



## Irrigated lucerne in the south - What's new?

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The need to improve water use efficiency and attractive new marketing opportunities in the irrigation areas of southern NSW and northern Victoria have aroused new interest in irrigated lucerne in the region. This interest, coupled with improvements in landforming, irrigation and haymaking technology, created a need to produce and extend up to date information for growers. NSW Agriculture and Agriculture Victoria are addressing this issue in a number of ways.

### Benchmarking Project

A project was initiated by the Southern Murray Darling Basin Irrigated Cropping Forum in 1995, funded by the Murray Darling Basin Commission, to provide benchmarks and best management practices for irrigated crops, including lucerne. This initially involved a detailed review of literature, farmer surveys and consultation with research and extension personnel (Beecher *et al.* 1995). It was designed to identify the production potential of the crop and the factors limiting crops from reaching this potential.

A technical working group was formed in 1997, comprising research and extension officers from both departments of agriculture and experienced lucerne growers from the region. This group reviewed the report and devised a lucerne management system for growers, known as Irrigated Lucerne Check.

### Irrigated Lucerne Check

Irrigated Lucerne Check comprises a growers' guide and a crop data record card designed to provide farmers in the main irrigation areas with specific benchmarks and best management practices to help improve the efficiency and sustainability of irrigated lucerne production. The idea is based on other crop check systems currently in use in the region (Lacy, 1994) and involves participation and feedback by local growers to keep the figures relevant. "Haymaker", a similar irrigated lucerne management system conducted in northern NSW, resulted in significant increases in lucerne yields, quality and profits (Collett and McCormick, 1997).

"Irrigated Lucerne Check" summarises management practices and quantifiable benchmarks in a number of "key checks" (table 1) which growers can follow in the growers' guide. It also provides

Table 1: Key Checks for irrigated lucerne.

1. soil pH	greater than 5.0 (CaCl <sub>2</sub> )
2. layout/drainage	avoid waterlogging
3. nutrients	supply adequate P and S
4. varieties	root rot resistance
5. seed treatment	inoculation is essential
6. sowing time	autumn, late winter to early spring
7. seeding rate	10-15 kg/ha to achieve 130 plants/m <sup>2</sup>
8. sowing depth	above 1 cm
9. weed control	planned strategy
10. insect control	earthmites
11. irrigation	drain within 8 hours, do not water straight after cutting, schedule irrigations to improve water use efficiency
12. management	maintain 50 plants/m <sup>2</sup> , do not cut too low (allow 1-2 cm regrowth)
13. baling	do not over handle, bale at 18-20% moisture
14. market	meet specifications

standard paddock record cards for growers to record their management at key stages in the crop's development. Where grower groups exist these records can be analysed to compare various individual management practices and to calculate averages. Each grower can then assess his management system in relation to the district average and has the opportunity to revise his management strategies, where necessary.

In response to demand, 1200 copies of the guide and card were distributed during the first 12 months (Lolicato, 1997). The guide has been revised and the second edition is due to be released in July 1998.

### Seminars and field days

A series of one day seminars were conducted in the Riverina in February 1998 with the support of Murrumbidgee College of Agriculture. (Lattimore and O'Callaghan, 1998). The seminars brought together marketing, research, extension, agribusiness and farmer experience in all aspects of irrigated lucerne production and marketing. The seminars were well attended (140 participants at both Darlington Point and Deniliquin and 50 at a field day at Hillston) and there was high subsequent demand for further information.

### Short courses

A survey conducted at the seminars indicated



that there was considerable interest for more detailed information to be provided in short courses. Courses for groups of 20 participants are currently being run through Murrumbidgee College of Agriculture at Yanco.

### **Farmer discussion groups**

Only a few lucerne discussion groups have been established to date but they are vital for the ongoing relevance and success of the management system. This is a priority for the next 12 months.

### **Future directions**

It is planned to develop the farmer discussion groups through existing extension networks and to implement Irrigated Lucerne Check further. This system is also currently being used in the Lachlan Valley. Future seminars and courses will depend upon demand.

### **References**

- Beecher, H.G., McLeod, G.D., Pritchard, K.E. and Russell, K. (1995). Final Report - Benchmarks and best management practices for irrigated cropping industries in the Southern Murray Darling Basin. NSW Agriculture/Murray Darling Basin Commission
- Collett, I. and McCormick, L. (1997). "Haymaker" - efficient production of irrigated lucerne hay. District Agronomist's Conference, Yanco. *NSW Agriculture*
- Lacy, J. (1994). Ricecheck - a collaborative learning approach for increasing productivity. Proceedings of the Temperate Rice Conference, Yanco NSW (Ed. Humphreys *et al.*). *NSW Agriculture*, pp. 247-254.
- Lattimore, M. and O'Callaghan, K. (Ed) (1998). New opportunities for irrigated lucerne. *NSW Agriculture*.
- Lolicato, S. (Ed.) (1997). Irrigated lucerne - a guide to profitable irrigated lucerne production in Northern Victoria and Southern NSW. Agriculture Victoria. *NSW Agriculture*. Murray Darling Basin Commission.