Reviews and Abstracts

CHERRY ROOTSTOCKS

By Francis M. Coe. 1945. Utah Agr. Expt. Sta. Bul. 319.

This bulletin reports 13 years of experimental work with cherry rootstocks on a coarse, gravelly, quick-draining loam soil. Stockton Morello, Mahaleb and Mazzard stocks were used with Bing, Lambert, Napoleon, Black Republican, Black Tartarian, Seneca, and Centennial cherries.

Stockton Morello stocks are not recommended for further trial in Utah except where dwarf trees are desired, or where the trees are to be planted on heavy, moisture retentive soils and where special care in staking, pruning, fertilizing, and mulching are given to maintain vigor and prevent wind damage.

Trees on Mahaleb outgrew those on Mazzard and Morello, suffered less loss from winter injury than those on Mazzard and outyielded Mazzard each year and Morello after the ninth year. The divergence of these results from those obtained in eastern experiments where Mazzard was superior to Mahaleb is thought to be the result of the coarser, more open, faster draining soil to which Mahaleb is evidently better adapted. Possibly soil reaction and high summer transpiration may have been factors.

Compared to Mazzard, Mahaleb stocks, *where they are adapted,* appear to have the following advantages: (1) more resistance to drouth, shallow and unfavorable soils (except wet feet); (2) good root anchorage; (3) less affected by little leaf; (4) cheaper to grow in nursery; and (5) more resistant to "buckskin disease" when high budded. The disadvantages of Mahaleb appear to be (1) somewhat difficult to transplant, (2) susceptibility to gopher injury, and (3) tends to be overgrown by sweet cherry scions. —.W.P.J.

THE EFFECT OF EXPOSURE TO DRYING CONDITIONS ON STAND AND GROWTH OF NURSERY FRUIT TREES

By W. H. Upshall. Vineland, Ontario Horticultural Experiment Station Report for 1943 and 1944:26-27. 1945.

Instructions on planting deciduous fruit trees place much emphasis on the importance of preventing drying of the roots. Work done at Vineland suggests that, *given dormant trees in good condition,* the normal drying incident to planting is not at all serious, and that special precautions to keep roots moist are quite unjustified. Preliminary work in 1939 and 1940 showed that exposure of 6 to 24 hours, of trees lying flat on bare soil, did not reduce stand or subsequent growth.

Tests conducted in 1941, 1942 and 1943 are summarized in the following table.

PER CENT STAND OF TREES

	No Exposure	2 - days Exposure	7 - days Exposure
Apple	100	100	92
Pear	100	96	67
Plum	100	100	62
Cherry	100	96	87
Peach	100	88	37

Compared to the trees receiving no exposure, the growth rate of trees exposed for two days was reduced an average of 4.0 per cent. Emphasis is placed on the importance of dormant trees in good condition. With trees already partially dried or coming into leaf, it is to be expected that exposure would be followed with more serious consequences. —W.P.J.