

Positive outcomes from managing cotton price risk

By John Williams¹ and Tim Ada²

Fifty-seven per cent of cotton growers have indicated positive benefits from managing price risk. This was the major finding from a survey of cotton growers conducted recently by Tim Ada in a Masters research project at the University of Melbourne.

The area represented by the growers who participated in the study was approximately 12 per cent of Australia's total cotton acreage, with 70 per cent of respondents from Queensland and 30 per cent from NSW.

Some of the reasons cited as providing positive benefits were:

- Improved business planning;
- Income stabilisation;
- Cost control;
- Capital expenditure budgeting;
- Securing bank loans;
- Greater awareness of market signals; and,
- Increased farm profitability.

HIGH ADOPTION

The survey indicated that 95 per cent of cotton growers had used price risk management strategies at some time. Given the

perceived low adoption in other agricultural commodity industries, the survey sought to find reasons why cotton growers used different price risk management strategies, and what characteristics influenced those decisions.

Adoption of price risk management in cotton is higher than other agricultural commodities because of the industry's deregulated market and the immediate price discovery mechanism provided by the New York Cotton Exchange (NYCE). Australian cotton prices are benchmarked against the NYCE, and local prices closely track the New York futures price during the production and selling season. The NYCE therefore facilitates effective hedging, and the basis risk during hedging and pricing is small compared to most other commodities.

Despite indicating both positive and negative results from managing price risk, 22 per cent of the surveyed cotton growers stated that managing price risk registered no net change to their business. Each individual circumstance would need to be studied within this group before further conclusions could be reached.

On the downside, 21 per cent of growers noted that the management of 'price risk' had a negative impact on their business. But in many of these cases, the management of price was not necessarily the core issue, but rather the management of currency. Growers perceived the management of currency as a component of managing price risk, and any fall-out from currency transactions damaged their overall perception of price risk management.

While these growers cited 'variable advice' and lack of understanding as the main reasons for the negative outcomes, this group of growers needs individual investigation as to whether or not physical cotton prices were hedged as well as currency. It needs to be established whether 'variable advice' extended to both currency hedging and physical speculation. Because physical cotton speculation caused as much damage to growers as currency hedging during 2001-02, these two variables cannot be viewed in isolation.

PRODUCTION PROBLEMS

There were also production problems such as flood damage and subsequent drought during 2001-02, which meant some growers had trouble meeting contractual commitment to merchants.

Irrigated cotton growers represented 90 per cent of the growers surveyed and were more likely than dryland growers to use risk management strategies to minimise the impact of price falls, rising currency, and higher debt.

The study found that there was a higher usage of merchant forward contracts by irrigated growers (94 per cent) compared to dryland farmers (69 per cent). There was a tendency for some irrigators to forward price approximately 30 per cent of their estimated crop before planting, followed by another 30 per cent after crop establishment. Dryland growers only priced their crop after planting and establishment because of the risk of contract shortfalls.

The survey found that three quarters of cotton growers who regularly use forward contracts with merchants implemented their own

decisions such as pricing, timing, and quantity. Only 25 per cent sought external advice from merchants, consultants, and advisers. This means the majority of growers established forward contracts with no external advice, which has particular relevance during the critical 2000–02 period.

Because of the diversity of merchant forward contracts, the study did not distinguish between whether futures price, currency and basis were locked in or deferred in the contract. This would have indicated whether the grower was hedged or speculating on each component, and would have given more insight into the crucial 2000–02 period. This complexity within forward contracts needs to be resolved in a separate analysis with growers.

The survey did distinguish Call-Pool contracts from normal forward contracts because of subsequent management of futures price, currency and basis, after picking and delivering into a pool. These have particular relevance for dryland growers because all pricing decisions are made post-delivery.

This enables pool managers to offer growers a delivery in a subsequent year, if current shortfalls in production occur. While 85 per cent of dryland growers use

Call-Pool contracts to manage price post-delivery, less than 50 per cent of irrigated growers use them because of their post-delivery deferred pricing.

The study found that over 65 per cent of irrigated growers had used futures and/or options at some time, while less than 40 per cent of dryland growers had used them. This reflects lower production risk for irrigators, but it also may indicate that dryland growers have a tendency to use futures and/or options to manage price, in preference to forward contracts that require physical delivery to merchants and carry the risk of production shortfalls.

FARM SIZE

Farm size and income have an importance influence on the usage of futures and/or options contracts. The study found that growers with more than 1000 hectares of cotton have a 100 per cent usage of futures and/or options contracts.

Uptake also rises as farm income derived from cotton increases. Futures and/or options contracts are more important and effective in managing price risk for larger growers, or for those with a significant price risk exposure.

The study found nothing to indicate the

use of futures and options specifically to manage (hedge) futures price during 2000–02 contributed to the overall losses incurred by many growers. It found that the majority of those growers who regularly use futures and/or options contracts sought external advice from consultants, bank representatives and licensed futures advisers.

Only 12 per cent of irrigated growers and four per cent of dryland growers had used over-the-counter bank products (OTCs). The survey did not distinguish between swaps, floors, participating forwards, or collars. This low uptake is understandable, as banks did not retail OTC pricing products to general growers until 2001.

Some producers suggested that while the range of OTC products currently being offered by financial institutions provides for flexible alternatives, they are 'relatively costly to implement and more difficult to monitor'. But given that more flexible OTC products have only recently been introduced, a more detailed study is required to determine their effectiveness, understanding and uptake.

Average industry experience of the sur-

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◁ 45...RISK MANAGEMENT SURVEY

vey respondents was 18 years. The study found that there is only a marginal increase in understanding and confidence with forward contracts, futures and options, through industry experience.

However, there is a 100 per cent adoption of forward contracts by growers who have over 35 years experience. Less than five per cent of all cotton growers have undertaken any formal education or training in price risk management.

Regarding qualifications, 27 per cent of surveyed growers had an agricultural-related tertiary education. This is higher than

other agricultural industries in Australia. The study found that a higher education level meant a higher usage of forward market and pricing strategies.

All growers with tertiary qualifications have used forward contracts at some time, while 75 per cent have used futures and/or options contracts. This represents a 10 and 15 per cent higher uptake than the industry average.

While many growers have a good understanding of forward contracts, some growers stated that they lack confidence and knowledge of the futures and options markets. The survey found even among those growers who understood the management of futures

price, currency and basis, there was a general lack of knowledge in coordinating the three components of price, particularly when combined with production risk. As a consequence, isolated strategies on specific components of price often led to problems, particularly when delivery was inflexible.

FLEXIBLE MARKETING OPTIONS

But the survey also found that growers were extremely flexible in the adoption of different marketing, pricing, and hedging strategies. Seventy-two per cent of growers had used more than two price risk management strategies at some time, while 25 per cent had used three or more strategies. In addition, 78 per cent of growers alter their price risk management strategies each year, according to seasonal production, quality, and marketing conditions.

Because of its complexity, the timing and co-ordination of pricing and marketing strategies in conjunction with production risk was outside the scope of this study.

Some growers quoted a lack of time as the reason for inadequate price risk management and the dependency on external advice. But the problem for growers is compounded when they do not have sufficient knowledge and time to question the advice they may receive, and act on it with no clarification of their own individual circumstances.

It is made worse by making decisions in some instances based on emotions or reaction, and not objective analyses. Some growers also stated that managing price risk was too costly.

One general conclusion from the study was that cash flow and relatively low debt levels did favour the management of price risk.

As well, price risk management by itself cannot assure the long-term viability of growers. Growing cotton when market prices are below cost of production, just to generate cash-flow to pay off debt, is not a sound business practice.

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