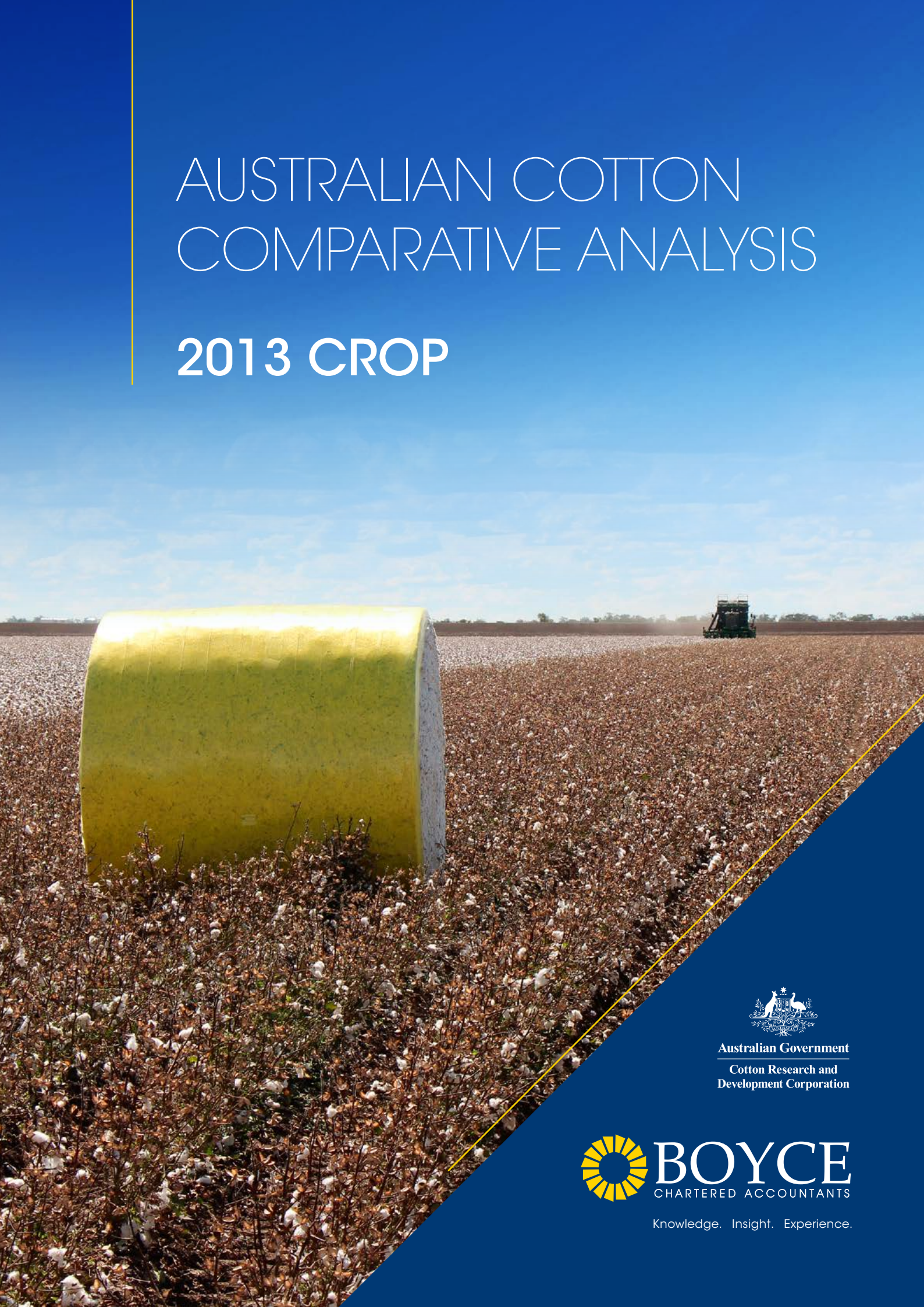
AUSTRALIAN COTTON COMPARATIVE ANALYSIS

2013 CROP



Australian Government
Cotton Research and Development Corporation

BOYCE
CHARTERED ACCOUNTANTS

Knowledge. Insight. Experience.

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Dear Grower,

We are pleased to present the 2013 Australian Cotton Comparative Analysis.

This publication is the result of a joint initiative between the Cotton Research & Development Corporation (CRDC) and Boyce Chartered Accountants to produce the industry benchmark for the economics of cotton growing in Australia.

This year's sample of participants once again captures a representation from the different cotton-growing valleys. It is our aim to increase the sample as we move forward with the analysis. If you are a grower and find this report instructive but do not currently contribute to the analysis, our view is that you will gain far greater benefit by participating, although we appreciate that this does take some effort.

Whilst the report focuses on the 2013 crop, it also presents trends that have been measured against more than 10 years of data.

The report has been posted on the websites of Boyce Chartered Accountants **(www.boyceca.com)** and CRDC **(www.crdc.com.au)**. We welcome use of the figures contained in this report, however it should be noted that the report or any part of it may not be published or reproduced without authorisation.

We look forward to discussing the report with you.

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1 Introduction to the Australian Cotton Comparative Analysis 2013 Crop

INTRODUCTION TO THE AUSTRALIAN COTTON COMPARATIVE ANALYSIS 2013 CROP

The 2013 Australian Cotton Comparative Analysis (ACCA) is the ninth report produced by Boyce Chartered Accountants in conjunction with the Cotton Research & Development Corporation (CRDC). From 1986 to 2004 the report was compiled independently by Boyce.

In this report we present an analytical review of the 2013 results, a comparison with prior years, and comments on emerging trends.

The primary purpose of the ACCA is to show the income and expenses associated with growing fully irrigated cotton on a per hectare basis. There are some provisos however to be aware of when considering the information contained in this report:

- This analysis does not necessarily illustrate the health of the cotton industry in Australia.

  Where a cotton grower grew skip row or solid cotton that did not receive full water, or grew no fully irrigated cotton at all, the relevant figures are excluded from the analysis. In most cases, if not all, these alternate crops would have returned a reduced profit per hectare in comparison to growing fully irrigated cotton. Therefore, although a grower may have made a healthy per hectare profit on an area of fully irrigated solid cotton, the net profit of the total farm would have been significantly less than if fully irrigated cotton was grown across the full area, allowing for the usual rotation practice.

- The figures in this study show the average results of participants in the sample; it is important that users fully understand this.

  For example, assume there were only two participants in the sample growing in the same area. If one uses contractors for picking and the other owns their own pickers, the figure for contract picking will be approximately 50% of the market rate. Similarly, the figures on a per line basis for expenses such as depreciation, repairs and maintenance, and wages etc. will all be less than market rates. With this knowledge, users can gain important additional information from this analysis.

- If there is a significant change in per line figures, this may not necessarily be due to a price increase.

  Line items can be made up of price, frequency of operation and volume per operation. So where there has been an increase in, for example seed, this could be due to price, number of seeds per metre planted, the number of plantings, or a combination of all three.

- With three years of solid data since the long drought, this analysis is giving us a good insight into the 'new industry'. It is important however to be aware that where a crop has not been picked due to flooding or some other disaster other than hail, the expenses relating to the affected area have been excluded from the sample. This is worth noting given the extent of flooding this season.

So care should be taken when using the results from this analysis. Understanding the basis on which the analysis is constructed is the key to getting the most out of this study.

OUR SAMPLE

The analysis includes the results for farmers who were able to plant, grow and pick their crop using close to normal irrigation practices. This year the total number of hectares in the sample declined due to a decrease in the availability of water throughout many of the cotton growing areas of Australia, and a reduction in the number of participants.

The average hectares planted per participant declined from 1,676 hectares in 2012 to 1,518 in 2013. The total number of bales in the sample was just over 520,000 - approximately 11% of total Australian cotton production.

Whilst recognising marketing as an important part of management, growers and interested parties expressed concern that the top 20% of participants may have achieved this ranking solely due to receiving a high cotton price and not as a result of good farming practices. Conversely good cotton growers, due to adverse currency, lint and basis positions, may have been excluded from the top 20%.

Given that many growers review their operation against the top 20% of participants in this study to identify areas for improvement, it was agreed that the top 20% and bottom 20% of growers should be determined by using an average price. We have therefore selected the top and bottom 20% by substituting $427 (the average 2013 net price for all participants) for the average net price that the individual grower actually received.

Note that although the average price ($427) was used to determine the top 20% and bottom 20%, the growers' actual sales figures are reported in this analysis.

THE NEED TO BENCHMARK

Financial analysis using comparative statistics helps farmers identify relative strengths and weaknesses; accompanying budgets and long term business plans will then focus on ways to overcome weaknesses and build on strengths. In simple terms, the ACCA is a management tool to help farmers implement change and to identify where effort should be directed on a day-to-day basis.

Obviously, this analysis does not provide all the answers - it is a benchmark or a standard to strive for. It is up to management to develop and implement specific action plans based on improved knowledge to set and achieve new goals.

The reliable, independent figures in the ACCA provide the starting point for farmers to develop "best practice".

We encourage participants to discuss the results with us and to clarify any queries so that we all develop a deeper understanding of this important agricultural industry.

2 Report on the 2013 Crop

2 REPORT ON THE 2013 CROP

2.1 THE 2013 CROP – ANALYTICAL REVIEW

2.1.1 INTRODUCTION

It would appear that there is no such thing as a normal year!

The 2013 crop proved to be a difficult one with very little in-crop rain up to the end of January, heatwave conditions throughout that month, severe flooding in many areas and finally an extended dry picking window.

In summary, the 2013 growing season will be remembered for the following:

i. Growers, in hindsight, tended to plant more cotton than they had water for;

ii. Very little in-crop rain until the end of January;

iii. Severe heat wave conditions throughout January with some areas experiencing twice the average number of days over 35 degrees Celsius;

iv. Fields being ploughed out due to lack of water;

v. Flooding rains at the end of January over most of eastern Australia, with the western MacIntyre valley experiencing the worst floods on record; and

vi. Very little rain over an extended picking period.

Early planting, small seed and early cold shock days continue to provide plant establishment issues, although it is notable that the daily average temperature this season was well up in the southern regions.

Due to elusive spring rains, minimal dryland cotton was planted. As the season stayed dry, the decision not to plant was, in most cases, vindicated. The reduced dryland planting meant decreased pressure on industry service providers. There was some pressure on picking contractors rates although ginning rates continue on an upward trend.

For the Average Grower:

- Yield was about half a bale up on the three year average (10.69 vs 10.15 bales per hectare).
- Price per bale was disappointing ($427/bale) compared to a three year average of $480/bale, contributing to an overall decrease in income of $337 per hectare on the three year average and $206 per hectare down on 2012.
- Expenses per hectare continue to climb for the average grower, which was partially 'pushed' by this years' increased yield. Two expenses are worthy of mention; fertiliser costs of $546 exceeding the previous years' average of $517 and the three year average of $483, and fuel and oil expenses of $403, exceeding the previous years' average of $271 and the three year average of $311.

These figures all contributed to a disappointing season for the average grower, with per hectare profit of $410 after interest, being achieved. Based on these figures, yields of 9.8 bales per hectare are required to cover total expenses.

For the Top 20% Grower:

- Average yield was 11.99 bales per hectare, an increase of just over .5 of a bale per hectare on previous year.
- Average price per bale for this group was around $33 down on previous year. This group continue to grow more cotton (1.3 bales per hectare) than the average grower group and do it more cheaply ($3,371 v $3,808).
- The indirect costs of this group (depreciation, fuel, insurance, motor vehicle expenses and R&M) are all lower than the average.

Profit per hectare for the average group ($410) is well down on the three year average of $924.

The profit for the top 20% ($1,535) is also down on the three year average for the top 20% ($2,007).

It should be noted however that individual growers who had enough water and were not affected by flood had excellent results.

It was pleasing to see the average yield increase this year. Further, the top yield on small areas continues to increase, which confirms our view of a slight upward trend in yield for the industry.

In our opinion, the main focus for growers has to be the low cost options that have the biggest impact on the bottom line. While this may be self-evident, it deserves more serious structured and documented thought by those in the industry.

This study has shown that being in the top 20% is predominately driven by yield; so this is a good place to start. The central question for growers should be 'How can I improve yield as cheaply as possible?'

The industry continues to be an early adopter of technology which at the industry level is a tremendous positive as it shows the innovation that has driven production. However from a profit perspective, individual growers need to know where their profit comes from, as the early adoption of technology at the micro-level is not always conducive to maximising profit. We believe technology adoption needs to be framed initially around ongoing cost minimisation or yield maximisation, and secondly from the point of view of the initial capital cost and other benefits. This equation needs to be kept in perspective but the answer could be different for each grower.

The cost of chipping continues to reduce such that it is now a negligible expense. Similarly, insecticide and the use of old picking technology continues to decrease. All are a sober reminder of just how quickly things can change in agriculture. We recommend that growers spend time thinking about where the industry is headed in an attempt to be ahead of the game in the two main areas that impact profit – maximising yields and ensuring costs are at a minimum.

Taking advantage of a solid lint price continues to be a massive issue for the industry and there seems to have been a shift in marketing and financing options available for growers. As discussed in previous analysis and at the many grower meetings we attend, the ability to lock in a price for lint when water is available has been an important factor in underpinning the profit of the industry to date. In our view, since the GFC and the recent price spike, merchants have been struggling to provide products that give growers this ability.

This year we have again included trend lines in some of the included graphs and from these some interesting trends from 1997 to 2013 have emerged:

- The value per bale is increasing ever so slightly, although we have seen no real growth (after inflation).
- There has been significant growth in cost per hectare.
- The yield per hectare is increasing, although this increase is occurring at a reduced rate.
- The operating profit per hectare for the average grower is increasing slightly.
- The operating profit per hectare for the top 20% of growers is increasing at a slightly faster rate compared to the average.

The two statistics of ‘yield’ and ‘increase in cost’ confirm the decreasing terms of trade for the industry.

The drought distorted the data in the 2003, 2004 and the 2007 to 2010 years. Accordingly, when using this analysis to assist with a review of your own operations and with the preparation of budgets, we recommend that you look at the 2011, 2012 and this years’ data as these were the last full production years.

Three Year Average (2011, 2012 & 2013)

We believe the message of the average for a number of years is important. Normally we would use five year averages but due to the drought in 2009 and 2010 we have averaged the last three years.

What we are attempting to show by the three year average is the real income and expense on a per hectare basis in a “normal” year.

2.1.2 KEY PERFORMANCE INDICATORS

1. Yield (bales / HA)

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	10.69	11.99	1.30
2012 *	9.71	11.45	1.74
2011 *	10.04	11.12	1.08
2010	10.24	10.75	0.51
2009	9.58	9.79	0.21
*** Three year average to 2013**	**10.15**	**11.52**	**1.37**

?

What is your water use efficiency in terms of bales per megalitre?
Do your employees know your yield expectations?
Have you reviewed your strategies depending on the availability of water?
What was your maximum yield in a field and do you know why the other fields or areas did not perform as well?

2. Value ($ / bale)

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	$427	$445	$18
2012 *	$486	$478	($8)
2011 *	$526	$508	($18)
2010	$481	$484	$3
2009	$487	$500	$13
*** Three year average to 2013**	**$480**	**$477**	**($3)**

- The cash price was below $400/bale in the first half of the growing season and increased towards the end of the year.
- The average cash price for the 12 months was around $440.

?

What strategies do you have in place to combat adverse currency and futures?
How much cotton have you sold for the 2014 and 2015 crops?
How do you forward market when there is some water security?
Do you understand all the strategies that are available?
Has the worry and risk of your marketing strategy been worth the benefit you have gained?
Have we seen a change in the way cotton is marketed?

3. Operating costs ($ / HA)

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	$3,808	$3,371	$437
2012 *	$3,601	$3,524	$77
2011 *	$3,472	$3,137	$335
2010	$3,976	$3,791	$185
2009	$4,303	$4,068	$235
*** Three year average to 2013**	**$3,627**	**$3,344**	**$283**

- The costs for the average increased on the previous year by $207/ha, mainly due to fuel and oil, R&M – pumps and earthworks (as growers ran their bores for longer), contract farming and chemicals - herbicide. There were decreases in contract picking, seed and cartage (coming to grips with the cost of carrying the round bales) and chemical insecticide.
- There was a large range in the operating costs varying between $2,900/ha and $4,700/ha. This was due to low cost growers having more water while other growers only had a smaller portion of their area planted, mainly due to less water and or a greater rotation policy.
- The average operating costs for the "low cost growers" was $3,006 compared to $3,180/ha in 2012.

?

What steps can you take in a "normal year" to keep your operating costs below $3,600/ha?
Are you monitoring the costs which are much higher than the average?
Have you investigated group purchasing arrangements?
Does your strategy in relation to fixed costs need to change to minimise losses in low water years?
Should you be using more contractors so that in low water years you don't have the fixed costs?

4. Cost of production ($ / Bale)

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	$356	$281	$75
2012 *	$371	$308	$63
2011 *	$346	$282	$64
2010	$388	$353	$35
2009	$449	$415	$34
*** Three year average to 2013**	**$358**	**$290**	**$68**

- A low cost of production per bale (driven by higher yields) is the most significant feature of the top 20%. This is achieved by producing more bales of cotton from the same cost base. In the 2013 year this was achieved by the top 20% as they grew a higher yield per hectare (11.99 bales/ha) and grew cotton on a larger area of their farm which enabled them to spread the fixed and semi fixed costs over a greater area.
- Long-term average figures for the top producers prove that it is possible to achieve a benchmark cost of production in the $290 to $350 per bale range in a 'normal' year.
- With the extra yield of 0.25 - 0.5 bales per hectare, costs change very little.

?

Are you continually focusing on your cost of production per bale?
What are the top 20% doing differently to you?

5. Comparison of valleys

Below is a comparison of statistics for each valley.

	GWYDIR	McINTYRE	MACQUARIE	NAMOI	OTHER*
Gross income ($/ha)	$4,735	$4,093	$5,049	$4,784	$4,751
Operating costs ($/ha)	$3,654	$3,652	$4,172	$3,993	$3,903
Operating profit ($/bale)	$99	$46	$76	$70	$77
Hectares grown	1,669	1,649	494	1,254	1,983
Yield / ha	10.98	9.55	11.49	11.34	11.05

* The sample size this year for the Emerald, Darling Downs, St George / Balonne, Murrumbidgee, Lachlan and Walgett / Bourke valleys was not large enough to be included separately in the analysis. They have been included under "Other".

6. Labour (hectares per person)

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	221	325	(104)
2012 *	323	228	95
2011 *	185	176	9
2010	167	158	9
2009	172	139	33
*** Three year average to 2013**	**243**	**243**	**0**

- For the average, the number of green hectares per person decreased on the previous year.
- The top 20% had more contract picking.
- The lack of skilled labour continues to be a major concern for cotton businesses.
- A number of farms are looking to outsource various operations based on priority agreements with contractors.
- Having the right balance between own labour and contractors is a definite advantage in a low water year.

? Are there some farm operations that could be outsourced while maintaining timeliness of operations?

7. Available tractor horse power (horsepower / 500 HA)

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	371	395	(24)
2012 *	219	244	(25)
2011 *	314	344	(30)
2010	632	613	19
2009	567	521	46
*** Three year average to 2013**	**301**	**328**	**(27)**

- Comments made above in respect of labour, are also applicable for available tractor horsepower.
- Having the correct equipment to get the operations done on time is the most important consideration. Conversely, over capitalisation impacts on several cost centres that can increase costs i.e. labour and R & M.
- Having a proportion of contractors is a definite advantage in a low water year.

? Are you fully utilising all machinery that you currently own or can you free up some capital by selling excess plant?
What security are you using for the financing of your machinery?
Will back-to-back cotton change your ability to use minimum tillage systems with consequences for tractor horse power?

8. Available picking capacity (picker heads / 500 HA)

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	1.28	1.35	(0.07)
2012 *	1.05	0.42	0.63
2011 *	2.38	3.39	(1.01)
2010	1.84	1.69	0.15
2009	2.05	2.39	(0.34)
*** Three year average to 2013**	**1.57**	**1.72**	**(0.15)**

- The number of pickers a grower owns doesn't appear to be a significant factor in in achieving a top 20% result.

? Do you have the capacity to pick your crop in 21 days (using your own pickers or having reliable contractors)?
Have you analysed the full cost of owning pickers?
What does it cost you if you can't complete picking within 21 days?
What does it cost to have pickers in the shed, not being fully utilised?

9. Rotation

	AVERAGE	TOP 20%	DIFFERENCE
2013 *	36%	18%	(18%)
2012 *	35%	47%	12%
2011 *	70%	70%	(0%)
2010	34%	42%	8%
2009	52%	48%	(4%)
*** Three year average to 2013**	**47%**	**45%**	**(2%)**

- For most farmers, water has been the major determining factor in the amount of rotation. With full water for an extended period, soil fertility, disease control and debt levels will play a bigger part in this decision.
- Growers are very aware of the benefits of a sustainable fallow program.
- Short-term financial analysis does not prove that rotation is beneficial. Additional factors need to be considered when deciding how much country to rotate – management, agronomic, environmental, and long fallow syndrome.

? What is the balance between rotation and short term profits?

2.1.3 THREE YEAR AVERAGES TO 2013

As noted in the introduction, we believe (in normal years) the message of the three year average is important, so we have compared three year average figures for the average farmer and the top 20% using the 2011, 2012 and 2013 years.

What makes the top 20% so much better than average?

In the three selected years, the top 20% of farmers made 217% more profit (after interest) than the average ($2,007/ha compared to $924/ha).

The difference is attributed to the following factors:

Land productivity (yield/Ha)	61%	or	$658
Lint and seed less ginning and levies	(3%)	or	($30)
Hail insurance claims	11%	or	119
Direct Cost Savings - (fine tuning)	26%	or	$284
Interest savings (less debt)	5%	or	$52
	100%		**$1,083**

The message from these figures is that better land productivity (measured by higher yields) is the major feature of the top performers. Farmers should concentrate on growing higher yield rather than searching for dramatic cost cutting measures if they wish to improve their performance significantly.

2.1.4 OTHER OBSERVATIONS

Over the years, many "rules of thumb" have been developed and quoted by farmers, financiers and accountants:

- Cotton farmers are in principle debt free if, at year-end, their equity in cotton pools and any cotton unsold covers their total borrowings.
- The contingent tax liability associated with crop proceeds tipped forward (on hand and in pools) should always be calculated and bought to account at year end when measuring your wealth.
- Debt should not exceed 150% of average gross farm income (100% when interest rates are above 12%).
- High wage costs and machinery horsepower are a quick indicator of overall high costs of operations.
- Don't underestimate the value of knowledge, within your industry and worldwide. It can be difficult to keep up to date on the latest practices, but falling behind can cost you money.
- Because of the high fixed and semi fixed costs in this industry, it is becoming increasingly important to be able to grow enough area every year to cover these costs.

2.1.5 FEATURES OF THE TOP PERFORMERS

Over the past fifteen years many cotton farmers have been able to achieve top-class results, even in years when seasonal or financial circumstances were less than favourable.

Outlined below are some of the distinguishing characteristics and features of successful cotton growers:

- **Controlled operating costs**

  Operating costs (before interest) for farmers have averaged $3,600/ha for the past three years. With fine-tuning, the best farmers have been able to keep their operating costs under control without sacrificing yield and still adequately maintaining all assets.

  The performance of the "low cost" farmers operating at their optimum scale over the past three years proves that a target for operating costs of $3,000 to $3,300/ha is achievable in a normal year. These figures translate to operating costs per bale of $300 to $330.

- **Consistent marketing strategies**

  There are many different marketing alternatives available to cotton farmers. The strategies adopted by individual farmers depend on:

  a. Individual outlook on risk
  b. World-wide economic outlook
  c. Taxation implications
  d. Cash flow implications
  e. Water availability
  f. Level of knowledge about how to use the complex alternatives.

  To date, the perfect marketing strategy has proved to be elusive. Farmers need to make marketing decisions with the aim of maximising their crop income, keeping production risk in mind and remembering that a net return in excess of $485/bale should produce a sizeable profit.

  In our opinion, the application of consistent marketing strategies on a year in, year out basis is the key to maximising per bale prices on the longer term.

  The top farmers know their cost of production per bale; they then base marketing decisions on that cost.

- **Productive labour**

  Top-class results cannot be produced without having a top-class team of employees who are efficient, focused, motivated and stable.

  The best farms ensure that employees are kept informed, are trained to do their job properly, given responsibility and have an opportunity to participate in on-farm decision making. It is also essential that employees are properly remunerated and take their holidays every year. The most efficient farms are operating with one permanent person for every 220 hectares.

- **Reliable machinery**

  All good farmers appreciate the importance of timing and so ensure that they own or have access to sufficient reliable machinery to carry out all operations efficiently and on time. For farmers who decide to own tractors to carry out all field operations, capacity of 350 to 400 engine horsepower per 500 hectares is generally required.

  The ideal picking capacity for farms is subject to a great deal of debate with many efficient operators concluding that the whole picking operation should be carried out by contractors. The best farmers aim to complete their picking operation within 30 days.

- **Sustainable farming techniques (rotation)**

  Many of the benefits of a stringent rotation program are not quantifiable in the short term and the benefits that are quantifiable are often disguised by other variables that can affect yield in any one season. Growers however, are rotating to address the issues of disease and to allow for the re-levelling of fields.

  If farmers are going to maintain a sustainable cotton production system, maintain high yields, and achieve high levels of profitability in the long term, the issue of rotation needs to be included in the equation.

  Obviously, the amount of water plays a huge role in rotation however the idea is to aim for a 2:1 rotation in the long term.

  The top performers are continually looking at varied crops for rotation. These decisions are being made for agronomic and financial reasons. Industry awareness is required to learn from these operators.

- **Water use efficiency**

  The timing of when water is applied is critical in the production of high yielding crops.

  As water becomes even more limited, the science behind the timing of watering and understanding each variety's reaction to the timing of water will become even more crucial. Growers are now paying closer attention to measuring water use efficiency.

- **Conservative levels of debt**

  Many farmers are carrying large amounts of debt, with debt levels of 40% to 50% being common. By adopting sound, sustainable practices, the best farmers have been able to generate a significant cash surplus to repay borrowings. These farmers are in an enviable position of being able to survive in tough times, and in some circumstances expand the scale of their operations.

  It must be noted that debt can only be repaid out of a cash surplus after allowing for taxation, drawings and capital purchases, or from the sale of other assets. Over the past 15 years there has been significant capital gain for the holders of water licences. This has allowed debt levels to increase whilst maintaining the debt to equity margin. We do not believe that capital gain can continue at the same rate and the future reduction in the debt to equity margin will need to be out of profits, not capital gain.

  Our current low interest rate environment should encourage growers to look at protecting their borrowings through interest rate management. Financiers are offering many varied products that provide this protection.

  Farmers are considered to be in a very solid financial position (Category A) if their debt, net of equity in cotton pools and unsold crop, is less than 20% of assets at 30 June.

- **Efficient financial management**

  Good farmers keep their financial affairs up to date and under control by utilising computerised office tools.

  Annual budgets are prepared by the top performers on a conservative basis with realistic yet challenging targets. Performance is then monitored monthly, comparing actual results with the previously prepared budget. With up-to-date management reports, top performers are able to analyse performance and fine tune operations on a regular basis. They also keep their financiers well informed at all times.

- **Timing**

  The best farms carry out all operations "on time". Fields are ready to plant as soon as the season permits, machinery is always ready to carry out the next task and team members always know what they have to do a week or a month ahead. Waterings are never late.

  Being "on time" is a result of good planning and good communication and leads to increased yields.

- **Planning and long term vision**

  At the heart of every good operation is a person with vision; vision of where the business is going on a day-to-day basis, on an annual basis, and on a long-term basis (10 years plus). The best farmers always seem to have time on their hands because they have clearly defined goals. They have communicated those goals to their team members, and then take on the role of a coach who guides and encourages their team to carry out the day-to-day activities.

- **High yields**

  High yields are the reward for getting all aspects of a farming operation right. No single farming technique, method of operation or management decision is going to have a significant impact. Top performers do all the little things thoroughly and on time and as a consequence "reap the rewards".

  The best farmers consistently achieve yields in excess of 10 bales/ha year after year (assuming adequate water availability and no disasters such as hail or floods). Total farm averages of greater than 11.0 bales/ha have been achieved and are now a realistic goal, especially using the excellent cotton varieties that are continually being developed.

2.2 RETURN ON ASSETS

2.2.1 WHAT RETURN ON ASSETS AM I GETTING?

With costs continuing to rise, low cotton prices (for this season), cotton farm sales sluggish and a lot of discussion regarding where capital growth in the industry will come from, growers must continue to look at the return on assets of a cotton farm.

Although a long term view is essential, growers should be continually considering alternative investments (allowing for risk) to assess what the return of a cotton farm really is.

As a general statement, the 10 year average figures should not be used when analysing the return on assets of the industry as a whole without making an allowance for the drought years, where the figures on non-irrigated areas have not been included in the report and taking into account the fallow fields.

Trend lines indicate that the operating profit for the top 20% and the average growers are both increasing slightly, but this is strongly influenced by the 2011 year where there were both high yields and prices achieved.

How do I calculate my simple return on assets (ROA)?

The simple ROA is calculated by dividing your operating profit per hectare (before interest) by the value per hectare (which is calculated as the total value of your land, licences and machinery divided by the number of hectares grown during the year).

We have included a worksheet to calculate your individual ROA. The process is easy to follow and is outlined below:

i. From the farm operating profit/(loss) per ha spreadsheet find your yield and price per bale. Match these up to calculate your operating profit (before interest) based on costs of $3,500/ha.

ii. Find the profit closest to your farm along the base of the return on assets based on various profits and land variations spreadsheets.

iii. Select a value per hectare (this is calculated as the total value of your land, licences and machinery divided by the number of hectares grown during the year), then:

   a) You should add a value per hectare to allow for country not planted. If you plant 2/3 of your country, increase the value of your investment by 50%.

   b) You also should add a value per hectare based on your machinery investment relating to the cotton operation (e.g. $1,500,000 machinery divided by 1,500 hectares increases your investment by $1,000/ha).

iv. Match the two up and calculate your simple return on assets.

RETURN ON ASSETS CALCULATOR 2013

FARM OPERATING PROFIT/(LOSS) PER HECTARE BASED ON ALTERNATIVE YIELDS AND PRICES - BEFORE INTEREST

$/ BALE	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	9.25	9.50	9.75	10.00	10.25	10.50	10.75	11.00	11.25	11.50	11.75	12.00	12.25	12.50
650	1,213	1,375	1,538	1,700	1,863	2,025	2,188	2,350	2,513	2,675	2,838	3,000	3,163	3,325	3,488	3,650	3,813	3,975	4,138	4,300	4,463	4,625
640	1,140	1,300	1,460	1,620	1,780	1,940	2,100	2,260	2,420	2,580	2,740	2,900	3,060	3,220	3,380	3,540	3,700	3,860	4,020	4,180	4,340	4,500
630	1,068	1,225	1,383	1,540	1,698	1,855	2,013	2,170	2,328	2,485	2,643	2,800	2,958	3,115	3,273	3,430	3,588	3,745	3,903	4,060	4,218	4,375
620	995	1,150	1,305	1,460	1,615	1,770	1,925	2,080	2,235	2,390	2,545	2,700	2,855	3,010	3,165	3,320	3,475	3,630	3,785	3,940	4,095	4,250
610	923	1,075	1,228	1,380	1,533	1,685	1,838	1,990	2,143	2,295	2,448	2,600	2,753	2,905	3,058	3,210	3,363	3,515	3,668	3,820	3,973	4,125
600	850	1,000	1,150	1,300	1,450	1,600	1,750	1,900	2,050	2,200	2,350	2,500	2,650	2,800	2,950	3,100	3,250	3,400	3,550	3,700	3,850	4,000
590	778	925	1,073	1,220	1,368	1,515	1,663	1,810	1,958	2,105	2,253	2,400	2,548	2,695	2,843	2,990	3,138	3,285	3,433	3,580	3,728	3,875
580	705	850	995	1,140	1,285	1,430	1,575	1,720	1,865	2,010	2,155	2,300	2,445	2,590	2,735	2,880	3,025	3,170	3,315	3,460	3,605	3,750
570	633	775	918	1,060	1,203	1,345	1,488	1,630	1,773	1,915	2,058	2,200	2,343	2,485	2,628	2,770	2,913	3,055	3,198	3,340	3,483	3,625
560	560	700	840	980	1,120	1,260	1,400	1,540	1,680	1,820	1,960	2,100	2,240	2,380	2,520	2,660	2,800	2,940	3,080	3,220	3,360	3,500
550	488	625	763	900	1,038	1,175	1,313	1,450	1,588	1,725	1,863	2,000	2,138	2,275	2,413	2,550	2,688	2,825	2,963	3,100	3,238	3,375
540	415	550	685	820	955	1,090	1,225	1,360	1,495	1,630	1,765	1,900	2,035	2,170	2,305	2,440	2,575	2,710	2,845	2,980	3,115	3,250
530	343	475	608	740	873	1,005	1,138	1,270	1,403	1,535	1,668	1,800	1,933	2,065	2,198	2,330	2,463	2,595	2,728	2,860	2,993	3,125
520	270	400	530	660	790	920	1,050	1,180	1,310	1,440	1,570	1,700	1,830	1,960	2,090	2,220	2,350	2,480	2,610	2,740	2,870	3,000
510	198	325	453	580	708	835	963	1,090	1,218	1,345	1,473	1,600	1,728	1,855	1,983	2,110	2,238	2,365	2,493	2,620	2,748	2,875
500	125	250	375	500	625	750	875	1,000	1,125	1,250	1,375	1,500	1,625	1,750	1,875	2,000	2,125	2,250	2,375	2,500	2,625	2,750
490	53	175	298	420	543	665	788	910	1,033	1,155	1,278	1,400	1,523	1,645	1,768	1,890	2,013	2,135	2,258	2,380	2,503	2,625
480	-20	100	220	340	460	580	700	820	940	1,060	1,180	1,300	1,420	1,540	1,660	1,780	1,900	2,020	2,140	2,260	2,380	2,500
470	-93	25	143	260	378	495	613	730	848	965	1,083	1,200	1,318	1,435	1,553	1,670	1,788	1,905	2,023	2,140	2,258	2,375
460	-165	-50	65	180	295	410	525	640	755	870	985	1,100	1,215	1,330	1,445	1,560	1,675	1,790	1,905	2,020	2,135	2,250
450	-238	-125	-13	100	213	325	438	550	663	775	888	1,000	1,113	1,225	1,338	1,450	1,563	1,675	1,788	1,900	2,013	2,125
440	-310	-200	-90	20	130	240	350	460	570	680	790	900	1,010	1,120	1,230	1,340	1,450	1,560	1,670	1,780	1,890	2,000
430	-383	-275	-168	-60	48	155	263	370	478	585	693	800	908	1,015	1,123	1,230	1,338	1,445	1,553	1,660	1,768	1,875

AVERAGE YIELD PER HECTARE

(COST PER HA USED : $3,500)

Steps

1. Pick your price per bale & yield / HA
2. Match them up and get your profit per hectare based on growing costs of $3,500
3. Find your closest profit range on the bottom of the next graph on page 17

RETURN ON ASSETS CALCULATOR 2013

RETURN ON ASSETS BASED ON VARIOUS PROFITS AND LAND VALUATIONS

VALUE E/HA	PROFIT PER HECTARE FROM PREVIOUS WORKSHEET																														
	100	300	500	600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,700	1,900	2,000	2,200	2,400	2,600	2,800	3,000	3,200
$35,000	0.3%	0.9%	1.4%	1.7%	2.0%	2.3%	2.6%	2.9%	3.1%	3.4%	3.7%	4.0%	4.3%	4.9%	5.4%	5.7%	6.3%	6.9%	7.4%	8.0%	8.6%	9.1%
$34,000	0.3%	0.9%	1.5%	1.8%	2.1%	2.4%	2.6%	2.9%	3.2%	3.5%	3.8%	4.1%	4.4%	5.0%	5.6%	5.9%	6.5%	7.1%	7.6%	8.2%	8.8%	9.4%
$33,000	0.3%	0.9%	1.5%	1.8%	2.1%	2.4%	2.7%	3.0%	3.3%	3.6%	3.9%	4.2%	4.5%	5.2%	5.8%	6.1%	6.7%	7.3%	7.9%	8.5%	9.1%	9.7%
$32,000	0.3%	0.9%	1.6%	1.9%	2.2%	2.5%	2.8%	3.1%	3.4%	3.8%	4.1%	4.4%	4.7%	5.3%	5.9%	6.3%	6.9%	7.5%	8.1%	8.8%	9.4%	10.0%
$31,000	0.3%	1.0%	1.6%	1.9%	2.3%	2.6%	2.9%	3.2%	3.5%	3.9%	4.2%	4.5%	4.8%	5.5%	6.1%	6.5%	7.1%	7.7%	8.4%	9.0%	9.7%	10.3%
$30,000	0.3%	1.0%	1.7%	2.0%	2.3%	2.7%	3.0%	3.3%	3.7%	4.0%	4.3%	4.7%	5.0%	5.7%	6.3%	6.7%	7.3%	8.0%	8.7%	9.3%	10.0%	10.7%
$29,000	0.3%	1.0%	1.7%	2.1%	2.4%	2.8%	3.1%	3.4%	3.8%	4.1%	4.5%	4.8%	5.2%	5.9%	6.6%	6.9%	7.6%	8.3%	9.0%	9.7%	10.3%	11.0%
$28,000	0.4%	1.1%	1.8%	2.1%	2.5%	2.9%	3.2%	3.6%	3.9%	4.3%	4.6%	5.0%	5.4%	6.1%	6.8%	7.1%	7.9%	8.6%	9.3%	10.0%	10.7%	11.4%
$27,000	0.4%	1.1%	1.9%	2.2%	2.6%	3.0%	3.3%	3.7%	4.1%	4.4%	4.8%	5.2%	5.6%	6.3%	7.0%	7.4%	8.1%	8.9%	9.6%	10.4%	11.1%	11.9%
$26,000	0.4%	1.2%	1.9%	2.3%	2.7%	3.1%	3.5%	3.8%	4.2%	4.6%	5.0%	5.4%	5.8%	6.5%	7.3%	7.7%	8.5%	9.2%	10.0%	10.8%	11.5%	12.3%
$25,000	0.4%	1.2%	2.0%	2.4%	2.8%	3.2%	3.6%	4.0%	4.4%	4.8%	5.2%	5.6%	6.0%	6.8%	7.6%	8.0%	8.8%	9.6%	10.4%	11.2%	12.0%	12.8%
$24,000	0.4%	1.3%	2.1%	2.5%	2.9%	3.3%	3.8%	4.2%	4.6%	5.0%	5.4%	5.8%	6.3%	7.1%	7.9%	8.3%	9.2%	10.0%	10.8%	11.7%	12.5%	13.3%
$23,000	0.4%	1.3%	2.2%	2.6%	3.0%	3.5%	3.9%	4.3%	4.8%	5.2%	5.7%	6.1%	6.5%	7.4%	8.3%	8.7%	9.6%	10.4%	11.3%	12.2%	13.0%	13.9%
$22,000	0.5%	1.4%	2.3%	2.7%	3.2%	3.6%	4.1%	4.5%	5.0%	5.5%	5.9%	6.4%	6.8%	7.7%	8.6%	9.1%	10.0%	10.9%	11.8%	12.7%	13.6%	14.5%
$21,000	0.5%	1.4%	2.4%	2.9%	3.3%	3.8%	4.3%	4.8%	5.2%	5.7%	6.2%	6.7%	7.1%	8.1%	9.0%	9.5%	10.5%	11.4%	12.4%	13.3%	14.3%	15.2%
$20,000	0.5%	1.5%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%	8.5%	9.5%	10.0%	11.0%	12.0%	13.0%	14.0%	15.0%	16.0%
$19,000	0.5%	1.6%	2.6%	3.2%	3.7%	4.2%	4.7%	5.3%	5.8%	6.3%	6.8%	7.4%	7.9%	8.9%	10.0%	10.5%	11.6%	12.6%	13.7%	14.7%	15.8%	16.8%
$18,000	0.6%	1.7%	2.8%	3.3%	3.9%	4.4%	5.0%	5.6%	6.1%	6.7%	7.2%	7.8%	8.3%	9.4%	10.6%	11.1%	12.2%	13.3%	14.4%	15.6%	16.7%	17.8%
$17,000	0.6%	1.8%	2.9%	3.5%	4.1%	4.7%	5.3%	5.9%	6.5%	7.1%	7.6%	8.2%	8.8%	10.0%	11.2%	11.8%	12.9%	14.1%	15.3%	16.5%	17.6%	18.8%
$16,000	0.6%	1.9%	3.1%	3.8%	4.4%	5.0%	5.6%	6.3%	6.9%	7.5%	8.1%	8.8%	9.4%	10.6%	11.9%	12.5%	13.8%	15.0%	16.3%	17.5%	18.8%	20.0%
$15,000	0.7%	2.0%	3.3%	4.0%	4.7%	5.3%	6.0%	6.7%	7.3%	8.0%	8.7%	9.3%	10.0%	11.3%	12.7%	13.3%	14.7%	16.0%	17.3%	18.7%	20.0%	21.3%

Steps

1. Select a value of your land, licences and machinery that are applicable to the cotton operation
2. Divide the value in 1. By the number of hectares grown in the year
3. Use your closest profit and the value per hectare (from the graph on page 16) to work out the return on your investment

2.2.2 WHY MEASURE ROA?

In isolation ROA provides you with a measure to better assess alternative investments. One year's ROA result should not serve as the yardstick to base decisions such as entry to or exit from the industry.

This ROA does not include any increase in the value of your assets. If in a year you achieve 7% ROA and the value of your assets increased by 5% then your total return is 12%.

Linked directly to this is the fact that you now have a higher asset value, and next year if you achieve the same profit, your ROA will be lower.

Use the calculator to predict what your future returns may be.

For example:

- Assume a profit of $800/ha against today's valuation of $10,000 ha – 8% return
- Now use the same profit against an increased market rate of $15,000/ha – 5.3% return
- To achieve an 8% return against a $15,000/ha valuation you need to reach a profit of $1,200/ha.

The cotton yield remains the greatest variable when looking forward or doing current comparisons between growers. As discussed in this and prior reports, land productivity (yield) contributes to the majority of the difference between the top 20% and the average. What difference does yield make on ROA?

For example:

- 2013 profit before interest for the three year average of $1,297/ha against $17,500/ha – 7.4% return
- 2013 profit before interest for the three year top 20% of $2,327/ha against $17,500/ha – 13.3% return
- Yield differential of 1.37 bales/ha.

ROA needs to be balanced against such factors as risk, sustainability and reinvestment. If a grower's main aim is to just increase the ROA, this may have a negative impact on sustainability, as they may not reinvest through redevelopment and take other sustainable actions.

There is a direct link between ROA and yield. The drive continues to be to increase yield which should increase profits and ROA. The need to balance this aim and long-term sustainability is the challenge facing the industry.

2.3 CONCLUSION

The 2013 was a very hot and dry season, with corresponding excessive water usage. Heat and flooding impacted yields and profitability.

Net profit per hectare was well down on 2012 and the three year average. A low profit year puts pressure on the industry, with less money being available for debt reduction or reinvestment.

In the 2012 report, we predicted that 2013 and 2014 would be tough financially for the industry. This has played out in 2013 and seems to be playing out with what looks like low water allocations for the 2014 year. This will obviously impact the ability of growers to further reduce debt.

The data in the Cotton Comparative Analysis has in previous years been affected by low water; this was an issue in 2013 and 2014 is likely to be similarly impacted. While much effort continues to be invested in arguing whether or not climate change is real, our view remains that growers should spend their efforts on ensuring they can survive and indeed profit during extreme events. If this can be achieved, profit will be maximised regardless of the outcome of the climate change debate.

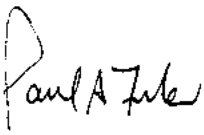
Although we have not attempted to analyse in detail the return on assets from a capital growth perspective, we have noted that in the past, many growers have obtained a large increase in their net assets from the increase in the value of land and licences, rather than the accumulation of profits. It is probable that capital growth of water and land has slowed in established cotton growing valleys; for some growers this has formed the majority of their increase in net assets over time.

The agricultural sector in general and the cotton industry in particular are known for their early adoption of technology. The technology available today, whether it is genetic, machinery-based or relating to systems and process, is no doubt leading to increased yield and reduced labour. The question is though, at what cost? If maximisation of profit is the goal, we think growers should establish the impact of technology on profitability before it is adopted.

A slowing to the increase of asset values will see a greater focus on profits. This focus should hopefully result in farmers understanding what it takes to be in the top 20% and striving to ensure their business implements the necessary changes to achieve this objective. A healthy irrigated cotton farm cannot survive on capital growth alone.

The 2013 Australian Cotton Comparative Analysis maintains our goal to measure and analyse the components that provide farmers with a stronger financial bottom line.

The Australia cotton industry, through providing reinvestment in best management practice, sustainability programs and in the communities in which it operates, plays an important role in the agricultural sector of this country.



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3 Comparative Statistics

3.1 PARTICIPANTS

3.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE 2013 YEAR FOR LANDHOLDING FARMERS (PER HECTARE BASIS)

	YOUR FARM (TOTAL)	YOUR FARM	ALL FARMS	TOP 20%	BOTTOM 20%	LOW COST	GROWERS (>2,500 HA)	YOUR VALLEY
INCOME								
Cotton proceeds - Lint			4,712	5,502	3,978	4,313	4,534	
Cotton proceeds - Seed			524	629	252	302	483	
Ginning			(630)	(740)	(446)	(523)	(612)	
Levies			(36)	(49)	(21)	(28)	(32)	
Cotton proceeds - Hail claims			17	33	12	27	15	
			4,587	**5,375**	**3,775**	**4,091**	**4,388**	
EXPENSES								
Cartage			132	166	80	121	130	
Chemical application			106	96	63	80	110	
Chemicals - Defoliants			42	51	46	49	40	
Chemicals - Herbicides			84	66	47	66	81	
Chemicals - Insecticides			35	58	19	47	25	
Chemicals - Others			5	8	2	5	2	
Chipping			3	4	3	0	4	
Consultants			52	51	54	35	48	
Contract picking			176	237	28	90	185	
Contract farming and ripping			215	208	220	380	283	
Cotton picking wrap and sundries			78	98	28	72	79	
Depreciation			227	158	307	207	225	
Electricity			45	93	23	29	39	
Fertiliser			546	453	568	410	556	
Fuel and oil			403	244	482	299	435	
Hire of plant			32	16	53	67	33	
Insurance			110	94	98	45	115	
Licence fee - Bollgard			267	305	265	175	228	
Licence fee - Roundup ready			82	42	19	29	104	
Motor vehicle expenses			19	14	28	28	16	
R & M - Farming plant			123	103	164	60	108	
R & M - Pumps and earthworks			130	119	155	51	137	
Seed			107	103	101	104	105	
Water charges			160	150	204	192	120	
Wages - Employees			380	269	377	193	401	
Wages - Proprietors			31	27	42	33	18	
Administration			52	70	45	42	47	
Other farm overheads			166	68	76	97	229	
			3,808	**3,371**	**3,597**	**3,006**	**3,903**	
OPERATING PROFIT/(LOSS)			**779**	**2,004**	**178**	**1,085**	**485**	
ADD:								
Wages - Proprietors			31	27	42	33	18	
FARM OPERATING PROFIT/(LOSS)			**810**	**2,031**	**220**	**1,118**	**503**	

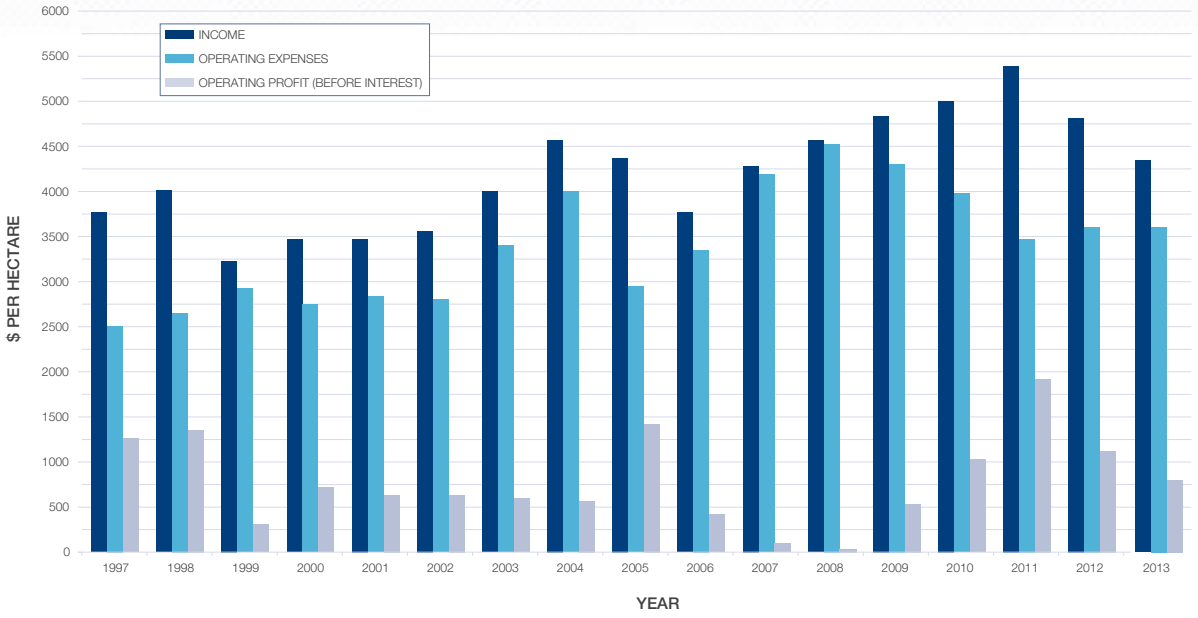
3.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE 2013 YEAR FOR LANDHOLDING FARMERS (continued)

	YOUR FARM (TOTAL)	YOUR FARM	ALL FARMS	TOP 20%	BOTTOM 20%	LOW COST	LARGE GROWERS (>2,500 HA)	YOUR VALLEY
DEDUCT:								
Interest and bank charges			389	496	580	543	229	
Interest - Crop terms			11	0	47	65	18	
			400	**496**	**627**	**608**	**247**	
FARM NET PROFIT/(LOSS)			**$410**	**$1,535**	**($407)**	**$510**	**$256**	
CROP RESULTS								
Hectares of cotton grown			1,517.64	833.94	1,390.50	1,013.94	4,210.44	
Total yield			16,223.03	9,999.47	12,344.66	9,539.47	44,144.17	
Yield per hectare			10.69	11.99	8.88	9.41	10.48	
Value per bale			$427.44	$445.47	$423.86	$431.96	$417.17	
Cost of production per bale			$356.27	$281.13	$405.07	$319.61	$372.16	
Operating profit/(loss) per bale			$72.75	$167.08	$20.18	$115.23	$46.45	
No. of bales per hectare required to cover operating expenses			8.91	7.57	8.48	6.96	9.35	
No. of bales per hectare required to cover total expenses			9.85	8.68	9.96	8.37	9.94	
LABOUR								
Number of Hectares per permanent person (excluding proprietors)			221.25	325.44	241.83	368.71	216.71	
AVAILABLE TRACTOR HORSE POWER								
Tractor horse power per 500 hectares			370.72	394.85	330.58	427.01	275.09	
AVAILABLE PICKING CAPACITY								
Picker heads per 500 hectares			1.28	1.35	2.25	1.60	0.61	
ROTATION								
Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years)			35.71%	18.32%	21.11%	19.32%	33.02%	
WATER USAGE								
Megalitres per hectare			9.39	9.59	7.20	7.53	8.94	
Megalitres per bale			0.88	0.80	0.81	0.80	0.85	

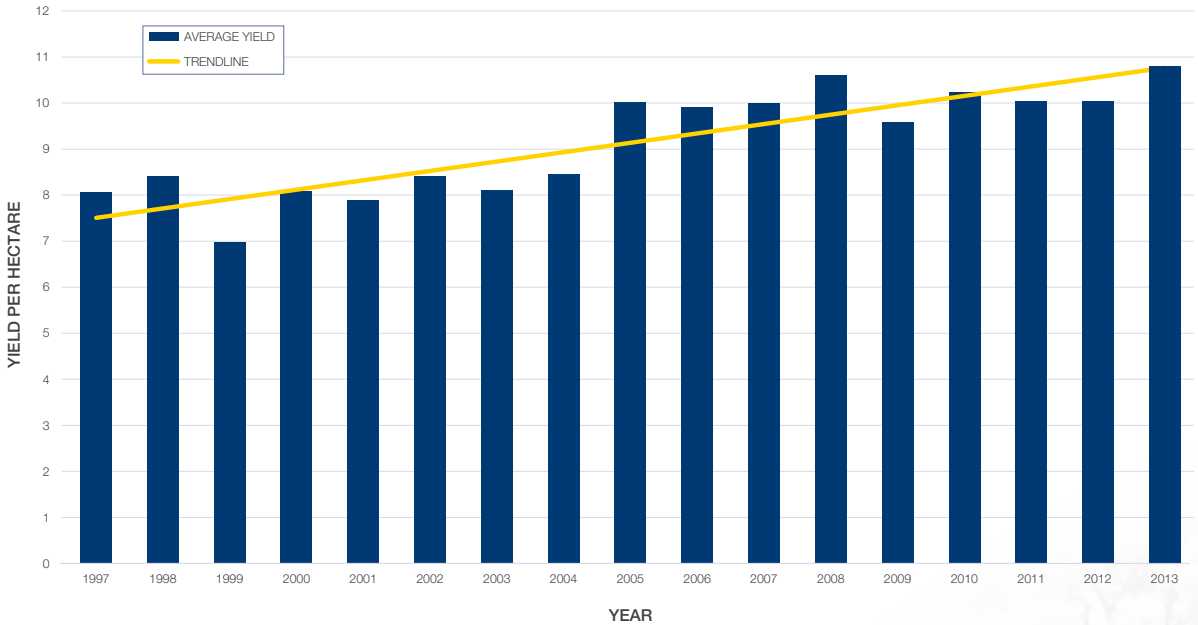
3.2 AVERAGE

3.2.1 GRAPHS

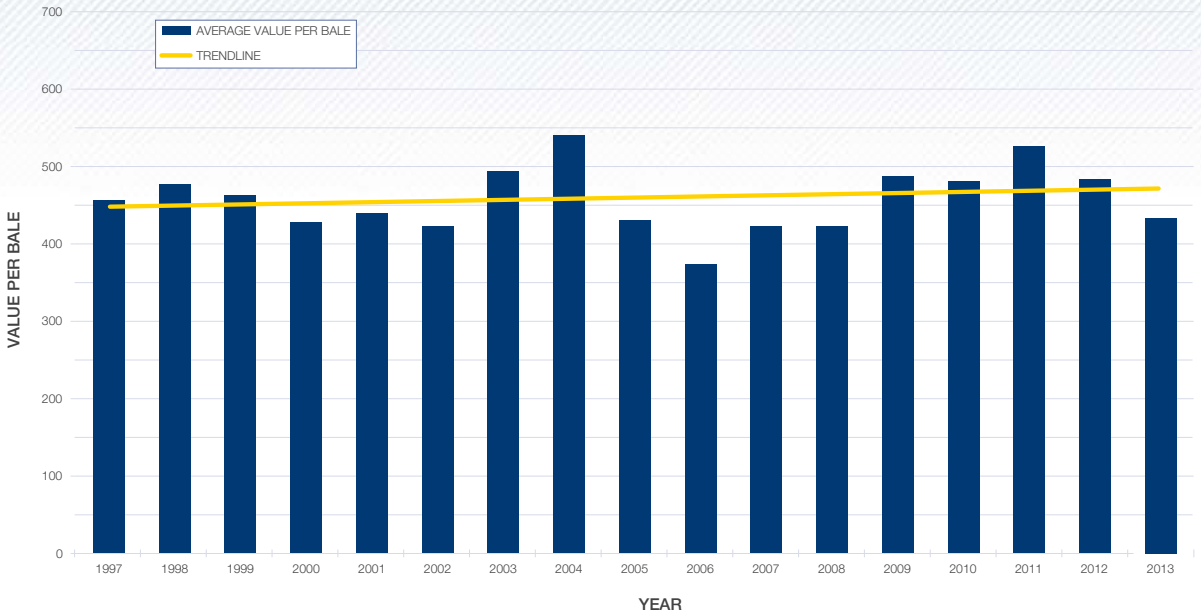
3.2.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR LANDHOLDERS



3.2.1.2 YIELD AND TRENDLINE FOR THE AVERAGE LANDHOLDERS



3.2.1.3 VALUE PER BALE AND TRENDLINE FOR THE AVERAGE LANDHOLDERS



3.2.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST TEN YEARS FOR LANDHOLDING FARMERS (PER HA)

2004	2005	2006	2007	2008	2009	2010	2011	2012		2013
									INCOME	
4,502	4,419	3,788	3,963	4,027	4,265	4,758	5,256	4,866	Cotton proceeds - Lint	4,712
524	452	436	859	1,016	935	742	546	400	Cotton proceeds - Seed	524
(436)	(511)	(479)	(551)	(521)	(495)	(542)	(484)	(512)	Ginning	(630)
(34)	(38)	(33)	(38)	(33)	(37)	(35)	(33)	(31)	Levies	(36)
13	48	55	49	73	169	79	106	70	Cotton proceeds - Hail claims	17
4,569	**4,370**	**3,767**	**4,282**	**4,562**	**4,837**	**5,002**	**5,391**	**4,793**		**4,587**
									EXPENSES	
70	96	105	128	101	100	112	136	117	Cartage	132
172	137	158	115	110	87	136	138	131	Chemical application	106
95	55	57	54	71	79	63	55	53	Chemicals - Defoliants	42
178	153	109	159	183	174	108	108	85	Chemicals - Herbicides	84
451	198	292	132	116	144	151	142	84	Chemicals - Insecticides	35
11	5	3	3	4	48	38	11	7	Chemicals - Others	5
44	44	66	91	39	24	15	2	3	Chipping	3
69	58	59	75	63	76	72	64	57	Consultants	52
178	173	180	257	250	255	261	282	241	Contract picking	176
135	57	89	77	85	42	24	122	164	Contract farming and ripping	215
9	19	11	10	6	14	9	55	84	Cotton picking wrap and sundries	78
376	206	199	338	508	372	426	164	178	Depreciation	227
33	25	21	40	46	59	79	76	29	Electricity	45
263	242	356	312	394	428	399	387	517	Fertiliser	546
239	229	323	418	429	327	305	258	271	Fuel and oil	403
10	3	3	9	12	2	7	22	43	Hire of plant	32
152	116	144	227	216	217	179	161	123	Insurance	110
49	127	150	173	232	218	252	286	292	Licence fee - Bollgard	267
14	16	25	26	50	50	62	60	56	Licence fee - Roundup ready	82
30	22	22	30	31	34	35	21	19	Motor vehicle expenses	19
143	174	135	133	139	137	154	121	109	R & M - Farming plant	123
151	114	101	128	133	116	183	61	84	R & M - Pumps and earthworks	130
103	80	77	112	98	105	126	115	146	Seed	107
364	113	188	399	439	486	189	134	141	Water charges	160
384	321	327	473	445	391	384	357	344	Wages - Employees	380
91	46	38	96	105	106	69	20	21	Wages - Proprietors	31
75	45	41	68	58	58	35	49	47	Administration	52
111	75	73	103	162	154	103	65	155	Other farm overheads	166
4,000	**2,949**	**3,352**	**4,186**	**4,525**	**4,303**	**3,976**	**3,472**	**3,601**		**3,808**
569	1,421	415	96	37	534	1,026	1,919	1,192	**OPERATING PROFIT/(LOSS)**	779
91	46	38	96	105	106	69	20	21	Wages - Proprietors	21
660	**1,467**	**453**	**192**	**142**	**640**	**1,095**	**1,939**	**1,213**	**FARM OPERATING PROFIT/(LOSS)**	**810**

3.2.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST TEN YEARS FOR LANDHOLDING FARMERS (PER HA) (continued)

2004	2005	2006	2007	2008	2009	2010	2011	2012		2013
									DEDUCT:	
918	583	544	1,168	1,704	1,137	1,009	380	409	Interest and bank charges	389
5	3	4	0	0	0	0	0	0	Interest - Crop terms	11
923	**586**	**548**	**1,168**	**1,704**	**1,137**	**1,009**	**380**	**409**		**400**
($263)	**$881**	**($95)**	**($976)**	**($1,562)**	**($497)**	**$86**	**$1,559**	**$804**	**FARM NET PROFIT/(LOSS)**	**$410**
									CROP RESULTS	
498.09	1,027.71	936.02	531.13	449.09	486.65	621.17	1,426.48	1,675.67	Hectares of cotton grown	1,517.64
4,209.07	10,312.15	9,285.42	5,311.07	4,769.71	4,660.90	6,363.40	14,325.75	16,272.11	Total yield (bales)	16,223.03
8.45	10.03	9.92	10.00	10.62	9.58	10.24	10.04	9.71	Yield per hectare (bales)	10.69
$540.85	$430.78	$374.23	$423.35	$422.66	$487.41	$480.56	$526.23	$486.42	Value per bale	$427.44
$473.60	$293.75	$337.82	$418.66	$425.99	$449.40	$388.37	$345.82	$370.77	Cost of production per bale	$356.27
$67.25	$141.84	$41.94	$9.61	$3.50	$55.70	$99.94	$190.92	$122.89	Operating profit per bale	$72.75
7.40	6.84	8.95	9.89	10.70	8.83	8.28	6.60	7.40	No. of bales per hectare required to cover operating expenses	8.91
9.11	8.20	10.42	12.65	14.74	11.16	10.38	7.32	8.24	No. of bales per hectare required to cover total expenses	9.85
									LABOUR	
132.82	173.78	185.44	139.77	107.24	171.76	167.24	184.91	322.79	Number of hectares per permanent person (excluding proprietors)	221.25
									AVAILABLE TRACTOR HORSE POWER	
659.97	555.52	409.98	446.78	453.75	566.80	632.44	313.55	219.08	Tractor horse power per 500 hectares	370.72
									AVAILABLE PICKING CAPACITY	
4.02	2.95	2.44	2.26	1.67	2.05	1.84	2.38	1.05	Picker heads per 500 hectares	1.28
									ROTATION	
75.62%	75.68%	69.44%	49.67%	48.99%	51.68%	33.69%	69.98%	35.46%	Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years)	35.71%
									WATER USAGE	
6.93	9.00	9.62	9.00	9.00	9.00	9.00	8.78	8.80	Megalitres per hectare	9.39
0.82	0.90	0.97	0.90	0.85	0.94	0.88	0.87	0.91	Megalitres per bale	0.88
1,694	1,169	1,533	1,742	1,829	1,989	1,667	1,608	1,680	Direct costs	1,619
2,306	1,780	1,819	2,444	2,696	2,314	2,309	1,864	1,921	Other costs	2,189
4,000	**2,949**	**3,352**	**4,186**	**4,525**	**4,303**	**3,976**	**3,472**	**3,601**		**3,808**
500	325	442	305	348	362	403	428	376	Insecticide and Licence Fee Bollgard	302
672	462	600	420	458	449	539	566	507	Insecticide and Licence Fee Bollgard and application	408

3.2.3 COMPARISON BETWEEN THE 2013 YEAR AND THE 2012 YEAR (PER HA)

	ALL FARMS 2013	ALL FARMS 2012	DIFFERENCE
INCOME			
Cotton proceeds - Lint	4,712	4,866	(154)
Cotton proceeds - Seed	524	400	124
Ginning	(630)	(512)	(118)
Levies	(36)	(31)	(5)
Cotton proceeds - Hail claims	17	70	(53)
	4,587	**4,793**	**(206)**
EXPENSES			
Cartage	132	117	(15)
Chemical application	106	131	25
Chemicals - Defoliants	42	53	11
Chemicals - Herbicides	84	85	1
Chemicals - Insecticides	35	84	49
Chemicals - Others	5	7	2
Chipping	3	3	0
Consultants	52	57	5
Contract picking	176	241	65
Contract farming and ripping	215	164	(51)
Cotton picking wrap and sundries	78	84	6
Depreciation	227	178	(49)
Electricity	45	29	(16)
Fertiliser	546	517	(29)
Fuel and oil	403	271	(132)
Hire of plant	32	43	11
Insurance	110	123	13
Licence fee - Bollgard	267	292	25
Licence fee - Roundup Ready	82	56	(26)
Motor vehicle expenses	19	19	0
R & M - Farming plant	123	109	(14)
R & M - Pumps and earthworks	130	84	(46)
Seed	107	146	39
Water charges	160	141	(19)
Wages - Employees	380	344	(36)
Wages - Proprietors	31	21	(10)
Administration	52	47	(5)
Other farm overheads	166	155	(11)
	3,808	**3,601**	**(207)**
OPERATING PROFIT/(LOSS)	**779**	**1,192**	**(413)**
ADD:			
Wages - Proprietors	31	21	(10)
FARM OPERATING PROFIT/(LOSS)	**810**	**1,213**	**403**

COMPARISON BETWEEN THE 2013 YEAR AND THE 2012 YEAR (PER HA)
(continued)

	ALL FARMS 2013	ALL FARMS 2012	DIFFERENCE
DEDUCT:			
Interest and bank charges	389	409	20
Interest - Crop terms	11	0	(11)
	400	**409**	**9**
FARM NET PROFIT/(LOSS)	**$410**	**$804**	**($394)**
CROP RESULTS			
Hectares of cotton grown	1,517.64	1,675.67	(158.03)
Total yield (bales)	16,223.03	16,272.11	(49.08)
Yield per hectare (bales)	10.69	9.71	0.98
Value per bale	$427.44	$486.42	($58.98)
Cost of production per bale	$356.27	$370.77	$14.50
Operating profit per bale	$72.75	$122.89	($50.14)
No. of bales per hectare required to cover operating expenses	8.91	7.40	(1.51)
No. of bales per hectare required to cover total expenses	9.85	8.24	(1.60)
LABOUR			
Number of hectares per permanent person (excluding proprietors)	221.25	322.79	(101.54)
AVAILABLE TRACTOR HORSE POWER			
Tractor horse power per 500 hectares	370.72	219.08	(151.64)
AVAILABLE PICKING CAPACITY			
Picker heads per 500 hectares	1.28	1.05	(0.23)
ROTATION			
Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years)	35.71%	35.46%	0.25%
WATER USAGE			
Megalitres per hectare	9.39	8.80	(0.59)
Megalitres per bale	0.88	0.91	0.03

3.2.4 COMPARISON OF THE AVERAGE OF THE DIFFERENT VALLEYS (PER HA)

	ALL VALLEYS AVE FIGURES	GWYDIR AVE FIGURES	McINTYRE/ BARWON AVE FIGURES	MACQUARIE AVE FIGURES	NAMOI AVE FIGURES	OTHER AREAS AVE FIGURES
INCOME						
Cotton proceeds - Lint	4,712	4,818	4,287	5,060	4,859	4,887
Cotton proceeds - Seed	524	588	310	727	625	588
Ginning	(630)	(627)	(485)	(699)	(655)	(733)
Levies	(36)	(44)	(29)	(47)	(45)	(33)
Cotton proceeds - Hail claims	17	0	10	8	0	42
	4,587	**4,735**	**4,093**	**5,049**	**4,784**	**4,751**
EXPENSES						
Cartage	132	57	85	180	54	248
Chemical application	106	123	70	94	183	89
Chemicals - Defoliants	42	37	50	43	39	40
Chemicals - Herbicides	84	104	48	98	127	79
Chemicals - Insecticides	35	59	18	11	31	39
Chemicals - Other	5	16	3	4	3	2
Chipping	3	8	3	0	2	2
Consultants	52	29	58	74	42	62
Contract picking	176	98	115	157	100	313
Contract farming & ripping	215	60	216	178	72	385
Cotton picking wrap and sundries	78	112	45	60	103	73
Depreciation	227	232	295	172	293	143
Electricity	45	73	15	60	67	41
Fertiliser	546	458	593	497	565	561
Fuel & oil	403	318	449	490	335	440
Hire of plant	32	28	43	30	13	34
Insurance	110	117	109	67	77	128
Licence fee - Bollgard	267	162	290	392	158	350
Licence fee - Roundup ready	82	140	26	7	224	35
Motor vehicle expenses	19	16	24	13	28	13
R & M - Farming plant	123	112	148	174	132	100
R & M - Pumps and earthworks	130	249	136	79	106	69
Seed	107	101	100	139	103	114
Water charges	160	169	203	632	244	21
Wages - Employees	380	383	374	317	484	341
Wages - Proprietors	31	32	27	117	8	35
Administration	52	47	41	26	33	75
Other farm overheads	166	314	68	61	367	71
	3,808	**3,654**	**3,652**	**4,172**	**3,993**	**3,903**
OPERATING PROFIT/(LOSS)	**779**	**1,081**	**441**	**877**	**791**	**848**
ADD:						
Wages - Proprietors	31	32	27	117	8	35
FARM OPERATING PROFIT/(LOSS)	**810**	**1,113**	**468**	**994**	**799**	**883**

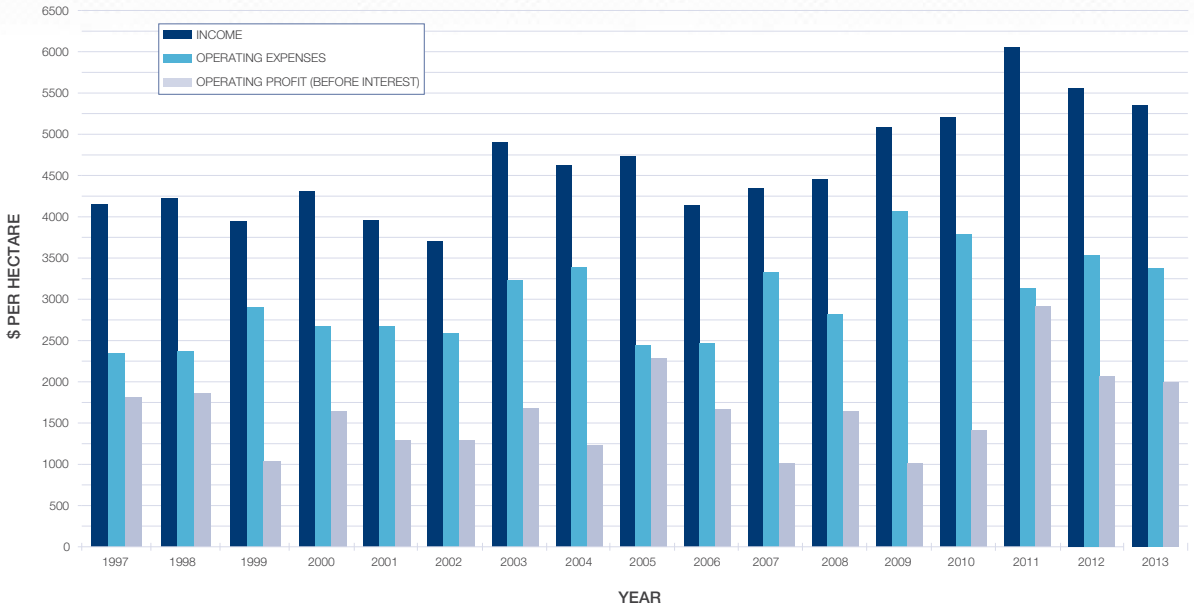
3.2.4 COMPARISON OF THE AVERAGE OF THE DIFFERENT VALLEYS (PER HA) (continued)

	ALL VALLEYS AVE FIGURES	GWYDIR AVE FIGURES	McINTYRE/ BARWON AVE FIGURES	MACQUARIE AVE FIGURES	NAMOI AVE FIGURES	OTHER AREAS AVE FIGURES
DEDUCT:						
Interest and bank charges	389	510	605	242	180	251
Interest - Crop terms	11	0	40	0	0	0
	400	**510**	**645**	**242**	**180**	**251**
FARM NET PROFIT/(LOSS)	**$410**	**$603**	**($177)**	**$752**	**$619**	**$632**
CROP RESULTS						
Hectares of cotton grown	1,517.64	1,668.67	1,648.75	493.75	1,254.33	1,982.70
Total yield	16,223.03	18,315.92	15,744.88	5,675.33	14,219.17	21,908.28
Yield per hectare	10.69	10.98	9.55	11.49	11.34	11.05
Value per bale	$427.44	$431.41	$427.40	$438.51	$421.82	$426.20
Cost of production per bale	$356.27	$332.70	$382.66	$362.94	$352.19	$353.20
Operating profit/(loss) per bale	$72.75	$98.71	$45.82	$76.28	$69.81	$76.79
cover operating expenses	8.91	8.47	8.55	9.51	9.46	9.16
cover total expenses	9.85	9.65	10.06	10.07	9.89	9.75
LABOUR						
Number of Hectares per permanent person (excluding proprietors)	221.25	180.40	253.65	219.44	209.06	247.84
AVAILABLE TRACTOR HORSE POWER						
Tractor horse power per 500 hectares	370.72	361.74	374.94	446.73	438.94	300.79
AVAILABLE PICKING CAPACITY						
Picker heads per 500 hectares	1.28	1.60	1.14	2.53	2.79	0.13
ROTATION						
Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years)	35.71%	43.39%	12.88%	20.46%	83.15%	16.89%
WATER USAGE						
Megalitres per hectare	9.39	9.00	7.64	9.20	8.42	8.91
Megalitres per bale	0.88	0.79	0.80	0.80	0.74	0.81

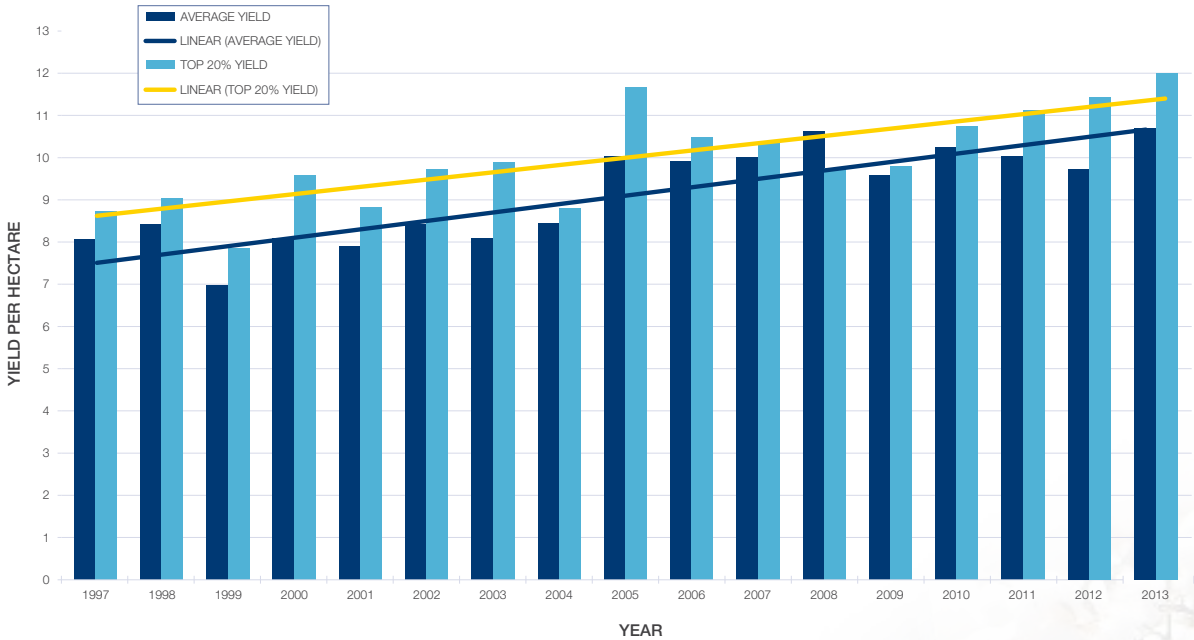
3.3 TOP 20% FARMERS

3.3.1 GRAPHS

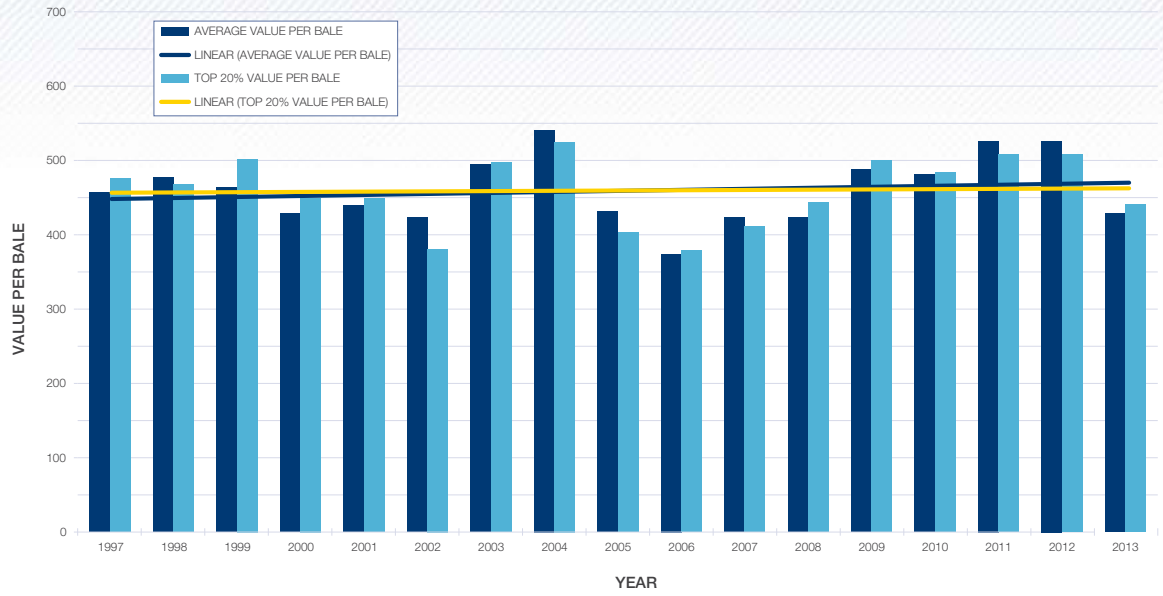
3.3.1.1 COMPARISON OF TOP 20% INCOME & EXPENSE ITEMS FOR LANDHOLDERS



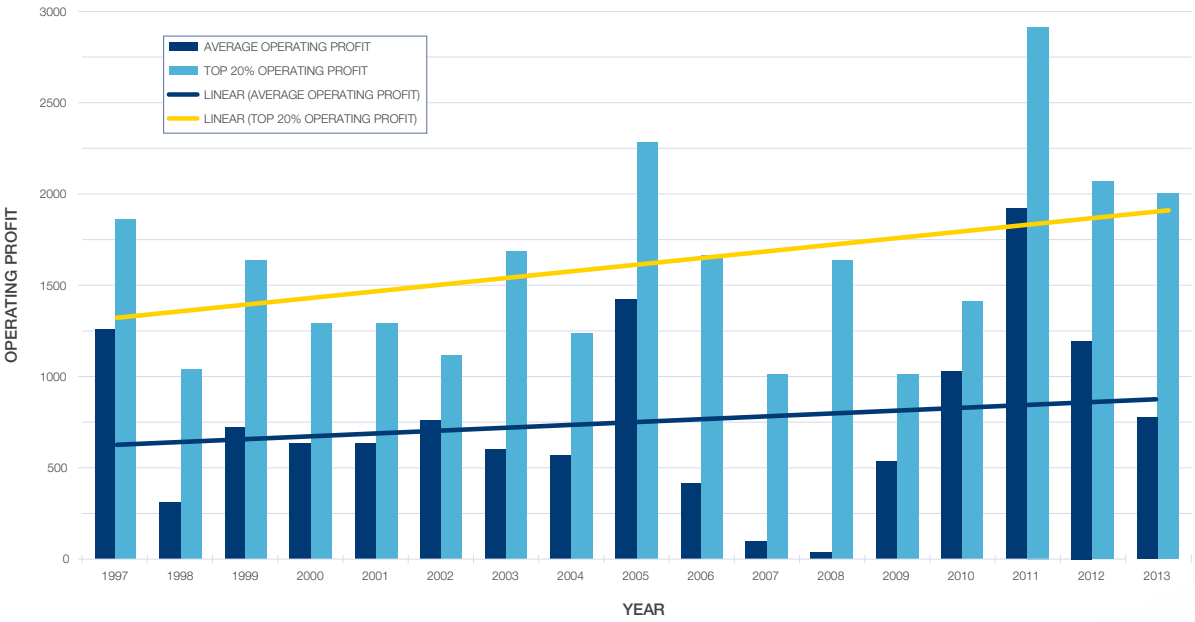
3.3.1.2 COMPARISON OF THE YIELD FOR THE AVERAGE AND THE TOP 20%



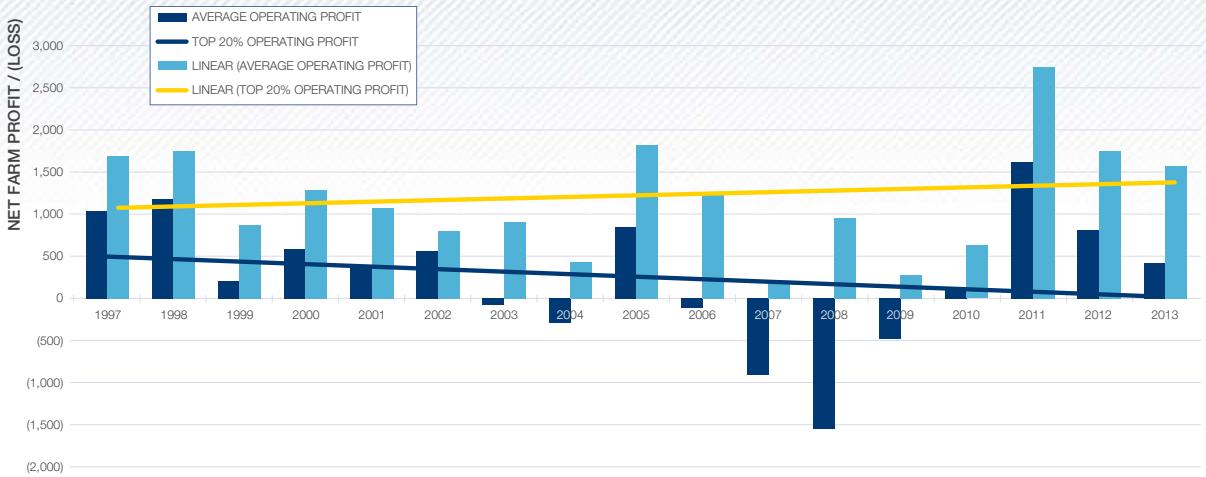
3.3.1.3 COMPARISON OF THE VALUE PER BALE FOR THE AVERAGE AND THE TOP 20%



3.3.1.4 COMPARISON OF THE OPERATING PROFIT FOR THE AVERAGE AND THE TOP 20%



3.3.1.5 COMPARISON OF THE NET FARM PROFIT/(LOSS) FOR THE AVERAGE AND THE TOP 20% FOR LANDHOLDERS



3.3.2 TOP 20% FARMERS - THE PAST TEN YEARS (PER HA)

2004	2005	2006	2007	2008	2009	2010	2011	2012		2013
									INCOME	
4,543	4,835	4,065	3,950	3,997	4,368	5,067	5,659	5,509	Cotton proceeds - Lint	5,502
584	522	434	848	871	1,081	753	584	484	Cotton proceeds - Seed	629
(466)	(617)	(491)	(508)	(499)	(518)	(581)	(560)	(478)	Ginning	(740)
(34)	(37)	(36)	(38)	(34)	(40)	(37)	(36)	(40)	Levies	(49)
0	26	163	89	123	188	0	404	112	Cotton proceeds - Hail claims	33
4,627	**4,729**	**4,135**	**4,341**	**4,458**	**5,079**	**5,202**	**6,051**	**5,587**		**5,375**
									EXPENSES	
70	160	161	94	125	113	123	148	114	Cartage	166
140	107	144	95	99	77	152	149	125	Chemical application	96
91	56	61	43	63	59	45	50	54	Chemicals - Defoliants	51
152	203	70	117	97	154	108	112	61	Chemicals - Herbicides	66
423	147	293	113	67	160	175	146	89	Chemicals - Insecticides	58
3	5	2	4	6	79	61	12	10	Chemicals - Others	8
10	35	50	70	38	14	14	0	6	Chipping	4
60	59	62	63	49	73	81	60	71	Consultants	51
99	86	57	258	321	201	192	253	292	Contract picking	237
109	43	85	133	126	30	17	97	114	Contract farming and ripping	208
13	21	10	7	3	24	8	51	64	Cotton picking wrap and sundries	98
296	157	142	251	208	298	423	112	183	Depreciation	158
24	16	15	15	16	76	124	115	20	Electricity	93
218	202	262	207	169	422	299	353	544	Fertiliser	453
239	293	224	411	280	444	298	213	233	Fuel and oil	244
8	2	8	0	0	3	0	35	6	Hire of plant	16
150	84	71	207	195	238	204	174	125	Insurance	94
55	64	65	152	259	220	221	298	287	Licence fee - Bollgard	305
22	17	39	22	50	45	60	43	51	Licence fee - Roundup ready	42
18	12	16	37	26	37	36	17	25	Motor vehicle expenses	14
140	123	105	103	64	147	145	87	66	R & M - Farming plant	103
112	45	45	141	70	114	221	54	122	R & M - Pumps and earthworks	119
119	74	75	84	99	112	108	102	136	Seed	103
276	11	28	14	1	107	30	61	126	Water charges	150
323	245	246	484	273	453	428	274	300	Wages - Employees	269
62	77	54	88	29	114	76	20	27	Wages - Proprietors	27
91	46	36	65	32	65	24	50	39	Administration	70
69	57	45	50	56	189	118	51	234	Other farm overheads	68
3,392	**2,447**	**2,471**	**3,328**	**2,821**	**4,068**	**3,791**	**3,137**	**3,524**		**3,371**
1,235	**2,282**	**1,664**	**1,013**	**1,637**	**1,011**	**1,411**	**2,914**	**2,063**	**OPERATING PROFIT/(LOSS)**	**2,004**
									ADD:	
62	77	54	88	29	114	76	20	27	Wages - Proprietors	27
1,297	**2,359**	**1,718**	**1,101**	**1,666**	**1,125**	**1,487**	**2,934**	**2,090**	**FARM OPERATING PROFIT/(LOSS)**	**2,031**

3.3.2 TOP 20% FARMERS - THE PAST TEN YEARS (PER HA) (continued)

2004	2005	2006	2007	2008	2009	2010	2011	2012		2013
									DEDUCT:	
834	476	429	981	711	872	797	185	353	Interest and bank charges	496
7	3	10	0	0	0	0	0	0	Interest - Crop terms	0
841	**479**	**439**	**981**	**711**	**872**	**797**	**185**	**353**		**496**
$456	**$1,880**	**$1,279**	**$120**	**$955**	**$253**	**$690**	**$2,749**	**$1,737**	**FARM NET PROFIT/(LOSS)**	**$1,535**
									CROP RESULTS	
689.74	830.00	921.24	644.33	701.35	556.97	789.00	1,124.75	1,186.93	Hectares of cotton grown	833.94
6,078.29	9,676.04	9,656.56	6,666.75	6,847.50	5,451.00	8,480.00	12,506.75	13,596.12	Total yield (bales)	9,999.47
8.81	11.66	10.48	10.35	9.76	9.79	10.75	11.12	11.45	Yield per hectare (bales)	11.99
$524.92	$403.40	$378.96	$410.89	$443.99	$499.72	$484.00	$507.94	$477.90	Value per bale	$445.47
$384.89	$209.73	$235.67	$321.74	$288.83	$415.45	$352.51	$282.04	$307.69	Cost of production per bale	$281.13
$140.03	$195.87	$158.80	$97.78	$167.74	$103.46	$131.48	$262.27	$180.02	Operating profit per bale	$167.08
6.46	6.06	6.52	8.10	6.35	8.14	7.83	6.17	7.37	cover operating expenses	7.57
8.06	7.25	7.68	10.49	7.95	9.88	9.47	6.54	8.12	cover total expenses	8.68
									LABOUR	
181.51	242.08	290.92	138.07	280.54	139.24	157.80	176.43	228.26	Number of hectares per permanent person (excluding proprietors)	325.44
									AVAILABLE TRACTOR HORSE POWER	
461.19	567.56	470.78	503.09	399.38	520.68	612.59	344.27	244.07	Tractor horse power per 500 hectares	394.85
									AVAILABLE PICKING CAPACITY	
3.48	5.16	2.53	2.07	0.00	2.39	1.69	3.39	0.42	Picker heads per 500 hectares	1.35
									ROTATION	
76.52%	50.12%	60.95%	56.91%	39.21%	47.88%	42.25%	70.38%	46.55%	Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years)	18.32%
									WATER USAGE	
7.14	10.00	10.22	9.00	9.00	9.00	9.00	8.60	11.72	Megalitres per hectare	9.59
0.81	0.86	0.97	0.87	0.92	0.92	0.84	0.77	1.02	Megalitres per bale	0.80

3.4 THREE YEAR AVERAGE FOR TOP 20% AND AVERAGE PARTICIPANTS (PER HA)
(2011, 2012, 2013)

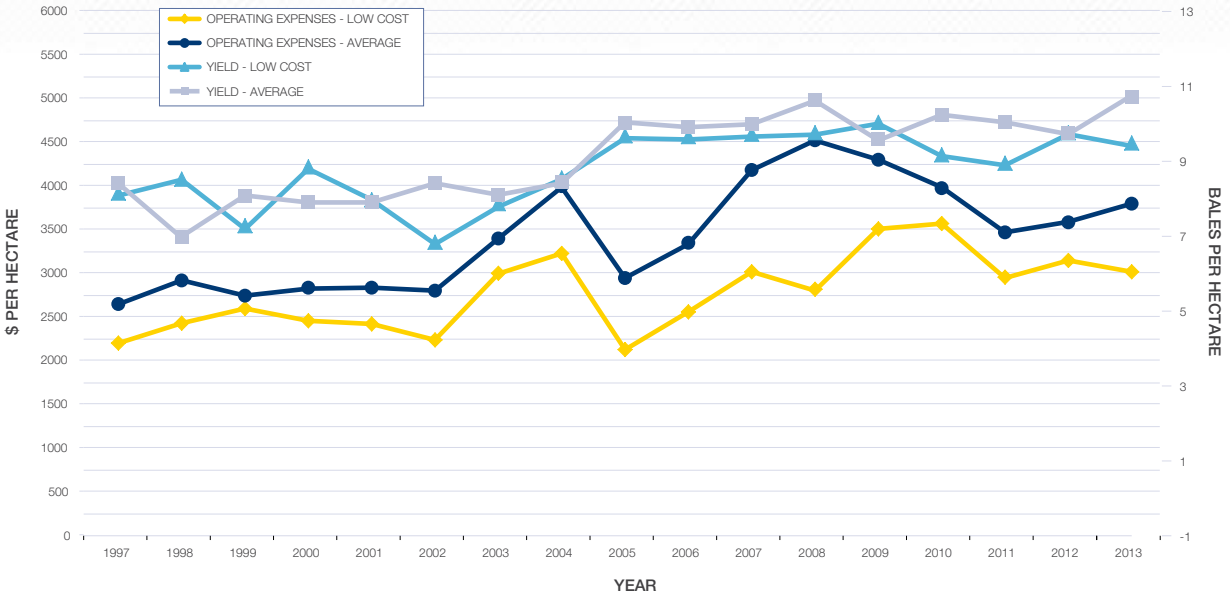
	ALL FARMS AVERAGE	TOP 20% AVERAGE	DIFFERENCE
INCOME			
Cotton proceeds - Lint	4,945	5,557	612
Cotton proceeds - Seed	490	566	76
Ginning	(542)	(593)	(51)
Levies	(33)	(42)	(8)
Cotton proceeds - Hail claims	64	183	119
	4,924	**5,671**	**747**
EXPENSES			
Cartage	128	143	(14)
Chemical application	125	123	2
Chemicals - Defoliants	50	52	(2)
Chemicals - Herbicides	92	80	13
Chemicals - Insecticides	87	98	(11)
Chemicals - Others	8	10	(2)
Chipping	3	3	(1)
Consultants	58	61	(3)
Contract picking	233	261	(28)
Contract farming and ripping	167	140	27
Cotton picking wrap and sundries	72	71	1
Depreciation	190	151	39
Electricity	50	76	(26)
Fertiliser	483	450	33
Fuel and oil	311	230	81
Hire of plant	32	19	13
Insurance	131	131	0
Licence fee - Bollgard	282	297	(15)
Licence fee - Roundup ready	66	45	21
Motor vehicle expenses	20	19	1
R & M - Farming plant	118	85	32
R & M - Pumps and earthworks	92	98	(7)
Seed	123	114	9
Water charges	145	112	33
Wages - Employees	360	281	79
Wages - Proprietors	24	25	(1)
Administration	49	53	(4)
Other farm overheads	129	118	11
	3,627	**3,344**	**283**
OPERATING PROFIT/(LOSS)	**1,297**	**2,327**	**1,030**
ADD:			
Wages - Proprietors	24	25	1
FARM OPERATING PROFIT/(LOSS)	**1,321**	**2,352**	**1,031**

3.4 THREE YEAR AVERAGE FOR TOP 20% AND AVERAGE PARTICIPANTS (PER HA)
(2011, 2012, 2013) (continued)

	ALL FARMS AVERAGE	TOP 20% AVERAGE	DIFFERENCE
DEDUCT:			
Interest and bank charges	393	345	48
Interest - Crop terms	4	0	4
	396	**345**	**52**
FARM NET PROFIT/(LOSS)	**$924**	**$2,007**	**$1,083**
CROP RESULTS			
Hectares of cotton grown	1,539.93	1,048.54	(491.39)
Total yield (bales)	15,606.96	12,034.11	(3,572.85)
Yield per hectare (bales)	10.15	11.52	1.37
Value per bale	$480.03	$477.10	($2.93)
Cost of production per bale	$357.62	$290.29	$67.33
Operating profit per bale	$128.85	$203.12	$74.27
No. of bales per hectare required to cover operating expenses	7.64	7.04	0.60
No. of bales per hectare required to cover total expenses	8.47	7.78	0.69
LABOUR			
Number of hectares per permanent person (excluding proprietors)	242.98	243.38	(0.39)
AVAILABLE TRACTOR HORSE POWER			
Tractor horse power per 500 hectares	301.12	327.73	(26.61)
AVAILABLE PICKING CAPACITY			
Picker heads per 500 hectares	1.57	1.72	(0.15)
ROTATION			
Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years)	47.05%	45.08%	(1.97%)
WATER USAGE			
Megalitres per hectare	8.99	9.97	(0.98)
Megalitres per bale	0.89	0.86	0.02

3.5 LOW COST FARMERS

3.5.1 GRAPH - COMPARISON OF EXPENSES AND YIELD FOR LOW COST AND AVERAGE LANDHOLDERS



3.5.2 LOW COST FARMERS – THE PAST 10 YEARS

2004	2005	2006	2007	2008	2009	2010	2011	2012		2013
									INCOME	
4,513	4,195	3,754	3,669	3,997	4,769	4,268	4,508	4,749	Cotton proceeds - Lint	4,313
539	393	382	757	871	1,078	718	440	382	Cotton proceeds - Seed	302
(450)	(518)	(444)	(468)	(499)	(520)	(498)	(445)	(561)	Ginning	(523)
(37)	(32)	(26)	(35)	(34)	(46)	(30)	(29)	(31)	Levies	(28)
0	0	103	106	123	0	0	350	9	Cotton proceeds - Hail claims	27
4,565	**4,038**	**3,769**	**4,029**	**4,458**	**5,281**	**4,458**	**4,824**	**4,548**		**4,091**
									EXPENSES	
54	106	123	81	125	171	91	122	88	Cartage	121
133	88	130	98	99	144	123	129	116	Chemical application	80
68	54	52	43	63	60	79	69	58	Chemicals - Defoliants	49
112	139	60	121	97	193	89	108	69	Chemicals - Herbicides	66
304	206	281	132	67	26	140	80	61	Chemicals - Insecticides	47
7	5	2	4	6	4	5	11	10	Chemicals - Others	5
25	40	71	70	38	11	14	0	2	Chipping	0
67	49	55	55	49	64	62	57	38	Consultants	35
139	131	124	302	321	339	361	258	295	Contract picking	90
192	36	91	104	126	23	29	64	130	Contract farming and ripping	380
12	20	12	6	3	38	3	43	61	Cotton picking wrap and sundries	72
248	111	126	176	208	191	332	141	179	Depreciation	207
9	13	9	12	16	29	7	66	33	Electricity	29
200	141	312	188	169	174	518	296	448	Fertiliser	410
223	222	242	356	280	272	347	201	202	Fuel and oil	299
11	1	6	0	0	1	3	11	52	Hire of plant	67
121	83	121	244	195	228	148	141	119	Insurance	45
54	72	107	110	259	310	308	315	281	Licence fee - Bollgard	175
19	2	9	19	50	60	53	55	53	Licence fee - Roundup ready	29
20	9	11	30	26	33	33	18	15	Motor vehicle expenses	28
145	132	115	89	64	110	147	77	80	R & M - Farming plant	60
66	44	59	107	70	86	88	58	49	R & M - Pumps and earthworks	51
108	68	68	85	99	114	160	101	165	Seed	104
402	17	21	9	1	26	13	144	181	Water charges	192
274	224	245	415	273	659	286	285	287	Wages - Employees	193
65	46	36	62	29	0	49	7	22	Wages - Proprietors	33
75	33	29	43	32	66	43	38	48	Administration	42
79	38	44	60	56	80	43	65	38	Other farm overheads	97
3,232	**2,130**	**2,561**	**3,021**	**2,821**	**3,512**	**3,574**	**2,960**	**3,180**		**3,006**
1,333	**1,908**	**1,208**	**1,008**	**1,637**	**1,769**	**884**	**1,864**	**1,368**	**OPERATING PROFIT/(LOSS)**	**1,085**
									ADD:	
65	46	36	62	29	0	49	7	22	Wages - Proprietors	33
1,398	**1,954**	**1,244**	**1,070**	**1,666**	**1,769**	**933**	**1,871**	**1,390**	**FARM OPERATING PROFIT/(LOSS)**	**1,118**

3.5.2 LOW COST FARMERS – THE PAST 10 YEARS (continued)

2004	2005	2006	2007	2008	2009	2010	2011	2012		2013
									DEDUCT:	
569	389	379	976	711	76	1,418	333	345	Interest and bank charges	543
9	5	7	0	0	0	0	0	0	Interest - Crop terms	65
578	394	386	976	711	76	1,418	333	345		608
$820	**$1,560**	**$858**	**$94**	**$955**	**$1,693**	**($485)**	**$1,538**	**$1,045**	**FARM NET PROFIT/(LOSS)**	**$510**
									CROP RESULTS	
505.34	1,394.46	1,453.60	812	701	568	713	1,276	1,532	Hectares of cotton grown	1,014
4,320.17	13,481.96	14,042.00	7,886.50	6,847.50	5,676.00	6,535.00	11,428.00	14,857.26	Total yield (bales)	9,539.47
8.55	9.67	9.66	9.72	9.76	9.99	9.17	8.95	9.70	Yield per hectare (bales)	9.41
$533.93	$417.57	$379.55	$403.66	$443.99	$528.61	$486.02	$499.65	$468.02	Value per bale	$431.96
$378.05	$220.36	$264.95	$310.51	$288.83	$351.21	$389.29	$330.42	$327.83	Cost of production per bale	$319.61
$155.88	$197.21	$125.28	$104.07	$167.74	$177.40	$96.73	$208.27	$141.11	Operating profit per bale	$115.23
6.05	5.10	6.74	7.48	6.35	6.64	7.35	5.92	6.79	No. of bales per hectare required to cover operating expenses	6.96
7.14	6.04	7.76	9.89	7.95	6.78	10.26	6.59	7.53	No. of bales per hectare required to cover total expenses	8.37
									LABOUR	
194.36	171.25	242.27	162.30	280.54	94.67	237.50	168.91	283.74	Number of hectares per permanent person (excluding proprietors)	368.71
									AVAILABLE TRACTOR HORSE POWER	
545.38	604.79	393.36	514.76	399.38	510.56	561.40	306.11	279.82	Tractor horse power per 500 hectares	427.01
									AVAILABLE PICKING CAPACITY	
3.17	3.07	1.83	0.00	0.00	0.00	0.00	2.31	1.57	Picker heads per 500 hectares	1.60
									ROTATION	
60.90%	73.82%	66.72%	49.29%	39.21%	70.42%	35.09%	70.67%	33.99%	Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years)	19.32%
									WATER USAGE	
7.17	10.54	9.19	9.00	9.00	9.00	9.00	8.67	10.45	Megalitres per hectare	7.53
0.84	1.09	0.95	0.93	0.92	0.90	0.98	0.97	1.08	Megalitres per bale	0.80

4 Appendices

APPENDIX A

DEFINITION OF TERMS

TOP 20% AND BOTTOM 20% (AVERAGE)

These figures represent the average results of those farmers who achieved the highest and lowest farm operating profit (after using an average cotton price for all growers).

BEST "LOW COST" FARMERS

These figures represent the average results of those farmers who had the lowest farm operating expenses (before interest).

LARGE GROWERS

These figures represent the average results of those farmers who grew more than 2,500 hectares.

COMBINED AVERAGE OF THREE YEARS TO 2013

These figures represent the average of the annual results of farmers in each category of the comparative analysis, over a three year period. We have also analysed the combined average of the top 20% of farmers for comparative purposes.

LABOUR

These figures include all permanent employees or equivalent casuals (two casuals employed for three months each would represent half of a permanent employee). Proprietors have been excluded.

AVAILABLE TRACTOR HORSE POWER (ENGINE)

Includes all field tractors used for ripping, listing, spraying and cultivating, but excludes tractors used to operate module builders.

AVAILABLE PICKING CAPACITY

Only includes pickers owned by the farmer.

ROTATION

The portion of the current year's crop grown on fields fallowed in the previous year, or developed over the past three years, expressed as a percentage.

WATER USAGE

Includes the total megalitres of irrigation water used to grow the crop as well as the impact of beneficial rain. Rainfall figures during the growing season have been converted to megalitres after excluding light falls and a portion of falls over 100mm per month.

APPENDIX B

GUIDE TO INCOME AND EXPENSE ALLOCATIONS

COTTON PROCEEDS

The "Cotton Proceeds – Lint" is net of premiums and discounts.

For farmers who received hail insurance claims, the amount received has been shown separately in the analysis. Where possible the hail claim has been grossed up to reflect the bales lost due to hail and the costs saved or additional costs incurred have been added or subtracted to reflect comparable figures.

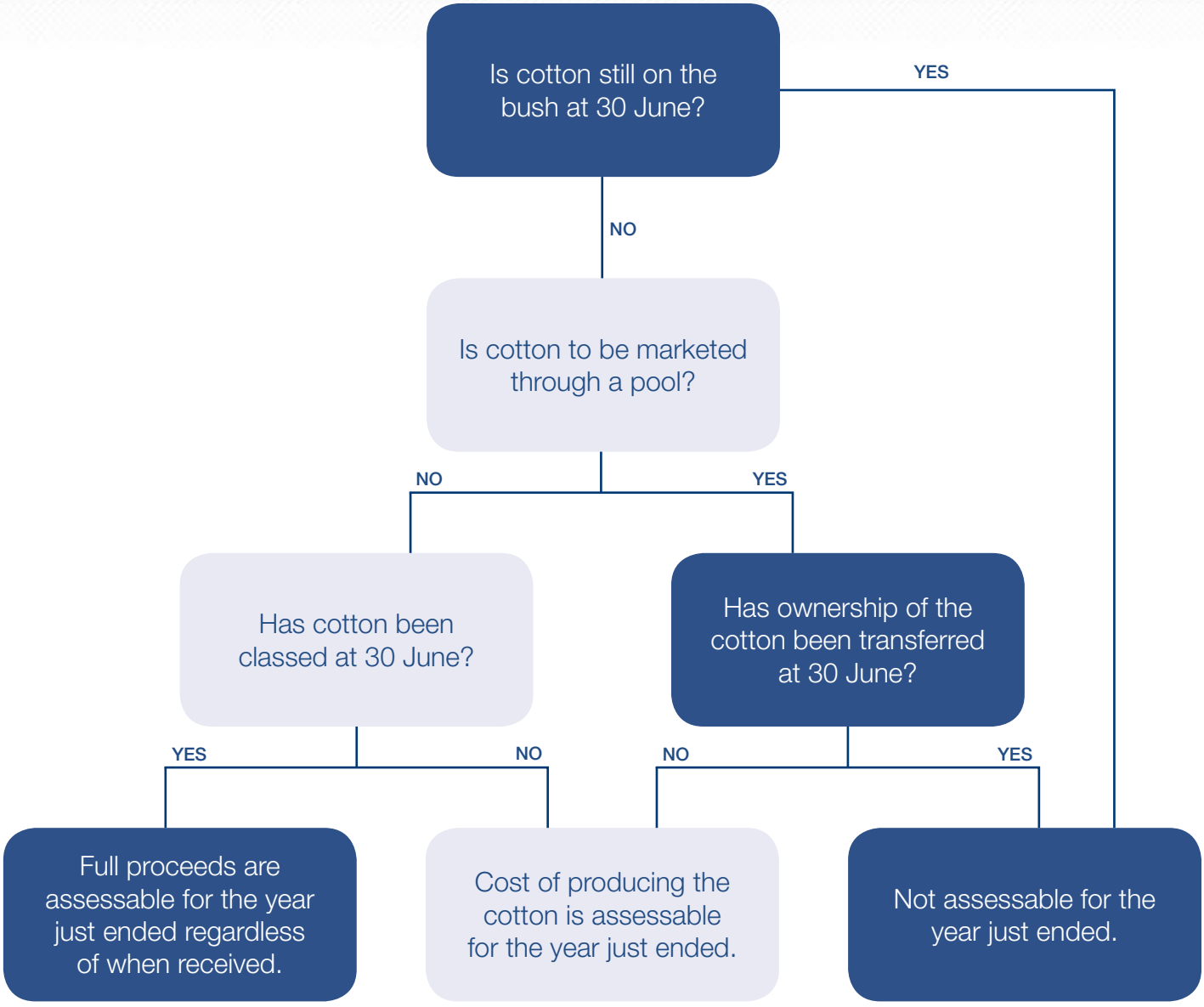
EXPENSES

Cartage	cartage (cotton module cartage, general cartage)
Chemicals - Application	application by aircraft, application by ground rig
Chemicals - Defoliants	all defoliants and conditioners
Chemicals - Herbicides	herbicides used in field and on ditches, channels etc
Chemicals - Insecticides	all insecticides
Chemicals - Other	growth regulants (pix) and all other chemicals
Chipping	chipping (chipping contractors, chipping wages), row weeders
Consultants	consultants (external and internal agronomist, bug checkers, marketing consultants)
Contract picking	contract picking (net of contract picking income on a swap basis, i.e. hectare for hectare)
Contract farming and ripping	contract farming, contract ripping, contract stalk pulling, stick picking
Cotton wrap and picking sundries	cotton wrap and sundries (tarps and ropes, repairs to tarps)
Depreciation	depreciation
Electricity	electricity (electricity for bores, general electricity)
Fertiliser	fertiliser, gypsum
Fuel and oil	fuel and oil (net of diesel fuel rebate)
Hire of plant	hire of plant
Insurance	crop insurance, general insurance
Licence fee - Bollgard	licence fees paid to Monsanto for the Bollgard licence
Licence fee – Roundup Ready	licence fees paid to Monsanto for the Roundup Ready licence
Motor vehicle expenses	motor vehicle expenses (registration, motor vehicle insurance, R&M motor vehicle)

R&M - Farming plant	R&M pickers, R&M plant, R&M tractors, R&M small tools and hardware, R&M motor bikes
R&M - Pumps and earthworks	R&M irrigation earthworks, R&M irrigation pumps and motors
Seed	seed
Water charges	water charges (charges from a state body, charges from a local water scheme, water purchases)
Wages - Employees	external wages (excluding chipping), payroll tax, secretarial fees, superannuation, workers compensation insurance, FBT
Wages - Proprietors	wages paid to a proprietor. If no wage is paid a notional amount, based on their involvement in the operation, has been included for each working proprietor. If the farm has more than one enterprise, the proprietors wage is split in accordance with normal allocation criteria.
Administration	accountancy (all general work), administration, advertising, computer costs, computer processing, entertainment, filing fees, licences permits and fees, medical supplies, newspapers and periodicals, printing stationery and postage, protective clothing, seminars and conferences, staff amenities, staff training, subscriptions and donations, telephone, travel and accommodation
Other farm overheads	special accountancy work, audit, legal, rates, rent, R&M homestead, R&M employees' houses, R&M farm buildings, R&M fences, shade and shelter trees
Interest and bank charges	bank charges, borrowing expenses, bank interest, leasing, and hire purchase interest charges
Interest - Crop terms	interest on crop term finance (chemical suppliers and cotton merchants etc).

APPENDIX C

CHART OF ASSESSIBILITY OF COTTON PROCEEDS



Notes:

(i) The guaranteed minimum price of a GMP pool is assessable as cash. The balance is treated as a pool.

(ii) 'Cost of producing' is the cost of severing the cotton from the land plus any other costs spent directly on the lint or seed prior to 30 June of that year.

The marketing of cotton is a complex issue. The taxation treatment relies on the wording of a particular contract.

This schedule is designed to provide general advice only. If you need specific advice, please contact us. On this basis, we accept no liability for any errors or omissions.

APPENDIX D

COMMON SHAREFARMING AND LEASING ARRANGEMENTS

Below are some details of common practices.

i. **Sharefarming (80% - 20% deal)**

80% of income to the sharefarmer.

20% of income to the landholder.

Sharefarmer pays all operating costs.

Landholder pays landholder's costs (rates) and costs to deliver water to the head ditch (pumping, water charges, and main channel maintenance).

ii. **Sharefarming (82% - 18% deal)**

82% of income to the sharefarmer.

18% of income to the landholder.

Sharefarmer pays all costs except rates.

iii. **Leasing**

A starting point is generally 4% - 6% of the value of the full watered developed area.

Australian Government

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