Field pea varieties in the Mallee



The aim of this trial was to compare the performance of four field pea varieties in the Mallee.

Summary

Of the four field pea varieties compared at Berriwillock, Parafield performed the best at 1.5t/ha. Kaspa and Snowpeak also yielded very well. Dundale was the lowest yielding variety and has been outclassed by newer varieties on the market for some time now.

Background

Of all the pulse crops, field peas probably show the best adaptation to the northern (Mallee) grain belt of Victoria. The crop suits areas of 350-500 mm annual rainfall and soils from pH 5.5 to 9 (measured in water). Good drainage is essential. Field peas are less productive on soils with a hard setting surface, or heavy clay sub-soils. Sand blasting by wind can severely damage crops. Pea trash provides poor ground cover after harvest.

Methods

This trial was conducted using a fully replicated (x4) randomised block design at the Berriwillock site.

Four field pea varieties were sown on June 16 with 60kg/ha MAP (Table 1). Triflur $480^{\$}$ at 0.6L/ha and Roundup Power Max[®] at 1L/ha were applied prior to sowing.

Results

Table 1. Tield of field pea varieties.	
Variety	Yield (t/ha)
Parafield	1.5
Kaspa	1.1
Snow peak	1.3
Dundale	0.6
LSD (5%)	0.6

Table 1. Yield of field pea varieties.

Interpretation

Parafield, a mid maturing dun type pea, was the highest yield pea variety (1.5t/ha).

Snow peak, an early flowering, early maturity, semi leafless variety also yielded well at the Berriwillock site. Snowpeak (white pea) has excellent yield potential and has produced promising yield results in Victorian trials over the last two seasons.

Kaspa is a new higher yielding field pea for Victoria, SA and southern and western NSW and was available to growers in 2003. It has excellent early season vigour, grows to a medium plant height, has excellent pod shatter resistance at maturity, and has good tolerance to ascochyta blight. Kaspa, although yielding well in the Mallee at the Berriwillock site (1.1t/ha), has excellent yield potential in the Wimmera and Southern Mallee and is probably the best yielding option for growers in these areas.

Dundale was a poor yielding variety at the Berriwillock site (0.6t/ha) and has been outclassed for a number of years now with newer varieties being marketed.

Commercial Practice

Optimum sowing time in low rainfall areas (up to 350mm) is mid May, in medium rainfall areas (350 to 500mm) late May to early June and in high rainfall areas early June. Earlier sowing increases the incidence of ascochyta blight, bacterial blight and the risk of frost damage at the critical stages of

flowering and pod set. Crops sown too late risk yield loss due to high temperatures and/or dry conditions at flowering and pod fill.

The sowing rate for each variety will depend on the germination percentage of the seed and its seed weight. For soils with poor surface structure, seeding rates need to be increased by 5-10%. Recommended plant densities for semi-dwarf varieties are 70-80 plants/m². For tall varieties, aim for plant densities of between 40-60 plants/m².

Snowpeak, Kaspa and Parafield are the preferred varieties for the Mallee environment. A new variety, which was commercialised in 2003 and available to growers in 2004, is Sturt. Sturt is potentially high yielding and is a reliable performer across south-eastern Australia. It is soft seeded, and flowering time and maturity time are mid season. The line produces tall plants that will lodge at harvest and will require field pea lifters for harvesting.