

Practical Pointers on Small Fruit Culture

AMONG the many points of interest to strawberry growers mentioned in Bull. No. 276, N.Y. Exp. Sta., Geneva, is the variation in the tendency to produce runners, or to make new plants, to be observed in the characteristics of varieties. This is a point that deserves more attention than it usually receives. Most varieties produce a moderate number of new plants; some make very few, while others are such prolific plant makers that, unless planted far apart, the plants are badly crowded. When selecting and planting varieties, these differences should be borne in mind. Among the varieties at Geneva that produce very many plants are Mark Hanna, Ridgeway and Senator Dunlop; very few plants, Challenge, Joe Mead, etc. Among the vigorous plant producers at Guelph, are Sadie (no use otherwise), Ruby, Standard, etc.; medium to light, Warfield, Wm. Belt, Clyde, Glen Mary, Van Deman; Irene and Jocunda.

CULTURAL NOTES ON BUSH FRUITS

During the past summer a bulletin, No. 278, on raspberries and blackberries, was issued by the N.Y. Agr. Exp. Sta., Geneva. Besides mentioning the best varieties and classifying them according to their characteristics, such as hardiness, earliness and so on, the bulletin contains many interesting cultural directions which, in part, are as follows:

Raspberries and blackberries are nearly as cosmopolitan as strawberries in regard to adaptation to soils. Deep, moderately sandy loams, or clay loams containing an abundance of humus, usually give best results with raspberries, while blackberries are often at their best on a slightly heavier soil. It is important that the soil be not too wet as this condition often increases the amount of winter injury.

There is no one brand of fertilizers best suited to raspberries and blackberries under all conditions. The kind of plant food to use depends on the amount and kinds already in the soil, and on the physical condition of the soil. Some soils lack nitrogen, others potash or phosphoric acid, and many are deficient in humus which not only supplies plant food, but also aids greatly in the retention of moisture. Stable manure and cover crops are available for supplying humus. Care must be used in making applications of nitrogenous fertilizers or the resulting growth will not mature, a condition which may cause severe winter injury. If the soil is already rich in humus, it would appear desirable in some cases to avoid the use of stable manure, using commercial fertilizers in its place. Wood ashes, muriate of potash, acid phosphate, etc., are valuable where needed. The best way to determine the kind and amount to use is by trial, leaving check rows for comparison.

Raspberries and blackberries, unlike strawberries, occupy the soil for a number of years, and for this reason the preparation should be very thorough. If too wet the land should be underdrained. If for 1 or 2 years preceding, hoed crops have been used, there will be fewer weeds to fight. The land should be well plowed and thoroughly fitted to receive the plants.

Plant mainly only those kinds that appear to succeed in the immediate locality, testing newer ones in a small way. The varieties best suited for one set of conditions may be failures elsewhere.

Red raspberries are usually propagated by transplanting the numerous suckers which come up freely around the original hills. Black raspberries are increased by rooting the tips of the nearly mature canes in late Aug. or early Sept. The ends of the canes are covered lightly with earth, and by late fall a large mass of fibrous roots will be formed with a well-developed crown. Varieties of purple raspberries are hybrids, produced by crossing red and black raspberries and some of them may be propagated either by using suckers or by rooting the tips of the canes.

Blackberries do not sucker as freely as the red raspberries. These suckers have but few fibrous roots and as a rule do not make such good plants as those started from cuttings of the blackberry roots. The roots may be dug in the fall, cut into two or three inch lengths, stratified over winter and sown in nursery rows in the spring, and most excellent plants are usually obtained after one season's growth. Only strong, healthy plants should be selected, and it is often an advantage to choose these from a younger plantation rather than from an old bed, the plants of which may have deteriorated in vigor and may be infested with various insects and diseases.

Blackberries and red raspberries may be set either in the fall or in the early spring. If set in late Oct. or early Nov., the rows should be plowed up to, making a back furrow along each row of plants. This will be a great protection against winter injury. The earth should be taken away from the hills as soon as the ground is in working order in early spring. Such plants, as a rule, start into growth earlier than those set in the spring. These plants should be set as deep, or slightly deeper, than they were in the original beds. Black raspberry plants and the purple kinds rooted from the cane tips should be set in the spring instead of the fall, not covering the crown too deeply, and spreading the roots in a circle about the centre of the crown. It is an advantage to set the plants in the bottom of a shallow furrow, filling in as the plants develop. Under these conditions they withstand drought better and the canes are not so easily blown over by the wind.

The distance apart of rows and of plants depends on the system of cultivation, the varieties, the natural richness of the ground and the location. In general the plants should not be crowded. Red raspberries may be set closer than black raspberries, and blackberries should be set the farthest apart. These distances may vary from 3 x 6 ft. to 4 x 8 ft., depending on conditions.

The ground should be kept well cultivated and the plants hoed as occasion requires. In young plantations, if the plants have been set properly, cultivation may be given both ways thus reducing the expense of keeping down the weeds. The cultivation should be shallow as the roots lie near the surface. On heavy clay soils it may sometimes be desirable in some seasons to plow early in spring, following with the cultivator till fruiting time. During the picking of the fruit there is little opportunity to cultivate, but the ground should be thoroughly stirred as soon as the harvest is over. If desirable a cover crop may be sown in late Aug. or early Sept.

During the first 2 years it is not always necessary to give the land solely to the berry plants. Potatoes, cabbages, strawberries, etc., are often grown with advantage between the rows, so that a considerable income from this source may be obtained before the berry plants fully occupy the ground.

Summer pruning is not generally practised with red raspberries, but may often be done with advantage to black raspberries and blackberries. It consists in pinching or cutting off the tender ends or tips of the new shoots at a height that may vary from 18 inches to 24 or even 30, the blackberries usually being pinched somewhat lower than the black raspberries. The result of this pruning is the formation of rather low stocky plants with numerous lateral branches which will not require a trellis. As the young plants do not all develop at the same time it is necessary to go over the plantation several times in order to pinch the growth at the proper height.

The canes growing one summer, bear fruit the next season and then die, while new canes develop each year for the succeeding year's crop. Frequently the canes which have fruited are allowed to remain until the following spring

before removal, but better results are usually secured by cutting them out and burning as soon as the berry crop is harvested. By this method the insects and fungous diseases frequently infesting those canes may be destroyed, and the young canes have more room to develop. Each spring the plants should be gone over, cutting off the weak ends of the canes and thinning out some of the smaller ones where the growth is too dense. From 3 to 5 canes a hill are usually preferable to a larger number.

The winter protection of the plants is largely confined to the colder climates. Blackberries are usually much more tender than raspberries. Winter protection consists in laying down the canes and covering them with a thin mulch of straw and earth.

General Fruit Notes

W. B. Rittenhouse, Beamsville, Ont.

Last season many peach orchards, from over-bearing and not thinning, and owing to the dry season, produced an abundance of small, inferior fruit that netted the growers little or no returns. Orchards, properly pruned, sprayed, fertilized, cultivated, and where thinning the fruit was practised, well rewarded the owner for the care and expense spent upon them. Prices for peaches ruled about 20c. a bskt. more than last year. High-grade peaches, properly and honestly packed, always can be sold. Trash is not wanted in any market.

When on a trip to the west, my attention frequently was drawn to the fact that Ont. is injuring her reputation and soon will lose her hold upon the fruit market unless she adopts other tactics. We must grow only those varieties that are adapted to long distance shipping. The Ontario grower must be honest and correct in the way he puts the fruit in the package.

APPLES

For some years, the apples in my orchard were of inferior quality, being infested with worms and scab. The bulk of the crop was No. 2. The orchard had been fairly well cared for. An attempt was made at spraying, but a poor one. Only one application a year was made and with a pump that was not of much use. Last season we used a pump with which we sprayed the orchard 3 times. At harvest time, a cleaner and better lot of apples was hard to find.

A few years ago I visited the largest and oldest-bearing apple orchard in B.C., the Coldstream Ranch. I was much interested in the fine, clean, firm apples that grew and the care with which they were put up in boxes. They were sold f.o.b., at prices that would astonish Ont. growers, to dealers in Calgary, Winnipeg and other western points. That fruit entered the same market as the inferior stuff from Ont. Not only the dealers, but the consumers, had just cause to say unpleasant things of Ont. fruit. Last season, at least, 1 grower in B.C. contracted his entire crop at \$1.50 a box, f.o.b. shipping point.

Ont. apples are superior in flavor. If they are put up properly in boxes, they should command as good, and even better prices than B.C. apples. For the western trade, they must be strictly No. 1 or Fancy. In B.C., the acreage adapted for fruit growing is limited. That province cannot supply both home demands and the west. Ont. growers have a grand chance to secure and hold the western market. There is no fear of over-production in this province.

Our advertisers spend large sums exploiting their goods. If, when you reply to an advertisement in this paper you get an article that is not as represented, notify us and we will investigate the advisability of allowing the advertiser the use of our advertising columns. See our Protective Policy on editorial page.