

EFFECT OF ORGANIC AMENDMENTS ON MELOIDOGYNE ARENARIA POPULATION IN POTTED SOIL. C. H. S. P. Ritzinger, and R. McSorley, Department of Entomology and Nematology, University of Florida, Gainesville, Florida 32611-0620, U.S.A.— Organic amendments (OA) were evaluated for their effectiveness in suppressing *Meloidogyne arenaria* populations in 2 greenhouse experiments in naturally infested soil. Vegetative shoots from castor (*Ricinus communis*), collard (*Brassica oleracea*), sesame (*Sesamum indicum*), sorghum (*Sorghum bicolor*), velvetbean (*Mucuna deeringiana*), and zinnia (*Zinnia elegans*) were chopped into small pieces, and placed on the soil surface in plastic pots. Control pots received no OA. Nematode numbers and yield were measured on okra (*Hibiscus esculentus*) planted into each pot. In the spring experiment, 4 g of the fresh OA or 4 g of the dried OA were used as separate treatments. The main effect of fresh vs. dry OA on nematode population and its interaction with OA type were significant ($P \leq 0.05$), with greater efficacy from dried OA than fresh OA. Reduction of juveniles (J2) in the root system was obtained with dry OA from zinnia, castor, velvetbean, and collard treatments. The lowest gall indices were noted when castor, velvetbean, sorghum, and zinnia were used. There were no differences among OA for egg masses ($P \geq 0.05$). In the summer trial, 4 g of dry OA and the fresh weight of each OA corresponding to 4 g dry weight did not differ in their ability to reduce J2 ($P \geq 0.05$). Castor and velvetbean gave best suppression of J2 in soil, followed by collard and zinnia. Reduction of J2 in the root systems was higher from velvetbean, followed by collard, castor, and sorghum. For both seasons, the best growth responses of okra were obtained with OA of castor, velvetbean, collard, and zinnia. In general, castor and velvetbean were the most effective OA source, and sesame and sorghum the least effective.