

INVESTIGATIONS ON THE EFFECT OF FOOD AND TEMPERATURE ON DEVELOPMENT OF *CALLOSOBRUCHUS MACULATUS* F. AND *ACANTHOSCELIDES OBTECTUS* SAY.

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Pests are probably the limiting factor for seed production. The cowpea weevil, *Callosobruchus maculatus* F., and the bean weevil, *Acanthoscelides obtectus* Say., are serious pests of stored pulses and like other Bruchidae they typically start the infestations in the field.

In this study, the effect of chickpea, dry bean, cowpea and calavence on the development of *C. maculatus* has been investigated at two temperatures. The experiments were carried out at $25\pm 1^{\circ}\text{C}$, $70\pm 5\%$ RH and $32\pm 1^{\circ}\text{C}$, $70\pm 5\%$ RH. At 25°C , the first adult on cowpea and chickpea emerged on the 24th day and 28th days respectively. At 32°C , the first adult on cowpea and chickpea emerged on the 15th day and 19th day respectively. It was confirmed that the cowpea weevil did not develop on dry bean and calavence at both temperatures. The average development time of the cowpea weevil at 25°C and 32°C on cowpea was found to be 32.79 (23–47) days and 21.72 (14–30) days respectively. In addition, the development duration of *A. obtectus* on chickpea, dry bean, cowpea and calavence was investigated at $27\pm 1^{\circ}\text{C}$, $55\pm 5\%$ RH. It was found that the first emergences on chickpea, dry bean and calavence were at the same time and that average development times of the bean weevil on all four crops were not significantly different.