DEVELOPMENT OF BANANA WEEVIL BORER,
*Cosmopolites sordidus* Germar IN TWO BANANA CULTIVARS

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The banana weevil borer, *Cosmopolites sordidus* Germar (Coleoptera: Curculionidae) is a serious pest of banana throughout the world (Stover and Simmonds, 1987). It has been reported to cause heavy yield losses and responsible for the decline of banana plantations in eastern Africa (Seshu Reddy *et al.*, 1994). Though, some observations on the biology of the weevil have been made by earlier workers (Kehe, 1988; Reddy, 1988), precise data on the time taken for completion of life cycle is not available. Hence, an attempt was made to study the time taken for stage-wise development of *C. sordidus*.

Adult weevils were collected using split pseudostern traps from a banana (cultivar *Nakyetengu*) plantation located at Ungoye Experimental Station of ICIPE in Western Kenya. A susceptible banana cultivar *Nakyetengu* (cooking type) and a resistant cultivar *Sukalindizi* (dessert type) were selected for this study. Gravid weevils were allowed to lay eggs on slices of banana rhizomes. Freshly laid eggs were carefully transferred to rhizome slices placed in a Petri plate at the rate of one per Petri plate in ten replicates. Dried rhizome slices were replaced with fresh slices on every fifth day. The development of the weevil was observed on a daily basis. Average time taken at each developmental stage was recorded as time taken in each developmental stage.

Eggs hatched in 7 days. Larvae developed to pupae in 36.75 days in cultivar *Sukalindizi* and 32.25 days in cultivar *Nakyetengu*. Pupae moulted as pre-adults in 6.34 and 6.1 days, respectively. On feeding, pre-adults became fully grown within 10.9 and 9.8 days in cultivars *Sukalindizi* and *Nakyetengu* and laid eggs in 21 days and 15 days, respectively. It was noticed that 42.9% of the eggs could not complete their life cycle in both the cultivars. Male/female ratio in the adults was 1:1.67 and 1:3 in cultivars *Sukalindizi* and *Nakyetengu*, respectively. Total developmental duration was 81.9 and 70.4 respectively in these two cultivars.

Completion of life cycle of the weevil in cultivar *Nakyetengu* with in 70 days i.e. 12 days earlier in comparison to *Sukalindizi* suggests faster build up of weevil population and consequential proneness of the cultivar *Nakyetengu* to field loss.

REFERENCES


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