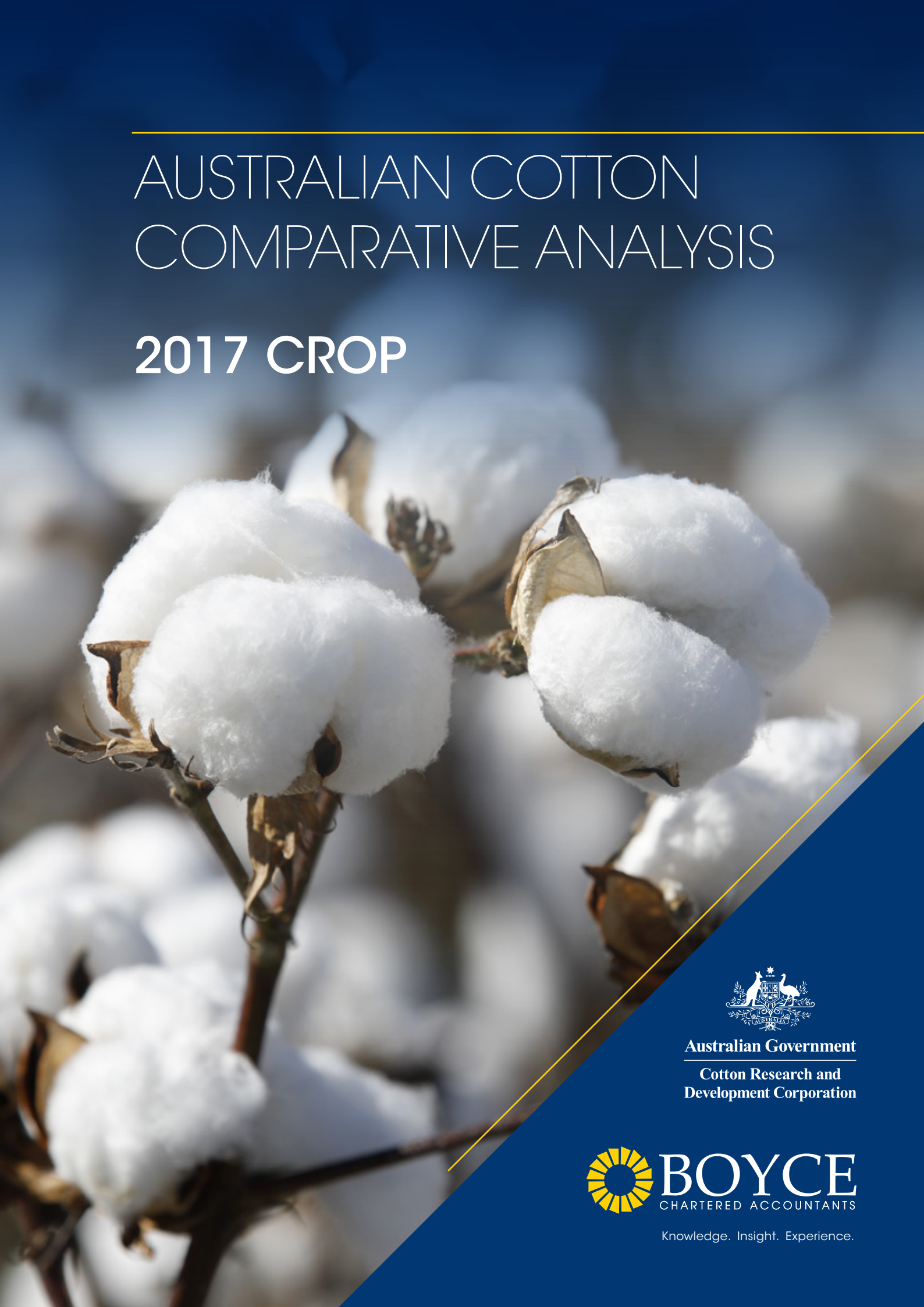
AUSTRALIAN COTTON COMPARATIVE ANALYSIS

2017 CROP



Australian Government

Cotton Research and Development Corporation

BOYCE CHARTERED ACCOUNTANTS

Knowledge. Insight. Experience.

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Images courtesy of Cotton Australia and Deidre McCallum

Dear Grower,

We are pleased to present the 2017 Australian Cotton Comparative Analysis.

The Comparative Analysis is 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.

The sample of participants this year again captures a representation from the different cotton-growing valleys. It is always our aim to increase the sample size of the analysis. If you are a grower and find this report instructive but do not currently participate in the analysis, we would welcome your involvement. Participation is free, and while we know that involvement does take some effort, we believe that this effort leads to a greater understanding of the numbers that drive your business with respect to other growers and trends within the industry.

This year is the second year we have analysed the per bale figures in this analysis. As the industry continues to evolve, and as other studies on industry practices are finalised, we will continue to compare the results from those studies and these figures with a view to providing better information for the industry.

The 2017 Australian Cotton Comparative Analysis 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welcome use of the figures contained in this report, however it should be noted that the report or any part of it may not be published or reproduced without authorisation.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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2017 AUSTRALIAN COTTON COMPARATIVE ANALYSIS

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1 Introduction

INTRODUCTION

The 2017 Australian Cotton Comparative Analysis (ACCA) is the thirteenth 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. Having 30 years of data in the same format for any industry is a valuable resource.

In this report we present an analytical review of the 2017 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 and per bale basis. To get the most out of this report the reader should be fully aware of the methodology:

- It is important to note that the analysis does not necessarily show the health of the cotton industry. Where a cotton grower grew skip row cotton or solid cotton that did not receive full water, or grew no fully irrigated cotton at all, those resulting figures are excluded from the analysis. In most, if not all cases, these alternate crops would have returned a reduced profit per hectare in comparison to growing fully irrigated cotton. Therefore, although the grower may have made a healthy per hectare profit on the hectares of fully irrigated solid cotton grown, 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 usual rotation practice.
- Readers of this study should be aware that these figures show the average results of participants in the sample. It is important that users understand this fully. For example, assume there were only two participants in the sample who grew the same area of irrigated cotton. 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 & maintenance, wages etc. will all be less than market rates. With this knowledge, users of this information can get additional information from this analysis.
- It should be remembered that if there is a significant change in per line figures, this may not necessarily be due to price increase. Line items can be made up of price, frequency of operation and volume of input 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 (volume) or the number of plantings, or a combination of all three.
- It is important to understand 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.

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 increased due to an increase in the availability of water throughout many of the cotton growing areas of Australia.

The average hectares planted per participant increased from 878 hectares in 2016 to 1,207 hectares in 2017. This is due to both water availability and participants in the analysis changing. The total number of bales in the sample was just on 498,000, which is approximately 13% of total Australian cotton production. Final estimates for the 2017 Australian crop were 472,941 hectares planted and production of 3,874,675 bales, which is an increase of 80% compared to the 2016 planted area (Cotton Australia Statistics).

Marketing is an important part of management and can make a significant contribution to the profitability of the cotton farm. For this reason, participants' overall results in the 'Comparison of average income and expense items' are not normalised in respect of income. Whilst recognising marketing as an important part of management, our study does not include or exclude growers from the Top 20% Farmers based on marketing decisions in respect of currency, lint and basis. Our view is that growers should be classified into (or out of) this group based on yield and cost only, as many growers review their operation against the Top 20% Farmers to look for areas of improvement. We have therefore selected the top 20% substituting $527 (the average 2017 net price for all participants) for the average net price that the individual grower actually received.

It should be noted that although the average price of $527 was used to select the participants in the Top 20% Farmers, 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 other words, this Comparative Analysis is a management tool to 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 Comparative Analysis provide the starting point for farmers to develop "best practice".

If growers or other interested parties require more long term data, note that this analysis has been running since 1986.

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

2

Report on the 2017 Crop

2.1 THE 2017 CROP – ANALYTICAL REVIEW

2.1.1 INTRODUCTION

Highlight numbers for the Average Farmers and Top 20% Farmers are as follows:

Average Farmers;

- Yield (10.59 bales per hectare) decreased significantly (an average of 2.36 bales) from the previous year (2016 was 12.95 bales per hectare). This is 0.82 bales per hectare less than the five year average, which despite the fall rose 0.2 of a bale from the previous year.
- Price per bale was $527 which is $20 higher than last year and $37 above the five year average of $490.
- Operating costs fell for the first time since 2011 and were the lowest since 2012. 2017 costs per hectare were $3,722 compared to $4,500 for 2016 and $4,062 for the five year average.
- Wages, fertiliser, consultancy and electricity were key cost items to decrease significantly potentially reflecting less inputs into a low yielding crop as well as the impact of greater economies of scale (i.e. fixed costs across more hectares grown).
- Total income was $5,575 per hectare for 2017. This was similar to the five year average, but $990 lower relative to last years' income of $6,565.

For the Average Famers, similar to 2016, this was another great season, with profit per hectare of $1,557 being slightly lower than last years' $1,706, but higher than the 5 year average of $1,257. Based on these figures, a yield of 7.7 bales per hectare is required to cover total expenses, a figure which reduced below a 5 year average of 9.0 bales.

Top 20% Farmers;

- Yield (11.35 bales per hectare), a decrease of 2.34 bales per hectare from the previous year (2016 was 13.69 bales per hectare).
- Price per bale was $549.34, which is $30 up from 2016 and $42 above the five year average.
- Interestingly, operating costs for this group fell by $476 to $3,447, which is $267 below the five year average.
- This group continues to grow more cotton (.76 bales per hectare) than the Average Farmers and do it more cheaply ($3,447 v $3,722).

It was another good season for the Top 20% Farmers, with profit of $2,592 per hectare. This was down on last years' profit but still up when compared to five year average of $2,443. Interestingly, the 2017 result was a combination of a reduction in yield and total expenses from the previous year. This again highlights the ability for the top 20% of growers to identify lower forecasted yields and meet these with lower inputs.

In our view, 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 some serious structured and documented thought by the industry.

This study has shown that being in the Top 20% is predominately driven by yield, so in our view, that's not a bad place to start. 'How can I improve yield as cheaply as possible?' should be a well-considered question, and one which has been raised before. Specifically though, in this 2017 year, if you look at the increase in expenses that was not specifically driven by yield, how much of that contributed to yield?

The industry continues to be an early adopter of technology. At the industry level, this is a tremendous positive as it shows the innovation that has driven the industry. 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 with maximising profit. We believe each 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 use of old picking technology continues to decrease, although it should be noted that if pure profit was a motive, old technology would be more prevalent. The cost of herbicides and insecticides (license fees and chemicals) were slightly lower however considerably higher than the 5 year average. This is potentially reflective of the season with lower yields across the board. In terms of insect pressure, this could be a product of growers taking crops later into the season searching for more yield. While growers continue to effectively 'outsource' or 'buy' products and expertise from various providers, growers must continue to monitor the profit motive. From a classic economical point of view, a farming operation with everything outsourced would technically make no profit!

To analyse the industry over a 30 year period in the same format provides valuable information with which to consider where the future will take the industry. We recommend that growers spend some 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.

The ability to take advantage of a solid lint price continues to be a big issue for the industry. The lack of stored water and the way that impacts on the ability of a grower to make a good price has been addressed in previous analyses. Growers who do not have assured water and therefore production should be very aware of production risk when trying to establish forward prices. Previous studies have shown just how important it is for the profitability of the enterprise to have the ability to lock in forward prices, but it is our view that without assured production, it is questionable whether this is a prudent approach. If the price per bale continues to fluctuate but not grow over time in real terms, then it follows that the ability to participate when prices are high will become more important.

This year we have again included trend lines in some of the graphs presented. Some interesting trends from 1997 to 2017 continue to emerge, including:

- The value per bale continues to increase slightly, although we have seen no real growth.
- The trendline in growth of cost per hectare continues to rise with the fall in the 2017 year being an outlier.
- Although the yield per hectare fell for the Top 20% Farmers, the upward trend continues. The term 'statistical yield' indicates a fixed ceiling beyond which yield cannot exceed. Without further plant development, this would be a worrying prospect, especially in light of continuing cost increases. Continuing development means that statistical yield is a moving target, but its important to note that we are tending towards a maximum yield, whereas there do not seem to be similar cost constraints.
- This years' and the previous years' reduction in profit per hectare for the Average Farmers and the Top 20% Farmers sees some downward pressure on the profit trendline. However, the industry must be realistic that profits will vary based on seasonal conditions.

The two statistics of relatively static price per bale and increasing costs per unit of inputs acquired confirm the decreasing terms of trade for the industry. Increased profits for the industry are coming from efficiency (less quantity of inputs) and increased yield.

Five Year Average (2013 to 2017)

We believe the message of the average for a number of years is important. In this report we have used the average of this season and the past four seasons – five years in total.

What we are attempting to show by the five year average is the income and expenses on a per hectare basis in a "normal" year.

2.1.2 KEY PERFORMANCE INDICATORS

2.1.2.1 YIELD (BALES / HA)

	AVERAGE	TOP 20%	DIFF
2017	10.59	11.35	0.76
2016	12.95	13.69	0.74
2015	12.59	14.31	1.72
2014	10.24	11.55	1.31
2013	10.69	11.99	1.30
*** Five year average**	**11.41**	**12.58**	**1.17**

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?

2.1.2.2 VALUE ($ / BALE)

	AVERAGE	TOP 20%	DIFF
2017	$527	$549	$22
2016	$507	$518	$11
2015	$517	$538	$21
2014	$473	$485	$12
2013	$427	$445	$18
*** Five year average**	**$490**	**$507**	**$17**

- The cash price for the season ranged between $475 and $580. While there were the usual peaks and troughs, the price trended upwards until June when it peaked at $580, at which point it fell back to just on $550. In terms of long term averages, a good season for price.
- The average cash price for the growing period was just on $525 per bale. (Data provided by Independent Commodity Management)

What strategies do you have in place to combat adverse currency and futures?
How much cotton have you sold for the 2017 and 2018 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?

2.1.2.3 OPERATING COSTS ($ / HA)

	AVERAGE	TOP 20%	DIFF
2017	$3,722	$3,447	$275
2016	$4,500	$3,923	$577
2015	$4,363	$4,062	$301
2014	$3,918	$3,766	$152
2013	$3,808	$3,371	$437
*** Five year average**	**$4,062**	**$3,714**	**$348**

- The costs for the Average Farmers and the Top 20% Farmers saw a significant decline from 2016 to 2017. Having said that, the Top 20% Farmers have had more success than the Average Farmers with controlling costs since 2012. Interestingly, the biggest cost per hectare differences between the Average Farmers and the Top 20% Farmers in the 2017 year were Fuel and Oil, Wages, Contract Picking, Depreciation and Water Charges and Purchases. It's interesting that the last three of these are primarily related to a) ownership of picking equipment, b) plant in general and c) water. We will continue to monitor these differences between the two groups, however this is a similar result to last year in terms of key differences. It is also interesting to note that the Top 20% Farmers had greater per hectare expenses on chemical and consultants.
- The average operating costs for the "low cost growers" were $3,263 compared to $3,693/ha in 2016.

What steps can you take in a "normal year" to keep your operating costs below $3,700/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 high fixed costs?

2.1.2.4 COST OF PRODUCTION ($ / BALE)

	AVERAGE	TOP 20%	DIFF
2017	$351	$303	$48
2016	$347	$286	$61
2015	$347	$284	$63
2014	$382	$326	$56
2013	$356	$281	$75
*** Five year average**	**$357**	**$296**	**$61**

- A low cost of production per bale (driven by higher yields) is the most significant feature of the Top 20% Farmers. This is achieved by producing more bales of cotton per hectare and from a lower per hectare cost base. Both of these factors contribute to this statistic. As mentioned above Consultants, chemical application, insecticides and herbicides exceeded the average for the Top 20% Farmers.
- 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/ 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% Farmers doing differently?

2.1.2.5 COMPARISON OF VALLEYS

	Gwydir	Barwon/McIntyre	Macquarie	Namoi	Southern Valleys
Gross income ($/ha)	$5,939	$5,297	$5,334	$6,252	$4,653
Operating costs ($/ha)	$3,680	$3,264	$3,530	$4,710	$3,796
Operating profit ($/bale)	$205	$196	$180	$131	$88
Yield/ha	11.04	10.37	10.05	11.77	9.73

- The sample size this year for other valleys was not large enough to be included separately in this years' analysis.

2.1.3 FIVE YEAR AVERAGES TO 2017

As noted in the introduction, we believe the message of the average is important, so we have compared five year average figures for the Average Farmers and the Top 20% Farmers using the years 2013 to 2016 plus the current year's data.

What makes the Top 20% Farmers so much better than Average Farmers?

In the five selected years, the Top 20% Farmers made 94% more profit (after interest) than the Average Farmers ($2,443/ha compared to $1,257ha).

The difference is attributed to the following factors:

Land productivity (yield/ha)	49%	or	$585
Price	16%	or	$185
Direct cost savings – excluding Wages – Proprietors (fine tuning)	29%	or	$340
Interest savings (less debt)	6%	or	$77
	100%		**$1,187**

The message from these figures is that better land productivity (measured by higher yield) is overwhelmingly the major feature of the top performers. Having said that, for this 2017 year, the contribution by land productivity is the lowest it has been in years. This is of course the result of this years lower yields. Farmers should continue to concentrate on growing higher yield within a realistic cost framework 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 unsold cotton covers their total borrowings.
- The contingent tax liability associated with crop proceeds tipped forward (on hand and in pools) should always be calculated and brought to account at year- end when measuring your wealth.
- Debt in the industry is an issue. Even with interest rates at historically low levels, interest cost per hectare is significant. To overlay current debt with rates of 10 or 12% would have significant impact on the industry. It is difficult to continue with old 'rules of thumb' such as debt should not exceed 150% of average gross farm income (100% when interest rates are above 12%), when profitability is really the key.
- High wage costs and machinery horsepower per hectare are a quick indicator of overall high costs of operations.
- Don't underestimate the value of knowledge, both within your industry and worldwide. It can be difficult to keep up to date with the latest practices, but falling behind will 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 $3,700/ha for the past five 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 five years proves that a target for operating costs of $3,200 to $3,500/ha is achievable in a normal year. These figures translate to operating costs of $300 to $330/bale.

- **Consistent marketing strategies**

  There are a large number of marketing alternatives available to cotton farmers. The strategies adopted by individual farmers depend on:

  - Individual outlook on risk
  - World-wide economic outlook
  - Taxation implications
  - Cash flow implications
  - Water availability
  - Level of knowledge on 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 in the longer term.

  The top farmers know their cost of production per bale. They then base marketing decisions on that known 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 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 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 available 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. The best 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. During the last 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.

  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 (ten 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 ten 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, average cotton prices not growing in real terms, 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 must continually look at alternative investments (allowing for risk) to assess what the return of a cotton farm really is.

As a general statement, the ten year average figures should not be used when analyzing the return on assets of the industry as a whole. This is similar to our comments in the Introduction that this analysis does not necessarily show the health of the cotton industry. Figures resulting from rotation crops, dryland cotton or semi irrigated cotton, are, by definition, excluded from this analysis. To get more realistic ten year figures, more work would have to be done to ascertain an average, probably based on historical water availability.

Trend lines indicate that the operating profit for the Top 20% and the Average Farmers is on the rise with exceptionally strong results for the last three years having an impact.

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:-

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

- 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).

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

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 or exit of 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 Average Farmers. What difference does yield make on ROA?

For example:

- Five year average profit to 2017 (before interest) for the Average Farmers of $1,594/ha against $17,500/ha – 9.1% return.
- Five year average profit to 2017 (before interest) for the Top 20% Farmers of $2,705/ha against $17,500/ha – 15.5% return.

  (Yield differential of 1.17 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 industry continues to strive for increased yield with the challenge of balancing long term sustainability.

RETURN ON ASSETS CALCULATOR 2017

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 and 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.

RETURN ON ASSETS CALCULATOR 2017

RETURN ON ASSETS BASED ON VARIOUS PROFITS AND LAND VALUATIONS

VALUE /HA	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%

PROFIT PER HECTARE FROM PREVIOUS WORKSHEET

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 to work out the return on your investment.

2.3 CONCLUSION

Whilst 2015 and 2016 had been the most profitable years in the history of this analysis, 2017 was still in the top four most profitable years.

While profit was down slightly in 2017 from the previous year, it was still an exceptional result. With three good years back to back, growers would have the choice of debt reduction, farm improvements or new acquisitions. For some, tax will be an issue.

The outlook for the 2018 season is promising, with increased plantings and solid prices.

The lack of water and water variability has really been an issue for the more established valleys since 2000. While much effort continues to be invested in trying to argue whether climate change is real, our view remains that growers should spend their efforts on ensuring they can survive and profit during extreme weather events. If this is achieved, profit will be maximised regardless of the outcome of the climate change debate. Water and water security continues to drive the industry in the southern valleys. Interestingly, in some situations, water security in the south has seen land use progress from grazing directly to permanent plantings, by-passing cotton.

Saving labour continues to be a strong focus in the industry. Farmers developing for the first time and others who are looking to re-laser are considering bankless channel farm layout. While the upfront cost is relatively easy to ascertain, the financial impacts (costs, impact on yield etc) are more difficult to consider. The industry continues to learn and adapt and this process is, in our view, being assisted by the practices in the emerging cotton growing areas.

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 definitely leading to increased yield and reduced labour. The question is, at what cost? If the maximisation of profit is the goal, we think growers should establish the impact of technology on profitability before it is adopted.

There is divergence in the industry between the newer cotton growing areas and the more established valleys. It's exciting to see the different areas learning from each other. The newer valleys are developing land for the first time whereas a lot of growers in the older valleys are looking to redevelop their farms with better layouts and irrigation methods. In our view, it is healthy for the industry to have these different stages in different cotton growing areas. The southern valleys continue to grow with another huge increase in hectares being grown in 2018 and a huge increase in first time growers.

In other industry publications we have discussed the Terms of Trade, its impact on the industry and the importance of growers understanding it.

Terms of Trade refers to the relationship between the price of outputs and the price of inputs for an industry.

With the price of inputs continuing to rise and the price of outputs fluctuating but remaining basically flat, Terms of Trade for the industry continues to slide.

If you take the price of inputs out of the equation (for the purposes of this exercise accepting this as a given and out of a growers control) then what is left in the decision making process is a) more yield, b) reducing volume of inputs, and c) reducing the number of times those inputs are applied. With continuing adoption of technology and farms becoming more 'connected' with the internet, we think growers are better placed than ever before to to reduce the volume of inputs and the number of times the inputs are applied. One specific example of this would be variable rate application technology.

This continues the theme of growers taking time out to consider more than the day to day operations, thinking about where the industry is heading and implementing changes to their business accordingly.

The 2017 Australian Cotton Comparative Analysis maintains our goal to measure and analyse the components that provide farmers with a stronger financial bottom line.

The cotton industry continues to reinvest in BMP, sustainability programs and in the communities in which it operates.

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3

Comparative Statistics

3.1 SUMMARY

3.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE 2017 YEAR

	YOUR FARM (TOTAL)	YOUR FARM	ALL FARMS	TOP 20%	BOTTOM 20%	LOW COST	GROWERS (> 2,000 HA)
INCOME							
Cotton proceeds - Lint			5,404	5,988	4,739	4,978	5,289
Cotton proceeds - Seed			833	933	771	736	832
Ginning			(621)	(638)	(601)	(582)	(600)
Levies			(41)	(45)	(42)	(36)	(40)
Cotton proceeds - Hail claims			0	0	0	0	1
			5,575	**6,238**	**4,867**	**5,096**	**5,482**
EXPENSES							
Cartage			87	115	86	59	67
Chemical application			180	215	172	156	172
Chemicals - Defoliants			64	71	72	64	66
Chemicals - Herbicides			137	156	163	127	128
Chemicals - Insecticides			155	241	104	106	136
Chemicals - Others			7	9	7	9	4
Chipping			2	7	0	2	1
Consultants			52	81	70	48	39
Contract picking			129	78	164	107	136
Contract farming and ripping			163	190	130	191	132
Cotton picking wrap and sundries			114	137	99	94	102
Depreciation			211	164	247	216	214
Electricity			51	42	94	16	43
Fertiliser			455	432	519	397	518
Fuel and oil			242	189	285	224	212
Hire of plant			17	5	14	8	20
Insurance			113	141	176	111	92
Licence fee - Bollgard			301	301	308	299	294
Licence fee - Roundup ready			73	73	73	72	71
Motor vehicle expenses			22	15	35	16	21
R & M - Farming plant			203	184	194	155	228
R & M - Pumps and earthworks			84	33	201	81	74
Seed			131	121	174	111	123
Water charges and purchases			245	147	465	165	274
Wages - Employees			314	193	386	275	388
Wages - Proprietors			27	11	127	17	6
Administration			41	29	77	47	36
Other farm overheads			102	67	96	90	105
			3,722	**3,447**	**4,538**	**3,263**	**3,702**
OPERATING PROFIT/(LOSS)			**1,853**	**2,791**	**329**	**1,833**	**1,780**
ADD:							
Wages - Proprietors			27	11	127	17	6
FARM OPERATING PROFIT/(LOSS)			**1,880**	**2,802**	**456**	**1,850**	**1,786**

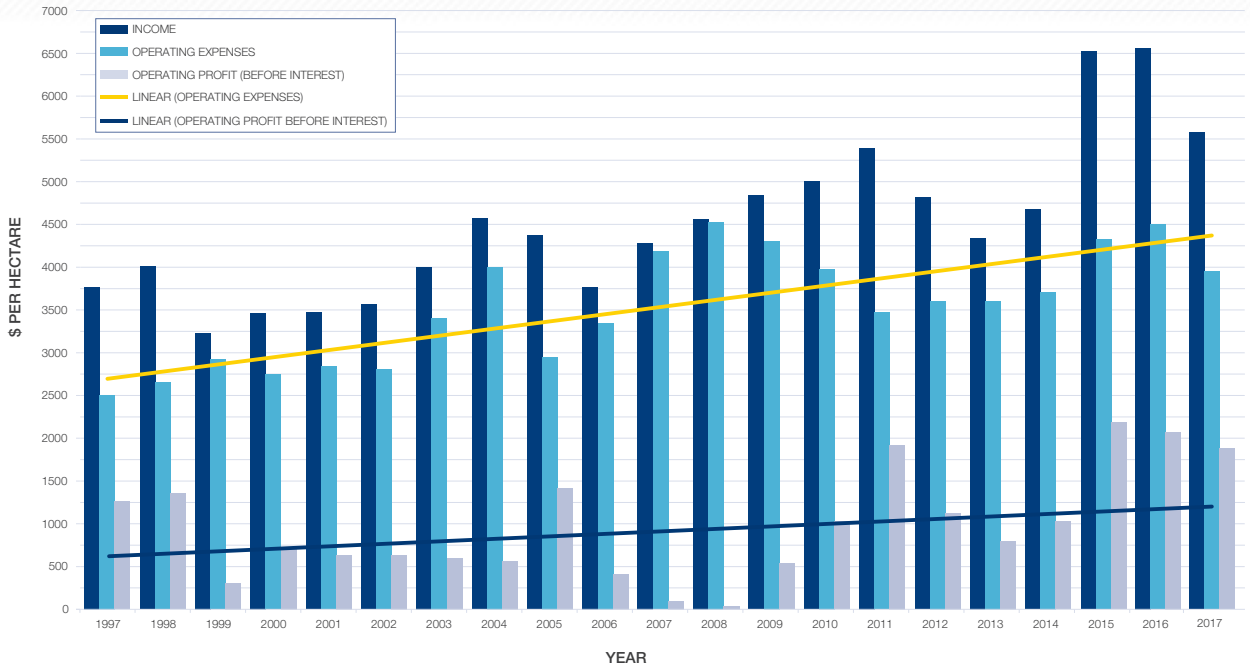
3.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE 2017 YEAR (continued)

	YOUR FARM (TOTAL)	YOUR FARM	ALL FARMS	TOP 20%	BOTTOM 20%	LOW COST	LARGE GROWERS (>2,000 HA)
DEDUCT:							
Interest and bank charges			322	210	432	329	240
Interest - Crop terms			1	0	0	2	0
			323	**210**	**432**	**331**	**240**
FARM NET PROFIT/(LOSS)			**$1,557**	**$2,592**	**$24**	**$1,519**	**$1,546**
CROP RESULTS							
Hectares of cotton grown			1,206.53	1,211.00	461.56	2,189.59	3,283.96
Total yield			12,773.17	13,749.49	4,306.93	22,058.47	34,242.71
Yield per hectare			10.59	11.35	9.33	10.07	10.43
Value per bale			$526.66	$549.34	$521.56	$505.76	$525.65
Cost of production per bale			$351.48	$303.47	$486.30	$324.06	$355.13
Operating profit/(loss) per bale			$175.23	$245.87	$35.26	$181.70	$170.60
Number of bales per hectare required to cover operating expenses			7.07	6.27	8.70	6.45	7.04
Number of bales per hectare required to cover total expenses			7.68	6.65	9.53	7.11	7.50

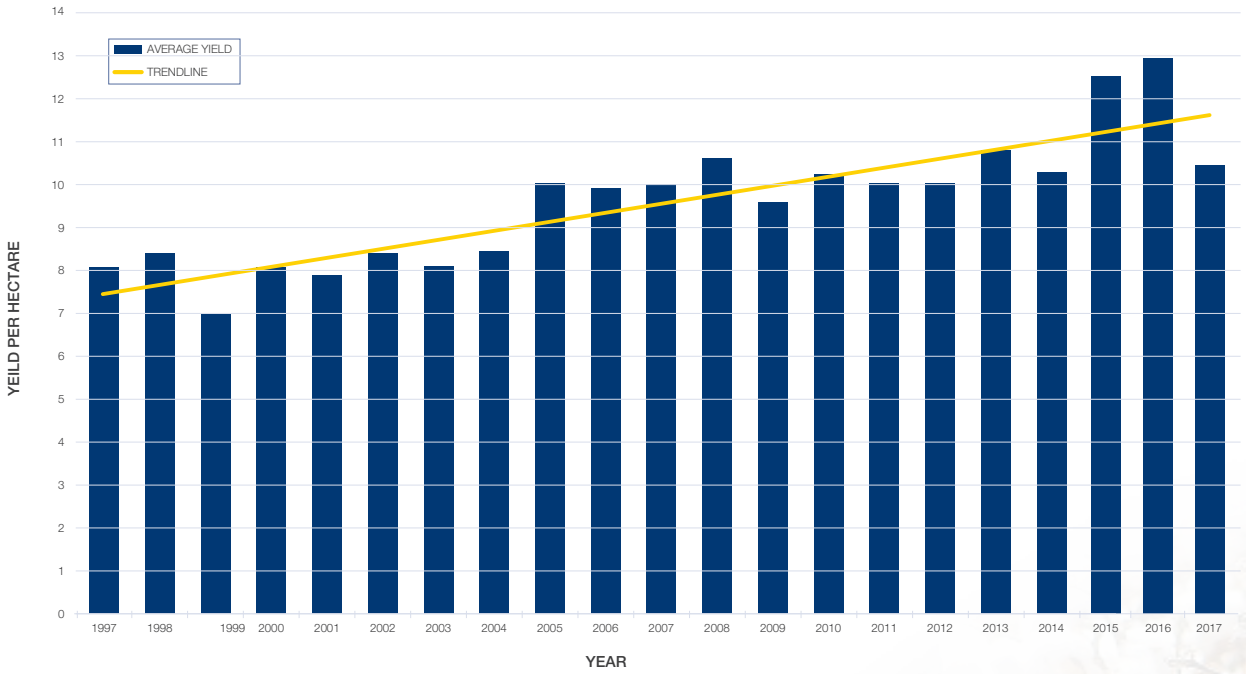
3.2 AVERAGE FARMERS PER HECTARE

3.2.1 GRAPHS

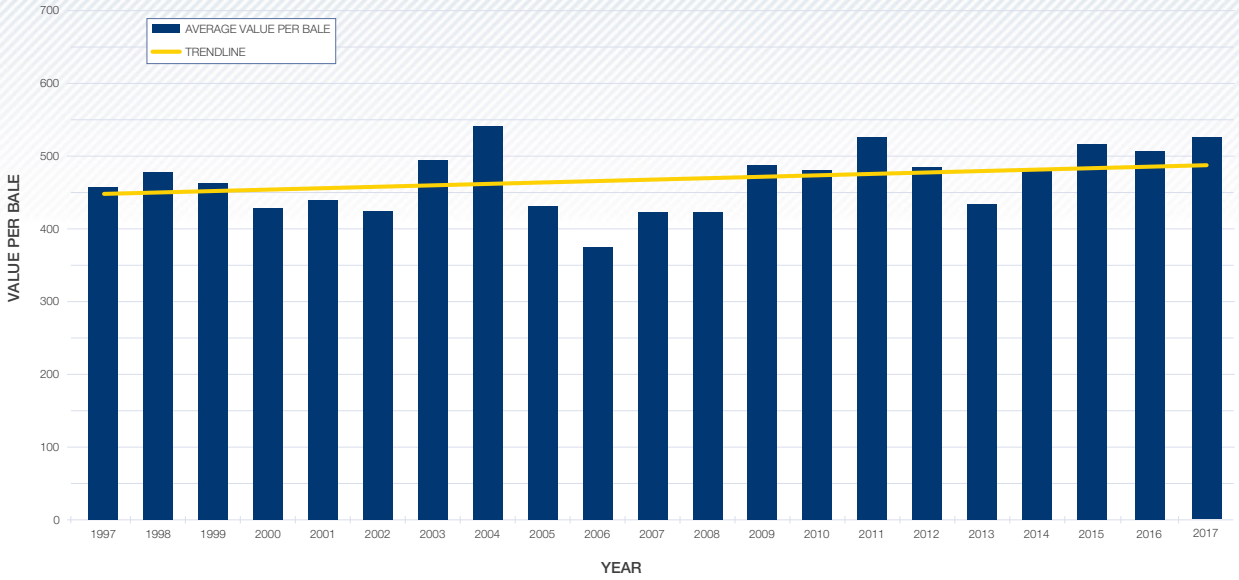
3.2.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS



3.2.1.2 YIELD AND TRENDLINE



3.2.1.3 VALUE PER BALE AND TRENDLINE



3.2.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									INCOME	
4,027	4,265	4,758	5,256	4,866	4,712	4,709	6,133	6,449	Cotton proceeds - Lint	5,404
1,016	935	742	546	400	524	805	1,180	917	Cotton proceeds - Seed	833
(521)	(495)	(542)	(484)	(512)	(630)	(621)	(744)	(752)	Ginning	(621)
(33)	(37)	(35)	(33)	(31)	(36)	(46)	(54)	(49)	Levies	(41)
73	169	79	106	70	17	57	10	0	Cotton proceeds - Hail claims	0
4,562	**4,837**	**5,002**	**5,391**	**4,793**	**4,587**	**4,904**	**6,525**	**6,565**		**5,575**
									EXPENSES	
101	100	112	136	117	132	86	106	103	Cartage	87
110	87	136	138	131	106	151	146	184	Chemical application	180
71	79	63	55	53	42	49	61	51	Chemicals - Defoliants	64
183	174	108	108	85	84	115	116	153	Chemicals - Herbicides	137
116	144	151	142	84	35	81	112	164	Chemicals - Insecticides	155
4	48	38	11	7	5	4	6	10	Chemicals - Others	7
39	24	15	2	3	3	2	1	9	Chipping	2
63	76	72	64	57	52	43	45	86	Consultants	52
250	255	261	282	241	176	182	151	145	Contract picking	129
85	42	24	122	164	215	100	102	156	Contract farming and ripping	163
6	14	9	55	84	78	75	104	131	Cotton picking wrap and sundries	114
508	372	426	164	178	227	249	354	298	Depreciation	211
46	59	79	76	29	45	50	104	109	Electricity	51
394	428	399	387	517	546	533	478	591	Fertiliser	455
429	327	305	258	271	403	380	377	273	Fuel and oil	242
12	2	7	22	43	32	52	39	26	Hire of plant	17
216	217	179	161	123	110	104	116	112	Insurance	113
232	218	252	286	292	310	305	270	302	Licence fee - Bollgard	301
50	50	62	60	56	39	69	69	62	Licence fee - Roundup ready	73
31	34	35	21	19	19	19	23	26	Motor vehicle expenses	22
139	137	154	121	109	123	113	159	162	R & M - Farming plant	203
133	116	183	61	84	130	159	217	179	R & M - Pumps and earth-works	84
98	105	126	115	146	107	79	140	120	Seed	131
439	486	189	134	141	160	306	343	310	Water charges	245
445	391	384	357	344	380	391	514	547	Wages - Employees	314
105	106	69	20	21	31	17	25	27	Wages - Proprietors	27
58	58	35	49	47	52	56	93	57	Administration	41
162	154	103	65	155	166	148	92	107	Other farm overheads	102
4,525	**4,303**	**3,976**	**3,472**	**3,601**	**3,808**	**3,918**	**4,363**	**4,500**		**3,722**
37	534	1,026	1,919	1,192	779	986	2,162	2,065	**OPERATING PROFIT/(LOSS)**	1,853
105	106	69	20	21	31	17	25	27	Wages - Proprietors	27
142	**640**	**1,095**	**1,939**	**1,213**	**810**	**1,003**	**2,187**	**2,092**	**FARM OPERATING PROFIT/ (LOSS)**	**1,880**

3.2.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS (continued)

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									DEDUCT:	
1,704	1,137	1,009	380	409	389	292	288	385	Interest and bank charges	322
0	0	0	0	0	11	0	0	1	Interest - Crop terms	1
1,704	**1,137**	**1,009**	**380**	**409**	**400**	**292**	**288**	**386**		**323**
($1,562)	**($497)**	**$86**	**$1,559**	**$804**	**$410**	**$711**	**$1,899**	**$1,706**	**FARM NET PROFIT/(LOSS)**	**$1,557**
									CROP RESULTS	
449.09	486.65	621.17	1,426.48	1,675.67	1,517.64	1,593.12	926.11	878.11	Hectares of cotton grown	1,206.53
4,769.71	4,660.90	6,363.40	14,325.75	16,272.11	16,223.03	16,320.98	11,660.33	11,368.18	Total yield (bales)	12,773.17
10.62	9.58	10.24	10.04	9.71	10.69	10.24	12.59	12.95	Yield per hectare (bales)	10.59
$422.66	$487.41	$480.56	$526.23	$486.42	$427.44	$473.05	$517.48	$507.15	Value per bale	$526.66
$425.99	$449.40	$388.37	$345.82	$370.77	$356.27	$382.31	$346.53	$347.51	Cost of production per bale	$351.48
$3.50	$55.70	$99.94	$190.92	$122.89	$72.75	$96.31	$171.72	$159.68	Operating profit per bale	$175.23
10.70	8.83	8.28	6.60	7.40	8.91	8.28	8.43	8.87	Number of bales per hectare required to cover operating expenses	7.07
14.74	11.16	10.38	7.32	8.24	9.85	8.90	8.99	9.63	Number of bales per hectare required to cover total expenses	7.68

3.2.3 COMPARISON OF AVERAGE RESULTS BETWEEN THE 2017 AND 2016 YEAR

	ALL FARMS 2017	ALL FARMS 2016	DIFFERENCE
INCOME			
Cotton proceeds - Lint	5,404	6,449	(1,045)
Cotton proceeds - Seed	833	917	(84)
Ginning	(621)	(752)	131
Levies	(41)	(49)	8
Cotton proceeds - Hail claims	0	0	0
	5,575	**6,565**	**(990)**
EXPENSES			
Cartage	87	103	16
Chemical application	180	184	4
Chemicals - Defoliants	64	51	(13)
Chemicals - Herbicides	137	153	16
Chemicals - Insecticides	155	164	9
Chemicals - Others	7	10	3
Chipping	2	9	7
Consultants	52	86	34
Contract picking	129	145	16
Contract farming and ripping	163	156	(7)
Cotton picking wrap and sundries	114	131	17
Depreciation	211	298	87
Electricity	51	109	58
Fertiliser	455	591	136
Fuel and oil	242	273	31
Hire of plant	17	26	9
Insurance	113	112	(1)
Licence fee - Bollgard	301	302	1
Licence fee - Roundup Ready	73	62	(11)
Motor vehicle expenses	22	26	4
R & M - Farming plant	203	162	(41)
R & M - Pumps and earthworks	84	179	95
Seed	131	120	(11)
Water charges and purchases	245	310	65
Wages - Employees	314	547	233
Wages - Proprietors	27	27	0
Administration	41	57	16
Other farm overheads	102	107	5
	3,722	**4,500**	**778**
OPERATING PROFIT/(LOSS)	**1,853**	**2,065**	**(212)**
ADD:			
Wages - Proprietors	27	27	0
FARM OPERATING PROFIT/(LOSS)	**1,880**	**2,092**	**212**

3.2.3 COMPARISON OF AVERAGE RESULTS BETWEEN THE 2017 AND 2016 YEAR (continued)

	ALL FARMS 2017	ALL FARMS 2016	DIFFERENCE
DEDUCT:			
Interest and bank charges	322	385	63
Interest - Crop terms	1	1	0
	323	**386**	**63**
FARM NET PROFIT/(LOSS)	**$1,557**	**$1,706**	**($149)**
CROP RESULTS			
Hectares of cotton grown	1,206.53	878.11	328.42
Total yield (bales)	12,773.17	11,368.18	1,404.99
Yield per hectare (bales)	10.59	12.95	(2.36)
Value per bale	$526.66	$507.15	$19.51
Cost of production per bale	$351.48	$347.51	($3.97)
Operating profit per bale	$175.23	$159.68	$15.55
Number of bales per hectare required to cover operating expenses	7.07	8.87	1.81
Number of bales per hectare required to cover total expenses	7.68	9.63	1.95

3.2.4 COMPARISON OF THE AVERAGES OF THE DIFFERENT VALLEYS

	ALL VALLEYS AVE FIGURES	GWYDIR AVE FIGURES	McINTYRE/ BARWON AVE FIGURES	MACQUARIE AVE FIGURES	NAMOI AVE FIGURES	SOUTHERN VALLEYS AVE FIGURES
INCOME						
Cotton proceeds - Lint	5,404	5,768	5,162	5,144	6,005	4,492
Cotton proceeds - Seed	833	859	796	807	978	747
Ginning	(621)	(647)	(621)	(580)	(688)	(549)
Levies	(41)	(42)	(40)	(37)	(43)	(37)
Cotton proceeds - Hail claims	0	1	0	0	0	0
	5,575	**5,939**	**5,297**	**5,334**	**6,252**	**4,653**
EXPENSES						
Cartage	87	84	87	86	35	95
Chemical application	180	222	119	135	190	161
Chemicals - Defoliants	64	70	62	68	64	49
Chemicals - Herbicides	137	162	123	114	128	91
Chemicals - Insecticides	155	217	83	36	216	97
Chemicals - Other	7	10	7	2	1	3
Chipping	2	5	1	0	0	0
Consultants	52	51	62	50	10	85
Contract picking	129	64	140	45	152	305
Contract farming and ripping	163	209	34	31	59	437
Cotton picking wrap and sundries	114	134	103	121	135	54
Depreciation	211	186	291	258	251	210
Electricity	51	59	10	18	120	56
Fertiliser	455	439	397	452	679	494
Fuel and oil	242	265	270	210	275	135
Hire of plant	17	26	1	22	29	2
Insurance	113	144	127	67	91	61
Licence fee - Bollgard	301	308	328	289	275	287
Licence fee - Roundup ready	73	73	69	72	72	71
Motor vehicle expenses	22	20	11	30	26	25
R & M - Farming plant	203	186	153	200	385	245
R & M - Pumps and earthworks	84	63	76	160	166	27
Seed	131	128	126	111	133	135
Water charges and purchases	245	143	61	362	423	376
Wages - Employees	314	246	342	425	554	156
Wages - Proprietors	27	19	41	27	0	52
Administration	41	34	78	34	33	33
Other farm overheads	102	113	62	105	208	54
	3,722	**3,680**	**3,264**	**3,530**	**4,710**	**3,796**
OPERATING PROFIT/(LOSS)	**1,853**	**2,259**	**2,033**	**1,804**	**1,542**	**857**
ADD:						
Wages - Proprietors	27	19	41	27	0	52
FARM OPERATING PROFIT/(LOSS)	**1,880**	**2,278**	**2,074**	**1,831**	**1,542**	**909**

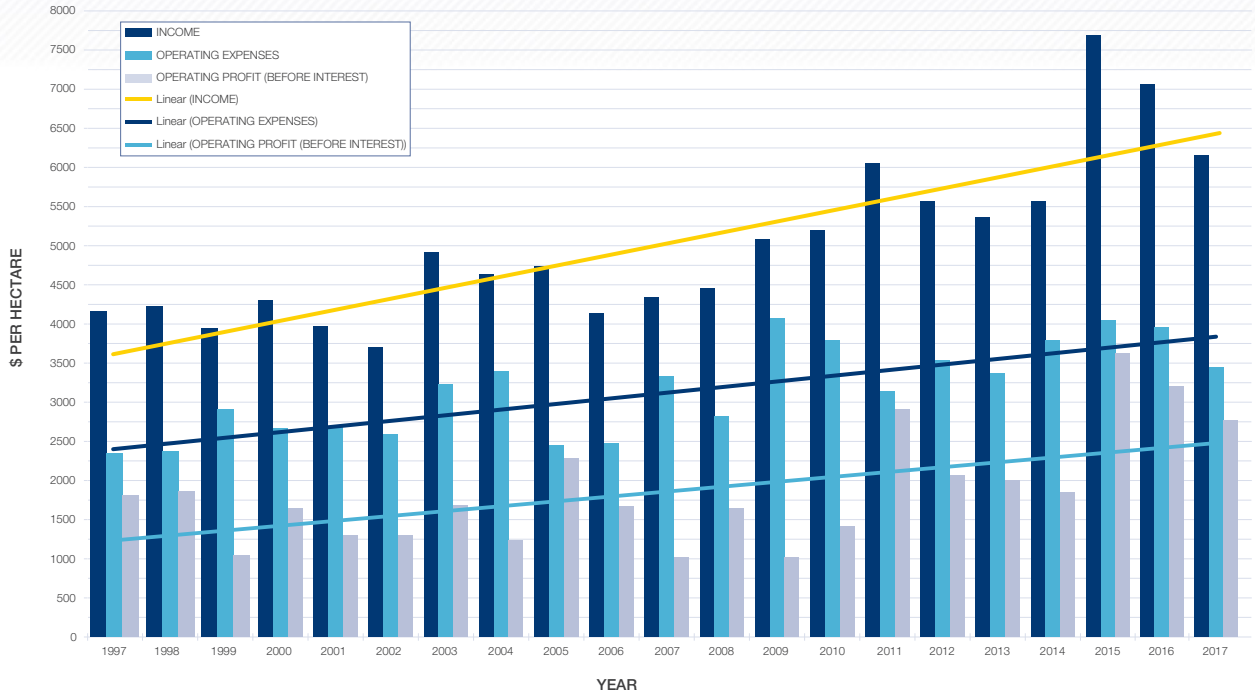
3.2.4 COMPARISON OF THE AVERAGES OF THE DIFFERENT VALLEYS (continued)

	ALL VALLEYS AVE FIGURES	GWYDIR AVE FIGURES	McINTYRE/ BARWON AVE FIGURES	MACQUARIE AVE FIGURES	NAMOI AVE FIGURES	SOUTHERN VALLEYS AVE FIGURES
DEDUCT:						
Interest and bank charges	322	471	237	71	40	695
Interest - Crop terms	1	2	0	0	0	0
	323	**473**	**237**	**71**	**40**	**695**
FARM NET PROFIT/(LOSS)	**$1,557**	**$1,805**	**$1,837**	**$1,760**	**$1,502**	**$214**
CROP RESULTS						
Hectares of cotton grown	1,206.53	1,160.20	2,164.57	968.07	1,183.25	1,106.20
Total yield	12,773.17	12,808.54	22,450.97	9,731.79	13,926.06	10,767.32
Yield per hectare	10.59	11.04	10.37	10.05	11.77	9.73
Value per bale	$526.66	$537.86	$510.72	$530.50	$531.22	$481.80
Cost of production per bale	$351.48	$333.26	$314.81	$350.83	$400.24	$389.61
Operating profit/(loss) per bale	$175.23	$204.72	$195.91	$179.67	$130.98	$88.40
Number of bales per hectare required to cover operating expenses	7.07	6.84	6.39	6.65	8.87	7.87
Number of bales per hectare required to cover total expenses	7.68	7.72	6.86	6.78	8.94	9.31

3.3 TOP 20% FARMERS PER HECTARE

3.3.1 GRAPH

3.3.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS



3.3.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									INCOME	
3,997	4,368	5,067	5,659	5,509	5,502	5,270	7,071	6,743	Cotton proceeds - Lint	5,988
871	1,081	753	584	484	629	1,046	1,467	1,174	Cotton proceeds - Seed	933
(499)	(518)	(581)	(560)	(478)	(740)	(677)	(789)	(773)	Ginning	(638)
(34)	(40)	(37)	(36)	(40)	(49)	(41)	(54)	(50)	Levies	(45)
123	188	0	404	112	33	9	0	0	Cotton proceeds - Hail claims	0
4,458	**5,079**	**5,202**	**6,051**	**5,587**	**5,375**	**5,607**	**7,695**	**7,094**		**6,238**
									EXPENSES	
125	113	123	148	114	166	113	74	96	Cartage	115
99	77	152	149	125	96	142	148	184	Chemical application	215
63	59	45	50	54	51	57	58	69	Chemicals - Defoliants	71
97	154	108	112	61	66	152	140	112	Chemicals - Herbicides	156
67	160	175	146	89	58	126	174	117	Chemicals - Insecticides	241
6	79	61	12	10	8	4	10	25	Chemicals - Others	9
38	14	14	0	6	4	2	1	3	Chipping	7
49	73	81	60	71	51	61	70	63	Consultants	81
321	201	192	253	292	237	153	144	270	Contract picking	78
126	30	17	97	114	208	154	152	106	Contract farming and ripping	190
3	24	8	51	64	98	90	98	159	Cotton picking wrap and sundries	137
208	298	423	112	183	158	226	411	145	Depreciation	164
16	76	124	115	20	93	13	31	166	Electricity	42
169	422	299	353	544	453	580	485	609	Fertiliser	432
280	444	298	213	233	244	418	349	141	Fuel and oil	189
0	3	0	35	6	16	42	1	6	Hire of plant	5
195	238	204	174	125	94	90	159	107	Insurance	141
259	220	221	298	287	305	300	192	305	Licence fee - Bollgard	301
50	45	60	43	51	42	69	63	74	Licence fee - Roundup ready	73
26	37	36	17	25	14	12	14	25	Motor vehicle expenses	15
64	147	145	87	66	103	118	146	115	R & M - Farming plant	184
70	114	221	54	122	119	174	334	95	R & M - Pumps and earthworks	33
99	112	108	102	136	103	87	154	123	Seed	121
1	107	30	61	126	150	238	184	90	Water charges	147
273	453	428	274	300	269	277	338	628	Wages - Employees	193
29	114	76	20	27	27	8	12	25	Wages - Proprietors	11
32	65	24	50	39	70	29	33	27	Administration	29
56	189	118	51	234	68	31	87	38	Other farm overheads	67
2,821	**4,068**	**3,791**	**3,137**	**3,524**	**3,371**	**3,766**	**4,062**	**3,923**		**3,447**
1,637	**1,011**	**1,411**	**2,914**	**2,063**	**2,004**	**1,841**	**3,633**	**3,171**	**OPERATING PROFIT/(LOSS)**	**2,791**
									ADD:	
29	114	76	20	27	27	8	12	25	Wages - Proprietors	11
1,666	**1,125**	**1,487**	**2,934**	**2,090**	**2,031**	**1,849**	**3,645**	**3,196**	**FARM OPERATING PROFIT/(LOSS)**	**2,802**

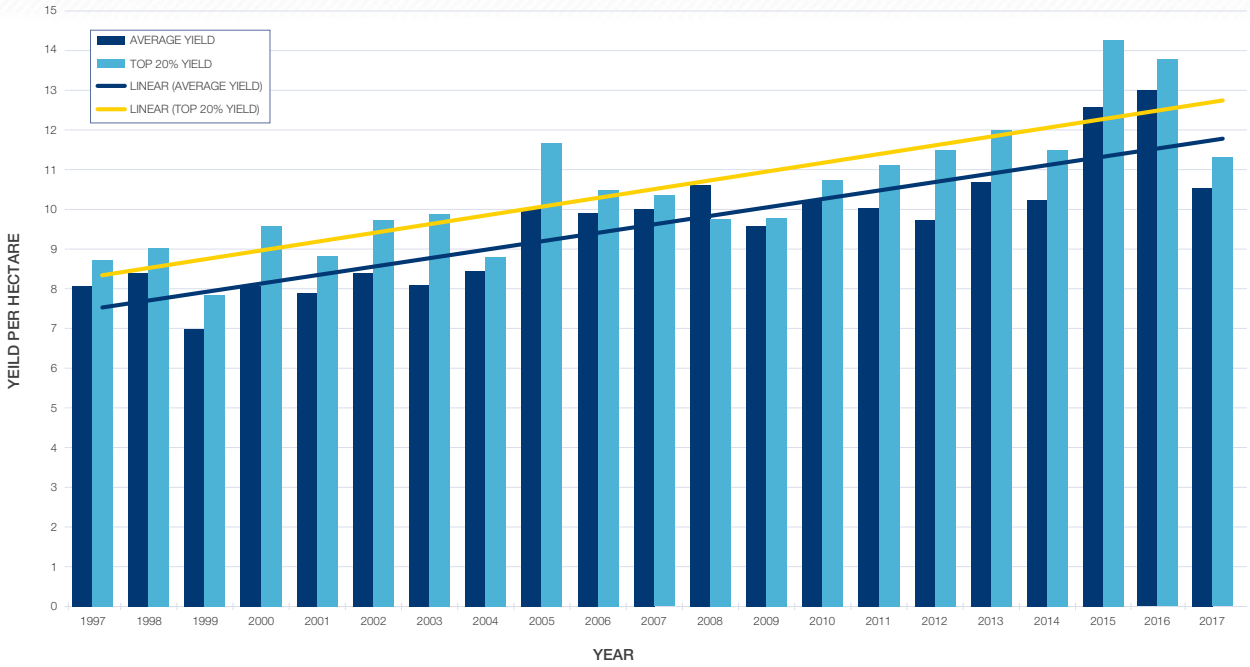
3.3.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS (continued)

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									DEDUCT:	
711	872	797	185	353	496	306	257	37	Interest and bank charges	210
0	0	0	0	0	0	0	0	0	Interest - Crop terms	0
711	**872**	**797**	**185**	**353**	**496**	**306**	**257**	**37**		**210**
$955	**$253**	**$690**	**$2,749**	**$1,737**	**$1,535**	**$1,543**	**$3,388**	**$3,159**	**FARM NET PROFIT/(LOSS)**	**$2,592**
									CROP RESULTS	
701.35	556.97	789.00	1,124.75	1,186.93	833.94	2,365.17	997.79	838.00	Hectares of cotton grown	1,211.00
6,847.50	5,451.00	8,480.00	12,506.75	13,596.12	9,999.47	27,308.14	14,283.13	11,473.66	Total yield (bales)	13,749.49
9.76	9.79	10.75	11.12	11.45	11.99	11.55	14.31	13.69	Yield per hectare (bales)	11.35
$443.99	$499.72	$484.00	$507.94	$477.90	$445.47	$484.87	$537.62	$518.14	Value per bale	$549.34
$288.83	$415.45	$352.51	$282.04	$307.69	$281.13	$326.34	$283.59	$286.43	Cost of production per bale	$303.47
$167.74	$103.46	$131.48	$262.27	$180.02	$167.08	$159.32	$254.03	$231.70	Operating profit per bale	$245.87
6.35	8.14	7.83	6.17	7.37	7.57	7.77	7.55	7.57	No. of bales per hectare required to cover operating expenses	6.27
7.95	9.88	9.47	6.54	8.12	8.68	8.40	8.03	7.64	No. of bales per hectare required to cover total expenses	6.65

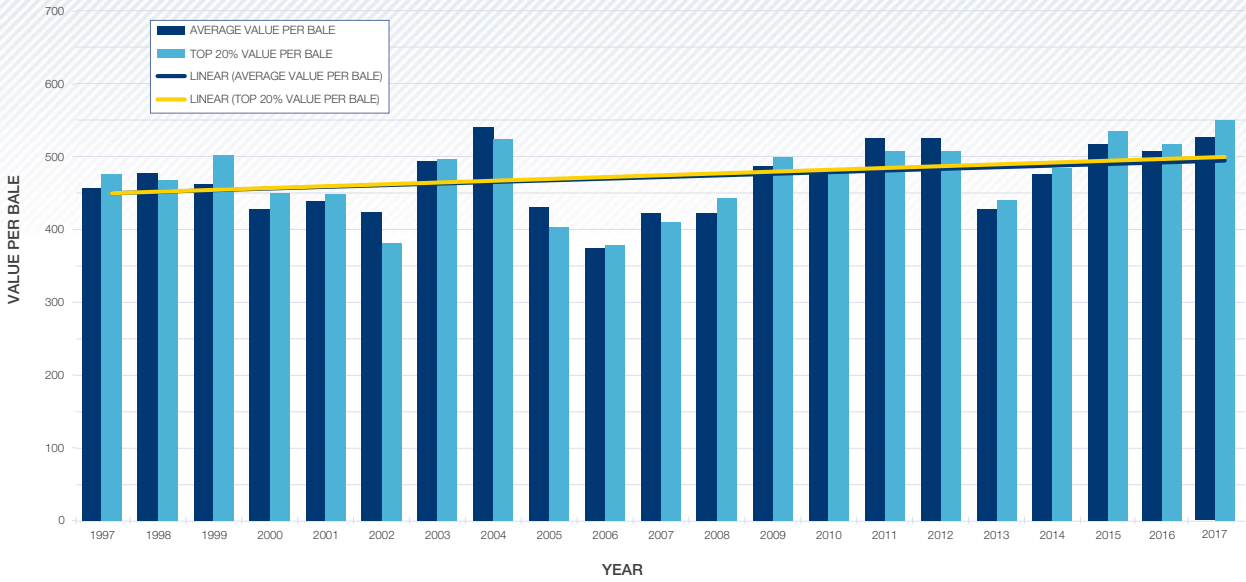
3.4 TOP 20% FARMERS VERSUS AVERAGE FARMERS PER HECTARE

3.4.1 GRAPHS

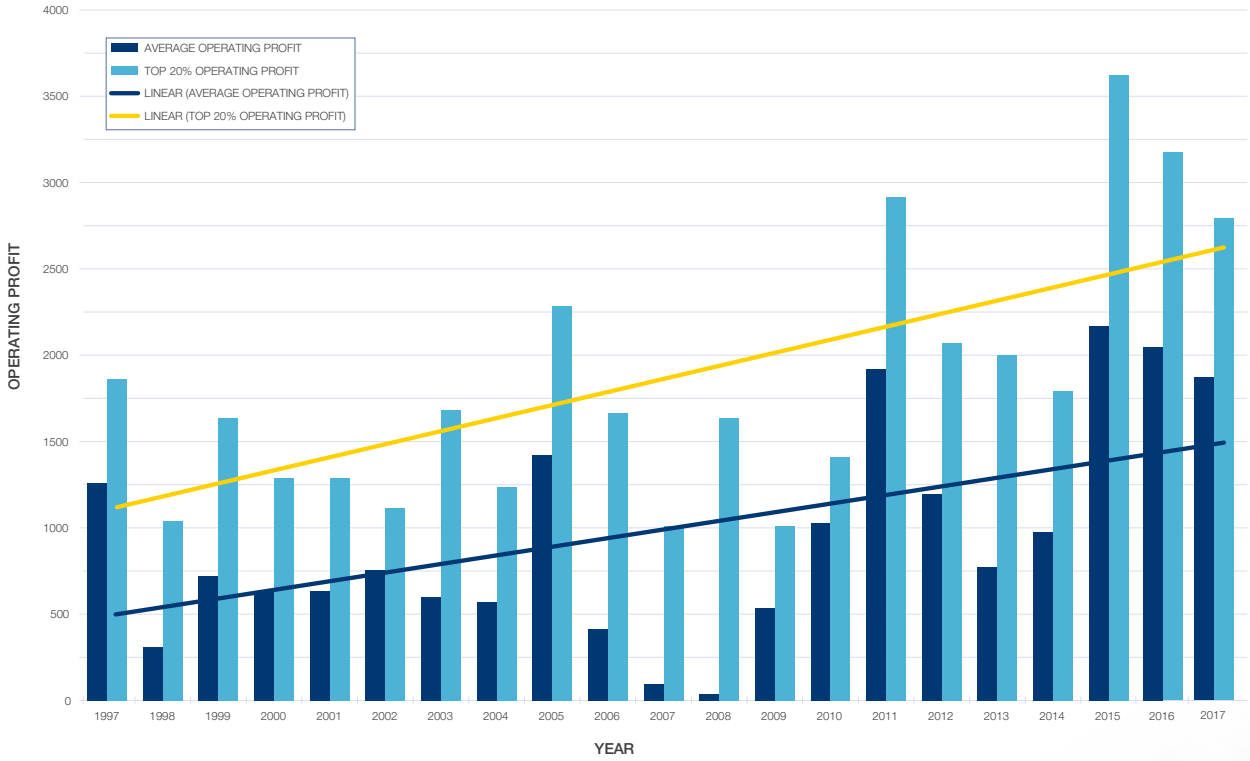
3.4.1.1 COMPARISON OF YIELD



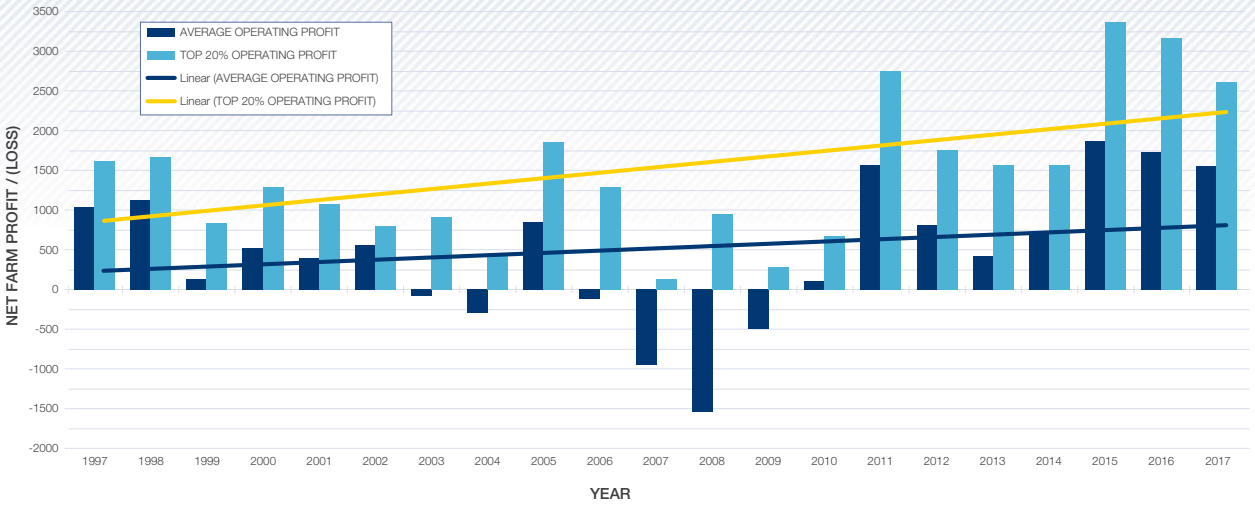
3.4.1.2 COMPARISON OF VALUE PER BALE



3.4.1.3 COMPARISON OF OPERATING PROFIT



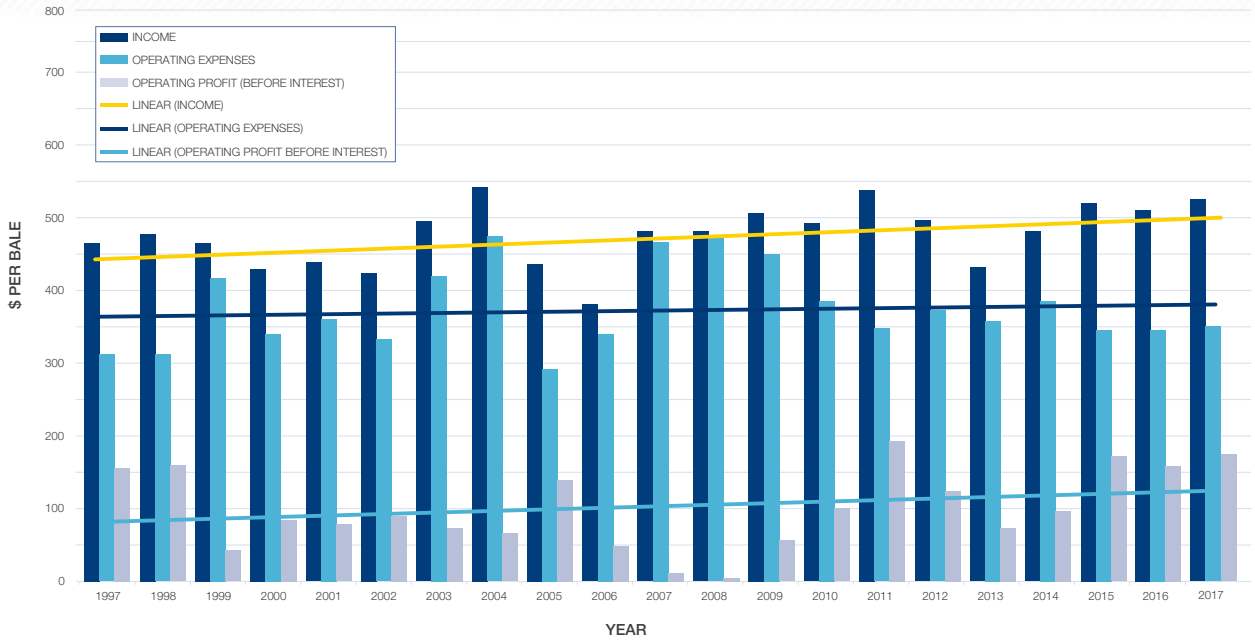
3.4.1.4 COMPARISON OF NET FARM PROFIT/(LOSS)



3.5 PER BALE FIGURES

3.5.1 GRAPH

3.5.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS



3.5.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									INCOME	
379	445	464	523	501	441	460	487	495	Cotton proceeds - Lint	511
96	98	72	54	41	49	79	94	79	Cotton proceeds - Seed	79
(49)	(52)	(53)	(48)	(53)	(59)	(61)	(59)	(60)	Ginning	(60)
(3)	(4)	(3)	(3)	(3)	(3)	(4)	(4)	(4)	Levies	(4)
7	18	8	11	7	2	6	1	0	Cotton proceeds - Hail claims	0
430	**505**	**488**	**537**	**494**	**429**	**479**	**518**	**511**		**526**
									EXPENSES	
10	10	11	14	12	12	8	8	9	Cartage	10
10	9	13	14	13	10	15	12	13	Chemical application	17
7	8	6	5	5	4	5	5	4	Chemicals - Defoliants	6
17	18	11	11	9	8	11	9	13	Chemicals - Herbicides	13
11	15	15	14	9	3	8	9	12	Chemicals - Insecticides	15
0	5	4	1	1	0	0	0	1	Chemicals - Others	1
4	3	1	0	0	0	0	0	1	Chipping	0
6	8	7	6	6	5	4	4	5	Consultants	6
24	27	25	28	25	16	18	12	13	Contract picking	15
8	4	2	12	17	20	10	8	10	Contract farming and ripping	15
1	1	1	5	9	7	7	8	10	Cotton picking wrap and sundries	10
48	39	42	16	18	21	24	28	25	Depreciation	23
4	6	8	8	3	4	5	8	7	Electricity	7
37	45	39	39	53	51	52	38	42	Fertiliser	40
40	34	30	26	28	38	37	30	26	Fuel and oil	26
1	0	1	2	4	3	5	3	2	Hire of plant	1
20	23	17	16	13	10	10	9	10	Insurance	13
22	23	25	28	30	29	30	21	23	Licence fee - Bollgard	28
5	5	6	6	6	4	7	5	5	Licence fee - Roundup ready	7
3	4	3	2	2	2	2	2	2	Motor vehicle expenses	3
13	14	15	12	11	12	11	13	14	R & M - Farming plant	19
13	12	18	6	9	12	16	17	14	R & M - Pumps and earthworks	11
9	11	12	11	15	10	8	11	9	Seed	13
41	51	18	13	15	15	30	27	25	Water charges	26
42	41	37	36	35	36	38	41	39	Wages - Employees	26
10	11	7	2	2	3	2	2	4	Wages - Proprietors	11
5	6	3	5	5	5	5	7	5	Administration	6
15	16	10	6	16	16	14	7	9	Other farm overheads	12
426	**449**	**388**	**346**	**371**	**356**	**382**	**347**	**355**		**381**
3	**56**	**100**	**191**	**123**	**73**	**96**	**172**	**156**	**OPERATING PROFIT/(LOSS)**	**145**
									ADD:	
10	11	7	2	2	3	2	2	4	Wages - Proprietors	11
13	**67**	**107**	**193**	**125**	**76**	**98**	**174**	**160**	**FARM OPERATING PROFIT/ (LOSS)**	**156**

3.5.2 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS (continued)

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									DEDUCT:	
160	119	98	38	42	36	29	23	31	Interest and bank charges	36
0	0	0	0	0	1	0	0	0	Interest - Crop terms	0
160	**119**	**98**	**38**	**42**	**37**	**29**	**23**	**31**		**36**
($147)	**($52)**	**$8**	**$155**	**$83**	**$38**	**$69**	**$151**	**$129**	**FARM NET PROFIT/(LOSS)**	**$120**
									CROP RESULTS	
449.09	486.65	621.17	1,426.48	1,675.67	1,517.64	1,593.12	926.11	878.11	Hectares of cotton grown	1,206.53
4,769.71	4,660.90	6,363.40	14,325.75	16,272.11	16,223.03	16,320.98	11,660.33	11,368.18	Total yield (bales)	12,773.17
10.62	9.58	10.24	10.04	9.71	10.69	10.24	12.59	12.95	Yield per hectare (bales)	10.59
$422.66	$487.41	$480.56	$526.23	$486.42	$427.44	$473.05	$517.48	$507.15	Value per bale	$526.66
$425.99	$449.40	$388.37	$345.82	$370.77	$356.27	$382.31	$346.53	$347.51	Cost of production per bale	$351.48
$3.50	$55.70	$99.94	$190.92	$122.89	$72.75	$96.31	$171.72	$159.68	Operating profit per bale	$175.23
10.70	8.83	8.28	6.60	7.40	8.91	8.28	8.43	8.87	Number of bales per hectare required to cover operating expenses	7.07
14.74	11.16	10.38	7.32	8.24	9.85	8.90	8.99	9.63	Number of bales per hectare required to cover total expenses	7.68

3.5.3 COMPARISON OF TOP 20% FARMERS AND AVERAGE FARMERS FOR THE PAST FIVE YEARS (2013, 2014, 2015, 2016,2017)

	ALL FARMS AVERAGE	TOP 20% AVERAGE	DIFFERENCE
INCOME			
Cotton proceeds - Lint	5,481	6,115	633
Cotton proceeds - Seed	852	1,050	198
Ginning	(674)	(723)	(50)
Levies	(45)	(48)	(3)
Cotton proceeds - Hail claims	17	8	(8)
	5,631	**6,402**	**771**
EXPENSES			
Cartage	103	113	(10)
Chemical application	153	157	(4)
Chemicals - Defoliants	53	61	(8)
Chemicals - Herbicides	121	125	(4)
Chemicals - Insecticides	109	143	(34)
Chemicals - Others	6	11	(5)
Chipping	3	3	0
Consultants	56	65	(10)
Contract picking	157	176	(20)
Contract farming and ripping	147	162	(15)
Cotton picking wrap and sundries	100	116	(16)
Depreciation	268	221	47
Electricity	72	69	3
Fertiliser	521	512	9
Fuel and oil	335	268	67
Hire of plant	33	14	19
Insurance	111	118	(7)
Licence fee - Bollgard	298	281	17
Licence fee - Roundup ready	62	64	(2)
Motor vehicle expenses	22	16	6
R & M - Farming plant	152	133	19
R & M - Pumps and earthworks	154	151	3
Seed	115	118	(2)
Water charges	273	162	111
Wages - Employees	429	341	88
Wages - Proprietors	25	17	9
Administration	60	38	22
Other farm overheads	123	58	65
	4,062	**3,714**	**348**
OPERATING PROFIT/(LOSS)	**1,569**	**2,688**	**1,119**
ADD:			
Wages - Proprietors	25	17	(9)
FARM OPERATING PROFIT/(LOSS)	**1,594**	**2,705**	**1,110**

3.5.3 COMPARISON OF TOP 20% FARMERS AND AVERAGE FARMERS FOR THE PAST FIVE YEARS (2013, 2014, 2015, 2016,2017) (continued)

	ALL FARMS AVERAGE	TOP 20% AVERAGE	DIFFERENCE
DEDUCT:			
Interest and bank charges	335	261	74
Interest - Crop terms	3	0	3
	338	**261**	**77**
FARM NET PROFIT/(LOSS)	**$1,257**	**$2,443**	**$1,187**
CROP RESULTS			
Hectares of cotton grown	1,224.30	1,249.18	24.88
Total yield (bales)	13,669.14	15,362.78	1,693.64
Yield per hectare (bales)	11.41	12.58	1.17
Value per bale	$490.36	$507.09	$16.73
Cost of production per bale	$356.82	$296.19	$60.63
Operating profit per bale	$135.14	$211.60	$76.46
Number of bales per hectare required to cover operating expenses	8.31	7.35	0.97
Number of bales per hectare required to cover total expenses	9.01	7.88	1.13

3.6 LOW COST FARMERS

3.6.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									INCOME	
3,997	4,769	4,268	4,508	4,749	4,313	4,444	5,699	5,637	Cotton proceeds - Lint	4,978
871	1,078	718	440	382	302	746	1,156	941	Cotton proceeds - Seed	736
(499)	(520)	(498)	(445)	(561)	(523)	(604)	(710)	(659)	Ginning	(582)
(34)	(46)	(30)	(29)	(31)	(28)	(51)	(56)	(47)	Levies	(36)
123	0	0	350	9	27	4	7	1	Cotton proceeds - Hail claims	0
4,458	**5,281**	**4,458**	**4,824**	**4,548**	**4,091**	**4,539**	**6,096**	**5,873**		**5,096**
									EXPENSES	
125	171	91	122	88	121	100	109	127	Cartage	59
99	144	123	129	116	80	132	140	170	Chemical application	156
63	60	79	69	58	49	48	58	52	Chemicals - Defoliants	64
97	193	89	108	69	66	99	101	97	Chemicals - Herbicides	127
67	26	140	80	61	47	74	109	88	Chemicals - Insecticides	106
6	4	5	11	10	5	3	5	17	Chemicals - Others	9
38	11	14	0	2	0	1	1	0	Chipping	2
49	64	62	57	38	35	44	16	68	Consultants	48
321	339	361	258	295	90	246	169	257	Contract picking	107
126	23	29	64	130	380	102	33	309	Contract farming and ripping	191
3	38	3	43	61	72	61	90	99	Cotton picking wrap and sundries	94
208	191	332	141	179	207	189	269	122	Depreciation	216
16	29	7	66	33	29	21	37	89	Electricity	16
169	174	518	296	448	410	505	444	493	Fertiliser	397
280	272	347	201	202	299	337	284	197	Fuel and oil	224
0	1	3	11	52	67	70	21	17	Hire of plant	8
195	228	148	141	119	45	104	87	78	Insurance	111
259	310	308	315	281	175	317	277	294	Licence fee - Bollgard	299
50	60	53	55	53	29	67	66	73	Licence fee - Roundup ready	72
26	33	33	18	15	28	15	18	13	Motor vehicle expenses	16
64	110	147	77	80	60	115	84	119	R & M - Farming plant	155
70	86	88	58	49	51	79	124	53	R & M - Pumps and earthworks	81
99	114	160	101	165	104	75	133	105	Seed	111
1	26	13	144	181	192	308	303	271	Water charges	165
273	659	286	285	287	193	319	525	411	Wages - Employees	275
29	0	49	7	22	33	13	8	18	Wages - Proprietors	17
32	66	43	38	48	42	56	55	17	Administration	47
56	80	43	65	38	97	62	77	39	Other farm overheads	90
2,821	**3,512**	**3,574**	**2,960**	**3,180**	**3,006**	**3,562**	**3,643**	**3,693**		**3,263**
1,637	**1,769**	**884**	**1,864**	**1,368**	**1,085**	**977**	**2,453**	**2,180**	**OPERATING PROFIT/(LOSS)**	**1,833**
									ADD:	
29	0	49	7	22	33	13	8	18	Wages - Proprietors	17
1,666	**1,769**	**933**	**1,871**	**1,390**	**1,118**	**990**	**2,461**	**2,198**	**FARM OPERATING PROFIT/ (LOSS)**	**1,850**

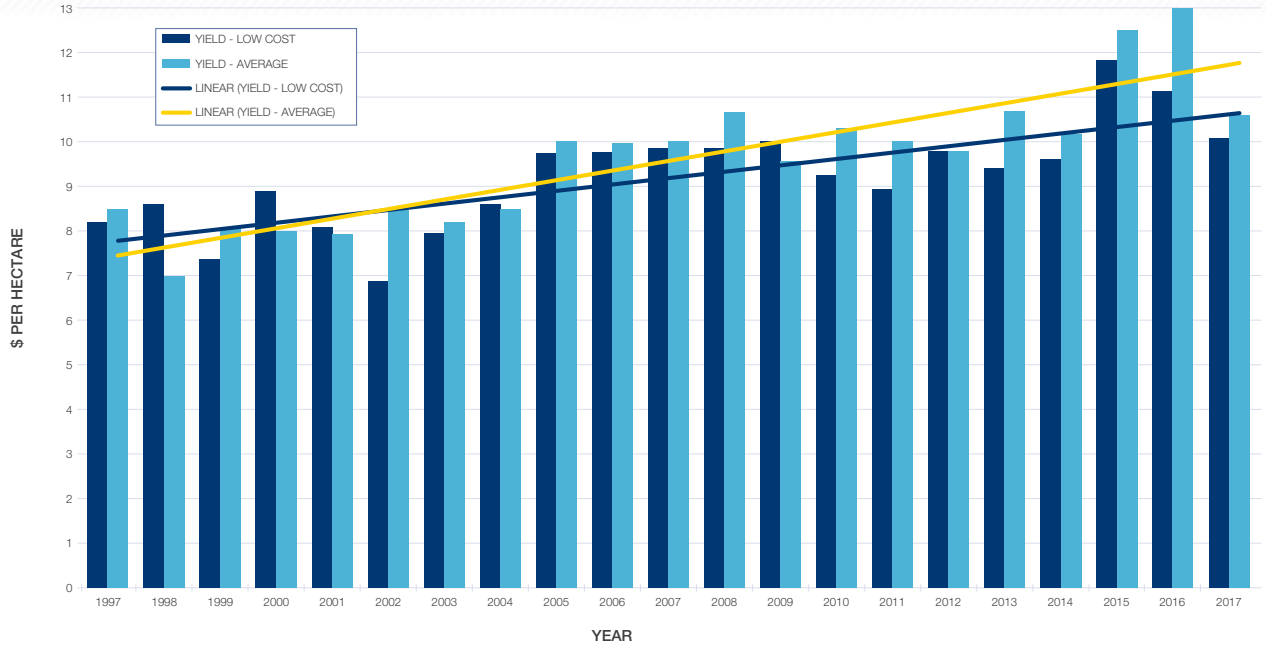
3.6.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE PAST 10 YEARS (continued)

2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
									DEDUCT:	
711	76	1,418	333	345	543	357	194	201	Interest and bank charges	329
0	0	0	0	0	65	0	0	0	Interest - Crop terms	2
711	76	1,418	333	345	608	357	194	201		331
$955	**$1,693**	**($485)**	**$1,538**	**$1,045**	**$510**	**$633**	**$2,267**	**$1,997**	**FARM NET PROFIT/(LOSS)**	**$1,519**
									CROP RESULTS	
701	568	713	1,276	1,532	1,014	1,934	1,242	1,405.92	Hectares of cotton grown	2,189.59
6,847.50	5,676.00	6,535.00	11,428.00	14,857.26	9,539.47	18,683.35	14,707.30	15,717.14	Total yield (bales)	22,058.47
9.76	9.99	9.17	8.95	9.70	9.41	9.66	11.84	11.18	Yield per hectare (bales)	10.07
$443.99	$528.61	$486.02	$499.65	$468.02	$431.96	$469.31	$514.36	$525.31	Value per bale	$505.76
$288.83	$351.21	$389.29	$330.42	$327.83	$319.61	$368.46	$307.83	$330.34	Cost of production per bale	$324.06
$167.74	$177.40	$96.73	$208.27	$141.11	$115.23	$101.28	$207.08	$195.11	Operating profit per bale	$181.70
6.35	6.64	7.35	5.92	6.79	6.96	7.58	7.09	7.03	Number of bales per hectare required to cover operating expenses	6.45
7.95	6.78	10.26	6.59	7.53	8.37	8.35	7.46	7.41	Number of bales per hectare required to cover total expenses	7.11

3.7 LOW COST FARMERS VERSUS AVERAGE FARMERS

3.7.1 GRAPH

3.7.1.1 COMPARISON OF YIELD



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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 FIVE YEARS TO 2016

These figures represent the average of the annual results of farmers in each category of the comparative analysis, over a five year period. We have also analysed the combined average of the Top 20% 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 four 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 100 mm per month.

APPENDIX B

GUIDE TO INCOME AND EXPENSE ALLOCATIONS

COTTON PROCEEDS

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.

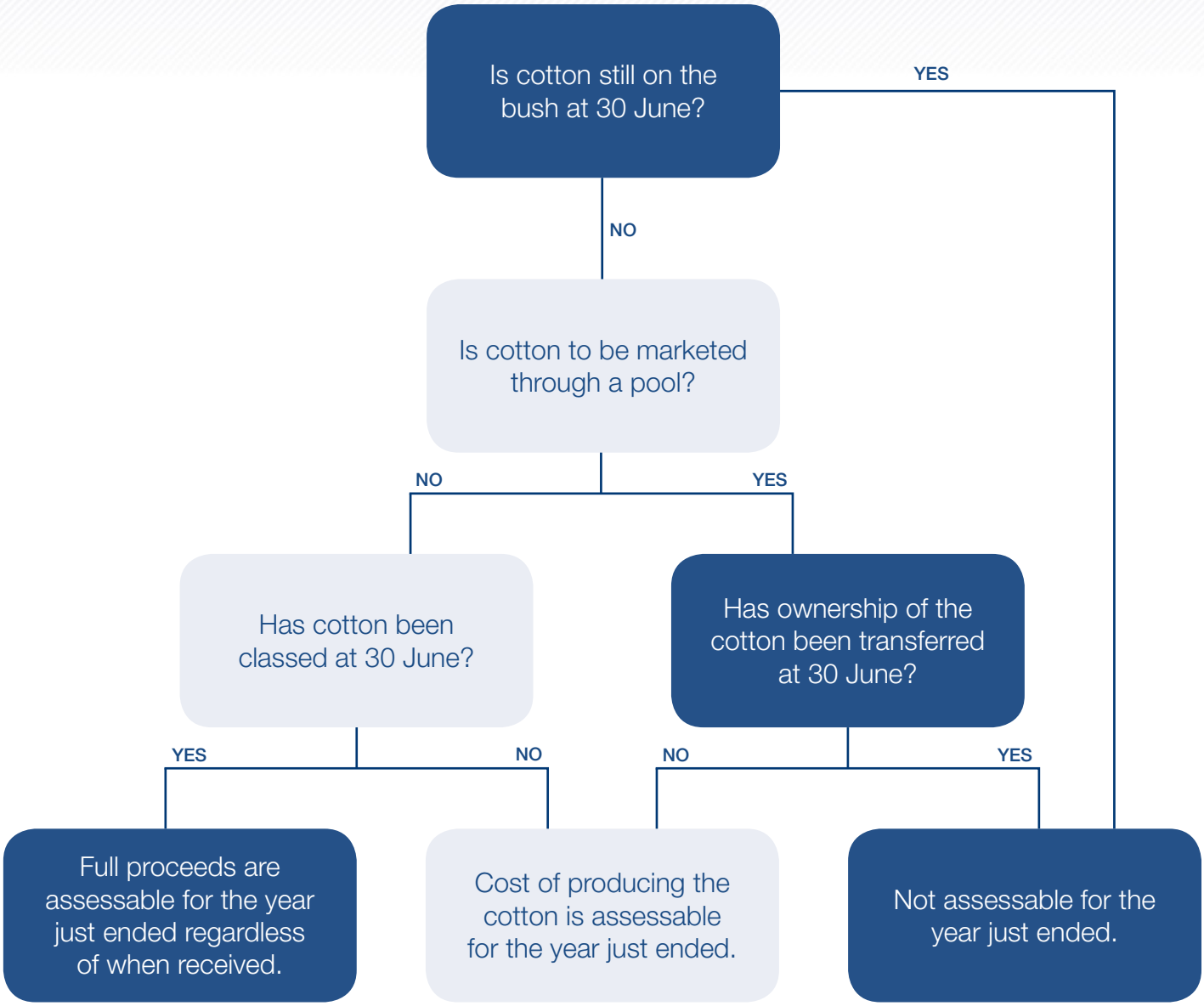
EXPENSES

Cartage	cartage (cotton module cartage, general cartage)
Chemical 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, ie. 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 and Purchases	water charges (charges from a state body, charges from a local water scheme, water purchases and temporary transfer 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 ASSESSABILITY OF COTTON PROCEEDS



Notes:

- The guaranteed minimum price of a GMP pool is assessable as cash. The balance is treated as a pool.
- '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.

- **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).

- **Sharefarming (82% – 18% deal)**

  82% of income to the sharefarmer.
  18% of income to the landholder.

  - Sharefarmer pays all costs except rates.

- **Leasing**

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

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