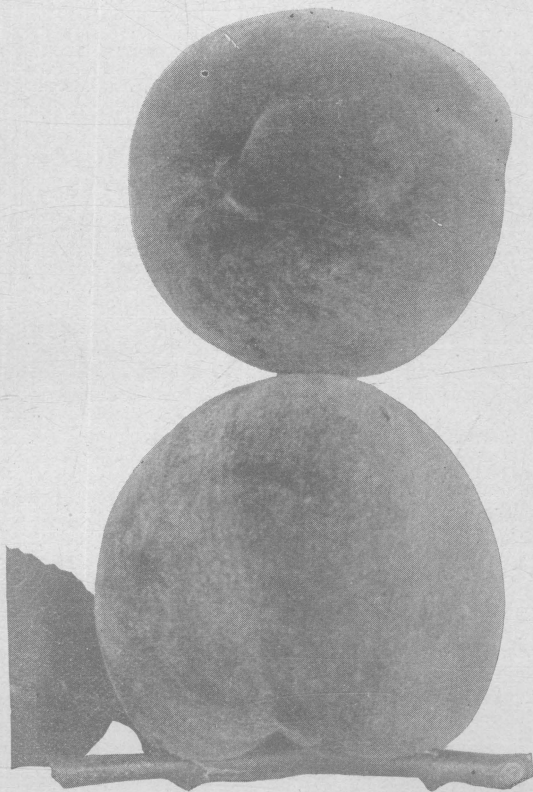


PEACHES FOR HOME AND MARKET.

OHIO
Agricultural Experiment
Station.

WOOSTER, OHIO, U. S. A., FEBRUARY, 1906.

BULLETIN 170.



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BULLETIN

OF THE

Ohio Agricultural Experiment Station

NUMBER 170.

FEBRUARY, 1906.

PEACHES FOR HOME AND MARKET.

BY W. J. GREEN AND F. H. BALLOU.

With the exception of that portion of the state which borders Lake Erie and a few favored locations in the hilly sections, peach growing in Ohio is attended with considerable difficulty. Especially is this true where there has been but little thought given to the choice of locations, and where indiscriminate and injudicious selections of varieties have been made. The fact that in the more illy favored places the orchardist cannot count upon a crop of fruit oftener than once in every four or five years, makes commercial growing of this fruit in such sections almost out of the question, and is discouraging even to those who would endeavor to produce a supply for the home. Much can be done, however, in the choice of soils and locations—especially of locations—where conditions are such that a choice is possible. This is the prerogative of those who own hilly ground with its various elevations, slopes and exposures. No less important is the selection of such varieties as have proven to possess the desirable and highly important characteristics of inherent vigor and hardiness of wood and buds. Those persons who are thus situated, and who are disposed to make the most of their opportunities, are quite well equipped to overcome the obstacles so generally encountered by the would-be grower of this luscious, desirable and valuable fruit.

There is probably no place among the more elevated sections of Ohio where peaches are grown under more adverse conditions than upon the bleak, wind-swept hill-top at the Experiment Station orchard. The particular area of ground upon which this orchard is situated is a mixed silt and clay soil, underlaid with a tenacious clay subsoil that is waxy, cold and very difficult of underdainage. The bleakness of the exposure together with unsatisfactory soil drainage results not only in frequent bud injury, but in a serious and persistent destruction of trees of the more tender varieties by winter-killing of the wood. Never, since the Station has been

located at Wooster, has there been a satisfactory general crop of peaches in which all varieties have participated. Through various causes not fully understood, some varieties have borne one year and some the next, a few each season, thus exhibiting, in a desultory way, their respective merits or defects. The crop, some seasons, has been almost a complete failure. Were it not for a very limited number of the tried and true varieties, the fruit of which is in evidence almost every season in greater or lesser abundance, the work of testing varieties of peaches, at the Station, would, indeed, be quite disappointing and discouraging. It is to this limited number of comparatively hardy, dependable sorts that the attention of growers in this section of the state in which rigorous and erratic climatic conditions prevail, is especially directed. Greensboro, Carman, Belle of Georgia, Champion, Elberta, and Gold Drop, in the Station orchard, seem to stand almost alone in this respect. In this short list there are represented, by Champion and Elberta, the present standards of excellence for home use and market respectively. To such varieties planters should give their earnest if not sole consideration until it shall have been proven by careful testing that there are other varieties which may be safely added to this small number. It is true that, for the Lake regions, a much more extended list of varieties may be submitted, from which growers may choose with much greater confidence than the average Ohio orchardist who is situated without the influence of the broad expanse of water, which exerts its modifying and equalizing effects upon the temperature and humidity of the atmosphere in the so-called Lake-shore Peach Belt.

Questions are continually being received by the horticultural department of the Station, relative to varieties of peaches, soil and locations suitable for their culture, the planting, pruning and culture of the trees and spraying for insects and fungi. It is our purpose in preparing this bulletin, not only to give a short list of varieties which do fairly well at the Station, but to present, in easily available form, the A. B. C. principles of peach culture which seem ever to be demanded by the planters of our state.

SOIL.—The peach is not especially exacting as to soil. It is generally conceded that it does best on ground of a sandy character, though we have seen orchards thriving and producing fruit of the highest excellence on a stiff, well drained clay. It is of the greatest importance that the soil be well drained—either naturally or artificially. No fruiting trees do well with their roots imbedded in cold, sodden, water-logged earth, and the peach is certainly no exception in this respect. The soil, however, should be fertile and well supplied with humus.

LOCATION.—What may be said upon this subject applies directly and almost exclusively to the hilly areas of our state. All things considered, a cool, northern or north-eastern slope is to be preferred. Such an exposure tends to retard bud development in late winter and early spring, thus tiding them over the danger from late spring frosts which are so destructive where trees are forced into bloom prematurely. Light, sandy loams upon warm, sunny, southern or eastern slopes should be avoided, as the warmer days of the months of February or March are almost sure to cause a premature development or swelling of the buds, which only too often results in the destruction of the crop by succeeding cold weather of early spring. A western slope is to be preferred to an eastern or southern exposure, and would be the second in choice to a northern one. The summits of hills are usually considered desirable locations for peach orchards. The natural drainage, except in rare cases, is good, and many such sites, in central Ohio, are proving that there is good reason for choosing these elevated areas.

PREPARATION OF THE SOIL.—Generally speaking it is well to plow the ground deeply and fit it finely and well as in the preparation of a seed-bed for corn, wheat or other farm crops. If the soil be deficient in fertility it is advisable, if not necessary, to supply this fertility in such substantial form as will provide not only for the present, but for the time of need which is sure to come in the future if success attend the venture. Well decomposed barnyard manure incorporated with the soil, cannot be improved upon to supply and maintain the fertility and to provide the humus or decayed vegetable matter, which is an essential element in soil of good physical texture and heat and drought and cold resisting power. In the absence of barnyard manure, leguminous crops such as clovers, vetches, cow peas, Soy beans, etc., may be grown and turned under at maturity, thus season by season adding the necessary vegetable or nitrogenous matter provided by the breaking down of the fiber of the plants, as well as the additional amount of nitrogen gathered from the air by these legumes and stored away in their peculiar root nodules. The growth and decay of these plants also effect the liberation of much mineral plant food, such as potassium and phosphorus, previously locked up and unavailable.

In well prepared soil the excavations for the reception of the trees need be no larger than to amply accommodate the well-pruned roots and to enable the planter to work unhampered by a too narrow opening.

It oftentimes happens, in hilly sections, that the ground is too steep, rough or stony to permit of fitting the soil by plowing. Not infrequently such locations are most excellent fruit-producing areas and one should not hesitate to plant peach trees thereon. Different methods must, of course, be adopted. This means that the soil

shall be left unbroken; that larger excavations must be dug by hand for the trees; that a dense, heavy growth of grass be encouraged and that persistent mowing and heavy and uniform mulching, as a cultural plan, be employed. This method of planting is also not only desirable but necessary in connection with the home grounds where plowing is not practicable. This phase of the question will again be mentioned in its proper place.

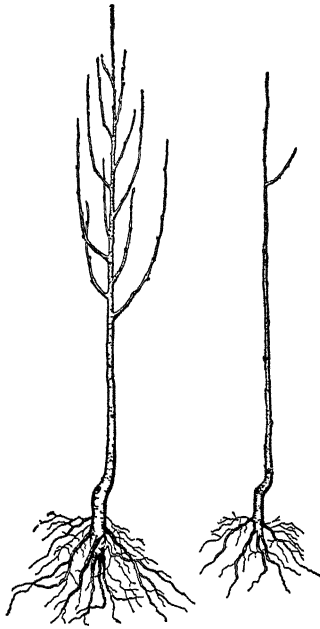


FIG. 1.
 a. First class nursery tree
 b. Second class nursery tree
Drawings by Ballou

TREES, AND PLANTING.—Only trees of one year's growth from the bud should be used. Older trees are not desirable and are dear at any price. The one-year-old peach tree is usually a mere whip from three to five feet in length. The larger sizes frequently have a few unimportant side branches or laterals which, almost invariably, are mostly or entirely pruned away in the proper heading in of the tree after planting. In Fig. 1 are shown the different types or grades of peach trees as they come from the nursery. Such trees are usually well supplied with strong wood buds from tip to root, making it a simple matter to form the branched head of the tree at any desired height from the ground by severing the main stem at that height. After pruning back the roots, cutting entirely away all broken

or injured portions and firmly planting the tree, perhaps a little deeper than it stood in the nursery row, the pruning back of the top should be done, after which the trees should appear as in Fig. 2. Trees may thus be headed back at 18 to 36 inches from the ground, according to the height of the head desired.

PRUNING.—A low headed peach tree has many advantages over one that is higher, as it is the natural tendency of the peach to rapidly push up out of reach in a few seasons even with considerable restriction. It is only by low heading, severe annual pruning and occasional renewal by heading down into the large branches, that a peach tree can be kept compact in size and symmetrical in form.

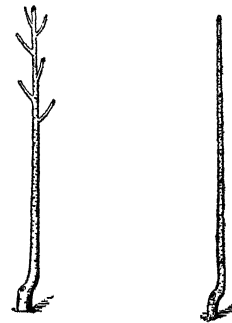


FIG. 2.
 a. First class tree planted and cut back
 b. Second class tree planted and cut back.
Drawings by Ballou.

The first two years of the young peach tree in the orchard are by no means the least important of its life. It is during this period that the foundation for a stocky, well balanced, low-headed tree must be laid. A newly planted peach tree quite often surprises and disappoints the planter by the little trick of doing exactly the opposite to that which he has planned for and expected it to do. Often, instead of the strong buds left near the upper extremity of the stem and designed to produce the new shoots, a part and sometimes all of these will fail to grow. This may be the result of some obscure cause or injury, or may be occasioned by late frost or an attack of leaf-

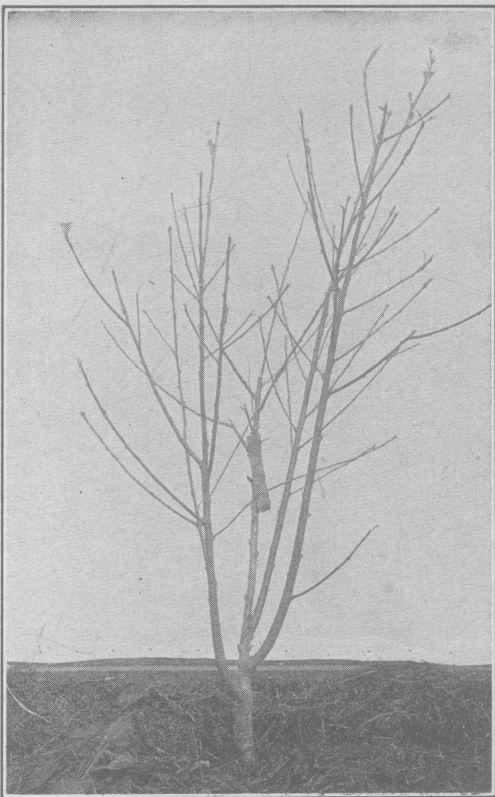


FIG. 3.

Photo by Ballou

curl just as the young shoots are putting forth. Consequently a new shoot or a number of new shoots will later on push out from near the root and grow so vigorously as to take the precedence of the original stem in point of size and strength. This necessitates a bit of tree surgery in order to bring about a single stemmed, well-balanced, round-headed tree a soriginally planned. In Fig. 3 is shown a deformed tree such as described, while in Fig. 4 is clearly shown the treatment of such a tree to bring about the desired results.

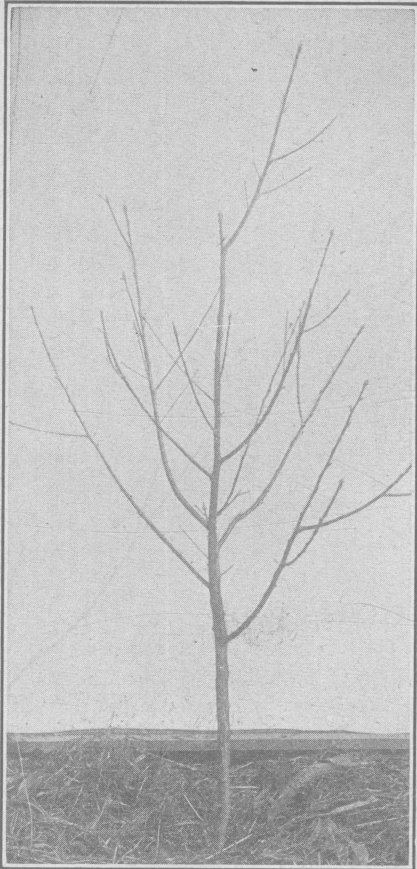


FIG. 5. *Photo by Ba'low*

this practice recommended for the first season's growth alone. It is even more important to cut back the annual growths of wood equally as severely as the trees advance in age and size. This annual "heading in" induces a low, stocky, spreading,

well-balanced tree that reduces to a minimum the work of spraying, and greatly facilitates the work of caring for the trees and the gathering of the fruit. If new branches be formed in too great numbers and become crowded, thin out with the pruners and clip back those remaining fully one half their length. Remove all dead and useless wood and those branches that cross each other or that incline toward the center of the tree.

In Fig. 5 is pictured the first season's growth of a newly planted peach tree which has developed in a natural, heathful, symmetrical way such as was intended by the planter. The pruning of this little tree is shown in Fig. 6. As a rule, in case the young trees have made a normal growth, it is well to cut back the new wood from one-third to one half its length. Nor is

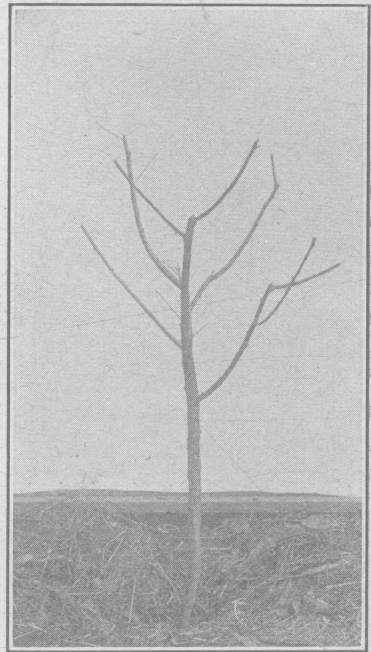


FIG. 6. *Photo by Ballou*

PEACHES FOR HOME AND MARKET.

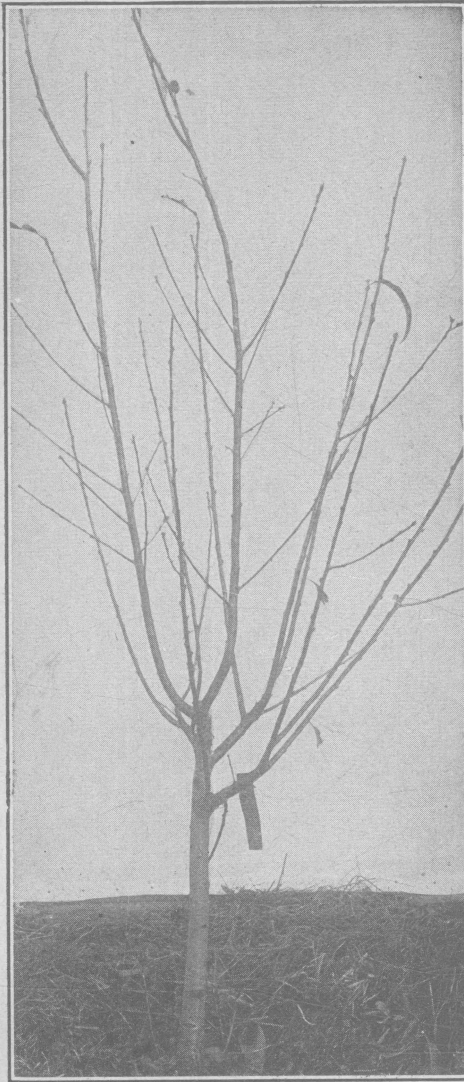


FIG. 7. *Photo by Ballou*

Fig. 7 shows the growth of a young peach tree the second season after planting, while in Fig. 8 is shown the same tree properly pruned.

CULTURE.—There are two methods of culture which may be safely recommended for Ohio conditions, viz., clean culture with cover-crops and mulching. Where the ground is comparatively level the cover crop method is admirably suited to peach culture. The soil of the orchard is plowed or disked as early in spring as it is in condition to work well, and the surface kept clean and mellow with harrow, cultivator or weeder until about the first of August, when some cover-crop should be sown. Soy beans are excellent, as are also cow peas, medium red or mammoth clover, crimson clover and vetch. A mixture of Canada field peas and oats is good. Soy beans, or cowpeas, are preferably drilled in with a grain drill, using full feed, every third hoe and stopping those intervening. This makes

the rows about two feet apart, permitting one or two cultivations to be given, which are very beneficial in starting the young plants. We use about three pecks of seed per acre. Of oats and Canada field peas, mixed in equal proportions, about two bushels per acre. Clover at the rate of fifteen or twenty pounds per acre.

The cover-crop is allowed to remain upon the ground over winter, holding the snow and protecting the soil from washing and the roots of the trees from injury by freezing. The matured crop is turned under early the following spring and cultivation continued

as before, to be followed, in turn, by a successive cover-crop. Under this system the soil becomes spongy and friable with its content of vegetable matter, thus increasing its water holding capacity and improving its fertility and mechanical texture. A section of the Station's cover-crop orchard plot is shown in Fig. 9, upon which Soy beans were growing when the photograph was taken.

For steep, rough ground, not adapted to cultivation, the plan of mulching is excellent. The trees, planted in sod, are at once heavily mulched with strawy manure, straw, or other coarse material that will conserve moisture and keep down weeds and grass about the trees. A luxuriant growth of grass, to be mown two or three times each growing season and allowed to lie upon the ground, or raked up, divided and added to the mulch about the trees, is to be encouraged.

The mulching, in lieu of cultivation, should be steadfastly maintained if the best results be desired; and if this be done, peaches will succeed quite as well upon the roughest, steepest ground as in level, cultivated fields. In Fig. 10 is shown a section of the Station peach orchard where the so-called "grass-mulch" system of culture is practiced.

Even under the most favorable conditions of thorough culture and pruning, there will surely come a time in the life of a peach tree when something must be done to restore its vigor, restrict or decrease its proportions and renew its youth. If the tree be not diseased, or its vigor too far impaired by long continued fruit production or the ravages of insects or fungi, there is no reason why its usefulness may not be extended many seasons by the **renewal** of its branches. Even trees long neglected, or those which

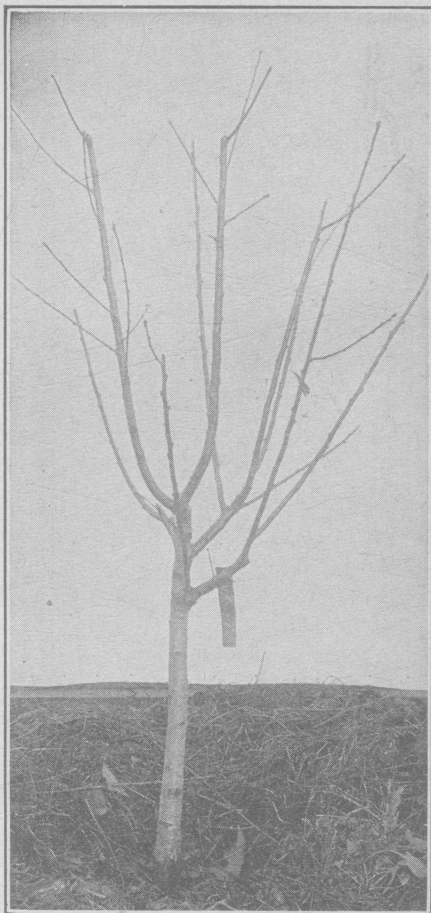


FIG. 8. *Photo by Ballou*

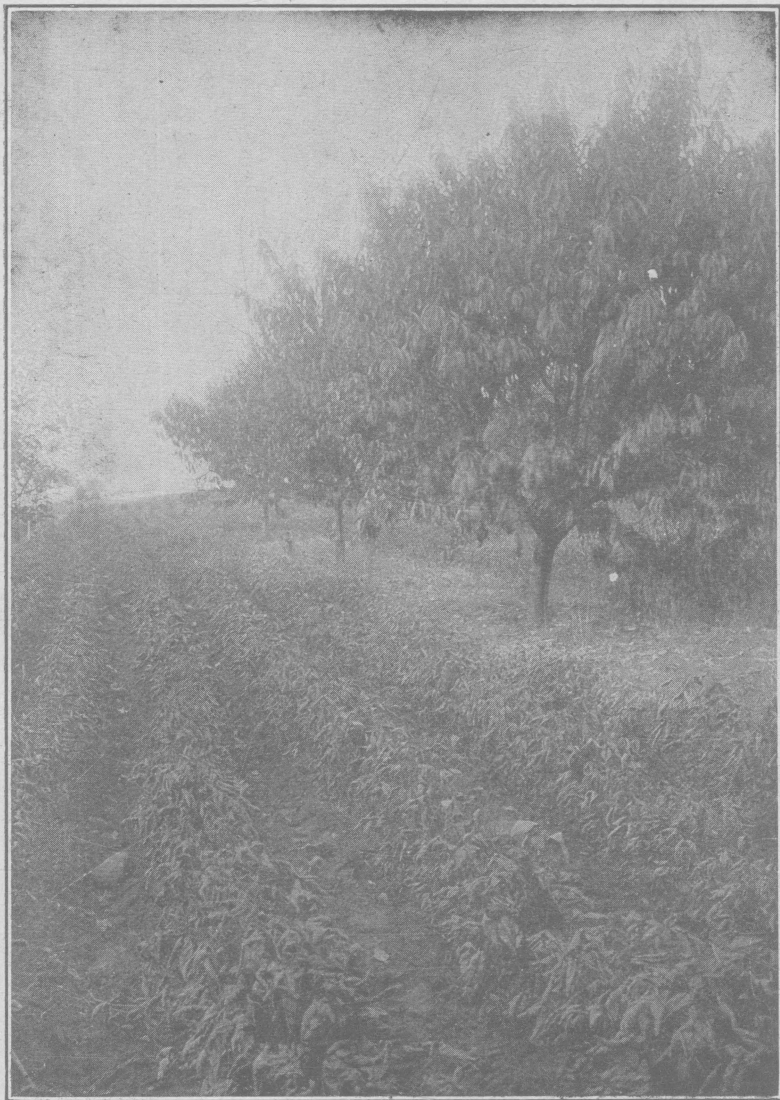


FIG. 9.

Photo by Ballou.

were never so fortunate as to make the acquaintance of the knife or pruning shears, may be redeemed from their straggling and wayward habits and misspent life and brought into a semblance of youthfulness and vigor that is as surprising as it is gratifying



FIG. 10.

Photo by Ballou

and satisfactory. In Fig. 11 is shown a very large peach tree that was planted many years before the Experiment Station purchased the ground upon which it stands. Apparently its life had been one in which pruning was not a factor. In the waning vigor of its old age its branches, in the early spring of 1905, were severely cut back, leaving it as in Fig. 12. The cutting back was seemingly cruel and murderous in extent and intent but, without any form of cultivation, as the tree occupies a place on the rear lawn, new shoots soon pushed out and by late summer of the same season the new growth appeared as in Fig. 13. Previous experience justifies the belief that a judicious thinning out of the dense new growth, and a shortening back of the strong shoots remaining will, in the course of two or three seasons, bring the old tree back to vigor and fruitfulness. The benefits of such severe cutting back of peach trees are apparent in many of the sections infested with San Jose scale, where the heading-in was done to facilitate the effectual treatment of the trees with lime and sulphur. The plan, therefore, is not a

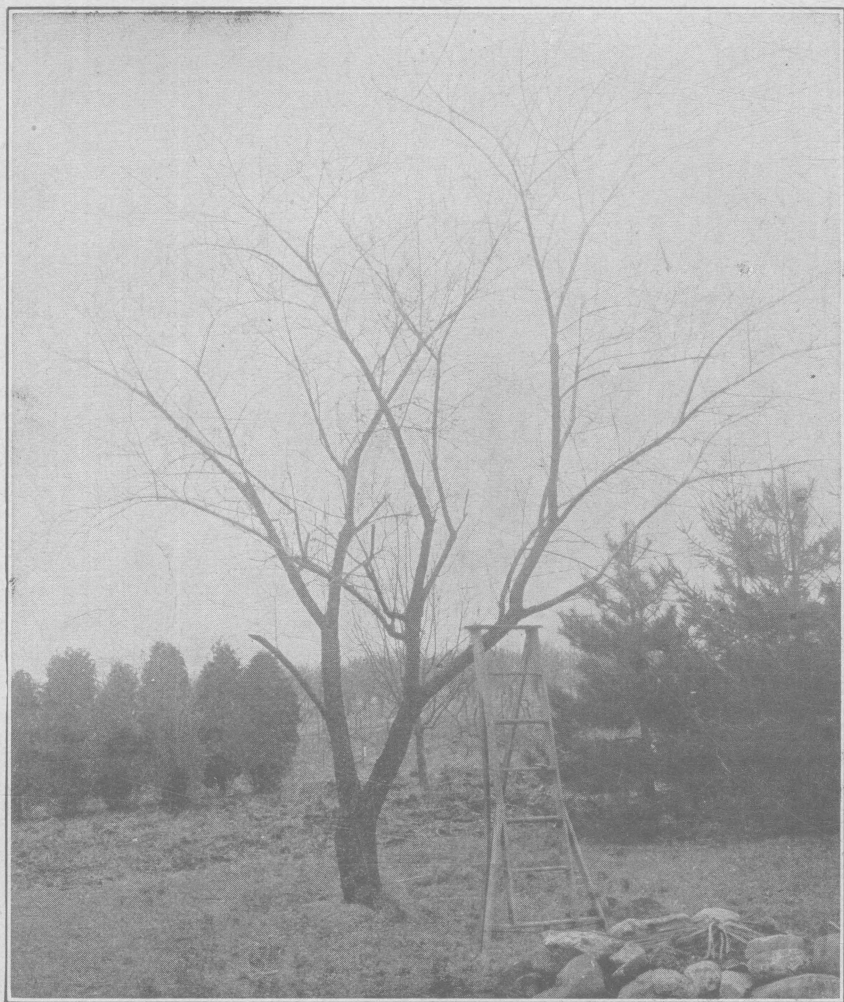


FIG. 11.

Photo by Ballou.

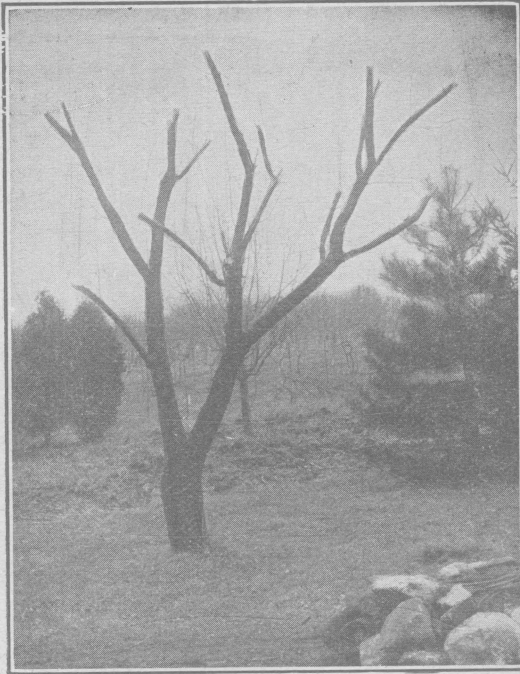


FIG. 12.

Photo by Ballou

new or original one at the Station; we merely give it prominence in order to emphasize the importance of this excellent idea of renewal of old orchards, which may be accomplished with the loss of but one or two season's fruiting if the cutting back be done in a season when the fruit buds are known to be dead.

SPRAYING.—The San Jose scale, peach-leaf-curl and peach yellows are the most formidable enemies of the peach grower. For the yellows there is no known remedy but to remove the trees, root and

branch, and burn. The San Jose scale and leaf-curl may be effectually combatted at one and the same time by the early-spring application of the lime and sulphur wash, prepared from 15 lbs. lime, 15 lbs. sulphur and 50 gallons of water. (See Station Spray Calender for formulas.) Where the scale is not present, spraying for leaf-curl with Bordeaux mixture, just as the buds are swelling, is quite effective as a preventive measure. After the foliage has expanded is too late to spray for the leaf-curl. Peach scab or spot, however, is prevented by later sprayings with half-strength Bordeaux mixture—2 lbs. copper-sulphate, 2 lbs. lime to 50 gallons of water. In all sprayings of peach trees thoroughness in every particular is very desirable. Not only the twigs and branches and foliage must be touched in every point, but the main branches and trunk of each tree should be covered and coated in every part and crevice. Those who place greatest stress upon this deluging of the bodies and branches of their trees are the ones who possess orchards of the highest degree of soundness, health, vigor and fruitfulness.

THINNING.

Thinning of peaches may be done by pruning or by hand picking. Approximately the same results may be had by either method as shown by Figs. 14 and 15, the former of which was secured by pruning and the latter by hand picking, but more judgement needs to be exercised when the thinning is done by pruning than when the fruits are taken off by hand. It requires some practice to enable one to thin by pruning, and no rule can be given as to the number or percent of buds to remove. The difficulty is increased when a part of the buds are winter killed, as one can not be sure how many live buds are left.

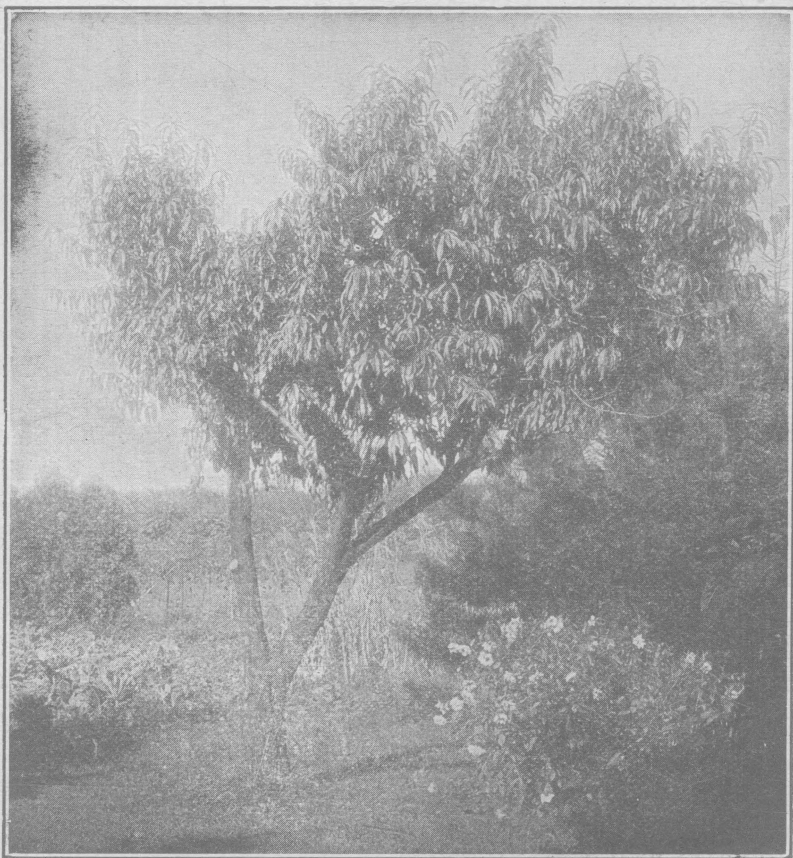


FIG. 13.

Photo by Ballou

Nevertheless it is best to prune peach trees with a view to reducing the number of fruits, thus increasing the size of individual specimens without necessarily diminishing the number of bushels.

The young twigs of the previous season's growth need to be cut back, or shortened, in order to keep the trees within bounds, as the tendency of peach trees, as already stated, is to grow too tall and slim. In order to thicken, or to make more stocky the branches of the trees, this cutting back process is needful. When the fruit buds are nearly all alive, the twigs of last season's growth may be cut back from one-third to one-half, a variation in treatment being necessary according to the bearing habits of the variety. Some very prolific and small-fruited sorts may be all the better if three-fourths of the fruit buds are removed while a few large-fruited and shy-bearing kinds may need little or no cutting

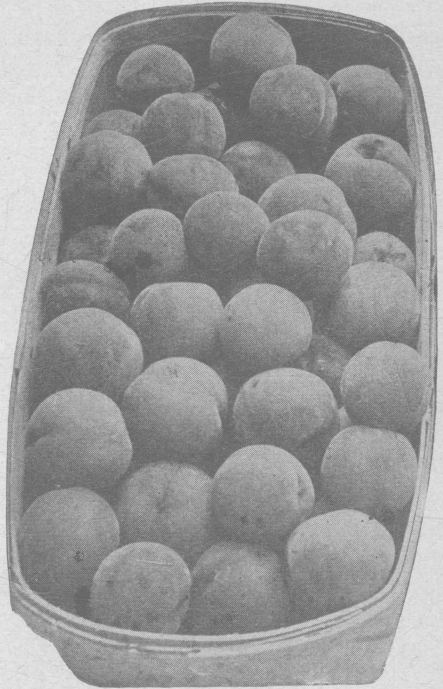


FIG. 14.

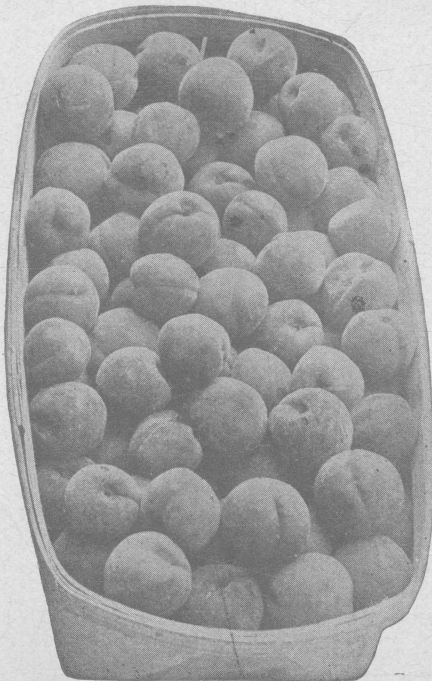


FIG. 15.

back for the purpose of thinning. Should it be discovered later in the season that there are still too many fruits remaining, more thinning may be done by hand. The time to do thinning by pruning is early in the spring when there is no longer danger of the buds being killed by hard freezing. The work may be delayed until the blossoms show color, although such late pruning is not advised. In case a tree has been allowed to grow too tall and needs to be cut back severely so as to renew the head, alternate branches may be cut back below the previous season's growth as far as desired.

By this method the number of fruit buds may be reduced to any extent necessary; and the following year the remaining branches may be treated in the same manner. In practice it is really better to modify and combine the two methods; that is, to keep the trees in proper form, it may be well to cut some branches back farther than the others, even removing all blossom buds from some branches and none at all from others. Thinning by hand picking is done in early summer when the peaches are about the size of cherries, and the operation is beneficial even though the fruit is half or two-thirds grown.

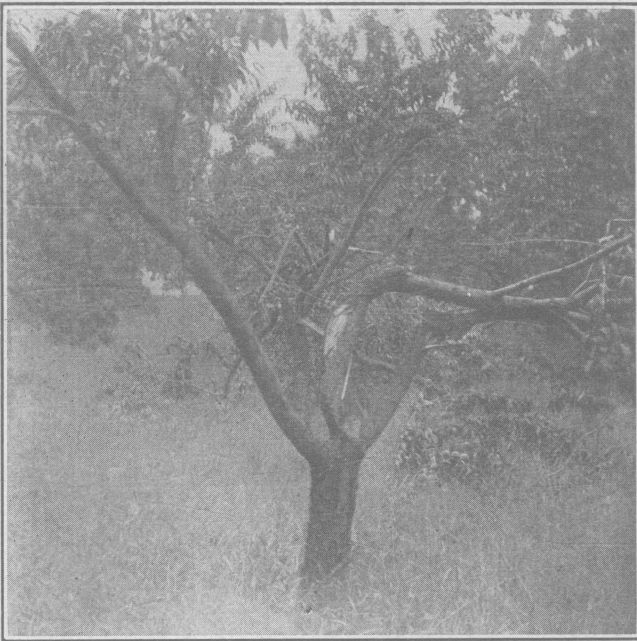


FIG. 16.

The benefit of thinning by pruning is illustrated in Fig. 16, which shows an unthinned tree with a heavy load of fruit at the extremities of long, weak branches, some of which have broken under the weight. The fact that an unpruned tree cannot carry as heavy a crop as one having its branches properly shortened, emphasizes the necessity of more thinning in case of the former than of the latter. It is not too much to say that peach trees ought always to have the crop thinned by pruning supplemented, if need be, by hand picking. A combination of the two methods is the **only** safe and satisfactory plan.

VARIETIES OF PEACHES.—1905.

Amelia Berta (Stark).—Very large, globular, a little oblong; suture depressed; apex pointed; color yellow, shaded red on sunny side. Flesh yellow, red at pit; rather coarse in texture; quality fairly good. Pit large, long, free. Ripens about September 10.

A very large, showy peach, comparatively hardy in bud, though apparently not so hardy as the Elberta. Promising.

Belle of Georgia (Stark).—Above medium to large, round or a or a little oblong, one side usually slightly enlarged; suture swollen at side and depressed at apex which is distinctly pointed; cavity abrupt, narrow, deep; color greenish white with blush of dull red on side exposed to sun. Flesh white, tinted red at pit; firm but fine in texture, melting and juicy; quality very good. Tree a good grower and hardy in both wood and buds. Seems to be a dependable cropper and well worthy of planting. Ripens September 1.

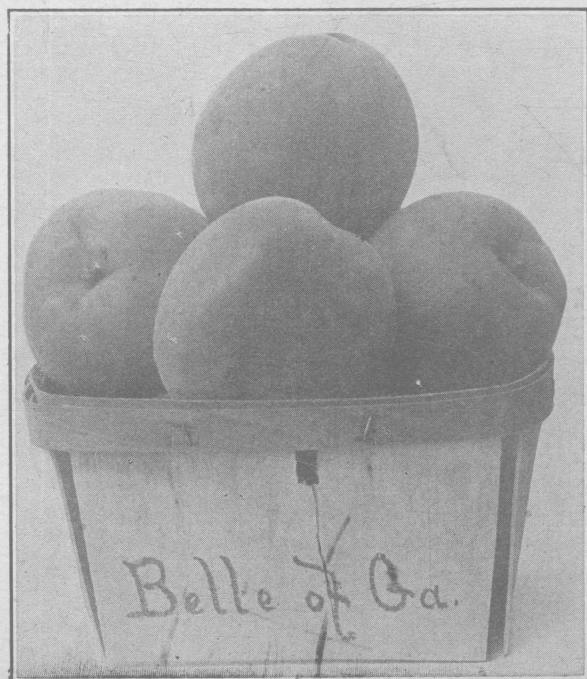
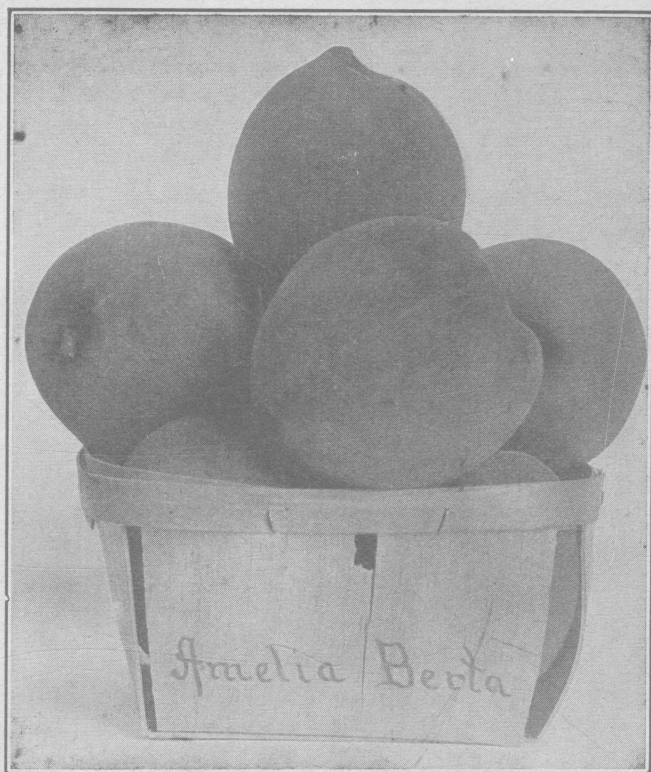
Bishop's Early (Wright).—Medium in size, globular; cavity quite deep; suture distinct, extending nearly to apex; color creamy white, shaded, blotched and indistinctly striped with deep red. Flesh white, juicy, tender; quality very good. Pit free. Ripens August 15. Hardy in tree and buds. Dependable.

Captain Ede (Storrs and Harrison).—Medium to large, oblong oval, one side enlarged; cavity medium; suture distinctly marked; color light yellow with faint blush of carmine on one side. Flesh yellow, tinted red at pit, firm and juicy; quality good. Pit free. Trees strong and healthy growers and yield well. September 1.

This is a very promising variety, comparing favorably with Carman and Champion in point of hardiness.

Carman (Hale).—Large, broadly oval; cavity large and deep; suture shallow but well marked; apex slight; color white, dotted, blotched and shaded with light and dark red. Flesh white, tinted with red; fine, rich, sprightly and good. Pit partially clings. Ripens August 15. Trees vigorous and hardy. An excellent medium early peach.

Champion (Bear).—Large, roundish, regular; cavity medium; suture shallow, extending beyond the small apex; color creamy white with a blush of red in the sun. Flesh white, red at pit; fine, tender, rich, melting, juicy; quality very good. Pit free. Ripens September 1. Trees hardy and prolific. One of the best varieties for home use.



Climax (Harrison).—Medium of size, roundish or somewhat oblong, one side slightly enlarged; cavity small, narrow; suture deeply depressed from stem to apex; color, light green ground, blotched, mottled and often almost wholly covered with dark red. Flesh greenish white, rather soft, juicy, melting; quality pleasing but not high. Pit medium, clings tenaciously. Ripens July 15. Rots badly, but not so seriously as Triumph.

Conkling (S. & H.).—Medium to large globular, occasionally oblong, compressed at base, a little irregular in outlines; cavity abrupt and deep; suture distinct but not greatly depressed; color light yellow, mostly covered with red, very dark in the sun. Flesh very light yellow, firm, juicy and melting; quality excellent. Pit free. Ripens August 24.

Trees have not borne sufficiently to warrant decision as to special merit.

Connecticut (Hale).—Rather above medium in size, globular, somewhat uneven and irregular in form; cavity deep, abrupt, irregular; suture distinct, depressed, and extends beyond apex; color yellow, shaded with red. Flesh light yellow, red at pit, fairly firm, juicy, and fine in texture; quality good. Pit free. Tree a good grower, buds seemingly quite hardy. Ripens August 24.

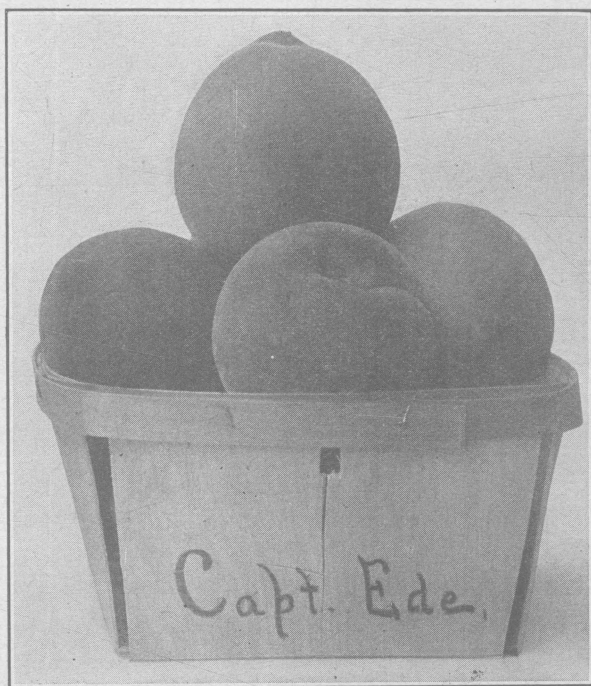
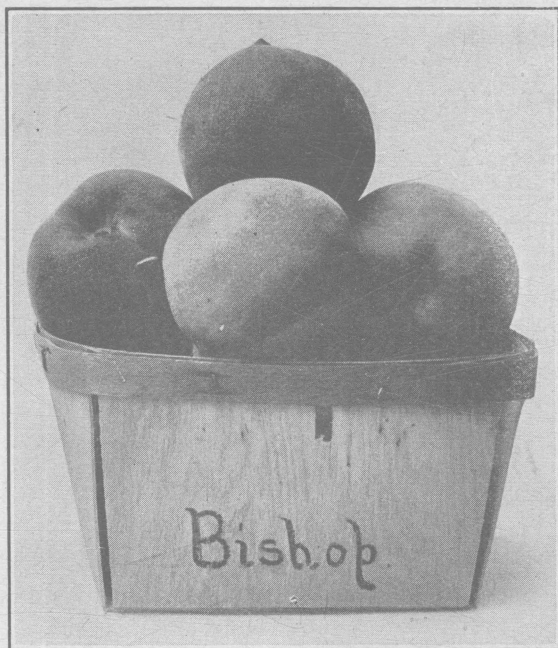
This variety somewhat resembles Snow's Orange as grown here, but hardly its equal in size. A promising peach.

Elberta (Bear).—Large, globular, somewhat oblong, compressed; suture distinct; cavity deep, narrow; apex pointed; color yellow with a red blush in sun. Flesh yellow, red at pit; a little coarse, but tender, juicy and fairly good when well grown and ripened. Pit free. Ripens September 1. Hardy, dependable and the greatest market peach of the present day.

Enon (Bear).—Medium in size, globular, compressed at ends, sometimes rather oblate; suture shallow but clearly marked; apex very small, sometimes absent; color greenish white, shaded and splashed with carmine. Flesh white, moderately firm, fine-grained and melting; quality good. Pit short, oval, free. August 10. Tree a good grower.

Frances (Harrison).—Large, globular or oblong oval, cavity shallow, suture distinct; color light yellow with faint blush on sunny side. Flesh light yellow, firm, a little coarse, somewhat acid but fairly good. Pit large, free. Ripens August 10. Trees vigorous and comparatively hardy in wood and buds.

A very handsome and promising peach, especially for market.



Gold Drop (S. & H.).—Medium in size, globular, one side usually slightly enlarged causing a suture, especially near apex which is medium, often slightly pointed; color clear, golden yellow, rarely blushed. Flesh a golden yellow clear to the pit; firm, moderately juicy, sweet and good. Pit free. Ripens September 20.

A beautiful, good, hardy and reliable peach, equally good for dessert use or canning. It is of the Lemon Free type and superior to that excellent and well known old sort in vigor and hardiness of trees.

Greensboro (Albaugh).—Medium to large in size—quite large for so early a variety; usually oblong in form, a little irregular in outline; cavity deep and narrow; suture slight; apex small and slightly depressed; ground color yellowish white, partially covered with dull red in shadings, blotches and broken stripes. Flesh light, almost white, deficient in firmness; quality rather low, somewhat acid, lacking in flavor. Pit clings. Trees healthy and vigorous in growth and hardy in buds. Fruit ripens July 30.

The Greensboro is a standard early peach, not subject to rot as are several other varieties of its season of ripening; and while not of best quality, its large size, attractive appearance and reliability in bearing combine to make it one of the best of its season.

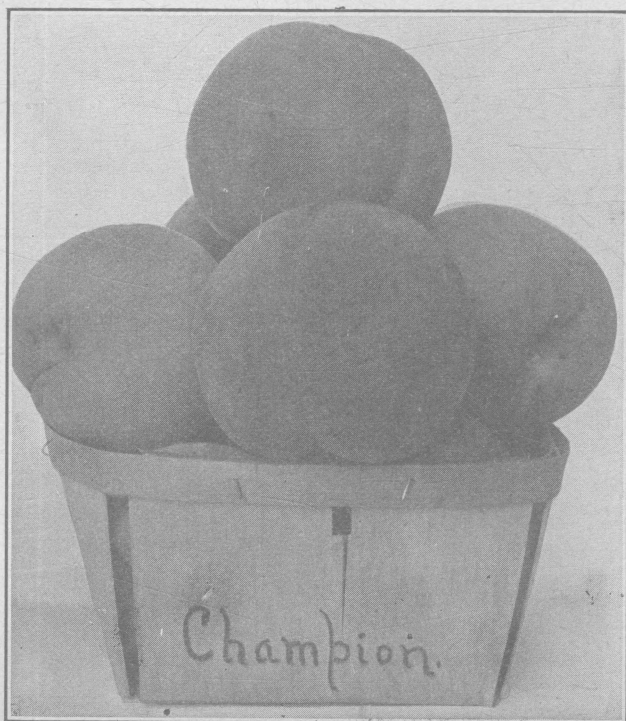
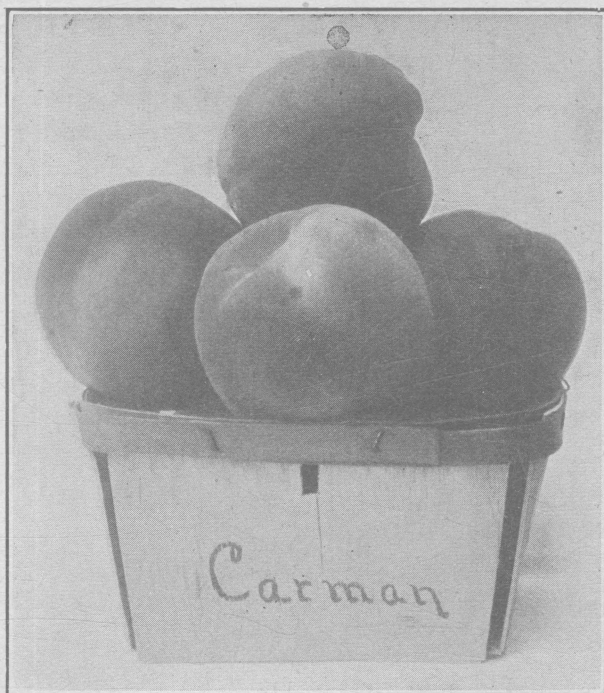
Hill Home Chief (Albaugh).—Medium in size, oval or slightly oblong; suture distinct; color greenish white, nearly overspread with red. Flesh white, red at pit, firm, fine-grained, juicy; quality good. Ripens September 10. Seems no to have any particular merit.

Hoffman's Pound (Earhart).—Large to very large; globular, compressed at base, one side enlarged; suture well marked by depression extending beyond apex which is pointed; color greenish white shaded and splashed with light and dark red. Flesh white, red at pit, firm but juicy; quality good. Tree vigorous. Ripens September 1.

A large, showy peach that seems quite hardy in tree and buds.

Hollister (Earhart).—Medium to small, globular, compressed at ends; cavity broad and shallow; suture but a line; color yellow, shaded and mottled with light and dark red. Flesh yellow, fairly firm, juicy, rather acid; quality good. Pit free. Ripens last of August.

A comparatively well known variety.



Krummel (Stark).—Large, globular, one side enlarged, compressed at base; suture made distinct by one side of fruit being much swollen; apex very prominent, pointed; color light lemon-yellow, very faintly blushed with carmine. Flesh yellow, red at pit, firm, fine in texture, juicy and melting; quality good, though a little acid, refreshing. Pit free. Ripened, in 1905, October, 7.

The latest peach grown at the Station. Bore but sparingly. Promising, if it prove sufficiently prolific.

Lady Ingold (Stark).—Medium to large, globular, but often irregular, the base and sides being compressed; suture distinctly marked at sides and depressed at apex; color deep yellow with red cheek, and almost entirely covered with pin-point dottings and shadings of red. Flesh yellow, red at pit, fine, melting, juicy and good. Pit free. Tree a good grower, but tender in wood and buds.

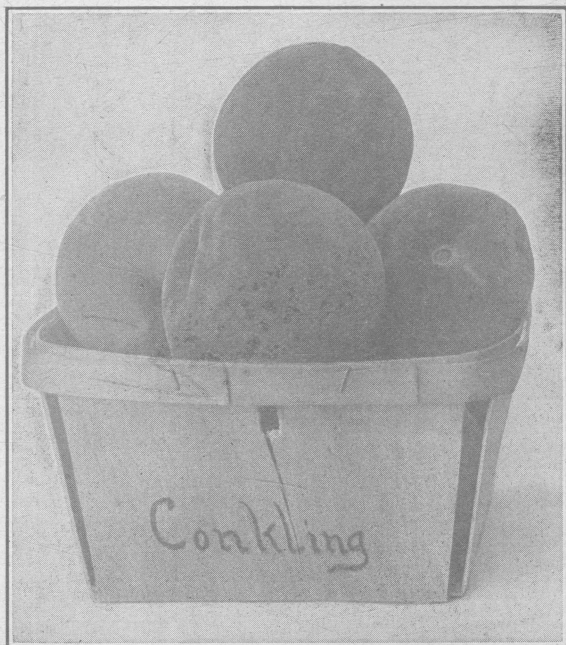
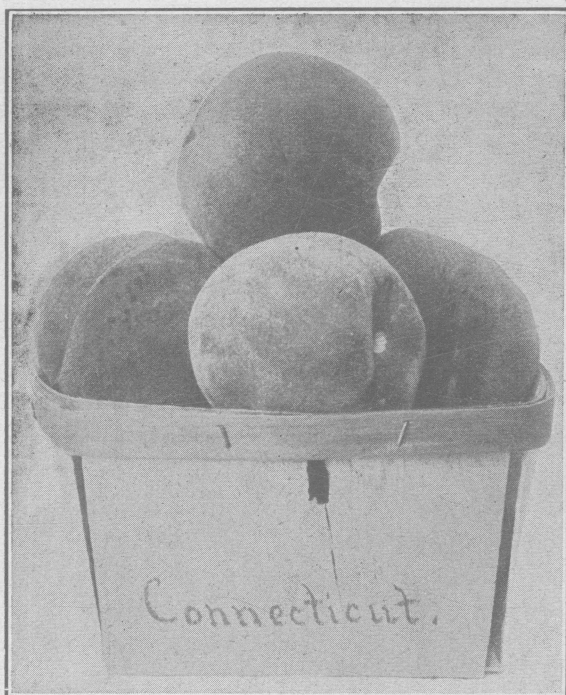
McIntosh (Harrison).—Medium in size, roundish, oblong occasionally, regular; suture slightly depressed from cavity to apex; color creamy white shaded with crimson. Flesh white, tinted red at pit, quite firm, fine and juicy; quality good, though somewhat acid. Pit almost free. Ripens August 20.

Miss Lolo (Munson).—Small to medium in size, globular, regular, uniform; color greenish white, shaded on side next to sun with dark crimson. Flesh white, tinted with red at pit; lacking firmness, but fine in texture, and juicy; quality good, pleasant, sweet. Pit free. Ripens August 10. Tree a moderate grower.

Seems to be of no special merit from a commercial standpoint, though it is all right for home use.

Pallas Honeydew (Stark).—Medium to small, roundish oblong, smooth, regular; suture very slight; apex sharply pointed; color white shaded with crimson. Flesh white, tinted red at seed, soft, juicy. Pit free. Ripens August 20. Too small for market; good only for home use.

Sea Eagle (Stark).—Medium in size, oblong, one side enlarged; suture distinct, depressed near apex which is prominent and pointed; color greenish white with dull blush. Flesh greenish white, soft and juicy; quality fairly good—a little flat. Pit clings. Tree good grower. Ripens September 15. Seems to have no special merit.



Snow's Orange (S. & H.).—Large, globular, irregular and uneven in outline; cavity abrupt, deep, narrow; suture distinct, extending from stem to apex and beyond; apex pointed; color yellow, shaded over the greater part of the surface with dark crimson. Flesh yellow, red at pit; firm, fine in texture and juicy; quality good. Pit free. Ripens August 25.

This variety appears to be well worthy of confidence in planting, as it has done well under favorable conditions at the station-orchard.

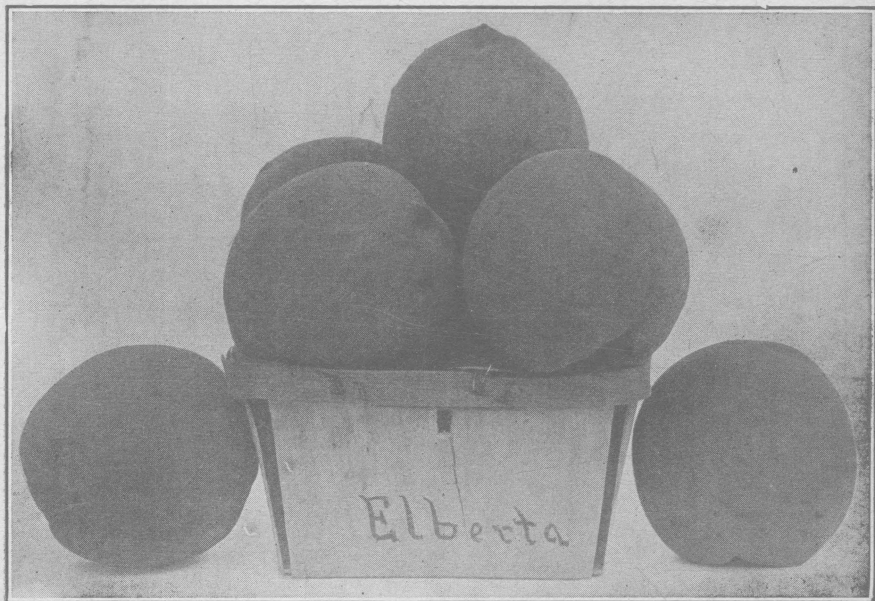
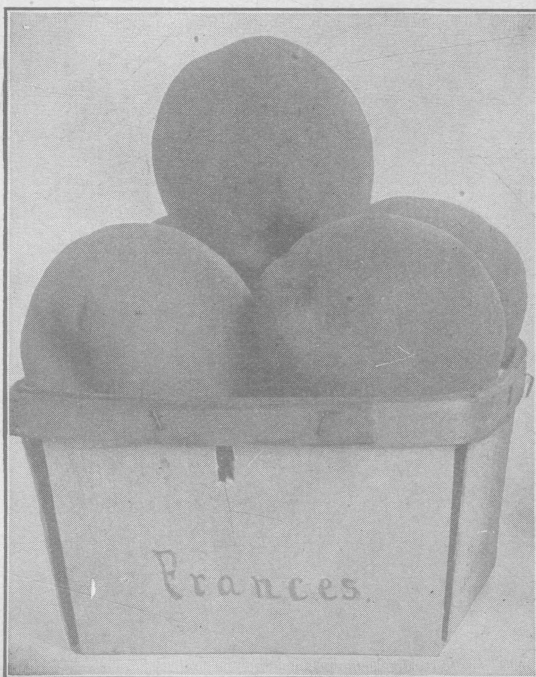
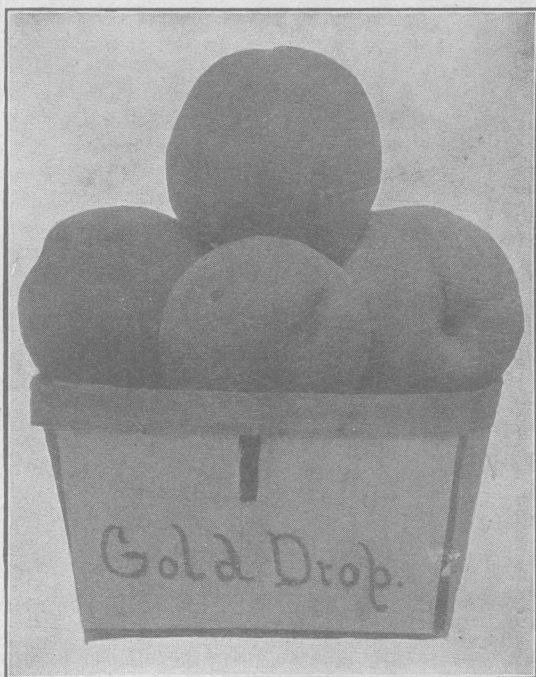


Photo by Ballou

St. Clair (Albaugh).—Medium to large, globular, somewhat irregular; one side usually enlarged; suture distinct, extending three-fourths of the way around the fruit, deepest near the apex; cavity broad, deep; apex pointed in some specimens, absent in others; color greenish white, shaded with dull red. Flesh light green or greenish white, red at pit; firm, fine in texture, moderately juicy; quality good, though somewhat acid. Pit large, free. Ripens September 15. Tree good grower.

Storm's Seedling (Bear).—Above medium, somewhat oblong, slightly compressed at base, swollen on suture side; suture a little depressed, extending beyond apex; color yellow, shaded with red. Flesh yellow, red at pit, moderately firm, juicy and of good quality. Pit free. Ripens September 1. Trees hardy and vigorous.



Texas King (Munson).—Medium in size, globular, compressed at ends; suture usually not distinctly marked except at apex; cavity broad, deep; apex small, sunken; color greenish white ground, smoothly covered with crimson. Flesh white, tinted red at pit, also near skin; firm, fine in texture, juicy, good. Semi-cling. Ripens August 15.

This variety has been compared with Carman which it is said to equal in size and color and to exceed in hardness of buds, as it grows in the South-west—its home. Here, in north-central Ohio, it has so far failed to compare favorably with Carman, falling short in hardness and prolificacy of tree and buds, also in size of fruit.

Triumph (S. & H.).—Medium in size, globular, flattened, irregular, one side enlarged; cavity broad, deep; suture distinct; color dull greenish yellow, almost covered with very dark red—almost black in the sun; surface very downy. Flesh yellow, red at pit, juicy, mild and good in quality. Pit almost free. Ripens August 1.

The Triumph rots so badly that it is undesirable in many sections. The fungus of the Brown Rot not only attacks the fruit, but extends from the fruit down into the twigs, killing them as by a blight.

Waddell (Hale).—Medium to large in size, oblong, one side usually slightly enlarged, but otherwise quite regular and uniform in both size and shape; cavity medium in size and depth; suture slight, but variable, depressed in some specimens, only a line in others; apex small, almost obscure; color creamy white ground, shaded with bright red in the sun. Flesh white, tinted with red at the pit; firm, juicy, rich, good. Pit free. Ripens August 10. Tree vigorous and hardy in both wood and buds.

An excellent, medium early variety for both home and market. Stands shipping well, even over long distances.

Yellow St. John (S. & H.).—Medium in size, globular, compressed at base, one side enlarged, rather irregular in outlines; suture swollen; color yellow, almost covered with varying shades of red—very dark in the sun. Flesh yellow, red at pit, firm, but juicy and melting; quality very good. Pit free. Ripens August 15.

One of the best of the early yellow varieties.

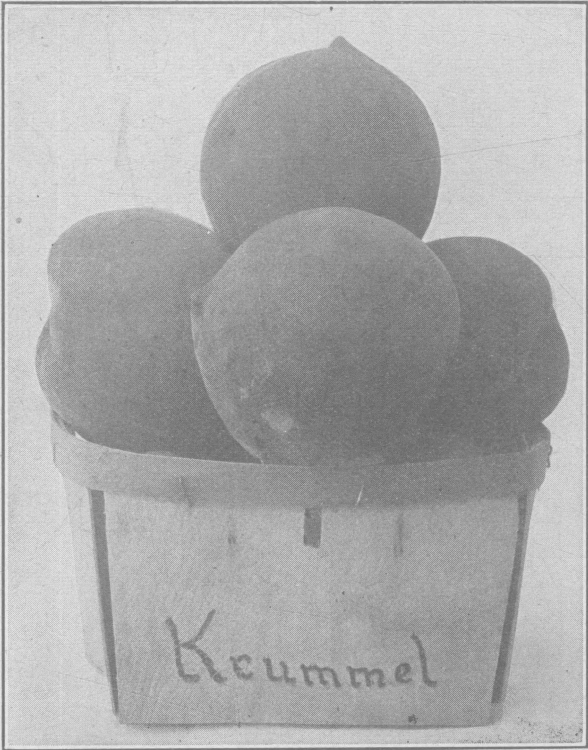
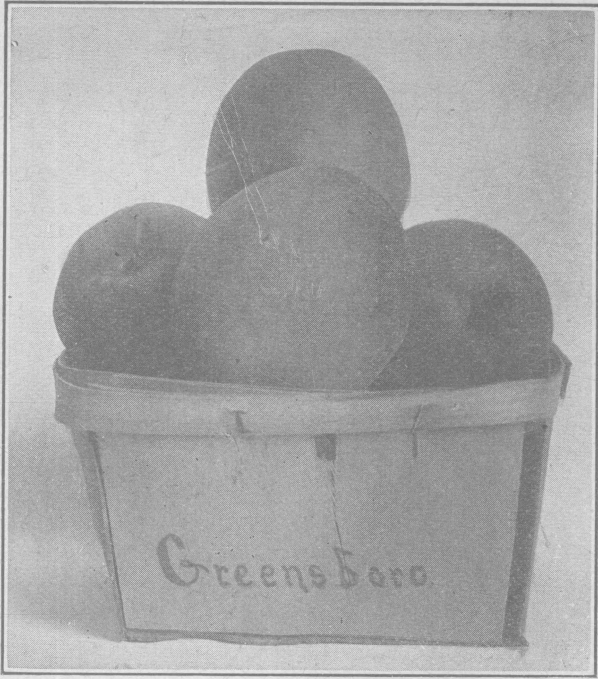


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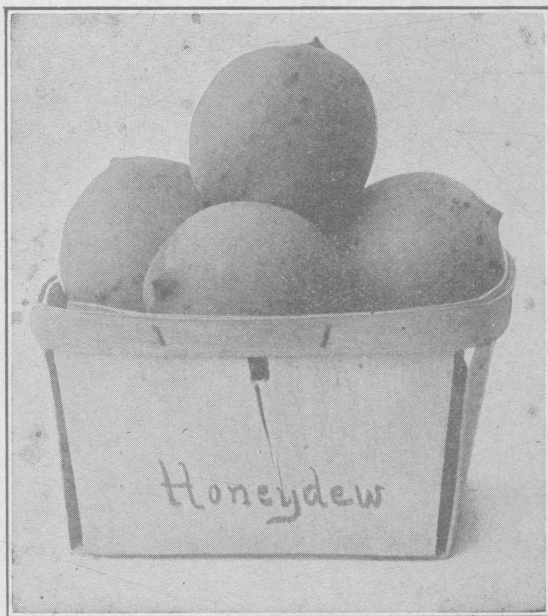
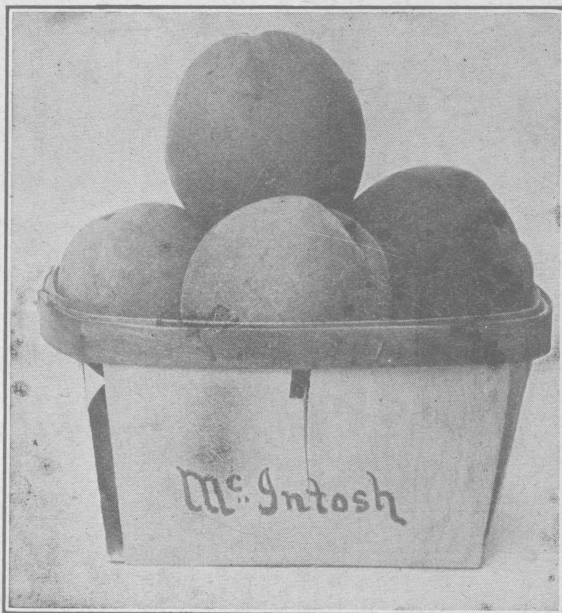
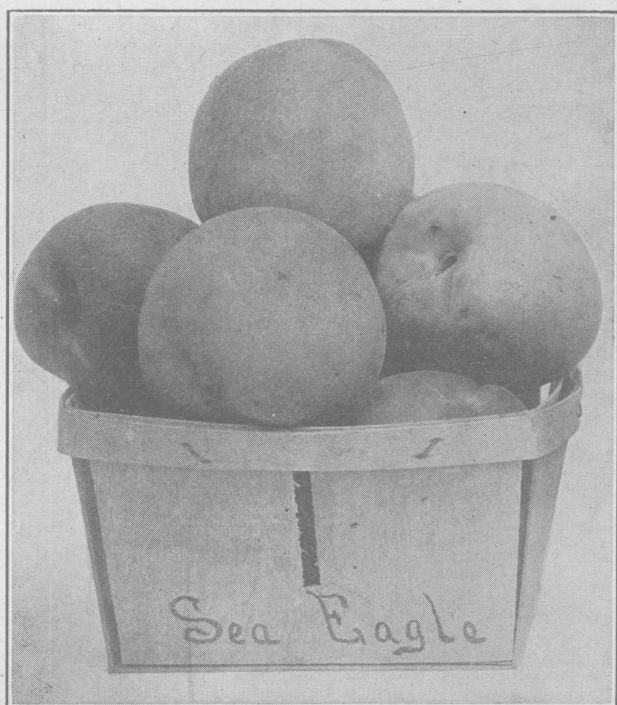
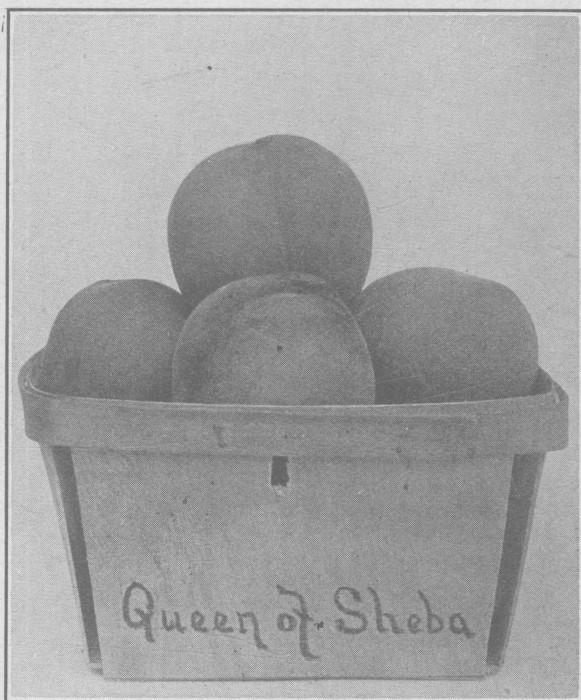


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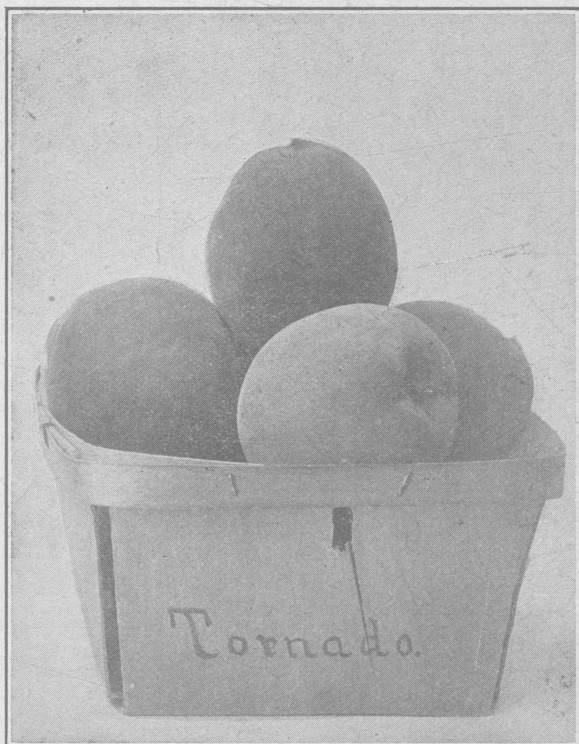
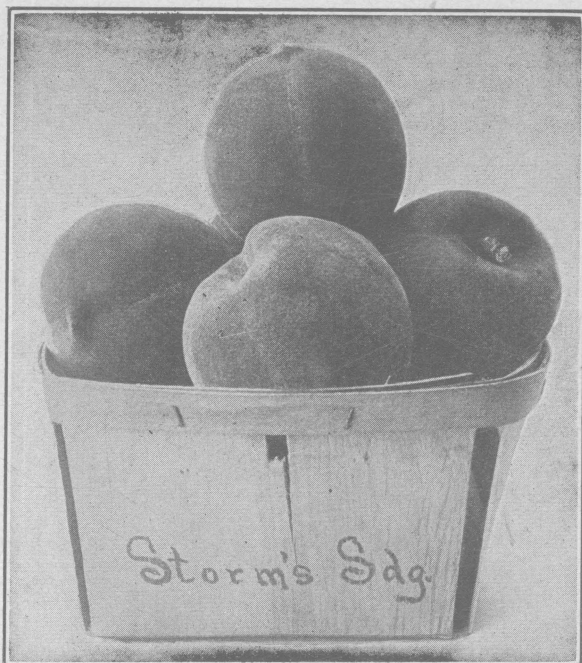


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