

Southern Cotton – Integrated Pest Management (IPM)

Thrips threshold validation (CRDC project DAN 1501 July 2015-June 2017)

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Project aim

To validate whether the Australian Cotton Industry thrips threshold (10 thrips/plant) applies in southern NSW cotton production areas. Commercial-scale trials.

Compare species composition of pests in northern and southern cotton growing areas.

Key findings:

- Thrips pressure reached the positive control threshold of 1 thrips/plant in late October when plants were at the cotyledon to 1 leaf stage.
- Thrips pressure reached the industry threshold of 10 thrips/plant in mid-November when plants were at the 4-5 leaf stage.
- Onion thrips were the dominant thrips species observed during monitoring
- Tomato thrips comprised about 16% of thrips monitored
- Western Flower thrips constituted less than 5% of thrips monitored
- **There was no yield difference between plots sprayed for thrips and unsprayed plots in 2 seasons of trials.**

Results

Figure 1. Thrips pressure pre and post- thrips spray at Whitton/IREC 2015/16

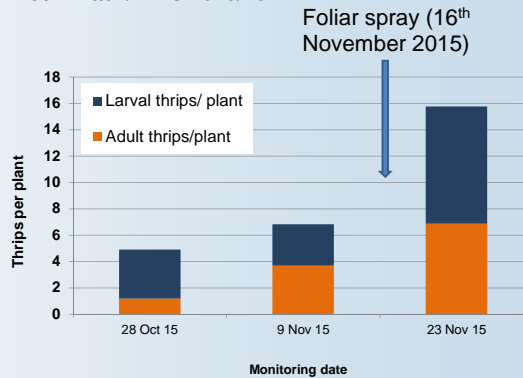


Figure 2. Total thrips numbers per plant 7 days post thrips spray at Whitton/IREC 2015/16

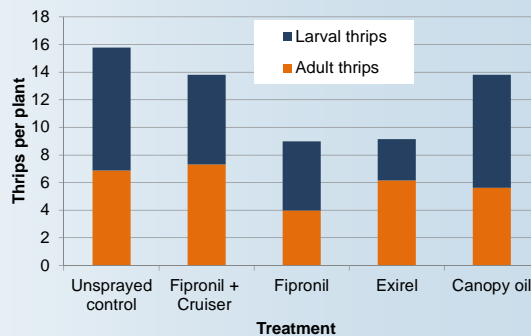
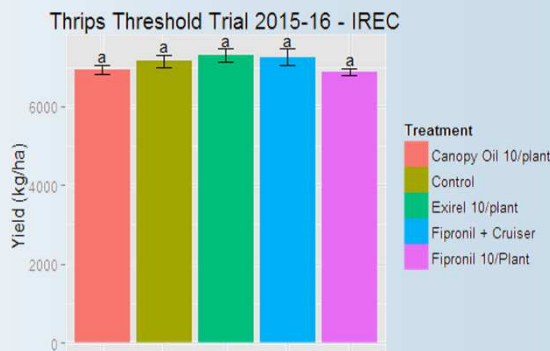


Figure 3. Effects of threshold treatments on lint yield (kg/ha) in the machine harvest data.



See more detailed trial results in:

*Southern NSW research results 2014 and
Southern NSW research results 2015*

<http://www.dpi.nsw.gov.au/content/agriculture/broadacre/guides>



Thrips damage to cotton seedlings



Tomato thrips and onion thrips



Sarah Beaumont collecting seedlings for monitoring (L)
Emma O'Connell hand harvesting (R)



Commercial thrips spray trial being harvested

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