International Symposium On Cherries*

The International Society for Horticultural Science arranged a Symposium in Bonn from the 25th to the 28th of June, 1968. Eighty attended from 18 different countries inicluding the U.S.A. and the Eastern Zone of Europe. It was clear from the discussions that cherry growing was a declining industry. There were 32 papers including the following subjects: Dwarf Trees, Use of heavy yielding varieties, easy picking, pollination of self-sterile varieties, diagnosis and cure of pests and diseases, birds, and splitting of fruit. There were excursions to the Institute fcr Fruit and Vegetables of the University of Bonn in Klein-Altendorf, the Mittelrhein, and the Rheinhessen, where different forms of culture were seen, marketing methods and new varieties of sweet and sour cherries.

Dwarf trees can be produced by training and method of growth, pruning, by selection of rootstocks and intermediate stem pieces, or, on the other hand, by retarding growth with hormones. In Switzerland, they recommend the low-stem hedgerow type by planting 5m x 5m, stem height to 60-70cm, so that the ultimate tree is 3m 50cm high. From this tree, 50 percent of the harvest can be gathered from the ground level, and the other half from a platform on wheels, which is better than a ladder. Mechanical pruning is easier. Work has been done by Way in Geneva, U.S.A. with reference to dwarf stocks. Garner of East Malling Research Station advised crossing *Prunus avium* with *Prunus pseudocerasus,* and *Prunus avium* crossed with *Prunus incisa.* These crosses are satisfactory for sweet cherries and they are resistant to bacterial dieback (Pseudomonas mors prunorum Worm) Matthews, of John Innes Horticultural Institute, has found a sweet cherry seedling which shows dwarfing characteristics when used with other varieties. The difficulty is in propagating this variety vegetatively. Several selections have been found. In Belgium, Monin, of Gembloux, says that there are possibilities for vegetative propagation of Prunus hybrids to be grown as interstocks for dwarfing of trees. Stocks which have been used are Montmorency, Kentish Red, *Prunus cerasus, Prunus avium* crossed with *Prunus cerasus, Prunus avium* crossed with *Prunus incisa.* If such interstocks are worked on F12/1, and a sweet cherry variety worked on top of this, a dwarf tree results. Professor Buchloh of Hohenheim, has found that the cherry, Sussweichsel, or Maraschka, do not succeed as interstocks owing to incompatability. In Bonn, *Prunus mahaleb* is not used for dwarfing sweet cherries mainly due to very poor budding results. The tree grows too high, and if a *Prunus mahaleb* is used on chalky soil the trees do not stay so small as they do when using *Prunus avium* as a rootstock; so *Prunus mahaleb* has no dwarfing effects on chalky soils. *Prunus mahaleb* will only work on slate soils with little crumb structure, and the trees will have to be planted closer; for all other places *Prunus avium* are preferred, planted at 6 x 7m or 7 x 8m; and in order to gain time in getting a crop from the land, Schattenmorelle is planted as a filler. In sour cherry plantations, *Prunus avium* or F12/1 are preferred

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as rootstocks except in Klein-Altendorf, or under extreme soil conditions such as in Meckenheim, where rain is 600mm on "Loesleim." Here, green manure crops must be plowed under every year, even if there is herbicide treatment.

Considering varieties, rootstocks, situations and the development of cherry growing, the new varieties which do best in the Alten Land (near Hamburg) are Valeska, Rebekka and Barbara. They mature between the third and fifth weeks of the cherry ripening period. They are excellent for deep freezing. There are three new promising varieties in Switzerland which were shown, but the sour cherry, Schattenmorelle, is still the best. Zwintscher, of Koln, is trying to develop new heavy cropping varieties, using Koroser as a parent. From Budapest, the early blossoming Koroser has proved to have excellent pollen, and it is thought that one of the reasons why cherries do so well in some of the valleys among the hills on the Rhein is because of the sheltered situation which improves pollination conditions. Workers from Rejman, Warsaw, showed that hormones treatment has not increased the set of fruit. From Yugoslavia comes a new hybrid by the name of Chase, a cross between Morello and Koroser. It is fertile and of good quality. Dahne got together a collection of eight different sorts of cherries and the following were noticeably good: Reverchon and Burlat from France, also a new hybrid, a cross between Hedelfingen and Germersdorfer, a Rumanian sort.

Diseases

Bacterial dieback still causes big losses. This was reported by Professor Pieniacek of Poland. Matthews, of the John Innes Horticultural Institute, is working on resistant varieties, and so far has produced five. The most resistant varieties in Germany are Buttners, Hedelfingen, Schneiders Spate Knorpel. 26,000 seedlings of these highly resistant selections have been raised, but there will not be any results until 1970. Kunze, of Heidelberg, found that the pollen of Stecklenberger, a sour cherry, carried the virus of little cherry disease, and there were 36-43% losses. Schattenmorelle is also subject to virus carried by the pollen; and although the new growth covers up the symptoms of virus, the trees never really recover.

Splitting of Fruit

Cause of splitting is a failure of pectin to be taken up evenly in the fruit itself. This has been found by Bangerth of Hohenheim. He tried to correct this trouble with calcium but it was unsuccessful. Every variety has a different water absorption capacity; and he is working out an index as to how much water a tree will stand before it will split. This has been done by Vittrup Christensen of Odense.

Birds

The damage by birds is of the highest importance, and electro accoustics have been brought into use by Keil at Frankfurt using two loudspeakers. He found the most effective thing was to give a warning cry of starlings of 10 seconds duration only. This should be put on just when the flock is about to settle. There is a great deal of difference between the effectiveness of a warning cry and a distress signal, which has been used by growers for some time in other parts of the world.

Norman Applegate, of Battleview Orchards, Freehold, N.J., feels there is a need for a red sport of McIntosh that will color up as well in his area as currently available sports of this variety do in New York state. If you should have a suggestion for Mr. Applegate, please let us know.