

An outbreak of a nuclear polyhedrosis virus disease in a population of *Spodoptera exempta* (Wlk.) at 4 sites in Kenya in 1974 is described. Larval mortality began 11 days after the larval outbreak began and reached a peak 10 days later. The epizootic was highest in sites of high larval density, wide ranges of daily temperatures (16.2°C) and high relative humidity. The grasshopper *Acrotylus patruelis* (H.-S.) fed on larval cadavers in the field. Polyhedral inclusion bodies recovered from the guts of these grasshoppers were infective to 3rd-instar larvae of *S. exempta* in the laboratory. Predation on larvae by the pied crow (*Corvus albus*) in some sites reduced larval numbers and may have prevented the virus from rising to epizootic levels in these areas. In sites of high virus incidence, larval populations collapsed in 3 weeks.