SELECTIVE PRUNING OF CLOSE PLANTED ASHLEYS

W. H. Olson and Dave Ramos

Selective annual pruning vs. no pruning of a dense Ashley orchard was begun in 1978. The pruned treatments averaged 38 cuts per tree: 32 cuts less than 1 1/2" in diameter, 5 cuts between 1 1/2 - 2 1/2 inches in diameter and 1 cut greater than 2 1/2 inches in diameter per tree. Light measurements taken during the summer indicated that sunlight reaching the ground was significantly greater under pruned trees as compared to the unpruned trees.

Pruning significantly decreased yield in 1978 with pruned plots averaging 1.91 T/A and non-pruned plots averaging 2.09 T/A. Nut quality was increased by pruning with significant gains in % large, % light, % edible, % off-grade, and % blowable. Value per ton was also significantly increased by the pruning treatment. However, there was no significant difference in value per acre due to the higher yield in the non-pruned plots. Cost of the pruning operation was approximately $60-$70 per acre.

HIGH DENSITY HEDGEROW PLANTING

D. Ramos, W. Olson, J. Osgood, K. Ryugo, and R. Snyder

Chico walnut trees planted 11'x22' in 1974 were pruned in 1978 by mechanical shearing of tops and sides with no detailed pruning within the fruiting wall. The trees were sheared in the north-south direction to a bottom width of eight feet at about four feet above ground level and a top width of four feet. The trees are approximately 18 feet in height and were topped by removal of about half of the previous year's growth to promote greater height. Other trees spaced 22'x22' in this five acre replicated experiment are being conventionally trained and pruned.

Yield data collected in 1977 and 1978 show that nut production to this point is a function of tree numbers. There has been no significant difference in individual tree yields between the 11'x22' and 22'x22' spacings. On a per acre basis, the 11'x22' spacing yielded 1089 and 2543 pounds in 1977 and 1978, respectively, compared to 451 and 1353 pounds for the 22'x22' spaced trees. Trunk circumference measurements taken at the end of the 1978 season, however, show the 22'x22' spaced trees to be significantly larger than those spaced at 11'x22' suggesting that per tree production next year might become greater.

Starting in 1979, the two 11'x22' hedgerow treatments in the experiment, which to this point have been handled alike, will be differentially pruned. One will be pruned by mechanical shearing of both sides each year; whereas, the other will be alternately sheared, one side each year. Both methods will receive no detailed pruning within the fruiting wall. The 22'x22' spaced trees will continue to be pruned in a normal fashion.