IMPROVING CALIFORNIA PRUNE PRODUCTION EFFICIENCY USING HIGH DENSITY ORCHARD TECHNIQUES

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ABSTRACT

French prune trees on Myro-29-C rootstock were incorporated into a tree training research program that includes other stone fruits (peaches, plums, and nectarines) at the Kearney Horticultural Field Station, Parlier, California. Four small blocks of 28 trees each were planted at three densities (135, 404, and 604 trees/acre) utilizing four training/pruning techniques. Trees for a standard vase-shape training system were planted at 20 x 18 ft. A V-shaped hedgerow system was planted with a tree spacing of 10 x 18 ft. A central leader hedgerow system and a V-shaped system with the main scaffolds trained perpendicular to the tree row were planted with spacing of 6.5 x 18 ft.

OBJECTIVES

1. To study the physiological and horticultural potential for improving California prune production efficiency by using high density orchard techniques.

2. To develop modifications of the pruning/training systems currently being developed for fresh shipping stone fruits that are appropriate for the horticultural growth characteristics of prunes.

PROCEDURES

A research block was assigned leveled and fumigated (Telone) in the fall of 1981. French prune trees with Myro-29-C rootstock (compliments of Sierra Gold Murseries) were planted in January, 1982. The trees were summer pruned during July, 1982, to encourage the development of the desired tree form as early as possible. Dormant pruning was completed in November, 1982. During the 1982 year the trees were furrow irrigated however a drip irrigation system is being installed during the current dormant season.

RESULTS AND CONCLUSIONS

This is a long term project and therefore it is too early to provide any results and conclusions at this time other than to note that the stand survival rate the first year was 100%.