

ON INSECTICIDAL CONTROL OF THE POD BORERS OF COW PEA

Cow pea *Vigna catieng*, of the variety New Era cultivated in the Agricultural College Farm, Vellayani, Kerala, is often attacked by pod boring caterpillars throughout the year. The borers are the caterpillars of *Polyommatus boeticus*, L (Lycaenidae) and *Polyorycta dimidialis* F. Noctuidae) of which the former is more abundant. As no information is available on the control of these borers using insecticides a field trial was conducted during 1966 using some of the newer insecticides.

Nine insecticides (all of proprietary formulations) given in Table I were used. These nine insecticidal treatments with a no-treatment control were distributed,

randomized, in plots in three replicated blocks. Each plot consisted of a mound of 2 ft diameter with 4 plants on it. The insecticides were applied twice, once when flowering started (30 days after sowing) and again 20 days after the first application. The insecticides were sprayed on the plants covering all parts of the plants.

Results of the trial were assessed by counting the total and bored pods when the pods were harvested. Harvesting was done ten days after each spraying and subsequently at five days' intervals. Results were statistically analysed and are given in Table I.

TABLE 1

Gow pea pods damaged by pod borers under various insecticidal treatments

	Treatment		Percentage of damaged pods (Based on entire crop season)
T ₁	Parathion	0.03% E	40.00
T ₂	Thiodan	0.07% E	34.33
T ₃	Trithion	0.02% E	31.33
T ₄	Phosphamidon	0.03% E	40.67
T ₅	Rogor	0.05% E	27.00
T ₆	Imidan	0.03% E	34.67
T ₇	D·D·T	0.1 % E	32.00
T ₈	Menazon	0.04% S	43.00
T ₉	Sevin	0.1 % S	36.67
T ₁₀	Control		90.00

E—Emulsion

S—Suspension

F test significant

C. D. at 5% level = 10.17

With reference to the efficacy of the insecticides in controlling the borers they can be ranked as follows:—

T₅, T₃, T₇, T₂, T₆, T₉, T₁, T₄, T₈, T₁₀

It may be seen that all the insecticides under trial are effective in reducing the borer attack on the pods significantly. Among the nine insecticides, however, rogor, trithion, D. D. T., thiodan and imidan appear to be more effective than the rest. Rogor, which is a systemic contact insecticide has to be applied *not* less than one week before harvest. But

the other effective insecticides trithion, D. D. T., thiodan and imidan are residual in action. So these can be used to control the pod borers without risk of poisonous hazards if the applications are made after plucking all the mature and usable pods and if the pods are washed well before being used.

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