

## PRUNE ROOTSTOCKS INVESTIGATION

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### Objective:

To develop superior, vigor-controlling rootstocks for prune.

### Results and Conclusions:

Twenty-two Marianna seedling clones were shown to be easily propagated vegetatively. These were budded to French prune (bud source Foundation Plant Materials Service) and planted at the Kearney Horticultural Field Station, Parlier.

Twenty-four vegetatively-propagated Marianna seedlings were tested in glasshouse tank cultures of Meloidogyne incognita and M. javanica. All but 2 of the propagules were determined to be resistant to both species of nematode. Two were susceptible to both species.

Fourteen of the trees were leaf-sampled in August 1973. Analyses showed leaf K varied from 0.72% to 1.47%; leaf Ca from 1.17% to 2.70%, and leaf Mg from 0.30% to 0.58%. This variability indicates some hope for selecting, in particular, rootstocks that more efficiently absorb K.

It is still too early to come to any firm conclusions. But, it is apparent that vegetatively propagated clones of Marianna seedlings are easily obtained; that resistance to root-knot nematodes is easily obtained; and that it is worthwhile to follow up on mineral uptake efficiency of various clones.

### Work Planned:

1. Continue identification of Marianna seedlings easily propagated vegetatively.
2. Continue identification of root-knot nematode resistance among easily-propagated stocks.
3. Measure growth of French prune propagated on selected Marianna seedling clones.
4. Continue evaluation of mineral up-take efficiency.