B13

Program and Abstract Book

SECOND INTERNATIONAL SYMPOSIUM ON TOMATO DISEASES

CONVENER

Hikmet SAYGILI

8-12 October, 2007

Kusadası, Turkey

P10

METHYL BROMIDE ALTERNATIVES FOR CONTROLLING FUSARIUM WILT AND ROOT KNOT NEMATODES IN TOMATOES IN TURKEY

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Soil disinfestation is a routine application done before plant transplantation in greenhouses. Solarization alone or in combination with low dosage of fumigants has been adopted by a great number of farmers in many Mediterranean countries and so has in Turkey. This study was conducted in tomatoes grown in greenhouse for occurence of Fusarium wilt (*F. oxysporum* f.sp. *lycopersici*) and root rot nematodes (*Melodiogyne javanica* and *Meloidogyne incognita*). The experiment was conducted in one greenhouse during the summer period in 2006. Solarization in combination with low dosages of Metham Sodium (MS- 3 dosages) and Dazomet (DZ) were tested against soil borne pathogens and nematodes. Effect of different applications on disease incidence, root knot index and the yield was evaluated in 2007. Solarization application alone was not found enough with 35% effeciency. When the combination with the low dosages of fumigants, were applied resulting effect was found successful. In the dosages of Sol.+DZ400 kg/ha, Sol.+MS 750L/ha, Sol. + MS1000 L/ha, the effect was recorded as 54.1%, 51.9% and 83.9% respectively.Tomato yield taken from November to January were resulted as to be 70 tons/ha in control plots while it was 110 tons/ha in combination of solarization with the low dosages of MS and DZ. Density of root knot nematode decreased in all applications of this study.

Keywords: Metham Sodium, solarization, dazomet, soil borne pathogens and nematodes