Seaweed extracts slightly reduce effects of root knot nematodes on tomato plants

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Root knot nematodes (*Meloidogyne* species) are economically important pathogens of a number of plants species worldwide. A glasshouse pot experiment was carried out to compare the performance of an organic seaweed product (Kelpak™) with that of the traditional nematicide fenamiphos (Nemacur™) for the control of *M. fallax* in tomato. Root systems of seaweed- and fenamiphos-treated plants were less affected by *M. fallax* than those in untreated controls, although differences in root gall index for the treatments were not statistically significant ($P=0.31$). Plant parameters were increased by the treatments, but only for shoot height was the increase statistically significant ($P=0.05$). Visual observation revealed that the roots systems of seaweed-treated plants were more dense and paler in colour than those from the untreated and fenamiphos-treated plants, which had dark brown roots. The experiment has not found compelling evidence of high efficacy of seaweed extract against nematodes attacking tomato. Effectiveness of these products warrants further study, however, including using different combinations of materials and timing of application, aiming to determine if they are useful as part of integrated nematode management.

Germination and survival of *Neofusicoccum luteum* after different storage treatments

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Neofusicoccum luteum is a widespread fungal pathogen of grapevines. The germination and survival of *N. luteum* conidia was tested following storage at different temperatures and times. The conidia (10^5 /ml water) were incubated at 2, 8 and 20-23°C (ambient temperature) for 0, 2, 4, 24, 48, 72 h, 1, 2 and 3 weeks. The conidial suspensions were then microscopically examined for conidial germination, adjusted to 10^2 /ml and 100 µl spread onto PDA to check for viability. At ambient temperature, 67% of conidia germinated after 2 h and 74% after 48 h. When held at 8°C, 23% of conidia germinated after 24 h and the proportion gradually increased up to 33% in 2 weeks, while at 2°C, 4% had germinated after 48 h increasing to 19% in 3 weeks. The maximum periods of viability of stored conidia (as determined by their ability to form colonies on PDA) was 48 h for ambient temperature, 2 weeks for 8°C and 3 weeks for 2°C. This research showed that *N. luteum* can germinate quickly at normal summer temperatures as well as at low winter temperatures, so can infect trimming wounds during summer and pruning wounds during winter.