

Yellow Canopy Syndrome update



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Solving the Yellow Canopy Syndrome research project

In each edition of CaneConnection we will update you on our progress in understanding Yellow Canopy Syndrome (YCS).

SRA is leading the Solving the Yellow Canopy Syndrome research project, which is funded by the Sugar Research Development Corporation, the Department of Agriculture, Fisheries and Forestry Queensland (DAFFQ) and BSES.

With our project partners – **Burdekin Productivity Services Limited (BPS)**, **Herbert Cane Productivity Services Limited (HCPSL)** and **DAFFQ** – we have made good progress in ruling out some possible causes and setting up new trials to learn more.

Transmission via planting material

We know that growers in affected areas are concerned about the possible use of YCS-affected planting material due to its potential impact on future crops.

To address this concern, we set up a trial – under optimal conditions –

After 10 weeks we did not see YCS symptoms expressed in the young cane, even when the plant source was severely affected. Germination was impaired, however, with reductions of up to 20 per cent when severely YCS-affected plant source was used.

Two new trials now underway

to see if YCS could be transmitted via planting material.

A water stress treatment has now been introduced to the trial. After a few weeks of this treatment we have seen some typical stress-related yellowing – but nothing resembling YCS symptoms.

We will continue to monitor this trial to see how the cane progresses under these conditions.

Observation trials

Within the Burdekin and Herbert cane-growing regions, a number of sites will be monitored regularly to track the development of the symptoms of YCS in two successive crops (plant crop and first ratoon, or a first and second ratoon).

With BPS and HCPSL we have identified and begun establishing these sites in the field. Soil sampling has started and data is being collected to assist with mapping and cataloguing site history and inputs.

BPS and HCPSL are also helping us assess the industry impacts of YCS on this year's yield and sugar. This data is being collected and YCS-affected blocks are being monitored through to the mill.

Trial one: Planting material and the impact of stress

Based at our Burdekin facility, this recently planted trial seeks to understand how water stress and Imidacloprid treatments impact on clean and affected cane.

Scientific Reference Panel now on board

This project is supported by an independent Scientific Reference Panel that is responsible for providing scientific opinion on the direction of the project.

The panel includes:

- > Professor John Lovett, Plant Biosecurity Cooperative Research Centre (PBCRC)
- > Dr Andre Drenth, The University of Queensland
- > Dr Geoff Inman-Bamber, Crop Science Consulting

In mid-August the panel travelled to the Burdekin and Herbert cane-growing regions and met with the SRA project team and industry representatives.

The panel reviewed all aspects of the project and toured both regions to assess first-hand YCS in the field. Once we receive the panel's report and recommendations, the SRA project team will meet to consider their input and adjust the project as required.

Trial two: Imidacloprid

Field trials have been established in the Herbert cane-growing region in collaboration with HCPSL to investigate the effects of Imidacloprid on YCS expression and severity.