

When these new shoots are pinched back they develop strong branches. These provide a large amount of fruiting area per plant. The one-year-old fruiting canes are reddish brown in color. The fruiting shoots are 10 to 15 inches long, and average about 14 berries per shoot. The fruits are borne well out near the surface of dark green foliage, so that they are readily seen and easily picked.

Black Hawk has undergone a long period of testing in trials with other well-known varieties and selections. It has been outstanding in three series of plantings started in 1940, 1945 and 1951 at the Horticulture Farm at Ames, and in two series started in 1947 and 1949 at the Bluffs Experimental Fruit Farm at Council Bluffs. Favorable reports have also been received from other midwestern states where Black Hawk has been field tested.

Black Hawk survived the Armistice Day freeze of 1940 at Ames. Eighty-eight percent of the new fruiting canes survived, and there was no loss of plants. Of the other 15 varieties and selections in the trial, only one, Cumberland, was equal in cane survival. Some varieties lost more than 50 per cent of their canes.

Several of the test plot areas at Ames have been on a heavy Webster loam soil, common to central Iowa. Black Hawk has shown good vigor, rapid growth and excellent production on these soils, which aren't generally considered good raspberry soils. It has also shown superior performance on the loess soils of southwestern Iowa and on the more sandy soils of upstate New York, where the new variety was propagated for Iowa nurserymen.

Black Hawk has repeatedly been one of the highest yielders, although its harvest begins a few days to a week later than most other varieties. In

eight years of records at Council Bluffs, it had a higher total yield than the other four selections in the test, and has yielded as high as 5,006 pints per acre in one season. Although Black Hawk has not outyielded all other varieties and selections every year, it does show a very good continuing record over a period of variable climatic conditions.

This new variety is being released through a cooperative arrangement with the Iowa State College Committee for Agricultural Development and the Research Committee of the Iowa Nurserymen's Association. Over 100,000 plants will be available to Iowa nurseries for distribution this spring. No plants will be available directly from the college.



Malling VII Apple Rootstocks

It has been considered until now, both at this Station and elsewhere, that the semi-dwarfing Malling VII apple rootstock is well-anchored and able to carry crops of fruit without mechanical support. This year, however, there is evidence that, under British Columbia conditions, some trees of Delicious and Spartan on Malling VII show a tendency to lean and become quite loose in the ground under the weight of their first crop of fruit. This indicates that staking of young trees on this rootstock may be necessary.—A. J. MANN and F. W. L. KEANE, Summerland, B.C., Canada.



Ernest Heuzer, fruit grower and nurseryman from Hartford, Michigan, is concerned about the recent trend in his state to plant the red strains of the Rome Beauty apple. What worries him is the possible rejection of these varieties by consumers when they finally become aware of the mediocre quality of the fruit.