

**Evaluation of Different Green Leaf Manures against Onion Stem and Bulb Nematode (*Ditylenchus dipsaci*) and Bulb Mite (*Rhizoglyphus* sp.)**

Piratheepa, J.\* and Mikunthan, G.

*Department of Agricultural Biology, Faculty of Agriculture, University of Jaffna*

*\*jtheepa90@gmail.com*

Onion is an important cash crop in Sri Lanka. Among the onion varieties, small onion is mostly cultivated by farmers in Jaffna because it gives high profit. Even though, pests and diseases are the major limiting factors. Among the onion pests; stem bulb nematode and bulb mite were reported as very important and their management is very difficult and mainly depend on chemicals. Therefore, a research was aimed to evaluate the effects of different green leaf manures on the population of *Ditylenchus dipsaci* and *Rhizoglyphus spp* in the onion. A nematode infected farmer field was selected for the field trial. Well prepared land was treated with different green leaf manures such as *Gliricidia maculate*, *Calotropis gigantia*, *Glycosmis pentaphylla*, *Thespesia populnea* and *Azadiracta indica* and allowed for fifteen days for complete decomposition. Onion bulbs were planted. Onion bulb samples were collected weekly and analyzed for nematode and mite population by using stereomicroscope in the laboratory. The results showed that *G. maculate* reduced the nematode population in significant amount from second to sixth week in the onion bulbs. Mite population was also reduced in significant amount by the *G. maculate* from second to sixth week in the onion bulbs. *C. gigantia*, *T. populnea* and *A. indica* showed considerable reduction in nematode and mite population.

**Keywords:** *Ditylenchus dipsaci*, Green leaf manures, Onion, *Rhizoglyphus sp*