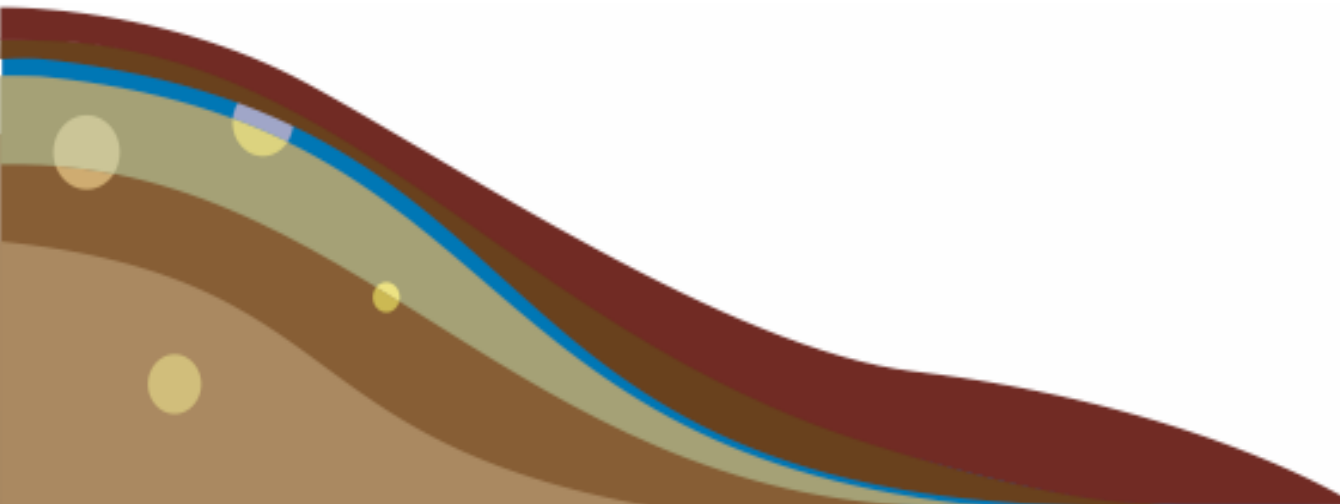


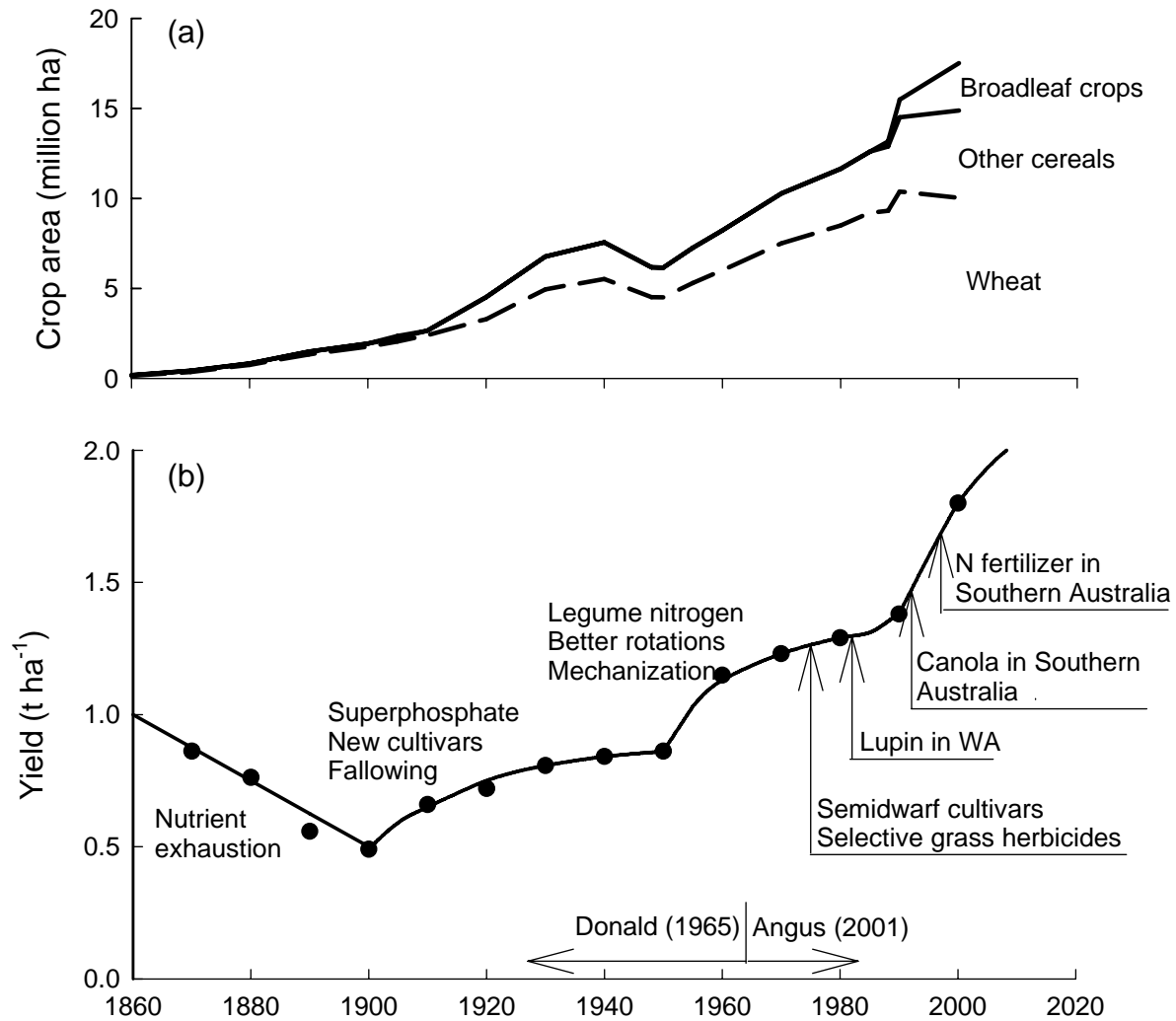
What is the grain industry doing to ensure that the soil sustains its agricultural system?

Martin Blumenthal
GRDC



Australian Government
Land & Water Australia



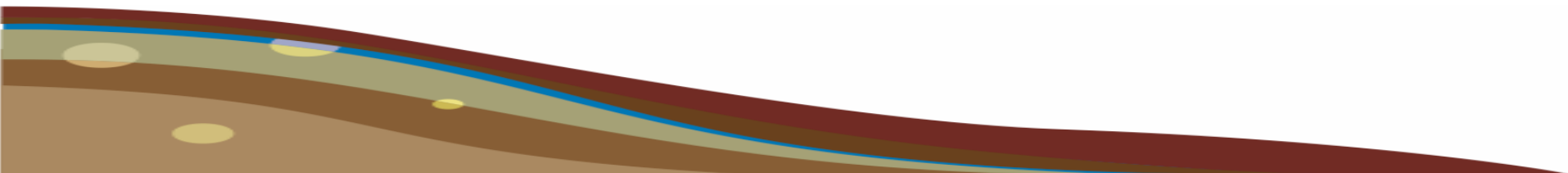


(Angus and Anderson 2007)



Challenges to our system

- Energy and fertiliser costs

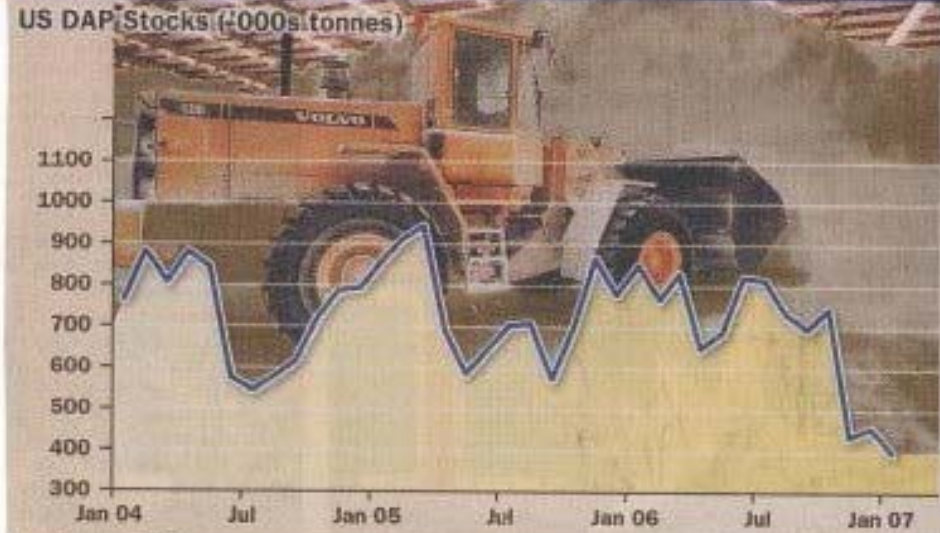




Weekly Times: 28/2/2007

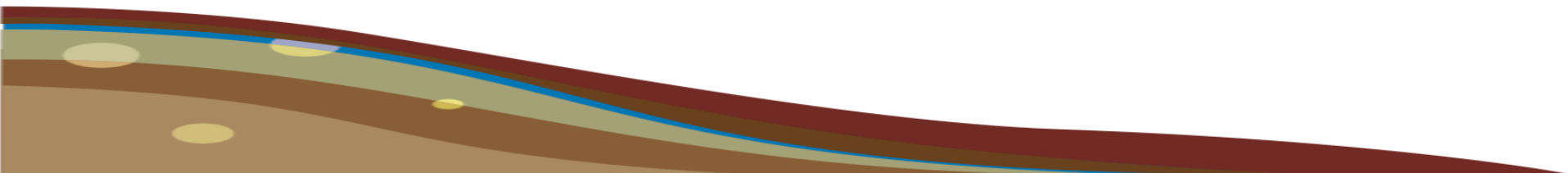
Source: FMB report

STOCKS SLUMP



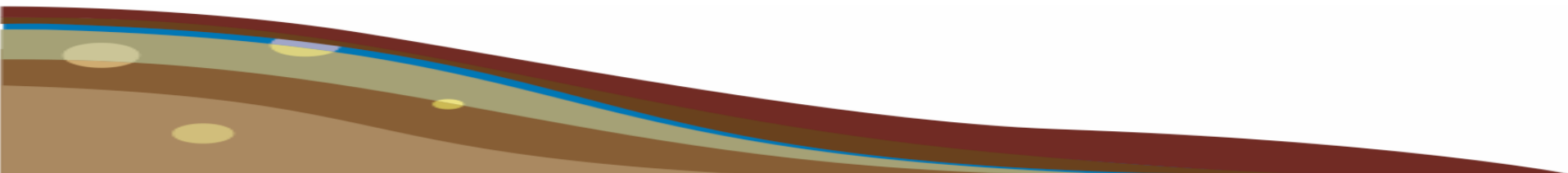
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- Climate change



Challenges to our system

- Energy and fertiliser costs
- Climate change
- Increased demand for carbon
 - livestock feed
 - biomass energy
 - carbon sequestration
 - soil quality



Top 10 management practices to sustain agricultural systems in the northern region

1. Zero Till
2. Controlled traffic
3. Precision agriculture
4. Better planting methods
5. Soil tests and paddock test strips
6. Crop rotations
7. Look at using animal manures
8. Grain storage and aeration
9. Restore soil carbon
10. Manage labour and machinery logistics

(Wylie 2007)

A decorative graphic at the bottom of the slide showing a cross-section of soil layers. It features a dark brown top layer, a lighter brown middle layer, and a darker brown bottom layer, with a blue line representing the ground surface. There are some yellow and green spots within the soil layers.

Recent R&D to ensure soil sustains our systems

- Soil biology – new products, new management systems
- Precision agriculture - managing variability
- Identification of subsoil constraints and economic methods of amelioration
- Nutrient management advise for new systems
- Real-time and better soil tests
- Measuring available soil water
- Breeding for salinity/hostile soil tolerance

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Knowledge gaps

- Better integration of remotely sensed data to make crop management decisions
- Better manipulation of soil carbon and nutrient pools
- Profitable use of green, brown and animal manures
- Making better use of national fertiliser response data in modern Australian cropping systems
- More efficient use of applied and fixed N
- Inclusion of soil organic carbon in emissions trading

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Partnerships!

State Governments, Grower groups,
CSIRO, Universities, Agribusiness.....



Australian Government
Land & Water Australia





WHAT IS
LANDCARE
AUSTRALIA LIMITED

