WALAN2141, Potentially Suited to Croptopping

Aim: Demonstrating the benefit of WALAN2141 for croptopping.

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Company: Dept of Agriculture

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Farmer: Keith Carter
Location: Liebe Main Trial Site, Jibberding Hall Rd, Wubin

Background: The new lupin variety WALAN2141 is as early maturing as Belara and from past experience, should give opportunities for effective croptopping. Croptopping can be defined as the non-selective control of weed seed set in a crop following the substantial completion of grain filling of that crop. This process typically involves the use of a non-selective herbicide such as gramoxone or glyphosate.

Croptopping ryegrass in lupins reduces the number of ryegrass seeds that may have grown through a selective herbicide application in the lupin year. This reduces the amount of herbicide resistant ryegrass seed returning to the soil and potentially improves the viability of the lupin-wheat rotation. Croptopping effectively reduces the pressure placed on selective herbicides in future phases of the rotation and can prolong the useful life of these selective herbicides for ryegrass control in continuous cropping rotations.

Early maturing varieties should provide a greater croptopping window while minimising damage to the lupin crop. The aim of the trial was to demonstrate that the new variety WALAN2141 will suffer less from damage as a result of croptopping than currently grown varieties when sprayed with Gramoxone herbicide.

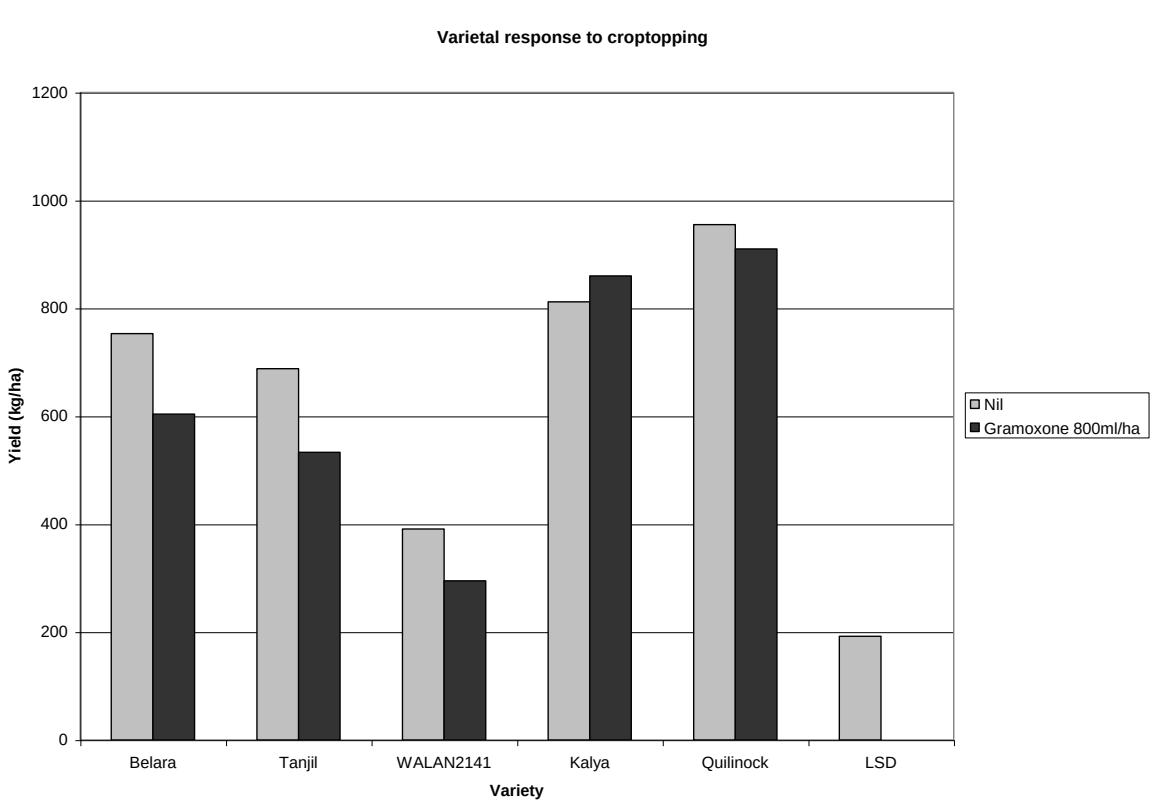
Trial Details:

Plot size and replication	2.88m x 60m 3 replications for each herbicide treatment
Soil type	Loamy sand
Sowing date	28th May 2003
Conditions at sowing	Dry
Machinery	Cone seeder
Seeding rate	Rates to achieve 60 plants/m^2
Fertiliser	85 kg/ha Bigphos Mn Deep banded
Herbicides and Insecticides	Post emergent Brodal and alphamax for budworm
Paddock History	2002 = Failed lupin crop, 2001 = Wheat, 2000 = Wheat

Results: The crop suffered from rabbit attack and staggered germination which made the yield performance variable. The seed source of the WALAN2141 was different to that used in the rest of the 2003 trial program and unfortunately was of poor quality. The resulting establishment of WALAN2141 in this trial was very poor. The croptopping treatment was applied when the latest maturing variety was at 90% leaf drop. The ryegrass was at soft dough. The effect of the croptopping treatment was not statistically significant nor was there any variety which was more or less affected by the spray.

Measurements of ryegrass germination to test the efficacy of the gramoxone treatment are still to be carried out.

There is very little difference in yield performance between varieties, except for the poor yield of WALAN2141, as a result of poor establishment, at this site.



Summary:

- The performance of WALAN2141 for croptopping could not be properly evaluated due to it's poor establishment.
- There were no difference in the response to croptopping between any variety.

Technically reviewed by: Peter Newman