VEGETABLE PRODUCTION IN THE ABSENCE OF METHYL BROMIDE

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The cancellation of methyl bromide will have a big impact on vegetable producers in Florida. Producers, scientists and the pesticide industry members have been seeking viable alternatives to methyl bromide since the early 1990's. We have reached a crossroad whereby there is no other alternative but to use treatments or methods other than methyl bromide for managing soilborne pests and pathogens. In Florida two plant-parasitic nematode pathogens of concern includes *Meloidogyne* spp. and *Belonolaimus longicaudatus*. Several new nonfumigant and fumigant nematicides are under development for vegetable nematode management, unfortunately none offer the characteristics whereby they would serve as a drop in replacement for methyl bromide. In addition, the *Mi-1* gene in tomato is under investigation as an alternative to using chemicals. Several tomato cultivars with the *Mi-1* gene have been evaluated in spring and autumn trials. Evaluations included fumigated and nonfumigated treatments and all trials included a root-knot nematode susceptible tomato cultivar. There is a lack of consistence in fruit yield of the resistant cultivars when grown in nonfumigated soil even though recorded galling indicies have consistent been very low. The low percentage galling of resistant cultivars vs. susceptible cultivars indicates that the root-knot nematode resistant *Mi-1* gene in tomato cultivars was not broken by high soil temperature.