

Root Knot Nematodes of the Low Desert Bell Pepper Production[©]

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The presence and population density of root-knot nematode (*Meloidogyne* spp.) infestation in southern California bell pepper (*Capsicum annuum*) fields was determined by collecting and analyzing soil and root samples at varying periods of bell pepper growth. The earlier samples were virtually free of root-knot nematodes, but the later samples all contained, sometimes very high numbers. Nematodes were all identified as *M. incognita*. A nematode population from one of the fields was multiplied in a greenhouse and used as inoculum for two repeated pot experiments with three susceptible and two resistant bell pepper cultivars. Fruit yields of the susceptible pepper cultivars decreased while that of the resistant peppers was not affected as a result of nematode inoculation. Nematode-induced root galling and nematode multiplication was low, but different between the two resistant cultivars. Root galling and nematode reproduction was much higher on the three susceptible cultivars. One of the susceptible cultivars exhibited tolerance, as yields were not affected by the nematodes, but nematode multiplication was high. It was concluded that *M. incognita* is common in southern California bell pepper production and that resistant cultivars may provide a useful tool in a non-chemical management strategy.

