

**Wild Host Plants and Temperature Tolerance of *Nysius*
Natalensis (Heteroptera : Orsillidae) Contributes
to High Population Levels on Sunflower in South Africa**

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The false chinch bug, *Nysius natalensis* Evans (Heteroptera: Orsillidae), was reported as a pest of wheat in South Africa in 1970. However, since 1998 it has also been observed to cause economic losses on sunflower. The insects feed on vascular tissues of young sunflower seedlings as well as on older plants from budding stage until commencement of anthesis. Infestation of sunflower heads results in reduction of yield and oil content as well as poor germination of damaged seed. During a survey the insect was found on wild host plants in all sunflower production areas of South Africa. The majority of host plants belong to the Asteraceae, but plant species belonging to Amaranthaceae, Chenopodiaceae, Plantaginaceae and Portulacaceae were also found to be hosts. Females oviposit on, between or next to seeds between bract leaves. These wild host plants also support development and survival of nymphs and adults. The wide range of host plants and succession of host plant species during the season ensures continuous oviposition sites for false chinch bugs. Destruction of host plants, especially weeds in lay-over fields and senescent weeds prior to winter causes migration of the insect into sunflower fields. A laboratory study was conducted and *N. natalensis* was found to be able to tolerate low as well as high temperatures. Abundance of wild host plants, untimely weed control and temperature tolerance of *N. natalensis* therefore contributes to the current high pest status of this insect.