Time of sowing soybeans – southern NSW 2014–15

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Key findings

» The ideal sowing time for soybeans in southern NSW is from mid-November to early December.

» Delaying sowing until late December can result in reduced grain yield.

Introduction

This soybean experiment was conducted at the NSW DPI Leeton Field Station to test the response of three commercial varieties and five unreleased lines to three sowing times. The three sowing times represent an early (20 November), mid (5 December) and late (22 December) sowing time for this region.

Site details

Soil type	Self-mulching, medium clay
Previous crop	Chemical fallow
Sowing date	5 December 2014
Establishment irrigation	Pre-watered
Irrigation layout	1.83 m raised beds with furrow irrigation
Row spacing	2 rows/bed (91.5 cm)
Sowing density	35 plants/m^2
Inoculation	Water injected peat slurry Group H
Fertiliser	125 kg/ha legume starter
Herbicides pre-emergent	Glyphosate (450 g/L) at 2 L/ha plus pendimethalin (330 g/L) at 2.5 L/ha
Insecticides	Abamectin at 300 mL/ha on 30 December 2014 Lamdacyhalothrin at 80 mL/ha on 11 March 2015
In-crop rainfall	84 mm
Irrigations	8 ML/ha (approximately)
Harvest date	16 April 2015

Treatments

Varieties (8)	Bidgee$^{\Phi}$	N116C-3
	Djakal	P176-1
	Snowy$^{\Phi}$	P176-14
	N005A-80	P176-2
Sowing dates (3)	20 November 2014 5 December 2014 22 December 2014	

Results

Grain yield was significantly affected by both sowing time ($P < 0.01$) and variety ($P < 0.01$). The interaction between sowing time and variety was not significant ($P = 0.31$).

Averaged across varieties, grain yield and plant dry matter results were higher for the 20 November and 5 December sowing times than the 22 December sowing time (Figure 1).

All varieties individually achieved higher grain yields at the 20 November and 5 December sowing times than the 22 December sowing date. The highest yielding varieties were Djakal and the unreleased line P176-2 (Figure 2).

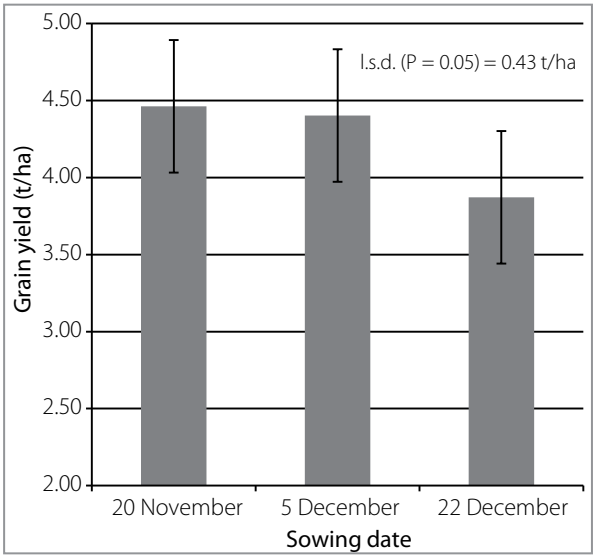

Figure 1: Soybean grain yield by sowing date averaged across varieties.

Summary

The evaluation of eight soybean varieties at three sowing times in this experiment found that:the ideal sowing time for soybeans in Southern NSW is from mid-November to early December

» delaying sowing until late December can result in reduced grain yield.

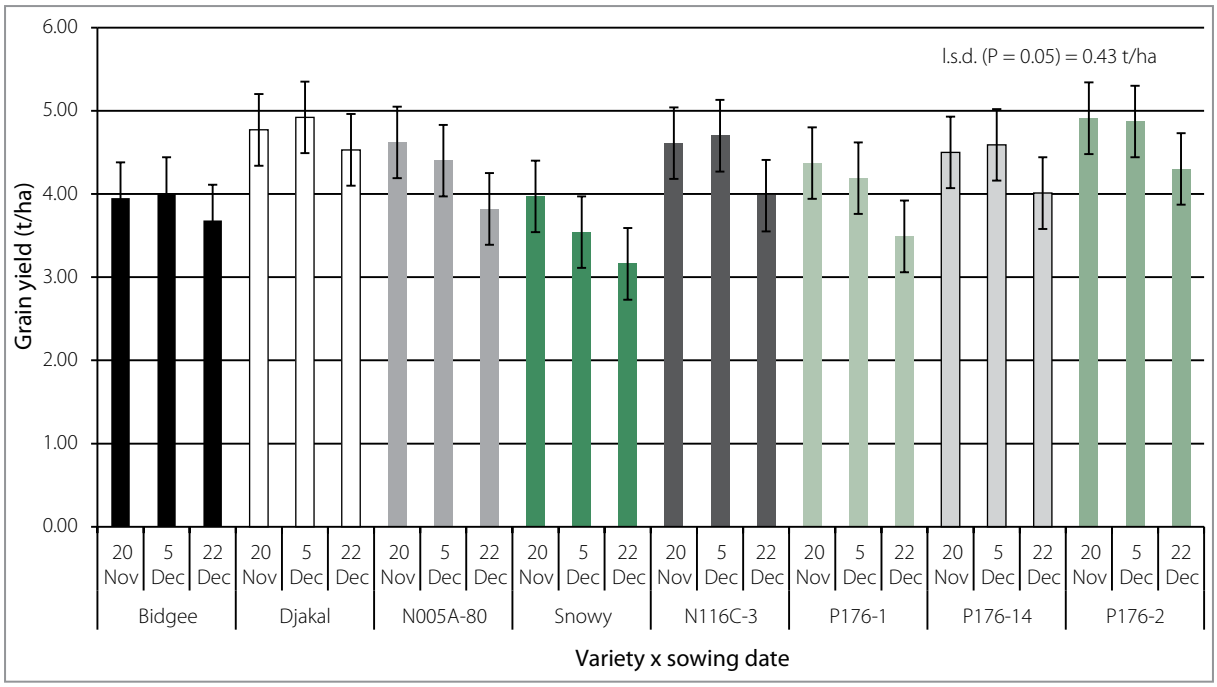

Figure 2: Soybean grain yield for variety and sowing date interaction. Statistical significance detected when comparing varieties mean within sowing dates.

Acknowledgements

This experiment is part of the project 'Southern NSW soybean agronomy', DAN00192, 2014–18, which is jointly funded by GRDC and NSW DPI.

Thank you to John Dando, Paul Morris and the NSW DPI farm staff at the Leeton Field Station for their assistance in managing the site. Also thankyou to Dr Neil Coombes from NSW DPI for undertaking the biometrical tasks associated with this project.