# AUSTRALIAN COTTON COMPARATIVE ANALYSIS

## 2014 CROP

Australian Government

Cotton Research and Development Corporation

BOYCE CHARTERED ACCOUNTANTS

Knowledge. Insight. Experience.

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## Cotton Research and Development Corporation

2 Lloyd St (PO Box 282)
Narrabri NSW 2390
ABN 71 054 238 316

| | |
|---|---|
| Executive Director: | Bruce Finney |
| R & D Investment: | Ian Taylor |
| Business & Finance: | Graeme Tolson |
| Telephone: | 02 6792 4088 |
| Facsimile: | 02 6792 4400 |
| Email: | crdc@crdc.com.au |
| Website: | www.crdc.com.au |

## Boyce Chartered Accountants

| | | | |
|---|---|---|---|
| Moree | David Newnham | 02 6752 7799 | dnewnham@boyceca.com |
| | Paul Fisher | 02 6752 7799 | pfisher@boyceca.com |
| | Phil Alchin | 02 6752 7799 | palchin@boyceca.com |
| Cooma | Jonathan Forrest | 02 6452 3344 | jforrest@boyceca.com |
| Dubbo | Bernard Kennedy | 02 6884 6499 | bkennedy@boyceca.com |
| | Scott Christian | 02 6884 6499 | schristian@boyceca.com |
| | Caroline Wilcher | 02 6884 6499 | cwilcher@boyceca.com |
| | Mike Nangle | 02 6884 6499 | mnangle@boyceca.com |
| Goulburn | Peter King | 02 4821 1466 | pking@boyceca.com |
| Wagga Wagga | Simon Sellars | 02 6971 0600 | ssellars@boyceca.com |
| | Linda Mackellar | 02 6971 0600 | lmackellar@boyceca.com |

Images courtesy of Cotton Australia

Dear Grower,

We are pleased to present the 2014 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 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, we believe you will gain far greater benefit by participating, although we appreciate that this does take some effort.

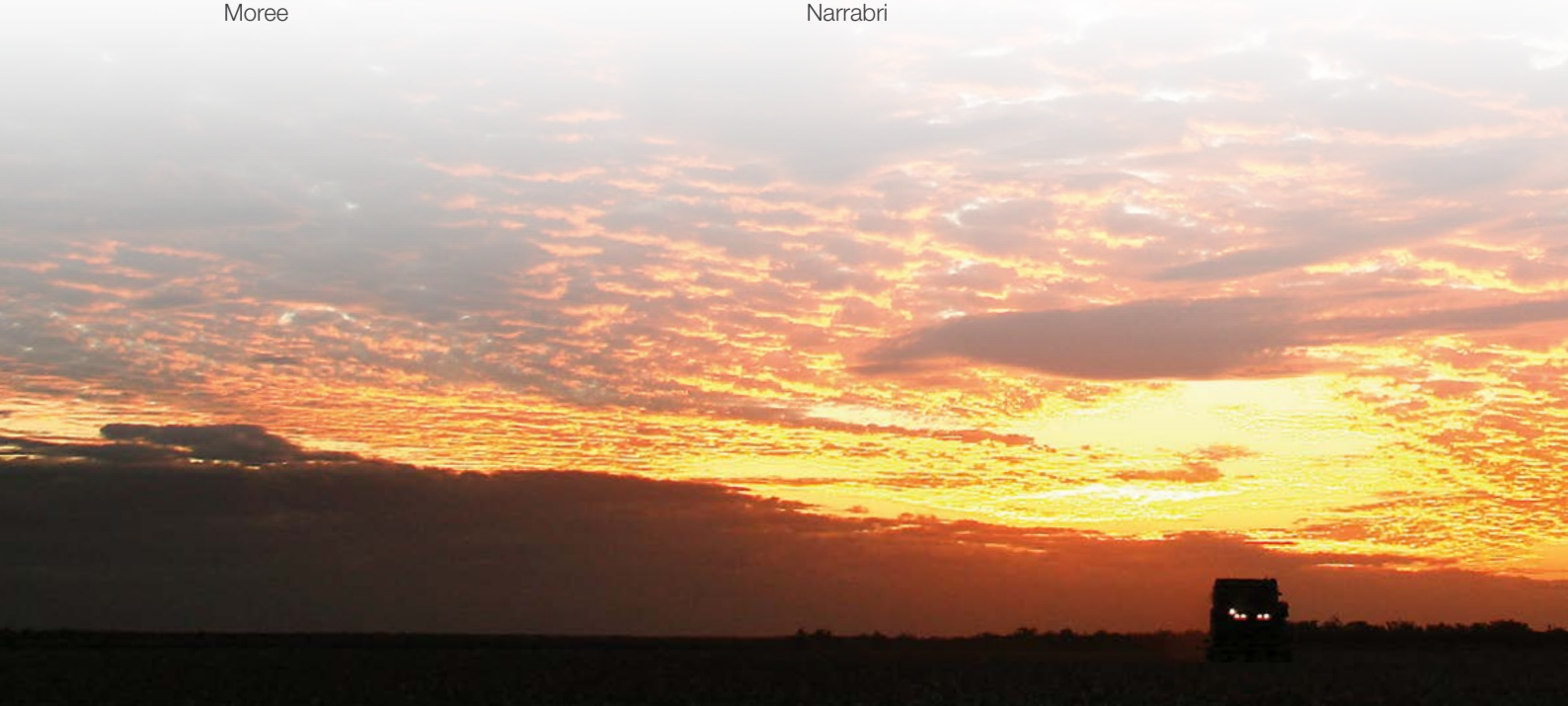
Whilst the report focuses on the 2014 crop, it also presents trends that have been measured against more than ten years of data.

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.

**David Newnham**
Associate Director
Boyce Chartered Accountants
Moree

**Bruce Finney**
Executive Director
CRDC
Narrabri



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# 1

# Introduction to the Australian Cotton Comparative Analysis 2014 Crop

# INTRODUCTION TO THE AUSTRALIAN COTTON COMPARATIVE ANALYSIS 2014 CROP

The 2014 Australian Cotton Comparative Analysis (ACCA) is the tenth 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 2014 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:

- 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 growing 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 & 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 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 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 its 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 decreased due to a decrease in the availability of water throughout many of the cotton growing areas of Australia and a reduction in the participants.

The average hectares planted per participant increased slightly from 1,518 hectares in 2013 to 1,593 hectares in 2014. The total number of bales in the sample was just on 500,000, which is approximately 13% of total Australian cotton production. Final estimates for the 2014 year were 414,000 hectares and production of 3,830,000 bales.

Whilst recognising marketing as an important part of management, growers and interested parties were concerned that participants in the top 20% may be there solely due to receiving a high cotton price, not as a result of good farming practices. Alternatively, good cotton growers, due to adverse currency, lint and basis positions, may have been excluded from the top 20%.

As many growers review their operation against the top 20% to look for areas of improvement, it was suggested that the top 20% and bottom 20% be selected using an average price. We have therefore selected the top 20% and bottom 20% by substituting $473 (the average 2014 net price for all participants) for the average net price that the individual grower actually received.

Although the average price was used to select the participants in the top 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 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 we started this analysis in 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 2014 Crop

# 2 REPORT ON THE 2014 CROP

## 2.1 THE 2014 CROP – ANALYTICAL REVIEW

### 2.1.1 INTRODUCTION

In general, the 2014 year was almost identical to 2013 and can be summarised as having:

- Very little in-crop rain;
- Severe heat wave conditions throughout January;
- Rain over picking period with resulting compaction issues; and
- Generally poorer quality cotton and high discounts.

With reduced areas planted and grown, overheads are once again spread over reduced hectares, increasing cost per hectare.

The lack of in-crop rain for the 2014 season has also contributed to reduced 2015 plantings, with many growers using water in the 2014 year that they budgeted to use in 2015. The 2015 production is estimated at 1.9 million bales (Cotton Australia statistics). The ongoing business question here is one of trying to grow similar hectares each year versus maximising yearly production when the water is there.

While most valleys are facing reduced production, the Riverina is looking at more stable production. The industry continues to gain momentum in the Riverina valley, with several gins set to begin processing of the 2015 crop.

Again, lint quality was an issue, with the tandem causes of heat and a wet pick contributing. For participants of this analysis, discounts were not as severe as the 2013 year, although it was not uncommon to see discounts of $60 per bale.

For the Average Group:

- Yield (10.24 bales per hectare) decreased by half a bale from the previous year (10.69 bales per hectare) and is just on the four year average.
- Price achieved per bale was $473/bale which was also just on the four year average. Total income was close to the four year average but around $300 up on the 2013 year.
- Fertiliser and Fuel costs continue to hold at around $530 and $380 per hectare respectively, with increased Chemicals - Herbicides, Chemicals -Insecticides and Chemical application this year.

For the Average Group, this was a reasonable season, with profit per hectare of $711 being better than 2013 ($410) and just on the four year average. Based on these figures, a yield of 8.9 bales per hectare is required to cover total expenses.

For the Top 20% Group:

- Average yield was 11.55 bales per hectare, a decrease of around half a bale from the previous year.
- The average price for this group increased by about $40 from 2013 and is slightly higher than the four year average. This group continues to grow more cotton (1.3 bales per hectare) than the Average Group and do it more cheaply ($3,766 v $3,918).

It was a disappointing season for the Top 20%, with profit of $1,543 per hectare compared to a four year average of around $1,900. This result was a combination of decreased yield, increased price per bale and increased expenses.

While there was a decrease in the average yield for the Top 20% and the Average Group, the slightly upward trend for overall yield continues.

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.

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 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. This is a sober reminder of just how quickly things can change in agriculture. 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 yield 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 analyses 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 Global Financial Crisis and the recent price spike, merchants have been struggling to provide products that continue to give growers this ability.

This year we have again included trend lines in some of the graphs presented. Some interesting trends from 1997 to 2014 have emerged, including:

- The value per bale continues to increase 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 Group is increasing slightly.
- The operating profit per hectare for the Top 20% is increasing at a slightly faster rate compared to the average.

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 and increased yield.

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, 2013 and this years' data as these were the last full production years.

### Four Year Average (2011, 2012, 2013 & 2014)

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 2010 we have averaged the last four years.

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

## 2.1.2 KEY PERFORMANCE INDICATORS

### 1. Yield (bales / HA)

| | AVERAGE | TOP 20% | DIFFERENCE |
|---|---|---|---|
| 2014 | 10.24 | 11.55 | 1.31 |
| 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 |
| *** Four year average to 2014** | **10.17** | **11.53** | **1.36** |

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 |
|---|---|---|---|
| 2014 | $473 | $485 | $12 |
| 2013 | $427 | $445 | $18 |
| 2012 | $486 | $478 | ($8) |
| 2011 | $526 | $508 | ($18) |
| 2010 | $481 | $484 | $3 |
| *** Four year average to 2014** | **$478** | **$479** | **$1** |

- The cash price was between $450 and $500/bale in the first half of the growing season and increased towards the end of the growing season then dropped sharply from May to September.
- The average cash price for the 12 months was around $485.

What strategies do you have in place to combat adverse currency and futures?
How much cotton have you sold for the 2015 and 2016 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 |
|---|---|---|---|
| 2014 | $3,918 | $3,766 | $152 |
| 2013 | $3,808 | $3,371 | $437 |
| 2012 | $3,601 | $3,524 | $77 |
| 2011 | $3,472 | $3,137 | $335 |
| 2010 | $3,976 | $3,791 | $185 |
| *** Four year average to 2014** | **$3,700** | **$3,450** | **$250** |

- The costs for the average increased on the previous year by $110/ha, mainly due to Water Charges & Purchases, Chemicals - Herbicides, Chemicals - Insecticides and Chemical application. There were decreases in Cartage, Contract farming & ripping, Fuel and Seed.
- There was a large range with the operating costs varying between $2,582/ha and $5,601/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 $3,562 compared to $3,006/ha in 2013.

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 the fixed costs?

## 4. Cost of production ($ / Bale)

| | AVERAGE | TOP 20% | DIFFERENCE |
|---|---|---|---|
| 2014 | $382 | $326 | $56 |
| 2013 | $356 | $281 | $75 |
| 2012 | $371 | $308 | $63 |
| 2011 | $346 | $282 | $64 |
| 2010 | $388 | $353 | $35 |
| *** Four year average to 2014** | **$364** | **$299** | **$65** |

- 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 2014 year this was achieved by the Top 20% as they grew a higher yield per hectare (11.55 bales/ha) and grew cotton on a larger area of their farm. This 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/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 |
|---|---|---|---|---|
| Gross income ($/ha) | $5,637 | $4,619 | $5,823 | $4,375 |
| Operating costs ($/ha) | $4,138 | $3,832 | $5,251 | $3,942 |
| Operating profit ($/bale) | $133 | $75 | $52 | $46 |
| Hectares grown | 1,605 | 1,056 | 307 | 1,313 |
| Yield / ha | 11.30 | 10.48 | 10.96 | 9.53 |

- 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.

## 6. Labour (hectares per person)

| | AVERAGE | TOP 20% | DIFFERENCE |
|---|---|---|---|
| 2014 | 226 | 337 | (111) |
| 2013 | 221 | 325 | (104) |
| 2012 | 323 | 228 | 95 |
| 2011 | 185 | 176 | 9 |
| 2010 | 167 | 158 | 9 |
| *** Four year average to 2014** | **239** | **267** | **(28)** |

- For the Average Group, the number of green hectares per person remained relatively steady.
- Both groups had around $150 to $185 in Contract Picking expenses in the 2014 year.
- 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 |
|---|---|---|---|
| 2014 | 315 | 231 | 84 |
| 2013 | 371 | 395 | (24) |
| 2012 | 219 | 244 | (25) |
| 2011 | 314 | 344 | (30) |
| 2010 | 632 | 613 | 19 |
| *** Four year average to 2014** | **305** | **304** | **1** |

- 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 |
|---|---|---|---|
| 2014 | 2.33 | 1.55 | 0.78 |
| 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 |
| *** Four year average to 2014** | **1.76** | **1.68** | **0.08** |

- The number of pickers a grower owns doesn't appear to be a significant factor in them being in the Top 20%.

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 |
|---|---|---|---|
| 2014 | 60% | 39% | (21%) |
| 2013 | 36% | 18% | (18%) |
| 2012 | 35% | 47% | 12% |
| 2011 | 70% | 70% | 0% |
| 2010 | 34% | 42% | 8% |
| *** Four year average to 2014** | **50%** | **44%** | **(6%)** |

- 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 FOUR YEAR AVERAGES TO 2014

As noted in the introduction, we believe (in normal years) the message of the average is important, so we have compared four year average figures for the Average Group and the Top 20% using the 2011, 2012, 2013 and 2014 years.

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

In the four selected years, the Top 20% made 117% more profit (after interest) than the Average Group ($1,891/ha compared to $871/ha).

The difference is attributed to the following factors:

| | | | |
|---|---|---|---|
| Land productivity (yield/ha) | 64% | or | $651 |
| Lint and seed less ginning and levies | 8% | or | $8 |
| Hail insurance claims | 8% | or | $77 |
| Direct cost savings - (fine tuning) | 24% | or | $249 |
| Interest savings (less debt) | 3% | or | $35 |
| | **100%** | | **$1,020** |

The message from these figures is that better land productivity (measured by higher yields) is the major feature of the top performers, although interestingly, this phenomenon is less pronounced in 2014 than previous years. Farmers should 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 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 in the industry is becoming more of 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 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 $3,700/ha for the past four 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 four 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 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 depends 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 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 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 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. 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 (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, 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 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 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 Group 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:

- 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.

# RETURN ON ASSETS CALCULATOR 2014

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

| $ / BALE | AVERAGE YIELD PER HECTARE (COST PER HA USED : $3,500) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |

## 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 2014

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 (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 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 the Average Group. What difference does yield make on ROA?

For example:

- Four year average profit to 2014 (before interest) for the Average Group of $1,241/ha against $17,500/ha – 7.1% return
- Four year average profit to 2014 (before interest) for the Top 20% of $2,226/ha against $17,500/ha – 12.72% return

  (Yield differential of 1.36 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.

## 2.3 CONCLUSION

The 2014 season was very hot and dry, with corresponding excessive water usage. Heat and flooding impacted on yields and profitability.

Net profit per hectare was better than 2013, but well down on the four year average. A low profit year puts pressure on the industry, with less being available for debt reduction or reinvestment.

In the 2012 report, we predicted that that 2013 and 2014 would be tough financially for the industry. This prediction has played out and seems to be set to continue into the 2015 year. This will obviously impact on the ability of the industry to further reduce debt.

The data in the Cotton Comparative Analysis has been affected by low water in previous years. Water, or lack thereof, has really been an issue 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 indeed profit during extreme events. If this is achieved, profit will be maximised regardless of the outcome of the climate change debate.

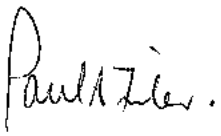
Although we have not attempted to analyse in detail the return on assets from a capital growth perspective, we have noted that in the past, many growers have obtained a large increase in their net assets from the increase in the value of land and licences, rather than the accumulation of profits. It 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 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.

In our view, there will be an increasing focus on profit if gains in asset value continue to slow. 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 2014 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.



Paul Fisher
Director | Boyce Chartered Accountants
Moree NSW
pfisher@boyceca.com

# 3

# Comparative Statistics

## 3.1 PARTICIPANTS

### 3.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE 2014 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 | | | 4,709 | 5,270 | 3,916 | 4,444 | 4,538 | |
| Cotton proceeds - Seed | | | 805 | 1,046 | 614 | 746 | 799 | |
| Ginning | | | (621) | (677) | (496) | (604) | (604) | |
| Levies | | | (46) | (41) | (27) | (51) | (54) | |
| Cotton proceeds - Hail claims | | | 57 | 9 | 0 | 4 | 92 | |
| | | | **4,904** | **5,607** | **4,007** | **4,539** | **4,771** | |
| **EXPENSES** | | | | | | | | |
| Cartage | | | 86 | 113 | 72 | 100 | 65 | |
| Chemical application | | | 151 | 142 | 80 | 132 | 169 | |
| Chemicals - Defoliants | | | 49 | 57 | 75 | 48 | 42 | |
| Chemicals - Herbicides | | | 115 | 152 | 108 | 99 | 104 | |
| Chemicals - Insecticides | | | 81 | 126 | 58 | 74 | 71 | |
| Chemicals - Others | | | 4 | 4 | 2 | 3 | 4 | |
| Chipping | | | 2 | 2 | 0 | 1 | 2 | |
| Consultants | | | 43 | 61 | 55 | 44 | 33 | |
| Contract picking | | | 182 | 153 | 129 | 246 | 218 | |
| Contract farming and ripping | | | 100 | 154 | 43 | 102 | 127 | |
| Cotton picking wrap and sundries | | | 75 | 90 | 65 | 61 | 65 | |
| Depreciation | | | 249 | 226 | 280 | 189 | 265 | |
| Electricity | | | 50 | 13 | 93 | 21 | 38 | |
| Fertiliser | | | 533 | 580 | 508 | 505 | 526 | |
| Fuel and oil | | | 380 | 418 | 530 | 337 | 346 | |
| Hire of plant | | | 52 | 42 | 8 | 70 | 57 | |
| Insurance | | | 104 | 90 | 128 | 104 | 94 | |
| Licence fee - Bollgard | | | 305 | 300 | 349 | 317 | 298 | |
| Licence fee - Roundup ready | | | 69 | 69 | 70 | 67 | 68 | |
| Motor vehicle expenses | | | 19 | 12 | 44 | 15 | 13 | |
| R & M - Farming plant | | | 113 | 118 | 164 | 115 | 93 | |
| R & M - Pumps and earthworks | | | 159 | 174 | 192 | 79 | 169 | |
| Seed | | | 79 | 87 | 81 | 75 | 75 | |
| Water charges | | | 306 | 238 | 108 | 308 | 297 | |
| Wages - Employees | | | 391 | 277 | 422 | 319 | 402 | |
| Wages - Proprietors | | | 17 | 8 | 82 | 13 | 0 | |
| Administration | | | 56 | 29 | 63 | 56 | 60 | |
| Other farm overheads | | | 148 | 31 | 72 | 62 | 198 | |
| | | | **3,918** | **3,766** | **3,881** | **3,562** | **3,899** | |
| **OPERATING PROFIT/(LOSS)** | | | **986** | **1,841** | **126** | **977** | **872** | |
| **ADD:** | | | | | | | | |
| Wages - Proprietors | | | 17 | 8 | 82 | 13 | 0 | |
| **FARM OPERATING PROFIT/(LOSS)** | | | **1,003** | **1,849** | **208** | **990** | **872** | |

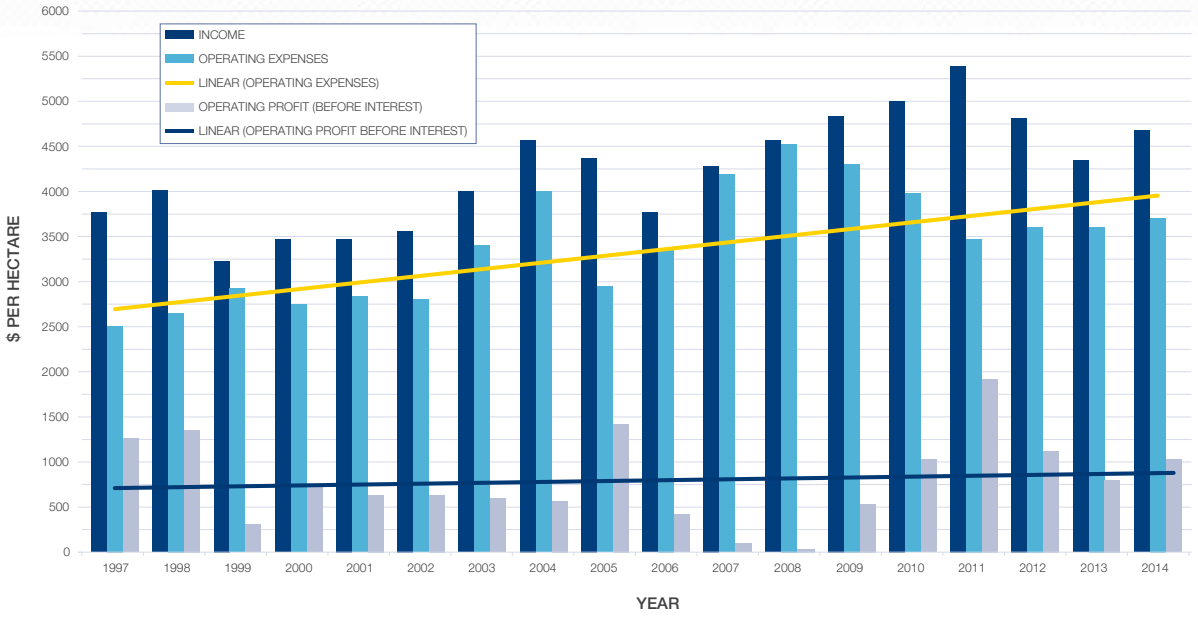
## 3.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR THE 2014 YEAR FOR LANDHOLDING FARMERS (continued)

| | 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 | | | 292 | 306 | 404 | 357 | 140 | |
| Interest - Crop terms | | | 0 | 0 | 0 | 0 | 0 | |
| | | | **292** | **306** | **404** | **357** | **140** | |
| **FARM NET PROFIT/(LOSS)** | | | **$711** | **$1,543** | **($196)** | **$633** | **$732** | |
| **CROP RESULTS** | | | | | | | | |
| Hectares of cotton grown | | | 1,593.12 | 2,365.17 | 549.77 | 1,933.93 | 4,751.83 | |
| Total yield | | | 16,320.98 | 27,308.14 | 4,496.45 | 18,683.35 | 47,707.63 | |
| Yield per hectare | | | 10.24 | 11.55 | 8.18 | 9.66 | 10.04 | |
| Value per bale | | | $473.05 | $484.87 | $490.01 | $469.31 | $465.94 | |
| Cost of production per bale | | | $382.31 | $326.34 | $474.59 | $368.46 | $388.55 | |
| Operating profit/(loss) per bale | | | $96.31 | $159.32 | $15.42 | $101.28 | $86.53 | |
| Number of bales per hectare required to cover operating expenses | | | 8.28 | 7.77 | 7.92 | 7.58 | 8.37 | |
| Number of bales per hectare required to cover total expenses | | | 8.90 | 8.40 | 8.75 | 8.35 | 8.67 | |
| **LABOUR** | | | | | | | | |
| Number of Hectares per permanent person (excluding proprietors) | | | 226.43 | 337.46 | 240.77 | 443.85 | 250.10 | |
| **AVAILABLE TRACTOR HORSE POWER** | | | | | | | | |
| Tractor horse power per 500 hectares | | | 314.73 | 231.38 | 629.66 | 190.12 | 194.72 | |
| **AVAILABLE PICKING CAPACITY** | | | | | | | | |
| Picker heads per 500 hectares | | | 2.33 | 1.55 | 1.97 | 0.48 | 0.84 | |
| **ROTATION** | | | | | | | | |
| Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years) | | | 59.89% | 39.31% | 55.24% | 23.82% | 48.48% | |
| **WATER USAGE** | | | | | | | | |
| Megalitres per hectare | | | 9.87 | 8.11 | 8.22 | 7.30 | 8.80 | |
| Megalitres per bale | | | 0.96 | 0.70 | 1.01 | 0.76 | 0.88 | |

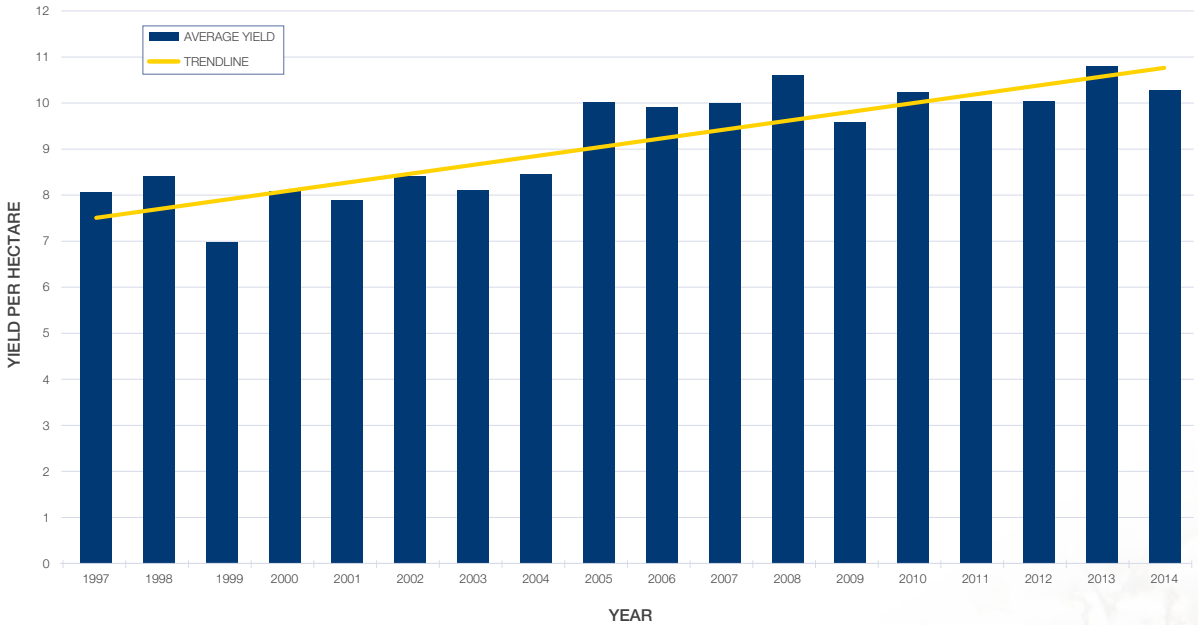
## 3.2 AVERAGE

### 3.2.1 GRAPHS

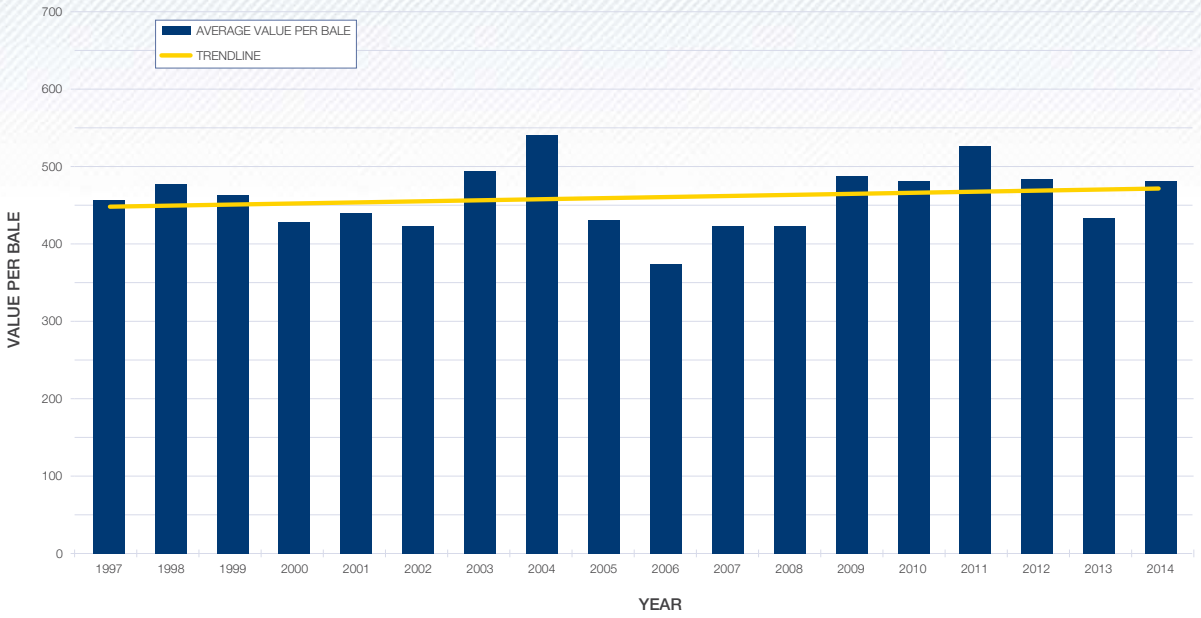
#### 3.2.1.1 COMPARISON OF AVERAGE INCOME AND EXPENSE ITEMS FOR LANDHOLDERS




#### 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)

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | **INCOME** | |
| 4,419 | 3,788 | 3,963 | 4,027 | 4,265 | 4,758 | 5,256 | 4,866 | 4,712 | Cotton proceeds - Lint | 4,709 |
| 452 | 436 | 859 | 1,016 | 935 | 742 | 546 | 400 | 524 | Cotton proceeds - Seed | 805 |
| (511) | (479) | (551) | (521) | (495) | (542) | (484) | (512) | (630) | Ginning | (621) |
| (38) | (33) | (38) | (33) | (37) | (35) | (33) | (31) | (36) | Levies | (46) |
| 48 | 55 | 49 | 73 | 169 | 79 | 106 | 70 | 17 | Cotton proceeds - Hail claims | 57 |
| **4,370** | **3,767** | **4,282** | **4,562** | **4,837** | **5,002** | **5,391** | **4,793** | **4,587** | | **4,904** |
| | | | | | | | | | **EXPENSES** | |
| 96 | 105 | 128 | 101 | 100 | 112 | 136 | 117 | 132 | Cartage | 86 |
| 137 | 158 | 115 | 110 | 87 | 136 | 138 | 131 | 106 | Chemical application | 151 |
| 55 | 57 | 54 | 71 | 79 | 63 | 55 | 53 | 42 | Chemicals - Defoliants | 49 |
| 153 | 109 | 159 | 183 | 174 | 108 | 108 | 85 | 84 | Chemicals - Herbicides | 115 |
| 198 | 292 | 132 | 116 | 144 | 151 | 142 | 84 | 35 | Chemicals - Insecticides | 81 |
| 5 | 3 | 3 | 4 | 48 | 38 | 11 | 7 | 5 | Chemicals - Others | 4 |
| 44 | 66 | 91 | 39 | 24 | 15 | 2 | 3 | 3 | Chipping | 2 |
| 58 | 59 | 75 | 63 | 76 | 72 | 64 | 57 | 52 | Consultants | 43 |
| 173 | 180 | 257 | 250 | 255 | 261 | 282 | 241 | 176 | Contract picking | 182 |
| 57 | 89 | 77 | 85 | 42 | 24 | 122 | 164 | 215 | Contract farming and ripping | 100 |
| 19 | 11 | 10 | 6 | 14 | 9 | 55 | 84 | 78 | Cotton picking wrap and sundries | 75 |
| 206 | 199 | 338 | 508 | 372 | 426 | 164 | 178 | 227 | Depreciation | 249 |
| 25 | 21 | 40 | 46 | 59 | 79 | 76 | 29 | 45 | Electricity | 50 |
| 242 | 356 | 312 | 394 | 428 | 399 | 387 | 517 | 546 | Fertiliser | 533 |
| 229 | 323 | 418 | 429 | 327 | 305 | 258 | 271 | 403 | Fuel and oil | 380 |
| 3 | 3 | 9 | 12 | 2 | 7 | 22 | 43 | 32 | Hire of plant | 52 |
| 116 | 144 | 227 | 216 | 217 | 179 | 161 | 123 | 110 | Insurance | 104 |
| 127 | 150 | 173 | 232 | 218 | 252 | 286 | 292 | 310 | Licence fee - Bollgard | 305 |
| 16 | 25 | 26 | 50 | 50 | 62 | 60 | 56 | 39 | Licence fee - Roundup ready | 69 |
| 22 | 22 | 30 | 31 | 34 | 35 | 21 | 19 | 19 | Motor vehicle expenses | 19 |
| 174 | 135 | 133 | 139 | 137 | 154 | 121 | 109 | 123 | R & M - Farming plant | 113 |
| 114 | 101 | 128 | 133 | 116 | 183 | 61 | 84 | 130 | R & M - Pumps and earthworks | 159 |
| 80 | 77 | 112 | 98 | 105 | 126 | 115 | 146 | 107 | Seed | 79 |
| 113 | 188 | 399 | 439 | 486 | 189 | 134 | 141 | 160 | Water charges | 306 |
| 321 | 327 | 473 | 445 | 391 | 384 | 357 | 344 | 380 | Wages - Employees | 391 |
| 46 | 38 | 96 | 105 | 106 | 69 | 20 | 21 | 31 | Wages - Proprietors | 17 |
| 45 | 41 | 68 | 58 | 58 | 35 | 49 | 47 | 52 | Administration | 56 |
| 75 | 73 | 103 | 162 | 154 | 103 | 65 | 155 | 166 | Other farm overheads | 148 |
| **2,949** | **3,352** | **4,186** | **4,525** | **4,303** | **3,976** | **3,472** | **3,601** | **3,808** | | **3,918** |
| 1,421 | 415 | 96 | 37 | 534 | 1,026 | 1,919 | 1,192 | 779 | **OPERATING PROFIT/(LOSS)** | 986 |
| 46 | 38 | 96 | 105 | 106 | 69 | 20 | 21 | 21 | Wages - Proprietors | 17 |
| **1,467** | **453** | **192** | **142** | **640** | **1,095** | **1,939** | **1,213** | **810** | **FARM OPERATING PROFIT/ (LOSS)** | **1,003** |

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

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | **DEDUCT:** | |
| 583 | 544 | 1,168 | 1,704 | 1,137 | 1,009 | 380 | 409 | 389 | Interest and bank charges | 292 |
| 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | Interest - Crop terms | 0 |
| **586** | **548** | **1,168** | **1,704** | **1,137** | **1,009** | **380** | **409** | **400** | | **292** |
| **$881** | **($95)** | **($976)** | **($1,562)** | **($497)** | **$86** | **$1,559** | **$804** | **$410** | **FARM NET PROFIT/(LOSS)** | **$711** |
| | | | | | | | | | **CROP RESULTS** | |
| 1,027.71 | 936.02 | 531.13 | 449.09 | 486.65 | 621.17 | 1,426.48 | 1,675.67 | 1,517.64 | Hectares of cotton grown | 1,593.12 |
| 10,312.15 | 9,285.42 | 5,311.07 | 4,769.71 | 4,660.90 | 6,363.40 | 14,325.75 | 16,272.11 | 16,223.03 | Total yield (bales) | 16,320.98 |
| 10.03 | 9.92 | 10.00 | 10.62 | 9.58 | 10.24 | 10.04 | 9.71 | 10.69 | Yield per hectare (bales) | 10.24 |
| $430.78 | $374.23 | $423.35 | $422.66 | $487.41 | $480.56 | $526.23 | $486.42 | $427.44 | Value per bale | $473.05 |
| $293.75 | $337.82 | $418.66 | $425.99 | $449.40 | $388.37 | $345.82 | $370.77 | $356.27 | Cost of production per bale | $382.31 |
| $141.84 | $41.94 | $9.61 | $3.50 | $55.70 | $99.94 | $190.92 | $122.89 | $72.75 | Operating profit per bale | $96.31 |
| 6.84 | 8.95 | 9.89 | 10.70 | 8.83 | 8.28 | 6.60 | 7.40 | 8.91 | Number of bales per hectare required to cover operating expenses | 8.28 |
| 8.20 | 10.42 | 12.65 | 14.74 | 11.16 | 10.38 | 7.32 | 8.24 | 9.85 | Number of bales per hectare required to cover total expenses | 8.90 |
| | | | | | | | | | **LABOUR** | |
| 173.78 | 185.44 | 139.77 | 107.24 | 171.76 | 167.24 | 184.91 | 322.79 | 221.25 | Number of hectares per permanent person (excluding proprietors) | 226.43 |
| | | | | | | | | | **AVAILABLE TRACTOR HORSE POWER** | |
| 555.52 | 409.98 | 446.78 | 453.75 | 566.80 | 632.44 | 313.55 | 219.08 | 370.72 | Tractor horse power per 500 hectares | 314.73 |
| | | | | | | | | | **AVAILABLE PICKING CAPACITY** | |
| 2.95 | 2.44 | 2.26 | 1.67 | 2.05 | 1.84 | 2.38 | 1.05 | 1.28 | Picker heads per 500 hectares | 2.33 |
| | | | | | | | | | **ROTATION** | |
| 75.68% | 69.44% | 49.67% | 48.99% | 51.68% | 33.69% | 69.98% | 35.46% | 35.71% | Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years) | 59.89% |
| | | | | | | | | | **WATER USAGE** | |
| 9.00 | 9.62 | 9.00 | 9.00 | 9.00 | 9.00 | 8.78 | 8.80 | 9.39 | Megalitres per hectare | 9.87 |
| 0.90 | 0.97 | 0.90 | 0.85 | 0.94 | 0.88 | 0.87 | 0.91 | 0.88 | Megalitres per bale | 0.96 |
| | | | | | | | | | | |
| 1,169 | 1,533 | 1,742 | 1,829 | 1,989 | 1,667 | 1,608 | 1,680 | 1,619 | Direct costs | 1,736 |
| 1,780 | 1,819 | 2,444 | 2,696 | 2,314 | 2,309 | 1,864 | 1,921 | 2,189 | Other costs | 2,182 |
| **2,949** | **3,352** | **4,186** | **4,525** | **4,303** | **3,976** | **3,472** | **3,601** | **3,808** | | **3,918** |
| | | | | | | | | | | |
| 325 | 442 | 305 | 348 | 362 | 403 | 428 | 376 | 345 | Insecticide and Licence Fee Bollgard | 386 |
| 462 | 600 | 420 | 458 | 449 | 539 | 566 | 507 | 451 | Insecticide and Licence Fee Bollgard and application | 537 |
| 254 | 344 | 458 | 457 | 386 | 384 | 334 | 300 | 448 | Energy costs | 430 |

## COMPARISON OF AVERAGE RESULTS BETWEEN THE 2014 AND 2013 YEAR (PER HA)

| | ALL FARMS 2014 | ALL FARMS 2013 | DIFFERENCE |
|---|---|---|---|
| **INCOME** | | | |
| Cotton proceeds - Lint | 4,709 | 4,712 | (3) |
| Cotton proceeds - Seed | 805 | 524 | 281 |
| Ginning | (621) | (630) | 9 |
| Levies | (46) | (36) | (10) |
| Cotton proceeds - Hail claims | 57 | 17 | 40 |
| | **4,904** | **4,587** | **317** |
| **EXPENSES** | | | |
| Cartage | 86 | 132 | 46 |
| Chemical application | 151 | 106 | (45) |
| Chemicals - Defoliants | 49 | 42 | (7) |
| Chemicals - Herbicides | 115 | 84 | (31) |
| Chemicals - Insecticides | 81 | 35 | (46) |
| Chemicals - Others | 4 | 5 | 1 |
| Chipping | 2 | 3 | 1 |
| Consultants | 43 | 52 | 9 |
| Contract picking | 182 | 176 | (6) |
| Contract farming and ripping | 100 | 215 | 115 |
| Cotton picking wrap and sundries | 75 | 78 | 3 |
| Depreciation | 249 | 227 | (22) |
| Electricity | 50 | 45 | (5) |
| Fertiliser | 533 | 546 | 13 |
| Fuel and oil | 380 | 403 | 23 |
| Hire of plant | 52 | 32 | (20) |
| Insurance | 104 | 110 | 6 |
| Licence fee - Bollgard | 305 | 310 | 5 |
| Licence fee - Roundup Ready | 69 | 39 | (30) |
| Motor vehicle expenses | 19 | 19 | 0 |
| R & M - Farming plant | 113 | 123 | 10 |
| R & M - Pumps and earthworks | 159 | 130 | (29) |
| Seed | 79 | 107 | 28 |
| Water charges | 306 | 160 | (146) |
| Wages - Employees | 391 | 380 | (11) |
| Wages - Proprietors | 17 | 31 | 14 |
| Administration | 56 | 52 | (4) |
| Other farm overheads | 148 | 166 | 18 |
| | **3,918** | **3,808** | **(110)** |
| **OPERATING PROFIT/(LOSS)** | **986** | **779** | **207** |
| **ADD:** | | | |
| Wages - Proprietors | 17 | 31 | 14 |
| **FARM OPERATING PROFIT/(LOSS)** | **1,003** | **810** | **(193)** |

## COMPARISON OF AVERAGE RESULTS BETWEEN THE 2014 AND 2013 YEAR (PER HA)
(continued)

| | ALL FARMS 2014 | ALL FARMS 2013 | DIFFERENCE |
|---|---|---|---|
| **DEDUCT:** | | | |
| Interest and bank charges | 292 | 389 | 97 |
| Interest - Crop terms | 0 | 11 | 11 |
| | **292** | **400** | **108** |
| **FARM NET PROFIT/(LOSS)** | **$711** | **$410** | **$301** |
| **CROP RESULTS** | | | |
| Hectares of cotton grown | 1,593.12 | 1,517.64 | 75.48 |
| Total yield (bales) | 16,320.98 | 16,223.03 | 97.95 |
| Yield per hectare (bales) | 10.24 | 10.69 | (0.45) |
| Value per bale | $473.05 | $427.44 | $45.61 |
| Cost of production per bale | $382.31 | $356.27 | ($26.04) |
| Operating profit per bale | $96.31 | $72.75 | $23.56 |
| Number of bales per hectare required to cover operating expenses | 8.28 | 8.91 | 0.63 |
| Number of bales per hectare required to cover total expenses | 8.90 | 9.85 | 0.95 |
| **LABOUR** | | | |
| Number of hectares per permanent person (excluding proprietors) | 226.43 | 221.25 | 5.18 |
| **AVAILABLE TRACTOR HORSE POWER** | | | |
| Tractor horse power per 500 hectares | 314.73 | 370.72 | 55.99 |
| **AVAILABLE PICKING CAPACITY** | | | |
| Picker heads per 500 hectares | 2.33 | 1.28 | (1.05) |
| **ROTATION** | | | |
| Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years) | 59.89% | 35.71% | 24.18% |
| **WATER USAGE** | | | |
| Megalitres per hectare | 9.87 | 9.39 | (0.48) |
| Megalitres per bale | 0.96 | 0.88 | (0.08) |

## 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 |
|---|---|---|---|---|---|
| **INCOME** | | | | | |
| Cotton proceeds - Lint | 4,709 | 5,062 | 4,953 | 5,566 | 4,544 |
| Cotton proceeds - Seed | 805 | 1,004 | 754 | 988 | 713 |
| Ginning | (621) | (656) | (641) | (698) | (592) |
| Levies | (46) | (40) | (41) | (33) | (35) |
| Cotton proceeds - Hail claims | 57 | 189 | 0 | 0 | 0 |
| | **4,904** | **5,559** | **5,025** | **5,823** | **4,630** |
| **EXPENSES** | | | | | |
| Cartage | 86 | 88 | 92 | 164 | 39 |
| Chemical application | 151 | 154 | 124 | 201 | 177 |
| Chemicals - Defoliants | 49 | 61 | 42 | 76 | 55 |
| Chemicals - Herbicides | 115 | 169 | 101 | 170 | 118 |
| Chemicals - Insecticides | 81 | 106 | 99 | 37 | 95 |
| Chemicals - Other | 4 | 4 | 4 | 7 | 3 |
| Chipping | 2 | 4 | 2 | 0 | 0 |
| Consultants | 43 | 52 | 59 | 70 | 20 |
| Contract picking | 182 | 105 | 164 | 148 | 15 |
| Contract farming & ripping | 100 | 142 | 49 | 51 | 21 |
| Cotton picking wrap and sundries | 75 | 88 | 77 | 82 | 103 |
| Depreciation | 249 | 286 | 255 | 360 | 301 |
| Electricity | 50 | 64 | 12 | 46 | 113 |
| Fertiliser | 533 | 563 | 605 | 554 | 557 |
| Fuel & oil | 380 | 432 | 408 | 386 | 437 |
| Hire of plant | 52 | 45 | 10 | 43 | 60 |
| Insurance | 104 | 97 | 136 | 158 | 88 |
| Licence fee - Bollgard | 305 | 279 | 322 | 255 | 315 |
| Licence fee - Roundup ready | 69 | 71 | 42 | 71 | 73 |
| Motor vehicle expenses | 19 | 16 | 18 | 38 | 32 |
| R & M - Farming plant | 113 | 118 | 132 | 222 | 101 |
| R & M - Pumps and earthworks | 159 | 283 | 128 | 208 | 162 |
| Seed | 79 | 93 | 76 | 107 | 75 |
| Water charges | 306 | 235 | 235 | 1,169 | 201 |
| Wages - Employees | 391 | 401 | 370 | 319 | 562 |
| Wages - Proprietors | 17 | 2 | 23 | 114 | 24 |
| Administration | 56 | 29 | 47 | 52 | 95 |
| Other farm overheads | 148 | 244 | 33 | 63 | 245 |
| | **3,918** | **4,231** | **3,665** | **5,171** | **4,087** |
| **OPERATING PROFIT/(LOSS)** | **986** | **1,328** | **1,360** | **652** | **543** |
| ADD: | | | | | |
| Wages - Proprietors | 17 | 2 | 23 | 114 | 24 |
| **FARM OPERATING PROFIT/(LOSS)** | **1,003** | **1,330** | **1,383** | **766** | **567** |

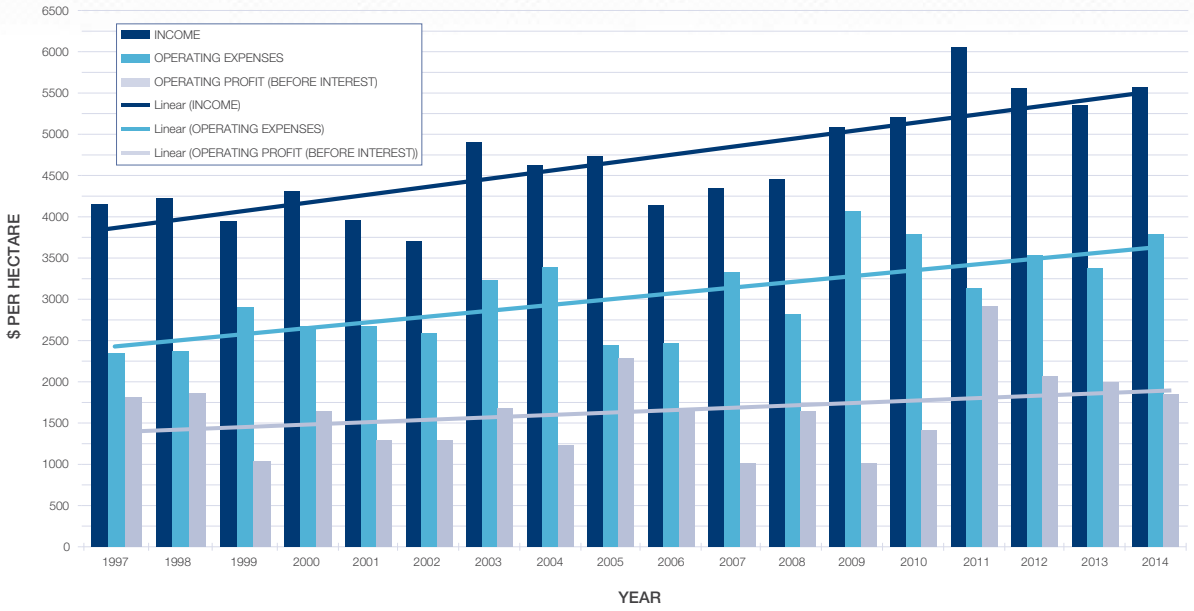
## 3.2.4 COMPARISON OF THE AVERAGE OF THE DIFFERENT VALLEYS (PER HA) (continued)

| | ALL VALLEYS AVE FIGURES | GWYDIR AVE FIGURES | McINTYRE/ BARWON AVE FIGURES | MACQUARIE AVE FIGURES | NAMOI AVE FIGURES |
|---|---|---|---|---|---|
| **DEDUCT:** | | | | | |
| Interest and bank charges | 292 | 248 | 467 | 146 | 107 |
| Interest - Crop terms | 0 | 0 | 0 | 0 | 0 |
| | **292** | **248** | **467** | **146** | **107** |
| **FARM NET PROFIT/(LOSS)** | **$711** | **$1,082** | **$916** | **$620** | **$460** |
| **CROP RESULTS** | | | | | |
| Hectares of cotton grown | 1,593.12 | 2,302.17 | 1,299.11 | 307.00 | 1,316.77 |
| Total yield | 16,320.98 | 25,446.88 | 14,357.17 | 3,363.52 | 13,028.10 |
| Yield per hectare | 10.24 | 11.05 | 11.05 | 10.96 | 9.89 |
| Value per bale | $473.05 | $485.86 | $454.66 | $531.45 | $468.01 |
| Cost of production per bale | $382.31 | $382.55 | $331.39 | $472.12 | $413.06 |
| Operating profit/(loss) per bale | $96.31 | $120.42 | $123.27 | $59.33 | $54.95 |
| cover operating expenses | 8.28 | 8.70 | 8.06 | 9.73 | 8.73 |
| cover total expenses | 8.90 | 9.21 | 9.08 | 10.01 | 8.96 |
| **LABOUR** | | | | | |
| Number of Hectares per permanent person (excluding proprietors) | 226.43 | 313.93 | 389.73 | 272.89 | 144.44 |
| **AVAILABLE TRACTOR HORSE POWER** | | | | | |
| Tractor horse power per 500 hectares | 314.73 | 188.41 | 308.42 | 533.39 | 405.98 |
| **AVAILABLE PICKING CAPACITY** | | | | | |
| Picker heads per 500 hectares | 2.33 | 1.09 | 1.11 | 2.44 | 2.47 |
| **ROTATION** | | | | | |
| Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years) | 59.89% | 48.58% | 16.94% | 17.75% | 80.22% |
| **WATER USAGE** | | | | | |
| Megalitres per hectare | 9.87 | 9.00 | 7.71 | 3.61 | 8.84 |
| Megalitres per bale | 0.96 | 0.79 | 0.70 | 0.33 | 0.89 |

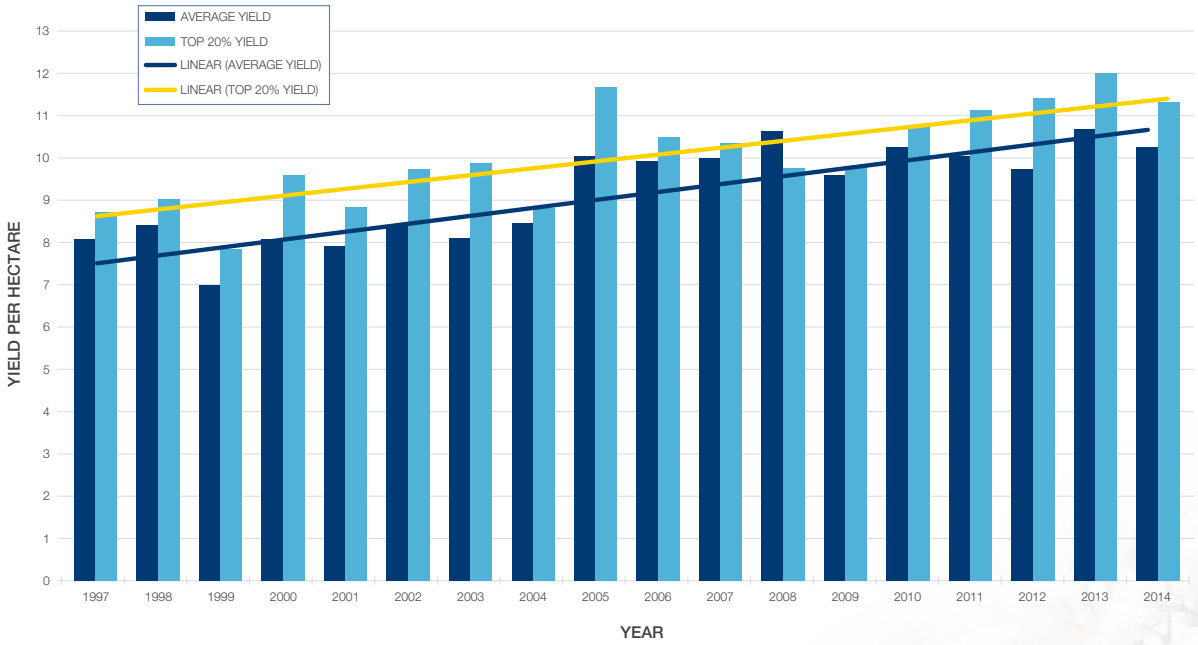
## 3.3 TOP 20% FARMERS

### 3.3.1 GRAPHS

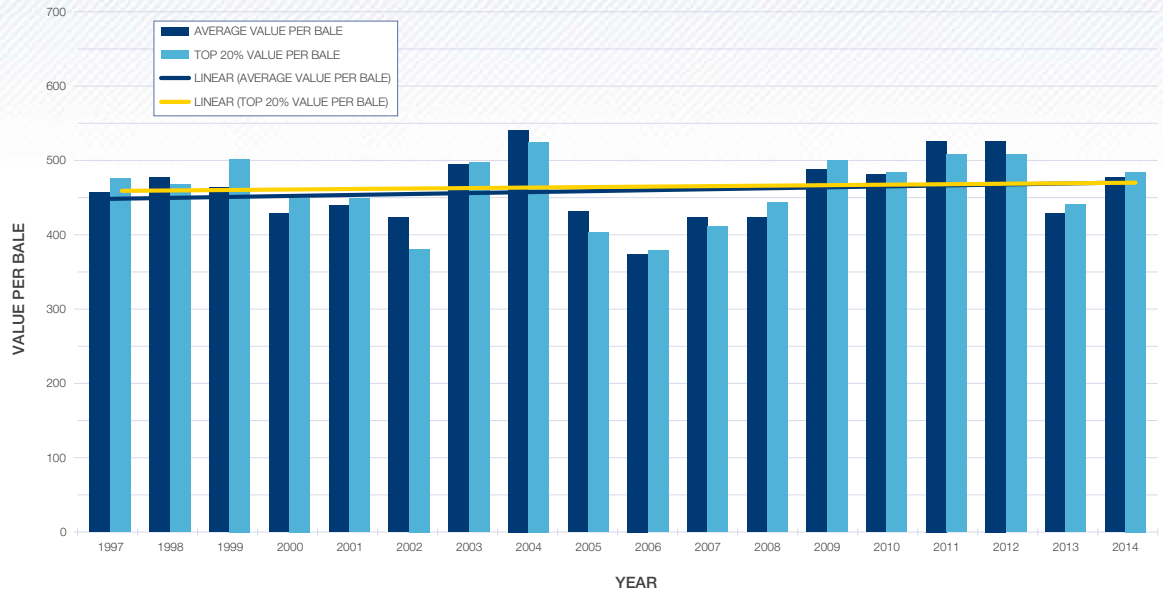
#### 3.3.1.1 COMPARISON OF TOP 20% INCOME & EXPENSE ITEMS FOR LANDHOLDERS



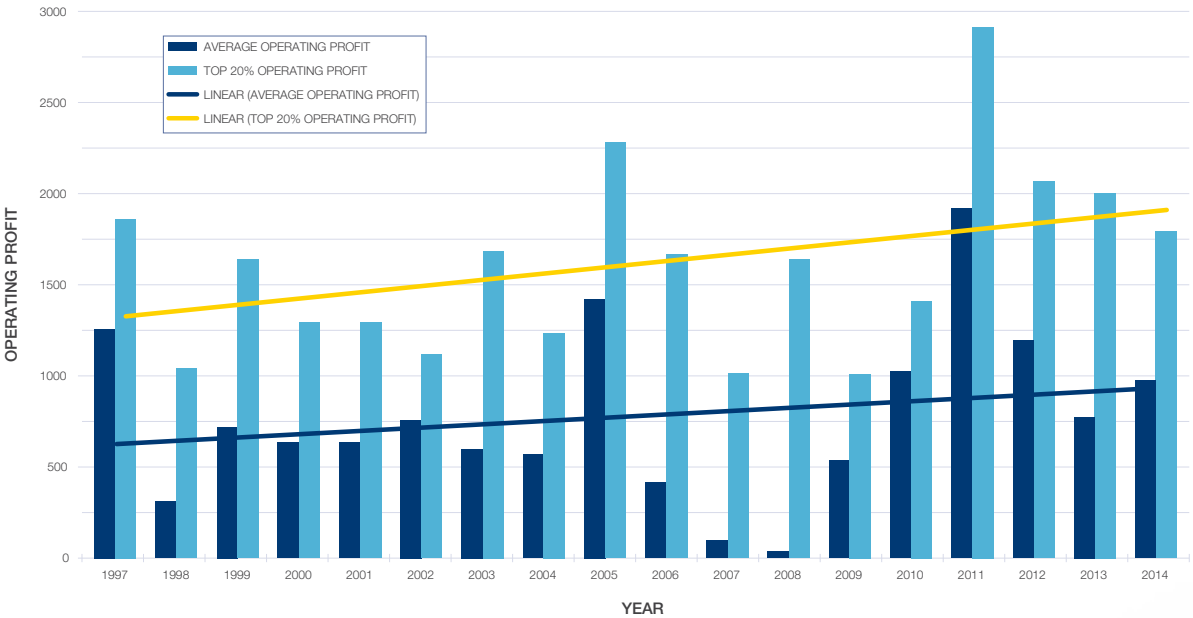

#### 3.3.1.2 COMPARISON OF THE YIELD FOR THE AVERAGE AND THE TOP 20%



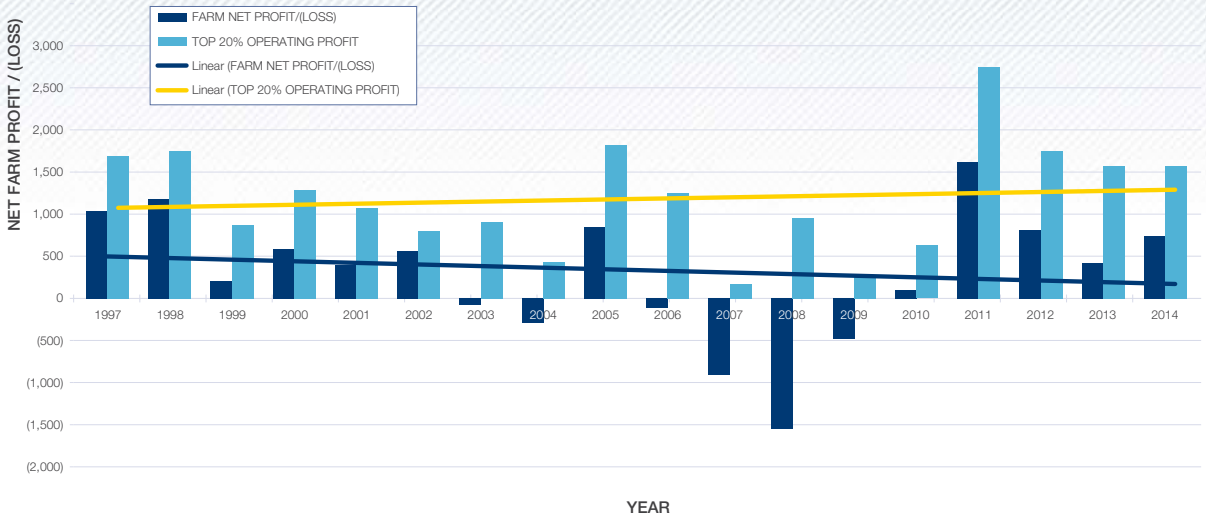
### 3.3.1.3 COMPARISON OF THE VALUE PER BALE FOR THE AVERAGE AND THE TOP 20%




### 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)

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | **INCOME** | |
| 4,835 | 4,065 | 3,950 | 3,997 | 4,368 | 5,067 | 5,659 | 5,509 | 5,502 | Cotton proceeds - Lint | 5,270 |
| 522 | 434 | 848 | 871 | 1,081 | 753 | 584 | 484 | 629 | Cotton proceeds - Seed | 1,046 |
| (617) | (491) | (508) | (499) | (518) | (581) | (560) | (478) | (740) | Ginning | (677) |
| (37) | (36) | (38) | (34) | (40) | (37) | (36) | (40) | (49) | Levies | (41) |
| 26 | 163 | 89 | 123 | 188 | 0 | 404 | 112 | 33 | Cotton proceeds - Hail claims | 9 |
| **4,729** | **4,135** | **4,341** | **4,458** | **5,079** | **5,202** | **6,051** | **5,587** | **5,375** | | **5,607** |
| | | | | | | | | | **EXPENSES** | |
| 160 | 161 | 94 | 125 | 113 | 123 | 148 | 114 | 166 | Cartage | 113 |
| 107 | 144 | 95 | 99 | 77 | 152 | 149 | 125 | 96 | Chemical application | 142 |
| 56 | 61 | 43 | 63 | 59 | 45 | 50 | 54 | 51 | Chemicals - Defoliants | 57 |
| 203 | 70 | 117 | 97 | 154 | 108 | 112 | 61 | 66 | Chemicals - Herbicides | 152 |
| 147 | 293 | 113 | 67 | 160 | 175 | 146 | 89 | 58 | Chemicals - Insecticides | 126 |
| 5 | 2 | 4 | 6 | 79 | 61 | 12 | 10 | 8 | Chemicals - Others | 4 |
| 35 | 50 | 70 | 38 | 14 | 14 | 0 | 6 | 4 | Chipping | 2 |
| 59 | 62 | 63 | 49 | 73 | 81 | 60 | 71 | 51 | Consultants | 61 |
| 86 | 57 | 258 | 321 | 201 | 192 | 253 | 292 | 237 | Contract picking | 153 |
| 43 | 85 | 133 | 126 | 30 | 17 | 97 | 114 | 208 | Contract farming and ripping | 154 |
| 21 | 10 | 7 | 3 | 24 | 8 | 51 | 64 | 98 | Cotton picking wrap and sundries | 90 |
| 157 | 142 | 251 | 208 | 298 | 423 | 112 | 183 | 158 | Depreciation | 226 |
| 16 | 15 | 15 | 16 | 76 | 124 | 115 | 20 | 93 | Electricity | 13 |
| 202 | 262 | 207 | 169 | 422 | 299 | 353 | 544 | 453 | Fertiliser | 580 |
| 293 | 224 | 411 | 280 | 444 | 298 | 213 | 233 | 244 | Fuel and oil | 418 |
| 2 | 8 | 0 | 0 | 3 | 0 | 35 | 6 | 16 | Hire of plant | 42 |
| 84 | 71 | 207 | 195 | 238 | 204 | 174 | 125 | 94 | Insurance | 90 |
| 64 | 65 | 152 | 259 | 220 | 221 | 298 | 287 | 305 | Licence fee - Bollgard | 300 |
| 17 | 39 | 22 | 50 | 45 | 60 | 43 | 51 | 42 | Licence fee - Roundup ready | 69 |
| 12 | 16 | 37 | 26 | 37 | 36 | 17 | 25 | 14 | Motor vehicle expenses | 12 |
| 123 | 105 | 103 | 64 | 147 | 145 | 87 | 66 | 103 | R & M - Farming plant | 118 |
| 45 | 45 | 141 | 70 | 114 | 221 | 54 | 122 | 119 | R & M - Pumps and earthworks | 174 |
| 74 | 75 | 84 | 99 | 112 | 108 | 102 | 136 | 103 | Seed | 87 |
| 11 | 28 | 14 | 1 | 107 | 30 | 61 | 126 | 150 | Water charges | 238 |
| 245 | 246 | 484 | 273 | 453 | 428 | 274 | 300 | 269 | Wages - Employees | 277 |
| 77 | 54 | 88 | 29 | 114 | 76 | 20 | 27 | 27 | Wages - Proprietors | 8 |
| 46 | 36 | 65 | 32 | 65 | 24 | 50 | 39 | 70 | Administration | 29 |
| 57 | 45 | 50 | 56 | 189 | 118 | 51 | 234 | 68 | Other farm overheads | 31 |
| **2,447** | **2,471** | **3,328** | **2,821** | **4,068** | **3,791** | **3,137** | **3,524** | **3,371** | | **3,766** |
| **2,282** | **1,664** | **1,013** | **1,637** | **1,011** | **1,411** | **2,914** | **2,063** | **2,004** | **OPERATING PROFIT/(LOSS)** | **1,841** |
| | | | | | | | | | **ADD:** | |
| 77 | 54 | 88 | 29 | 114 | 76 | 20 | 27 | 27 | Wages - Proprietors | 8 |
| **2,359** | **1,718** | **1,101** | **1,666** | **1,125** | **1,487** | **2,934** | **2,090** | **2,031** | **FARM OPERATING PROFIT/(LOSS)** | **1,849** |

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

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | **DEDUCT:** | |
| 476 | 429 | 981 | 711 | 872 | 797 | 185 | 353 | 496 | Interest and bank charges | 306 |
| 3 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Interest - Crop terms | 0 |
| **479** | **439** | **981** | **711** | **872** | **797** | **185** | **353** | **496** | | **306** |
| **$1,880** | **$1,279** | **$120** | **$955** | **$253** | **$690** | **$2,749** | **$1,737** | **$1,535** | **FARM NET PROFIT/(LOSS)** | **$1,543** |
| | | | | | | | | | **CROP RESULTS** | |
| 830.00 | 921.24 | 644.33 | 701.35 | 556.97 | 789.00 | 1,124.75 | 1,186.93 | 833.94 | Hectares of cotton grown | 2,365.17 |
| 9,676.04 | 9,656.56 | 6,666.75 | 6,847.50 | 5,451.00 | 8,480.00 | 12,506.75 | 13,596.12 | 9,999.47 | Total yield (bales) | 27,308.14 |
| 11.66 | 10.48 | 10.35 | 9.76 | 9.79 | 10.75 | 11.12 | 11.45 | 11.99 | Yield per hectare (bales) | 11.55 |
| $403.40 | $378.96 | $410.89 | $443.99 | $499.72 | $484.00 | $507.94 | $477.90 | $445.47 | Value per bale | $484.87 |
| $209.73 | $235.67 | $321.74 | $288.83 | $415.45 | $352.51 | $282.04 | $307.69 | $281.13 | Cost of production per bale | $326.34 |
| $195.87 | $158.80 | $97.78 | $167.74 | $103.46 | $131.48 | $262.27 | $180.02 | $167.08 | Operating profit per bale | $159.32 |
| 6.06 | 6.52 | 8.10 | 6.35 | 8.14 | 7.83 | 6.17 | 7.37 | 7.57 | cover operating expenses | 7.77 |
| 7.25 | 7.68 | 10.49 | 7.95 | 9.88 | 9.47 | 6.54 | 8.12 | 8.68 | cover total expenses | 8.40 |
| | | | | | | | | | **LABOUR** | |
| 242.08 | 290.92 | 138.07 | 280.54 | 139.24 | 157.80 | 176.43 | 228.26 | 325.44 | Number of hectares per permanent person (excluding proprietors) | 337.46 |
| | | | | | | | | | **AVAILABLE TRACTOR HORSE POWER** | |
| 567.56 | 470.78 | 503.09 | 399.38 | 520.68 | 612.59 | 344.27 | 244.07 | 394.85 | Tractor horse power per 500 hectares | 231.38 |
| | | | | | | | | | **AVAILABLE PICKING CAPACITY** | |
| 5.16 | 2.53 | 2.07 | 0.00 | 2.39 | 1.69 | 3.39 | 0.42 | 1.35 | Picker heads per 500 hectares | 1.55 |
| | | | | | | | | | **ROTATION** | |
| 50.12% | 60.95% | 56.91% | 39.21% | 47.88% | 42.25% | 70.38% | 46.55% | 18.32% | Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years) | 39.31% |
| | | | | | | | | | **WATER USAGE** | |
| 10.00 | 10.22 | 9.00 | 9.00 | 9.00 | 9.00 | 8.60 | 11.72 | 9.59 | Megalitres per hectare | 8.11 |
| 0.86 | 0.97 | 0.87 | 0.92 | 0.92 | 0.84 | 0.77 | 1.02 | 0.80 | Megalitres per bale | 0.70 |

# FOUR YEAR AVERAGE FOR TOP 20% AND AVERAGE PARTICIPANTS (PER HA)

(2011, 2012, 2013, 2014)

| | ALL FARMS AVERAGE | TOP 20% AVERAGE | DIFFERENCE |
|---|---|---|---|
| **INCOME** | | | |
| Cotton proceeds - Lint | 4,886 | 5,485 | 599 |
| Cotton proceeds - Seed | 569 | 686 | 117 |
| Ginning | (562) | (614) | (52) |
| Levies | (37) | (42) | (5) |
| Cotton proceeds - Hail claims | 63 | 140 | 77 |
| | **4,919** | **5,655** | **736** |
| **EXPENSES** | | | |
| Cartage | 118 | 135 | (17) |
| Chemical application | 132 | 128 | 4 |
| Chemicals - Defoliants | 50 | 53 | (3) |
| Chemicals - Herbicides | 98 | 98 | 0 |
| Chemicals - Insecticides | 86 | 105 | (19) |
| Chemicals - Others | 7 | 9 | (2) |
| Chipping | 3 | 3 | 0 |
| Consultants | 54 | 61 | (7) |
| Contract picking | 220 | 234 | (14) |
| Contract farming and ripping | 150 | 143 | 7 |
| Cotton picking wrap and sundries | 73 | 76 | (3) |
| Depreciation | 205 | 170 | 35 |
| Electricity | 50 | 60 | (10) |
| Fertiliser | 496 | 483 | 13 |
| Fuel and oil | 328 | 277 | 51 |
| Hire of plant | 37 | 25 | 12 |
| Insurance | 125 | 121 | 4 |
| Licence fee - Bollgard | 298 | 298 | 0 |
| Licence fee - Roundup ready | 56 | 51 | 4 |
| Motor vehicle expenses | 20 | 17 | 3 |
| R & M - Farming plant | 117 | 94 | 23 |
| R & M - Pumps and earthworks | 109 | 117 | (8) |
| Seed | 112 | 107 | 5 |
| Water charges | 185 | 144 | 41 |
| Wages - Employees | 368 | 280 | 88 |
| Wages - Proprietors | 22 | 21 | 1 |
| Administration | 51 | 47 | 4 |
| Other farm overheads | 134 | 96 | 38 |
| | **3,700** | **3,450** | **250** |
| **OPERATING PROFIT/(LOSS)** | **1,219** | **2,206** | **987** |
| **ADD:** | | | |
| Wages - Proprietors | 22 | 21 | (2) |
| **FARM OPERATING PROFIT/(LOSS)** | **1,241** | **2,226** | **985** |

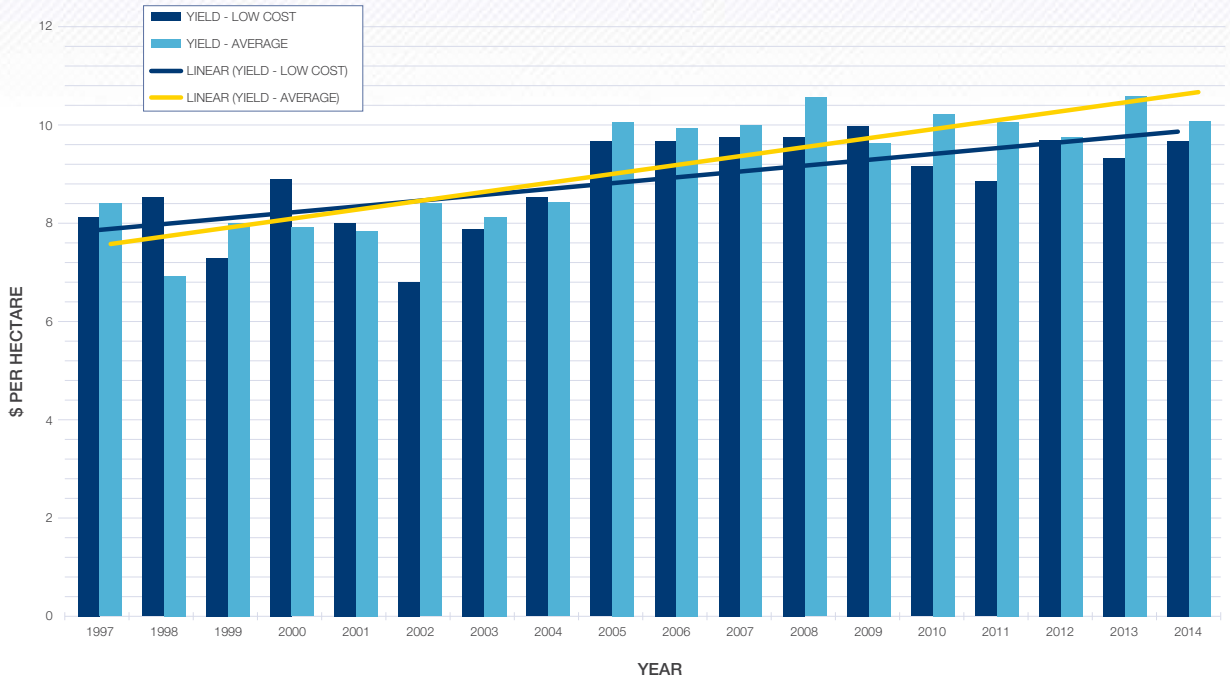
# FOUR YEAR AVERAGE FOR TOP 20% AND AVERAGE PARTICIPANTS (PER HA)

(2011, 2012, 2013, 2014) (continued)

| | ALL FARMS AVERAGE | TOP 20% AVERAGE | DIFFERENCE |
|---|---|---|---|
| **DEDUCT:** | | | |
| Interest and bank charges | 368 | 335 | 33 |
| Interest - Crop terms | 3 | 0 | 3 |
| | **370** | **335** | **35** |
| **FARM NET PROFIT/(LOSS)** | **$871** | **$1,891** | **$1,020** |
| | | | |
| **CROP RESULTS** | | | |
| Hectares of cotton grown | 1,553.23 | 1,377.70 | (175.53) |
| Total yield (bales) | 15,785.47 | 15,852.62 | 67.15 |
| Yield per hectare (bales) | 10.17 | 11.53 | 1.36 |
| Value per bale | $478.29 | $479.05 | $0.76 |
| Cost of production per bale | $363.79 | $299.30 | $64.49 |
| Operating profit per bale | $120.72 | $192.17 | $71.45 |
| Number of bales per hectare required to cover operating expenses | 7.80 | 7.22 | 0.58 |
| Number of bales per hectare required to cover total expenses | 8.58 | 7.94 | 0.64 |
| **LABOUR** | | | |
| Number of hectares per permanent person (excluding proprietors) | 238.85 | 266.90 | (28.05) |
| **AVAILABLE TRACTOR HORSE POWER** | | | |
| Tractor horse power per 500 hectares | 304.52 | 303.64 | 0.88 |
| **AVAILABLE PICKING CAPACITY** | | | |
| Picker heads per 500 hectares | 1.76 | 1.68 | 0.08 |
| **ROTATION** | | | |
| Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years) | 50.26% | 43.64% | (6.62%) |
| **WATER USAGE** | | | |
| Megalitres per hectare | 9.21 | 9.51 | (0.30) |
| Megalitres per bale | 0.91 | 0.82 | 0.09 |

## 3.5 LOW COST FARMERS

### 3.5.1 GRAPH - COMPARISON OF YIELD FOR LOW COST AND AVERAGE



## 3.5.2 LOW COST FARMERS – THE PAST 10 YEARS

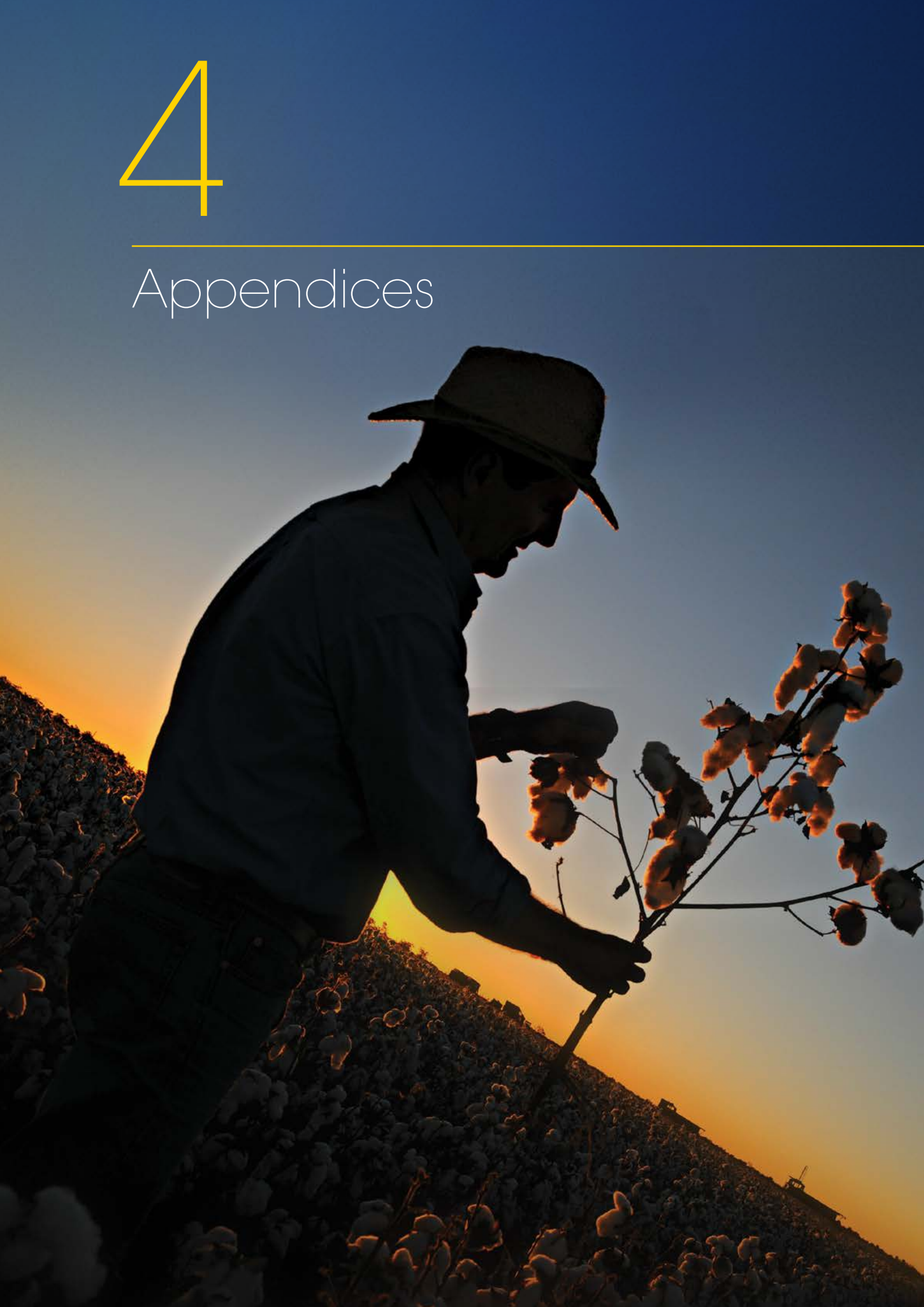
| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | **INCOME** | |
| 4,195 | 3,754 | 3,669 | 3,997 | 4,769 | 4,268 | 4,508 | 4,749 | 4,313 | Cotton proceeds - Lint | 4,444 |
| 393 | 382 | 757 | 871 | 1,078 | 718 | 440 | 382 | 302 | Cotton proceeds - Seed | 746 |
| (518) | (444) | (468) | (499) | (520) | (498) | (445) | (561) | (523) | Ginning | (604) |
| (32) | (26) | (35) | (34) | (46) | (30) | (29) | (31) | (28) | Levies | (51) |
| 0 | 103 | 106 | 123 | 0 | 0 | 350 | 9 | 27 | Cotton proceeds - Hail claims | 4 |
| **4,038** | **3,769** | **4,029** | **4,458** | **5,281** | **4,458** | **4,824** | **4,548** | **4,091** | | **4,539** |
| | | | | | | | | | **EXPENSES** | |
| 106 | 123 | 81 | 125 | 171 | 91 | 122 | 88 | 121 | Cartage | 100 |
| 88 | 130 | 98 | 99 | 144 | 123 | 129 | 116 | 80 | Chemical application | 132 |
| 54 | 52 | 43 | 63 | 60 | 79 | 69 | 58 | 49 | Chemicals - Defoliants | 48 |
| 139 | 60 | 121 | 97 | 193 | 89 | 108 | 69 | 66 | Chemicals - Herbicides | 99 |
| 206 | 281 | 132 | 67 | 26 | 140 | 80 | 61 | 47 | Chemicals - Insecticides | 74 |
| 5 | 2 | 4 | 6 | 4 | 5 | 11 | 10 | 5 | Chemicals - Others | 3 |
| 40 | 71 | 70 | 38 | 11 | 14 | 0 | 2 | 0 | Chipping | 1 |
| 49 | 55 | 55 | 49 | 64 | 62 | 57 | 38 | 35 | Consultants | 44 |
| 131 | 124 | 302 | 321 | 339 | 361 | 258 | 295 | 90 | Contract picking | 246 |
| 36 | 91 | 104 | 126 | 23 | 29 | 64 | 130 | 380 | Contract farming and ripping | 102 |
| 20 | 12 | 6 | 3 | 38 | 3 | 43 | 61 | 72 | Cotton picking wrap and sundries | 61 |
| 111 | 126 | 176 | 208 | 191 | 332 | 141 | 179 | 207 | Depreciation | 189 |
| 13 | 9 | 12 | 16 | 29 | 7 | 66 | 33 | 29 | Electricity | 21 |
| 141 | 312 | 188 | 169 | 174 | 518 | 296 | 448 | 410 | Fertiliser | 505 |
| 222 | 242 | 356 | 280 | 272 | 347 | 201 | 202 | 299 | Fuel and oil | 337 |
| 1 | 6 | 0 | 0 | 1 | 3 | 11 | 52 | 67 | Hire of plant | 70 |
| 83 | 121 | 244 | 195 | 228 | 148 | 141 | 119 | 45 | Insurance | 104 |
| 72 | 107 | 110 | 259 | 310 | 308 | 315 | 281 | 175 | Licence fee - Bollgard | 317 |
| 2 | 9 | 19 | 50 | 60 | 53 | 55 | 53 | 29 | Licence fee - Roundup ready | 67 |
| 9 | 11 | 30 | 26 | 33 | 33 | 18 | 15 | 28 | Motor vehicle expenses | 15 |
| 132 | 115 | 89 | 64 | 110 | 147 | 77 | 80 | 60 | R & M - Farming plant | 115 |
| 44 | 59 | 107 | 70 | 86 | 88 | 58 | 49 | 51 | R & M - Pumps and earthworks | 79 |
| 68 | 68 | 85 | 99 | 114 | 160 | 101 | 165 | 104 | Seed | 75 |
| 17 | 21 | 9 | 1 | 26 | 13 | 144 | 181 | 192 | Water charges | 308 |
| 224 | 245 | 415 | 273 | 659 | 286 | 285 | 287 | 193 | Wages - Employees | 319 |
| 46 | 36 | 62 | 29 | 0 | 49 | 7 | 22 | 33 | Wages - Proprietors | 13 |
| 33 | 29 | 43 | 32 | 66 | 43 | 38 | 48 | 42 | Administration | 56 |
| 38 | 44 | 60 | 56 | 80 | 43 | 65 | 38 | 97 | Other farm overheads | 62 |
| **2,130** | **2,561** | **3,021** | **2,821** | **3,512** | **3,574** | **2,960** | **3,180** | **3,006** | | **3,562** |
| **1,908** | **1,208** | **1,008** | **1,637** | **1,769** | **884** | **1,864** | **1,368** | **1,085** | **OPERATING PROFIT/(LOSS)** | **977** |
| | | | | | | | | | **ADD:** | |
| 46 | 36 | 62 | 29 | 0 | 49 | 7 | 22 | 33 | Wages - Proprietors | 13 |
| **1,954** | **1,244** | **1,070** | **1,666** | **1,769** | **933** | **1,871** | **1,390** | **1,118** | **FARM OPERATING PROFIT/(LOSS)** | **990** |

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

| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | **DEDUCT:** | |
| 389 | 379 | 976 | 711 | 76 | 1,418 | 333 | 345 | 543 | Interest and bank charges | 357 |
| 5 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | Interest - Crop terms | 0 |
| 394 | 386 | 976 | 711 | 76 | 1,418 | 333 | 345 | 608 | | 357 |
| **$1,560** | **$858** | **$94** | **$955** | **$1,693** | **($485)** | **$1,538** | **$1,045** | **$510** | **FARM NET PROFIT/(LOSS)** | **$633** |
| | | | | | | | | | **CROP RESULTS** | |
| 1,394.46 | 1,453.60 | 812 | 701 | 568 | 713 | 1,276 | 1,532 | 1,014 | Hectares of cotton grown | 1,934 |
| 13,481.96 | 14,042.00 | 7,886.50 | 6,847.50 | 5,676.00 | 6,535.00 | 11,428.00 | 14,857.26 | 9,539.47 | Total yield (bales) | 18,683.35 |
| 9.67 | 9.66 | 9.72 | 9.76 | 9.99 | 9.17 | 8.95 | 9.70 | 9.41 | Yield per hectare (bales) | 9.66 |
| $417.57 | $379.55 | $403.66 | $443.99 | $528.61 | $486.02 | $499.65 | $468.02 | $431.96 | Value per bale | $469.31 |
| $220.36 | $264.95 | $310.51 | $288.83 | $351.21 | $389.29 | $330.42 | $327.83 | $319.61 | Cost of production per bale | $368.46 |
| $197.21 | $125.28 | $104.07 | $167.74 | $177.40 | $96.73 | $208.27 | $141.11 | $115.23 | Operating profit per bale | $101.28 |
| 5.10 | 6.74 | 7.48 | 6.35 | 6.64 | 7.35 | 5.92 | 6.79 | 6.96 | Number of bales per hectare required to cover operating expenses | 7.58 |
| 6.04 | 7.76 | 9.89 | 7.95 | 6.78 | 10.26 | 6.59 | 7.53 | 8.37 | Number of bales per hectare required to cover total expenses | 8.35 |
| | | | | | | | | | **LABOUR** | |
| 171.25 | 242.27 | 162.30 | 280.54 | 94.67 | 237.50 | 168.91 | 283.74 | 368.71 | Number of hectares per permanent person (excluding proprietors) | 443.85 |
| | | | | | | | | | **AVAILABLE TRACTOR HORSE POWER** | |
| 604.79 | 393.36 | 514.76 | 399.38 | 510.56 | 561.40 | 306.11 | 279.82 | 427.01 | Tractor horse power per 500 hectares | 190.12 |
| | | | | | | | | | **AVAILABLE PICKING CAPACITY** | |
| 3.07 | 1.83 | 0.00 | 0.00 | 0.00 | 0.00 | 2.31 | 1.57 | 1.60 | Picker heads per 500 hectares | 0.48 |
| | | | | | | | | | **ROTATION** | |
| 73.82% | 66.72% | 49.29% | 39.21% | 70.42% | 35.09% | 70.67% | 33.99% | 19.32% | Percentage of the current years' crop being grown on fallow fields or new fields (developed within the last three years) | 23.82% |
| | | | | | | | | | **WATER USAGE** | |
| 10.54 | 9.19 | 9.00 | 9.00 | 9.00 | 9.00 | 8.67 | 10.45 | 7.53 | Megalitres per hectare | 7.30 |
| 1.09 | 0.95 | 0.93 | 0.92 | 0.90 | 0.98 | 0.97 | 1.08 | 0.80 | Megalitres per bale | 0.76 |

# 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 FOUR YEARS TO 2014

These figures represent the average of the annual results of farmers in each category of the comparative analysis, over a four 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 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 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.

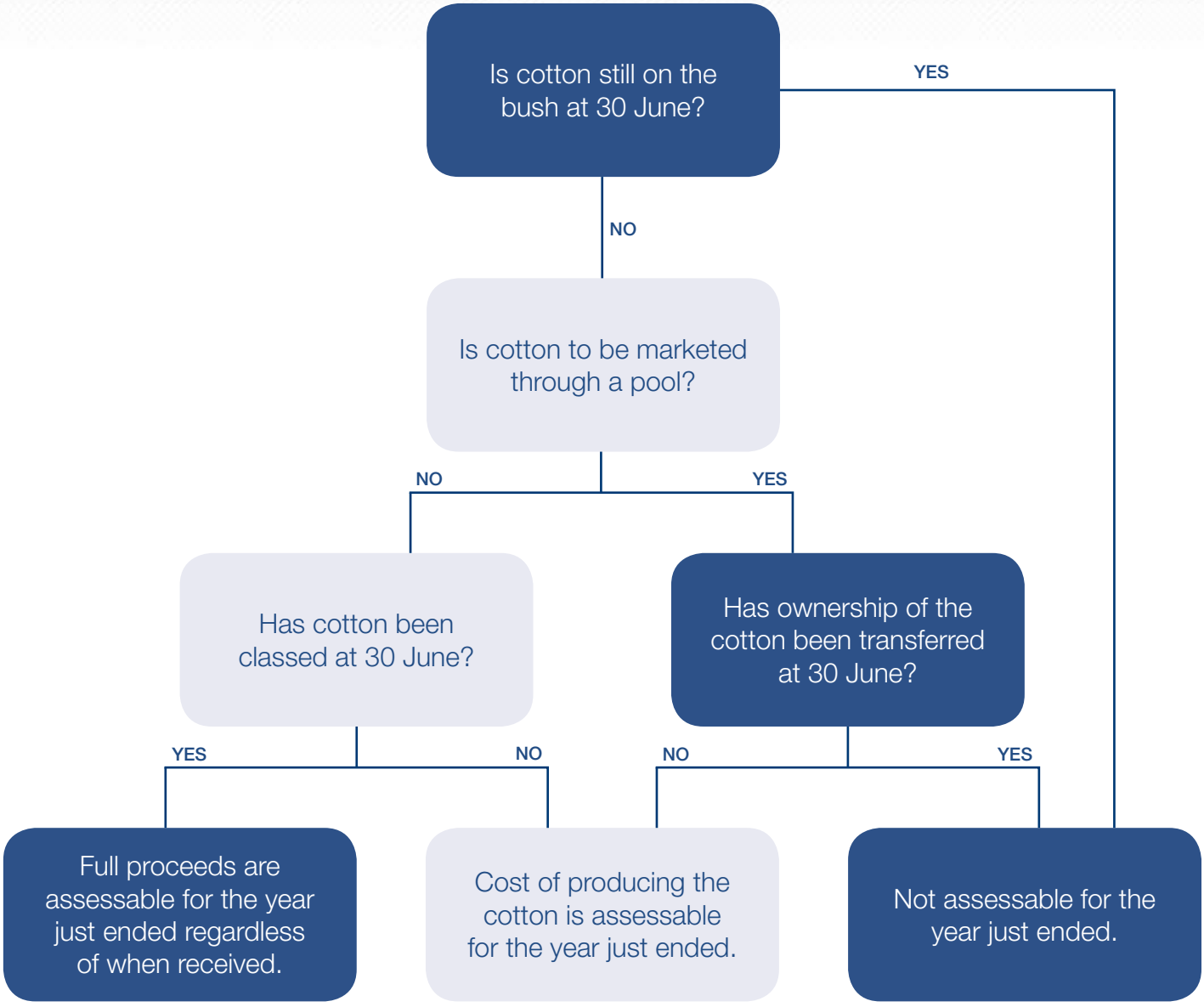
## EXPENSES

| | |
|---|---|
| Cartage | cartage (cotton module cartage, general cartage) |
| 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, 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:

- 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.

Australian Government

Cotton Research and Development Corporation

BOYCE CHARTERED ACCOUNTANTS


Cotton Research and Development Corporation

2 Lloyd St
(PO Box 282)
Narrabri NSW 2390

Tel: (02) 6792 4088
Fax: (02) 6792 4400
Email: crdc@crdc.com.au

www.crdc.com.au

Boyce Chartered Accountants - Moree

39 Albert Street
(PO Box 614)
Moree NSW 2400

Tel: (02) 6752 7799
Fax: (02) 6752 7130
Email: infomoree@boyceca.com

www.boyceca.com