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Farmer decisions about selling wheat and managing wheat price risk in Australia

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Abstract

Making farm decisions is difficult, especially making decisions about selling and pricing wheat in deregulated supply chains. This study, conducted prior to export deregulation, sought to identify which factors were important to northern New South Wales (NSW) wheat growers when they were making decisions about wheat selling and price risk, under production and market uncertainty. Key questions were about how they make these decisions and the implications, particularly for larger-sized farmers, merchants, end-users, bankers, advisors and trainers. The research aim was to test the behaviour of users and non-users of five selling methods and six pricing-hedging strategies against eighteen management and seventeen risk attitude-adoption questions.

Responses of growers were polarised in behavioural traits such as adoption flexibility, decision-support, the achievement of realistic target prices, and whether or not growers hedged-forward priced. There was no loyalty evident to the selling or pricing method except perhaps for speculative storage, which is a characteristic activity in deregulated supply chains. Reliance on a particular selling method was only apparent for users of cash sales at harvest-time. Data-information and market analysis were only very important to users when there were cash settlement outcomes. Perceptual questions relating to risk attitude were not helpful.

The findings from this research will assist understanding of farmer decision-making. Information about growers' decision processes on wheat selling and pricing will be helpful to supply chain intermediaries and service personnel in improving the targeting and alignment of growers.

More research is required on the cross-usage of different selling-pricing methods, the interdependence between discretionary costs of production and selling-pricing decisions, how speculative storage compares with on-farm rental storage of pre-sold product that integrates the farmer with the supply chain, and how speculative storage affects cash flow and debt repayment.

Key words: Selling methods, pricing-hedging strategies, uncertainty, risk attitude, adoption.

Introduction

This Australian study was conducted as part of wider research (Williams, 2009). It studied the effect of management and risk attitude characteristics on decision-making by wheat growers across the available domestic deregulated selling-pricing methods prior to export deregulation of the Australian wheat industry. Whilst selling and pricing decision-making is difficult because of the numerous variables within a dynamic supply chain (Johnson, 1952), so too are methods to study decision-making behaviour limited (Johnson, 1957).

A problem for any such study has been the disparity between wheat regions in Australia and non-periodicity between years (Williams, 2009), which suggests that it is difficult to establish a representative sample of growers in a year as being indicative of most years. Such regional disparities involve differences in weather, geographic-geomorphologic variations, farm enterprise specialisation-diversification, farm size and income (Kingwell, *et al,* 1992), whilst annual variations depend upon local weather and global supply-demand factors (Nerlove, 1958).

Despite these research limitations, it was deemed important to establish some management and risk attitude criteria upon which Australian wheat growers based their selling-pricing decision-making (Ohlmer, *et al*, 1998), so as to evaluate selling-pricing methods and categorise wheat growers. Pennings and Leuthold (2000) suggested that this was possible, thus enabling better alignment of selling-pricing methods to particular wheat growers. This would be expected to improve segmentation-targeting and increase management efficiency in a deregulated supply chain. It was a timely coincidence that Canadian researchers were examining the selling behavioural decision-making characteristics of corn-soybean farmers using a Myers-Briggs personality test (Xu *et al*, 2005).

Bond and Wonder (1980) conducted an indifference study that tested the risk attitude of Australian farmers to income variability. Their conclusion that farmers were risk averse was supported by Simmons and Rambaldi (1997) who claimed that this risk aversion caused the low adoption of price risk management, despite situations changing over time. Improvements in local futures markets, higher futures exchange liquidity, the consolidation of deregulated wheat supply chains, increased price volatility, higher dependency on wheat specialisation, and an increased range of pricing-hedging strategies have affected the risk perception and management practices by growers over time. As well, there has been a lead-time to the consolidation of local 'trade' markets (Williams, 2012).

Gray and Rutledge (1971) and Tomek and Peterson (2001) conducted extensive research linking the demographic characteristics of US grain producers with selling methods and pricing-hedging strategies. However, conclusions about farmer decision-making in the United States have little relevance to Australia because of its higher production risk, no subsidy protection, and no public underwriting of farm risk. Australian farmers operate under high risk of production, price, and income variability with little external assistance (Byerlee and Anderson, 1982). Bond and Wonder (1980) indicated that more Australian research was required.

Research conclusions were divided between those outcomes that may have been expected and those that were unexpected. Psychological polarisation occurred between those growers who speculatively stored after harvest and those that forward contracted before harvest. Whereas the users of the national export pool (single-desk) and cash sales at harvest were expected to be sceptical and incur major delays in the adoption of new ideas, paradoxically the opposite occurred. Despite the expectation of loyalty to selling methods, none was evidenced, with flexibility in personality traits predominating. Many conclusions were therefore unexpected. Dependence on any one particular selling method was only identified for cash sales at harvest, and that was because of the importance of cash-flow to reduce debt and meet operational needs.

Research method

The focus of interest with respect to Australian wheat growers regarding decisions on selling-pricing methods included what factors are important when making such decisions, how do they make these decisions, and what are the implications when choosing a particular method. Answers to these research questions would have benefit in a recently deregulated supply chain for farmers, merchants, bankers, trainers, and subsequent researchers.

The main study focused on wheat growers in northern NSW because of their medium-large farm size and their ability to double-crop in winter-summer due to dual-weather systems. It was considered that this would lessen the direct impact of cash-flow/income on selling-pricing decision-making, thus facilitating the evaluation of other factors. Farm size was a relevant factor, with 73 percent of the surveyed farmers below 5000 ha, whilst 40 percent were below 2000 ha.

The surveyed year 2005 was chosen with May-June planting and November-December harvest periods because it was characterised by above-average local production with falling global prices (FAO, 2006). It was positioned between the eastern Australian droughts of 2001-02 and 2006-07, suggesting that wheat growers were experiencing exposure to decision-making extremes regarding price, production, income, and risk within a short time-frame, and therefore may have been more aware of their different decision-making processes.

Eighteen management questions were adapted from Shapiro and Brorsen (1988), Sartwelle, *et al* (2000), Pennings and Leuthold (2000), Goodwin and Schroeder (1994), and Musser, *et al* (1996). The seventeen risk attitude-adoption questions were adapted from AFFA (2003), Rogers (1983), Nuthall (2001), Fausti and Gillespie (2006), and Marshall, *et al* (1996).

These questions were analysed against the available selling-pricing methods, which were divided into five selling methods and six pricing-hedging strategies. The five selling methods studied were the National export pool (single-desk), farmer storage (either warehoused or on-farm), forward contracting (either with a merchant or end-user), cash sale at or near harvest, and privately-managed pools (either by private companies or co-operatives). Pricing-hedging strategies included over-the-counter (OTC) bank pricing products, futures hedging through futures advisers, futures hedging through futures brokers, merchant forward pricing products offered to growers, private pool price management, and 'do-nothing' such as no forward selling or pricing-hedging.

The ninety-six question survey resulted in forty NSW wheat grower returns from a general survey population of 277 (14 percent response rate). Survey timing was seriously disrupted by the 2006 drought with much earlier harvesting than expected, together with grower anxiety over production-yield outcomes. This survey response may be compared with Musser's Canadian behavioural study (Musser *et al,* 1996) with 62 survey returns from a targeted top-farmer established group (75 percent response rate), but contrasted with much larger non-behavioural US surveys that were more focused on singular factors influencing selling method and hedging strategy selection under less adverse production conditions (Goodwin and Schroeder, 1994, had a response rate of 26 percent from a sample size of 1963 farmers; whereas Sartwelle *et al*, 2000, achieved a response rate of 23 percent from 1495 farmers). However, in terms of survey populations and returns, a similar 1993 Canadian behavioural decision-making study had only forty usable responses from actual workshop participants (Xu *et al*, 2005), while the AFFA (2003) Australian-wide behavioural study had only forty survey returns for NSW grain growers from a total survey population of 229 Australian grain growers. Surveys on farmer behavioural decision-making in both Canada and Australia have generally resulted in much lower survey response rates than US surveys because of the uncertainties caused by much higher production risk and the complexity of the psychological focus of the survey questionnaire.

The Fisher (1922) Exact Test was used in the analysis because exact inferences based on categorical (non-continuous) data could be developed (Agresti, 1992), the sample size was small, there was unevenness of the response data, the appropriateness of a 2 x 2 contingency table (Graubard and Korn, 1987), and the number degrees of freedom was always one. Even with a larger sample size, the Fisher Exact Test would still have been adopted because of the two groups (users versus non-users) for comparison (Fisher, 1934).

The Fisher Exact Test determined whether there were non-random associations (significance of association) between two selected variables (users and non-users). To achieve mutual exclusivity between the variables, users of the particular selling method or pricing-hedging strategy were tested against non-users for the eighteen management factors and seventeen risk attitude-adoption factors.

The Two-Tail test for p-values was used because there was no indication of prior negative or positive association between the independent variables. This meant that User > Non-User was tested as well as Non-User > User. Critical P values were based at 0.1 because this is a common level for determining

statistical differences in the Fisher Exact Test (Yates, 1984). The groups analysed were summarised as follows:

- a = Users who agree with the question
- b = Non-users who agree with the question
- c = Users who disagree with the question
- d = Non-users who disagree with the question

The **null hypothesis** stated that no difference exists between the average-mean scores of the two groups (user and non-user of the selling method or pricing-hedging strategy).

Ho : No significant difference between the user and non-user groups (equal or > p-value of 0.10)

H1 : Significant difference between the user and non-user groups (< p-value of 0.10)

In the Fisher equation outlined below, the cells are represented by the letters *a, b, c* and *d*, the totals across rows and columns are referred to as marginal totals, and the grand total was represented by *n*. Fisher showed that the probability of obtaining any such set of values was given by the following hyper-geometric distribution:

$$p = \binom{a+b}{a}\binom{c+d}{c} \Big/ \binom{n}{a+c} = \frac{(a+b)!(c+d)!(a+c)!(b+d)!}{n!a!b!c!d!}$$

where the symbol ! indicates the factorial operator.

Research results

The full research results are included in Williams (2009). The results are summarised as follows:

National export pool users (single-desk) were:

- less likely (p = 0.09) to need data-information
- less likely (p = 0.09) to undertake analyses before making a decision
- less likely (p = 0.06) to be reluctant-sceptical in adoption of new selling-pricing ideas
- less likely (p = 0.03) to experience major delays in the adoption of such new ideas
- less likely (p = 0.06) to separate selling from pricing-hedging

Storage users were:

- more likely (p = 0.05) to make decisions alone
- more likely (p = 0.06) to make decisions spontaneously
- more likely (p = 0.06) to change their risk attitude depending on their role
- more likely (p = 0.06) to be reluctant-sceptical in adoption of new selling-pricing ideas
- more likely (p = 0.01) to perceive that they achieve realistic targeted prices

Forward contract users were:

- less likely (p = 0.07) to 'hope' for high final prices

Cash sale at harvest users were:

- less likely (p = 0.06) to be very reluctant-sceptical in adoption of selling-pricing ideas
- less likely (p = 0.02) to have regret and avoidance over past decisions
- less likely (p = 0.06) that basis risk management was important to farm income

Private pool users were:

- less likely (p = 0.09) to take time and examine all aspects first when making decisions
- more likely (p = 0.06) to agree that locking in a forward price acts as an incentive to lower variable costs of production.

Users of merchants were:

- more likely (p = 0.03) to agree that the management of currency was important

Users of bank pricing products were:

- more likely (p = 0.04) to separate physical selling from hedging-pricing
- more likely (p = 0.001) to perceive an external adviser as important in decision-making
- less likely (p = 0.08) to have major delays when adopting new ideas
- more likely (p = 0.02) to achieve a realistic target price
- more likely (p = 0.08) to need data-information and to analyse decisions beforehand.

Users of futures advisers were:

- more likely (p = 0.07) to change their risk profile depending on their role
- more likely (p = 0.0008) to perceive an external adviser as being important
- more likely (p = 0.02) to be venturesome and take risks with new ideas
- more likely (p = 0.07) to acknowledge that training contributed to a better performance
- more likely (p = 0.03) to separate physical selling from pricing was important

Growers who did not hedge-forward price were:

- more likely (p = 0.065) to be very reluctant-sceptical in the adoption of new ideas
- more likely (p = 0.031) to incur major delays in the adoption of new ideas
- less likely (p = 0.048) to be venturesome or take innovative risks
- less likely (p = 0.096) to change their risk attitude depending on decisions
- less likely (p = 0.048) to change their risk attitude depending on their role
- less likely (p = 0.054) to acknowledge training contributed to a better performance
- less likely (p = 0.006) that external advisers were important when making decisions
- less likely (p = 0.048) to acknowledge that their target price was realistic
- less likely (p = 0.082) to acknowledge a need for data-information or analysis

The research method deliberately avoided perceptual questions such as whether growers were risk-takers or risk averse. Questions on risk behaviour focused on outcomes, changes, and roles. However, none of these revealed any significant differences between users and non-users of particular selling-pricing methods.

Discussion

Users of the various selling methods and pricing-hedging strategies are profiled as follows:

National export pool users (single-desk). Perceptions of no need for data-information and analyses before making such decisions might suggest that many used the export pool for convenience. There were other choices available, such as delivering into the deregulated domestic market. The results do support the idea of some growers to use the export pool as the market of ‘last-resort’.

Little reluctance or scepticism about adopting new selling-pricing ideas and no major delays in the adoption of such new ideas suggests some flexibility in thinking about selling decision-making rather than dependency on the export pool. Such openness was unexpected in the results, and this diminishes the argument of loyalty to a particular method.

National export pool users have traditionally used a selling method that combined selling with a delayed average pricing mechanism. A pooled selling method is characterised by the transfer of selling and pricing decision-making to a pool manager. Under such circumstances, the grower would perceive no necessity to separate selling, pricing, or hedging, and the results supported this perception.

The question arises as to what has occurred since export deregulation in 2008, which may reflect these findings. Use of commodity pools has continued, but questions of loyalty and dependence have been replaced by choice. Private pools may be more discriminatory on intake quality, which has driven quality improvement in lieu of selling as last-resort, but only when this is agronomically possible. Growers are seemingly more focused on competitive pricing, and some will use private pools to enhance price rather than attempt to do so as individuals.

Storage users. A large psychological difference existed between a farmer who forward-sold priced to a merchant end-user and a farmer who frequently stored after harvest in the expectation of price rises. Those that stored speculatively were more likely to make decisions alone with spontaneity, without consulting their spouse, business partner, or external adviser. Spontaneous decision-making is the antithesis of group decision-making, and the results support this. It suggests that withholding commodity from the supply chain is likely to reflect an independent orientation.

The results suggested that speculative storage users can be very risk-averse with their families but be high risk-takers with farm-business decisions, although it could be argued that high income risk is the common factor in all three family-farm business roles. There may be some contradiction in perceived psychological traits amongst speculative storers, but evidence would require further research.

Those growers who stored speculatively were more likely to be very reluctant-sceptical in adoption of new selling-pricing ideas. This was the opposite psychology to those who used the National export pool, which suggests the possibility of polarised decision-making characteristic traits between those growers who pooled and those that stored. It also suggests that speculative storers may have barriers towards any change towards other selling-pricing methods. This has important advisory and training implications.

An unexpected result was that speculative storers were extremely likely to perceive achievement of realistic targeted prices. This introduces subjectivity in defining 'realistic', and much may depend on production costs, price volatility, and previous outcome performances. It might be expected that some growers might have totally unrealistic targeted prices, whereas other growers might have no targeted prices. More research is required to determine how these target prices for the speculative storer are formulated, and why these storers are not taking advantage of buying call options to enhance price whenever prices rise.

Forward contract users. Generally the results suggested that growers who forward contracted had many of the opposite decision-making character traits to a speculative storer. Being more likely to take advantage of earlier good pricing opportunities and less likely to 'hope' for high final prices may be perceived to be tautological.

The importance of these findings to advisory-training regarding managing wheat price risk is that growers who store speculatively are unlikely to convert to forward selling-pricing, whilst growers who forward sell-price might have difficulty in speculative storing, particularly when it involves no cash flow. Any advisory and training activity needs to be aimed at specific groups.

Cash sale users. Being very reluctant-sceptical in adoption of new selling-pricing ideas may simply reflect the need for cash sales to generate urgent cash-flow rather than from any habit or lack of knowledge about other selling-pricing methods. This proposition is supported by cash sale users experiencing significantly less regret over past decisions and less concern to avoid repeating bad decisions. Cash flow is paramount for debt-burdened growers.

A cash sale at harvest is the antithesis of managing basis risk after harvest. Cash sales involve a 'flat' price transaction that fixes all three price components (futures price, basis, and currency). Whereas it is

possible to manage basis separately in a forward contract, it is impossible to manage basis separately in a cash sale. The results reflect how growers place less emphasis on basis management in a cash sale, particularly at harvest time.

Private pool users. Growers who used private pools may have time constraints, particularly at harvest-time and/or they perceive that other managers might be better in making selling-pricing decisions. The delegation of responsibility is a characteristic of this selling method. There was no survey question about loyalty to a particular pool or whether growers monitored-benchmarked the outcome performance of competing private pools.

Unexpectedly, private pool users were more likely to agree that locking in a forward price acts as an incentive to lower variable costs of production, despite commodity pools generally averaging price over a period of time. Not even forward contract users acknowledged this association. Some private pool users might use some estimate of final pool price to manage their discretionary variable costs, but the reason why this did not occur with other growers was not readily explainable. The relationship between having forward price estimates and discretionary variable cost management requires further research.

Users of futures brokers. There were no significant differences found between users and non-users of futures brokers regarding management decisions and risk attitude-adoption issues. Although feedback suggests that usage of Australian futures brokers has increased since 2005, the low usage of futures brokers amongst survey respondents may have resulted in responses that are not indicative of current users. However, the major shake-out in the Australian agricultural futures broking industry since 2007-08 has complicated such research on current users.

Users of merchants. Users of merchants were highly likely (in the surveyed year) to agree that the management of currency was important to farm income. Such survey outcomes may depend on the circumstances at the time. Merchants were offering hedged-to-arrive (futures-first) contracts in 2005 which required growers to lock in the forward Chicago wheat futures price and currency together. Basis remained unfixed, which resulted in growers speculating on basis only. The importance of currency to growers might be expected to depend on currency trends and volatility at the time of the survey. Since 2007-08, Australian merchants have discontinued with such flexible forward contracts; however, the results do indicate that some growers place a high priority to the impact of currency movement on farm income, albeit in different years.

Users of banks. The perception of importance in separating physical selling from hedging-pricing by users of bank pricing products was understandable because bank pricing products required cash settlement rather than physical delivery. As well, given that it was mandatory to have the approval of a futures adviser before using bank pricing products, the perception of an external adviser as being important when making decisions was consistent with reality.

Users of bank pricing products were unlikely to have major delays when adopting a new idea, which was to be expected given the newness of these products. This adoption outcome had commonality with users of the national export pool and cash sales at harvest, but these selling methods involved little or no adequate price risk management, whereas the sole justification for using bank pricing was price risk management. It is possible that some users of the national export pool and cash sales at harvest use bank pricing products to complement their physical selling activities. However, more research is required to establish such cross-usage of selling-pricing methods, with the outcome expected to vary annually.

Growers who used bank pricing products were more likely to achieve a realistic target price, which was a similar outcome to speculative storers. However, a third method to achieve a realistic target price through the use of buying call options was included in the survey; however, the usage of this strategy was too limited to gain any meaningful outcomes in the study. There are important differences in outcomes, such as speculative storage delaying cash flow, incurs possible quality losses, and has major price risk, whereas bank pricing products complement cash sales at harvest time with no quality losses or post-harvest price risk. The major obstacle to using buy call options has generally been the premium cost.

Users of bank pricing products are more likely to need data and information and to analyse decisions beforehand, probably because of the risk involved with cash-settlement. Such growers are therefore more likely to be analytical in their personality trait. Bank pricing was the only selling-pricing method surveyed that required growers to have data and information and to analyse decisions beforehand.

Users of futures advisers. Users of futures advisers had decision-making flexibility in that they were more likely to change their risk profile depending on their role in family, farm, and business. They were extremely likely to perceive an external adviser as being important, though not essential, when making decisions.

Users of futures advisers were highly likely to be venturesome and take risks when new ideas had been perceived. However, they were more likely to acknowledge that more training would have contributed to a better performance.

Similar to users of bank pricing products, users of futures advisers were more likely to acknowledge that the separation of physical selling from pricing was important. This suggested that there was a clear demarcation between what was being sold and what was being priced.

No hedging or forward pricing. It might have been expected that many growers who did not hedge-forward price were doing so because of high production risk. However, the results also showed significant differences in personality traits for growers who did not hedge or undertake any forward pricing strategy.

There was reluctance-scepticism and major delays in the adoption of new ideas by growers who did not hedge or forward price. The lack of being venturesome or taking innovative risks when new ideas had been perceived suggested some lagging of response, and that training might eventually overcome such resistance. However, flexibility was an issue.

These growers who did not hedge or forward price were also less likely to acknowledge that they changed their risk attitude depending on the outcome of decisions. This may indicate inflexibility in decision-making that may be due to a reluctance or scepticism in the adoption of new ideas, rather than a lack of regret over past decisions or avoidance of certain strategies. Evidence of inflexibility was found when these growers were less likely to acknowledge that they changed their risk attitude depending on their role regarding family, farm, or business. This inflexibility in a personality trait regarding change and risk attitude might erode the effectiveness of any training program for these particular growers.

The results might suggest that the idea of hedging-forward pricing was perceived as a new idea, and therefore there was reluctance or scepticism, as well as a lack of risk-taking and flexibility, which prevented any adoption of hedging-forward pricing. Training might overcome the scepticism about a new idea, but is unlikely to overcome reluctance to change, the lack of risk-taking, or inflexibility in personality traits. This was supported by the finding that growers who did not hedge or forward price were less likely to acknowledge that training would have contributed to a better performance. It was also supported by the finding that growers who did not hedge or forward price were highly unlikely to acknowledge that an external adviser was important when making hedging-pricing decisions.

If the characteristics of personality traits prevented growers from hedging or forward pricing, it may become a real problem when these growers admit that they were less likely to achieve a realistic target price. The problem might be that their targeted price was set too high, or their production costs forced them into aiming for an unrealistic price, or simply because prices were extremely low. Regardless, the reluctance to hedge or forward price whenever opportunities arise might explain why these growers seldom achieve attainable target prices.

The results found that these growers were less likely to acknowledge that there was a need for data-information or to analyse decisions. It becomes difficult to assist growers who perceive a problem but do not perceive the need for a solution. If growers who did not hedge-forward price were experiencing problems of financial viability because targeted prices were unrealistic, a solution might lie in improving the data and information that is provided, and developing skills to analyse decisions, but only if there is a willingness to do so. A solution might lie in involving other family members, with or without farm succession outcomes. Spouses or issue can provide balance to perceptions and preferences of their partners or parents, helping to achieve a better outcome in farm decision-making.

Conclusions

The division between flexibility and inflexibility, and risk avoidance and risk taking were the main dividing lines amongst wheat growers. Generally, growers were flexible, open to new selling-pricing ideas and attempted to minimise exposure to price and production risk, except for those risk-taking growers who did not hedge or forward price, including those who speculated on storage.

Successful supply chain integration and service provision might be expected with growers who have the flexibility to manage risk and are able to separate the functions of selling and pricing, compared to those growers who speculatively store, have no interest in hedging-forward pricing, and use physical selling as their prime pricing method. There is a polarization between the two grower groups, which may explain why inflexibility leads to speculative storage rather than a cash sale plus buy calls.

The research method identified decision-support (spouse, partner, business, external adviser) as important for all selling-pricing decisions, except for those speculatively storing whose decision-making was done in isolation. Aiming advisory and training efforts at growers who do not speculatively store is likely to achieve more successful advisory-training outcomes, whereas resistance is likely whenever personality traits are innate.

Despite an apparent emphasis in the grains industry on the need for data, information and market analysis, the study found that this was only important for growers using bank pricing products. This might support a proposition that farmers are inundated with far too much data and information which they cannot manage. Relevant market data and information is seemingly only highly important when cash settlement occurs, such as with bank pricing products.

The study identified two selling-pricing methods that supposedly achieved realistic target prices, which has important advisory and training implications. Users of bank pricing products and speculative storage both claimed to achieve a realistic target price, which again suggests polarization of growers. However, there is a research problem in identifying what is 'realistic', how the target price was established, and whether such pricing varies annually under different supply chain conditions. More research is required on these aspects.

Other future research areas include how discretionary costs of production affect selling-pricing decisions, and whether locking in a forward price can act as an incentive to control variable or discretionary costs of production. If speculative storage is to be a main characteristic of deregulated supply chains after the devolvement of single-desk selling, more research is required as to the impact on supply chains and grower viability. Questions include comparing speculative storage with on-farm rental storage of pre-sold product that integrates the farmer with the supply chain, and how the former affects cash flow and debt repayment. There is a need for a better understanding of cross-usage of different selling-pricing methods, particularly for more flexible growers.

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