B-98 : STUDIES ON THE BIONOMICS AND HOST PREFERENCE OF *Callosobruchus maculatus (COLEOPTERA:BRUCHIDAE)* *ON SELECTED PULSES*

S Raveendranath, K Pushpalatha; Eastern University, Vantharumoolai.

Experiments were conducted to study the effect of water content of cowpea and greengram seeds on the Biology of *Callosobruchus maculatus* under laboratory condition.

Longevity of adults was seven days on both greengran and cowpea. No significant difference was observed in longevity of adults on both host species (p0,05).

The mean ($\pm$S.E) number of eggs laid by an individual female during its lifespan on cowpea and greengram was 79.9 $\pm$ 4.037 and 84.1 $\pm$ 2.63 respectively. There was no significant (p0.05) difference in egg production, when moisture content of seeds reduced.

There was no significant difference in hatchability of eggs when moisture content of both seeds were reduced from initial level to 3%, while significant reduction in hatchability was observed in both seeds when moisture reduced to 1.5%.

Developmental period was extended from 22.69 days to 24.92 days in cowpea and from 23.36 to 25.85 in greengram when moisture content of the seeds were reduced from 10.5% to 1.5%. Percentage of adults emerged also reduced significantly (p) from 85.89% to 63.49% in greengram and from 87.83% to 72.89% in cowpea.

Host preference of *C. maculatus* on selected pulses were studied using an olfactometer. The number of weevils arrived at different host species at a given time was taken as an indicator to assess host preference. Results showed that the number of adults arrived at cowpea was significantly (p) higher than on other pulses. It was also observed that the host preference depends on the host species in which insect cultures were maintained.