



Edition 1, August 2009

Produced by the Cotton Catchment Communities

The Contribution of Cotton to Employment in Rural Communities

Introduction

The Cotton Catchment Communities CRC has commissioned Judith Stubbs and Associates to undertake a research project entitled *Exploring the Relationship Between Community Well-being and Cotton Production in the Murray Darling Basin (MDB)*.

The project has recently commenced and some preliminary findings from the research are discussed in this first 'Community Conversations' Series.

Key Findings

- Cotton employs around four times as many people per hectare as cereal production.
- Cotton is a small but significant employer, providing at least 2,600 jobs in 2006, or around 6 people per thousand hectares under cultivation.
- The total number of jobs associated with cotton would be around 7,800, but not all of these jobs will be in the cotton growing areas.

Preliminary Research Findings

Judith Stubbs and Associates, a Social Research Group based on the south coast of NSW, is currently researching the relationship between community resilience and cotton production in the Murray Darling Basin. The first part of the study is to quantify the impacts of cotton production on employment within cotton growing areas of the Murray Darling Basin.

The table overleaf shows the land identified as used for cotton in 2006, along with employment in cotton production and associated industries such as cotton ginning. Data is also included for cotton growing regions of south-eastern Queensland but outside the Murray Darling Basin.

Cotton is a small but significant employer, providing at least 2,600 jobs in 2006, or around 6 people per thousand hectares under cultivation. This was around 2.6% of agricultural employment and 0.4% of total employment in the cotton growing areas. However, in some areas cotton is much more important. In shires such as Moree Plains and Narrabri, cotton provides one quarter to one third of agricultural employment and five to ten percent of total employment. These figures are likely to be a lower estimate of employment. Some people may be employed directly in cotton production but not identified, for example a harvesting contractor might be classified as "other agriculture and fishing support services" and so is not easily allocated to cotton production. 2006 was a drought



year, with reduced hectares under cultivation, so the total employment figure is likely to be lower than for average years although the figure for employment per hectare is likely to be more robust. In addition, direct employment in cotton generates other jobs in the community in sectors such as retail and service industries. Hence the total effect of cotton on employment is likely to be much larger.

The Australian Bureau of Statistics estimates that each job in agriculture leads to another two jobs across the country. Hence the total number of jobs associated with cotton would be around 7,800, but not all of these jobs will be in the cotton growing areas. Jobs may be associated with ports in coastal towns or fuel production in refineries or the like. Assuming a 50/50 split of the additional jobs between cotton growing areas and other parts of Australia, a reasonable estimate of employment in cotton growing areas from cotton production would be around 5,000 jobs. Looking at the Murray Darling Basin, cotton employed around 1,900 people directly and around 3,800 people if associated jobs are allowed for.

We have also compared the efficiency of cotton as a user of agricultural land compared to cereal production. Cotton employs around four times as many people per hectare as cereal production. This information enables us to estimate the impacts of changes in access to water. If the effect of reduced access to water was to change land use from irrigated cotton production to dryland cereal production, around 3,000 jobs would be expected to be lost across the Murray Darling Basin. Most of these job losses would come from the shires of Balonne, Bourke, Gunnedah, Millmerran, Moree Plains, Narrabri, Narromine, Pittsworth, Waggamba, Walgett, Wambo and Warren. In Narrabri, for example, this would result in a loss of 700 jobs. This is 14% of employment in the Shire and equivalent to one job in seven. It is likely that such job losses would have a significant impact in these areas, and would accelerate any existing trends of rural decline.

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Table 1: Employment and Cotton production in cotton producing areas

LGA	Cotton ha	Cotton employment as % of agricultural related employment	Cotton employment as % of all employment	Direct employment in cotton and cotton related industries	Cotton employment per thousand ha
Moree Plains (A)	84,532	25.7%	6.6%	366	4.33
Narrabri (A)	45,543	34.1%	9.2%	475	10.43
Waggonamba (S)	30,422	13.9%	9.6%	83	2.73
Balonne (S)	21,864	24.1%	8.5%	179	8.19
Walgett (A)	18,380	11.9%	3.5%	82	4.46
Wambo (S)	17,944	9.7%	5.4%	77	4.29
Gunnedah (A)	11,709	8.1%	1.7%	69	5.89
Emerald	10,717	17.9%	1.3%	85	7.93
Pittsworth (S)	9,921	18.2%	4.8%	81	8.16
Jondaryan (S) - Pt B	9,904	3.4%	1.3%	56	5.65
Millmerran (S)	9,090	22.6%	7.2%	103	11.33
Warren (A)	8,821	19.4%	8.0%	86	9.75
Bourke (A)	6,490	34.9%	7.8%	94	14.48
Narromine (A)	6,358	11.0%	3.8%	79	12.43
Banana	6,022	4.1%	0.8%	56	9.30
Gwydir (A)	4,908	0.0%	0.0%	0	-
Carrathool (A)	4,823	4.7%	2.6%	30	6.22
Chinchilla (S)	3,297	4.1%	0.7%	19	5.76
Murilla (S)	2,302	0.8%	0.3%	3	1.30
Hay (A)	2,083	1.6%	0.4%	5	2.40
Peak Downs	2,077	1.5%	0.1%	3	1.44
Central Darling (A)	1,856	4.4%	1.5%	11	5.93
Duaringa	1,715	0.8%	0.1%	3	1.75
Belyando	917	0.0%	0.0%	0	-
Lachlan (A)	889	0.4%	0.1%	3	3.37
Murgon	801	0.9%	0.3%	4	4.99
Bahinia	783	0.6%	0.2%	3	3.83
Warroo (S)	527	1.0%	0.6%	3	5.69
Tara (S)	394	0.0%	0.0%	0	-
Liverpool Plains (A)	344	1.3%	0.4%	10	29.07
Wondai	326	0.0%	0.0%	0	-
Inverell (A) - Pt A	307	0.0%	0.0%	0	-
Warrumbungle Shire (A)	240	0.0%	0.0%	0	-
Fitzroy - Pt B	195	1.0%	0.4%	3	15.38
Bogan (A)	182	0.8%	0.3%	3	16.48
Jondaryan (S) - Pt A	155	0.0%	0.0%	0	-
Rosalie (S) - Pt B	135	0.0%	0.0%	0	-
Taroom	91	0.0%	0.0%	0	-
Isis	87	0.0%	0.0%	0	-
Paroo (S)	41	1.8%	0.5%	4	97.56

Source: ABS Census 2006, ABS Agricultural Census 05/06, JSA calculations.

For Further Information

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