

P8

Identification and genetic diversity of *Meloidogyne chitwoodi* surveyed on potato production areas of Turkey

Devran Zübeyir¹, Mutlu Nedim², Özaslandan Adem³ & Elekçioğlu İbrahim Halil⁴

zubeyird@yahoo.com

¹ West Mediterranean Agricultural Research Institute, Antalya, Turkey

² University of Nebraska, Department of Biochemistry, Lincoln, NE, USA

³ Plant Protection Research Institute, Adana, Turkey

⁴ University of Çukurova, Faculty of Agricultural, Department of Plant Protection, Adana, Turkey

Regional nematode survey of potato fields was conducted in Niğde province of Turkey. Root-knot nematodes of genus *Meloidogyne* spp were found during survey. Twelve population of *Meloidogyne* collected in potato growing areas were identified based on morphological characteristics as well as molecular methods including species specific primers. The morphological and molecular data showed that all twelve populations were *M. chitwoodi*. The random amplified polymorphic DNA (RAPD) was used to estimate the genetic relationship among 12 population of *M. chitwoodi*. The UPGM analysis with 394 RAPD markers yielded a similarity coefficient ranging from 0.64 to 0.81 with a mean similarity of 0.72. The populations Mc3 and Mc4 had 81% genetic similarity to each other. The Mc9 and Mc7 showed the lowest similarity (64 to 66%) to the rest of the population. There are large enough genetic variation among the *M. chitwoodi* population in the potato growing areas of Turkey. It indicates that multiple source of inoculum might have been introduced to the region or the populations are rapidly intermingling.