

**CHEMICAL CONTROL OF THE FALSE CHINCH BUG, *NYSIUS NATALENSIS* EVANS (HEMIPTERA:ORSILLIDAE),
ON SUNFLOWER IN SOUTH AFRICA**

(presented as a poster)

Hanalene DU PLESSIS

ARC – Grain Crops Institute,

Private Bag X1251, Potchefstroom, 2520, South Africa.

e-mail: hanalene@igg2.agric.za

The false chinch bug, *Nysius natalensis* Evans (Hemiptera:Orsillidae) is injurious to sunflower during the seedling stage as well as during the seed fill period. The insects feed on vascular tissues of young sunflower seedlings, causing them to wilt and die. Damage inflicted by *N. natalensis* to seed during seed fill causes a reduction in yield, oil content and germination of damaged seeds. No insecticide is currently registered for control of this pest on sunflower in South Africa. However, insecticides can be applied with a tractor mounted spray during the seedling stage. During the reproductive stage, insecticides can only be applied aerially. A systemic insecticide, demeton-S-methyl was evaluated and found to be effective in controlling the pest during the seedling stage. During seed fill, the following insecticides were applied aerially and evaluated against an untreated control treatment: a tank mixture of endosulfan (225 g a.i.ha⁻¹) + cypermethrin (40 g a.i.ha⁻¹), methomyl (225 g a.i.ha⁻¹), cypermethrin (40 g a.i.ha⁻¹), mevinphos (45 g a.i.ha⁻¹), a tank mixture of dichlorvos (500 g a.i.ha⁻¹) + monochrotophos (120 g a.i.ha⁻¹) and endosulfan (312.5 g a.i.ha⁻¹). All treatments were applied in 30 l of water ha⁻¹. Compared to the untreated control, all treatments were effective in controlling *N. natalensis*. However, re-infestation by the pest occurred in all treatments after five days. Further research is therefore necessary on timing of applications to limit the number of applications necessary to protect crops from damage by *N. natalensis* during the seed fill period.