

waxy. The leaves of the Perennial Sow Thistle are deeply cut, but not lobed and slightly prickly.

4. The "flowers" of the Perennial are bright orange in color and about 1½ inches across, while the flowers of the Annuals are pale yellow and less than ½ inch in diameter.

5. The "flower-cups" (involucres) and "flower-stems" (peduncles) of the Perennial Sow Thistle are conspicuously covered with yellow glandular bristles while those of the annual species are nearly smooth.

6. The seeds of the three species also differ as to shape and markings.

Handling the Strawberry Plantation*

S. H. Rittenhouse, Jordan Harbor, Ont.

I start to prepare my land for a strawberry crop, one year before the time for setting the plants, by manuring the field and planting a hoe crop, such as potatoes, roots, tomatoes or corn. The cultivation of this hoe crop during the previous year puts the land in excellent condition, destroys the weeds and otherwise makes the soil suitable for giving good results when the strawberries are planted. After the removal of the hoe crop in the fall, I plow and put on a heavy coat of manure. In the spring, I start cultivating early, working the manure into the surface and getting the land into the best possible shape for the setting out of the plants. On my soil, which is a deep, sandy loam, plowing is not necessary and, in fact, I never plow manure away.

When the field is thoroughly prepared, I mark both ways, making the rows three feet six inches apart and the plants in the rows from eighteen to

In procuring plants, I take up the whole row, taking only the best and strongest plants. This plan is along the line of plant breeding, a subject which should receive greater attention by practical fruit growers. Plants should always be taken from a new row, a row grown the previous year and one that has never fruited. Some growers will sometimes take plants from the side of a row that has given a crop. This should never be done.

The time for setting plants depends upon the season. I do not favor too early setting, preferring to wait until the danger of heavy frost is over; in our district, from May 1st to 15th and have had good results from plantations set as late as May 24th. Cool, cloudy days are preferred but we do not wait when the soil is in proper condition, only taking great care not to expose plants and roots to wind and sun.

HOW TO PLANT

After the plants are prepared by digging and selecting the best and trimming off dead leaves and runners and carefully straightening out the roots and placing them compactly in an ordinary eleven-quart basket, I use a man and boy for setting. The man runs a spade into the soil producing a cut of six inches at an angle of forty-five degrees. Instead of drawing the spade out of the soil, he simply presses it away from him to raise the soil up, and then the boy places the plant behind the spade. The spade is withdrawn and the pressure of the foot completes the operation.

Great care is taken to get all the roots covered and at the same time prevent the soil from covering the crown. I try to get the crown of the plant

every week or ten days until fall. We cultivate crossways just as long as we can do so without injury to the new runners.

While hoeing the first time, we invariably use the fingers around the plant, adjusting the soil so as to prevent any soil lying on the crown or leaves, and always keep the blossoms nipped off whenever they appear. It is strict attention to small details that makes the difference between a profitable crop and an unprofitable one.

Towards fall, when the runners have begun to spread, instead of dragging them with the cultivator to prevent the rows from getting too wide, I cut them off with a roller plow coulters. It is quite a simple thing to attach a rolling coulters to each side of the cultivator with clips and it does the work nicely and prevents the too thick setting of plants along the side of the rows, which is not desirable.

I have had some trouble with cut worms but have not done anything to protect against them, except good cultivation of the ground the year previous when under the hoe crop. I do not mulch nor use any protection whatever for the winter and have had little trouble with my plants winter-killing.

The following spring we do not cultivate before picking the crop, simply cutting the weeds between the rows with a hoe and pulling out of the rows by hand whenever they appear. Great care should be taken not to have many weeds to remove at time of blooming as much damage may be done to the crop at this time by disturbing foliage and blossoms.

CROPPING

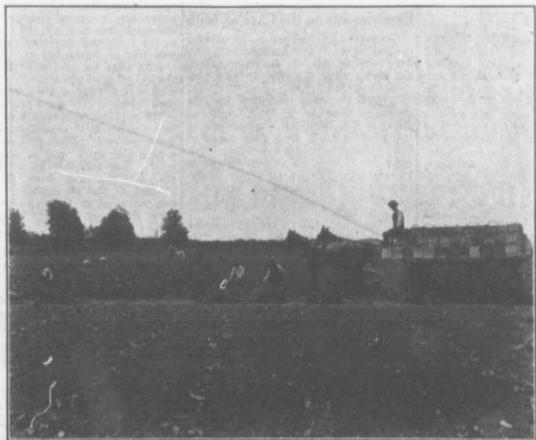
We invariably crop the plantation two years, simply preparing for the second year by narrowing up old rows after the first crop is picked and by continuing the cultivation and keeping the rows free from weeds by hand the remainder of the season. Spraying with Bordeaux mixture is very important, especially when the plantation is kept over for a second crop.

I have said nothing about varieties as it is impossible to lay down hard and fast rules. It is absolutely necessary that each grower study his own case, what is best suited for his particular district and market. The Williams is the great commercial strawberry at Jordan. But it would not be so well adapted for a grower who was catering to a fancy local market.

THE DISCUSSION

An interesting discussion followed Mr. Rittenhouse's paper. Mr. A. E. Sherrington of Walkerton said that he prefers a good clover sod for strawberries. He pointed out that the selection of plants for setting is very important. "Do not allow the rows to get too wide," said Mr. Sherrington. "I take only one crop from the plantation and then plow it down. It is cheaper to plant than to cultivate an old bed. The fruit should be picked when ripe, neither before nor after. Do not pick when the dew is on nor immediately after a rain; pick when dry. Grading the fruit can be done but it is not necessary when the fruit is well grown. Use clean packages. Local conditions have much to do with the success of a strawberry culture."

"The preparation of the soil must be thorough," said Mr. W. F. W. Fisher, of Burlington, "and it must be well enriched. Select only the best plants for planting and when marketing, cater to the prevailing demand." Mr. L. A. Hamilton, of Clarkson, pointed out that strawberries can be grown profitably between trees in young orchards. "Do not make the rows too long. The pickers will work more carefully on short rows. Start them at the end of the patch farthest from the packing shed. I take two crops from my plantation. After picking the first crop, I burn over the vines and cultivate between the rows. In dry seasons, care must be taken when burning or the crowns may be injured. I sprayed my plants this year with Bordeaux mixture and got a superior crop."



A Familiar Scene During Strawberry Time in the Niagara District of Ontario

The illustration shows a part of the fruit farm of Mr. S. H. Rittenhouse, of Jordan Harbor. In the foreground are new plants, and in the background the fruiting plantation, with pickers at work

thirty, inches apart, according to the variety. Some varieties make an excellent stand and form a splendid row when set thirty inches or even three feet apart.

PLANT SELECTION

I consider that one of the greatest elements that contribute to my success is my choice of the plants at the time of setting. The usual custom among strawberry growers is to take plants from the sides of the rows; this of course, gives them the small and weaker plants.

about on a level with the surface of the field.

Of late years, I have preferred not to set the strawberry plant into the little track or furrow made by the marker as it places the crown of the plant too low down and makes it difficult to keep the crown from being covered while hoeing and cultivating. Therefore, I plant in one corner of the angle formed by the marker and am careful to plant in the same corner of the angle all across the field. When I am through setting, the plants are in perfect rows both ways just the same as if planted in the mark made by the marker.

As soon as the plants are set, we commence cultivating and hoeing, repeating this process

*One of the papers read at the convention of the Ontario Fruit Growers' Association, held in Toronto last month.