

Assessment of Loss of Okra in Terai-agro-climatic Conditions of West Bengal

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Abstract—Field studies to assess the loss of okra in pre-kharif were carried out at Uttar Banga Krishi Viswavidyalaya, Pundibari Cooch Behar, West Bengal, India during 2015 and 2016. The treatments include insecticides like synthetic imidacloprid 17.8 SL, indigenous botanical agniastra and untreated control that were sprayed twice. The observations of the pest population were made with the appearance till harvest. The data were also recorded on 1, 3, 7 and 14 days after spray to find out the efficacy of the treatments upon pest infestation. The study reveals that the pest populations were higher in untreated control as compared to others. The incidence was again higher in agniastra than imidacloprid. The application of imidacloprid resulted in suppression of both jassid (79.46 and 71.52%) and fruit borer infestation (83.71 and 75.71%) on higher scale in both the year respectively. However the rate of suppression was higher during 2015. The toxicity of the treatments over tie resulted reduction of over 70% of pests in both the insecticidal treatments within 7 days. The maximum suppression was achieved on 3 days after spray both in 77.45% in jassid (94.14%) and fruit borer (87.46%) during 2015.

The yield parameters like plant height, leaf and root length, dry weight and the overall yield followed same trend in both the year of study. The height of the plant and the length of leaves were highest in imidacloprid treated plants followed by agniastra treated ones. The plants of untreated plot were short in length with small sized leaves. The length of root was the maximum in agniastra treated plants as compared to others. The dry weight was registered highest from imidacloprid (112.15 gm) followed non-significantly by agniastra (111.26 gm). The yield was also recorded highest in treated plots than the untreated ones. The yield was at par in the treatments of imidacloprid (27.70 q/ha) and agniastra (27.40 q/ha) indicating phyto-stimulant and pest tolerance effect of agniastra.
