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Severe Infestation of Laspeyresia Koenigana Fab. and Alternaria Leaf Spot on Azadirachta Indica (Neem)

Authors: Shiwani Bhatnagar, K. K. Srivastava, Sangeeta Singh, Ameen Ullah Khan, Bundesh Kumar, Lokendra Singh Rathore Abstract: From the instigation of the world medicinal plants are treated as part and parcel of human society to fight against diseases. Azadirachta indica (Neem) a herbal plant has been used as an Indian traditional medicine since ages and its products are acknowledged to solve agricultural, forestry and public health related problems, owing to its beneficial medicinal properties. Each part of the neem tree is known for its medicinal property. Bark & leaf extracts of neem have been used to control leprosy, respiratory disorders, constipation and also as blood purifier and a general health tonic. Neem is still regarded as 'rural community dispensary' in India or a tree for solving medical problems. Use of Neem as pesticides for the management of insect pest of agriculture crops and forestry has been seen as a shift in the use of synthetic pesticides to ecofriendly botanicals. Neem oil and seed extracts possess germicidal and anti-bacterial properties which when sprayed on the plant helps in protecting them from foliage pests. Azadirachtin, the main active ingredient found in neem tree, acts as an insect repellent and antifeedant. However the young plants are susceptible to many insect pest and foliar diseases. Recently, in the avenue plantation, planted by Arid Forest Research Institute, Jodhpur, around the premises of IIT Jodhpur, two years old neem plants were found to be severely infested with tip borer Laspeyresia koenigana (Family: Eucosmidae). The adult moth of L. koenigana lays eggs on the tender shoots and the young larvae tunnel into the shoot and feed inside. A small pinhole can be seen at the entrance point, from where the larva enters in to the stem. The severely attached apical shoots exhibit profuse gum exudation resulting in development of a callus structure. The internal feeding causes the stem to wilt and the leaves to dry up from the tips resulting in growth retardation. Alternaria Leaf spot and blight symptoms were also recorded on these neem plants. For the management of tip borer and Alternaria Leaf spot, foliar spray of monocrotophos @0.05% and Dithane M-45 @ 0.15% and powermin @ 2ml/lit were found efficient in managing the insect pest and foliar disease problem. No Further incidence of pest/diseases was noticed.

Keywords: azadirachta indica, alternaria leaf spot, laspeyresia koenigana, management

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