Survival and development of the African armyworm Spodoptera exempta (Wlk.) (Lepidoptera, Noctuidae) on some grass species (Graminae

Author(s)
Jacob ghadwe Yarro

Abstract
At 25°C and 70% r.h. larvae of Spodoptera exempta develop faster and pass through five instars on star grass, Cynodon dactylon (L.); Pers. maize, Zea mais L.; and Kikuyu grass, Pennisetum clandestinum Chiov. whereas on guinea grass, Panicum maximum Jacq.; and Setaria plicatilis (Hochst.) Hack, the development is not only slower, but the larvae pass through six and seven instars, respectively. Samples of larvae reared on the former grass species suffer high mortality only at the first and the last instar stages so that the distribution of per cent mortality is U-shaped. On the latter host plants, the mortality during the first instar stage is equally high and continues through the subsequent instars with no obvious peak towards the end of the larval life. The samples on C. dactylon and Z. mais had much higher growth indices than those on P. maximum and S. plicatilis. C. dactylon is a preferred natural food plant of S. exempta in the field, and these investigations demonstrate its value and importance.

Key Words
Spodoptera exempta;
Survival;
Development;
Host plants;
Grass species;
Growth indices