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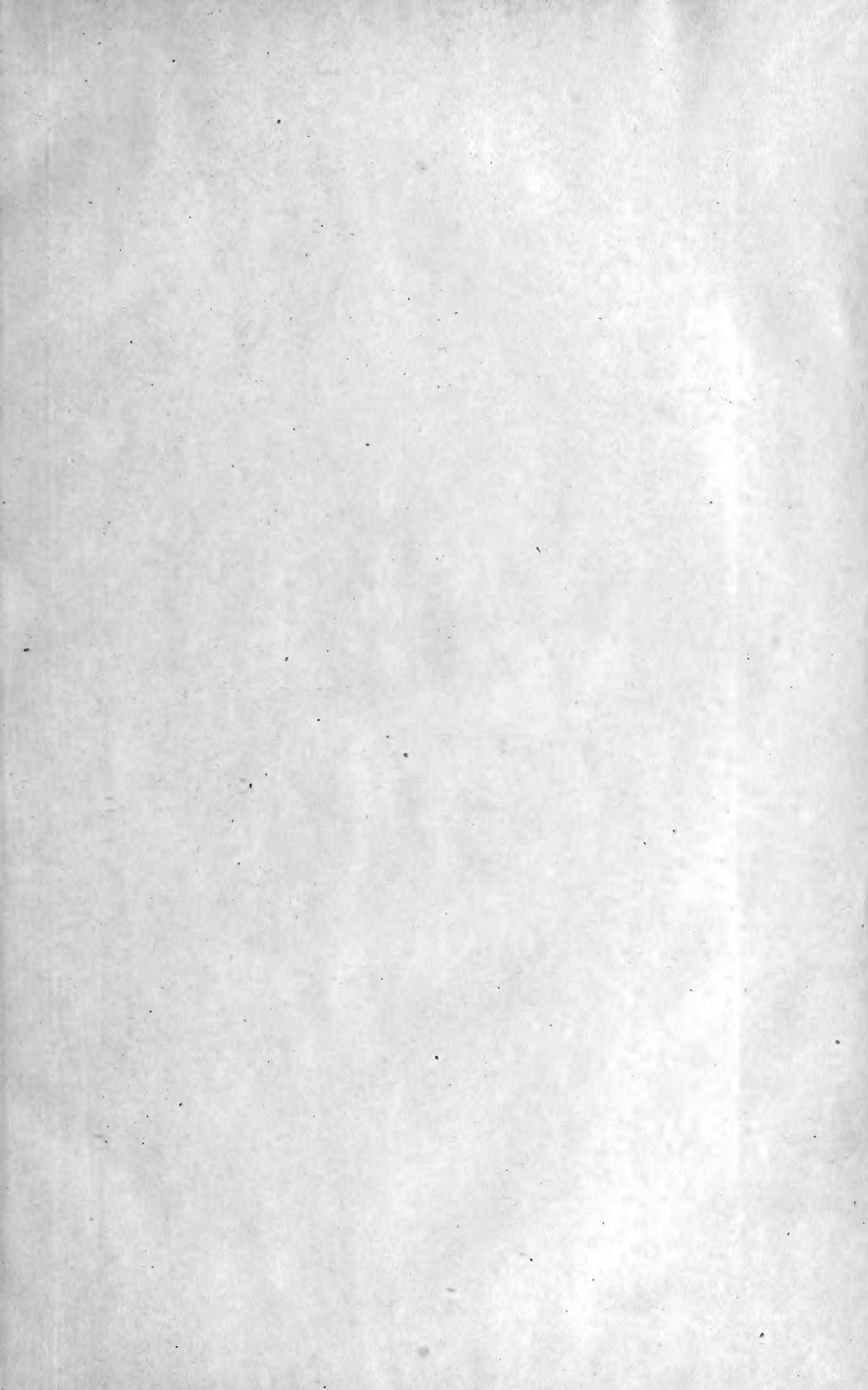
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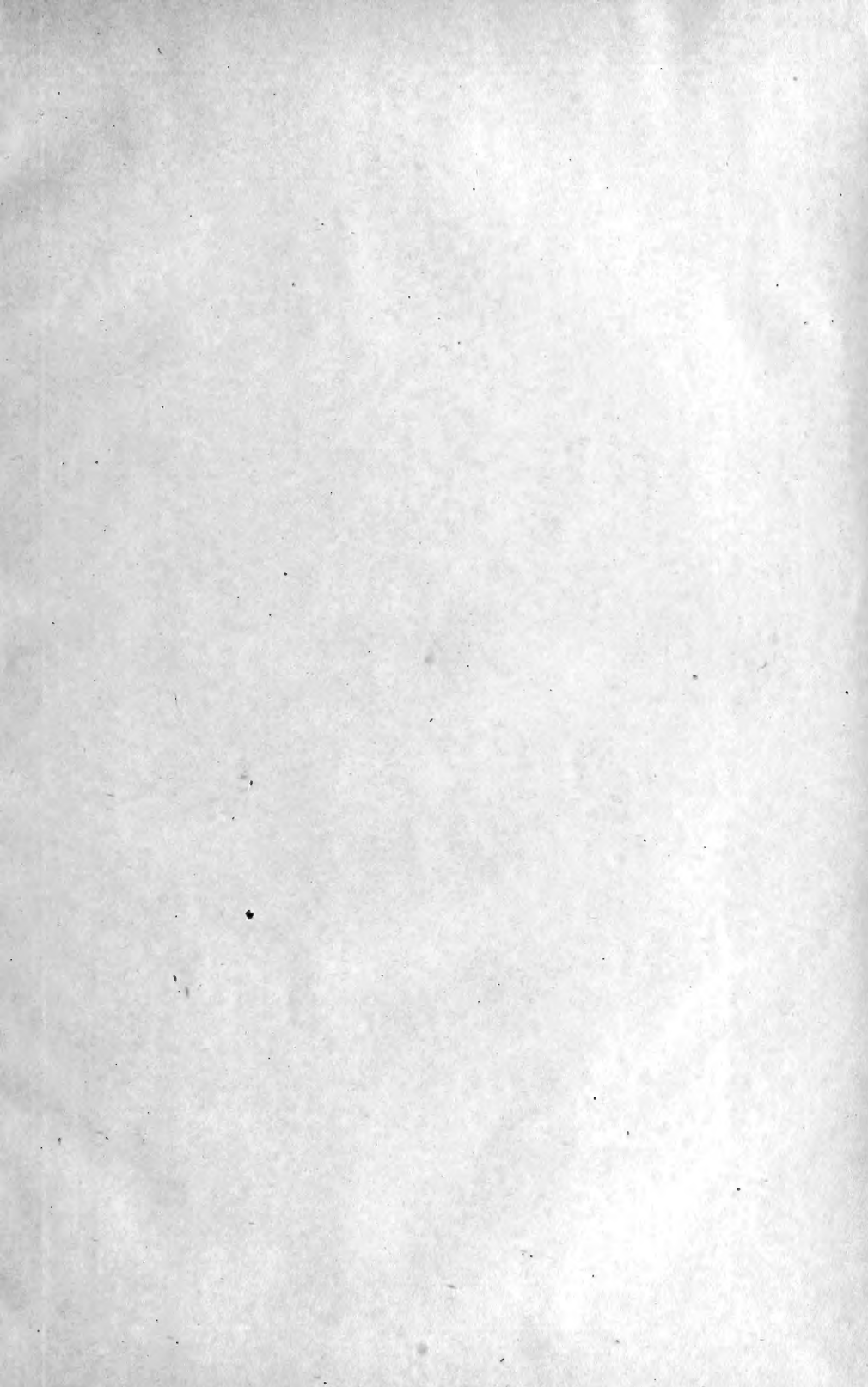
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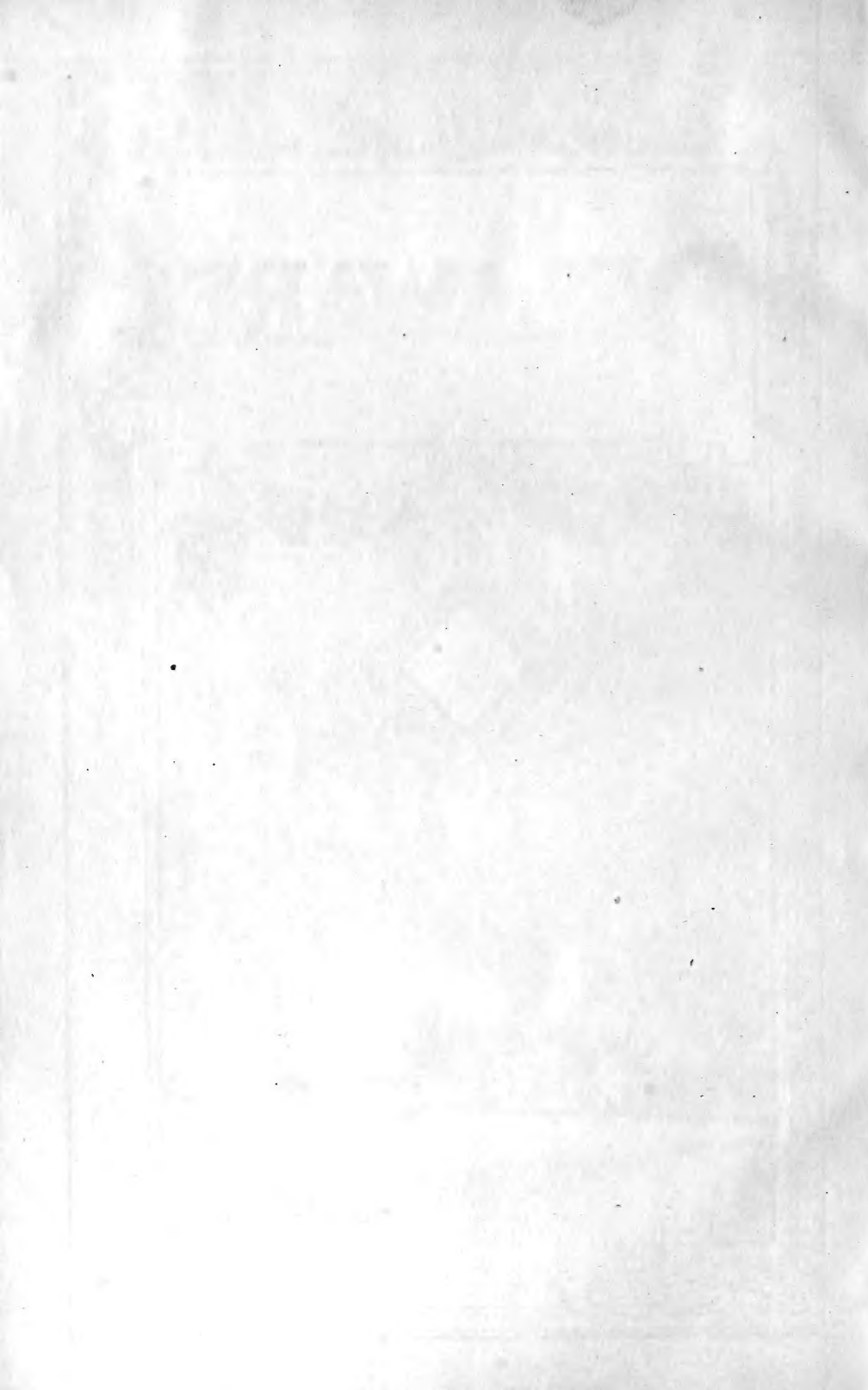
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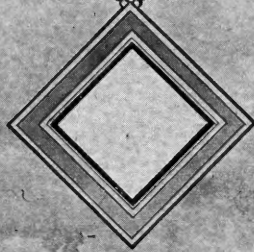








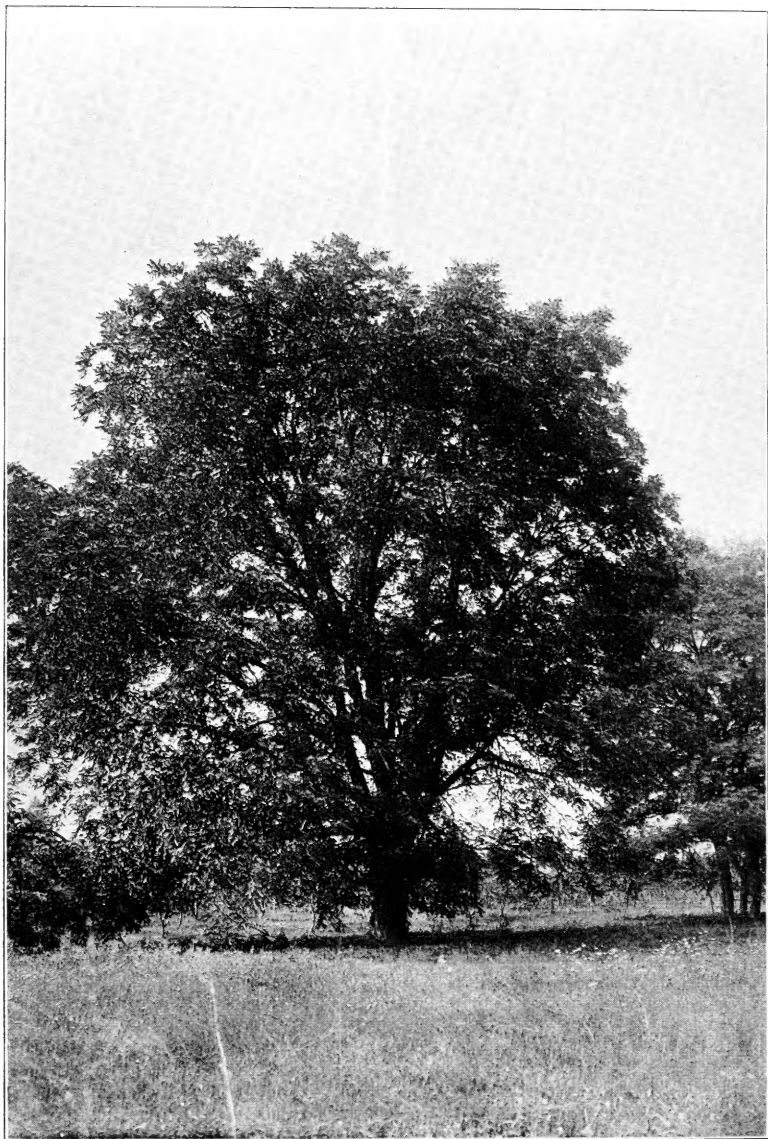
DELAWARE





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Shade trees grow to great size and beauty

DELAWARE

THE DIAMOND STATE

THE GARDEN SPOT OF THE
COUNTRY, SOME PIC-
TURES, FACTS AND FIGURES
OF ESPECIAL VALUE TO
PROSPECTIVE SETTLERS.

ISSUED BY

The State Board of Agriculture
DOVER, DELAWARE

THE NEW AMSTEL MAGAZINE COMPANY
WILMINGTON, DELAWARE, U. S. A.
M C M X I



A fine view near Odessa, Delaware

Delaware the Diamond State

UNUSUAL opportunities for homeseekers—beautiful homes and cheap lands—at the door of the best markets in the world, among refined, cultured and hospitable people.

Delaware is inviting useful and industrious people to come from other states and countries to settle within her borders, and this pamphlet presents a candid reason why the invitation is extended and why it should be accepted by thousands of families.

Delaware offers unusual opportunities to homeseekers—good land that is cheap in price, the best markets in the world and a delightful climate. It has beautiful homes, churches and schools and a refined, cultured, hospitable people. The agriculture of the State requires fuller development; men, money and energy are needed for this development, and while there are thousands of farms that cannot be bought, others as good are for sale at reasonable prices, and excellent land now idle is very cheap. For many years the people have been going from Delaware into the cities to engage in professional and business life, and the tides of immigration from the Old World have swept past Delaware and left it untouched. The towns and cities of the State are growing, but the farm population is not increasing in the same ratio. The total population of the State by the census of 1910 is 202,322, but almost half of the people are in the city of Wilmington, giving New Castle County 123,188; Kent, 32,721, and Sussex, 46,413. Kent has a land area of about 630 square miles, and Sussex of nearly 900 square miles, so that each of the two lower counties has but little more than fifty inhabitants per square mile, and more than one-third of them live in towns, so that there are not more than thirty-three people to the square mile living upon the land of these two counties. It is safe to say that the products from the farms of these counties can be readily doubled, and even trebled, within two or three



An attractive Sussex County farm

Delaware the Diamond State

years by giving better tillage to the farms now under cultivation and by using the land that is now idle. This will result in greatly increased prices of land, for ultimately the farms will sell at prices in proportion to the net income that they will yield.

Delaware is one of the most favorably located of all the states of the Union. It has a great variety of soils, all easily tilled and immensely productive. It lies between two bodies of salt water and has a mild, equable climate, a large percentage of sunny weather in winter, and it is close to the great markets of the eastern part of the United States. With the exception of Rhode Island, it is the smallest state of the American Union. It is on the Atlantic Coast, half way between Maine and Georgia. It is about 100 miles in length and has an average width of only twenty miles, containing 2,050 square miles, of which ninety square miles are covered with water. The climate is genial, the latitude insuring mildness. The center of the State is as far south as Washington, D. C. The thirty-ninth parallel of latitude runs just south of Dover, the capital of Delaware, and touches the northern edge of Annapolis, Md., and Washington city. The Delaware and Chesapeake Peninsula is almost surrounded by salt water, the Atlantic Ocean and the Delaware Bay on the east, the Chesapeake Bay on the west. These bodies of water modify the rigors of winter and the heat of summer. The long, warm seasons, and a kind but varied soil, make Delaware the home of nearly every fruit and vegetable that can be found in the temperate zone. There are no destructive tornadoes nor cyclones nor floods. The land is nearly level, no mountains, nor even hills, except in the extreme northern end of the State.

Delaware is within a few hours ride of all the large cities of the Eastern United States. Within 500 miles of it are nearly thirty-five millions of people, one-third of the total population of all North America. Within this circle are included New York, Hartford, Providence, Boston, Portland, Montreal, Ottawa, Toronto, Toledo, Detroit, Cincinnati, Louis-

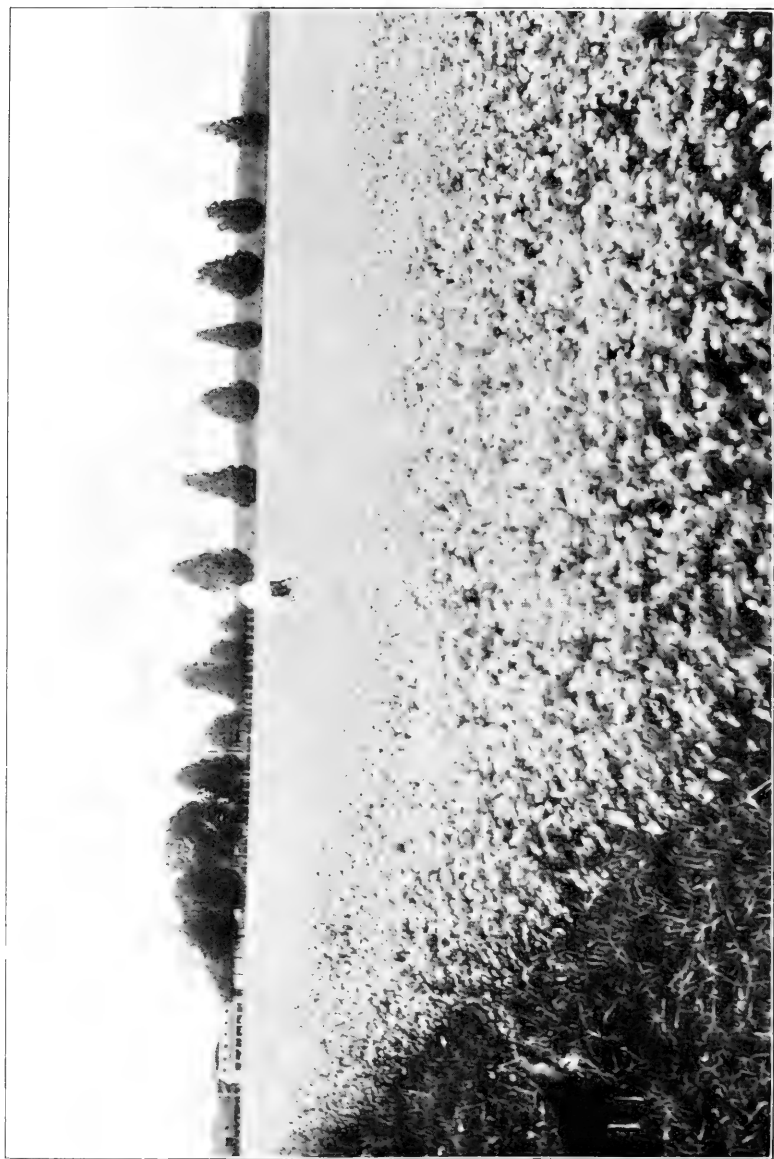


The cow pea harvest

Delaware the Diamond State

ville, Columbus, Pittsburg, Harrisburg, Philadelphia, Baltimore, Washington, and hundreds of other cities. Think of it, thirty-five millions of people within this circle and every one of them perfectly happy when he gets a Delaware peach! Volumes might be written to enlarge upon the suggestive facts above summarized. Take, for example, the simple statement that Delaware is the home of nearly all the products of the temperate zone. What does that statement mean? It means for one thing that these products include such fruits as strawberries, blackberries, raspberries, grapes and many other small fruits, and tree fruits like peaches, pears, apples, quinces, plums and cherries; all these fruits are produced in enormous quantities and of the best quality. Peach trains go rolling over the Delaware Railroad; solid trains of refrigerator cars loaded with strawberries are sent out of Delaware daily in the strawberry season, sixty-four carloads going from one station in a single day, and in the summer and autumn trainloads of red apples go to market. Within twenty-four hours from the time the perishable fruit is gathered in the field it has been sold at a satisfactory price and is on the table of the consumer.

What is true of fruits is also true of vegetables. Cantaloupes, watermelons, tomatoes, cabbage, potatoes, kale, cauliflower and other vegetables go in immense quantities to feed the hungry mouths that must be fed in the nearby cities. In speaking of our fruit market, Dr. H. W. Collingwood said: "On Manhattan Island and across the river are 3,958,000 people. Draw a circle fifty miles in diameter from City Hall, New York, and you put a line around 5,000,000 people—as many as you will find in all the States of Nebraska, North and South Dakota, Colorado, Wyoming, Montana, Idaho, New Mexico, Nevada, Utah and Arizona. Not 3 per cent. of these people ever produce any fruit, depending upon the farmers to raise fruit to send to them. It is the greatest fruit-eating section in the world. Now draw a line up the Hudson River to Albany, and thence straight east to the Atlantic Ocean, and you have 11,000,000



Buckwheat field, Bridgetown, Delaware

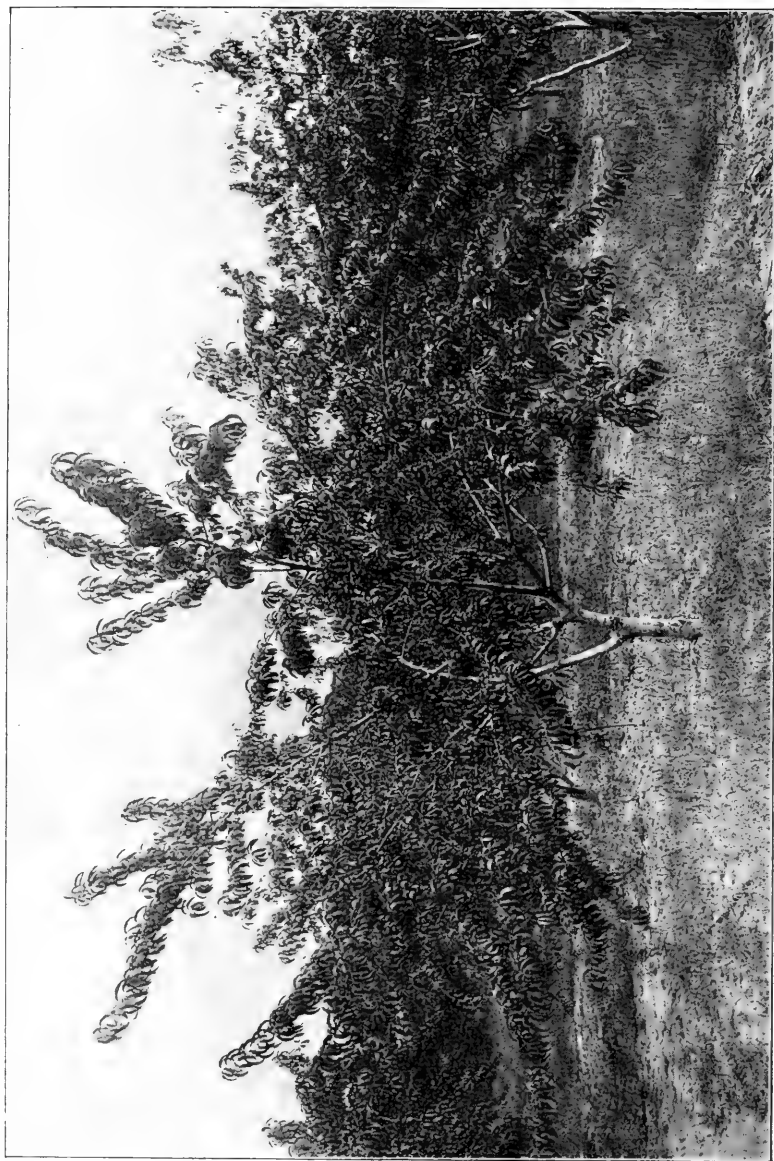
Delaware the Diamond State

of people, a dozen or fifteen of the richest and most luxurious cities in the country; cities which have man's wealth and man's demand for fruit and vegetables of high quality. You have the greatest fruit market known in an equal area on the face of the earth, and the demand for fruit is increasing wonderfully. You have no conception of how people are demanding more fruit and better fruit."

All of these Eastern cities are growing in population and in wealth. They become more luxurious every year, and these great fruit markets are within easy reach of the most delicate and the most perishable products of the Delaware farmer. The extreme lower end of Delaware is nearer New York City than half of the State of New York.

THE SOIL OF DELAWARE

THE SOIL is alluvial. The surface is only slightly rolling, but enough so to insure good natural drainage. Wherever the surface dips below the surrounding land open ditches of moderate depth allow the rainfall to drain away speedily, and every foot of well-drained land in Delaware is valuable land. But the soil is not uniform; it varies in character all the way from stiff, heavy clay to sandy soil of an extremely friable character, easily tilled and productive. In a general way it may be said that the soil gradually becomes more sandy from the northern to the southern end of the State, but this is intended rather to mean that the proportion of sandy land increases as we go south, for there is more or less strong clayey loam in all parts of the State, and there is some sandy land in New Castle County. The red or yellow clay loam may be called our best and strongest soil. It produces full crops of all kinds of fruits and vegetables; of grain and grass; is fine for pasture, and with good tillage and proper rotation of crops requires only a moderate amount of fertilizer or manure to produce the heaviest crops annually. This red clay may not always come to the surface, but may lie a few inches below a



A Kent County Peach Orchard

Delaware the Diamond State

friable sandy loam, and for some purposes a sandy topsoil with clay subsoil is still better than the clay surface, for it dries out more quickly after a rain, is more easily tilled, causes vegetables to mature earlier, and hence often to catch the best prices in the market, and upon it fruits gain a richer color. The heavy, white clay is found in small scattered areas, disappointing until it has been well drained and filled with vegetable matter by the application of manure or by turning under green crops. It is excellent for pasture and for hay, and when the season is favorable it produces large crops of corn and wheat. The sandy loam is not adapted to grazing, but is very desirable for market gardening, for fruits, early potatoes, sweet potatoes and for alfalfa and many other crops. There is some black land, so called because of its color due to the presence of a large amount of vegetable matter, mostly a sandy loam, low-lying, so that the water level is near the surface, and thus it is ideal land for strawberries.

These different varieties of soil require different treatment to yield the best returns. People who are acquainted with the agricultural conditions in other states and countries speak of Delaware soil as "kindly," and this word is very appropriate and expressive in this connection. Every grade of Delaware soil responds in a very remarkable manner to tillage and manures. The effect of green manuring is marvelous; cowpeas, soy beans, crimson clover and other leguminous crops when plowed under make the sandiest soil wonderfully productive. The poorest sand in the State can be made to produce forty to fifty bushels of shelled corn per acre every year and from one to two tons of clover hay without the application of any manure or fertilizer. The crimson clover is the secret of it. Plant the corn in the spring, sow the clover seed among the rows of corn at the last cultivation. The clover grows in the fall, and all winter during the open spells, and in the spring is ready to plow under. Repeat the operation and by the second or third spring the clover may be cut for hay, and in ten years the poor sand has become a fertile,



Kieffer pears ready to pick

Delaware the Diamond State

retentive soil, producing two crops every year. The crimson clover matures and is cut for hay about the middle of May, and the corn crop will mature before frost if planted by the first of July. This process of improving sandy land is hastened by the application of a little dissolved rock and muriate of potash to the corn and clover for the first three or four years, and much larger crops are grown, and every pound of these fertilizers applied will pay for itself in the following crop. The great fact stands out plain and clear that the Delaware soil in the Delaware climate is capable of producing upon itself the green manure that will make it as fertile and productive as one can ask, at the same time producing good yields of a staple crop. This is not true of the land in cold climates where the growing season is short.

General farming, stock raising, grain and grass are profitable. But the character of the soil, the warm climate and the nearness to market make a large number of specialties still more profitable. To discuss the quality of the soil in Delaware in a comprehensive way it is necessary to consider some of the climatic conditions as well as temperature and the distribution of the rainfall. If a soil freezes six months in the year, and by drying out is baked as hard as a brick a good part of the other six months, the plant food contained in it can be of very little use, for the mineral elements of plant food become available by the action of heat and moisture. In Delaware the summers are long and the winters are often open. Occasionally we experience the benefit of a deep freeze, which has a loosening or pulverizing effect upon the subsoil. The greater part of the year is warm enough to promote the chemical activity that decomposes soil as well as the activity of bacteria that perform a similar office, and also add to the fertility of the soil by gathering the free nitrogen of the air and storing it in the soil as plant food. What the soil may produce, therefore, depends not so much upon the amount of inert plant food that it may contain as upon the processes that go on within it. It is supposed that the surface of the earth was originally stones or rock,



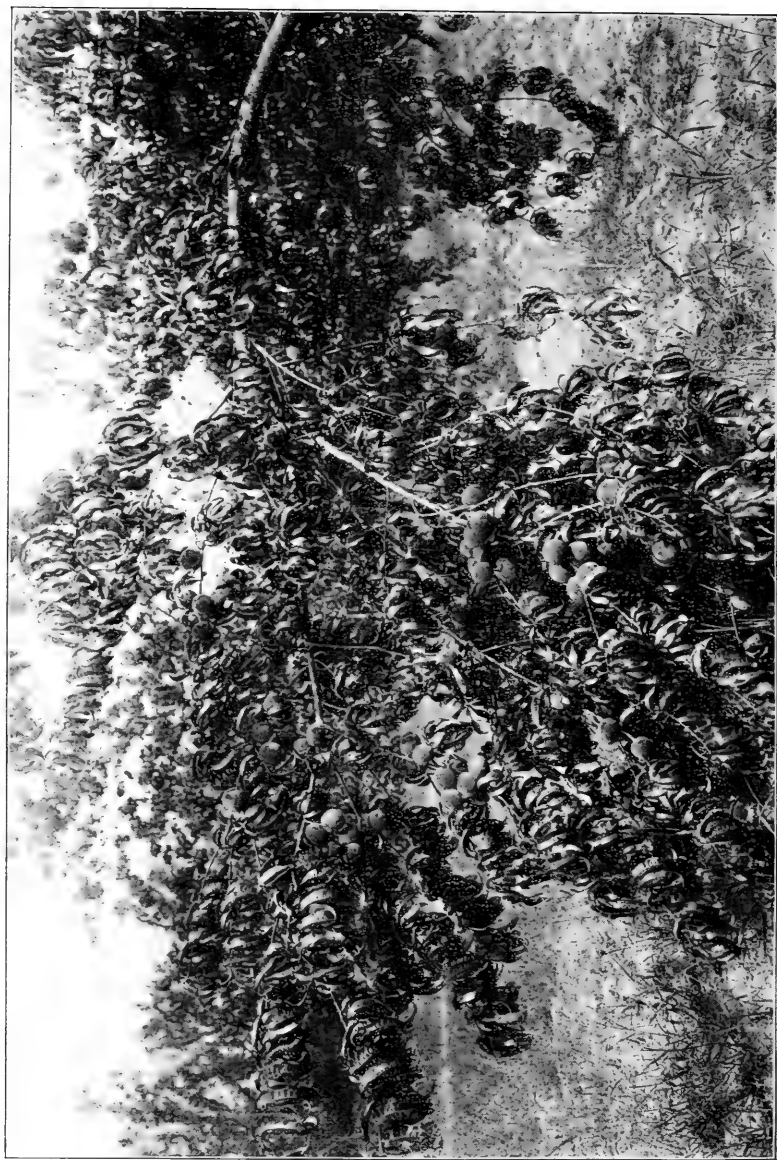
An orchard of Winesaps in Kent County

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but by the action of the atmosphere, the rains and certain grinding processes, especially of water, the rock became decomposed, plants grew in it, and the action of the growing plants helped the process, until after long ages we have soil instead of stone. This same process is still going on, and most soils have enough plant food for hundreds and even thousands of big crops. In Delaware the long warm summers and frequent rains cause this process to be extremely active, and great quantities of plant food are made soluble. This is why thorough cultivation in Delaware makes big crops. The soil is kept open to admit the air, and cultivation, especially after each rain, makes the best mulch and conserves the water in the soil. The mild winters enable hardy legumes, such as the clovers, and especially crimson clover, to grow during the greater part of the time. This clover not only takes up the plant food as it becomes available during the fall, winter and spring, but it gathers the inert nitrogen from the air and makes it worth from 15 to 20 cents per pound. The air is largely nitrogen and the clover plant takes a little of this nitrogen—enough to be worth \$15, \$20 or \$25 per acre—during the fall and winter and converts it into plant food. The clover made into hay and fed to cattle returns this nitrogen and also the mineral elements of plant food to the soil, and this process adds constantly to the soil fertility and insures perpetual maximum crops.

THE FRUIT INDUSTRY

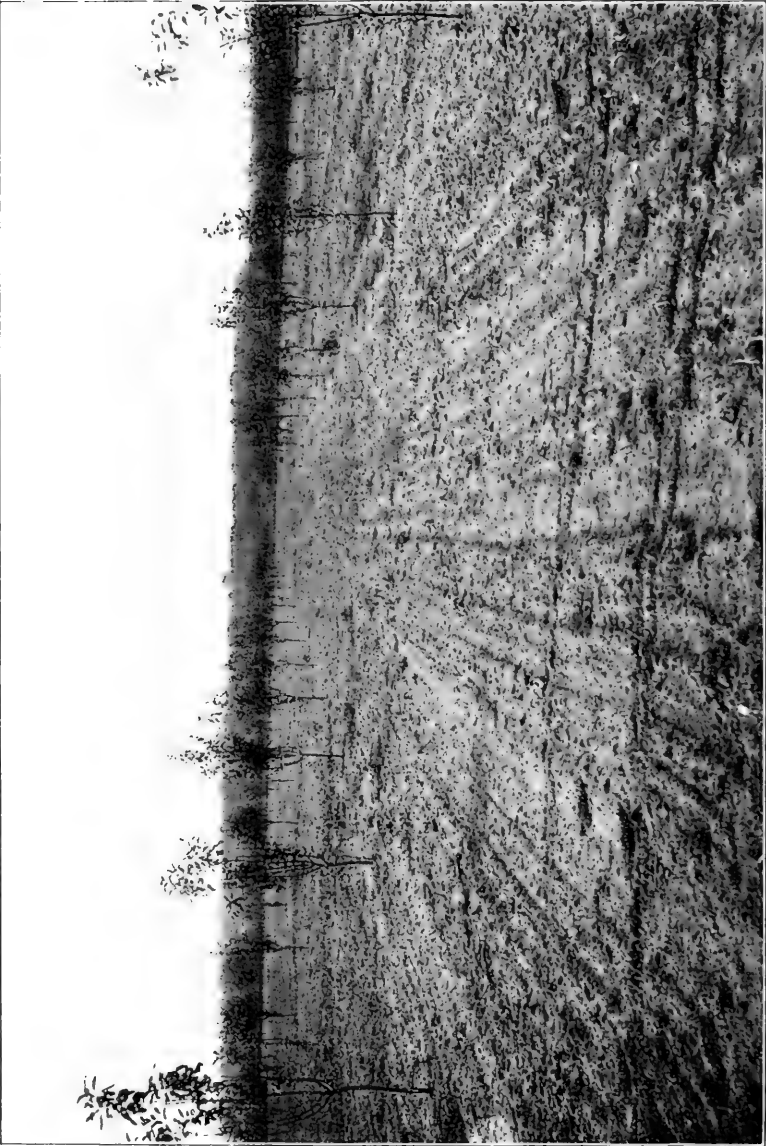
WITH such a soil and such a climate it is no wonder that fruit growing is immensely profitable, and here the apple is the king of fruits. Fully half of the land in the State, or 640,000 acres, is admirably adapted to growing apples, and much of the other half can be devoted to the same purpose with the certainty of success. The apple has been grown in Delaware since the State was settled and fine native varieties thrive everywhere. For several years early apples have been a prominent



Elberta Peach, bending but not breaking

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feature of our fruit growing, as the conditions are especially favorable for their profitable production. These early varieties mature after the winter apples are out of the market, and just at the end of the strawberry rush they bring a good price. They are shipped in refrigerator cars to all of the eastern part of the United States and into Canada, and in all this territory at this season they very nearly monopolize the apple market. It will be a long time before the demand for these early apples is fully met, and although the production is increasing in quantity, the quality is improving and the demand is more than keeping pace with the supply, so that every succeeding year prices are higher than they were the year before. On our level, easily tilled lands, orchards are started with comparatively little expense. The land requires no special preparation. It is marked off at the proper distances to set the trees, which is done with little labor, and the trees themselves can be bought at from \$60 to \$150 per thousand. With proper culture these trees grow very rapidly and begin to bear when five or six years of age. We have a large number of varieties, both early and late, that are admirably adapted to Delaware; prolific bearers, fruit of the finest quality and handsome appearance, and commanding the very highest price in the market; and the crop can be counted on as regularly and certainly as corn and wheat. Delaware has the market for early apples almost to itself, because farther South these early varieties do not thrive, while in Delaware they succeed to a degree that leaves nothing to desire. The late varieties also grow to perfection, and of these we have many kinds of large size, beautiful in color, of the best quality, that will keep all through the winter, so that they can be held for the highest prices of the year. Apple growing is increasing in importance. In 1890 there were 340,648 apple trees of bearing age in the State; in 1900 this number had become 567,618, an increase of 66 per cent., and it is certain that we now have a much larger number of bearing trees. A well-managed orchard will give a clear income above all expenses of from \$100 to \$1,000 per acre. Not many bearing apple orchards are for



Kieffer pears, first year

Delaware the Diamond State

sale, but good apple land is for sale, and one is able to purchase it all the way from \$10 to \$100 per acre, according to location and improvements. It will pay a profit on the cost while the trees are growing, and in a few years will be the source of a very agreeable income if planted to this fruit. Why go to the inaccessible mountains of the South and West, away from railroads, away from the people, and spend a fortune clearing unkind land of trees, stumps and stones, when clean land, tillable as an ash heap, may be had for a song, where a railroad runs across it, in the heart of civilization? The apple is the King of Delaware fruits; certainly Delaware will be one of the great apple producing States.

Professor C. A. McCue, Horticulturist of the Delaware Experiment Station, recently wrote as follows: "Delaware has many peculiar advantages that would cause a thoughtful man to select her as a place to grow apples:

"First—Upon suitable soil and carefully selected location, Delaware can grow an apple as good as the best in *color* and second to none in *flavor*.

"Second—Delaware's markets are right at her door, and there is no long railroad haul to get products upon the market.

"Third—With carefully selected varieties we suffer less from apple scab than many other apple growing sections.

"Fourth—Easily obtainable water supply for spraying purposes.

"Fifth—Easily tillable land.

"Sixth—Long growing season.

"Seventh—But little damage from frost."

Under date of July 18, 1910, Frank C. Bancroft, President of the Peninsula Horticultural Society, wrote from Wyoming, Del.: "Regarding the Williams Red apple, I am estimating our crop from one hundred and twenty trees at from twelve to fifteen hundred hampers. The average price in Wyoming in 1909 was \$1.50 per hamper, $\frac{7}{8}$ -bushel size. The present crop is the admiration of all who see it."

F. M. Soper, Magnolia, Del., wrote recently: "I have been in Dela-



A six-year old apple tree

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ware thirty-two years and I have never known a complete failure of the apple crop. We have 45,000 trees under cultivation and will say that Delaware produces as fine an apple as can be produced in any section of this country. We get the flavor and color and quality, and in price we are second to none. Last year we sold two thousand dollars' worth of fruit from seventy-five ~~trees~~, and this year we received from one acre of Yellow Transparent over twelve hundred dollars."

Professor C. P. Close, now Horticulturist of the Maryland Experiment Station, was the Horticulturist of the Delaware Station before going to Maryland, and at the meeting of the Peninsula Horticultural Society in Dover, January, 1907, said: "Before coming to Delaware I thought that apples could grow only on clay soils, and when I saw the Delaware sands I thought they might do for peaches but not for apples. But after a careful study and observation of what is actually taking place in Delaware, we must admit that Delaware can produce as good apples as can be grown in any portion of the country. The greatest surprise of all is to see what can be done on the light sands of this State. You get the flavor and color and quality, and in prices you are second to none. Last winter I had occasion to visit some of the fruit stores in Philadelphia and found the best grades of Delaware apples were selling for better prices than those from Oregon or from New York. A friend of mine, who is interested in apple culture in Colorado, advised me to invest in raw land in that State at \$100 per acre, with water rights to cost another \$100. When I told him that Delaware orchards sometimes yield from \$600 to \$800 per acre in a single year, he said: 'That is as well as we can do out West.' Delaware is most favorably situated as to markets, in this respect far ahead of the West. It seems to me that if I were to go into the apple business in Delaware I should plant heavily of the early varieties. You can have apples the year around if the fruit is properly picked, packed and stored. You can eat apples of your own growing every day in the year."



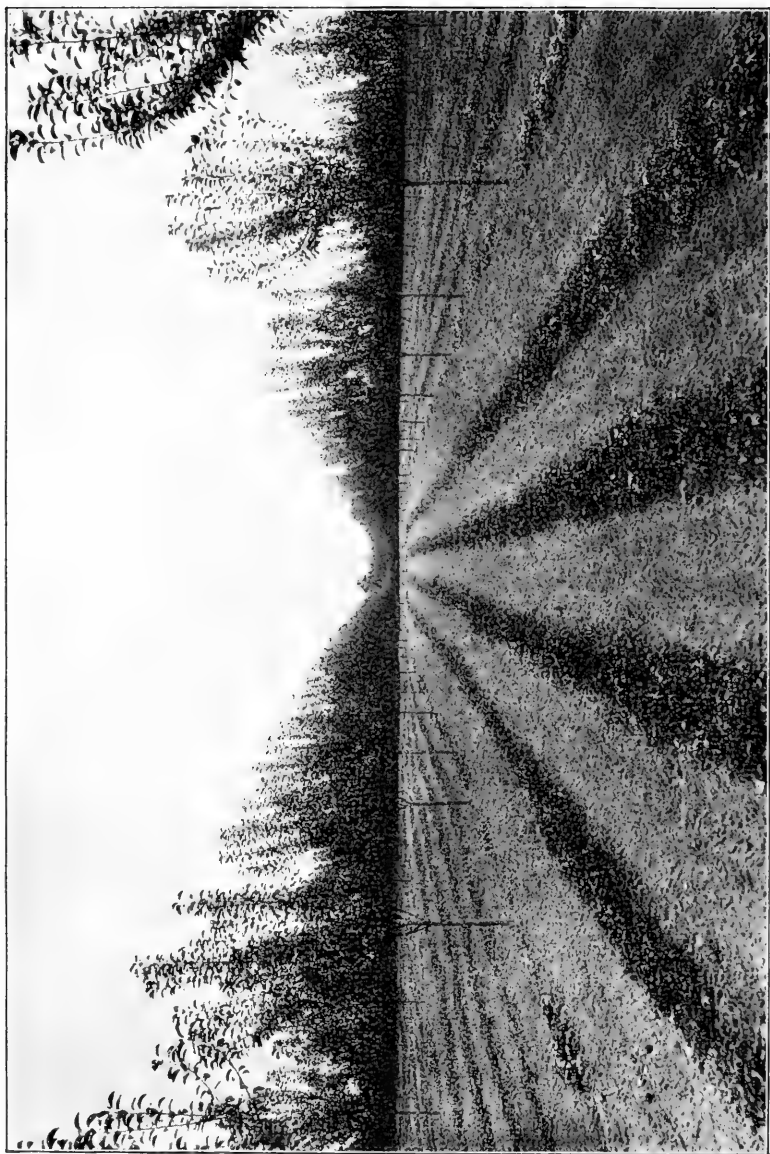
Peach orchard near Dover, Delaware

PEACHES

PEACH orchards were common among the early settlers of the State and have flourished for more than two centuries. The first commercial orchards of budded varieties were planted near Delaware City in 1832. These orchards were so profitable that the industry spread rapidly, and between 1865 and 1875 all the central part of New Castle County was almost one continuous peach orchard. In 1875 more than one million five hundred thousand half-bushel baskets of peaches were shipped from Middletown, an average of thirty-five carloads per day for the whole season. Never before in the history of the world had peach growing been conducted upon such a large scale and with such marvelous success. Following 1875 there was a marked decline in peach growing in New Castle County, owing to several causes, but the industry gradually extended to the southern end of the State, and while the crop is now somewhat uncertain, there is no reason why it should not again be as profitable as it was twenty-five or fifty years ago. An orchard near Dover of less than twenty-five acres has yielded \$30,000, and appears to be good for other crops. Another orchard of twelve acres has been quite as profitable. An orchard near Bridgeville of five hundred trees bore every year for several years, and in 1904 two hundred of these trees of the Elberta variety bore eleven hundred baskets of fruit which sold at Bridgeville for more than \$1,000. Under peculiar circumstances, when the crop was a general failure, a few years ago, the fruit from two hundred trees near Greenwood sold for more than \$3,100. While these are exceptional cases, many orchards even in recent years have been a very satisfactory source of large profits.

PEARS

PEAR culture is also profitable. There are now about a million pear trees in the State. They grow rapidly, bear early and are prolific. The oriental type of pears especially succeeds here as nowhere else. A number of other tree fruits are also grown with success and profit.



Strawberries among two-year old Kieffer pear trees

STRAWBERRIES

AMONG small fruits, strawberries take the lead. Sussex County produces more of this fruit than any other county in the world. In 1910 there were 21,907,163 quarts of berries shipped over the Delaware Division of the P., B. & W. Railroad, a very large proportion of which were grown in Delaware. Bridgeville shipped 425 refrigerator cars and about seventy-five ventilator cars during the season, bringing to that station about \$300,000. Selbyville is the second largest shipping point in the world, and there are other stations from which train loads are made up daily from the time shipments are fairly under way until they close. Prices at the station often average from 6 to 10 cents per quart. One grower at Bridgeville received \$3,360 from twelve acres in 1902. In 1904 he cleared \$300 per acre on Gandy after paying for picking and crates. In one day he sold 3,168 quarts at from 14 to 17 cents per quart, receiving a total of \$500 for them, all gathered at one picking from two acres. Strawberry growing is increasing in extent and the prices are running higher year by year, showing that, like apples, the demand is outrunning the supply.

The more labor, fertilizer and care put upon the crop the less the cost of production per quart, and the better the fruit, and, therefore, the better the price and the greater the net profit. There are men in the business who have saved a competence out of it. The best practice is to plant rather early, ranging from January to March, setting the plants from 18 inches to 2 feet apart in the row and making the rows from 3 to 4 feet apart. The ground should be prepared the previous season by a crop of cowpeas, or tomatoes in which crimson clover was sown, or by some other crop that will leave the ground in good condition. Considerable areas of low lying land are found in different parts of the State, and these are often cleared of trees or shrubs and planted to strawberries as the first crop after clearing. Such land is ideal for the Gandy straw-



A grape vineyard near Dover

Delaware the Diamond State

berry, which is one of the most profitable varieties. Fine, large fruit, that will carry to market in solid bright condition, always brings good prices. When the ground is ready for planting the rows are run out and from 600 pounds to 1,000 pounds per acre of a high grade fertilizer is applied down the row and worked in and the plants are set. In the autumn possibly as much more is applied. If the appearance of the plant indicates the need of it, from 50 to 150 pounds of nitrate of soda per acre is applied in the spring. The plants are kept well cultivated and are hoed by hand about six times, the aim being to keep the ground stirred often and free from weeds. Blackberries and dewberries have been extensively grown and have been very profitable, and in some localities the red raspberry was for years the leading commercial crop and one of the most profitable ever grown in Delaware.

GRAPES

GRAPE culture has not been extensively practiced in Delaware except in a few localities, including the vicinity of Smyrna, Dover and Felton. For more than twenty years the business has been very profitable around Smyrna, and within the last ten years vineyards have been planted and have come into bearing near Dover. Some of these vineyards have been set by experienced men from the best grape regions of New York, who pronounce the soil, climate and other conditions superior even to the best that they have known elsewhere. A large amount of land in Delaware is excellent for grape culture and much of it is very cheap, so that the industry is sure to extend year by year. There is no danger of an oversupply of this fruit so long as it is of the fine flavor and appearance that it attains in Delaware when properly grown. There are many other fruits that are produced in smaller quantities, and there is no reason why any expert fruit grower may not select the kind or variety that pleases him best, make a specialty of its production and make money out of it.



A newly set asparagus field

VEGETABLES

DELAWARE not only excels in fruit culture, but it produces many vegetables, such as Irish potatoes, sweet potatoes, tomatoes, cabbage, turnips, and others in extensive commercial quantities. The potatoes, cabbage and turnips are shipped to market, but the tomatoes are mostly canned at factories in the State. The canning business is an industry in itself. In 1907 the green peas packed amounted to 141,036 cases of two dozen No. 2 cans each; valued when ready to ship at \$275,000. The growers were paid \$72,500. Sweet corn, 75,000 cases of two dozen each; total value, \$110,000—of which the growers received about \$30,000. Tomatoes, 1,317,284 cases of two dozen each No. 3 cans; total value, \$2,240,000—of which the growers received \$658,600. This does not include the tomatoes shipped away for immediate consumption, nor those shipped to Baltimore and other points for canning.

POTATOES

SWEET POTATOES have long been a leading commercial vegetable crop in this State, and many a farm of sandy soil has paid for itself over and over by this crop. The process of planting, cultivating and harvesting is all plain and simple and not beyond the skill of any ordinary farmer. With the proper soil and good cultural methods, the yield is from 200 to 400 bushels per acre, and one grower near Milford claims to have averaged a net profit of \$100 per acre on from fifteen to twenty acres per year for the last twenty years. While this is unusual, the crop as a whole is a paying one. Irish potatoes, or round potatoes as they are often called, have been planted in increasing area and with increasing profits during the last few years. A few farmers make a specialty of the late crop, planting them in July, but a much larger number plant as early as possible in the spring, apply heavy quantities of fertilizer and get a



A Stayman Winesap orchard 15 years old

Delaware the Diamond State

good crop which pays well. No better soil can be found anywhere for both sweet potatoes and Irish potatoes than the alluvial sandy loam of Delaware. Fill it with humus by growing cowpeas and crimson clover and then apply moderate quantities of commercial fertilizers and abundant crops are certain to follow if the proper tillage is given. A paper read at a recent meeting of the Peninsula Horticultural Society deals with the conditions at Bridgeville and vicinity, and says:

“The early potato crop has been a profitable one for several years. Our condition as to nearness of markets, genial climate and character of soil are all favorable to this industry. Farmers’ Bulletin No. 35, United States Department of Agriculture, says: ‘The ideal soil for this crop should be one so light as to offer no great resistance to the enlargement of the tubers, so supplied with organic matter as to be rather moist without being wet, and so rich as to furnish an unfailing supply of fertilizing ingredients. A rich, sandy loam, abundantly supplied with organic matter and naturally well drained, is preferable. Stiffer soil may be rendered suitable for the potato by draining and by the incorporation of farm manures, or better by plowing under green crops. Very heavy clay should be avoided if the farm contains any lighter soil. Recently cleared ground suits the potato. Sandy soils, if not too subject to drought, may be fitted for this plant by the addition of organic matter. It is claimed that potatoes grown on sandy land are of better quality than those grown on stiffer soil. The potato requires a good soil, but even more important than natural fertility is a proper mechanical condition of the soil. Artificial fertilizers may be substituted in part for natural fertility, but they are effective only when the soil is in such condition as to furnish a constant supply of water. The potato should have the best soil on the farm, since it is more exacting in this respect than the other staple crops and since the product of an acre is generally of greater value. The success of the potato is largely dependent upon the crops preceding it in the rotation. If clover, cowpeas or other leguminous plant is grown just



Red Astrachan apples in Kent County

Delaware the Diamond State

preceding potatoes, its stubble furnishes organic matter and adds to the store of available nitrogen in the soil. Corn after sod frequently precedes potatoes, and this is generally regarded as the best rotation."

This description of the ideal soil and ideal conditions fits Delaware exactly, and the potato grows here to perfection. We have just these conditions; our soil is ideal; we can produce easily and cheaply an abundant supply of vegetable matter rich in nitrogen and in all the mineral elements of plant food by sowing the land in cowpeas, soy beans, velvet beans, crimson clover, vetch, rape, turnips and other cover crops, according to the rotation practiced. If potatoes are preceded by tomatoes, crimson clover (or crimson clover and turnips) can be sown at the last cultivation of the tomatoes, and when the time comes to plow the ground in the spring we shall have a nice mat of green clover to put the land into the right condition so that a heavy application of high grade fertilizer will be extremely profitable, because it will force a rapid growth and give an enormous crop of tubers of extra quality. The clover will contain as much nitrogen per acre as can be bought for \$20 or \$25, and the roots will bring mineral elements of plant food from the subsoil, and the succeeding crop, whatever it may be, will be a good one. Such a field near Dover gave nearly seventy-five bushels of shelled corn per acre in 1910, after a big crop of potatoes were removed in July of the same year. The ground is plowed early in spring for the potatoes in order to conserve the moisture that came in the winter rains.

MARKET GARDENING

MARKET gardening on the intensive plan is a good business near any of the larger Delaware towns, and is especially so near Wilmington. In addition to supplying the local markets, there is also opportunity to grow many kinds of vegetables for shipment to the more distant cities, especially Philadelphia and other cities in eastern Pennsyl-



Fruit at the shipping station

Delaware the Diamond State

vania and New York. New York City is nearer the southern end of Delaware than it is to the center of New York State, and Delaware soil and climate will soon make the Diamond State the kitchen garden of many of the Eastern cities with their millions of people.

MARKETING FACILITIES IN DELAWARE

NOT ONLY is Delaware in the heart of the population of the United States, in the midst of the great markets, close to the people who have the means and taste for the most luxurious products of the soil and most delicious things that grow out of the ground, but the State is covered with a system of railroads and is penetrated at short intervals with navigable streams, creeks and rivers, which afford unrivaled transportation facilities for carrying these delicious products over the short distances between the farms and the mouths that eat the fruits and vegetables that grow upon these farms. Besides this, a comparatively new method of marketing farm products, originating in Delaware, places buyers at the railroad stations where they pay cash for the goods as they leave the wagon of the farmer. The farmer gathers his strawberries, apples, peaches, potatoes or other products, hauls them to the nearest railroad station or wharf and goes home with a good cash price in his pocket. Or, he may deliver his produce to an agent of his choice who sends it to the most favorable market. So there are two phases of the system. In one case commission merchants in all the principal cities have agents or buyers at the stations to receive goods and pay cash; in the other—at the same stations—men stand ready to ship the goods on consignment. The one checks the other and prevents monopoly of buying, and thus insures fair prices. The plan of having buyers at the stations has decided advantages. Each buyer can select exactly the kind and quality of fruit or vegetables that suits his market, and the commission merchant knows every day in advance just what he is to receive the fol-



Cow peas in Sussex County

Delaware the Diamond State

lowing day, and he prepares to handle it to the best advantage, so it often happens that the farmer at Cheswold, Dover, Wyoming, Bridgeville, Selbyville, or other shipping points in Delaware, receives as much per quart for his berries, or per basket for his peaches, or per barrel for his potatoes, as the commission merchant pays for goods received on consignment when they reach the city.

THE PRODUCE EXCHANGE

THE DELAWARE PRODUCE EXCHANGE, organized in 1910, did a large business the first season, handling more than thirteen hundred carloads of fruits and vegetables, and securing for the farmers better prices than they were offered at the railroad stations. The general manager of the Exchange keeps in direct touch by telegraph and telephone with the most reliable and competent commission merchants in the cities where there is an outlet for Delaware products. He knows every day the exact condition of every particular market and in this way is able to sell carloads on the track, or ship to markets that are comparatively bare of produce, and hence in a position to give the highest cash prices.

GENERAL FARMING

IT MUST not be thought that because Delaware is particularly adapted to fruit growing and market gardening that it is not equally well adapted to general farming, grain growing, dairying, cattle raising and other lines of agriculture. Nearly one-half of the farms are devoted to corn and wheat as the principal money crops, and such farms pay from six per cent. to twelve per cent. interest on the investment of the land owner. Many of these farms are carried on by tenants, and while the owner receives a good income, the tenant not only lives well, but saves money. Dairying is most



Corn at Bridgeville

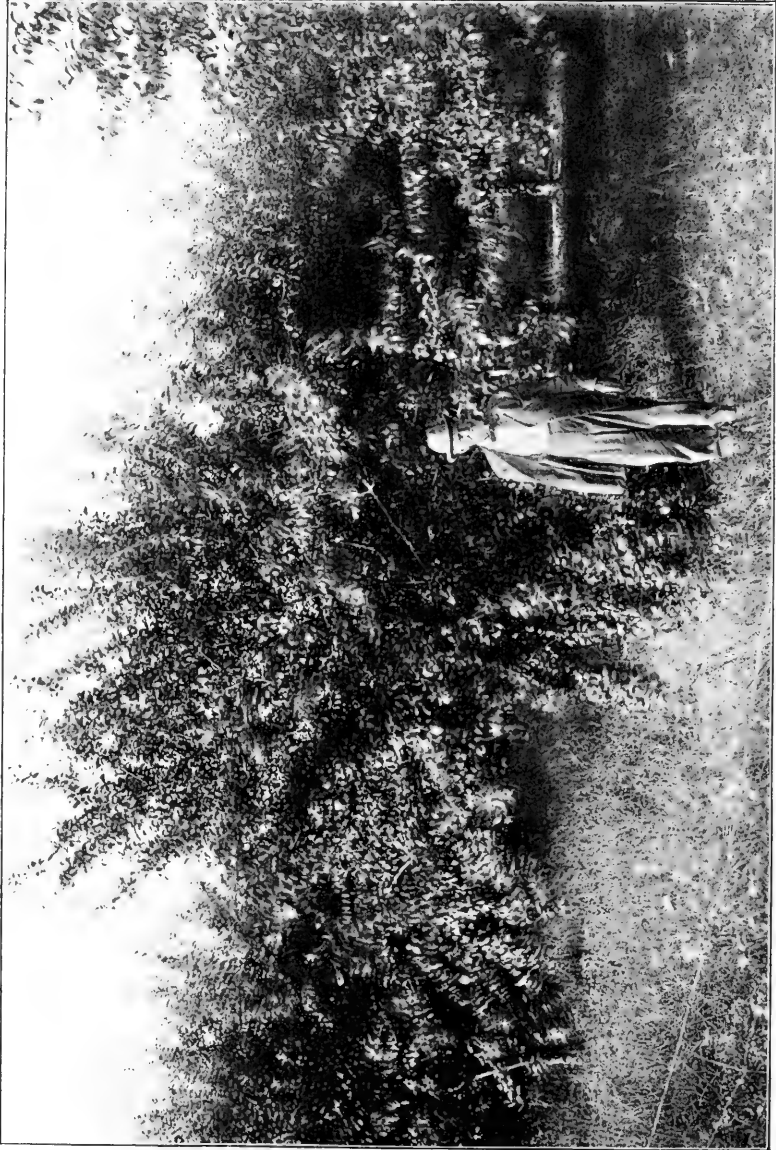
Delaware the Diamond State

extensively conducted in the northern part of the State, but by means of the silo and the soiling system, it is profitable on the sandy lands, more particularly in connection with some fruit specialty like apple growing, or strawberry culture. The same may be said also of raising cattle for beef. Pork production is also extremely profitable because all kinds of forage plants and grain grow with extreme luxuriance and yield immense crops. On this point M. G. Kains, associate editor of the *American Agriculturist*, says: "Though dairying, sheep, swine and cattle raising and horse breeding are less practiced than in other sections, this is only because crops are considered more profitable than stock. There is no reason, however, why these branches of agriculture should not be undertaken on a larger scale than they are at present. They would almost all be profitable enough at least to supply local demands, and in some cases be profitable also for supplying needs outside the State."

There is no better place in the world for poultry than Delaware. Because of the mild winters, during which such crops as crimson clover, cabbage, turnips and other hardy plants grow, or remain green, egg production is one of the most profitable and satisfactory lines of business. Along the streams water fowl are profitable because the breeding stock feed themselves for almost the entire year and much of the food for the other fowl could be secured from the water and pastures. Along the shores of the bay there are many locations as admirable for goose and duck raising as the famous spots of Long Island.

CORN AND WHEAT

THE FARMERS who grow corn and wheat as their principal money crops, plant fields running from ten acres to one hundred acres each, and with good cultural methods wheat yields from



A New Castle County orchard

Delaware the Diamond State

twenty to thirty bushels per acre, or even forty and forty-five bushels under exceptionally favorable conditions. In 1910 the area in wheat was 122,000 acres and the yield seventeen bushels per acre, a better average yield than was secured in Ohio, Indiana, Illinois, Missouri, Nebraska and a number of large wheat growing states. The average area planted to corn is about 200,000 acres, and there has been a gradual increase in yield for twenty years past. The ten-year average up to 1895 was about twenty bushels per acre; the ten-year average from 1895 to 1905 was twenty-six and eight-tenths bushels; the five-year average from 1905 to 1910 is thirty and four-tenths bushels. The yield in 1908 was thirty-two bushels. In 1909 a drought of unusual severity was prevalent over all of New Castle County at a critical time so that the yield for the state was reduced to thirty-one bushels. In 1910 a similar condition affected Kent and Sussex counties, and the yield was thirty-one and eight-tenths bushels. With the present cultural methods and an average season the yield should be thirty-four bushels. Through the efforts of the Delaware Corn Growers' Association and the State Board of Agriculture, by means of corn shows where prizes are given, farmers' institutes and other agencies, a systematic effort is now being made to increase the average yield to fifty bushels per acre, and this yield is likely to be attained in a very short time. The prizes for yields in 1910 were given to Naudain & Son, Marshallton, who had ninety-two bushels of dry shelled corn per acre; A. S. Whittock, Odessa, who had eighty-eight bushels, and E. A. Evans, of Cheswold, who had sixty-seven bushels, based upon corn that was shelled and weighed after it was thoroughly dried out. Mr. Evans' corn was an acre taken from a field that had received only such culture as he usually gives, and the yield was cut severely by the dry weather. There were many large fields in the State that would give a higher yield than that secured by Mr. Evans, but they were not included in the competition.



Winesap loaded to the ground

Delaware the Diamond State

Crimson clover is one of the most important factors in soil improvement to secure increased yields of grain at a large profit. As typical of what may be accomplished, the experience of B. F. B. Woodall, Milford, may be cited. In January, 1909, Mr. Woodall made the following statement about his treatment of a piece of land that was so depleted of plant food by bad management that it would not produce a paying crop. The soil is a sandy or light loam. "Scarlet clover has been the all-important material for bringing this soil up to its improved condition. To get the first crop of clover on such soil, plow in July and harrow in thoroughly four hundred pounds per acre of a mixture of acid phosphate and kainit, then just after the first rain sow eight quarts of clover per acre and harrow it in. The next spring, in March, repeat the application of fertilizer and if this crop should not be a heavy one, turn it under. If a good crop, cut it for hay, turn the stubble and plant in corn. Seed to clover in August after the cultivation of the corn is finished. This method of cropping every year can be continued for an indefinite time as has been done for twelve years at least, with my own soil, which is now producing fifty to sixty bushels of shelled corn and two tons of dry hay to the acre every year. This land will now produce in its high state of fertility cabbage, tomatoes, potatoes and fruits to the amount of \$100 to \$200 per acre without additional application of commercial phosphate. Every time I plow this land I turn up a half-inch of sub-soil so as to get the soil deeper.

The cost and returns per acre for thirteen years are as follows :

400 pounds of phosphate, \$2.80 per year for thirteen years.....	\$36.40
Seed each year, \$1.00 per year for thirteen years.....	13.00
4 applications of lime.....	8.00
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Total cost per acre for thirteen years.....	\$57.40



A Kieffer pear orchard, Middletown, Delaware

Delaware the Diamond State

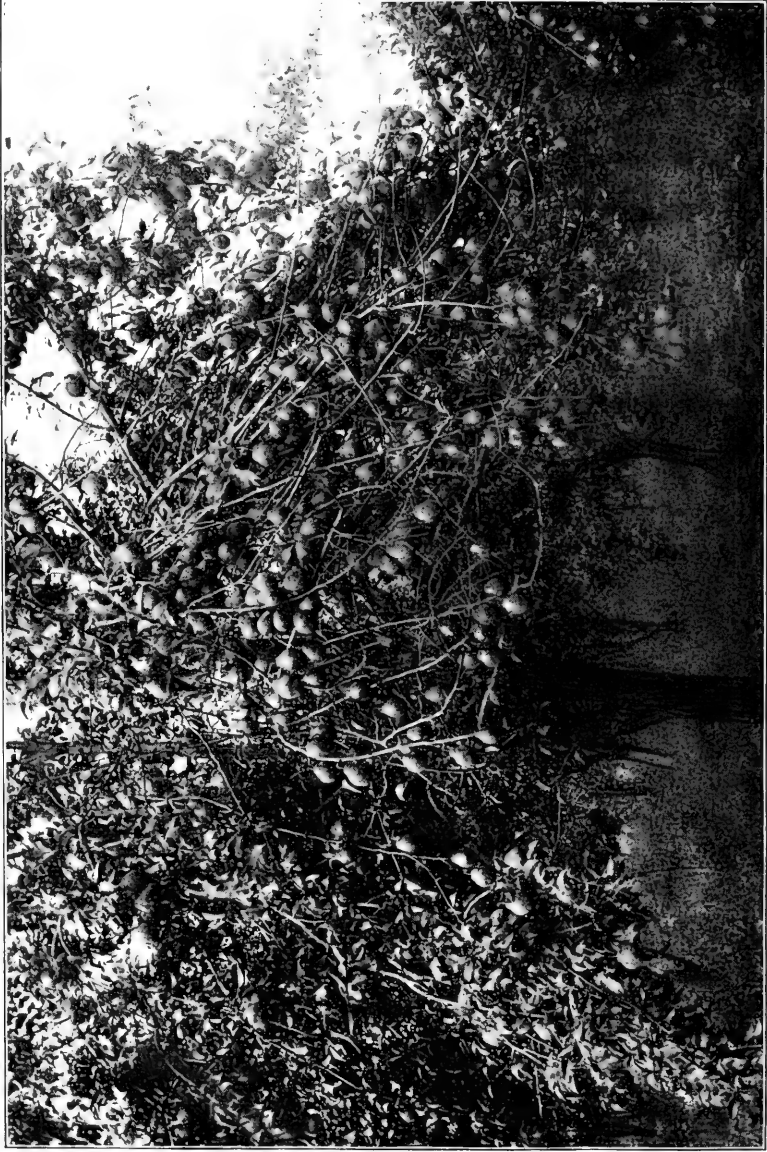
12 crops of corn, average 40 bushels, 480 bu. at 50c.....	\$240.00
12 crops of fodder at \$5.....	60.00
12 crops of hay, 18 tons at \$12.....	216.00
<hr/>	
Total returns for thirteen years, per acre.....	\$516.00
Total profit for thirteen years, per acre.....	458.60
Profit per acre, per year.....	35.27

It is seen from this statement that corn growing in Delaware is a very lucrative business and that it is not difficult to convert the poorest land into soil of great fertility while making a substantial profit on the crops produced. What Mr. Woodall has done on a small scale with great care and exactness has been done in a slightly less degree on a large scale by many farmers in the State.

WHAT THE CENSUS REVEALS

THE FIGURES given in the census of 1910 were based upon the crops of 1909, and not only were the crops cut short by a severe drought, but because of unusual frosts the peach crop was a total failure, and the yield of pears and apples was considerably reduced, and the year for strawberries was not a favorable one. Yet the census shows that the total value of farm buildings increased during the ten years from \$10,677,000 in 1900 to \$18,117,000 or seventy per cent. The total value of farm land increased from \$23,769,000 in 1900 to \$34,810,000, a gain of \$11,041,000, or forty-six per cent. The average value per acre of farm land increased from \$22 to \$34, or fifty-four per cent. The average value per acre, including buildings, increased from \$32 per acre to \$51 per acre, or fifty-nine per cent. There are now, in 1910, a total of 10,800 farms in the State with an average of ninety-six acres per farm. The value of the land, buildings and farm implements in 1910 amounted to \$56,128,000.

The crops produced in 1910 include the following: Corn, 202,000



A loaded pear tree

Delaware the Diamond State

acres, 31.8 bushels per acre, 6,424,000 bushels, farm value 52c. per bushel, amounting to \$3,340,000; wheat, 122,000 acres, 17 bushels per acre, 2,074,000 bushels, farm value 90c. per bushel, amounting to \$1,867,000; oats, 4,000 acres, 33.8 bushels per acre, 135,000 bushels, farm value 43c. per bushel, \$58,000; rye, 1,000 acres, 16 bushels per acre, 16,000 bushels, farm value, 69c., \$11,000; buckwheat, 2,000 acres, 20.5 bushels per acre, 41,000 bushels, farm value 65c. per bushel, \$27,000; potatoes, 10,000 acres, 103 bushels per acre, 1,030,000 bushels, farm value 60c., \$618,000; hay, 77,000 acres, 1.43 tons per acre, 110,000 tons, farm value \$14.80 per ton, amounting to \$1,628,000.

The fruit crop in 1910 amounted to 20,000,000 quarts of berries, 750,000 bushels of apples, 500,000 bushels of peaches, 631,000 bushels of pears, 279,000 carriers of cantaloupes and 373 carloads of watermelons. There were shipped from Bridgeville in 1910, 4,600,000 quarts of strawberries, 12,000 barrels of potatoes, 18,000 carriers of cantaloupes, 30,000 bushels of pears, 75,000 bushels of peaches, 25,000 bushels of apples, 40,000 bushels of tomatoes, besides 150,000 bushels of tomatoes canned by a local cannery.

PURE WATER IN ABUNDANCE

ONE of the most important things upon the farm is an abundant supply of pure water. It ministers to the health and happiness as well as to the wealth of the family. A lack of water causes inconvenience and loss, while impure water breeds disease and death. Delaware has an abundant and unfailing supply of pure, cool, refreshing water. Among the hills of the extreme north there are living springs that never run dry, and in all the level portion of the State it is only necessary to drive a galvanized iron pipe, bearing a perforated point, into the soil to a depth of from twenty to sixty feet, attach a good pump, and then by hand or windmill or engine, pump from the earth a steady stream of as pure water as human lips need taste; an



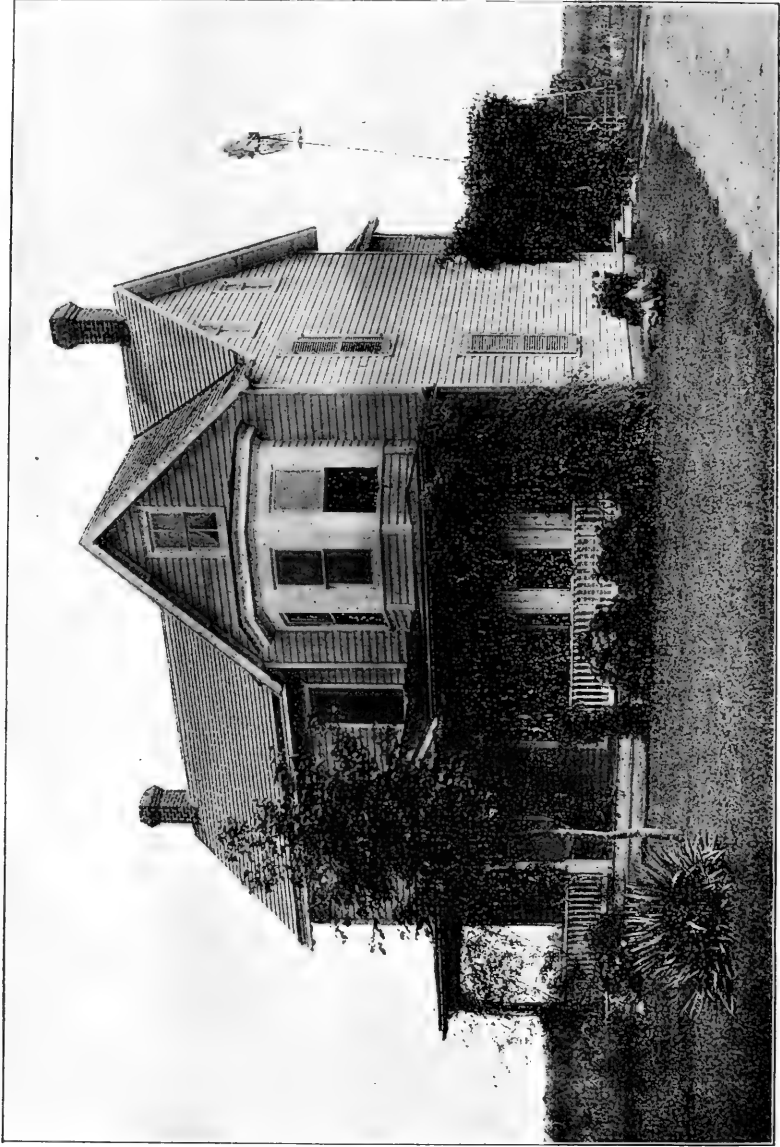
A profitable apple orchard in Kent County

Delaware the Diamond State

abundance for man and beast; for the household and stable; for spraying and, if desired, for irrigation. No doubt some of this water comes from the hills and mountains north of Delaware, but the rainfall of forty-six inches per year, well distributed through all the year, is a large factor in this unlimited supply of health giving water.

THE PRICE OF LAND

NEAR some of the most prosperous towns bare land is selling for much as \$150 per acre, while near other towns land just as desirable can be bought for less than half of that price. The very best land in the state, two or three miles from a railroad, is often for sale at from \$50 to \$100 per acre, including excellent buildings and other improvements. In other places the price is less than half these amounts. Of the total acreage of farm land—1,037,000 acres—283,000 acres are classed as unimproved land. Some of this unimproved land is idle or is growing up in bushes, or is in the hands of shiftless tenants who will not work it, and such land can be bought at from \$5 to \$20 per acre and can be converted into the finest farms and most desirable homes by the expenditure of very little money, and by intelligent, well-directed labor. It is also possible to buy highly improved farms with good buildings, comfortable and convenient surroundings, close to town, possessing all the advantages afforded by schools, churches and good society, at very reasonable prices and on easy terms. All classes of home seekers are thus able to find farms and locations to suit their taste and need. The price of land, however, is increasing in some places very rapidly, in others slowly, but the increase during the past ten years has been from an average of \$32 per acre to an average of \$51 per acre, including buildings; or for land alone, from \$22 per acre to \$34 per acre. At the present rate of development and the rapidly increasing interest in land improvement we may confi-



A Kent County Farm Home

Delaware the Diamond State

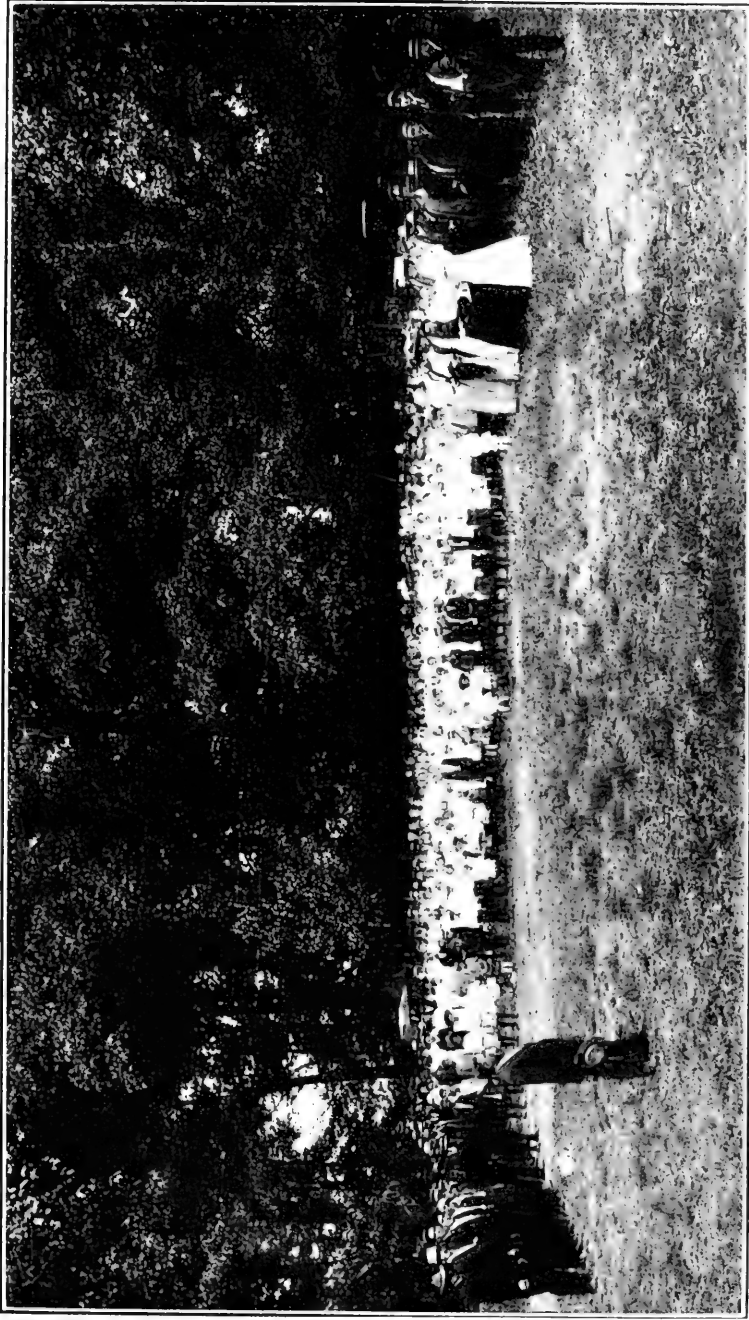
dently expect a still greater ratio of increase during the ten years to come.

SCHOOLS AND CHURCHES

THE educational system of the State is founded upon a system of free public schools of all grades from the kindergarten to the high school, with Delaware College standing at the head of the series, open to all students from the State, giving free tuition. For the public schools the State appropriates more than \$200 per year for each teacher employed. This appropriation is from funds derived from corporations and license fees levied upon various kinds of business. Delaware College is becoming a strong institution, well equipped in all its branches and is developing a department of agriculture which will make it the best training school in the country for the young farmers of Delaware because it will train them in the exact lines most practical and useful to them. The public schools are improving year by year and the keen interest in them displayed by all classes of citizens insures their continuous and rapid development in the future. There are churches in all the towns and in the rural districts of every Protestant denomination, and there are Catholic churches in most of the larger towns.

THE PEOPLE

THE people of Delaware are intelligent and hospitable, broad-minded, liberal, kind-hearted and industrious. About one-sixth of the population belong to the colored race, and the white people belong to the purest strain of the Anglo-Saxon race in the United States. The tides of immigration for many years past have swept westward and left Delaware untouched, so that the people are descendants of the original European settlers.



Picnic of Recent Settlers in Delaware

TRANSPORTATION FACILITIES

THE Delaware Railroad runs through the center of the State and sends off branches at various points, and when it reaches Sussex county divides into what may be called two main lines. Other railroads cross the State. A trolley line now extends as far south as Delaware City. On both sides of the State are rivers and navigable streams. With all these facilities there is scarcely a spot in the State that is ten miles from a railroad station or a steamboat landing. Telephone and telegraph lines extend everywhere.

FISH, OYSTERS AND GAME

FISH, oysters and game are not only a source of revenue to the State, but they add in a most delightful way to the charms of living and are not to be despised as a means of gaining a livelihood. Oysters, clams and terrapin are abundant, as also are shad, herring, weakfish, sea trout and many other kinds of fish. Wild ducks and geese are shot in all the bays and inlets, and quail, snipe and other birds are plentiful. Rabbits and squirrels abound.

THE THREE COUNTIES

THERE are but three counties in the state, New Castle in the north, Kent in the center, and Sussex in the south. The extreme northern end of the state is somewhat hilly, but all the remainder is level or gentle rolling, free from stones and all easily tilled. The city of Wilmington has more than 90,000 people, New Castle about 4,000; Newark, Middletown and Delaware City about 1,000 or 1,500 each, and there are other smaller towns in New Castle county. In Kent county, Dover, the capital of the state, has 4,000 inhabitants; Smyrna and Milford each about 3,000; Harrington, Felton, Camden and Clayton from



Bearing a full load at five years of age

Delaware the Diamond State

1,000 to 2,000. In Sussex county, Georgetown, the county seat, Lewes, on the seaboard, Bridgeville, Seaford, Laurel and Delmar are all important towns of from 2,000 to 4,000 people each. These are all great shipping points for fruits, vegetables, grain and other farm products. Selbyville, below Georgetown, and near the Maryland line, is the second largest shipping point for strawberries, Bridgeville being the largest in the world. These towns and several smaller ones have banks, as well as schools, churches, opera houses, public halls, and all have refined and intelligent society.

THE EXPERIMENT STATION

THE Delaware Experiment Station is one of the best in the country and the State is so small in territory that every farmer in it may come in close touch with its every department. If the farmer finds among his hogs, his horses, his cows or his poultry a disease that he does not understand, or one that baffles the local veterinarian, he telephones at once to the Station and in a few hours the Station Veterinarian is on the ground to diagnose the case and prescribe the remedy. If the fruit grower wants special assistance in fighting a fungus trouble or an insect, or if he wants information of a special nature about any of his operations, he calls to the Station for expert advice and the same day the examination is made and the advice given. All the information at the command of the Station is freely given to all the farmers at the farmers' institutes which are held in all parts of the state every year, so that every farmer who will avail himself of the knowledge has the opportunity to learn from the best scientific men and the best practical farmers all that is best and most profitable in the agriculture of the state.



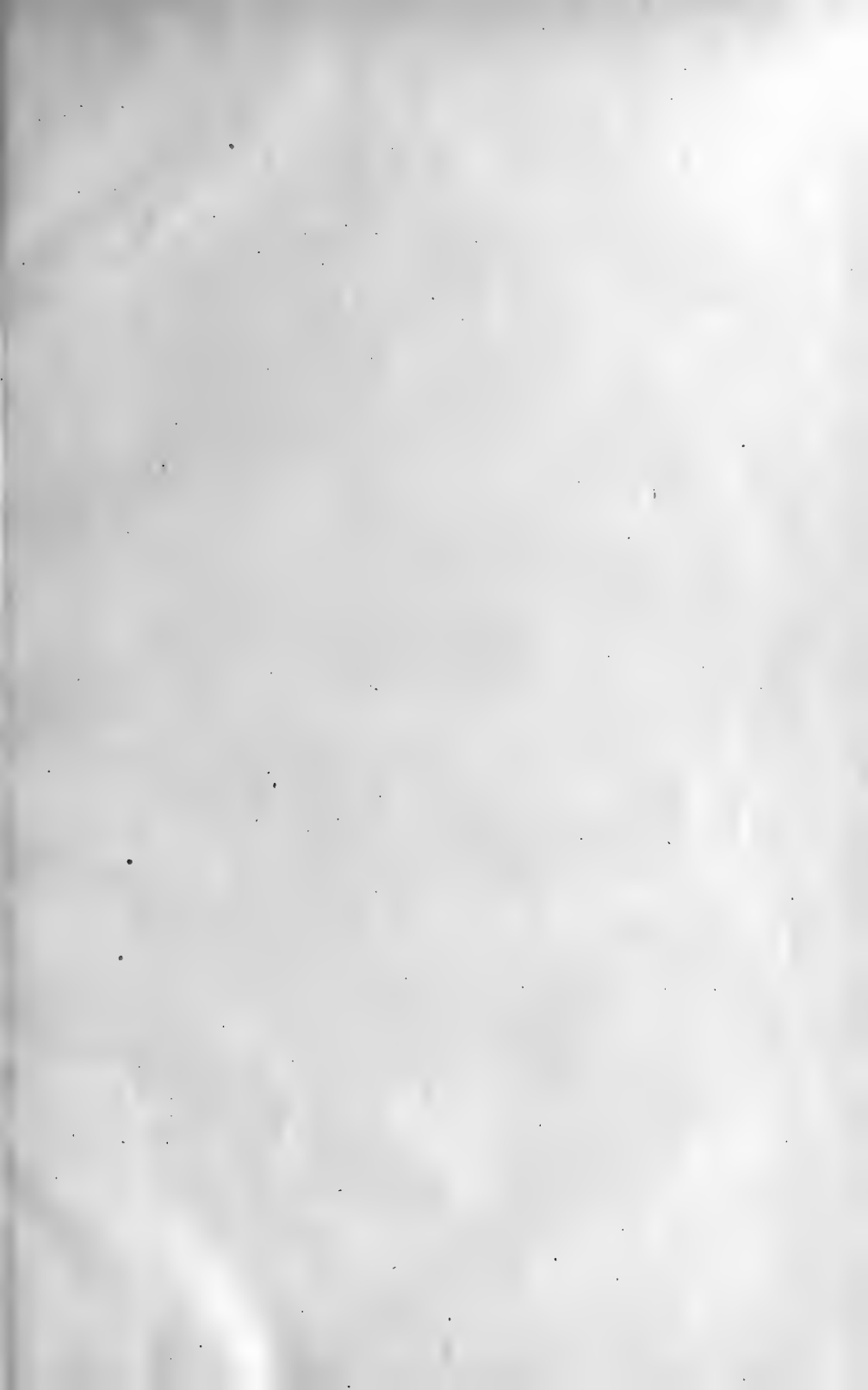
Kieffer Pears pays well



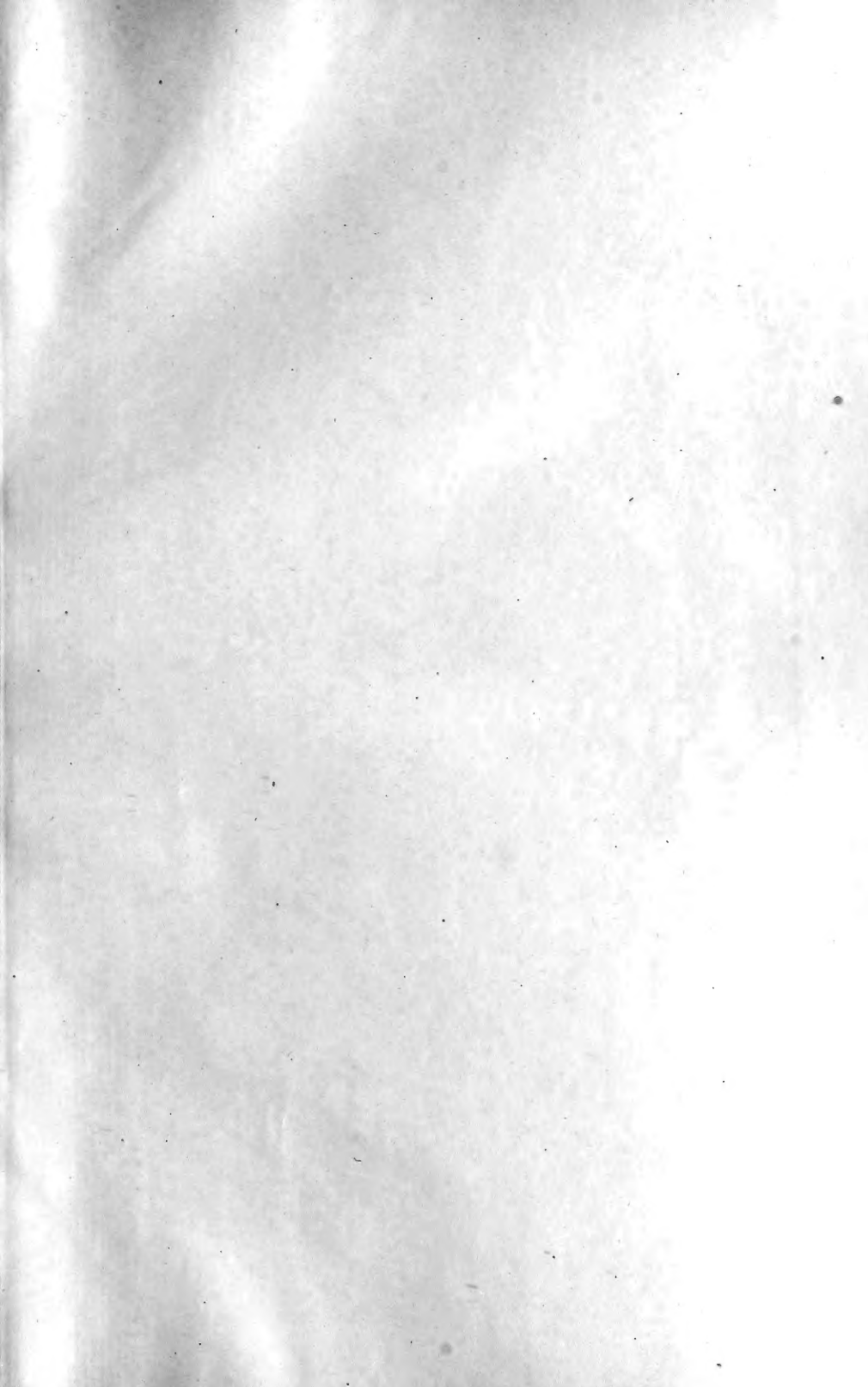
Peaches in full bearing

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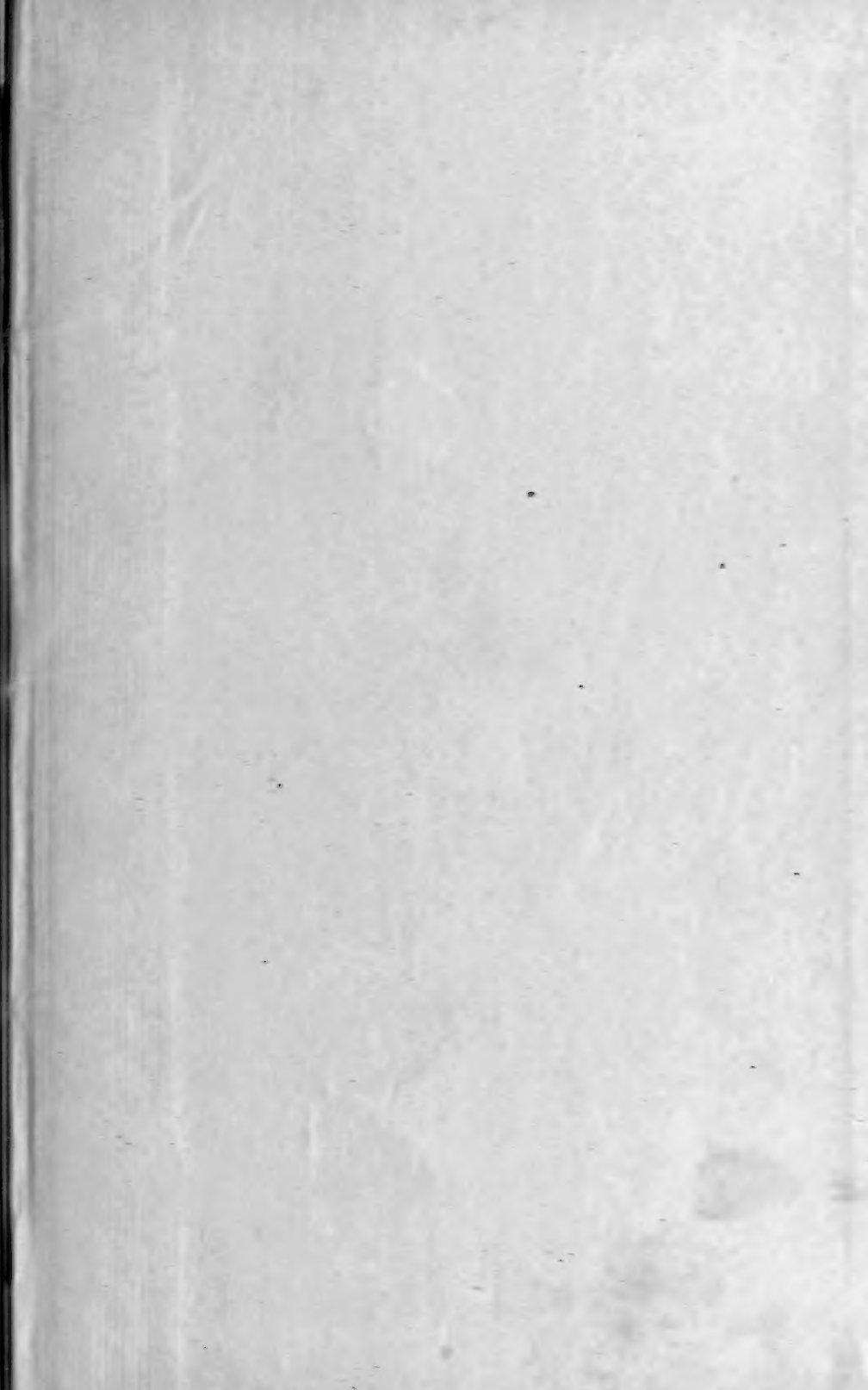
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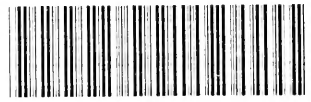








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