



Source: CSIRO

CANOPY® early helps manage SLW late.

- 1-2% applications of Canopy® early season typically set SLW population growth back 2-300 day degrees giving significant benefit later in the season
- Canopy can be applied with early season OTT herbicide treatments
- Early Canopy applications do not impact the work of beneficials as it's rated as very soft on the BDI.
- Later in the season, Canopy combined with other suppressive insecticides, gives more management options for high SLW populations

The silverleaf whitefly (SLW) matrix developed by QDPI has become an invaluable spray decision tool for the cotton industry. It uses low and moderate growth rate exponential models, dependent on day-degrees, as boundaries between various scenarios.

Canopy® can be used strategically early season to improve chances of entering the peak flowering period with a very low SLW infestation rate. Beneficials also play a crucial role in managing SLW population growth rate entering peak flowering and importantly Canopy use has little impact on them. In this Tech Note we use the SLW matrix model to show how population development can be moderated, and late season spray options improved, by using Canopy.

EARLY SEASON IMPACTS ON SLW POPULATION DEVELOPMENT

Canopy is most effective against sucking pests when used early season because good plant coverage at this stage is more easily achieved. An application of 2L/ha Canopy will have about a 50% impact on establishment of early season pests, be they aphids, thrips, green mirids or SLW.

When the SLW population growth rate follows the upper line of the SLW matrix, a 50% “check” to growth early season (e.g. at 200dd), effectively shifts the infestation back by 200-300dd (solid red line in Figures 1 and 2.)

With four 50% checks to growth prior to 1000dd, the upper SLW growth rate is moderated to the lower growth rate at the boundary with the zone 1 no control region (Figure 2 dotted red line).

This has been confirmed in a series of large scale field trials. When applied twice early in the season Canopy was effective in reducing a SLW population by more than 200dd. Applications of Roundup Ready equivalent herbicides present the ideal opportunity to apply Canopy early. For more information on how Canopy and glyphosate herbicides perform in mixture, consult the Tech Note “Canopy glyphosate Tech Note suite” located at fmccrop.com.au/products-3/spray-oils-adjuvants.

Importantly, being rated very soft on the BDI, Canopy allows natural predators to continue to assist in the management process.

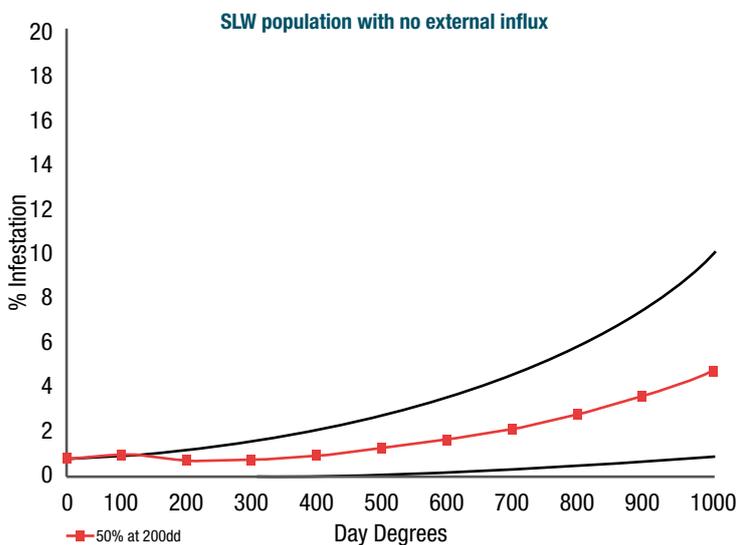


FIGURE 1 Even early season “checks” have a significant effect later in the season on the SLW population. In this example, a 50% check at 200dd effectively takes the population back 200-300dd.

The effectiveness of Canopy applied alone in the field trials declined the longer its first application was delayed. This was expected since the plant leaf area increases through the season and coverage is proportionally lower. At this stage of the season mixing Canopy with another insecticide is recommended.

If the SLW population is in zone 2 and there is also a need to control other pests like green mirids, mix Canopy with insecticides that have suppressive effects against SLW e.g. Shield. Our trials have shown that Canopy + Shield is a very suppressive combination against SLW and its use may avoid the need for a late season IGR or control spray. In one large scale strip trial near St George, a late planted field suffering 100% infestation at about 1600 dd had two Canopy + Shield sprays applied 9 days apart and this brought the infestation back down below 50%, into zone 2.

Canopy is the only spray oil product registered for SLW suppression in cotton. Other oils sometimes used in cotton were developed as white paraffin oils for spraying on sensitive fruit trees. As such their efficacy is compromised. Canopy was designed specifically for cotton and broadacre insecticide use and its extensive registered label claims for cotton pests is testament to its unrivalled efficacy, amongst oils, against cotton pests. For more information on the advantages inherent in the Canopy formulation consult the FMC Tech Note: “Canopy® a unique, patented spray oil formulation” located at fmccrop.com.au/products-3/spray-oils-adjuvants.

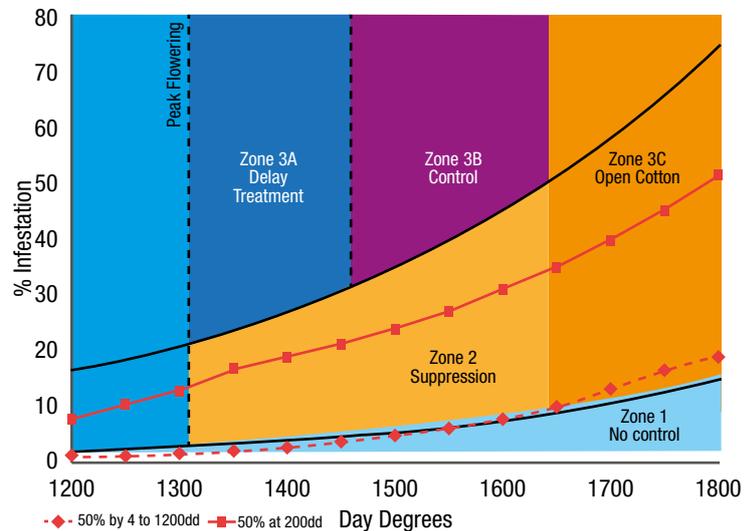


FIGURE 2 One 50% early season “check” to the upper growth rate of the SLW matrix drops the mid season population into the zone 2 suppression region of the matrix. Four sprays of Canopy up to 1000dd effectively drop the upper growth rate to the lower rate.

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