valleys of Warren County. Pasturage is excellent, alfalfa and soy beans provide abundant winter forage, and small grain crops grow equally well. Here and in Hunterdon County, both of which were formerly Holstein centers, the Channel breeds have found a foothold due to the demand for milk with a higher butterfat content.

Hunterdon County has approximately 28,000 dairy cows and Mercer, 10,000 dairy cows, all breeds being well represented. Medium-sized dairies are the rule, as farming is diversified. There are many herds of purebred cattle in this area.

Morris County has a dairy cow population of approximately 13,000 cows. The terrain is rolling to hilly, with many fertile valleys. Long Valley, in particular, is ideal for raising cattle and general crops. This county is the home of the leading importers of Jersey and Guernsey cattle and the descendants of these cattle are now in every important herd of these breeds in the United States.

Somerset County with its 12,000 cows is another leading dairy county. Formerly a Holstein center, being the home of the first 40-pound cow of the breed, there are now many purebred and grade herds of all dairy breeds. The topography of this section and crops grown are similar to Hunterdon and Warren counties.

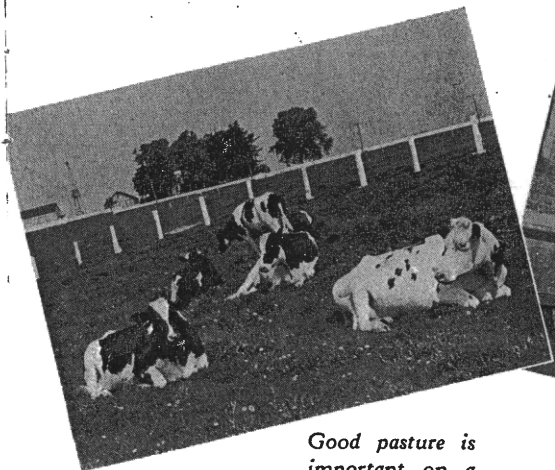
Section 2 known as the "Cream Ridge Area," is in the western part of Monmouth County, where dairying has long been the chief industry. The milk produced is used chiefly by shore trade. The cattle are for the most part divided between Holsteins and Guernseys.

Section 3 comprises a very extensive dairy community in the northern half of Burlington County. The topography is level to rolling, the pasture abundant and the land fit for practically any crop. Southern varieties of ensilage corn are grown extensively, legumes for grass silage are meeting with favor, and it is not uncommon for a farmer to cut from 12 to 15 tons of corn or legumes per acre. This is one of the oldest dairy sections in the United States; it contains more than 22,000 dairy cattle and ranks fourth in the state in this respect. Grade Holsteins and Guernseys predominate, although there are many herds of purebreds. Because of milder weather than that in Section 1, the herds may be pastured from April to November. A number of the dairymen are members of the Inter-State Milk Producers' Association, and sell whole milk in Philadelphia.

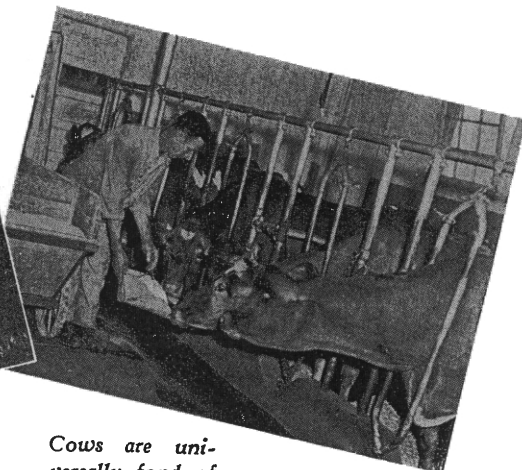
Section 4 known as the "Salem Area," has over 16,000 high-class grade and purebred cattle. Cow-testing associations have been in existence in this section since 1913. A great many of the breeders of purebred stock have completed advanced registry tests on their cattle. Here, as in Section 3, large quantities of corn and grain are grown. The crop rotation of corn, potatoes, grain and alfalfa works well with dairying. It is not uncommon to see herds pastured on fields which would raise 75 bushels of corn per acre, if under cultivation.

Section 5 known as the "Shiloh Area," is in Cumberland County. Here also the dairymen are very progressive. Practically all of them keep purebred stock and belong to a cow-testing association. Farmers in Sections 4 and 5 during the past few years have taken great strides in Holstein breeding in that they have placed at the head of their herds high-class Holstein bulls valued at \$100 to \$500 per animal. The crops of the section are corn, grain and tomatoes.

Section 6 is close to Newark, Paterson and Jersey City. Dairymen in this section usually retail their milk in nearby cities and towns. In comparison with other sections, very few calves are raised here, but cows in the lactation period are bought for milk and later sold for beef. It is not uncommon to see herds of 200 cows kept within three miles of the city. Practically all the feed is purchased, and the cows are forced for high milk production.



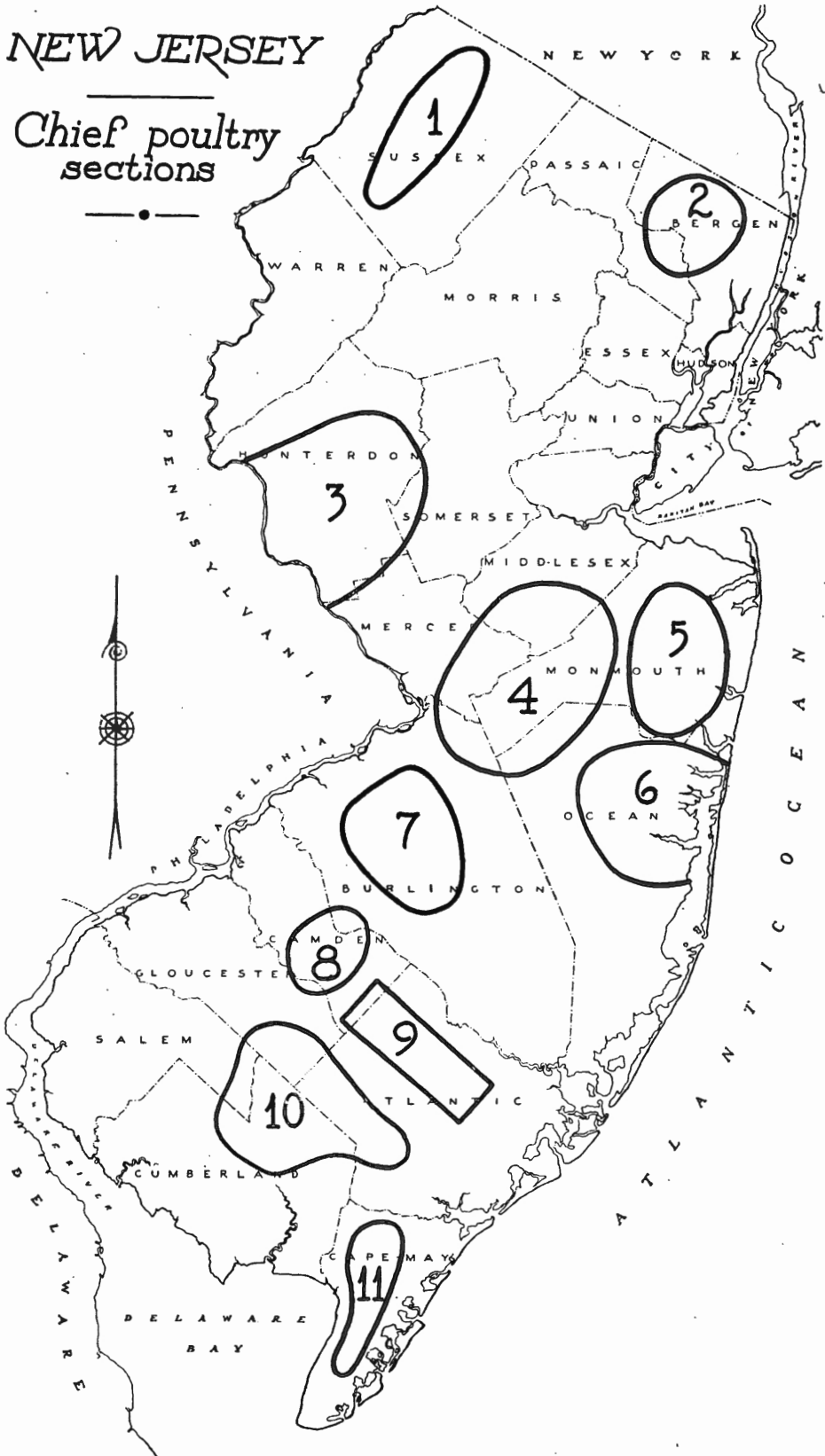
Good pasture is important on a dairy farm



Cows are universally fond of mixed feeds

NEW JERSEY

Chief poultry sections





The Poultry Industry

THE production of market eggs, baby chicks and poultry meat constitutes New Jersey's poultry industry, which is one of the principal phases of the state's agriculture. It is estimated that more than 11,000,000 chickens are raised on the farms of the state, of which about 6,000,000 are kept for egg and meat production. The total value of the eggs, poultry meat and baby chicks produced annually averages \$27,500,000. Chickens are kept on practically all New Jersey farms and on about 5,000 of them account for more than half of the farm income.

The most important branch of the New Jersey poultry industry is the commercial production of eggs for market. Because of the facility and speed with which eggs are transported from New Jersey farms to the consuming sections in and adjoining the state, New Jersey eggs have won a reputation for freshness and quality on their markets. Scientific methods of management, including careful feeding and the control of chicken diseases, are generally practiced.

About 700,000,000 eggs are produced annually on New Jersey's commercial poultry farms and by farm flocks. The marketing of eggs is a major enterprise, and farmer-owned egg and poultry auctions have been established at Flemington, Vineland, Mount Holly, Hightstown and Paterson. These auctions play a leading part in the marketing of eggs according to specific grades. They are accessible to practically all poultry farmers in the state and, through them, the farmers are able to obtain better prices than if they shipped directly to consuming centers. These markets sell approximately \$5,000,000 worth of eggs and poultry meat annually.

The hatching and selling of baby chicks ranks next to commercial egg production in importance. There are more than 250 hatcheries in the state. They have a total egg capacity of more than 8,000,000 eggs at one setting, and hatch from 20,000,000 to 22,000,000 chicks annually. Many of the smaller hatcheries are operated by poultrymen who carry on breeding operations and produce their own eggs. The large commercial hatcheries in the state purchase their hatching eggs from individual breeders, or obtain them from their own out-flocks.

The selling of young chickens and fowls for table use is a branch of the poultry industry that is almost as important as the commercial production of baby chicks. About 10,000,000 chickens are sold annually by New Jersey farmers, practically all of them reaching the market as poultry meat. Many of these chickens are produced and marketed in connection with egg-producing operations. However, in certain sections, the farms specialize in raising chickens for use as food, some of them rearing and marketing broilers throughout the year.

In addition to the production and selling of chickens for table use, the New Jersey poultry industry includes the raising of turkeys, ducks, and to a smaller degree, geese, pigeons and guinea fowls. The raising of turkeys, in particular, has expanded within the past few years, following the development of scientific methods of managing these birds. An intensive squab industry is centered around Millville.

Climatic and soil conditions in New Jersey are ideal for poultry. New Jersey poultrymen have active organizations, and the state agricultural agencies are well equipped and willing to assist poultry farmers. However, the poultry business is not one that can be engaged in and made profitable without capital and skill.

POULTRY SECTIONS

Section 1 in the lower lying area of Sussex County, is not as intensive a poultry section as most others in the state, for some crops are raised along with poultry, and in conjunction with dairy enterprises. Nearby summer mountain resorts, which are growing in importance, and the egg auction market at Paterson, are among the principal outlets for the eggs from this area. The Leghorn is the prevailing breed.

Section 2 just north of the metropolitan district, and occupying portions of Bergen and Passaic counties, contains many specialized poultry farms. Here there is a wider range of breeds, including Wyandottes, Reds, and White and Barred Rocks along with Leghorns. Direct sales of both eggs and poultry meat to consumers, the egg auction market at Paterson, and the metropolitan suburbs are the outlets for the production of this area.

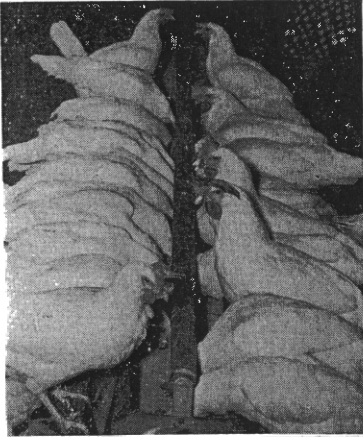
Section 3 largely in Hunterdon County, with Flemington as the marketing center, is one of the foremost poultry sections of the state. Specialized flocks here range from 1,000 up to 2,500 birds. More so than in most other sections, this area offers



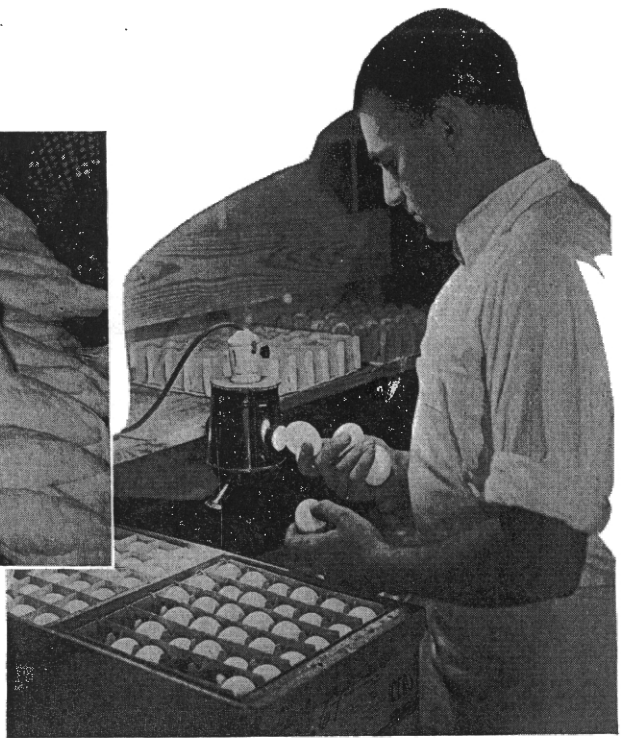
A well laid out system
of poultry units

Two-story poultry houses
are not uncommon





Plenty of feed is necessary for high egg production



Eggs are graded by candling to examine the interior

possibilities of raising a considerable part of the feed necessary for flock maintenance. All phases of the poultry industry—production of eggs, poultry meat, and baby chicks—are well represented here. Leghorns, Reds, and White and Barred Rocks are the chief breeds. The farmer-owned egg and poultry auction market at Flemington was organized in 1929 as the first successful operation of its kind in the United States, supplanting the itinerant buyer method prevailing earlier. Since then the poultry industry in this section has expanded considerably, and the auction market is the most important outlet for its production.

Section 4 is one of the relatively newer poultry areas which likewise has grown materially following the development of an auction market at Hightstown which originally handled only fruits and vegetables produced on nearby farms. While there are some large poultry enterprises here, a considerable volume of the eggs comes from flocks on farms also devoted to the production of potatoes and vegetables.

Section 5 in the central and-eastern portion of Monmouth County has many specialized poultry farms, some ranging from 1,500 to 3,000 birds, although as in Section 4 some flocks are maintained on farms with other enterprises. Numerous outlets are available in marketing the eggs of this area; the shore resorts, the auction market at Hightstown, a farmer sales-shipping organization in Toms River, and the New York and Newark wholesale markets all draw on this area.

Section 6 the marketing centers of which are Toms River and Lakewood, is another of New Jersey's intensive poultry areas. As a matter of fact, the poultry and cranberry industries are Ocean County's two chief agricultural enterprises. The New York wholesale market, and to some extent the nearby shore trade, are looked upon as the outlets for the egg production of this district. Again, the predominating breed is the Leghorn.

Section 7 centering around Mt. Holly, in Burlington County, contains a number of commercial poultry plants with a bird population of 500 to 1,000. The industry in this area has developed primarily into the production of poultry meat and with it there has been organized a farmer-owned auction market for the sale of this commodity, as well as the eggs produced on the poultry farms. The principal breeds are of course the heavy types.

Section 8 is a small area in Camden County embracing the poultry farms near Berlin and Atco. In addition to Leghorns, scattering flocks of the heavier breeds are to be found.

Section 9 is a narrow rectangular area taking in Winslow at the Camden County end and extending southeast to include Egg Harbor and Cologne. This extends on both sides of the White Horse Pike, which is a heavily traveled artery of traffic between Philadelphia and Atlantic City and other shore resorts. Considerable quantities of eggs are sold at roadside stands during the summer months, but the wholesale markets in the cities and at the shore are larger outlets.

Section 10 is the famed Vineland area of south Jersey, where the poultry industry has reached a high degree of intensity and management. With Vineland as the geographic and marketing center, this area extends to include Franklinville, Buena, Richland, Dorothy, Risley and Millville. Highly developed marketing agencies in Vineland, one of which is a farmer-owned auction market,

The raising of turkeys is increasing every year



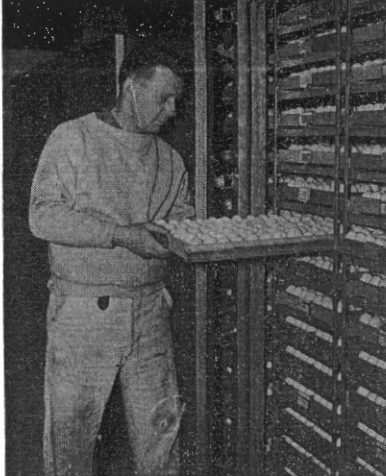
New Jersey has some large duck farms

serve many of the producers in selling eggs to local and distant buyers, and in shipping to the New York and Philadelphia wholesale markets. The Leghorn is the outstanding breed here.

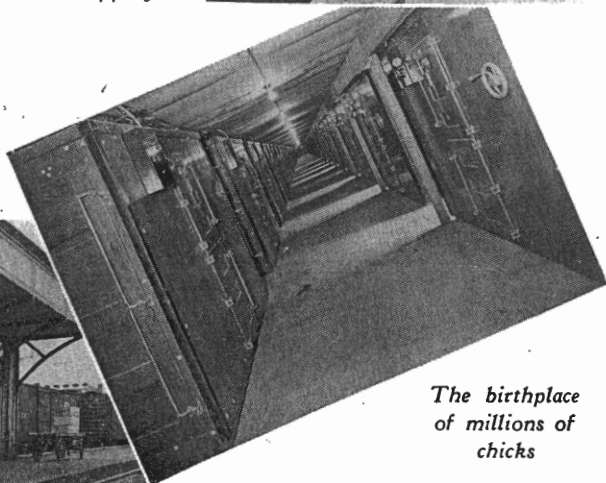
Section 11 in Cape May County, extending from Woodbine on the north to a point beyond Cape May Court House on the south, comprises an area where poultry and truck farming are frequently combined on moderate-sized farms. Leghorns are the chief breed in the Woodbine district, while general purpose birds are included in the flocks along the shore area. Shore resorts are important markets for the production from these farms during the season, with the city wholesale markets an all-year outlet.

In addition to the sections described, where the poultry industry has become intensified, there are numerous other areas in the state whose poultry raising is carried on in varied degree. Mention should be made of the coast area situated between Sections 6 and 11, in which are scattered areas of poultry production where output is marketed considerably in shore resorts and direct consumer sales.

Examining chicks before shipping



Modern incubators supplant "Biddy" today



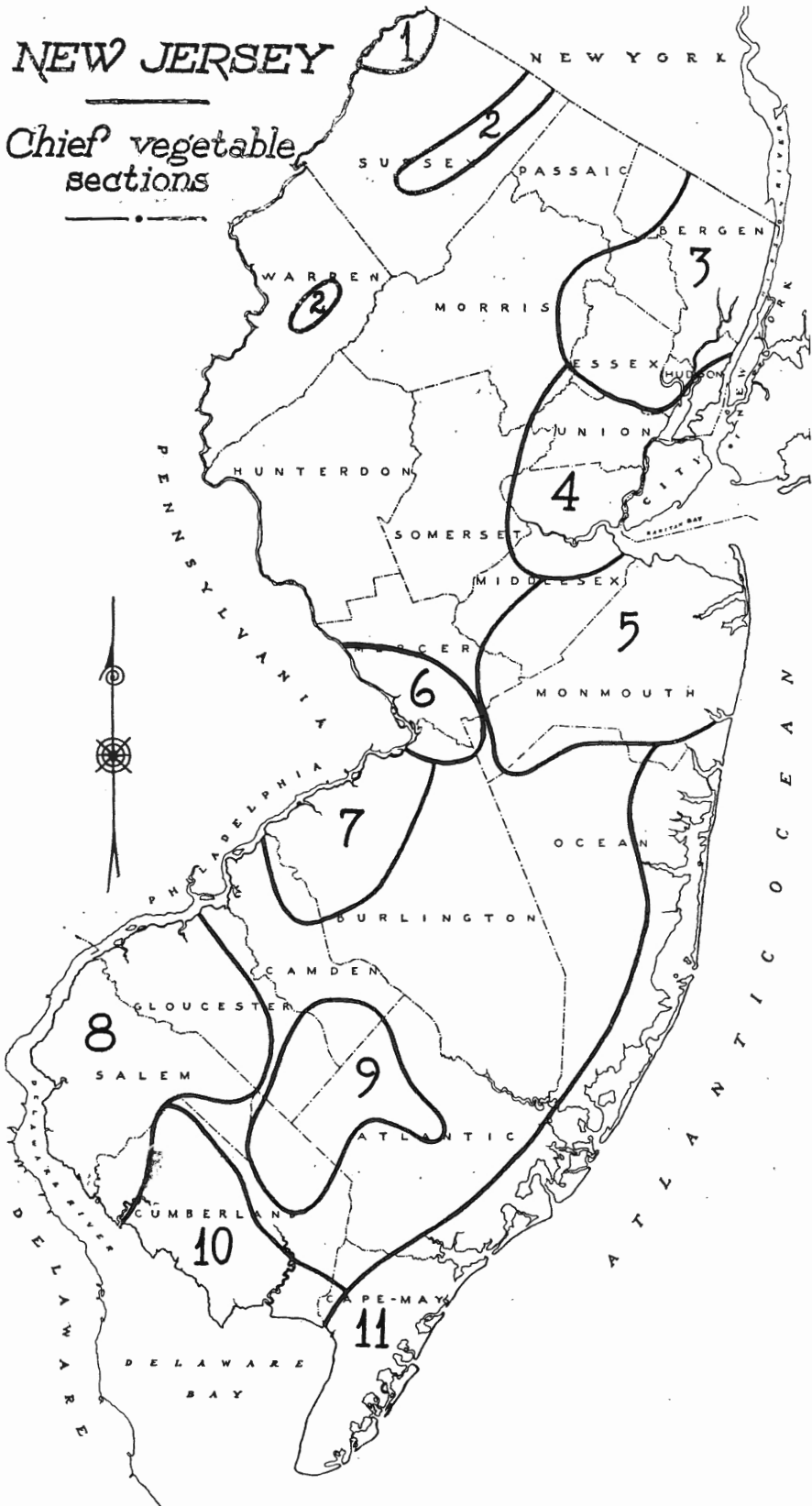
The birthplace of millions of chicks



New Jersey chicks go to many states

NEW JERSEY

Chief vegetable sections



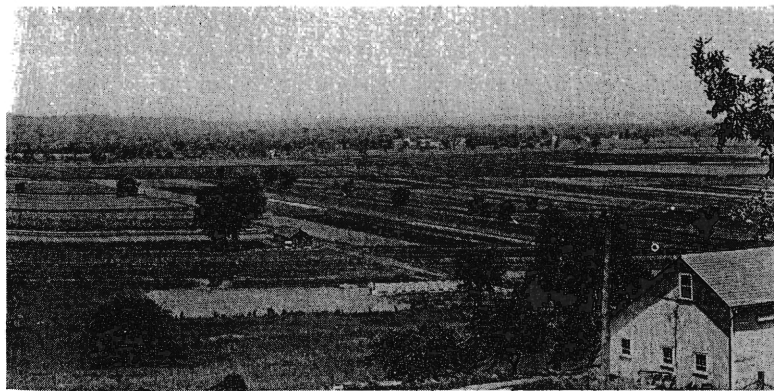
Vegetable Growing



THE varied types of New Jersey's soil, the state's favorable climate, and the closeness of its farm lands to nearby markets have resulted in making New Jersey a large producer of vegetables, of which there are more than 50 different kinds grown. Every county in the state contributes toward making New Jersey known as "The Garden State," and to have a vegetable known as coming from "Jersey" is to indicate its high quality and complete freshness.

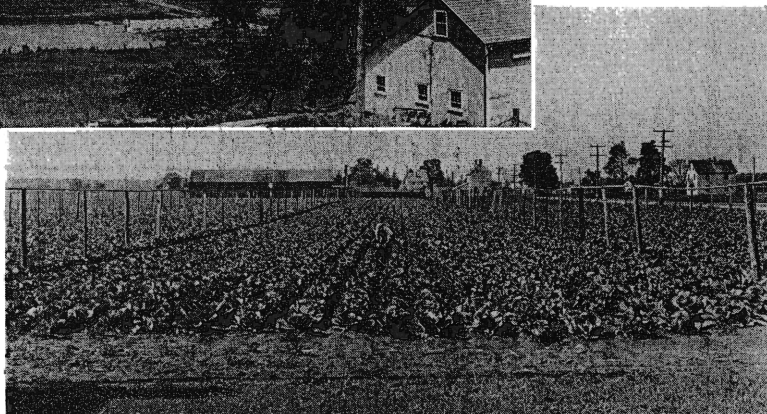
New Jersey ranks high in the production of vegetables, six of its counties being among the most important vegetable-growing counties in the nation from the standpoint of value. These six counties are Gloucester, Monmouth, Cumberland, Salem, Burlington and Middlesex.

As a state, New Jersey occupies an important place in the production of specific vegetable crops. In many of these it consistently ranks among the first four or five leading producing areas in the United States. The most important of its vegetable crops, and its rank in their production during the past five years, are shown in the accompanying table. Except for Delaware, which normally leads in the production of lima beans for processing, all the states whose production of vegetables exceeds New Jersey are considerably greater in size, the largest of which are Texas, California, Florida and New York.



One of New Jersey's famed truck farms

Some intensive vegetable growers utilize overhead irrigation



NEW JERSEY'S RANK IN PRODUCTION OF VEGETABLES

	1936	1937	1938	1939	1940
Sweet Corn for market.....	1	1	1	1	1
Peppers for market.....	1	1	2	2	1
Asparagus for market.....	2	2	2	2	2
Asparagus for processing.....	2	2	2	2	2
Beets for market.....	2	2	2	2	2
Eggplant	1	2	2	2	2
Lima beans for market.....	1	1	2	2	2
Early Irish potatoes.....	1	2	2	2	2
Lima beans for processing.....	3	2	1	2	3
Snap beans for market.....	3	3	3	3	3
Carrots for market.....	5	6	6	5	4
Cauliflower	5	5	6	4	4
Lettuce	7	7	6	7	5
Tomatoes for market.....	4	4	5	4	4
Tomatoes for processing	4	5	6	3	4
Beets for processing.....	5	3	4	6	5
Celery	5	5	7	5	5
Spinach for market.....	4	5	4	5	5
Cucumbers for market.....	3	1	3	3	6
Cabbage for market and kraut....	12	11	11	11	9
Onions	11	12	10	13	11
Cantaloupes	9	7	9	9	12
Peas for market.....	10	12	12	13	12
Sweet potatoes for market.....	10	11	13	11	12
Irish potatoes, early and late.....	11	12	11	14	14

Vegetable growing in New Jersey may be grouped broadly in three classes: (1) market gardening, which is most highly developed in the northeastern section where land values are relatively high; (2) truck gardening, which uses lower-priced land in every part of the state, yet is always in close touch with the markets; (3) production for the canning factories, an industry that is especially developed in the southern and central sections.

Although vegetables are produced on a commercial scale in every county in the state, there are certain sections in which vegetable growing has become specialized. These sections are outlined in the following paragraphs: (for location see map on page 26).

Section 1 comprises the Montague district in northern Sussex County, serving the Port Jervis and New York markets, and more recently the growing summer resort trade in nearby camps and hotels.

Section 2 is an area of muck or black soils and is ideal for growing celery, lettuce and onions. This rich land, much of it undeveloped, includes hundreds of acres in Warren and Sussex counties. Although the development of this ground often involves considerable expenditure for drainage, the excellent return in crops usually justifies it.

Section 3 takes in Bergen and Essex counties, part of Hudson, and the eastern portions of Morris and Passaic counties. Many kinds of vegetables are grown here in an intensive way, frequently on areas of from 5 to 20 acres, some being under irrigation. The principal crops grown are beets, cabbage, carrots, cauliflower, celery, horseradish, lettuce, parsley, spinach, table tomatoes and other general market crops, as well as specialty crops for the foreign trade of the metropolitan area. The New York market, and the commission and farmers' wholesale markets of Newark and Paterson, are important outlets for much of the vegetable production of this section.

Section 4 stretches from New Brunswick to Elizabeth and to the eastern border of the state. Its variable soil produces many of the vegetables listed for Section 3, but on somewhat larger farms and a little less intensive scale. Its outlet is largely in the lower metropolitan markets and also in Plainfield and New Brunswick.

Section 5 includes practically all of Monmouth County and a corner of Middlesex County. White potatoes are grown extensively in parts of this area, but a wide variety of vegetable crops are also important, sometimes being grown in conjunction with fruit. Asparagus, beets, cabbage, cantaloupes, carrots, cauliflower, lettuce, peppers, sweet corn and tomatoes are the main products. In addition to the Newark Farmers' Market which is well patronized by growers in this area, local markets and shore resorts offer outlets for this production, as well as the Tri-County Auction Market at Hightstown for growers in the western end of this area.

Section 6 comprises part of Mercer and Burlington counties in the vicinity of Trenton. Asparagus, onions, peas, snap beans, sweet corn and tomatoes are among the variety of crops produced. New Jersey's capitol city is an important outlet for this area.

Section 7 is an area in Burlington and Camden counties adjoining the Delaware River. Its light to medium sandy loam produces a variety of crops, the most important of which are cabbage, cantaloupes, peas, peppers, snap beans, sweet corn and tomatoes. Both New York and Philadelphia are the chief outlets for the heavy production of this area. Fruit production is likewise important here, many growers being interested in a combination of fruit and vegetable farming.

Section 8 is more or less a continuation of Section 7 along the Delaware River, except for the gap in the vicinity of Camden and its suburbs, and includes the western portions of Gloucester and Salem counties, and a corner of Cumberland. However, much of the soil here is lighter, varying from very light sandy loam to heavy gravelly loam. Asparagus, cantaloupes, onions, peppers, sweet potatoes and tomatoes are the principal crops. Much of these moves to the New York and Philadelphia metropolitan markets, but a considerable quantity is sold to buyers from many eastern states through several farmer-owned auction markets in this area.

Section 9 is an extensive tri-county area including portions of Atlantic, Camden and Cumberland counties. Some of the farms are relatively small in size, but when well cared for, they produce good yields. Five heavily patronized farmer-owned auction markets in this section are important outlets for the peppers, pickles, lima beans, snap beans, sweet potatoes, tomatoes and other crops grown here, as of course are New York and Philadelphia for direct shipments on commission. In addition to these products, spring greens have come into prominence especially in the Vineland and Millville section; cultivated dandelion, early lettuce, broccoli and other greens, and radishes, mature early on these light soils.

Section 10 comprises the southern half of Cumberland County west of the Cohansey River. Asparagus, lettuce, lima beans, onions, peppers, snap beans and tomatoes head the list of vegetable crops. Cedarville and Bridgeton in this area are New Jersey's carload shipping centers for onions and snap and lima beans. These products are shipped by buyers purchasing direct from farmers and through a farmer-owned auction market; this latter is an important outlet in this area for both carlot and truck shipments, and of course the New York and Philadelphia markets draw a considerable proportion of the production.

Section 11 comprises a narrow strip along the shore from Manasquan to Cape May. Trucking here is less intensive, but a rather wide range of vegetable products is grown largely for the shore resort trade.



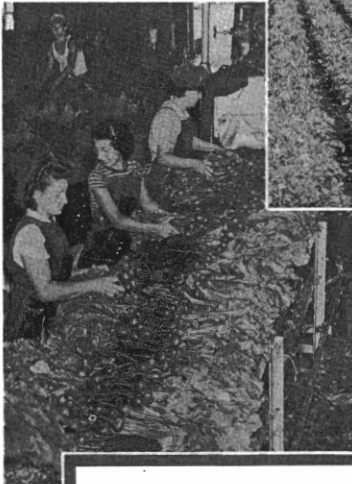
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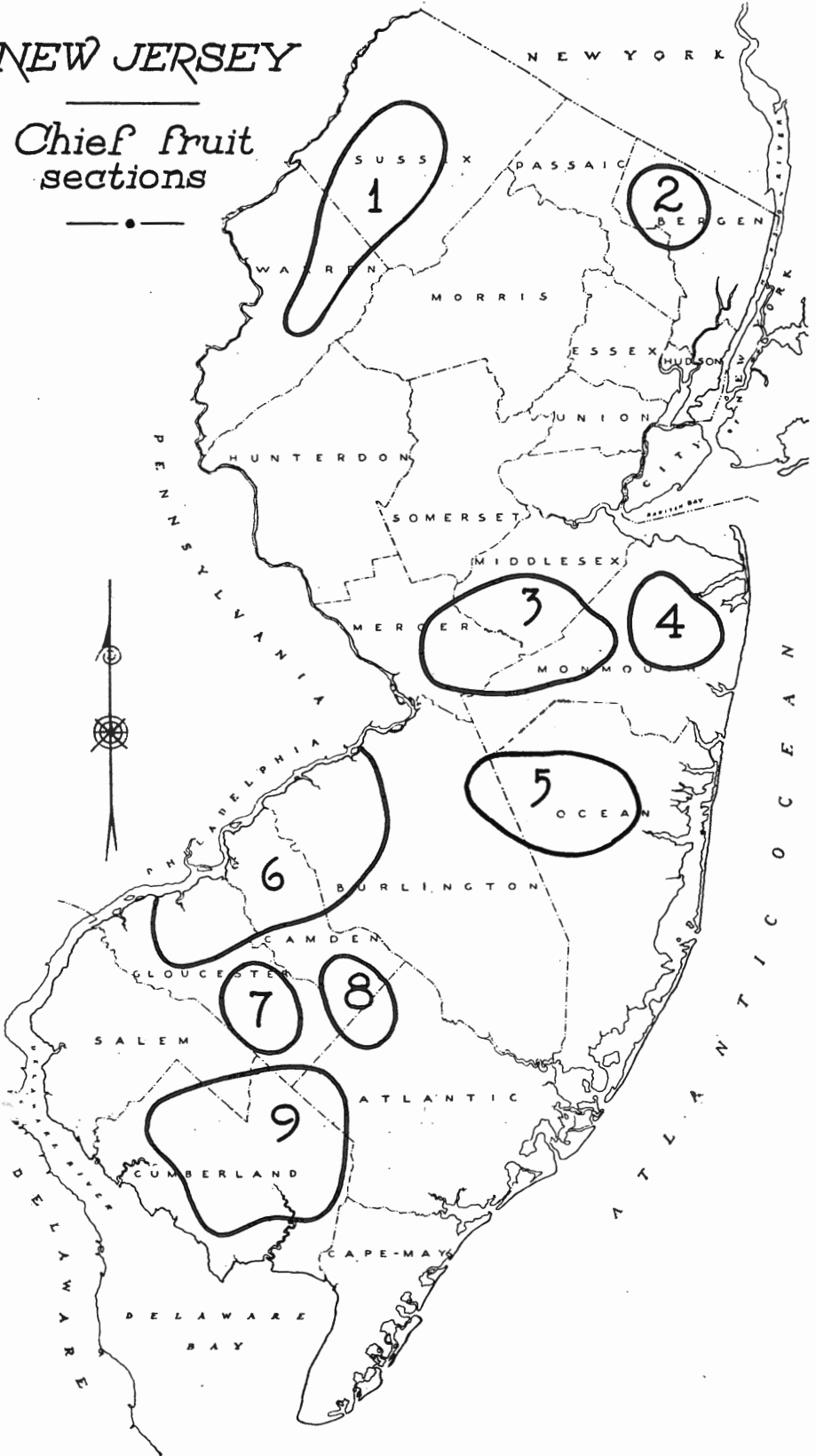


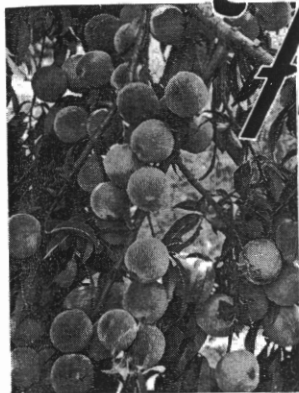
5

1. *Jersey asparagus is cut today, eaten tomorrow*
2. *Picking a good crop of lima beans*
3. *Celery is a great muck soil crop*
4. *Grading and bunching washed beets*
5. *Cantaloupes from the Garden State are popular*

NEW JERSEY

Chief fruit sections





Fruit Raising

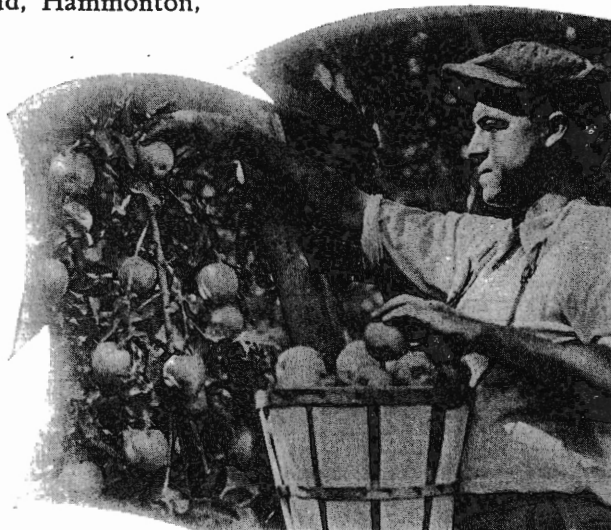
NEW JERSEY has long held a high position among the states of the nation as a producer of tree fruits, small fruits, cranberries and grapes. Small in size as compared with most other states, New Jersey is very close to the top both as to the quantity and the quality of the fruit it produces.

Such temperate zone fruits as peaches, apples, cherries, grapes, and bush and vine berries are successfully grown in almost every part of the state. Sussex, Warren and Hunterdon counties, with their picturesque rolling hills and valleys, Monmouth, Camden, Burlington, Cumberland, Gloucester and Cape May counties, with their level lands and earlier seasons, enjoy soil and climatic conditions that aid in producing the splendid crop of fruits for which New Jersey has become famous.

PEACHES

New Jersey is one of the principal peach-producing states, and its peaches have a reputation for high quality and fine flavor. On an average about 1,500,000 bushels of peaches are produced annually in the state. Because of its proximity to large consuming centers, New Jersey has an opportunity to ripen its peaches on the trees so that the fruit received by the public can be much superior to that requiring longer shipment. However, demands of the selling trade for peaches that will stand up in the market at least a week, lessen the advantage that New Jersey growers could have in ideally matured fruit.

The chief centers of peach production are Moorestown, Vineland, Hammonton, Bridgeton, Beverly and Glassboro. Horticultural interests in the state have been active in developing some new varieties that are ideal for growers who can take advantage of opportunities to develop considerable color and quality in their fruit before picking it. These new varieties are much superior to the leading commercial varieties of the nation.



APPLES

A fairly large New Jersey acreage planted in apple trees is producing relatively good yields, and the number of young orchards is increasing. The elevated, rolling lands of northern New Jersey are especially suitable for the production of apples of high quality and color, and many successful orchards are found upon the loams of central and southern New Jersey. The principal centers of production are to be found in Burlington, Monmouth, Gloucester, Cumberland and Middlesex counties.

New Jersey's average annual yield of commercial apples is approximately 3,000,000 bushels. The leading varieties are Stayman, Rome Beauty and Delicious, with McIntosh, Wealthy and Golden Delicious among the other varieties that are also commercially prominent. Early and mid-summer varieties, beginning with ripening periods in July, are grown but not nearly to the extent of a decade or two ago. The majority of New Jersey's production is now comprised of late fall and winter varieties.

OTHER TREE FRUITS

Pears and sour cherries are grown for market in some parts of the state, although not nearly so extensively as peaches and apples. The annual pear crop is about 75,000 bushels, produced principally in the fruit-growing sections of Burlington, Camden, Gloucester, Cumberland and Monmouth counties.

GRAPES

Favorable conditions for grape production are found in several sections, but the industry is centered chiefly in Atlantic, Cumberland and Burlington counties. There is a large acreage of grapes around Vineland; other extensive vineyards are found in the vicinity of Hammonton, Egg Harbor City, Glassboro and Moorestown. Wineries are an important outlet for some of this production.

BERRIES

The production of berries is an important part of the fruit industry of the state, and blackberries, dewberries, raspberries, currants, gooseberries and strawberries are extensively grown. New Jersey cultivates more blackberries and dewberries than any other state. Atlantic County leads in the production of raspberries, dewberries and blackberries, with Hammonton as the selling center. These berries are also produced in abundance in Cumberland, Camden, Burlington and Monmouth counties. Strawberries are grown in large quantities throughout the state; Cumberland County leads in their production.

New Jersey ranks high in the production of cranberries. Between 15 and 20 per cent of the output of the entire country is grown in this state, principally in the counties of Burlington, Ocean and Atlantic. About 10,000 acres are devoted to the growing of this crop. Camden, Cape May and Gloucester counties also produce cranberries, but the acreage is relatively small.

The production of cultivated blueberries is a new branch of New Jersey's fruit-growing industry. It is centered in Burlington, Ocean and Atlantic counties. New Jersey leads all other states in the development of this new industry.

FRUIT SECTIONS

The most important fruit growing sections are described below. However, many fine locations are to be found outside these areas, since a considerable portion of the state is adapted to the production of fruit. Most notable among these, and as yet considerably undeveloped, are sites in Hunterdon and Morris counties. As a matter of fact, before the turn of the century, Hunterdon County led all counties in the Union in peach production, having over 2,000,000 trees—more than are now grown in the whole state. Unchecked ravages of San Jose scale wiped out the county's peach orchards, but now with scale one of the most easily controlled pests, this section, with its good soil, elevation and slopes, is admirably adapted to introduction and expansion of the fruit industry.

Section 1 comprises parts of Sussex and Warren counties, where commercial fruit growing is largely confined to the production of apples, although a few peach orchards are to be found. Excellent color is attained on the rolling and hilly slopes of this area, and growers are not confronted with the degree of infestation of some insect pests as in some more southerly sections. Stayman, Rome, Delicious, McIntosh and Baldwin are the outstanding varieties here, and much of this fruit moves into the metropolitan channels of north Jersey.

Section 2 in Bergen County, is made up chiefly of moderate-sized orchards of both apples and peaches, the products of which are moved in local and nearby markets.

Section 3 including parts of Monmouth, Middlesex and Mercer counties, contains a number of fine orchards, both peach and apple, which for the most part are on gently sloping land. Small fruit acreage, especially that of strawberries, has been increased considerably in recent years. The produce auction market at



*Apples are wrapped and packed in boxes
for discriminating trade*

Hightstown, nearby wholesale and retail outlets, and the metropolitan centers of Newark, New York and Philadelphia are the sales channels.

Section 4 in eastern Monmouth County, is not only an important apple section, but also an area in which peaches, grapes and berries are raised in appreciable volume. Newark, New York and the numerous seashore markets in the vicinity absorb the major part of this production. Roadside markets, too, are of some consequence in this area in selling direct to consumer trade.

Section 5 comprises a portion of Ocean and Burlington counties in which is located the center of the cranberry and blueberry industry. The bulk of the cranberry crop is marketed through a well-developed cooperative sales agency as fresh berries, or processed into cranberry jelly. Blueberries for the most part are rigidly graded, attractively packed, and marketed under cooperative brands.

Section 6 covering the western part of Burlington, Camden, and Gloucester counties, is the most intensive and important fruit growing section of the state. Apples, peaches, pears, cherries, strawberries and grapes are produced here, but the greatest emphasis is on the first two. Philadelphia has long been the nearby big outlet for the products of this area, but New York, Newark and other consuming centers also draw heavily from this section. Beverly, Haddonfield, Moorestown and Riverton are the chief fruit centers.

Section 7 is an intensive apple and peach area centering around Glassboro and contains orchards running up to a considerable size. The soil here is lighter than in the areas previously described, but good orchard practices and management have resulted in good yields of fruit. In addition to the market outlets which are about the same as those for Section 6, the area has a by-products plant capable of using considerable volumes of apples for cider and other processed goods, and a large farmer-owned auction market at Glassboro through which fruits and vegetables move to primary or secondary markets.

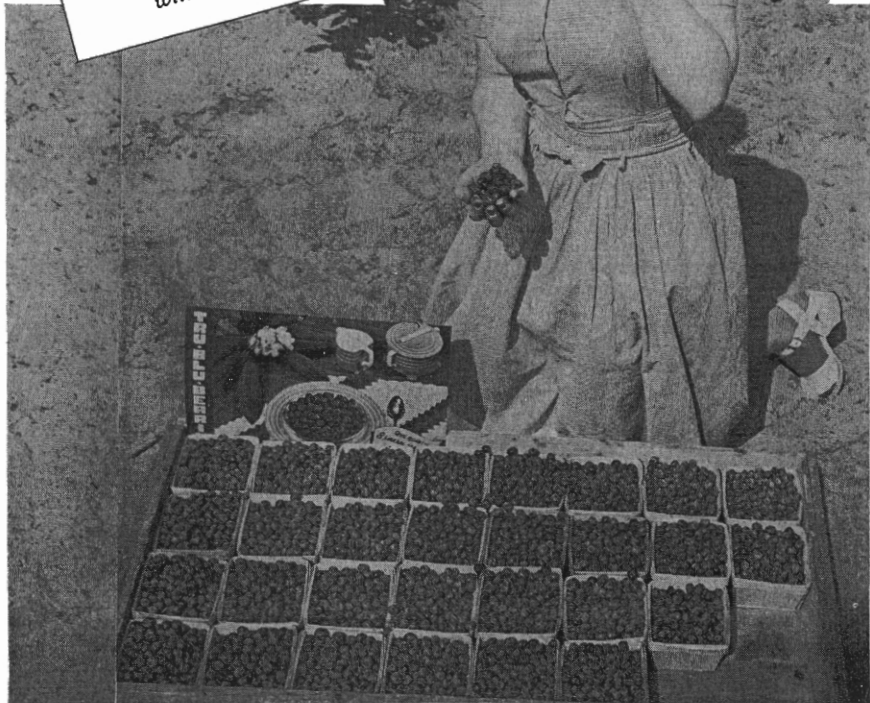
Section 8 with Hammonton as the center, is noted primarily for its peaches and small fruits. Raspberries, dewberries, strawberries and grapes are grown extensively on its light, warm, early-producing soil. From the farmer-owned auction at Hammonton large volumes of these small fruits, and peaches too, move to both nearby and distant markets. A main artery of city-to-shore traffic—the White Horse Pike—runs through this area, and a host of retail stands dot the roadside in a concentrated ten-mile zone.

Section 9 largely in Cumberland County, is well known for its apples, peaches and small fruits. Cedarville, Dividing Creek, Rosenhayn and Port Norris are famous for strawberries, and most of them are sold through two farmer auctions at Cedarville and Rosenhayn. Bridgeton is the chief center of a large commercial apple and peach country, with some orchards extending to the east around Vineland. These tree fruits are sold for wide distribution, within and outside the state, through the usual wholesale channels; practically none of it is sold at the auction markets.



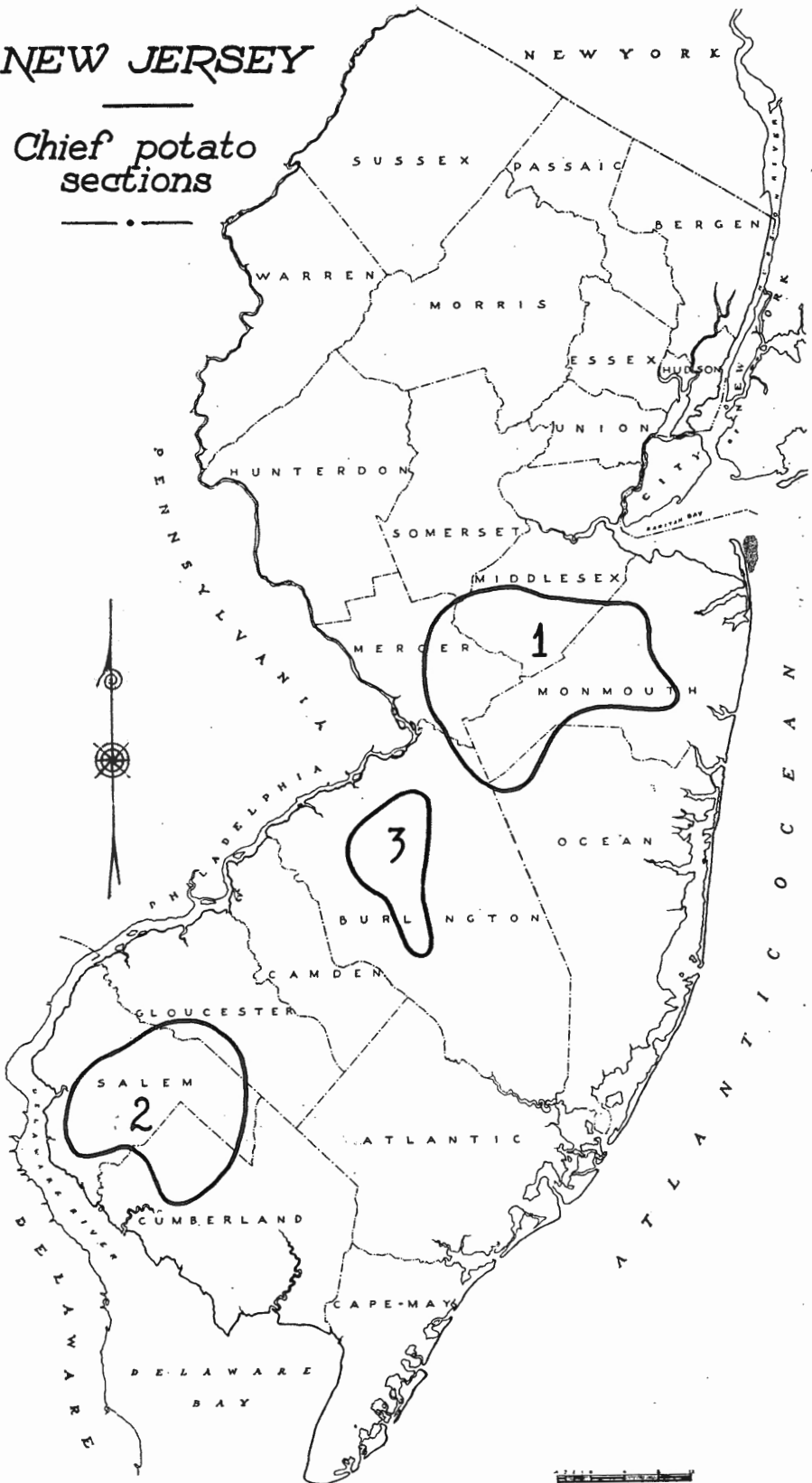
Luscious strawberries, fully ripened, ready for market

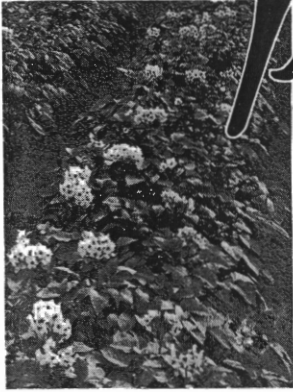
New Jersey's cultivated blueberries meet favor with everyone



NEW JERSEY

Chief potato sections





Potato Growing

THE production of white potatoes is a major agricultural industry in New Jersey. The nearness of large markets and the suitability of the potato-section soils and climate to the production of a large, high-quality crop are largely responsible for the importance of this enterprise in the state.

The average value of the state's annual potato crop is around \$6,000,000. From 50,000 to 58,000 acres are devoted to the crop, and the total production often reaches 10,000,000 bushels annually. The yield of the entire crop averages 175 bushels per acre. However, higher yields are obtained from early potatoes, which make up about 80 per cent of the total production. The average yield of the early crop is 180 bushels per acre and in many cases more than 300 bushels are obtained.

During the period of 1936-1940, New Jersey ranked from eleventh to fourteenth among all states in the volume of potatoes produced. Its true place in the potato industry, though, is more accurately indicated by the fact that in the same five-year period it ranked second among the "Early" and "Intermediate" potato-growing states, being exceeded only by California. Monmouth County, which is the principal potato county in the state, holds a high rank among all counties in the United States in the value of potatoes produced annually.

Potato growing in New Jersey is largely a highly specialized form of agriculture. Marked accomplishments have been made by the growers in developing and using effective production methods. Vigorous, healthy seed, high-grade fertilizers, thorough cultivation and up-to-date disease and insect control practices are characteristic of the industry. Power machinery is the general rule on potato farms. The practice of spraying the crops has been rather generally adopted, some growers with eight to ten-row equipment spraying 40 acres or more a day.

Approximately 600 acres of so-called "late-crop" potatoes are planted in late July and early August for the production of certified seed. The crop is carefully rogued and sprayed, and it is inspected by the Department of Agriculture. The seed from fields which meet certain requirements in regard to freedom from disease is certified and used on the same farm, or sold, for planting the next year's crop. Numerous tests have shown it to be as vigorous as seed from any other section. Three-fourths of the acreage for certified seed is in the south Jersey potato section and the balance is in the potato area of central Jersey. While Cobblers predominate in seed production, some of the newer varieties, especially Chippewa and Katahdin, have in recent years been planted in considerable volume.

POTATO SECTIONS

Section 1 is the largest and most important potato-growing area in New Jersey, made up of large parts of Monmouth, Mercer and Middlesex counties in the central part of the state. Most of the acreage is planted with the Irish Cobbler variety but the newer varieties, especially Chippewa and Katahdin, are meeting popular favor. Green Mountains, as a late variety, are grown, but in limited volume. More than 90 per cent of the seed used is certified as being relatively free from disease.

Harvesting of the crop in this section begins in late July and extends through September. A decade ago the majority of the crop was marketed in a short six or seven week period, but in the past few years there has been a marked tendency to lengthen the season at least to the end of the calendar year. This has been brought about by increased competition from earlier producing states which by lack of summer demand have been forced to lengthen their own marketing periods, and by the loss of mid-western markets which have been supplied in larger volume with early home-grown supplies. A number of potato producers have constructed storages or remodeled buildings to provide facilities for storing a portion of their crop.

Yields of 300 to 350 bushels of potatoes are not uncommon, the better growers expecting at least 250 bushels per acre. This efficient production has been brought about by maintaining soil fertility through the plowing under of cover crops, liberal application of commercial fertilizers and in other cultural practices recognized as conducive to good yields. These, and modern planting and digging machinery, have enabled growers to reduce their production costs to a minimum, and permit competition with growers of other potato-growing areas.

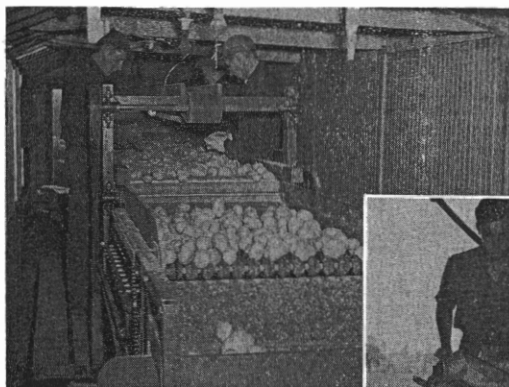


*With modern machinery, many rows of potatoes
can be sprayed at one time*

Section 2 is comprised of parts of Cumberland and Salem counties, in the southern part of the state. The growers who specialize in potatoes in this section follow almost the same procedure as those in Section 1. The greater part of the potato crop is, however, grown in rotation on dairy and general farms. The early crop, planted in March and April, now also includes the newer varieties of Chippewa, Katahdin and others, along with the former favorite, Cobblers. The Redskin, a late planted variety, is also grown in this area.

Section 3 is an area in Burlington County centering around Mt. Holly, with one small portion extending down to Indian Mills. In practices it is similar to Section 2, the potato crop being principally grown in conjunction with dairy and general farm enterprises. However, as a section it is not as commercially important as the central and south Jersey areas.

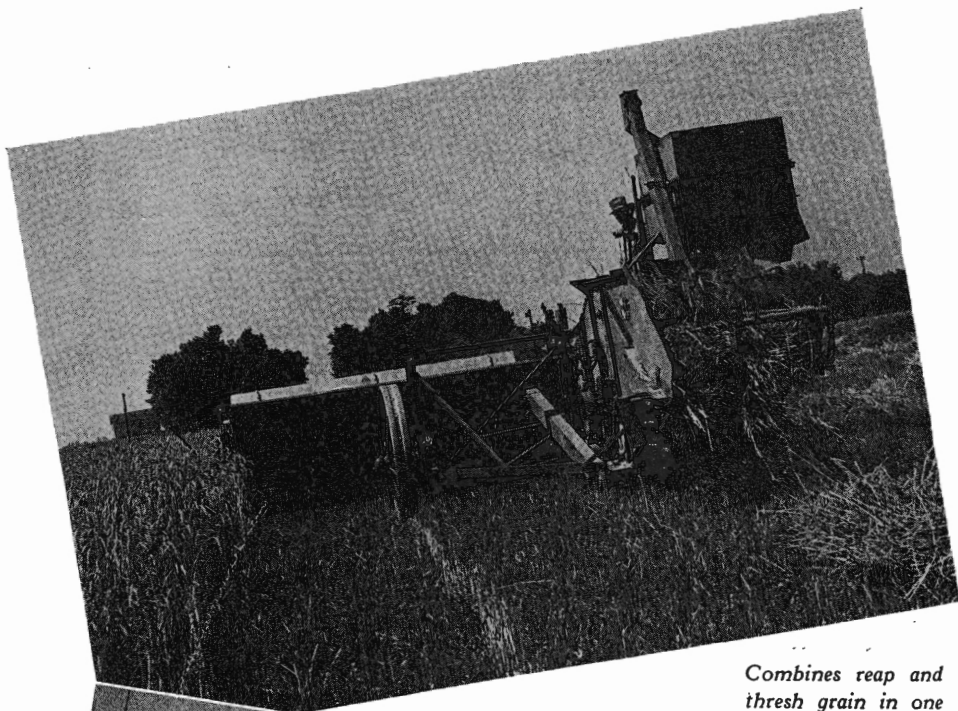
Other Sections produce potatoes commercially in moderate quantities. Chief among these are (1) Upper Camden County, where a variety long known in New Jersey as Redskin is grown for home use and for the Philadelphia market, where it is popular; (2) Cape May County, around Cold Spring in the south and Eldora and Ocean View in the north portion, with shore resort trade in the county as the main outlet; (3) localized areas in Hunterdon and Warren counties, where a few growers with considerable acreage produce Russets and other late varieties chiefly for winter sales to consumers in local communities and in the nearby Easton-Phillipsburg market.



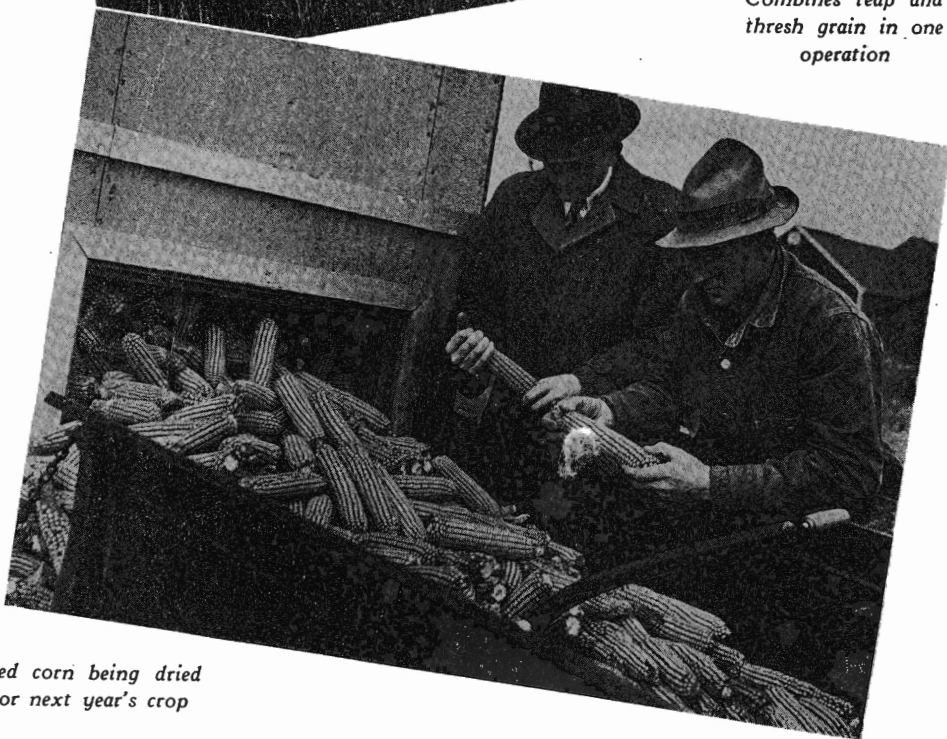
*An up-to-date
potato grader
at the Hightstown
Auction Market*



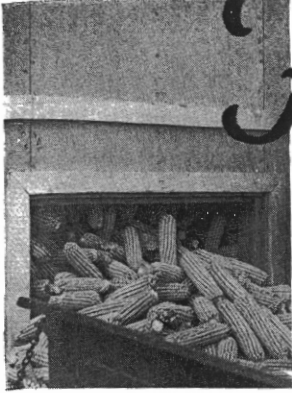
*Some of the potato
crop is packed in
15-pound bags*



*Combines reap and
thresh grain in one
operation*



*Seed corn being dried
for next year's crop*



Field Crops and General Farming

AGRICULTURE in New Jersey is very largely a matter of specialized farming. However, in addition to the fruit, vegetable, dairy, poultry and potato farms, there are about 3,000 that are general in nature, no one kind of product furnishing as much as 40 per cent of the farm income. Such farms are scattered over the state rather than localized in particular sections. Their enterprises vary greatly in size and nature, but the products consist largely of milk, vegetables, grains, hay, fruit, potatoes, poultry and eggs.

General farming operations have a definite place, also, on most of the state's specialized farms. Thus, it is a usual practice for a dairy farmer to produce silage, hay, grain, and, in many cases, some other commodities.

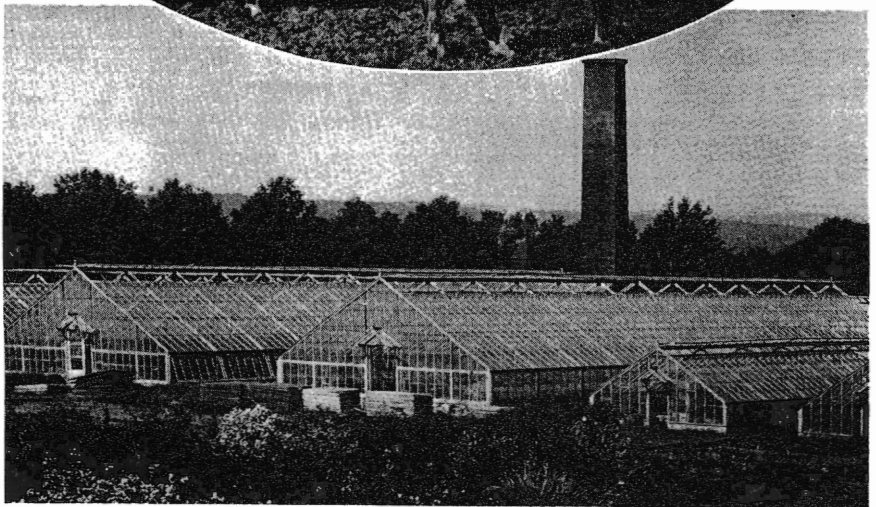
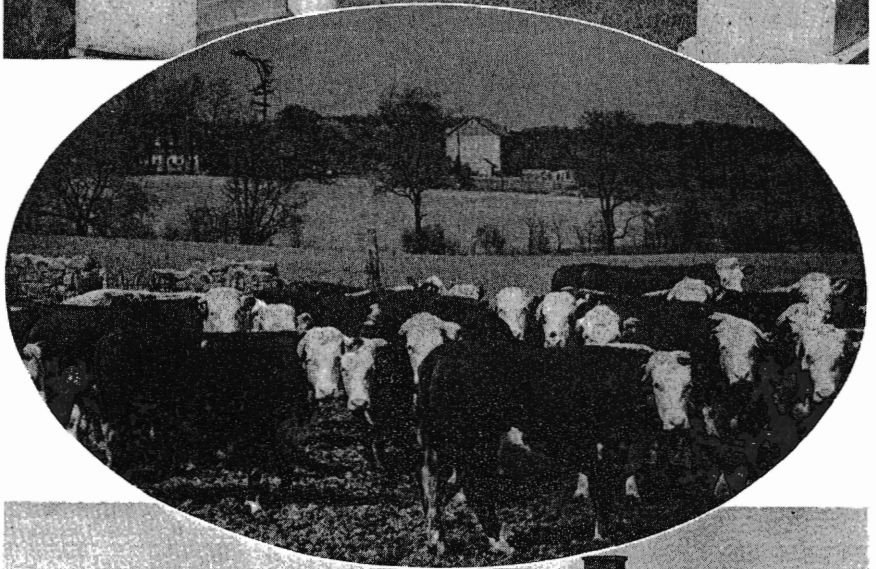
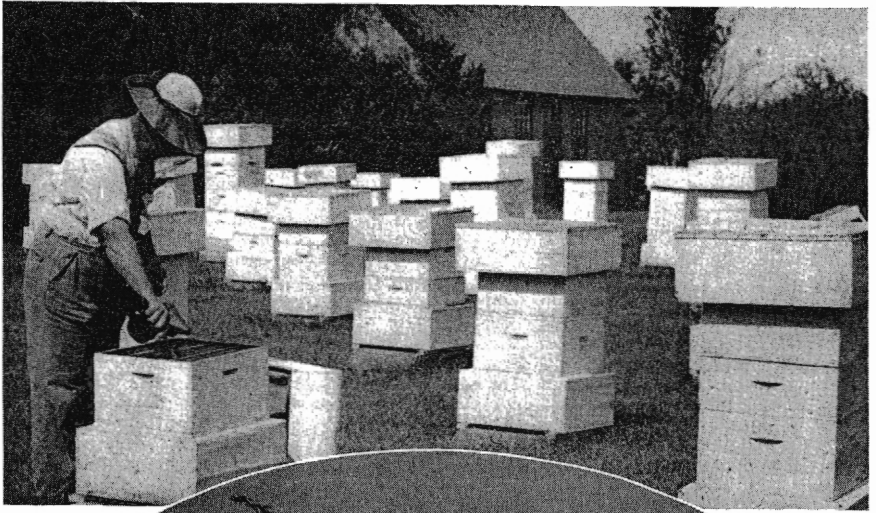
The production of grain and hay crops plays an important part in New Jersey farming. These crops account for about 12 per cent of the total agricultural income. Frequently, they are an integral part of the crop rotations followed and are used as feed for livestock on the farms where they are grown.

With the exception of white potatoes, corn is the most important field crop grown in the state. The combined value of the corn produced for forage, silage and grain is estimated at \$6,000,000 annually. This figure does not include the value of sweet corn, which ranks as a truck crop. About 145,000 acres are devoted to the raising of corn for grain, about 40,000 to corn for silage, and about 8,000 to corn for forage.

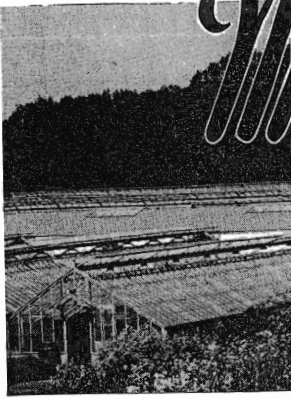
Although the production of wheat in New Jersey has declined with the increased adoption of intensive agricultural methods, a substantial amount of this crop is still grown in the state. About 55,000 acres are devoted to wheat annually in New Jersey, and the value of the grain harvested averages in excess of \$1,000,000 per year. Of lesser importance are oats, rye, barley and buckwheat, which have a total annual value of about \$1,000,000, and to which a total of about 75,000 acres is devoted.

About 350,000 tons of "tame" hay valued at \$5,000,000 are grown annually in New Jersey. Timothy and clover hay makes up nearly half of this total, its annual production being about 170,000 tons. Alfalfa hay with an average of about 110,000 tons also is important in making up the total.

The combination of general crop farming with the production of one or several specialized products recently has been gaining in favor as the best insurance against crop and price failures. Even in the highly specialized field of egg production, the trend in some sections has been toward larger farms with plenty of range and land for the production of at least a portion of the grain needed.



Top: *Bees not only produce honey but pollinate fruit blossoms*
Center: *The raising of beef cattle is a growing enterprise*
Bottom: *Nursery and floral industries are important*



Miscellaneous Agriculture Enterprises

PROXIMITY to large residential communities makes New Jersey an ideal place for carrying on the business of ornamental horticulture, consisting of the nursery and the floral industries. Some of the largest and finest nurseries in the country are located in this state; Madison and Bound Brook are outstanding centers of rose production and the growing of orchids respectively. About 5,000 acres are used in the raising of nursery stock, and there are about 8,500,000 square feet under glass for flowers. The combined value of the investment in these enterprises is \$25,000,000, producing combined gross sales in excess of \$13,000,000 per year. Because of its good reputation, New Jersey nursery stock is in demand in every state in the Union, and is shipped to many foreign countries as well. Floral crops are marketed not only direct to florists, but also to commission merchants in numerous large cities in the East and Middle West.

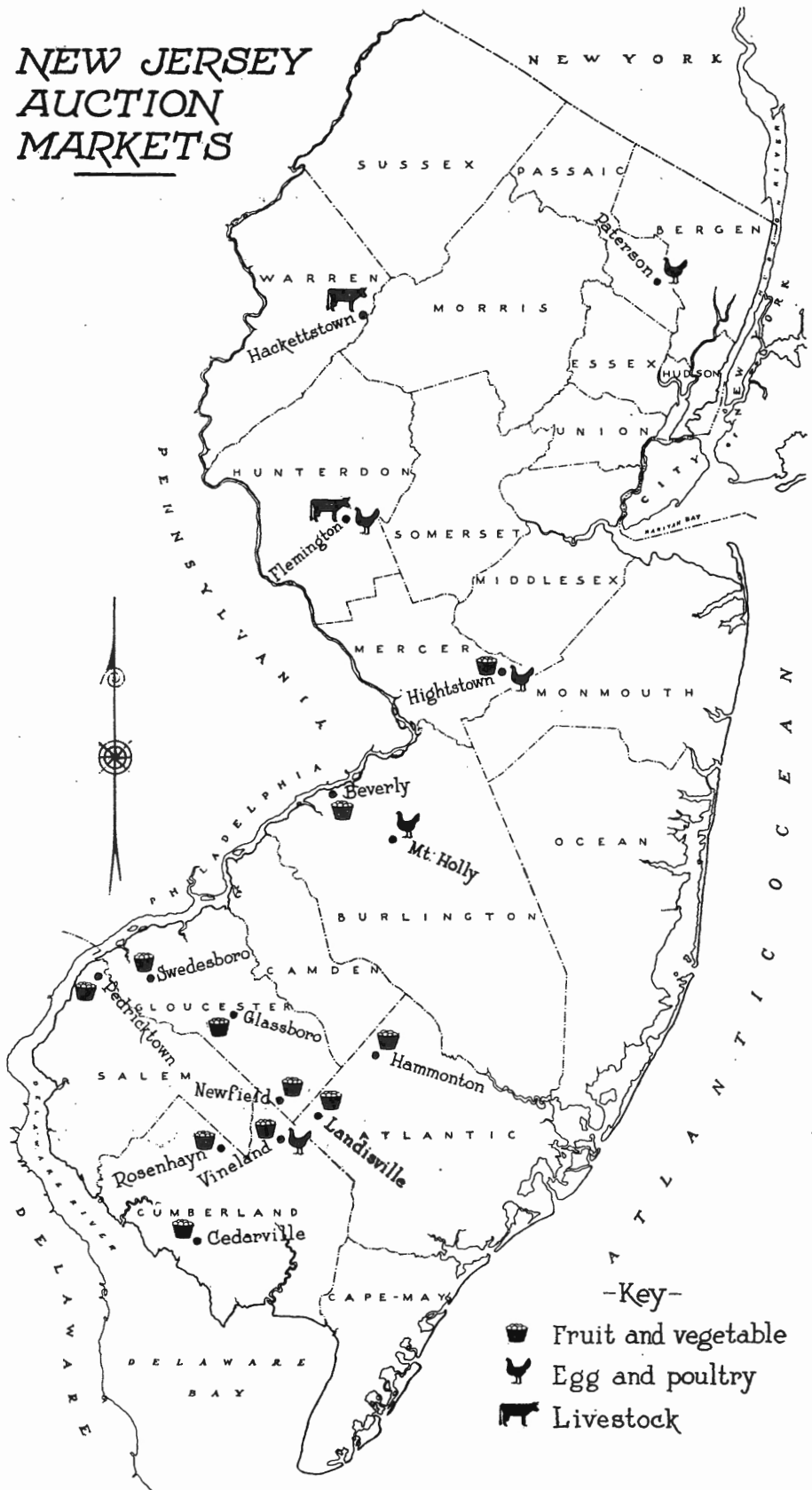
The bee industry is important in itself and in the pollination of fruits, berries and seed-producing vegetables. There are about 33,000 colonies of bees on New Jersey farms. The annual value of honey produced is about \$110,000. Bees used in commercial orchards aid materially in establishing a set of fruit. It is an interesting commentary that these busy little workers create more wealth and give larger returns per dollar of capital and labor invested than any other farm business.

In general, land in New Jersey is too valuable to be used extensively for meat-stock grazing. However, there are approximately 6,000 sheep on farms in New Jersey, most of which are in Hunterdon, Somerset and Warren counties, where there are high rolling lands. In addition, much attention is now being given to the practicability of including in the farm program the raising of baby beef and the fattening of steers.




In many sections of the state, hog raising is an important adjunct to other farming enterprises. Also, in certain areas, such as Hudson County, hog raising is a very intensified and specialized activity. The largest numbers of hogs are found in Hudson, Gloucester, Burlington and Monmouth counties.



NEW JERSEY AUCTION MARKETS'S



-Key-

-  Fruit and vegetable
-  Egg and poultry
-  Livestock



Marketing

THE nearness of large consuming centers to New Jersey farms constitutes an outstanding advantage enjoyed by the state's agriculture. Forty million persons, representing a tremendous consuming power, are within a two-day haul by rail or truck to New Jersey farms.

Within a five-hour truck haul of most of the important agricultural areas of the state is a population of more than twenty million persons, including those living in the important New York and Philadelphia metropolitan areas.

Numerous cold storages in New Jersey form an important link in the marketing chain. Located in the larger producing areas as well as in or adjacent to metropolitan markets, these facilities serve in holding peaches for a few days over a glut, or apples and other perishables throughout their normal storage period. More than one million bushels of apples are usually so handled each year, and large quantities of seed potatoes are kept dormant over winter months until planting time. Commercial storages such as those at Jersey City have a wide variety of perishables from other states, which are stored there because of proximity to their ultimate outlet, or temporarily held during periods of adverse conditions until selling appears more advantageous.

FRUITS AND VEGETABLES

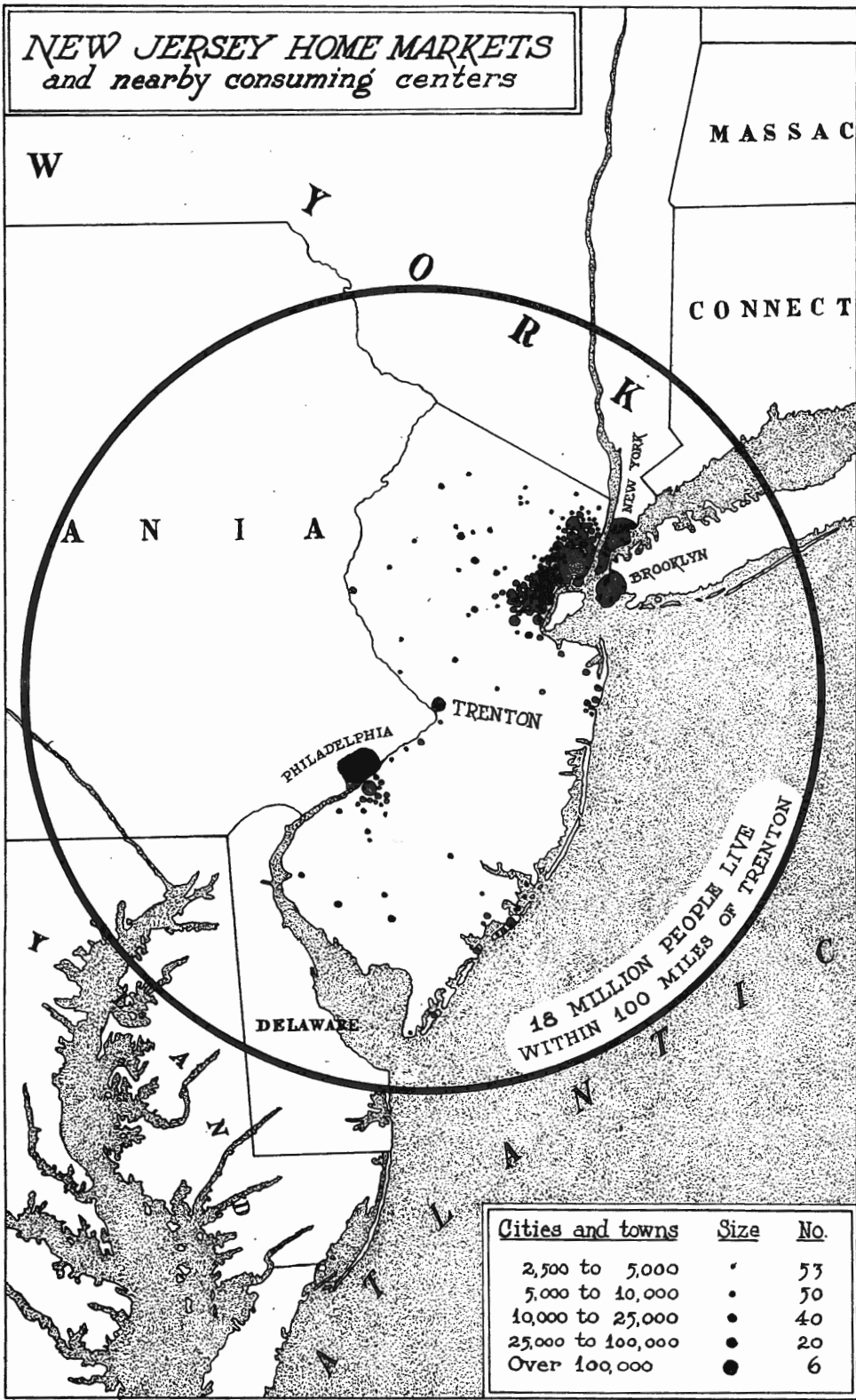
New Jersey growers market their fruits and vegetables in a variety of ways. Chief among these are the following eight methods:

1. **Selling on Commission.** A grower or shipper sends a consignment of goods to a city dealer who sells it for the highest price he can obtain and makes a return to the shipper after deducting a fixed percentage and the transportation charge.

2. **Selling F. O. B. Shipping Point or Selling by Order.** The shipper obtains orders or wire bids for a certain commodity of a certain quality at an agreed price. This method is limited chiefly to large operators.

3. **Selling to Cash Truck Buyers.** This is a direct sale on the farm to buyers who come after their goods. It is an outgrowth of the development of the motor truck and New Jersey's fine road system.

*NEW JERSEY HOME MARKETS
and nearby consuming centers*

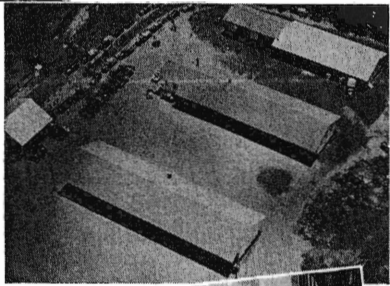


4. Selling by Shipping Point Auction. In 1928 two groups of producers in south Jersey organized farmer-owned and farmer-controlled cooperative associations for the purpose of setting up auction markets where producers in their respective localities might deliver their produce daily to be bid for at auction by city buyers and other distributors. Since that time numerous other associations of farmers have been developed for similar purposes. There are now 11 such markets, all farmer-owned, and 9 of which are organized under cooperative association statutes.

They have resulted in great benefit to those producers selling on these markets and to the localities in which they are situated because they represent a new and more economical method of marketing. No other marketing method has as low a cost of operation, and the prices received frequently exceed the delivered price in the New York and Philadelphia markets for equal quality. Growers have therefore received thousands of dollars more for their produce than if it had been sold in nearby markets on commission. In some cases much of the produce is distributed direct to the secondary markets rather than going through the primary, or metropolitan, markets first. Gross sales at these markets are collectively in excess of \$3,000,000 a year.

In all cases the auction method of selling at shipping point has gradually influenced the quality of goods offered because the prices received very

1



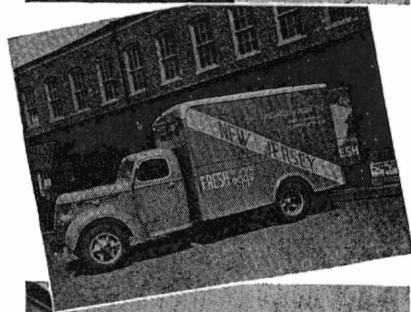
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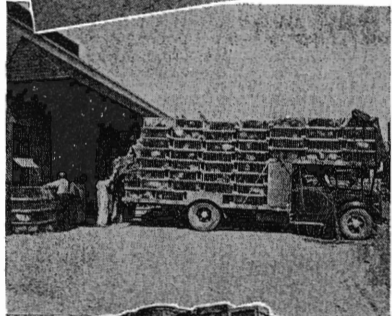
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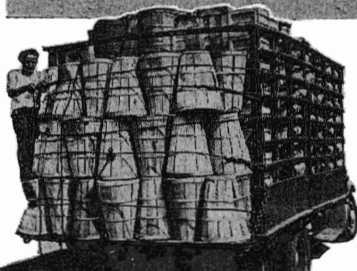
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5



6



1. Hightstown Auction Market
2. An auction market board of directors
3. Fast market news by teletype
4. Fresh eggs for the consumer
5. A load of live poultry
6. Produce rolls to market

accurately reflect the respective quality offered. This has tended to promote better grading, better packaging and better handling of the products from producer through to the consumer, more so than in the case of any other sales method.

5. Selling at Farmers' Markets. In addition to the auction markets, there are in New Jersey nine other wholesale markets. Most of these are located in the larger cities, but some are in small towns. At these markets the farmer bargains direct with the buyer for his needs. The variety and volume is large at these markets. At other markets in the state farmers retail their products to consumers.

6. Selling to Retail Stores. Because of New Jersey's numerous large towns and cities, many farmers located near them, have an opportunity to supply stores in these communities with a large part of their fresh fruit and vegetable requirements. Illustrative of the potential possibilities of cooperative enterprise are the efforts of the Jersey Fruit Cooperative Association, whose members have developed a program of servicing hundreds of chain and independent retail stores with apples direct from storage. This short-cut aids in minimizing deterioration and handling, and affords the producer a valuable tie-up with the man who serves the consumer.

7. Selling at Roadside Markets. Because of New Jersey's location between great cities and because of its own large traveling public, roadside stands are a great factor in marketing fresh New Jersey products. Attractive displays, quality goods and an honest pack will greatly stimulate this method of direct sale.

8. Selling to Processors. One of the greatest receivers of certain New Jersey farm products is the cannery. The canning and quick freezing industry is centered in the southern part of the state where millions of dollars are paid to farmers for supplies of tomatoes, beets, spinach, beans, peas, pumpkins, asparagus and a few other commodities.

Rail transportation for fruits and vegetables, while available in all parts of the state, has been largely replaced by motor trucks, and transportation is not a serious problem. New Jersey's great system of state and county roads, linked together with a network of township roads, makes it possible for trucks to pull into any farmer's yard in the afternoon and deliver goods direct to selling agencies in the large and small markets in and adjacent to the state during the evening of the same day. Competition among truck haulers and the desire to capture railroad business has held the hauling rates down to a low figure. A problem of recent development is that of obtaining proper unloading facilities in large markets. This is being overcome by planning commissions and new market developments.

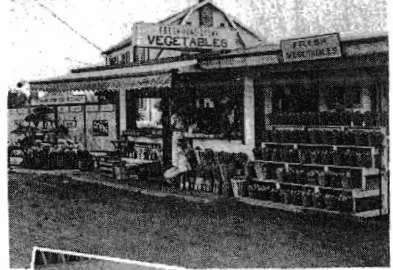
DAIRY PRODUCTS

The State of New Jersey is divided into two Milk Sheds, milk from northern New Jersey being marketed in the New York metropolitan area and that from southern New Jersey into Philadelphia and the shore resort areas. This picture is changing quite rapidly, however, as Philadelphia buys less and less milk in New Jersey and this milk finds its way into the metropolitan New York area. This transformation of marketing areas was brought about largely through the Marketing Agreements promulgated by the United States Department of Agriculture by authority of the Agricultural Adjustment Act.

Two vastly different systems of processing milk are in effect in the two marketing areas. In north Jersey, milk is sold by the producer to a processor with a country plant who processes and bottles the milk in the country and who sells this milk wholesale to a sub-dealer. This sub-dealer in turn retails the milk to the consumer. The processor rarely retails milk from his own trucks. In south Jersey milk is sold direct to the dealer who ships the milk to the city, processes it there and sells direct to the consumer. Very little wholesale milk is handled.

There are a number of dairy associations operating in the state. Among the producers associations are the Dairymen's League, the Inter-State Milk Producers Association and

1. One of many roadside markets
2. Stores feature New Jersey products
3. Fresh produce at a farmer's market
4. Store display of Jersey apples
5. Auction market highway sign
6. Blueberry growers advertise



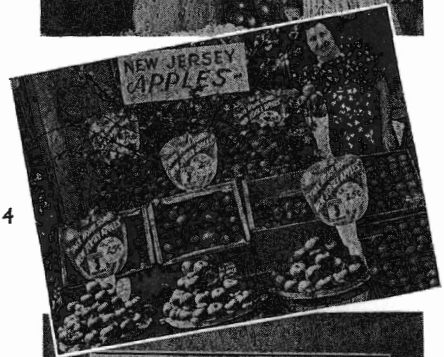
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the United Milk Producers of New Jersey; dealer associations are: the Milk Processors Association of Northern New Jersey, the New Jersey Official Grade Milk Dealers' Association and the Northern New Jersey Milk Council.

POULTRY PRODUCTS

Many outlets are open to New Jersey poultrymen for marketing the eggs and meat produced on the poultry farms of the state. Various dealers patronize the five poultry and egg auction markets in the state, and direct selling through established egg routes takes place through the northeastern counties along the shore. Prices received on these egg routes are relatively high. Roadside stands on poultrymen's premises and at strategic locations on heavily traveled highways dispose of an enormous amount of eggs and dressed poultry.

In Vineland, Flemington, Hightstown, Paterson and Mount Holly there are farmer's egg auction markets basically similar to the produce auction markets at which eggs are sold by auction to wholesale and retail dealers. The eggs sold at these auctions are graded, the grading being supervised by the New Jersey Department of Agriculture. In addition to selling eggs by auction, the same five associations operate auction markets where weekly sales of live pullets, capons and fowl are held. The business of these auction markets has grown to include the handling of about 15 million dozens of eggs and some 5 million pounds of live poultry annually, the gross sales on which now amount to nearly \$5,000,000. The efforts of these markets, as well as of all the produce auctions, are well coordinated through a state association of auction markets, which unifies business procedure and aids in collective purchasing of supplies.

A cooperative association organized for the specific purpose of purchasing eggs from the auction markets, recandling, and packing them in consumer cartons on the basis of grades supervised by the Department of Agriculture, has done much to provide certain retail outlets with a dependable product. Milk distributors and chain stores are among the larger users of this product known as "New Jersey State Certified Eggs."



Processing

NEW JERSEY is one of the leading states in the processing of several vegetables, the annual output varying from 4,000,000 to 6,000,000 cases, depending on the size of the crop and the market demand. Contrary to the belief of some people, canneries are not

by-product plants for surplus crops; they aim to utilize a previously estimated amount of raw materials, secured by contract, in order to develop and maintain constant sales outlets. About 20 per cent of the state's vegetable acreage (including white potatoes) is devoted to producing crops for manufacture, from which the annual cash income is upward of \$6,000,000.

About 25 establishments operate each season in packing perishable products. Most of these are located in the southern part of the state. Several of them function throughout the entire year by processing many specialties at times when local crops are not being harvested. The most important of these are soups, pork and beans, and spaghetti.

Tomatoes are by far the chief product canned in New Jersey. They are made into juice, pulp for soups and sauces, catsup, chili sauce, puree, and canned whole. On an average more than 32,000 acres are devoted each year to raising tomatoes for processing, and almost all of this acreage is contracted in advance, principally in March, by the canning companies. Bridgeton, Camden, Salem and Swedesboro are the chief tomato canning centers, and are busy from late July to early October—about ten weeks—in processing tomatoes.



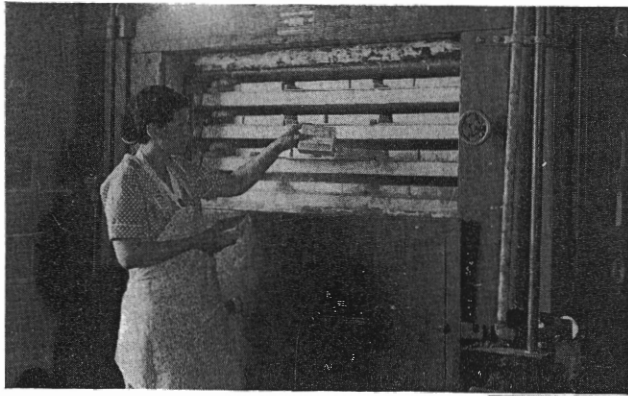
Inspection platforms at a cannery where tomatoes are examined to determine their quality

Other products of importance are asparagus, lima beans, spinach, snap beans, peas, pumpkin and squash, peppers, sweet corn and beets. The first two of these products are also processed in considerable volume by the quick freezing method, as are lesser quantities of snap beans, peas and spinach from areas localized in the vicinity of Bridgeton.

The canning of cranberries has become an important phase of the industry during the past decade, with one-fourth to one-half of the annual crop going to canneries, the amount depending on the market demand for fresh stock. This activity is of course confined to the cranberry bog areas in Ocean and Atlantic counties. Only very small volumes of fruits are packed in New Jersey.

The distribution of canneries and freezing plants operating in the state in 1939 and 1940 is shown on a county basis in the following table:

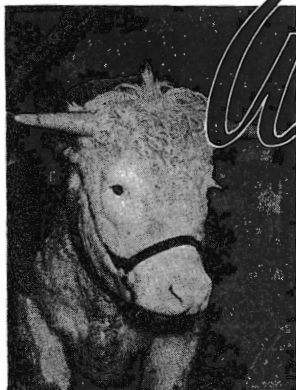
	1939	1940		1939	1940
Atlantic	3	4	Mercer	2	2
Burlington	2	2	Monmouth	1	2
Camden	1	1	Ocean	1	0
Cumberland	8	7	Salem	3	3
Gloucester	2	1	Warren	1	1
			Total	24	23



Large volumes of some vegetables are preserved by the quick-freezing method



Cans being filled with tomato juice, and sealed, at a New Jersey processing house



Agricultural Agencies

A NUMBER of agencies and associations are in existence today, serving individual and group needs of farmers in various ways.

The New Jersey Department of Agriculture is the official agency of contact between farmers in New Jersey and the state government. The department is charged with the administration and enforcement of state agricultural laws. It currently gathers and disseminates statistics of interest and importance to farmers. Through its staff of experts, the department assists farmers' cooperative marketing groups to organize and operate successfully and enforces grades and standards. It promulgates and enforces state quarantines against dangerous insects and diseases and combats the spread and depredations of destructive pests; some of these activities are carried on in cooperation with the federal Department of Agriculture.

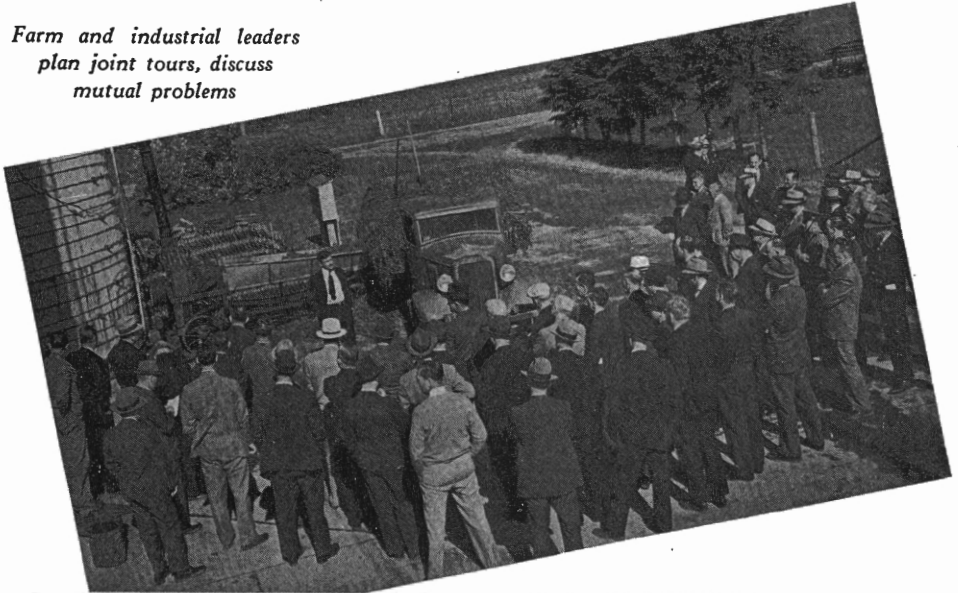
The New Jersey Agricultural Experiment Station at New Brunswick, in conjunction with the New Jersey College of Agriculture carries on experiments and research in agricultural production and farm management.

The New Jersey Extension Service informs farmers about the best cultural practices and most advanced methods in agriculture. The county agricultural agent, of whom there is one in every county in the state except Hudson, is the immediate point of contact between farmers in his county and the Extension Service. He assists individual farmers with their problems and conducts group demonstrations. The Extension Service maintains specialists in each important branch of agriculture.

In addition to the agencies mentioned, there are a number of state and local agricultural organizations, such as the county boards of agriculture, the New Jersey Farm Bureau, the State Grange and its 120 subordinate units, and about 40 commodity and livestock associations and related groups formed for the advancement of the interests of their members and their particular phases of agriculture. Among the activities of the New Jersey State Police which are definitely associated with the agricultural welfare of the state are its cooperating committees on the various auction markets, its poultry tattooing program, and the well-developed and widespread system of school safety patrols.

Courses in agriculture are offered in about 35 high schools throughout the state, in addition to special vocational programs developed for groups beyond high school age, and for adults. The 4-H club movement among farm and suburban youth is also well developed, with club leaders located in most of the counties. Both short courses in agriculture, and the regular four-year courses, are given at the State Agricultural College.

*Farm and industrial leaders
plan joint tours, discuss
mutual problems*



*A prize pair of Hereford beef steers and
their youthful owner*

ACKNOWLEDGMENT

THIS booklet has been prepared from revised portions of "New Jersey, The Garden State" (1935) and Circular No. 267, "New Jersey Agriculture" (1937), both long out of print, together with some new text and numerous new photographs.

Many persons were helpful in the development of this publication. Credit is due, for kindness in checking certain portions of the text, to Professors J. W. Bartlett, M. A. Blake, J. C. Campbell, A. J. Farley, W. H. Martin, C. H. Nissley, J. C. Taylor and W. C. Thompson of the New Jersey Agricultural College and Experiment Station; to Irving Gumb, State Chamber of Commerce; and to various associates of the Department of Agriculture staff. Grateful acknowledgment is also extended to the New Jersey Council, the State Highway Department, the State Department of Conservation and Development, the State Chamber of Commerce, the New Jersey Agricultural Experiment Station, the Reading Railroad Company, Transcontinental & Western Air, Inc., the Howell Township School and the Soil Conservation Service, U. S. Department of Agriculture, for certain photographs.

WILLIAM C. LYNN.

