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LOWER SOUTH COAST EXTENSION MATTERS

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Yellow Sugarcane Aphid (YSA) Management Guidelines

The sudden surge in YSA infestation across the sugarcane industry these past few weeks, has highlighted the importance of pest management to mitigate significant yield losses further along the season. This surge could likely be attributed to meteorological fluctuations characterised by periods of high temperatures, with little to no rainfall.

Below is a set of basic guidelines to assist in the management of YSA.

Surveying: Know your soil and know your symptoms!

Surveying remains the crucial first step to detect the pest before infestation becomes severe.

Key factors to be on the lookout for include:

- Purple-red discolouration of grasses on verges – colour change is a reaction to YSA feeding on the grass.
- YSA will usually move from the grass to the closest cane. If no YSA can be found on discoloured verge grasses, check the cane closest to the grass.
- Early infestation appears as yellow patches. Old infestation turns brown as the leaves dry.
- Infestation can either be patchy and unevenly distributed in the field or infestation can be uniform.
- Check the underside of leaves as YSA are UV sensitive and do not like direct sunlight.
- Leaves of some cane varieties also exhibit a colour change from green to purple when infested with YSA. In particular, N12, N37, N58 and N59.
- Cane is most susceptible up to 6 months, however, infestation has been recorded in old cane (12-14months).
- Plant and ratoon cane are both susceptible.
- Stressed cane is particularly prone to infestation, therefore areas with shallow, sandy or acidic soils should be closely monitored.

Chemical Treatment of YSA: Spray with a Conscience!

- There are several chemicals registered for application against YSA on cane (see Table below). These chemicals must be applied as per label specifications to optimise efficacy, e.g. do not use a foliar application where the label recommendation is a stubble treatment.
- Do not use three consecutive applications of the same active ingredient, e.g. do not use Allice three times in a row, in the same field, to control a single infestation. Always alternate active ingredients at least after two applications (see Table below for actives).
- As a cautionary measure, where growers have multicropping systems and require the work of pollinators (bees specifically), the timing of these insecticide applications is crucial to minimise impacts on bee populations as all the listed chemicals are to some degree toxic to bees.

- **Predator Preservation:** ladybird, lacewing, pirate bugs, soldier beetle, hover fly.
  - In most instances, infested 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 on the cane.
  - The idea here, assuming these insects are highly prevalent in a particular infested zone, is to spray with a chemical that will not kill them altogether.

Registered on Sugarcane	Active ingredient: IRAC code	Field application rate	Effect on Natural Predators
Actara SC (Syngenta)	Thiamethoxam (neonicotinoid): 4A • 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 • 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 • 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 • 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 • Foliar application. • Acropetal - will not move from sprayed leaves to new leaves.	500ml/ha	**Moderately toxic** to predators **Moderately toxic** to bees