PRUNING VS. WHISKBROOMING OF CLOSE PLANTED HARTLEYS

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Three years of selective annual pruning vs. "whiskbrooming" of temporary (alternate diagonal) trees for eventual removal continues to show no significant difference in yield in a 1968 planting of Hartleys spaced 25' x 25' in Yolo County. The yield in this 3 acre replicated trial was 2.9 tons per acre in 1979 compared with 2.0 and 2.7 tons per acre in 1977 and 78, respectively. Pruning of the temporary trees has been restricted to the removal of outside branches that come within 5' to 6' of a permanent tree. In both treatments, pruning of permanent trees consists of selective thinning cuts throughout the tree to open up the interior and provide space between branches that will allow greater light penetration into the canopy. In addition, outside limbs encroaching on any adjacent tree are being pruned back in those plots where tree thinning is not planned. "Whiskbrooming" has still not resulted in any yield reduction in the temporary trees probably because the amount of prunings removed up until this time has not differed appreciably from the permanent trees even though the size of the canopy has been reduced.

SELECTIVE PRUNING OF CLOSE PLANTED ASHLEYS

Bill Olson and Dave Ramos

Selective annual pruning, vs. no pruning, vs. grower trimming of a dense Ashley orchard was begun in 1978. In 1979, the selective pruning treatment averaged 67 cuts per tree: 66 less than 1 1/2" in diameter, and 1 between 1 1/2 - 2 1/2" in diameter. The grower trimming averaged approximately 10 cuts per tree: 9 cuts less than 1 1/2 inch in diameter and 1 cut between 1 1/2 - 2 1/2" in diameter. Light measurements taken during the summer indicated that sunlight reaching the ground was significantly greater under selective pruned trees as compared to unpruned trees. The selective pruned trees averaged about 150 micro-einstein greater light penetration per reading over non-pruned trees.

There was no significant difference in yield from selective pruned, grower trimmed or non-pruned plots this year. The selective pruned plots averaged 1.34 T/A, grower trimmed 1.35 T/A, and non-pruned 1.39 T/A. Nut quality was increased by selective pruning with significant gains in % large, and % edible. Value per ton was also significantly increased by the selective pruning treatment. However, there was no significant difference in value/acre due to the higher yield in the non-pruned treatment. No significant difference was observed in blight, oilless or worm damaged walnuts. There was a significant difference in sunburnt walnuts. The selective pruned treatment had 14.9%, grower trimmed 14.4%, and the unpruned treatment 18.0% sunburnt walnuts.