NEMATODES

Cover Crops and Nematodes in Walnuts
G. S. Sibbett, D. E. Johnson, L. Brown

A long term trial was established in 1972 comparing two cover crop regimes with cultivation as they relate to nematode populations. In 1973, root-knot nematode (meloidogyne sp.) was found in high numbers associated with cover crops but not cultivation. Lesion nematode (pratylenchus sp.) was found in low numbers. In 1974, root-knot nematodes were again high in cover cropped areas. Legion nematodes were also found in high numbers associated with the cover crops. Dagger nematodes (xiphinema sp.) were high in cover crops. Clean cultivated areas remained relatively free of nematodes.

Ring Nematodes on Walnuts
B. F. Lownsbery

Though not as common as root-lesion nematodes, ring nematodes are common in California walnut orchards, and walnut is a host for the ring nematode, Criconemoides xenoplax. Having found that this nematode drastically reduces root systems of peach and prune rootstocks, we think it probable that they have a similar effect on walnut rootstocks. In May, 1974 an experiment was begun to test the effect of Criconemoides xenoplax on Juglans hindsii seedlings. C. xenoplax was added to seedlings in a logarithmic series of numbers. Un-inoculated controls are included. Treatments are arranged in randomized blocks in a lathhouse. Experimental containers are 3-gallon cans placed in a bed of pine wood shavings. The experiment is in progress. No results are available at this time.

Preplant Fumigation
L. C. Hendricks, D. Johnson

Three locations for preplant fumigation are currently being studied. The first is the Yecny orchard in Hilmar which was backhoed before fumigation and planting. Telone at 25 cc, 50 cc, and 100 cc and methyl bromide (MC-2) at one pound per tree site at 18" depth were the treatments in that orchard. This orchard had moderately high lesion nematode counts before planting. These trees were planted in 1971.

(cont.)