Report to Project Funders:
South Australian Murray-Darling Basin Natural Resources Management Board

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SA River Murray Irrigated Crop Surveys 2007/2008 - Seasonal Overview
May 2009

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Data Source & Limitations
The South Australian Murray-Darling Natural Resources Management Board (SA MDB NRM Board) along with the riverine Local Action Planning (LAP) undertake the survey of irrigated crops extracting water from the River Murray Prescribed Watercourse. Information is captured in this process from a base of digital orthophotography and grower/licensee interview. The database is held and managed by the South Australian Murray Darling Basin Resource Information Centre (SAMRIC) who combine information from other surveys of licensed irrigators along the River Murray Prescribed Watercourse from the Vic/NSW border to the Barrages. Other non-SAMRIC managed information is collected by Central irrigation Trust (CIT), and Renmark Irrigation Trust (RIT). Survey data presented in this report may have been; collected at different times and for different periods; or may be incomplete. This report includes survey data from Sunlands Irrigation Trust, Golden Heights Irrigation Trust, CIT, RIT, and LAP districts (Renmark to the Border, Berri-Barmera, Loxton to Bookpurnong, Riverland West, Mid-Murray, Mannum to Wellington, Goolwa to Wellington, and Coorong & district). The Angas Bremer Irrigation Management Zone is not included (see http://www.angasbremerwater.org.au/report.htm)
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In 2007-08 there were 70,613 hectares of land and 3,667 properties irrigating from the River Murray Prescribed Water Resource Area and included in the survey area.

Local Action Planning (LAP) districts accounted for 73% or 51,834 hectares of this survey area; and Renmark Irrigation Trust and Central Irrigation Trust areas for the remainder.

Irrigated crops including grapevines, citrus, nut crops, irrigated pasture, vegetables, stonefruit and other crops accounted for 77% of the surveyed area or 63,056 hectares. Grapevines accounted for 35% of the area or 24,567 hectares.

The main irrigation types were, drip on 28% and pivot on 23% of the survey area.

Between 2005-06 and 2007-08 surveys, there was a significant increase in area of vacant land, or land in transition.

Map 1: Survey Area 2007-08

In Map 1 (above) the areas belonging to Central Irrigation Trust (CIT) lie at various locations within the boundaries of the Riverland Local Action Planning (LAP) districts (Renmark to the Border, Berri-Barmera, Loxton-Boolpumong, Riverland West) and also in Mid-Murray LAP. Renmark Irrigation Trust (RIT) lies within the Renmark to Border LAP district.
KEY FINDINGS

1.1 Survey Districts

In 2007-08 there were 70,613 hectares in the survey area along the River Murray Prescribed Watercourse in South Australia. The survey area included 8 Local Action Planning (LAP) districts which accounted for 73% of the total area, with 956 properties and 51,834 hectares. The largest LAP area surveyed was Riverland West, covering 16,639 hectares. Irrigation Trusts (RIT and CIT) account for the remaining area of 18,779 hectares (refer Table 1).

Table 1: Survey districts, number of properties and area 2007-08

<table>
<thead>
<tr>
<th>District</th>
<th>Properties</th>
<th>Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riverland West LAP</td>
<td>287</td>
<td>16,639</td>
</tr>
<tr>
<td>Mannum to Wellington LAP</td>
<td>173</td>
<td>8,714</td>
</tr>
<tr>
<td>Loxton to Bookpurnong LAP</td>
<td>148</td>
<td>5,478</td>
</tr>
<tr>
<td>Mid Murray LAP</td>
<td>114</td>
<td>5,812</td>
</tr>
<tr>
<td>Renmark to the Border LAP</td>
<td>107</td>
<td>8,422</td>
</tr>
<tr>
<td>Goolwa to Wellington LAP</td>
<td>70</td>
<td>2,473</td>
</tr>
<tr>
<td>Coorong and Districts LAP</td>
<td>25</td>
<td>3759</td>
</tr>
<tr>
<td>Berri Barmera LAP</td>
<td>32</td>
<td>537</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>956</strong></td>
<td><strong>51,834</strong></td>
</tr>
<tr>
<td>Central Irrigation Trust (CIT)</td>
<td>2,034</td>
<td>14,268</td>
</tr>
<tr>
<td>Renmark Irrigation Trust (RIT)</td>
<td>677</td>
<td>4,511</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>2,711</strong></td>
<td><strong>18,779</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,667</strong></td>
<td><strong>70,613</strong></td>
</tr>
</tbody>
</table>

The 2007-08 irrigated crop survey area covered 3,667 properties and 70,613 hectares.
1.2 Irrigated Crops

Major irrigated crops in 2007-08 included grapevines (35%), citrus (11%), nuts (7%), irrigated pasture (6%) and vegetables (4%).

Vacant (unplanted) areas represented 33% of the total surveyed irrigated area of 70,613 hectares (refer Figure 1).

Figure 1: Area of crops surveyed 2007-08

' The major irrigated crop was grapevines, representing 35% of the survey area. '

* Land in Transition describes land to be replanted in the next 2 years, or land where replanting will depend on seasonal conditions, or land part of a (currently uncropped) vegetable rotation (regardless of timeframe to the next rotation).

Vacant or Derelict Land describes land to be replanted in a timeframe longer than 2 years but less than 5 years. (Land not to be planted with an irrigated crop in the next 5 years, was not included in the survey.)
Between 2005-06 and 2007-08 there was a significant reduction in the area of irrigated pasture and vegetables. The area of nuts increased during the same period. The area of land vacant or in transition, also increased significantly (refer Figure 2).

Figure 2: Area of crops surveyed 2005-08

Of the 3,667 properties surveyed in 2007-08, 62% had some grapevines, 30% had some citrus and 20% had some stonefruit. 28% of properties reported some vacant or land in transition (refer Figure 3).

Figure 3: Number of properties with selected crop types 2007-08

‘There has been a significant increase in the area of land in transition or vacant land, and a decline in the area of irrigated pasture and vegetables’
1.3 Irrigation Systems

In 2007-08, 28% or 19,847 ha of the total area surveyed was under drip irrigation systems. Other major irrigation systems included pivot (23%), under canopy (20%), overhead sprinkler (13%) and flood/furrow (10%).

Figure 4: Area of irrigation systems 2007-08

Irrigation systems used on grapevines mainly included drip, under canopy and overhead sprinkler. Drip accounted for 52% of the grapevine area surveyed. Pasture was irrigated mainly with flood, citrus with under canopy systems and vegetables with pivot irrigation.

Figure 5: Area of irrigation systems 2007-08

The main irrigation system type was drip, representing 28% of the area surveyed and 52% of the irrigated grapevine area. 

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'Drip' refers to the primary method of irrigation used, while 'Area' refers to the total hectares surveyed. Figures 4 and 5 provide a visual representation of the distribution and type of irrigation systems used across different crops.