

**Arthropod fauna and diseases associated with the medicinal crop, Ashwagandha
(*Withania somnifera* (L) Dunal) grown in Jaffna, Sri Lanka**

¹Suvanthini. S., ¹Mikunthan. G., ²Thurairatnam. S.

¹Department of Agricultural Biology, Faculty of Agriculture, University of Jaffna, Sri Lanka

²Provincial Department of Indigenous Medicine, Northern Province, Sri Lanka

Abstract

One of the most versatile medicinal plants used in Ayurveda system of medicine is *Withania somnifera* (L) Dunal (Ashwagandha). Due to its importance and demand in Jaffna farmers are interested to cultivate it in larger extent. Present study was aimed to assess the arthropod fauna and diseases associated with *W. somnifera* in a field of selected 150 plants in Jaffna, Sri Lanka during the cropping period of August 2011 to June 2012. Survey revealed that among the 20 identified insect pest species 12 and 9 species were defoliators and sucking insects, respectively. *Epilachana vigintioctopunctata* was observed as major among defoliators and recorded as 6 beetles/ plant. In case of sucking pests, red cotton bug was predominant during January to March with the mean population of 6 bugs/ plant. While green stink bug was high with the mean population of 7 bugs/ plant during November to December. High shoot growth was due to the frequent irrigation after transplanting that invited the sucking pests. Association of beneficial insects was also observed considerably including predators and parasitoids. Besides, root knot nematode and little leaf disease were recorded in the disease category. Root knot nematode may become serious threat to cultivation and affect chemical constituent of the root as it is the economic part of this herb. These results would be helpful to understand the pest management tactics in commercial scale cultivation in the future. Further investigations have to be done to fulfill the farmers need to monitor and manage the insect pests in large scale cultivation.