

MIDLANDS NORTH BIOSECURITY NEWS

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YELLOW SUGARCANE APHID



The past few weeks have seen record numbers of Yellow Sugarcane Aphid (YSA) infestations in the Midlands North region. This is largely due to the warm, dry conditions we have been experiencing since mid-January.

◀ *Large numbers of aphids on lower surfaces of leaves.*

Symptoms to look out for:

Many fields in the district are showing yellow patches, and some fields are affected uniformly throughout the field, with lower leaves on the sugarcane plant showing yellow and sometimes purple colouring.

Field edges can often be the starting point of an infestation in a field, as the aphids move from the adjacent grasses into sugarcane.

Plant and ratoon fields are affected and in terms of age, it is mostly cane under 6 months of age which is the most severely infested.

Stressed fields, particularly those on sandy soils are also more prone to YSA infestations.



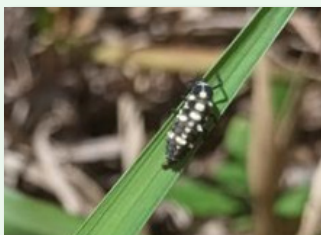
▲ *Yellow patches in the field.*



▲ *Yellowing of leaves, particularly on field edges.*

Natural Predators

Aphids have many natural predators, such as ladybirds, lacewings, pirate bugs, soldier beetles and hover flies. We would hope that these predators would curtail the aphid populations, however, this does not currently seem to be the case – predator numbers continue to be low, with no sign of the aphid numbers easing.



Different stages and species of ladybird larvae.

Spraying for YSA

In such cases, spraying may be the only option, however, caution must be taken regarding the preservation of natural predator populations. In severe cases, cane must be chemically treated for YSA – we, unfortunately, cannot depend solely on the predatory action of these insects to curb populations enough to minimise damage to the cane. The idea here, assuming the beneficial insects are highly prevalent in a particular area, is to spray with a chemical that will not kill them altogether, e.g. neonicotinoids mainly.

If you have multi-cropping farming systems which require the work of pollinators (bees specifically), e.g. avocados, macadamias etc, the timing of these insecticide applications is crucial to minimize impacts on bee populations, as all of the listed chemicals are toxic to bees. If you own hives around your fields, move them to a location away from the fields to be sprayed, or ask the beekeepers who own them to move the hives.

The table below lists the chemicals which are registered for use on sugarcane. Additionally, it provides information on the toxicity of the different chemicals to beneficial insects.

Registered on Sugarcane	Active ingredient: IRAC code	Field application rate	Effect on Natural Predators
Actara SC (Syngenta)	Thiamethoxam (neonicotinoid): 4A <ul style="list-style-type: none"> • Application restricted to between 7-30 days post-harvest on soil/stubble or early regrowth. • Systemic action from soil to upper parts of plant. 	900ml/ha	Moderately toxic to predators Most toxic to bees
Allice 20 SP (Arysta)	Acetamiprid (neonicotinoid): 4A <ul style="list-style-type: none"> • Foliar application • Acropetal - will not move from sprayed leaves to new leaves. 	1,5kg/ha	Moderately toxic to predators Least toxic to bees
Ampligo (Syngenta)	Chlorantraniliprole (diamide): 28 and λ -cyhalothrin (pyrethroid): 3 <ul style="list-style-type: none"> • Foliar application. • Contact action only against YSA 	150-300ml/ha	Highly toxic to predators Highly toxic to bees
Bandito (Arysta) Combination of nematicide + insecticide	Imidacloprid (neonicotinoid): 4A and Oxamyl (carbamate): 1A <ul style="list-style-type: none"> • Granular application in furrow at planting • On row or banded in ratoons (the latter after stubble has dried out and best applied in spring/early summer). • Systemic action from soil to upper parts of plant. • Combined product is granular hence no drift. 	30kg/ha	Sub-lethal effects on predators Moderately toxic to bees
Benevia 100OD (FMC) (registered in Dec '22)	Cyantraniliprole (diamide): 28 <ul style="list-style-type: none"> • Foliar application. • Acropetal - will not move from sprayed leaves to new leaves. 	500ml/ha	Moderately toxic to predators Moderately toxic to bees

Should you require any further information, please do not hesitate to contact Dave Wilkinson or myself.



You can also find helpful resources on the SASRI website at www.sasri.org.za, including the YSA Information Sheet and the Thrips and YSA Manual.