

Evaluation of The Impact on Land Use and Land Coubreak of Rice Brown Planthopper (*Nilaparvata lugens*) and White-Backed Planthopper (*Sogatella furcifera*) in Maha 2017/18 in Kurunegala District: Lesson Learn

S.R. Sarathchandra¹, G.D.S.N. Chandrasena¹, R.M.U.K.Rathnayake¹,
R.M.U.S. Bandara¹, N.L. Sudheera¹, K.M.A.S. Konara¹, U.C.U. Kahawatta¹,
M.A.B.R.P. Bandaranayake¹, J.T.C. Jayasinghe¹, H.L.K. Liyanage²,
S.B.S.K. Semasinghe² and L. Nugaliyadde³

¹*Rice Research and Development Institute, Batalagoda, Sri Lanka*

²*Provincial Department of Agriculture, North Western Province, Sri Lanka*

³*Sri Lanka Organization of Agriculture Professionals, Peradeniya, Sri Lanka*

ABSTRACT

An outbreak of Brown Planthopper (BPH) and White-Backed Planthopper (WBPH) was observed in Maha 2017/18 in eight districts. Kurunegala was selected to carry out by conducting a survey and testing bio efficacy of five insecticides with an untreated control in farmer fields against BPH and WBPH. The insecticides tested were Thiamethoxam 25% WG, Sulfoxaflor 50 WG, Sulfoxaflor 240 SC, Pymetrozine 50% WG and Carbosulfan 200 g/l SC. The priority order of pest problems, revealed by the survey, was BPH (98%), leaf folder (62%), thrips (13%), rat (11%), paddy bug (6%), and stem borer (4 %). One third (33%) of farmers have used higher seed rates than DOA recommendation of 100 kg/ha. Many farmers (82%) indicated that unusual changes in weather during the season compared to the previous seasons. About 52% of farmers had over used or under dosed insecticides and not followed the label instructions in applications. Some farmers (36%) had used burnt lubricant oil and 18% have used kerosene oil to control the pests. About 55% of farmers were dissatisfied with the services provided by the provincial and inter-provincial extension services. All the tested insecticides found to be effective in controlling BPB and WBPH. Therefore, a surveillance and early warning system, farmer education in selecting correct insecticides and application methods are found to be the key factors in managing these pests.

Key Words: Bio efficacy, Climate, Farmer survey, Insecticides, Spraying technology