Australian Agriculture - Future Trends

Dr Terry Sheales
Chief Commodity Analyst

• Operating environment
• Financial performance
• Looking forward
• Challenges for agriculture
### Australian agriculture 2006-07

- **Agriculture in the economy**: 2.8% of GDP
- **Gross value of farm production**: A$32.8b
- **Farm exports**: A$27.2b
- **Share of merchandise exports**: 20%
### Agricultural production exported

Based on gross value of farm production, average 2002-03 to 2004-05

- **Wheat**: $4.2b, 74%
- **Broadacre crops**: $2.7b, 57%
- **Wine grapes**: $1.3b, 46%
- **Beef**: $6.5b, 64%
- **Sheep meat**: $1.7b, 45%
- **Wool**: $2.7b, 98%
- **Dairy products**: $2.9b, 57%
- **Total agriculture**: $33.5b, 64%

### Major Australian agricultural exports

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>beef &amp; veal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wheat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wool</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>barley - unprepared</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sugar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skim milk powder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lamb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cheese</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oilseeds (incl. canola)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mutton</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cotton</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wholemilk powder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>live sheep exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>2007-08</th>
<th>2008-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$2.7b$ $1.3b$ $1.7b$ $2.9b$ $6.5b$ $4.2b$
Markets for Australian agricultural exports in 2005-06 dollars

- China: 11%
- Japan: 18%
- United States: 11%
- Middle East: 7%
- ASEAN: 15%
- Other Asia: 13%
- Europe: 10%
- Other: 15%
- Japan: 18%

Regional economic growth

- OECD
- Non-OECD Asia
- Latin America
- Russia, Ukraine, eastern Europe
- China
- World

- 2005: 2%
- 2006: 4%
- 2007: 6%
- 2008-12: 8%

2005-06: $27.7b
**Operating environment**

**Financial performance**

- Looking forward
- Challenges for agriculture
Australian farm incomes

Farmers’ terms of trade
Net value of farm production

Distribution of Australian farms, by value of production 2005-06
Australian farm cash income

Grains

Sheep

Australian farm cash income

Dairy

Beef
Operating environment
Financial performance
**Looking forward**
Challenges for agriculture

**Agriculture resource use**

- Total
- Cattle
- Crops
- Sheep

[Graph showing agriculture resource use from 1970 to 2010 for different categories such as sheep, crops, cattle, and total resource use.]
**Australian shorn wool**

- Production
- Price

<table>
<thead>
<tr>
<th>Year</th>
<th>'000 tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>800</td>
</tr>
<tr>
<td>1993-94</td>
<td>600</td>
</tr>
<tr>
<td>1996-97</td>
<td>400</td>
</tr>
<tr>
<td>1999-00</td>
<td>200</td>
</tr>
<tr>
<td>2002-03</td>
<td>100</td>
</tr>
<tr>
<td>2005-06</td>
<td>50</td>
</tr>
<tr>
<td>2008-09</td>
<td>20</td>
</tr>
<tr>
<td>2011-12</td>
<td>10</td>
</tr>
</tbody>
</table>

**Projected**

- 2006-07 Ac/kg clean

**Australian dairy**

- Market deregulated
- Projected

<table>
<thead>
<tr>
<th>Year</th>
<th>Mt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>12</td>
</tr>
<tr>
<td>1993-94</td>
<td>10</td>
</tr>
<tr>
<td>1996-97</td>
<td>8</td>
</tr>
<tr>
<td>1999-00</td>
<td>6</td>
</tr>
<tr>
<td>2002-03</td>
<td>4</td>
</tr>
<tr>
<td>2005-06</td>
<td>2</td>
</tr>
<tr>
<td>2008-09</td>
<td>1</td>
</tr>
<tr>
<td>2011-12</td>
<td>0</td>
</tr>
</tbody>
</table>

**Projected**

- 2006-07 Ac/litre
Australian sugar

Projected

Production

Australian cotton

Projected

Production
• Operating environment
• Financial performance
• Looking forward
• Challenges for agriculture

Climate change: a possible rainfall scenario in 2030

deviation from long term average mm per year
-50 to -40
-40 to -30
-30 to -20
-20 to -10
-10 to 0
0 to 10
10 to 20
20 to 30
30 to 40
40 to 50
50 to 60
60 to 70
70 to 80

source: CSIRO
Water storage in the Murray Darling Basin New South Wales and Victoria

Real Australian export prices

Average annual decline
- Services: 0.8%
- Manufacturing: 1.4%
- Resources: 2.0%
- Rural: 2.4%
Productivity & competitiveness drivers

- investment in research & development
- access to new biotechnologies – GMOs
- Maintaining biosecurity
- adaptation to climate change – droughts
- managing resources – water, soils, vegetation – stewardship payments
- innovation and management skills
- infrastructure