

Agri. Res. J. Kerala, 1979, 17 (1)

EFFECT OF POTASH APPLICATION ON THE INCIDENCE OF BROWN PLANT HOPPER

The brown plant hopper, *Nilaparvata lugens* Stal is a serious pest of rice in Kuttanad area during the puncha crop season. Many reasons have been attributed by various workers to the large scale spread of this insect in recent years, of which the increased use of fertilisers particularly nitrogenous fertilisers is important (Varca and Feur, 1976; Annon., 1977). But, precise information on the influence of plant nutrients on brown plant hopper incidence is lacking. Potash is believed to induce greater tolerance to diseases and insect pests in crop plants. Vathilingam, (1975) and Subramanian and Balasubramanian, (1976) have reported lower incidence of plant hopper in plots treated with higher doses of potash. An observation trial was done at the Rice Research Station, Moncompu during the puncha season of 1976—77 to evaluate the effect of higher doses of potash on the incidence of brown plant hopper. There were four treatments viz., 0, 45, 90 and 135 kg K_2O /ha. Nitrogen and phosphorus were kept constant at 90 and 45 kg N and P_2O_5 /ha respectively. Potash was applied in the form of muriate of potash, half as basal and half 40 days after planting. The variety Jaya was used for experiment. Results of the trial are presented in Table I.

Table 1 Brown plant hopper infestation and grain yield in plots treated with different levels of potash

Level of potash Kg/ha	BPH count per sq. meter 105 days after planting	Grain yield Kg/ha
0	799.90	3875
45	624.75	3686
90	580.00	3866
135	301.84	4402

It can be seen from the Table that the plant hopper population was low in plots treated with higher levels of potash. The reduction in population was significant at the highest level of potash (135 Kg K_2O /ha). The grain yield was also high in that treatment. Thus, the results indicate that application of higher doses of potash reduces the brown plant hopper infestation in the field.

സംഗ്രഹം

ക്ഷാരവള പ്രയോഗം കൊണ്ട് നെല്ലിലെ ബ്രൗൺ ഹോപ്പർഗലയും കുറയ്ക്കാമോ എന്നുള്ളതിനെക്കുറിച്ച് ഒരു പരീക്ഷണം മക്കൊമ്പു നെല്ലുവേഷണ കേന്ദ്രത്തിൽ നടത്തുകയുണ്ടായി. കൂടിയതോതിലുള്ള ക്ഷാരവളപ്രയോഗം നടത്തിയ റ്റോട്ടുകളിൽ ഹോപ്പർ കീടങ്ങളുടെ എണ്ണം താരതമ്യേന കുറവായി കണ്ടു. കീടഗലയും കുറഞ്ഞ റ്റോട്ടുകളിൽ നേരിയ തോതിൽ വിളവർദ്ധനവും ലഭിക്കുകയുണ്ടായി.

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Rice Research Station,
Moncompu, Kerala.

P. J. ITTYAVIRAH
K. P. VASUDEVAN NAIR
M. J. THOMAS

(M. S. Received: 6-6-1978)