

ABSTRACTS

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DISTRIBUTION OF ROOT-KNOT NEMATODES (*MELOIDOGYNE* SPP.) IN THE WEST MEDITERRANEAN REGION OF TURKEY

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Root-knot nematodes (*Meloidogyne* spp.) cause serious yield losses in protected vegetables grown in the West Mediterranean region of Turkey. Ninety-four populations of root-knot nematodes (*Meloidogyne* spp.) were collected from different vegetable growing locations in this region. Egg masses were picked up from the plant roots using a small needle in the laboratory. Tomato seeds were germinated in steam-sterilized sandy soil in seed tray, and 2-week-old seedlings were transplanted singly into 250 ml plastic pot. Plants were inoculated at the fourth true leaf stage with single egg mass. Plants were grown at 25 °C growing chamber and harvested 8 weeks after inoculation. Root systems were carefully washed under tap water. Population was identified using morphological characteristics and molecular techniques. To identify morphological characteristics, perineal patterns were examined on a light microscopy. For molecular characterization of root-knot nematodes, firstly, DNA was extracted from egg masses with *DNAeasy Tissue and Blood Kit* according to the manufacturer's protocol. Secondly, the five different species-specific primers were used for DNA analysis of the root-knot nematode samples. According to morphological and molecular methods, *Meloidogyne incognita*, *M. javanica* and *M. arenaria* were identified in the West Mediterranean region of Turkey. *M. incognita* was found the most common root-knot nematode species in the region.