Comparison of J. hindsii and J. regia vs. Pratylenchus vulnus - B. F. Lownesbery, G. C. Martin, E. H. Moody

After two seasons' growth in a Winters orchard infested with Pratylenchus vulnus, the mean trunk diameter for seven J. regia seedlings (14 ± 3 mm) was not significantly larger than that for seven J. hindsii seedlings (12 ± 1 mm). Neither did they differ in lesion formation, which was considerable on roots of both species.

Phytophthora Collar and Root Rot of Walnut Trees - J. Mircetic, W. J. Moller, W. R. Schreader

Surveys of commercial walnut orchards with dead or dying trees in San Joaquin county revealed that Phytophthora spp. were associated with diseased trees.

Phytophthora cactorum was recovered from walnut trees showing collar and trunk canker.

Phytophthora cinnamomi was recovered from decayed roots and soil around diseased trees from one commercial orchard with a large number of dead or dying trees. Walnut trees from which this pathogen was recovered showed stunted growth and small chlorotic leaves, plus decayed feeder and large secondary roots. A large number of trees with severe root rot collapsed by mid-summer.

An unidentified Phytophthora spp. was isolated from walnut trees in several commercial orchards in which a large number of trees showed poor growth, small chlorotic leaves and dieback of terminal growth. The trees from which this unidentified Phytophthora spp. was isolated, in contrast to those trees infected with P. cinnamomi, showed a restricted root rot which was usually limited to the feeder and smaller secondary roots.

A survey on Phytophthora spp. associated with diseased walnut trees will continue in 1974. Experiments for evaluation of virulence of various Phytophthora spp. to different walnut rootstocks are in progress.

Production of Clonal Walnut Rootstocks from Rooted Cutttings - H. T. Hartmann

It is known that both softwood and hardwood walnut cuttings can be rooted. The problem is in obtaining survival. To develop commercially feasible production techniques, work with both types of cuttings should be done. In rooting leafy cuttings under mist, treatments should be made to maintain growth once the cuttings are rooted. These would include such treatments as: use of nutrient mist, pre-girdling cutting material, treatment of
buds with gibberellin and/or cytokinin, use of fog rather than mist, use of 24-hr. high intensity light during rooting, use of auxin-fungicide combinations, use of high bottom heat, and trials with various solid block rooting media.

In tests with hardwood cuttings, determinations should be made of such factors on rooting and survival as: influence of time of taking cuttings, effect of wounding, effect of pre-girdling cutting material, and use of auxin-fungicide combinations.