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Evaluation of different microbials on extent of damage caused by pod borer complex on long duration pigeon pea

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ABSTRACT : The three applications of Spinosad 45% SC @ 73 g a.i./ha. and DOR *Bt.* 1 formulation **@** 1.5 kg/ha first applied at 50% flowering stage, second applied 15 days after first spraying and last 15 days after second spraying gave the best protection against pod fly. The per cent pod and grain damage were minimum in Spinosad 45% SC @ 73 g a.i. /ha treated plot, during the year of investigation. Next to DOR *Bt.* 1 formulation **@** 1.5 kg/ha and Commercial *B. bassiana* WP @ 1.5 kg/ha exhibited less per cent pod damage and NSKE 5 % exhibited less per cent grain damage by pod fly. Spinosad 45% SC @ 73 g a.i./ha. gave control of pod bug during the year of investigation. Next to Spinosad 45% SC @ 73 g a.i./ha, DOR *Bt*. 1 formulation **@** 1.5 kg/ha exhibited less per cent pod and grain damage by pod bug .Spinosad 45% SC @ 73 g a.i./ha gave better control of lepidopterous pod borers. Higher dose have better efficiency of controlling lepidopterous pod borers. Next to Spinosad 45% SC @ 73 g a.i./ha, Commercial *B. bassiana* WP @ 1.5 kg/ha exhibited less per cent pod and grain damage. The percentage of average of total pod and grain damage by various insect-pests where in the case of pod fly it was found to be minimum in case of treatment of Spinosad 45% SC @ 73 g a.i./ha. Which was (18.33%) and (7.70%), DOR *Bt*. 1 formulation **@** 1.5 kg/ha (18.66%) and (8.94%), Commercial *B. bassiana* WP @ 1.5 kg/ha (18.66%) and (8.62%) and NSKE 5% (19.33%) and (8.10%) respectively, in case of control of pod bug and maximum in control plot where the percentage of average of total pod and grain damage was (7.00%) and (2.17%), (9.33%) and (3.00%) respectively and in control of lepidopterous pod borer (1.33%) and (0.37%), (2.66%) and (0.65%) and (8.10%) respectively. During the year of experimentation, the highest grain yield (1110.66 kg/ha.) was recorded from the plots treated with Spinosad 45% SC @ 73 g a.i./ha. This was followed by DOR *Bt.* 1 formulation **@** 1.5 kg/ha (1044.00 kg/ha).

Key Words: Pigeon pea, extent of damage, microbials, pod borer complex.