

taken on new features, the two principal points being as follows:

1. To combine the excellent appearance and flesh characters of Redhaven in a series of varieties having larger size.
2. To develop in these varieties somewhat greater resistance to winter cold.

The amount of added resistance to winter cold in some of our better varieties would not need to be great to be of immense value to certain peach growing areas. Often a degree or two greater resistance would mean the difference between at least a moderately good crop and total failure.

### Clingstone Varieties For Canning

There is another phase of the Michigan peach breeding project that has not been mentioned and that has to do with the clingstone peach. California has practically cornered the canned peach market with its attractive canned clingstone peaches. The California clingstone varieties were tried in Michigan, but did not succeed there. However, the Ambergem variety developed by the New Jersey Experiment Station has been successful in Michigan and about 100,000 trees are now being grown in the state. New clingstone varieties are being sought that will be useful in Michigan to extend the present season.



## Red Raspberry Varieties in Massachusetts

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Raspberry growing in Massachusetts has been severely hit in the past decade or two by a combination of virus diseases and adverse winter conditions. Black caps seldom survive more than three to five years and even reds are easily infected with virus since practically every sizeable patch of wild reds is infected with mosaic.

Interest in this state is almost entirely in the red raspberry, since it survives better than either blacks or purples and also because practically all the crop goes

to the fresh fruit market. Cuthbert, which formerly was the chief commercial variety, is still recognized as about the best in eating quality. Latham, because of its superior winter hardiness and greater resistance to mosaic, has long since superseded Cuthbert as the leading commercial variety, but it has never taken the place of Cuthbert as a high quality dessert variety.

### New Varieties

Among the newer varieties which are being tested at the Massachusetts State



Latham, a dependable red raspberry variety.

College the following are worthy of comment. They are listed approximately in order of season.

1. *Sunrise* is the earliest red raspberry being tested here. It ripens just ahead of *Ranere*. The fruit is a bit firmer and somewhat better quality than *Chief*. The plants are fairly winter hardy and moderately productive. Mosaic has been observed in the row but the plants have not been seriously injured by it so far. Because of its earliness it is being recommended for trial.
2. *Indian Summer* (everbearer) ripens its summer crop with *Ranere*, but of course is considerably larger and better quality than *Ranere*. However, it has not been so productive and the berries show too much tendency to

crumble. The plants are fairly winter hardy but production has not been good. In this section *Indian Summer* falls down in the characteristic for which it was named, since its fall crop usually is just starting to mature when the first hard freeze arrives. Hence, it is unreliable as an everbearer here.

3. *Newburgh*, in spite of its large firm berry, has turned out to be entirely unsatisfactory because of its short growth and severe winter killing of canes.
4. *Cayuga* is a strong grower and of better than average winter hardiness. Some virus has appeared but in a limited test this variety has been very productive. Its fruit is larger and better than that of *Chief*.
5. *Chief* is the most winter hardy of all

varieties tested so far. It has shown some virus disease, but is a good grower and productive. Unfortunately, its fruit is rather small and not particularly good quality, but it is probably the most reliable variety of its season.

6. *Washington* and *Tahoma*, which on the west coast are reported as being more winter hardy than *Cuthbert*, were both much more severely winter killed a year ago than was *Cuthbert*. Neither variety has shown sufficient merit in fruit characters or productiveness in the past three years to warrant their further trial, although so far neither has shown any virus disease.

7. *Taylor* never has done as well as at Geneva, N. Y. The plants are very susceptible to mosaic and leaf curl and are severely injured by these virus diseases. Rather heavy winter injury also has reduced the productiveness of this variety. It is not being recommended for further planting in this section.

8. *Marcy*, with its extra large, attractive, good quality fruit, should be of interest to the home gardener. However, it is one of the most severely winter injured varieties in our present planting and hence is of doubtful commercial value. This variety has shown no mo-

saic, but is particularly susceptible to leaf curl.

9. *Latham*, in spite of its position as the leading commercial variety, is not without faults. Mosaic cuts production in most plantings in the state, and the fruit is not so high quality as the market once enjoyed. Although usually quite winter hardy, spur blight occasionally causes serious cane killing in this variety.

10. *Milton*, which ripens with or just after *Latham*, was at first thought to be the answer to the maiden's prayer. It is a high quality, firm, attractive berry of good size and easily picked. The plants are vigorous and so far have shown no virus disease in plantings where mosaic and leaf curl are abundant on nearby varieties. However, in the past two winters, *Milton* has been considerably winter killed so that its production has been seriously cut.

So Massachusetts continues to search for that ideal red raspberry variety which will combine the productiveness and winter hardiness of *Chief* with the firmness and virus resistance of *Milton*, the size and color of *Marcy*, and the quality of *Cuthbert*, to mention a few of the chief requirements of such a variety.

