

PULSE 'DESSICATION' TRIAL

Felicity Turner, MFMG, projects@mackillopgroup.com.au

Key Points:

- This trial was initiated at the request of growers, to allow an improved understanding of the effects on yield and germination of different methods of dessication of beans.
- There was no interaction between variety and treatment in this trial
- Glyphosate treatments were the highest yielding, being comparable with the direct harvested (and nil) treatment.
- In this trial, none of the treatments had an adverse effect on germination.

Trial Notes for Pulse Dessication Trial:

- No of reps varied based on trial plan; at least 2 reps of each dessication treatment per faba bean variety
- Bean plots were 5 x 1.7m plots (15cm row spacings)
- First treatment time was 14/11/2012; Second treatment time was 30/11/2012

Sites:

Bool Lagoon

Farmer Co-operator

Bruce McLean

April-Oct Rainfall

402mm

Additional information:

Disclaimer:

This trial purpose is for research only. In this trial, the research being undertaken may be illegal through the use of a registered product off-label.

Information in this report may contain off-label use and therefore individuals should seek professional advice or always refer to label before using any of the chemicals in this report on farm.

Background:

Work is currently carried out as part of the Pulse Southern Agronomy Project looking at crop-topping of pulses. The timing of the crop-topping is dependent completely on the stage of the ryegrass plants. In the south-east region, often crops are sprayed later and are targeting broadleaf weeds, and also harvestability of crops. This trial aimed to look at some of the effects of these later desiccation treatments on Faba Beans.

Treatments:

Table 1: Dessication Treatments

Variety	Dessication Timing	Dessication Method
Nura	14/11/12 - 65% grain moisture	Glyphosate
Fiesta		Reglone
PBA Rana	30/11/12 - 18-20% grain moisture	Windrowing*
		Nil**

*windrowing – only at timing 2

**nil – direct harvested at same time as remainder of the trial

Results:

There were significant differences in yield between varieties within the plots (refer to figure 1 below), and there was also a significant difference between desiccation treatments with the glyphosate treatment producing the greatest yield (as per graph 2). The herbicide applications at timing 1 resulted in a yield loss compared with that of timing 2, therefore if looking to carry out chemical desiccation, the results would suggest that waiting until 18-20% grain moisture will minimise the risks associated with this practice.

No varietal x desiccation treatments were observed.

Figure 1: Yield x Variety at Bool Lagoon in 2012

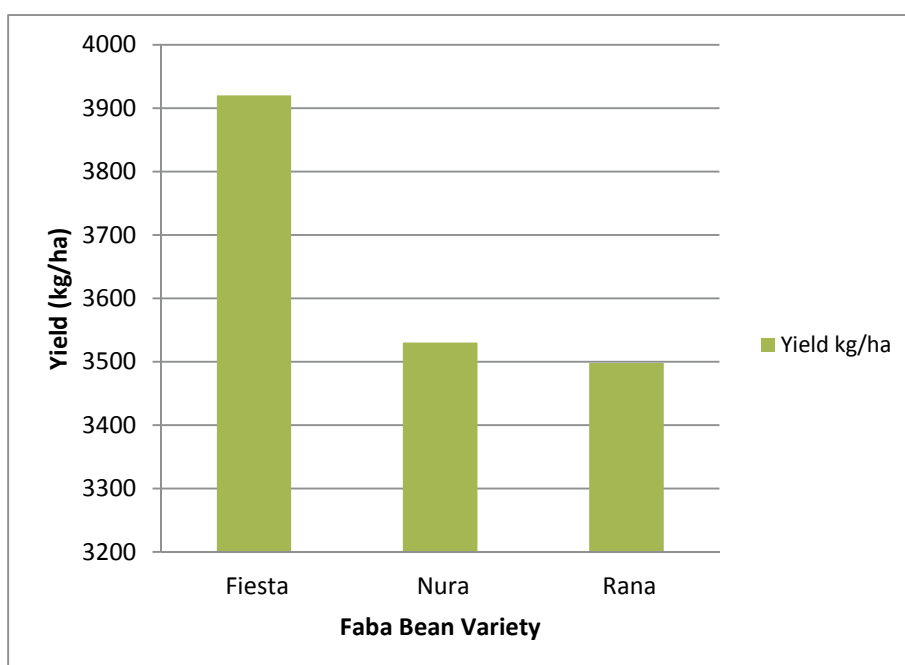
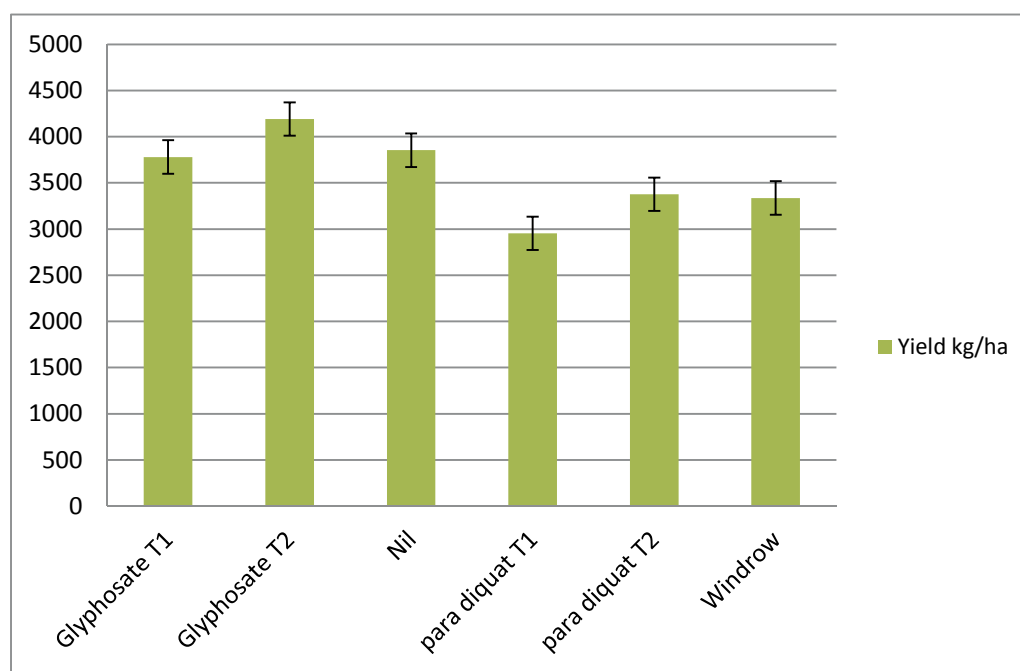


Figure 2: Effect of desiccation on faba bean yield at Bool Lagoon in 2012



There were also no significant differences in germination as a result of the treatments observed in 2012 (refer to Figure 3), however growers should always check their seed germination prior to seeding; particularly when using a chemical method for desiccation.

Tables 2 and 3 show the maturity stage of the beans at the time of treatment 1 and treatment 2.

Figure 3: Germination effects on normal seedlings for different desiccation treatments at Bool Lagoon 2012.

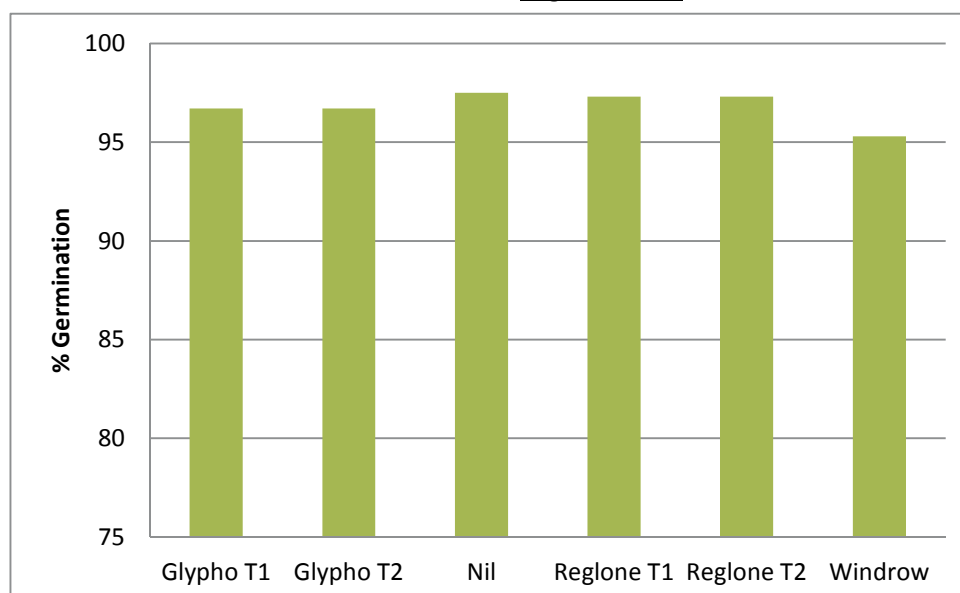


Table 2: Faba Bean maturity Scores at timing 1 (14/11/12)

Variety	Maturity Score	Greenness Score %	Seed Moisture %
Nura	5	60	67%
Rana	6	75	66%
Fiesta	5	50	65%

Table 3: Faba Bean maturity scores at timing 2 (30/11/12)

Variety	Maturity Score	Greenness Score %	Seed Moisture %
Nura	3	10	21%
Rana	2	5	15%
Fiesta	2	5	23%

Acknowledgements:

SARDI New Variety Agronomy Struan, Mick Lines and Larn McMurray, SARDI Clare



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