

Efficacy of soil solarization and post-planting mulch on control of root-knot nematodes

R.A. Bakr^{*}, M.E. Mahdy and M.E. Mousa

Agricultural Botany Department, Faculty of Agriculture, Minoufiya University, Shebin El-Kom, Egypt

^{*}Corresponding author's e-mail: ramadanbaker82@yahoo.com

Abstract

Experiments were carried out in naturally infested soil with root-knot nematodes, *Meloidogyne* spp., in the summer season of 2005 and 2006 at two locations in Beheira governorate, Egypt. Five different color polyethylene sheets (transparent, red, black, green and blue) were used to cover the naturally infested soil as a solarization and post-planting mulch. Reduction in number of galls, egg-masses, females/root system and number of second stage juveniles (J_2)/250 g soil was recorded as compared to untreated control. The highest reduction percentage of total nematode population and reproduction rates of *Meloidogyne* spp., were occurred in transparent sheet compared to the others. Tomato plant growth parameters were also markedly enhanced in different color sheets.