

Management of Gall Wasp *Leptocybe invasa* (Fisher and Salle, 2004) in Eucalyptus under nursery condition

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Gall wasp *Leptocybe invasa* (Hymenoptera: Eulophidae) is the latest invasive pest in Eucalyptus. Plants in nurseries are more prone than plantations. To evaluate a suitable control of the pest, experimental trial was laid out in Eucalyptus nursery of Navsari Agricultural University in Completely Randomized Design with two treatments viz; treated and untreated replicated twelve times. In treated seedlings, the soil treatment of chlorpyrifos @ 0.05 % was given along with foliar spray of imidacloprid 0.005 % (after 7 days of soil treatment), monocrotophos 0.05 % (after 21 days of 1st foliar spray) and DDVP 0.05 % (after 15 days of 2nd foliar spray). In the untreated set, no insecticide application was given. Before imposition of treatments and up to 15 days of spraying (DAS), no significant difference was observed in both the sets with respect to seedling and leaflet damage, gall intensity, location and shape of galls. At 90 DAS, seedling mortality in treated plot was 3.33 per cent as compared to 100 per cent in untreated set. Similarly, leaflet damage was reduced to almost zero in treated seedlings from 75 to 105 DAS. In untreated seedlings, galls spread from leaf midrib to leaf petiole, whereas in treated seedlings; they remain congregated on leaf midrib only. Similarly, in treated seedlings, galls never attained maturity wherein they appeared in the form of swelling while in untreated seedlings, galls became fully mature indicating pink colour at 90 DAS. So, application of insecticides had appreciable and significant impact on control of gall wasp damage.

Biography

Sushil Kumar completed his Ph.D degrees in Forest Entomology and Agricultural Entomology at the age of 45 and 48 years from Forest Research Institute, Dehradun, and Navsari Agricultural University, Navsari, respectively. He is the Principal Investigator of ICAR funded IPM as well as Insect Biodiversity Projects. He has published more than 50 research papers in various International journal and National journals and serving as an editorial board member of International journal(Fruits) and National Journal (Journal of Applied Zoological Researches). He has more than 29 years of research experience in Horticultural Entomology and has won two national awards.

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