



Mungbean Entomology Update

Hermitage Research Facility 4/4/19

Trevor Volp¹ & Hugh Brier²

¹ QDAF Toowoomba trevor.volp@daf.qld.gov.au 0429 641 912

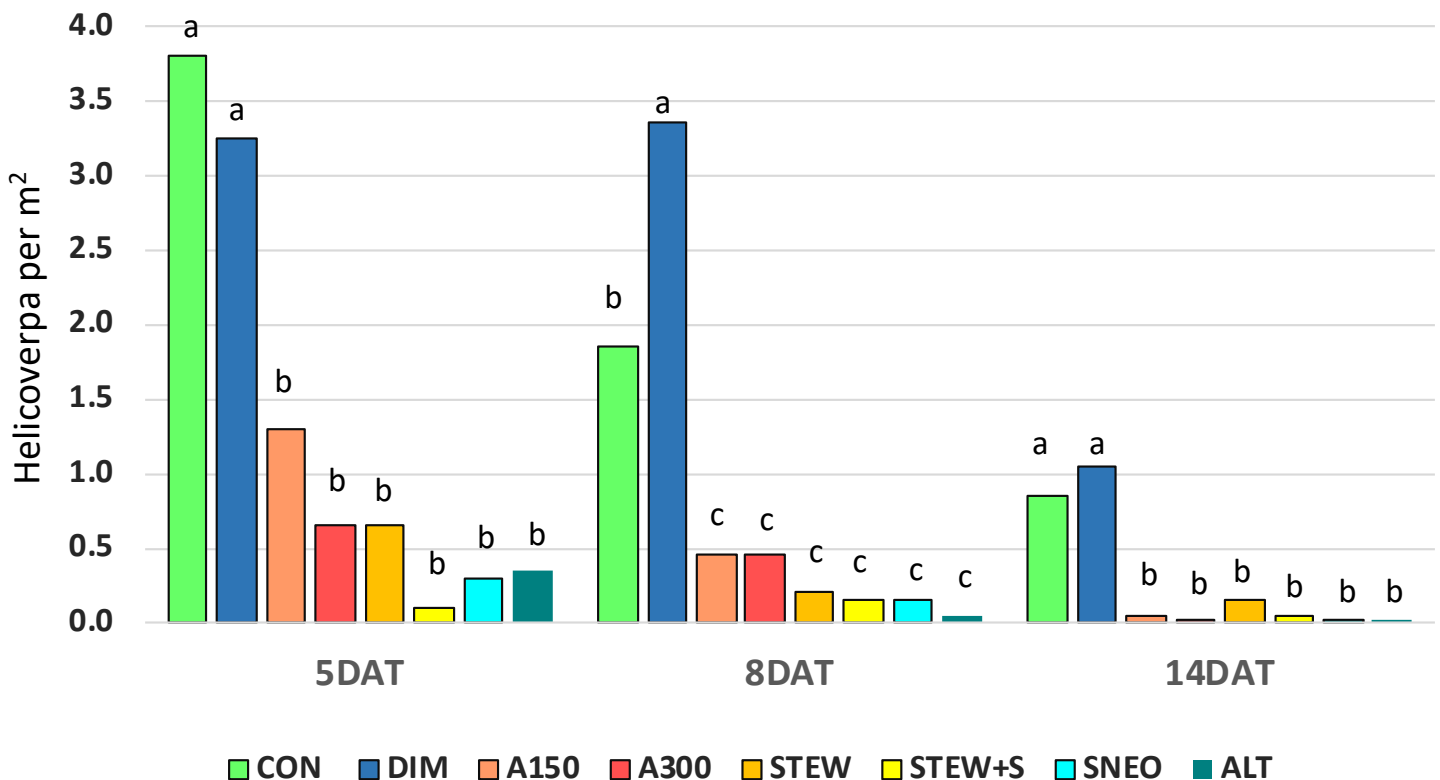
² QDAF Kingaroy hugh.brier@daf.qld.gov.au 0428 188 069

Helicoverpa resistance management

- Resistance on the rise for Steward[®] (industry-wide average: 6.2% cf. 1.6% in 2013-14) & Altacor[®] (industry-wide average: 0.9%, Darling Downs: 2.6% cf. 0% in 2013-14)
- Selective insecticides available and registered: Altacor[®], Steward[®], and Affirm[®]
- Altacor[®] & Steward[®] windowed around major mungbean and chickpea spray periods
- Field trials show Altacor[®] ~85% residual control up to 3 weeks, Affirm[®] has ~70% after 2 weeks (Chickpea data)
- Google 'GRDC *Helicoverpa* resistance management strategy' for more details



QDAF Mungbean field trial 2018 - Jimbour



Different letters between bars indicates a significant difference. **CON** = untreated control, **DIM** = dimethoate @ 500 mL/ha, **A150 & A300** = Affirm @ 150 & 300 mL/ha, **STEW** = Steward @ 400 mL/ha, **SNEO** = Success Neo at 300 mL/ha, **S** = 0.5% Salt, **ALT** = Altacor @ 70g/ha



Phytoplasma update

- Very low levels observed in 2018/19 monitoring on the Darling Downs (<1% incidence in mungbean crops)
- Ongoing QDAF work to identify leafhopper vector, triggers for outbreaks, and what % of hoppers carry the bacteria
- Current management recommendation is to control weeds that act as a host for leafhoppers and the disease



Starkle® registered in mungbeans for mirid control

- Rate: 90g/ha
- Hard on predatory beetles, bugs, parasitoid wasps, and bees (cotton management guide & DAF trial data).
- High risk of flaring *Helicoverpa*
- Not a softer option than 250mL dimethoate + 0.5% NaCl (the current softest most effective mirid option)
- Low rate dimethoate option developed in the last *Helicoverpa* resistance crisis (in pre-Steward days).
- Starkle® is roughly \$12/ha more expensive than half-rate dimethoate



Be alert for mites in hot weather

- Hot summers with low rainfall favour two spotted mites
- Additional risk factors are the use of non-selective insecticides against other pests, and proximity to earlier maturing mite hosts such as maize.
- To minimise the risk of mites, avoid prophylactic sprays and select the softest insecticide options where these are available.

Check The Beatsheet Blog regularly for updates www.thebeatsheet.com.au