In this study nematicidal effect of commercial new generation nematicidal chemical product Velum Prime® SC400 containing 400 gr/L Fluopyram active ingredient was investigated to control Meloidogyne incognita in two cucumber and two tomato greenhouses in Antalya, Turkey. Experiments were conducted in a completely randomized block design with four replicates in the four greenhouses. There was heavy infestation with M. incognita at all trial sites. Velum Prime® SC400 was applied with drip irrigation system at three different doses (400+400, 500+500, 600+600 ml/ha) at 1-3 days after planting and two weeks later. Iprodione SC 500 and Fosthiazate EC 150 were used as comparison chemical compounds for the experiments. Moreover, untreated control plots were included in the experiment for positive nematode control plots. Approximately 10 weeks later experiments were ceased and 20 plants in each plot were harvested and evaluated by using 0-10 scale of root galling index (Zeck, 1971). Velum Prime® SC400 600+600 ml/ha had the highest biological effect for both cucumber greenhouses. Root galling indices were extremely low level in the roots and ranged from 0.5 to 0.6 in the Velum Prime® SC400 600+600 ml/ha (P<0.05). However, root galling indices were 3.8 in Iprodione SC 500 plots in both cucumber experiments. Meloidogyne incognita severely galled on cucumber roots in untreated control plots, root galling indices were 7.9 and 8.3 in cucumber 1 and cucumber 2 experiments respectively (P<0.05). Similarly, Velum Prime® SC400 600+600 ml/ha doses extremely reduced root galling on tomato roots in both experiments (P<0.05), and the highest biological effect was observed on this treatment in the two tomato greenhouses (0.4 root galling indices / P<0.05). Biological effect of Fosthiazate EC 150 was found close to Velum Prime® SC400 600+600 ml/ha doses and there was no significant differences between Velum Prime® SC400 600+600 ml/ha and Fosthiazate EC 150. Root galling indices were found 3.7 in tomato roots in Iprodione SC 500 plots. However, tomato roots in untreated control plots had 8.2 scale of root galling indices in both tomato experiments (P<0.05). Velum Prime® SC400 600+600 ml/ha significantly reduced the galling index in tomato and cucumber, and has provided the best control of Meloidogyne incognita.