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NOTES ON SMALL FRUITS GROWN IN 1897.

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The Bulletins published by the Station will be sent free to any farmer applying for them.

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* Connected with Second Judicial Department Branch Station.
† Connected with Fertilizer Control.

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BULLETINS NOS. 127–128.

NOTES ON SMALL FRUITS GROWN IN 1897.

F. H. HALL.

STRAWBERRIES.

Soil and season. The condition of neither soil nor season was favorable to good yields of strawberries on the Station plats during 1897. The soil of the plats is a stiff clay loam, somewhat difficult to keep in good tilth in any season, as it hardly becomes dry enough for cultivation after a rain before it settles, becomes hard and compact and forms a crust upon the surface; and when rainfall is heavy, as it was in the spring of 1897, the weeds are favored and cultivation is hindered.

Pollination. The berries are grown in matted rows, each third row being planted to a staminate, or perfect-flowered, variety to provide for pollination of the flowers, care being taken to plant near together varieties which bloom at the same time. This plan of setting the perfect flowered and pistillate, or imperfect flowered, varieties, in separate rows, rather than distributing the staminate plants in the rows of pistillate varieties is preferred, as it facilitates separate picking

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* This is a brief review of Bulletin No. 127 of this Station on Strawberries in 1897 and Bulletin No. 128 on Variety Tests with Raspberries, Blackberries and Dewberries, by Wendell Paddock. Anyone specially interested in the detailed account of the investigations or in descriptions of the varieties will be furnished, on application, with a copy of the complete Bulletin.

and marketing of the varieties, a very important factor is securing ready market and good prices for the berries.

Mulching. The rows were mulched the preceding fall as soon the soil was lightly frozen, but the coarse stable manure used was frozen in lumps in some parts, and where these frozen pieces lay the plants were often killed. This and other unfavorable conditions made the yields in 1897 small.

Yields. The season began June 16 when Michel and Vera on the two-year-old beds and Earliest and Staples on the one-year-old beds gave pickings of ripe fruit; and lasted until July 13 when Glen Mary, Giant and Gandy, all on one-year-old beds, were still yielding. The yields on the one-year-old beds varied from 544.5 ounces upon 66 square feet of solid matted row for Glen Mary to 80 ounces for Michel, averaging 187.4 ounces; and upon the two-year-old beds, from 286 ounces for Robinson to 34.5 ounces for Allen, averaging 124.3 ounces.

Young and old beds. From the figures just given it will be seen that the one-year-old beds gave much better yields than those two years old. This was true not only of the average yields but also, almost without exception, of the same varieties grown upon the two beds. Much of this difference is doubtless due to winter injury to the plants on the older beds.

Early varieties. Among the varieties yielding at least one-fifth of their crop before June 25, the beginning of mid-season at the Station, Beder Wood led those grown on one-year-old beds with a yield of 88 ounces before that date and a total yield of 401 ounces; and was followed in combined earliness and total yield by Vera, Marshall and Eleanor. Michel gave 46 ounces of early fruit but its total yield for the season was only 80 ounces, so that it appears to be of value only when exceptionally early berries are desirable. On the two-year-old beds, all of the early varieties were light yielders, the average total amount of fruit being only 81.8 ounces. The best varieties were Earliest, Staples, Margaret and *Thompson No. 100.*

Late varieties. Taking July 5 as the end of mid-season, Glen Mary, Beauty, Giant, Robinson, and Clarence were the best of the late varieties on one-year-old beds, giving an average yield of 271.6 ounces for the season and 100 ounces of late berries.

The two-year-old beds did better as yielders of late than of early fruit but were not equal even in amount of late berries to the younger beds. Robinson, Omega, Bissel, and *Slaymaker No. 9* lead the late varieties on these older beds and were among the first ten varieties in total yield.

The Hunn strawberry. The variety originated at the Station and by it named Hunn was tested by Mr. W. D. Barns, of Middle Hope, N. Y., and in 1897 he writes concerning the variety: "It is a matter of congratulation that under peculiarly unfavorable circumstances it has shown itself the most valuable strawberry we have." The Station has no plants of this or any other variety to distribute; but Mr. Barns and those to whom plants of the Hunn were sent in the fall of 1895 and spring of 1897 should have plants for distribution in the spring of 1898.

Noteworthy varieties. Beder Wood was the most productive early berry and very satisfactory as a general purpose berry, taking second rank as to productiveness and having fruit of medium size and good quality. Glen Mary was first in productiveness and gave largest late yield, is healthy, vigorous and large-fruited. Marshall is worthy of trial for fancy fruit where the best of culture can be given.

Of varieties on two-year-old beds Earliest gave largest early yield; Robinson was most productive and gave largest late yield.

William Belt was severely injured by the winter so that it did not fulfill the expectations caused by its good yield in 1896.

RASPBERRIES, BLACKBERRIES AND DEWBERRIES.

General conditions. The soil of the Station plats, while somewhat heavy, is better adapted for culture of blackberries and raspberries than for strawberries; and plowing the ground between the rows to a depth of three inches early in the season of 1897 effectually loosened the

soil and gave an impetus to growth the effect of which was noticed throughout the season. Little winter injury was shown although the dewberries only were at all protected, and that merely by throwing a few shovelfuls of earth on the prostrate vines. Nearly all varieties set a full crop of fruit and rains late in the season brought the berries to maturity, so that excellent yields were obtained.

Black raspberry yields. The black raspberries varied in yield from 466 ounces for a 25-foot row with *Poscharsky No. 15* to 186 ounces with *Poscharsky No. 9*, averaging 341.5 ounces. *Poscharsky No. 15*, *Poscharsky No. 3*, Palmer and Hopkins gave an average of 117 ounces of fruit before July 17, while *Babcock No. 5*, Mills, *Babcock No. 3*, Pioneer and Palmer gave averages of 117 ounces of fruit after July 23 and 369 ounces of total yield.

Good varieties. *Poscharsky No. 15* is remarkable in giving the largest total yield as well as largest early yield; Palmer has a very long season, being classed with both early and late varieties; and *Babcock No. 5* and Mills can safely be recommended for trial as late berries.

Red raspberries. The best red raspberries gave somewhat better yields than did the best blacks, the averages for the first five varieties of each class being 482 and 471 ounces respectively; but the averages for all the varieties tested were 341.5 ounces for the blacks and 301.5 for the reds. Of the red raspberries the best yielder was Loudon, 503 ounces, followed by Cuthbert, King, Kenyon and I. X. L.; while the early varieties were Pomona, Cline, Superlative, Pride and Harris; and late varieties, Kenyon, Talbot, Olathe, Miller Woodland and Brandywine.

Purple raspberries. The purple raspberries tested were only seven in number. The yields average slightly above those of the black varieties, ranging from 481 to 123 ounces. Smith Purple was most productive. This berry has all the characteristics of the black raspberries except that its color is purple. Shaffer and Columbian were most satisfactory in yield and quality, but Shaffer suffered con-

siderable winter injury. Teletaugh is a new variety and has not as yet been sufficiently tested as to its merits. It has a tart, large, dark purple berry with an abundance of bloom which gives a moldy appearance.

Black-berries. The blackberries gave heavier yields than any other species of Rubus, and also lighter yields, the amounts ranging from 755 ounces to 71 ounces for a 25-foot row, the average being 376 ounces. The season lasted from July 15, first picking of Early Harvest, to September 7, at which date several varieties still bore fruit.

Dorchester, Success, New Rochelle (*Lawton*), Stone Hardy, Early Mammoth and Agawam were most productive and include the best of both early and late varieties. Dorchester and New Rochelle have not always been hardy at the Station, but none of the blackberries suffered injury during the winter of 1896-7.

Dew-berries. Lucretia is the only satisfactory dewberry, and that yielded only 198 ounces for a 20-foot row, the yields of Bartel, Austin Improved and Mammoth running down to 38 ounces.