Optimising Irrigated Grains

IRRIGATED GRAINS TRIAL 2020: CHICKPEA AGRONOMY

TRIAL OPERATIONS

April 24th	Pre-irrigation 1.5 Ml/ha
May 17th	Glyphosate (1.5 l/ha) + Goal (75 ml/ha) + Terrain (180 g/ha)
May 18th	PBA Royal sown at 139 kg/ha targeting 35 plants/m^2
July 31st	Nodulation assessed.
August 6th	Fungicide Chlorothalonil (1.5 l/ha)
Sept 6th	Fungicide Chlorothalonil (1.5 l/ha)

Spring Irrigation
September 8th 0.9 Ml/ha

INFLUENCE OF DIFFERENT RHIZOBIUM INOCULANTS ON CHICKPEA YIELD AND PROFITABILITY UNDER FLOOD IRRIGATION

These trials evaluate the influence of different rhizobium treatments (different rates of the dry granules and application of N rather than inoculation) on chickpea nodulation, dry matter, grain yield and profitability under irrigation

The individual objectives are as follows:

- To compare the nodulation of direct drilled chickpeas sown into cereal stubble with different inoculant treatments
- To assess whether rhizobium treatments improve dry matter, yield and grain yield under irrigation.
- To assess the economics of inoculating chickpeas under irrigation.

Notes:
Chickpeas have not been grown in this bay at the Trial Block. Nodulation was poor on the treatments that were not inoculated, and rate did improve the number of nodules on the roots.

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TRIAL OPERATIONS

April 24th Pre-irrigation 1.5 Ml/ha

May 17th Glyphosate (1.5 l/ha) + Goal (75 ml/ha) + Terrain (180g/ha)

May 18th PBA Monarch sown at 201 kg/ha targeting 45 pl/m ^{2}
Genesis 090 sown at 146 kg/ha targeting 45 pl/m ^{2}

August 6th Fungicide treatments applied.

Sept 6th Fungicide treatments applied (prior to flowering).

Spring Irrigation
September 8th 0.9 Ml/ha

DISEASE MANAGEMENT STRATEGIES FOR CHICKPEAS GROWN UNDER IRRIGATION

To evaluate the economics of disease management strategies of different costs in irrigated chickpea production.

The individual objectives are as follows:

- Evaluating the influence of cultivar resistance on the cost effectiveness of disease management strategies for irrigated chickpea production.
- To evaluate the disease control, yield response and quality effects of cheap (based on older fungicide chemistry) and expensive disease management strategies (based on new chemistries).

	Timing and Product		
Strategy	Vegetative	Early Flower	Late Flower
Cheap	Chlorothalonil	Chlorothalonil	Chlorothalonil
Expensive	Veritas	Aviator	Veritas

Notes:
To date there has been little foliar disease observed in any plots. Some root damage was noted when plants were dug up to assess nodulation, and isolated plants were dying prior to irrigation.

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