Gus Rose

Profile

Gus grew up on a sheep and grain farm in Tarwonga, south of Williams. He was forced to do the sheep work because his older brother wouldn’t allow him near the tractor or harvester. He took a likening to sheep and did a Bachelor of Animal Science at UWA where he was constantly teased about his passion for the Jumbucks. Gus did his honours project investigated the profitability of different sheep breeds. After four years working for the Department of Agriculture and Food Western Australia evaluating the impact of the Lifetime wool project on Australian producers, Gus started a Masters degree at the School of Agricultural and Resource Economics.
Labour use in the Wheatbelt

Gus Rose

Supervised by
Prof Ross Kingwell and Dr Graeme Doole
Institute of Agriculture

Time pressed farmers plant more crop

Average area sown to crop (ha)

Year

ABARE Institute of Agriculture
Mr MIDAS
MIDAS tired

- Dependent on farmer labour
- Contract labour for sheep
- Casual labour for seeding and harvest
- Overstate profit of sheep and lucerne

(Bathgate and Pannell, 2002; O’Connell et al., 2006)
MIDAS Central wheatbelt
• 2000 ha
• 350-400mm rainfall
• 8 soil types
• Wheat, barley, canola, lupins
• French seradella, cadiz and lucerne
Sheep system

- Merino rams
- Merino lambs can be sold as prime lambs
- Excess ewes mated to crossbreds
January  February  March  April  May  June  July  August  September  October  November  December

Seeding  Harvest
Cropping activities

Spray and sow

Spray

Spray

Harvest
Sheep activities

- Crutching
- Lambing
- Marking
- Weaning
- Shearing
- Drenching

Supplementary feeding, monitoring, moving paddocks, lambing runs

January, February, March, April, May, Seeding, June, July, August, September, October, Harvest, December
Farm activities

Holidays

Tax/office

Holidays

January  February  March  April  May  Seeding  June  July  August  September  October  Harvest  December
## Hours worked each day

<table>
<thead>
<tr>
<th>Labour source</th>
<th>Hours per day</th>
<th>Seeding &amp; harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>
Labour impacts on profit

No labour constraint
Farmer only

Whole farm profitability ($)

Percentage of farm sown to crop (%)
## Permanent labour

<table>
<thead>
<tr>
<th>Labour source</th>
<th>Hours per day</th>
<th>Seeding &amp; harvest</th>
<th>Cost ($/hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
<td>8</td>
<td>10</td>
<td>27.50</td>
</tr>
</tbody>
</table>
## Casual labour seeding and harvest

<table>
<thead>
<tr>
<th>Labour source</th>
<th>Hours per day</th>
<th>Seeding &amp; harvest</th>
<th>Cost ($/hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casual</td>
<td>0</td>
<td>10</td>
<td>28.50</td>
</tr>
</tbody>
</table>
Casual labour most profitable

Institute of Agriculture

- Permanent

Whole farm profitability ($)

Percentage of farm sown to crop (%)
Time required casual

- Sheep
- Crop

Hours worked

Month

Institute of Agriculture
Compare flock type

Whole farm profitability ($)

Wool + meat

Wool only

Percentage of farm sown to crop (%)
Lambing time wool flock

Whole farm profitability ($)

Percentage of farm sown to crop (%)
Outsource sheep management

- Mr MIDAS prefers crop
### Outsource sheep management

<table>
<thead>
<tr>
<th>Labour source</th>
<th>Hours per day</th>
<th>Seeding &amp; harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheep manager</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

- Pay $75 / pasture ha
- Pay for all inputs
- Gets all income
Meta analysis

Model 1 (farmer)

Crop
70%

Model 2 (sheep manager)

Pasture
30%

+ Stubble
Outsourcing

Casual  Outsource

Whole farm profit ($)

Percentage farm in crop (%)
Institute of Agriculture
-80000
30000
20000
70000
120000
170000
220000
0
2
4
6
8
10
0
2
4
6
8
10
20
40
60
80
100

Casual
Outsource
Outsource + 5%
Outsource + 10%

Whole farm profit ($)
Percentage farm in crop (%)

Outsource + 5%
Professional sheep manager

Outsource + 5%  Sheep manager

Whole farm profit ($)

Percentage farm in crop (%)
Working on several farms

Percentage farm in crop (%) vs Whole farm profit ($) chart shows the relationship between the proportion of a farm devoted to crops and the overall farm profit. Points are categorized into two groups: Outsource + 5% (green triangles) and Sheep manager + 5% (blue triangles). The data points suggest a positive correlation, indicating that as the percentage of the farm in crops increases, the whole farm profit also tends to increase.
Conclusion

- Seasonal labour most profitable
- High returns for cropping labour
- Later lambing for wool flocks
- Efficiency of labour
- Easy care sheep
Acknowledgements

Land and Water Australia
Farmers that helped with assumptions
Thank you