

Comparative biology of yellow stem borer, *Scirpophaga incertulas* walker, (Lepidoptera: Pyraustidae) in aerobic and transplanted rice

S.V. HUGAR, VENKATESH HOSAMANI*, B.C. HANUMANTHASWAMY AND S. PRADEEP
Krishi Vigyan Kendra, Hanumanmatti, Ranibennur, HAVERI (KARNATAKA) INDIA

ABSTRACT

The biology of yellow stem borer, *Scirpophaga incertulas* (Wlk.) showed that eggs were oval, flattened and creamy white in both aerobic and transplanted rice. However, average length and breadth varied slightly. It was 0.7 ± 0.03 mm and 0.43 ± 0.02 mm in transplanted paddy and 0.6 ± 0.03 mm and 0.38 ± 0.02 mm in aerobic paddy, respectively. The eggs were laid in masses having an average length and breadth of 5.9 ± 1.41 mm and 3.41 ± 0.36 mm, respectively on transplanted paddy and 5.6 ± 1.36 mm and 3.37 ± 0.0 mm, respectively on aerobic paddy. The newly hatched larva was yellowish green with dark head. It passed through five instars. The full grown larva was dirty white with the length of 20.3 ± 1.21 mm on transplanted paddy and 19.9 ± 0.30 mm on aerobic paddy. The average length of prepupa was 12.61 ± 1.30 mm on transplanted paddy and 11.5 ± 0.93 mm on aerobic paddy. The pupa was pale to dark brown and was longer and broader on transplanted paddy than on aerobic paddy. Fore-wings of the adult female were yellow in colour with a distinct black spot in the centre at each fore-wing. The fore-wings of the adult male were brown with numerous small light brown spots on them. Average length and breadth of the female and male moth and their longevity were higher on transplanted paddy than on aerobic paddy. Fecundity of the female was 159.3 ± 39.8 eggs on transplanted paddy and 152.2 ± 33.29 on aerobic paddy. Total life cycle of the pest was 42.8 ± 1.73 and 43.8 ± 0.67 days, respectively on transplanted paddy and aerobic paddy.

Key words : Biology, Aerobic, Transplanted, Instars, Prepupa, Fecundity and life cycle