

ABSTRACT

Control of root-knot nematodes in a field plot was not effective in reducing incidence of bacterial wilt in a wet season trial at St. Augustine. The predisposition of crops to the symptoms caused by Pseudomonas solanacearum is under certain conditions independent of nematode activity. Varieties with an inherent resistance to bacterial wilt have not yet been developed in the West Indies. Until the time that such varieties appear, the prevention of wilting by nematode control would not seem to be worthwhile for wet season tomato production.

Root-knot nematode populations are maintained by many crops and on many commonly occurring weeds. The decline in a population following a highly susceptible host crop was due to a lack of suitable host plants. Populations are influenced not only by availability of suitable feeding and development sites but also by the effects of climate on soil conditions and plant growth.

Although many species of plant can support development and reproduction of root-knot nematodes, the relative intensity of infection varies; reduced larval invasion appears to be one likely cause for this apparent difference.

Inoculation of larvae on to the roots of plants growing on blotting paper is a simple effective technique for estimation of resistance to root-knot nematodes at the seedling stage.

The resistance of certain tomato varieties to Meloidogyne incognita is inherited by F_2 progeny of resistant X susceptible parent varieties in proportions of approximately three to one. The resistance to the

Trinidadian population of M. incognita is due to reduced larval invasion and a failure to induce plant responses necessary for successful development.