Central West Region Pilot Area
Agricultural Profile

Introduction
The Department of Primary Industries is developing a consistent method for mapping important agricultural lands. Maps of Important Agricultural Land highlight areas that are well suited to selected agricultural industries at a local and regional scale.

The pilot mapping project aims to guide local councils with strategic land use planning; and support sustainable industry development.

A case study approach was adopted to identify the important agricultural lands for a range of industries within six local government areas (LGAs). They include: Orange, Cabonne, Blayney and Forbes in the central west; and Singleton and Muswellbrook in the Upper Hunter. Those areas were chosen to cover a variety of agricultural landscapes and industries.

Biophysical features
The study area is located 250 to 350 km west of Sydney. The main service centres include Orange, Forbes and Blayney, with a number of smaller towns including Molong, Millthorpe, Eugowra, Borenore and Manildra.

The eastern part of the study area consists of higher, cooler and wetter climates of the central tablelands which encompasses Orange and Blayney LGAs and the eastern part of Cabonne LGA.

The western slopes and plains within the study area includes the Forbes LGA and the western part of Cabonne LGA which are lower in elevation and have a more undulating topography.

Mild summers and cold winters are felt in the central tablelands, with hot summers and cool winters for the western slopes and plains (CW CMA, 2008). Rainfall and elevation decrease to the west with Orange holding the highest mean annual rainfall of 933mm and Forbes at 480mm per year (CWCMA, 2008).
Mt Canobolas, near Orange, is the highest peak at 1398m (CWCMA, 2008). The remaining land in the central tablelands of the study area comprises steep and undulating terrain. Mt Canobolas provides sloping basaltic soils, a cool climate, and consistent rainfall which are highly suitable for cool climate grape and fruit production. The production of fruit, grapes, nuts, cut flowers, some vegetables and eggs have contributed to the ‘food Basket’ image of the area which has promoted the agri-tourism industry.

The western slopes and plains consist of rolling hills which flow onto open plains. The combination of good rainfall, reliable water supply from the Belubula and Lachlan River Systems as well as high temperatures create an optimal environment for crop production. Wheat, barley, oats and canola are important crops in this area. Forbes and Cabonne LGAs contribute 3% of the value of broadacre crop, cereal and hay production in NSW (ABS, 2006).

**Regional Agriculture– Highlights**

A key characteristic of the study area is the diversified production system that combines cropping with sheep meat, wool or cattle production.

The variety of landscapes and climates in the study area mean that a diverse range and quantity of produce can be grown. The range of agricultural industries in the study area is significant and includes various crops, fruit, beef, wool, prime lambs, milk, pigs, grapes, vegetables, eggs, nuts and meat poultry.

As shown in figure 3 below, fruit production in the study area is a significant agricultural commodity with 10.2% of NSW fruit production grown in the study area (ABS, 2006). If grapes, nuts and vegetables are added, the figure rises to 13.5% of NSW production (ABS, 2006). Sheep meat and wool are also important agricultural industries representing 6.3% and 5.3% of NSW production respectively in the study area (ABS, 2006).

**Economic Contribution**

Table 1 demonstrates that the value of agriculture within the study area is $686.1 million representing 3.6% of the value of NSW agricultural production.

The range of agricultural industries also supports many other enterprises including stock feed merchants, intensive animal operators, seed merchants, processors, the transport industry, saleyards and abattoirs. The industry also makes an ongoing contribution to local economies and the community, such as through retail outlets, food and dining businesses, educational centres and employment services in private and government agencies.

The diversity of agriculture produced in the study area also provides a diversified income for the farmer and a range of products for the local, domestic and export markets.

The overall contribution to NSW employment is estimated at 4,412 jobs, representing 3.5% of employment within the agricultural industry (NSW DPI 2011).

**Table 1- Summary of Agricultural Production in Central West (ABS 2006)**

<table>
<thead>
<tr>
<th>Agricultural Industry</th>
<th>Est. value of Agric. production (Smill)</th>
<th>Prod’n of Agric Industry as a % of NSW total</th>
<th>No. of Farms</th>
<th>Employment#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cropping</td>
<td>$252.2</td>
<td>3%</td>
<td>1,106</td>
<td></td>
</tr>
<tr>
<td>Beef</td>
<td>$127.6</td>
<td>3.9%</td>
<td>1,275</td>
<td>3,658</td>
</tr>
<tr>
<td>Wool</td>
<td>$79.7</td>
<td>5.3%</td>
<td>1,158</td>
<td></td>
</tr>
<tr>
<td>Sheep meat</td>
<td>$65.3</td>
<td>6.3%</td>
<td>1,158</td>
<td></td>
</tr>
<tr>
<td>Fruit</td>
<td>$97.4</td>
<td>10.2%</td>
<td>133</td>
<td>436</td>
</tr>
<tr>
<td>Nuts</td>
<td>$0.8</td>
<td>0.4%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Dairy</td>
<td>$24</td>
<td>2.7%</td>
<td>10</td>
<td>73</td>
</tr>
<tr>
<td>Pigs</td>
<td>$15</td>
<td>2.5%</td>
<td>48</td>
<td>25</td>
</tr>
<tr>
<td>Grapes</td>
<td>$13</td>
<td>2.2%</td>
<td>191</td>
<td>192</td>
</tr>
<tr>
<td>Vegetables</td>
<td>$5.7</td>
<td>0.7%</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td>Eggs</td>
<td>$5.2</td>
<td>2.2%</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Poultry meat</td>
<td>$0.2</td>
<td>0%</td>
<td>255</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$686.1m</td>
<td>3.6%</td>
<td>4,197</td>
<td>4,412</td>
</tr>
<tr>
<td>NSW Total</td>
<td>$19,284m</td>
<td>100%</td>
<td>48,838</td>
<td>124,845</td>
</tr>
</tbody>
</table>

* changes may have occurred since this data was collected

ABS data estimates the wholesale value of unprocessed agricultural products. These figures do not capture the flow on contribution of agriculture to other businesses in NSW. An estimate of the overall contribution of agriculture to the NSW economy, as presented in table 1, is obtained by multiplying the wholesale value of agriculture by the standard ABS multiplier for agriculture production which is 2.178.(I&I NSW, 2011)
An indication of the overall contribution of agricultural jobs to NSW employment was similarly obtained by multiplying employment in a particular industry sector by the standard ABS multiplier for agricultural employment of 1.828 (I&I NSW 2011).

ABS data combines employment in beef cattle and mixed farming (sheep / cattle grazing and crops) and also combines fruit and nuts.

**Industry Challenges**

A critical threat to agriculture in the study area is securing water for production, both in terms of quality and quantity. The increasing use of water for mining, lifestyle farming, urban development as well as the impacts of climate change are creating pressures on agriculture.

Other challenges common to most agricultural industries in the study area include:

- the shortage of available skilled farm workers due to alternative employment opportunities and out migration
- fragmentation of farmland for lifestyle farmers that is reducing land availability for viable agriculture production as well as causing inflated rural land prices and reducing the ability of farmers to purchase additional land.

**Climate Change**

Regional impacts of climate change and variability on agricultural production within the study area will include higher temperatures, increased risks of storms and flooding as well as less reliable water supplies.

The impacts on water quantity and quality will become more significant, particularly in the Forbes LGA, which currently receives the lowest rainfall and the highest temperatures in the study area.

The capacity to irrigate to harvest high quality crops with high nutritional value will be important to ensure sufficient feed is available at critical times. Farm management adaptations, such as efficient water management, new crop varieties and high levels of environmental awareness promote the opportunities for farming to adapt.

**Infrastructure requirements**

Agricultural industries rely on efficient transport systems to move produce to domestic and export markets and for farm inputs (such as grain, hay and rural supplies). The study area provides a reliable road system including the Newell Highway, Lachlan Valley Way, Henry Lawson Way and Mid Western Highway and also has an operating rail network.

There is also significant capital investment in the region to support and service the diversity of agricultural industries in the study area. Critical infrastructure includes irrigation systems, saleyards, abattoirs, processing facilities and specialised dairy, cropping and horticulture infrastructure such as silos or elevators for transferring grain to trucks and rail.

**Figure 4- Canola crop, Cabonne Shire. (Photo: Cabonne Council).**

**Development Prospects**

The diversity of production on farms in the study area means that it is well positioned to respond to shifts in market conditions and climatic changes.

The study area is also ideally suited for the expansion of a number of industries including the feedlot industry on larger, well irrigated properties further west; and the egg industry given its ability to meet specific location requirements in the study area.

The significant investment in regional infrastructure will also continue to provide essential facilities to support agriculture and put the region in good stead for further expansion.

A critical impediment to the further growth of agricultural industries in the study area is the growth of competing land uses which raises land prices and limits expansion opportunities for producers.

**Land use Planning Implications**

Planning for agriculture in the study area will require provisions that allow agricultural industries to continue their current operations or expand.

For intensive agriculture, land will need to meet specific environmental and legislative requirements as well as meet specific industry needs.

Meeting and maintaining those requirements means including planning provisions to ensure:

- Land is available that meets industry needs to facilitate industry sustainability. This can be achieved by setting lot sizes in critical areas suitable for specific agricultural industries.
- Farms are a sufficient scale to enable economies of scale to be achieved and manage environmental impacts, including nutrient re-use.
- The risks of land use conflicts between farming activities and neighbours are managed by avoiding urban or rural residential style development in the vicinity of:
  - established intensive agricultural industries, taking into account their need for future expansion
  - key infrastructure that services agricultural industries such as saleyards, abattoirs, feed mills and major transport routes to markets
  - important natural resources used by the industries such as fertile flood plains.
Acknowledgements

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Compiled by Wendy Goodburn and Mary Kovac and reviewed by the Resource Planning and Development Team in NSW DPI.

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References


Additional Reading

Agricultural Land use planning guidelines; www.dpi.nsw.gov.au/environment/landuse-planning/agriculture


DPI 1998 Policy for sustainable agriculture in NSW


Glossary of Agricultural terms


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