



CRC FOR
PLANT ~ BASED
MANAGEMENT
OF DRYLAND
SALINITY

Media release, Wednesday 4 October 2006

An ancient plant with great prospects in difficult times

Lucerne, the world's oldest known cultivated forage plant, is still the most economically compelling perennial plant for the control of dryland salinity across Australia.

Scientists from the Cooperative Research Centre for Plant-based Management of Dryland Salinity (CRC Salinity) have recently completed a comprehensive review of the opportunities for integrating lucerne into farming systems in the Australia. This comes together in a major new publication titled *Lucerne Prospects*.

"There are now significant opportunities for greater areas of lucerne in the Australian wheatbelt due to recovery of livestock commodity prices, potential demands for clean and green for our markets, and the need for more profitable enterprises with declining terms of trade for grain production," said Dr Michael Robertson, CSIRO Sustainable Ecosystems, based in Perth.

"The growing momentum to increase the adoption of lucerne in the wheatbelt is further driven by the need to manage dryland salinity, control the development of herbicide resistant weeds, and provide resilience and diversity to mixed farm incomes that have been severely impacted by the current dry season.

"Whether it is climate change or climate variability, the vulnerability of annual pastures to false breaks, early finishes and out-of-season rains has really highlighted the value of perennials in the grazing component of our farm systems."

Lucerne is productive and persistent throughout much of the wheatbelt in Australia, even in regions receiving as little as 350 mm of average annual rainfall.

Not only does lucerne provide excellent grazing opportunities, it makes the highest quality conserved fodder, responds to out-of-season rainfall, maintains ground cover and is frost hardy.

The CRC Salinity has assessed the economic benefits of lucerne for eight distinct regions across temperate Australia, and brought these together in *Lucerne Prospects*.

This represents the outcome of many areas of research by the CRC, such as cultivar selection, agronomy, recharge management, farming systems, and farm economics. Much of this work has been strongly supported by the Grains Research and Development Corporation (GRDC).

"It is essential to understand that the economic prospects for lucerne in farming systems vary significantly from region to region," said Dr Robertson. "A strength of this publication is that it shows quite clearly how environmental conditions such as climate and soil along with the chosen livestock enterprise will strongly influence the case for lucerne."

This publication outlines the prospects for profitable use of lucerne in the wheatbelt of Australia to control dryland salinity, covering:

- The attributes of lucerne that make it the most suitable perennial for mixed farming systems in the wheatbelt
- The principles, practices and prospects involved in integrating lucerne with crops
- An evaluation of lucerne's prospects in the three wetter regions
- The prospects for improved cultivars of lucerne for wider adaptation into more challenging environments
- The extent to which global factors may influence the uptake of lucerne.

The case for lucerne is supported by farmer case studies from across the eight regions.

Evidence shows that in areas such as the South Coast of WA lucerne has lowered water tables and reclaimed saline areas. Where it has been established in the medium rainfall areas, it has also been observed to lower watertables. There the key to salinity control has been shown to be the extent of planting and length of rotation.

Farmers are also seeing the benefits from lucerne as a means of managing country unsuited to cropping, especially where frost risk is high.

Lucerne can be traced back to 1300 BC in Turkey and 800 BC in Babylonia. Today the biggest producers are USA, Argentina and Russia, whilst in Australia it is grown in a wide range of environments from sub-tropical southern Queensland to cool temperate Tasmania.

Lucerne Prospects is available on the CRC Salinity's website www.crcsalinity.com.au or from the CRC at (08) 6488 1952 or gmadson@fnas.uwa.edu.au .

ENDS

Media contact:

- Dr Bruce Munday, CRC Salinity: (08) 8538 7075

Lucerne Prospects (author):

- Dr Michael Robertson, CSIRO Sustainable Ecosystems: (08) 9333 6461; 0417 721 510

Impact on salinity in the States:

- WA: Dr Richard George, DAFWA: (08) 9780 6296; 0404 819 532
- NSW: Dr Brian Dear, NSW DPI: (02) 6938 1856
- Vic: Dr Michael Crawford, DPI Victoria: (03) 5430 4301; 0419 355 296
- SA: Geoff Auricht, SARDI: (08) 8303 9498; 0401 122 166