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EVALUATION OF NON-CHEMICAL TREATMENTS IN THE CONTROL OF *MELOIDOGYNE INCOGNITA* ON COMMON BEAN

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Abstract

The efficacy of the marine algae,*Ulva fasciata* and *Botryocladia capillaceae,* leaves of *Eucalyptus* sp.,*Ficus retusa* and *Psidium guajava*, and manures of cattle, chicken and dove was evaluated as organic soil amendments @ 2% w/w in controlling *M. incognita* on common bean cv. Giza 3 as compared to the nematicide carbofuran 10G (0.2 g/pot). All treatments greatly suppressed ($P \leq 0.05$) the disease index (root galling) and nematode reproduction (egg mass production). Maximum reduction in root galling (97.4%) and egg mass production (98.9%) was obtained where green alga *U. fasciata* was used. The relative efficacy of the brown alga *B. cappillaceae*, laves of *P. guajava*, and cattle and chicken manures was approximately the same as the nematicide carbofuran in reducing number of nematode egg masses while the green alga *U.fasciata* gave 18 folds reduction in egg mass production compared to carbofuran. Fresh and dry weights of shoot and root systems were generally increased ($P \leq 0.05$) by the nematicide carbofuran and all the tested organic amendments, *Eucalyptus* and *P.guajava* leaves which showed a little phytotoxicity.