

Trial 14

Lucerne Establishment Trial

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In 1995, following an approach by the BCDS, Agriculture Victoria staff from Bendigo and Birchip sowed a lucerne establishment trial at the main site. The BCDS Annual Field Day Manual has details of the objectives and design of the experiment. This article outlines the main findings from the trial up till now.

Emergence

Seedling counts were taken on September 14th, 15 weeks after sowing. Emergence was excellent in all plots, regardless of the establishment technique used. The excellent start to the season was undoubtedly a major contributing factor. Sowing lucerne alone gave the best result (see figure 1).

When compared with lucerne alone, alternate row sowing was more effective than either of the conventional undersowing treatments (see table 1). The reasons for this include the reduction in competition and more accurate depth of sowing.

The mature-stand density benchmark suggested for this region is around ten plants per square metre. This gives both a viable stand, and good heliotrope control. In all of the plots sown, the high emergence levels should ensure that sufficient plants remain following the initial summer period.

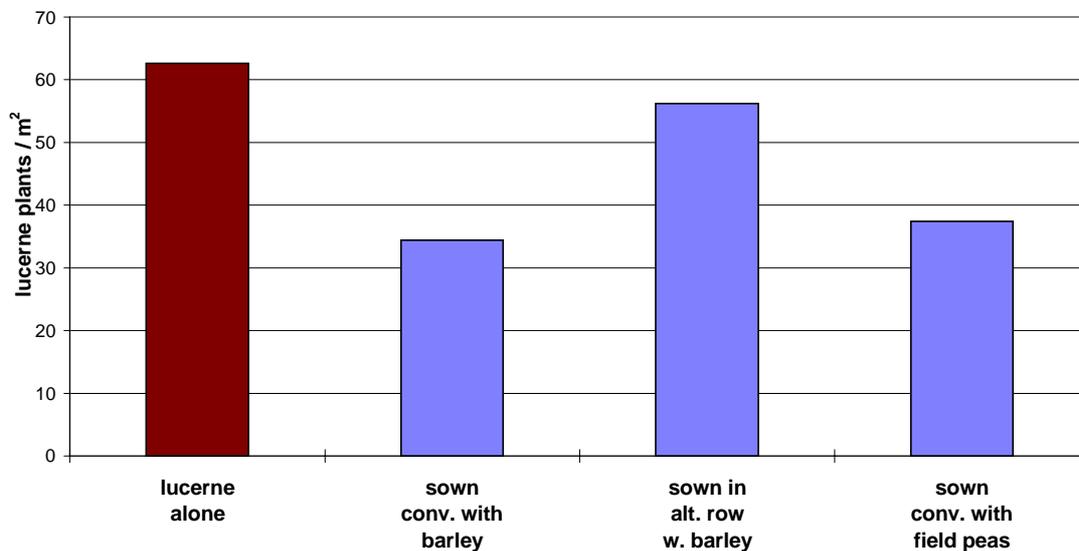


Figure 1. Lucerne establishment counts.

Table 1. Lucerne establishment with conventional and alternate row sowing.

Sowing Technique and Rate	Lucerne plants / m ²	% of density with Lucerne alone
Lucerne alone	63	-
conv. undersown with Barley @ 30 kg / ha	34	54
conv. undersown with Field peas @ 50 kg / ha	37	59
sown in alternate rows with Barley @ 45 kg / ha	57	90

Harvest

All cover crops grew well , with the average plot yields being close to district averages (see figure 2). Current grain prices mean that these yields would easily return the cost of establishing the lucerne. Barley sown in alternate rows yielded 16% less than barley sown conventionally.

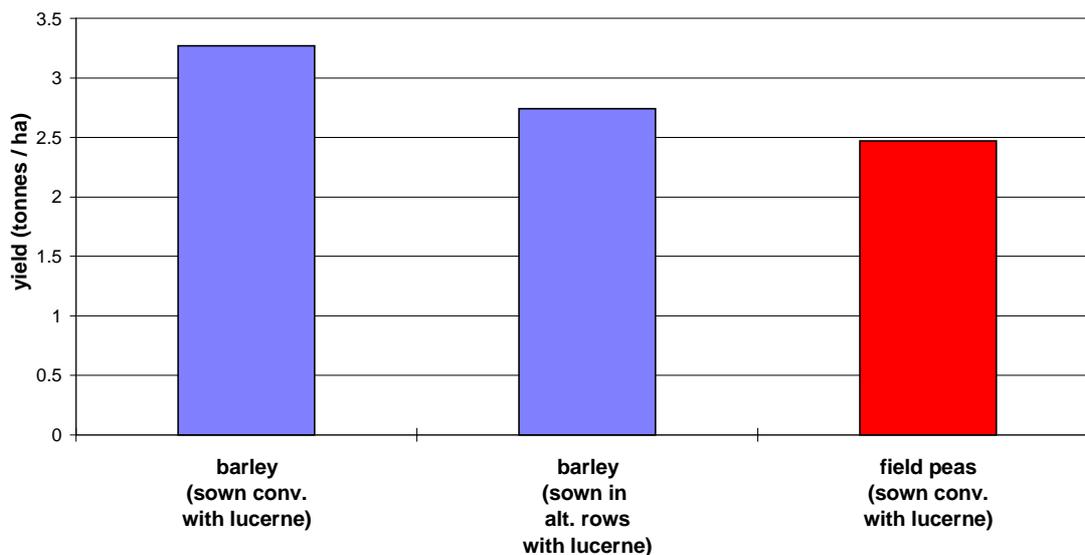


Figure 2. Cover crop harvest yields.

Future management

Counts will be done again in March/April to see how well the lucerne persists over the summer. The site has been fenced, and a simple grazing experiment is planned, provided adequate water can be supplied to the stock.