95/T04

# Producer Research Support

## Legumes can be introduced into established pastures

Tasmanian Pastoral Productivity Group

Introducing perennial legumes into established pastures was the challenge for the Tasmanian Pastoral Productivity Group.

The group's final report-summary showed lucerne established successfully at one of the three sites involved. Lucerne plants were still evident at the successful site three years later.

### Key points

- Sowing perennial legumes such as lucerne directly into established pasture is possible but there are no guarantees of success.
- Establishing perennial legumes such as lucerne in sown pastures is possible but risky.

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### The project

Introducing perennial legumes into established pastures was the challenge for the Tasmanian Pastoral Productivity Group.

The group's final report-summary showed lucerne established successfully at one of the three sites involved. Lucerne plants were still evident at the successful site three years later.

### Objective

Identify the most effective method of introducing perennial legumes to established pastures based on perennial grasses and sub clover.

### Discussion

Seedlings germinated at the other two sites, with some plants evident in April, but no plants remained after October.

The knock-down treatment (1.0 litres/ha glyphosate) was the most successful treatment in terms of lucerne establishment. There was also no evidence of pasture composition or productivity decline 12 months after the treatment.

The band spraying treatment also established a significant number of lucerne plants. The band sprayed rows were still evident 18 months later, with no perennial grass plants in the bands.

The successful site was inspected in June. Robust lucerne plants were still present in the glyphosate knock-down and the band sprayed treatments.

Larger scale trials were not conducted due to the poor results in the first year and similar conditions in the second year. The surprising result was the success of the low dose glyphosate knock-down treatment. It was thought initially that band spraying would be required to allow germination and survival.

The overall results indicated the high risk of failure associated with sowing lucerne directly into pasture.

Since the initial trial, seasonal conditions in Tasmania have been very poor. There has been no adoption of this technique since the trial by any group members.