

“Chemtura Seed Dressing Trial, 2014”

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Key Outcomes:

- There were no significant differences between all seed treatments tested for emergence, early dry matter or yield.
- There were very low disease levels present at the site as shown by soil Predicta B DNA testing

Trial Objectives: To determine the role of newer generation fungicidal seed dressings in controlling root disease.

Trial Duration: 2014

Location: Navan

Farmer Co-operators: Pat & Mary Connell

Soil Type: Red Clay Loam

Paddock History: 2013 – Faba Beans
2012 - Wheat

Monthly Rainfall:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2	81	7	69.5	64.5	99.5	67.5	18.5	20	9	18.5	4.5

- **Yield Limiting Factors:** Below average spring rainfall
- **Type of Trial:** Replicated small plot trial
- **Trial Design:** Randomised Complete Block Design, 3 replicates

Treatments:

Treatment
Untreated Control (UTC)
Rancona Dimension™ 200ml/100kg
Rancona Dimension™ 320ml/100kg
Rancona Dimension™ 320ml/100kg + Emerge™ 240ml/100kg
Evergol Prime™ 80ml/100kg
Vibrance™ 360ml/100kg

All treatments were applied to Trojan wheat which was sown at 270 seeds/m² on the 26/05/2014. Fertiliser applied was MAP + 1% Zn at 80 kg/ha at seeding followed by 120 kg/ha N applied as urea at GS 22. Plots were tested for emergence (14 days after sowing (DAS)), plant vigour (57 DAS), yield and protein during the course of the season.

Table 1: Pre-Sowing Predicta B test for MNHRZ Site, 2014.

<i>Take-all (wheat + oat strains)</i>	<i>F. pseudograminearum test 1</i>	<i>F. culmorum</i>	<i>Pythium clade f</i>	<i>Pratylenchus thornei</i>	<i>Didymella pinodes/Phoma medicaginis var pinodella</i>	<i>Phoma koolunga</i>
<i>pgDNA/g Sample*</i>	<i>pgDNA/g Sample*</i>	<i>pgDNA/g Sample*</i>	<i>pgDNA/g Sample*</i>	<i>nematodes/g soil</i>	<i>pgDNA/g Sample*</i>	<i>pgDNA/g Sample*</i>
1	5	24	139	1	2250	3
Risk = Low	Risk = Low	Risk = Low	Risk = Low	Risk = Low	Risk = Low	Risk = Low

All other diseases not listed were not detectable

Results:

Table 2: Plant emergence counts 14 Days After Sowing (DAS), Chemtura Seed Dressing Trial, MNHRZ, 2014.

Treatment	Plants/m²
Untreated Control	252.0
Rancona Dimension™ 200ml/100kg	287.4
Rancona Dimension™ 320ml/100kg	255.9
Rancona Dimension™ 320ml/100kg + Emerge™ 240ml/100kg	227.0
Evergol Prime™ 80ml/100kg	246.7
Vibrance™ 360ml/100kg	261.2
	LSD (P=0.05) Not Signif (P value = 0.66)

Table 3: Average Dry matter 57 DAS, Chemtura Seed Dressing Trial, MNHRZ, 2014.

Treatment	Average DM (g/10 plants*)
Untreated Control	1.1
Rancona Dimension™ 200ml/100kg	1.0
Rancona Dimension™ 320ml/100kg	1.6
Rancona Dimension™ 320ml/100kg + Emerge™ 240ml/100kg	1.3
Evergol Prime™ 80ml/100kg	1.3
Vibrance™ 360ml/100kg	1.0
	NS (P value = 0.5032)

* - Sum of roots & shoots

Table 4: Average Yield, Chemtura Seed Dressing Trial, MNHRZ, 2014.

Treatment	Yield (kg/ha)	Protein (%)
Untreated Control	6787	10.6
Rancona Dimension™ 200ml/100kg	6198	9.8
Rancona Dimension™ 320ml/100kg	6549	9.4
Rancona Dimension™ 320ml/100kg + Emerge™ 240ml/100kg	5891	9.8
Evergol Prime™ 80ml/100kg	5414	10.0
Vibrance™ 360ml/100kg	6830	9.7
	P Value	0.49
	LSD (0.05)	NS
		0.3233
		NS

Comments:

The pre-sowing Predicta B soil test showed a very low risk of yield loss associated with any potential root disease. This may be why there was no statistically significant difference in any of the results during the year. There was a fair degree of variability amongst the plots, which may also account for the lack of clearly defined results at this site.

Some General Trends (Not significant)

- The low rate (200ml/100kg) of Rancona Dimension™ appeared to give greater numbers of plants emerged
- Similarly, the higher rate of Rancona Dimension™ appeared to produce slightly higher plant dry weights on average 57 days after sowing, but again was not significantly different from the other treatments tested.
- Yields and proteins were variable, with the Untreated Control, Rancona Dimension™ (high rate) and Vibrance™ producing higher yields. The untreated control had the higher protein levels

Conclusion and into the paddock

The different seed dressings tested did not produce any statistically significant difference in the measurements recorded at the trial site this year. However, should paddock history and/or Predicta B test levels point to higher risk of certain root diseases in your paddock/s, then specific seed dressings should be considered based on the label for each product.

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