Dr Sacha White
ADAS
Neonicotinoid derogation monitoring programme - design

- Drilled with non-neonicotinoid treated seed

- Drilled with neonicotinoid treated seed

- Assessment area

- Direction of drilling

- Field dividing line
Neonicotinoid derogation monitoring programme - design

Drilled with non-neonicotinoid treated seed

Assessment area

Drilled with neonicotinoid treated seed
Neonicotinoid derogation monitoring programme - design
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- Drilled with non-neonicotinoid treated seed
- Drilled with neonicotinoid treated seed

Assessment areas:
- Dividing line
Plant counts – cotyledon stage

Difference in plant numbers per site (46 sites)

Positive results indicate higher levels of crop stand in crops with neonicotinoid seed treatment

Negative results indicate higher levels of crop stand in crops without neonicotinoid seed treatment

Crop establishment was higher in neonicotinoid seed treated crops at 76% of sites
Plant counts – 3-4 true leaf stage

Difference in plant numbers per site (47 sites)

Positive results indicate higher levels of crop stand in crops with neonicotinoid seed treatment

Negative results indicate higher levels of crop stand in crops without neonicotinoid seed treatment

Crop establishment was higher in neonicotinoid seed treated crops at 62% of sites
Plant damage – cotyledon stage

Mean 18.4% leaf area lost in untreated crops and 8.9% in neonicotinoid seed treated crops
Plant damage – 3-4 true leaf stage

Mean 23.3% leaf area lost in untreated crops and 22.7% in neonicotinoid seed treated crops.
Conclusions and outcomes

• Trend for higher plant counts in NNI seed treated crops at cotyledon and 3-4 leaf stage.

• Trend for lower plant damage in NNI seed treated crops at cotyledon.

• In line with label claims.

• Relate CSFB numbers and their impact on plant populations and damage to yield.

• Contribution of factors (e.g., cultivations, drilling date, seed rate, insecticide use, resistance) to crop resilience and pest pressures.