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STRAWBERRIES.

By

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STRAWBERRIES.

Bulletin No. 94, issued in June, 1898, gave our experience with strawberries up to that time.

Besides brief notes on varieties, general suggestions were given as to "Soils and Fertilizers," "Preparation of Soil and Planting," "Cultivation and Mulching," and on "Marketing." The reader is referred to that bulletin for a discussion of these topics. The chief purpose of the following pages is to record our experience with the different varieties that have been under cultivation at the Station during the past two years.

Before proceeding with this, however, a few further suggestions will be made as to the time and methods of planting strawberries best suited to different parts of the State.

In Bulletin 94, p. 144, late Summer and Fall planting was recommended for South Alabama, but the difficulty of securing a supply of well rooted plants as early as August or September and of getting freshly set plants to live during the hot weather prevailing at that season was mentioned; and the suggestion was made that moving the plants with a ball of earth by means of a transplanter would serve to obviate this difficulty. This plan was tried successfully at the Station during the summer of 1899. Fully 90% of the plants moved in this way during August lived and grew although showers were so light and infrequent that where the plants were shaken out and planted in the ordinary way nearly all died.

The following plan is suggested as being a cheap and practicable one for establishing a strawberry plantation in South Alabama. Plow and harrow the land thor-

oughly in February and lay off every fifth row of the proposed plantation. That is lay off rows fifteen to sixteen feet apart. Fertilize these rows heavily so as to insure a free growth of runners and set the plants in the ordinary way the last of February or first of March. Early in April lay off the other four rows, fertilize with potash and phosphate, only, and plant to the bunch or speckled pea. These will mature early and will not overrrun the strawberry row. Of course, cultivate the strawberry row frequently. Keep the runners cut off until rains begin in July. This will make the plants more stocky and vigorous and will considerably lessen the cost of cultivating. Besides, the runners that put out during dry weather seldom take root till it rains but grow and develop leaves at the expense of the parent plant. If runners are all kept off till about July 1, an abundant crop of them will be pushed out after the first rains and they will take root quickly during the showery weather that always prevails in mid-summer. By the middle of August they will be large enough to move to the best advantage. The peas should be watched closely and should be plowed under before they encroach on the strawberry row. They can probably occupy the land safely until some time in June and there will be time for them to become decomposed and for the soil to be somewhat compacted before setting the plants in August. Planting may begin as soon as the runners are well rooted. This will probably be early in August and it can be continued during showery weather until the middle rows are all filled out. The distance to move the plants being so small any of the cheap transplanters on the market can be used. Those with two curved blades on handles, hinged together so that when thrust into the ground on either side of a plant pressure on the

handles will compress the ball of earth between the blades thus allowing it to be lifted out with the plant, will be found to work more rapidly than those in which bucket-like galvanized cylinders are used for lifting and carrying the plants. In the absence of a transplanter very good and fairly rapid work can be done with an ordinary garden trowel, care being taken not to crumble the ball of earth taken with the roots.

Plants moved in this way are in condition to grow off properly and if the ground is sufficiently enriched they will make good bearing stools the following spring. In this style of planting, all runners should be kept off from the young plants till after the crop is gathered, and the plantation will consist of one matted row to four rows in hills.

It is believed that this plan presents several advantages for South Alabama where Fall planting is so usually practiced. It can be used almost equally well in the other parts of the State but whether it will be advisable to adopt it or not will depend somewhat on the objects for which the berries are planted. In Middle and North Alabama plants set in the Spring and allowed to form matted rows in the way so commonly practiced farther north seem to adopt to a considerable degree the northern habit of ripening nearly all of their crop during a period of three to four weeks. Summer and Fall set plants, on the contrary, develop successive fruit clusters through a much longer period, often scattering the crop through eight or ten weeks, as is the habit of the strawberry farther south. Now for home use or for a local market, this longer fruiting season is a distinct advantage and for these purposes this method of summer planting is recommended. Where berries are grown for northern shipment the heavier early pickings from the

spring set matted rows will be more profitable, since it is only the early berries that can be shipped at a profit. Where fields are kept over for a second crop, all will of course, be matted rows the second year.

It is not intended to imply that the fruiting habit or the length of the fruiting season can be entirely controlled by the Fall or Spring planting. Much will depend on the richness and character of the soil, on the habit of the variety, and on the seasonal distribution of rainfall. The tendency will be, however, as stated above for the spring set plants to yield the bulk of their crop early and to bear through a shorter season than those set in the summer or fall.

VARIETY NOTES.

Most varieties of strawberries are somewhat narrowly limited as to the conditions under which they will give the best results. A few, like the old Wilson, are able to adapt themselves to a wide range of soils and climates but most of them will only thrive under the conditions to which they are particularly adapted. A berry may thrive well on one farm and fail on another only a few miles away if the soil and cultural conditions are different. It must be understood then that the following notes apply only to the conditions prevailing at the Experiment Station farm. We are within the granitic area of eastern Alabama, but our soil is of the gray, sandy type. It is a thirsty soil, drying out quickly after rains, and crops of all kinds suffer from even short periods of drought. Comparatively few varieties succeed well on it, many dying badly from drought during the summer and others failing to grow and fruit normally in the spring. The red clay soils of this region which occur within a few miles of us are adapted to a much wider range of

varieties. The conditions in North Alabama are very different and many kinds do admirably there that are failures here. The results obtained here will in a general way serve as a guide for planters in South Alabama, although the conditions are by no means identical. While the soils in that part of the State are usually quite sandy, they have remarkable water-holding capacity, and do not suffer from drought as badly as ours. On the other hand, strawberries rust worse there than here and it becomes more important to select varieties that are resistant to this disease.

In selecting varieties, planters should, of course, remember that the pistillate kinds will not bear if planted alone. Unless otherwise started the kinds that are recommended below for general planting all have perfect flowers and so can be planted alone safely.

In the following notes the term hardy is used to indicate the ability of the plant to live through the summer under our rather trying conditions.

Arkansas Traveler.—Hardy, a vigorous grower and quite productive. The plant is of the Crescent type. Fruits mid. season, medium size, good color, but too soft and has the serious fault of scalding and softening quickly on the vines. It would not ship well. Possibly worth a farther trial for home use.

Aroma.—Not hardy. The few plants surviving have given a fair crop of handsome berries but the fine high flavor supposed to be characteristic of this kind is lacking. As grown here, it is flat and insipid, and has no value.

Barton.—Hardy, fairly productive, medium early, good color and sufficiently firm. In many respects this is a very good berry. Perhaps its greatest fault is its length. Like most very long berries, it is often knotty and defec-

tive, and the tip ripens unevenly, especially early in the season. It is perhaps worthy of farther trial but it cannot compete with such kinds as Lady Thompson and Michel.

Bismark.—One of the best of the very large kinds, but none of them are fully successful here. It is recommended for North Alabama, and for further trial here on moist well manured lands. The plant is hardier than Bubach, which is one of the best known of the very large kinds.

Brandywine.—This is another of the big ones and it has the reputation of doing well further south than any of the others. The plant is fairly hardy here, and it should be planted by all who want very large berries, but it should be given good soil and high manuring. It does not seem to be very productive here, but in quality it is one of the best.

Bubach.—This kind is probably more widely planted than any other of the very large berries but it is only partially successful here. It often dies badly during the summer and starts feebly in the spring, still with heavy manuring, some very fine berries may be obtained from it. The plant is not as well suited to our soil as either the Bismark or Brandywine. It is pistillate and must always be planted with other kinds.

Cloud.—This berry originated in Louisiana and is a favorite market berry in that region. It is only medium in size, but it is early, a good shipper and immensely productive. It does not seem to have attracted much attention in other parts of the country but it is particularly adapted to the coast region of Southern Alabama, and is strongly recommended for planting there. Here the plant is not quite hardy during the summer. It is

a pistillate and should be planted with Michel as a pollenizer.

Clyde.—The plant is fairly hardy, making large stools but very few runners. It sets an immense load of fruit but on our light soil it does not ripen it properly. It is recommended strongly for rich, moist soils in Northern Alabama, but it should not be planted here.

Cobden Queen.—This berry originated in Southern Illinois, where it is becoming a favorite market kind. It is a complete failure here. The plants grow feebly and die badly during the summer and the fruit is small and poor.

Earliest.—This is very promising. It resembles Michel quite closely, seeming to have most of the good qualities of that valuable kind while the plant is even more vigorous and withstands rust better. It is about the same in season, ripening the first or main crop very early but continuing to throw up flower clusters and produce fruit through a long season. In color and firmness the fruit is much like Michel, perhaps averaging a little large in size.

Everbearing.—This variety was sent for trial by Prof. J. S. Newman of Clemson College, S. C. The plant is hardy and fairly productive, of medium size, bright red berries, of only medium quality. In season it is medium early and has the habit of throwing up additional flower clusters after the first main crop is over. This "everbearing" habit is but little more marked than in Michel, Earliest or Lady Thompson. While it is a kind of some merit, it is not as satisfactory here as the three kinds just mentioned.

Gandy.—This kind was reported as worthless for this region in Bulletin 94. It has since done much better. The plant is not fully hardy but on rich land with good

culture it is a fairly satisfactory late kind. It is strongly recommended as a late berry for North Alabama.

Gardner.—This is one of the hardiest plants in the collection and will live under conditions of drought and sterility that are fatal to most other kinds. Unfortunately, the fruit is poor in color and flavor and scanty in quality. It cannot be recommended for market and is of doubtful value for home use.

Glen Mary.—This is a fine berry where it can be grown but the plant is not hardy here. We have never been able to get a respectable stand of it. It is possibly valuable for North Alabama, but is worthless on light soils in the Central and Southern parts of the State.

Haviland.—Fairly hardy but the plants are not vigorous and set more fruits than they can mature. It ripens very unevenly and like most very long berries is often knotty. It is of no value here.

Hoffman.—This well known kind has fully redeemed the partial failure reported in Bulletin 94. The plant is perfectly hardy, surpassing in this respect both Michel and Lady Thompson. It is not as productive as these kinds but is equally early and is a better shipper. The fruiting season is usually short, the bulk of the crop coming off very early. It is one of the best market berries for light sandy soils.

Howell.—Sufficiently hardy and makes many runners but plants lack vigor and rust very badly. The berries closely resemble Minor's Prolific, if indeed our plants are not of that variety. It has no value here.

Lady Thompson.—This valuable variety must still be accorded first place as a market berry for light soils in the Middle South. It does well in all parts of this State and should be much more widely planted both for home use and for market. While not of the largest

size the berries average well, holding their size throughout the season, and they are remarkably smooth and free from defects. The color is a little light to suit some markets, but it is bright and attractive and the fruits usually color up evenly. It is a good shipping berry, for while not feeling as firm to the touch as some of the others, it has good keeping qualities, both on and off from the vines. The plant is a good grower and makes runners freely, and is sufficiently hardy to withstand any but the most extremely unfavorable conditions. Where only one kind is to be planted no mistake will be made in selecting the Lady Thompson.

Meek's Early.—This is in many respects a remarkable berry. In Bulletin 94, it was stated that “shy bearing must be set down as its greatest fault.” This fault is so pronounced as to put it out of the question as a market berry. It is, however, of such rich, fine quality when fully ripe, and the vines are so vigorous and so remarkably hardy that it seems worthy a place in some odd corner of the home garden, where it can remain undisturbed from year to year as it seems to bear better under these half wild conditions than when given high cultivation. It is one of the few kinds hardy enough to hold its own with grass and weeds, and where once established will need no farther care except to pull or cut down the biggest weeds occasionally, and it will yield small annual crops for a number of years. It averages small in size and when first colored it is very sour but when fully ripe it becomes dark cherry red and develops a rich flavor that is unequalled.

Michel.—This well known kind continues to compete with Lady Thompson for first place as a general purpose home and market berry. Under favorable conditions

it will probably out yield Lady Thompson but the fruits do not average quite so large and they are rather more acid. The plants on some soils are more subject to injury from rust. It is one of our earliest kinds, usually ripening slightly in advance of Lady Thompson and Hoffman, and its first or main crop lasts longer. On rich soils, when well cultivated, and especially on young or Fall-set plants, it has the habit of throwing up new fruit stems late in the season so that it is sometimes in continuous fruiting from March till July. It is strongly recommended for all parts of the State where the rust is not too serious a factor.

Murray's Extra Early.—This ripens as early as Michel. It is hardy and prolific but too small, and so hard and firm as to be of very poor quality. Possibly, heavy manuring would improve the size and quality but under ordinary conditions it has very little value here.

Nick Ohmer.—This celebrated berry is a complete failure here. It has been impossible to get a stand of the plants.

Patrick.—The plants are sufficiently hardy making large stools with but few runners, but they do not seem quite at home under our conditions. It is an abundant bearer of medium sized berries, season rather late. It is possibly of some value for north Alabama but cannot be recommended for the light soils of the central and southern portions.

Pride of Cumberland.—The plants are fairly hardy and in many ways it is a very good mid-season berry but it has nothing to especially recommend it, and there is no reason why it should be planted.

Rio.—We have no new planting of this kind. The few old plants have lived fairly well but it is not adapted to our conditions. It is possibly worthy of trial in north Alabama.

Ridgeway.—This is only half hardy here but it is a handsome shapely berry and is worth a trial further north.

Seaford.—This requires heavier land. It is not hardy here but it is a handsome berry and is worth trying on strong soils.

Sharpless.—This well known kind is a failure here and should not be planted. None of the very large kinds of which this is the best known type are fully successful here but either Bismark, Brandywine or Bubach will give better results than Sharpless.

Star.—This is a berry of the Sharpless type but the plant seems much hardier. It is not very productive but the quality of the fruit is very fine and it is perhaps worth a trial by those who want only the best. It requires a good soil and high cultivation.

Tennessee Prolific.—The vines are hardy and prolific. It approaches the Sharpless type but is decidedly promising for the richer soils of the State. In season it is medium to late.

Tubbs.—This is the most promising late berry for this region that we have tested. It is very hardy and productive. The fruit is of good size, shapely and of a bright rich color. It is two to three weeks later than Michel and Lady Thompson, coming in just as these kinds have passed their best pickings. When it once begins the crop comes on very rapidly so that it has a rather short bearing season. It should be planted by commercial growers to supplement these early kinds and round out the shipping season. The plant has something of the habit of growth and appearance of the Crescent but it is much better adapted to our conditions than that kind.

West Lawn.—This is fairly hardy and is in some respects a very good berry but it has nothing to particularly recommend it.

Wm. Belt.—We have only a few old plants of this kind. It is a rank grower, fairly hardy, late, large and productive. It deserves a farther trial especially in north Alabama.

Wilson.—This, the oldest of the widely known cultivated kinds, is quite hardy here and contrary to statements frequently seen in print it seems to have retained its former vigor. It can not, however, compete with such kinds as Michel and Lady Thompson for the main crop ripens two weeks later and the berries are far smaller and less abundant. The true Wilson is now seldom seen in cultivation as the variety has long passed its usefulness. The name still lingers in the South but it is applied to many widely different kinds by poorly informed growers.

Six or seven French varieties imported by the U. S. Department of Agriculture were sent to this station for trial. None of them prove to be suited to our conditions and all but three are dead. Of these only one shows any vigor, the Large Fruited Leon XIII (No. 16989). These bore a few rather pretty but very soft berries of only medium quality. It has no possible value here. The other two kinds are barely alive and are not likely to survive the present summer.

In conclusion I wish to strongly emphasize the fact that strawberries are too little grown in this State. In my judgment at the present time no fruit would be more profitable to the large commercial grower. It is, however, the manager of the home garden that I especially wish to interest in strawberries. Judging from rather wide observation in various parts of the State, I am certainly far within bounds in saying that not one garden in twenty-five in Alabama has a strawberry bed. I should probably be nearer the mark in saying not one

in a hundred. When such kinds as Lady Thompson, Michel, Hoffman and Tubbs can be grown so easily and cheaply in every part of the State there is no excuse for such neglect of what should be considered a necessity rather than a luxury in every household.

