Sunflower is subject to insect damage from planting onwards. Seed and seedlings are damaged prior to emergence by spotted maize beetle larvae (*Astylus atromaculatus*) and *Harpalus* spp. beetles. Damage to seedlings is inflicted by cutworms (*Agrotis* spp.), dusty surface beetles (*Gonocephalum* spp. and *Mesomorphus* spp.), larvae of spotted maize beetle (*A. atromaculatus*) and black maize beetle (*Heteronychus arator*). Ground weevils (* Protostrophus amplicollis, P. hirtiventris* and *P. salcatifrons*) that feed on the leaves of seedlings and cabbage semi-looper (*Trichoplusia orichalcea*) that attack leaves of older plants are sporadic but a serious pest of sunflower. High population levels can cause complete defoliation of plants, resulting in total crop loss. *Helicoverpa armigera* is a common pest during the reproductive stage. Heads are damaged during the budding stage and achenes from anthesis onwards. Larvae of all instars burrow under and between bracts into the head, leaving a point of entry for soft rot organisms. Damage by the false chinch bug, *Nysius natalensis* to seeds results in a reduction in yield, oil content and germination of damaged seeds. *Carpophilus* sp. damage developing seeds from anthesis onwards.