



Specialist research for decision makers

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A 12 489 485 556

26-30 Station Street,
Sandringham. 3191
Victoria, Australia
Telephone:(03) 9521 9288
Facsimile:(03) 9521 9422
Email: admin@tqaresearch.com.au

Conducted for Insurance Council of Australia

in conjunction with

Ernst and Young

Primary Contacts : Mr. Ray Willing, Ernst & Young
Ms. Beth Moore, Ernst & Young

**Research Design and
Report Author:** Tony Quint

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Marketing Feasibility Study:

Multi-Peril Crop Insurance

October 2000

Executive Summary

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Your Consultant: Tony Quint



TQA Research Pty. Ltd.
28-30 Station Street, Sandringham, Vic. 3191
Ph: (03) 9521 9288 - Fax: (03) 9521 9422
e-mail: admin@tqaresearch.com.au

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Also available as separate documents:

- PowerPoint Presentation of Key Findings
- Appendix of Survey Tabulations



1. Executive Summary

Objective

The primary objective of this project is to estimate the likely uptake of Multi-Peril Crop Insurance (MPCI) among Australian grain growers, with particular emphasis on:

- ❖ Price elasticity aspects (how demand will vary with price)
- ❖ Identifying barriers to purchase and possible product improvements

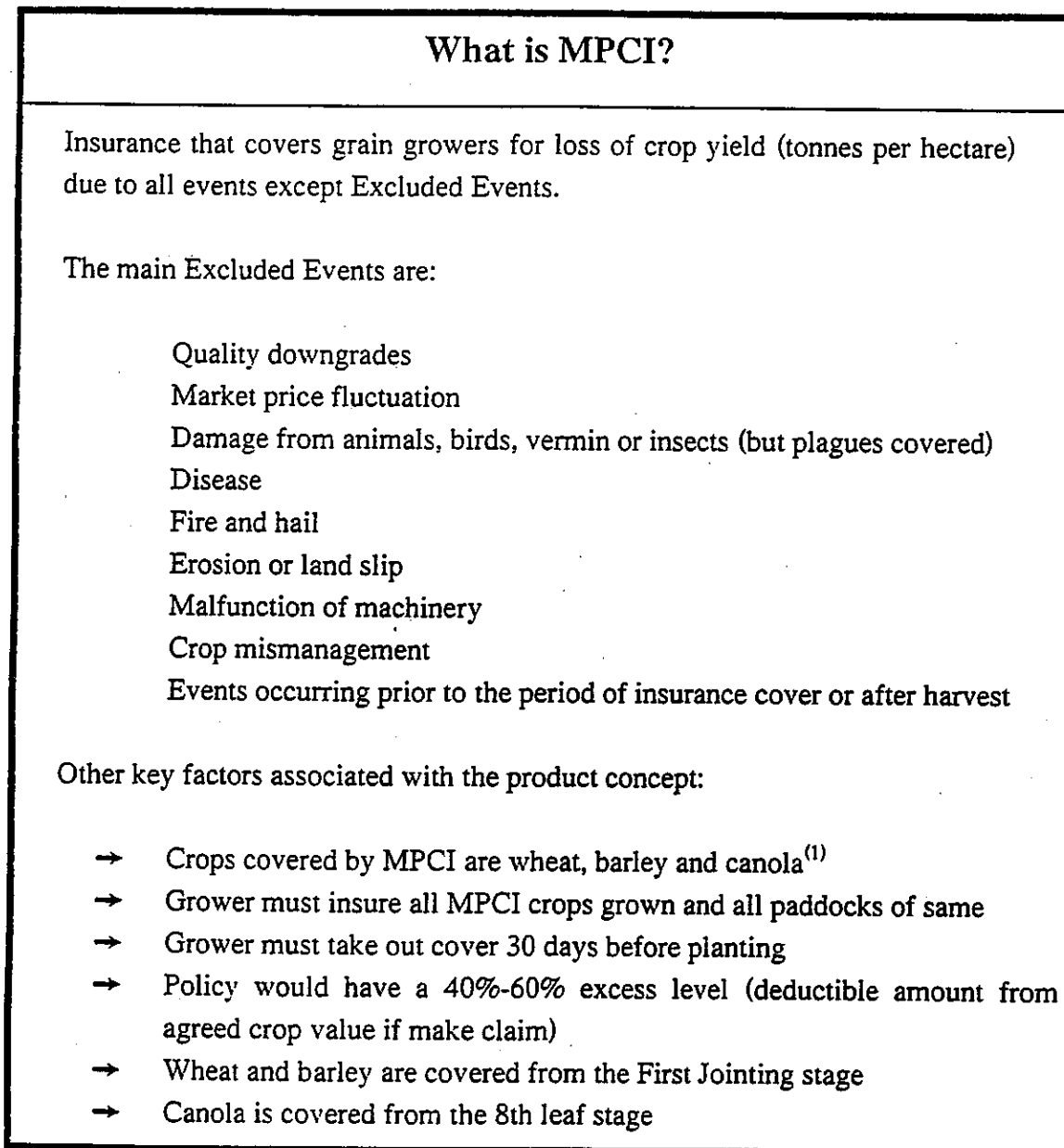
Secondary objectives include:

- ❖ Whether MPCI concept difficult to understand
- ❖ Aspects *liked* and *disliked* about MPCI
- ❖ What *expect* to pay for MPCI
- ❖ Whether excess levels regarded as acceptable
- ❖ Whether having to take out cover 30/60 days prior to planting is acceptable
- ❖ Whether period of cover acceptable (e.g. wheat/barley from first jointing)
- ❖ To what extent inclusion of crop quality downgrades would increase appeal of MPCI
- ❖ Best communication channels for MPCI
- ❖ Extent to which growers have experienced substantial yield losses (40% or more) in the last three and five years

The MPCCI concept

In simple terms, MPCCI would allow grain growers to insure against all events except Excluded Events. Key features of the MPCCI product concept tested in this research are summarised in Figure 1.

Figure 1



⁽¹⁾ Lupins would also be covered, but was not included in this study, as premium rates were not available.

A full description of the MPCCI product concept, including 'workings' and formulae for claim settlement, is provided in Appendix 2 of the Main Report.

Methodology

A three-stage methodology was employed:

Stage 1 Random telephone recruitment of grower review panel (690 growers) - 52% of 'invitees' agreed to participate.

Stage 2 MPCCI concept mailed to growers (with all details excluding premiums).

Stage 3 Telephone follow-up interviews to gauge reaction, including disclosure of premiums:

- 513 full interviews achieved
- computer-assisted interviews (programmed for different MPCCI premiums in each Shire of the grain belt)
- 27 minute interview

Sample quotas were set to ensure adequate sample was obtained in each of the five agroecological regions. Structure of final sample is provided in Table 1.1 (overleaf).

Table 1.1

| Sample Structure (unweighted) | n | % |
|--|------------|-------------|
| Total | 513 | 100% |
| Region (Agroecological Zone) | | |
| 1. Central & SW QLD/NW NSW | 111 | 22% |
| 2. NE NSW/SE QLD/NSW Slopes | 100 | 19% |
| 3. Central NSW/SA & VIC Borders/Wimmera | 71 | 14% |
| 4. SA Mid North/Eyre/Yorke/SA & VIC Mallee | 101 | 20% |
| 5. WA | 130 | 25% |
| Crop Hectares | | |
| Up to 500 | 163 | 32% |
| 501 to 1000 | 180 | 35% |
| Over 1000 | 166 | 32% |
| % of Farm Revenue from Cropping | | |
| 85%+ | 144 | 28% |
| 50-84% | 281 | 55% |
| Less than 50% | 88 | 17% |

The final sample was weighted at data processing stage to reflect the actual geographic spread of grain enterprises by State.

Further details on methodology are provided in Section 3 of the main report.

Key Results

If we had to summarise this comprehensive study in a few salient points they would be these:

- ⇒ TQA Research would expect the MPCCI concept evaluated in this study to be taken up by 18% of grain growers (best estimate), with an estimated range of penetration between 10% and 26%. This penetration would arguably take a period of three years, unless 'mass' marketed.
- ⇒ There are no significant differences by region, although several measures indicate demand is likely to be a little higher in Region 1 (Central & SW Queensland/NW NSW), where the climate and rain fall is less predictable and MPCCI premiums are higher.
- ⇒ The MPCCI concept is very difficult to understand for 25% of growers. Further attempts to simplify the concept are justified.

- ⇒ MPCI ideally needs to include fire and hail cover. Many growers don't want two policies.
- ⇒ Having to insure 30 days before crops are planted will deter many growers – perhaps halving demand versus what it could otherwise be. This requirement is not seen by growers as being practical, as many do not know when they will sow until one or two days beforehand. A requirement to insure 60 days prior to planting should definitely not be contemplated.
- ⇒ Excluded events are not well remembered by growers, but this does not seem to have substantial impact on latent demand.
- ⇒ A substantial 38% of growers would like cover to commence earlier in the crop growth cycle, with roughly equal proportions nominating when the crop is sown and when the crop first emerges from the ground as their preferred commencement points.
- ⇒ Involvement of *local* brokers and agents will be *critical* to the success of MPCI.
- ⇒ Overall, there is no doubt the MPCI concept can be fine-tuned to be more attractive to growers. However, enhancements may push up premiums, which in turn could have a negative impact on demand.

In sum, grower response is quite positive. There is firm latent demand for the product concept, as tested, without it being a 'runaway success'. Product fine-tuning is definitely required.

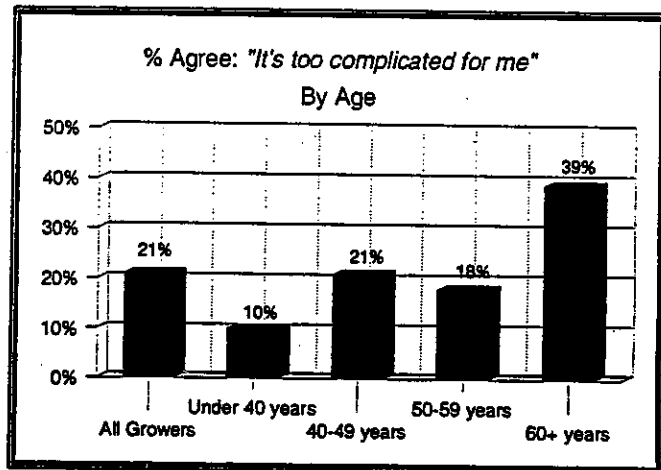
A little More About the Findings

Is concept difficult to understand?

Around one in five (21%) of growers completing the full interview readily admitted that the MPCCI concept "is too complicated for me".

The 'true' proportion of growers who would find MPCCI difficult to understand will be higher - arguably around 25-30% - simply because some farmers will have been deterred from participating in this survey because of confusion and complexity associated with the product concept forwarded to them.

Older growers are particularly confused, while only 10% of those under 40 years of age have a real problem in this regard (see adjacent chart).



It was primarily the calculations and formulae relating to claims, and aspects relating to exclusions and interpretation of same which caused most confusion.

Simplification of the MPCCI concept is warranted, although this will be quite difficult given the nature of the product.

For more details see Sections 5 & 13 of main report

Likes and dislikes associated with MPCJ

The main likes associated with MPCJ were:

| Things Liked About MPCJ (Q12.) | % |
|--|------------|
| Net mentioning cover against uncontrollable situations | 31% |
| • Cover against frost damage | 13% |
| • Cover against unpredictable/extreme weather/natural disasters | 10% |
| • Cover against drought/long dry spells | 15% |
| • Cover against heavy/unreliable rainfall | 4% |
| • Cover against mice/rodent plagues. | 2% |
| Net mentioning cover cost/guarantees some income/next year's crop | 26% |
| • Cover high cost of cropping/inputs expensive/recoup costs | 14% |
| • Guarantees some income/cash flow | 11% |
| • Covers replanting costs in following year/ensures next crop | 3% |
| • Comprehensive cover/covers wide circumstances | 13% |
| Like the concept/good start/on the right track | 12% |
| Complete crop failure cover/severe loss of yield cover | 11% |
| Reduces risk/lowers risk factor of cropping | 11% |

The following table outlines *dislikes* associated with the MPCJ concept:

| Things Disliked about MPCJ (Q13.) | % |
|--|------------|
| Net mentioning problems with exclusions/coverage | 34% |
| • Does not cover hail and fire (want a single policy - not two) | 23% |
| • Too many restrictions/exclusions/cover not broad enough | 10% |
| • Flood insurance from waterways not covered | 2% |
| • Insect damage/locusts not covered | 2% |
| • Does not cover wind damage | 2% |
| • Does not cover diseases | 1% |
| • Bird damage not covered | 1% |
| • Does not cover erosion/land slip | 1% |
| Perceive will be too expensive (before any price disclosed) | 20% |
| Net mentioning excess/deductible amount too high | 19% |
| • Excess too high | 17% |
| • Does not cover for cost of production | 2% |
| • Need to get more money back (75-80%) | 2% |
| Must insure all relevant crops/all paddocks/no choice | 14% |
| Having to take out insurance 30 days before planting/deciding too early | 10% |
| Who arbitrates on agreed value/assessment of yield/good for management | 7% |
| No crop cover during first growth stage/cover starts too late | 4% |
| Too complicated/method of calculations/yield, loss and claim calculations | 4% |
| Not trusting of new concepts/open to rorts | 4% |
| Just don't like it - not interested | 3% |
| Live in fairly stable/reliable area: not necessary | 2% |

The above findings emphasise the importance of:

- Incorporating fire and hail cover with MPCCI
- Reviewing the necessity for insurance to be taken out 30 days prior to planting
- Explaining clearly why all relevant MPCCI crops and all paddocks of each crop need to be covered in the policy (some growers think this is a bit of a 'trick')
- Establishing whether a product with lower excess levels (and higher premiums) would appeal

For more details see Section 7 of main report

Likelihood of uptake if premiums reasonable and reasons for same

Leaving premiums (price) aside, 52% of growers said they were likely (*very likely* or *fairly likely*) to take out MPCCI if the cost was reasonable - an encouraging result.

A market projection based on this response alone would be around 21% penetration, based on 'believing' all of those saying *very likely* and one quarter of those saying *fairly likely* - a formula which as worked quite well on many previous TQA Research assignments.

| How likely to take out MPCCI if premiums reasonable? (Q10.) | |
|---|------------|
| Response | % |
| Very likely (a) | 11% |
| Fairly Likely (b) | 41% |
| NET LIKELY | 52% |
| Not too likely (a) | 30% |
| Not likely at all (d) | 17% |
| NET NOT LIKELY | 47% |
| Projection (a+0.25b) | 21% |

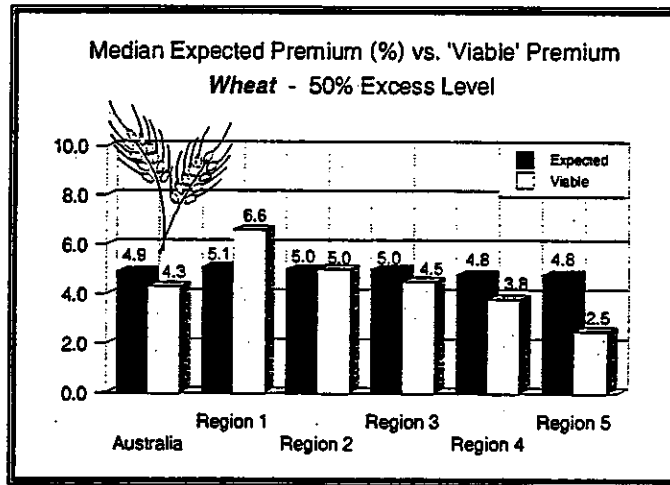
Among those stating they were *not likely* to buy if the price was reasonable, seven key reasons were mentioned:

| Reason not likely to buy | % of those unlikely to buy mentioning |
|---|---------------------------------------|
| Don't like exclusions/insurance coverage | 25% ⁽²⁾ |
| Live in fairly stable area/reliable area/not required | 22% |
| Excess/deductible amount too high | 15% |
| Just prefer to take the risk/self-insure | 15% |
| Not able to nominate crop | 10% |
| Want cover for other/riskier crops | 5% |
| Having to take out cover 30 days prior to planting | 5% |

For more details see Section 8 of main report

What growers expect to pay for MPCl

While grower estimates of MPCl premiums vary widely, on average they are reasonably accurate, as evidenced by the adjacent chart comparing the median expected premium for wheat vs. the viable premium ascertained by consulting actuaries.



For more details see Section 10 of main report

⁽²⁾ Includes specific mention of 'does not cover fire and hail' (16%)

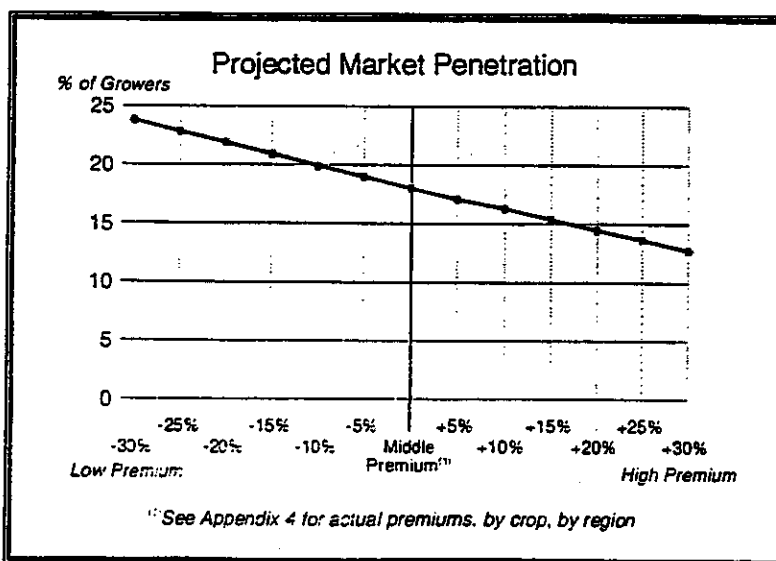
Demand estimates and price elasticity aspects

TQA Research's best estimate of market penetration is 18% of grain growers. The following table shows the derivation of this estimate. Projections for each Region should be taken as indicative only, due to smaller sample sizes.

| Likelihood of taking out multi-peril crop insurance at 'middle' (realistic) price - after all price prompts - rotated (Q17b.) | | | | | | |
|---|-------------------|-------------|-------------|-------------|-------------|-------------|
| Crop | Australia (n=513) | Region | | | | |
| | | 1 (n=111) | 2 (n=100) | 3 (n=71) | 4 (n=101) | 5 (n=130) |
| Very likely (a) | 9% | 15% | 10% | 7% | 6% | 10% |
| Fairly likely (b) | 34% | 34% | 40% | 31% | 33% | 37% |
| Not too likely (c) | 28% | 32% | 23% | 26% | 33% | 24% |
| Not likely at all (d) | 26% | 13% | 24% | 32% | 25% | 25% |
| Don't know (e) | 3% | 6% | 2% | 2% | 2% | 4% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% |
| Project uptake (a + 0.25b) | 18% | 24% | 20% | 15% | 14% | 19% |

Differences in projected uptake between Regions are not statistically significant at the 95% confidence level. Nevertheless, results (at 85% confidence level) suggest that demand is likely to be *slightly* higher in Region 1 (Central and SW Queensland/NW NSW).

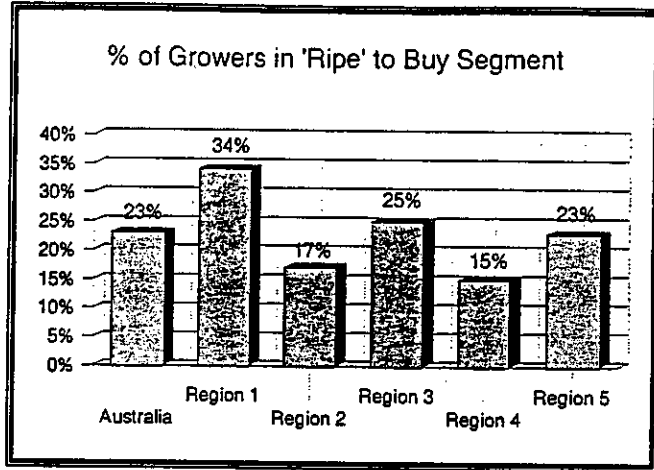
Price elasticity analyses show that MPCCI is quite price elastic, as evidenced by the following chart.



The analyses show that a 1% increase in premium (that is 1% increase not 1 percentage point increase), results in a corresponding decline in demand of very close to 1%. Hence, 30% increase in premium results in a 30% drop in demand.

This finding is of paramount importance if MPCCI premiums need to increase as a result of projected penetration (18%) not being compatible with economic or viable premiums.

Cross-checks show that 23% of all growers are 'ripe' to buy MPCCI - quite consistent with the estimated 18% market penetration.



For more details see Sections 12 & 13 of main report

What is regarded as acceptable excess level?

One third (33%) of growers *disagreed* that the excess levels or deductible amounts associated with the MPCCI concept were reasonable.

The adjacent table summarises perceived acceptable excess levels across the entire sample, including those respondents believing an excess of 50% or 60% is acceptable.

| Excess Level Deemed Acceptable | % of all growers |
|--------------------------------|------------------|
| Up to 9% | 2% |
| 10% - 19% | 5% |
| 20% - 29% | 12% |
| 30% - 39% | 6% |
| 40% - 49% | 3% |
| 50% - 60% | 70% |
| Don't know | 2% |
| Total | 100% |

Clearly, lower excess levels might make MPCCI more appealing, but this would also push premiums up considerably.

For more details see Section 14 of main report

Whether having to take out cover 30/60 days before planting would deter growers

Of considerable concern, 60% of growers say a requirement to insure 30 days prior to planting would deter them from taking out MPCI, with this proportion reaching 76% in Region 2 (SE Queensland/NE NSW/NSW Slopes).

| View Held | Australia | Region | | | | |
|---|-----------|--------|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 |
| Having to insure 30 days before planting would deter purchase | 60% | 60% | 76% | 66% | 50% | 53% |
| 60 days before planting would deter | 84% | 87% | 94% | 87% | 80% | 78% |
| 60 days would deter but 30 days would not | 24% | 26% | 18% | 21% | 30% | 25% |
| Neither 30 days nor 60 days would deter | 15% | 13% | 6% | 13% | 20% | 22% |

Many growers said they could not predict the weather and hence could not predict planting time. The following table summarises attitudes:

| Reason why would be deterred by having to insure 30 days before planting | % of all growers mentioning |
|--|-----------------------------|
| Can't predict the weather/can't predict planting time | 49% |
| Late changes to cropping plans/not sure what will grow | 27% |
| 30 day period just too long (NFI) | 22% |
| Decision to ensure should be at planting time | 7% |
| Too early in season to commit financially/pay | 6% |
| Too many variables between insuring and harvesting | 4% |
| Problems estimating the yield before planting the crop | 4% |
| Not enough flexibility/too much uncertainty | 1% |

A typical grower comment . . . *"I reckon 30 days is too long . . . you might think you have 30 days up your sleeve, but this can quickly turn into 14 days and you have missed the period when you can take out this Multi-Peril Crop Insurance."*

This is a critical aspect which will need fine-tuning before the final product is released. The MPCCI concept's 30 day 'rule' is not consistent with grower 'psychology'.

For more details see Section 15 of main report

Other Notable Findings

Half (50%) of growers say they would be satisfied with cover for wheat and barley commencing from First Jointing (of plant growth cycle). 38% of growers would prefer cover to commence earlier, with response summarised in the adjacent table.

| Response | % |
|-------------------------------------|-------------|
| OK - no problem | 50% |
| Prefer earlier cover (all mentions) | 38% |
| <i>from first emergence</i> | 22% |
| <i>from when planted</i> | 18% |
| <i>other earlier mentions</i> | 4% |
| Prefer later cover | 9% |
| Can't say | 3% |
| Total | 100% |

Base: Growers growing wheat or barley (n=513)

Results for canola (with cover commencing at the 8th leaf stage) are similar.

This aspect should be kept in mind when the product is fine-tuned.

Around one quarter (28%) of growers said they would be *much more inclined* to take out MPCCI if quality downgrades were included in the cover.

Clearly, this would increase appeal, but arguably create other problems due to difficulty in 'arbitrating' or identifying causes of lower crop quality.

A substantial 43% of all growers reported crop yield losses of 40% or more in one of the last three seasons.

All other things being the same, this should certainly make the concept of MPCCI have appeal. It also shows why MPCCI is *needed*.

An examination of perceived usefulness of information and product communication channels shows that discussing MPCl with a *local* insurance broker, company representative or agent will be crucial to the product's success. The following table tells the story:

| Channel | % of growers nominating this channel most useful |
|--|--|
| Discussing the insurance with a local insurance brokers, company representative or agent | 75% |
| Having a web site to obtain information on this insurance | 13% |
| Dealing directly with the insurer via telephone | 12% |
| Total | 100% |

The Upshot . . .

- ❖ Reasonable penetration projected (18%).
- ❖ Fine-tuning of product required:
 - ease of understanding
 - when grower needs to take out cover
 - incorporation of fire and hail cover
 - period of cover - possibly earlier in season
 - excess levels
- ❖ Marketing will need to be strong.
- ❖ Product communication and simplicity crucial (also needs to be included in the fine-tuning process).

Main Report

Sections 2-20



2. Objectives

Grain farmers in Australia face many perils and potential threats in growing their crops, not the least of which is the unpredictability of the Australian weather. Lack of rain, too much rain or frost can wipe out all or a significant proportion of a crop, causing great economic and emotional hardship to the farm community.

Currently, Australian grain growers can insure their crops against fire and hail, but little else. The concept of insuring against other events – and particularly severe adverse weather – has long been discussed, but not to the point of developing a full product concept and testing its feasibility.

The objective of this study was to gauge grower reaction to the Multi-Peril Crop Insurance (MPCI) concept and to project likely demand levels at nominated premiums.

To obtain an accurate 'fix' on likely grower uptake of MPCI, the research sought to obtain feedback and insight on the following issues:

- Can growers easily understand the MPCI concept in its current format? What aspects are confusing or difficult to understand?
- Grower interest in the broad MPCI concept per se, excluding price/premium issues.
- Aspects *liked* and *disliked* about MPCI.
- What growers would *expect* to pay for MPCI (non-prompted) and likelihood of buying at this anticipated price.
- Likely uptake at various nominated premium levels, including the 'middle' premium level – that determined by consulting actuaries to be a realistic and viable price.

- What do growers regard as an acceptable *excess* level (deductible amount from total agreed value).
- Acceptability of particular conditions associated with the MPCCI, including:
 - ⌚ Having to take out cover 30 days before planting
 - ⌚ Wheat and barley cover becoming effective from first jointing
 - ⌚ Canola cover becoming effective from 8th leaf stage
- Perceived usefulness of information channels to inform growers about MPCCI.
- Current crop insurance behaviour.

Careful analysis of the above issues is aimed at providing the Insurance Council of Australia and other stakeholders in the MPCCI project with an accurate insight into grower perceptions and likely market penetration.

The MPCCI Product Concept

In essence, the MPCCI concept tested in this research works as follows:

- Insurance is based on agreed value for each crop (Wheat, Barley, Canola and Lupins⁽³⁾) at the start of the growing season.
- The grower specifies his/her preferred excess. This is 50% or 60%, except in Western Australia where it would be 40% or 50% (being a lower risk area). Excess levels are 'high', as lower excess levels would mean premiums are very expensive. Also, the purpose of MPCCI is to allow the grower to cover his/her production costs and be in a financial position to sow *next* year's crops, should serious crop loss be incurred in the current year.

⁽³⁾ While these four crops are likely to be included in an MPCCI product, this research excluded lupins, as premium rates were not available at the time.

- Growers would need to take out the insurance 30 days prior to planting.
- Crops insured under the policy would be covered for *loss of yield* due to any event other than an excluded event. The main excluded events are:
 - Loss of quality
 - Market price changes or fluctuations
 - Damage from animal, birds, vermin or insects
 - Disease
 - Hail and Fire (separate cover would be available)
 - Erosion or land slip
 - Malfunction of machinery
 - Mismanagement or poor crop management practices
 - Events that occurred prior to the period of insurance

A more complete listing of Excluded Events is provided in the Detailed Product Concept (Appendix 2).

- Claim payment would be made according to a formula, which takes into account the total indemnity limit of the cover less adjusted income received. This formula and its workings are also outlined in the Product Concept (Appendix 2).
- Estimated realistic and viable premiums for MPCCI are provided in Appendix 4.

The concept is not straight forward – it is certainly more complex than most other types of insurance – and this presented one of the major challenges of the project. Readers are advised to review the product concept as listed in Appendix 2 to gain a full appreciation for how the MPCCI concept (as evaluated in this research) would work. This concept is the same as mailed to growers for review.

3. Research Methodology

Due to the complex nature of the 'workings' of the MPCCI concept, it was crucial that growers could give feedback based on thorough knowledge and proper consideration of the insurance concept.

For this reason the following three-stage methodology was adopted:

- Stage 1: Telephone recruitment of MPCCI product review panel (690 growers)
- Stage 2: Forwarding of MPCCI product concept material to grower panel (all details of product provided except premiums/prices). Product concept and covering letter listed in Appendix 2.
- Stage 3: Follow-up telephone interview of 27 minutes duration to gauge reaction, including disclosure of premiums and response to same 513 full interviews achieved

The nature of the MPCCI product concept, including its complexities and pricing structure (with premiums varying by Shire, by crop and by level of excess chosen by the grower), presented some challenges for the project. We will discuss these as we look into each stage of the research methodology in a little more detail.

Stage 1: Grower Recruitment Phase

The objective was to recruit a panel of 690 growers⁽⁴⁾. From this panel it was hoped to achieve 600 full interviews with growers who had read the product concept and agreed to participate in the follow-up interview.

⁽⁴⁾ Growing at least one of wheat, barley or canola – the crops covered by MPCCI in this evaluation. Mentioned previously, Lupins was not included in this study, as insurance premium rates were not available.

These growers were recruited from lists of grain growers provided by Solutions Research. ⁽⁵⁾

The script and questionnaire used for the grower recruitment phase is listed in Appendix 1.

Fifty two per cent (52%) of growers contacted, having a qualifying crop, agreed to participate in the survey – quite a good response. Those not prepared to participate cited they were too busy, had recently participated in a survey or were going away (influenced by the Sydney Olympics).

Stage 2: Design and mailing of MPCCI Concept to grower panel.

A considerable amount of time was taken to put the MPCCI concept and its conditions and 'working logistics' into a format which could be readily understood by the majority of growers.

There is no doubt that the MPCCI concept is quite complex and presenting it in a form which can be readily understood is challenging. This is primarily due to the formulae and calculations applying to claim settlements.

The final MPCCI product concept forwarded to growers is listed in Appendix 2. This concept was designed so that it would:

- pre-empt and answer most of the common questions growers would ask about MPCCI, including :
 - ⇔ Why excess levels with MPCCI are substantially higher than other forms of crop insurance (e.g. Fire and Hail)
 - ⇔ Why it is possible for a grower to have substantial losses on one crop (e.g. frost), but still not be able to claim because revenue from other crops compensated for this.

⁽⁵⁾ Purchased via the List Bank (Melbourne)

- >> show growers how MPCCI cover 'works' with a practical example of a claim settlement
- >> outline Excluded Events (aspects not covered by MPCCI) in considerable detail – so as to not mislead

The final MPCCI concept forwarded to growers was approved by the Project Steering Committee, prior to dispatch.

Stage 3: Follow-up telephone interviews to gauge interest and reaction

A sophisticated computer-assisted telephone interviewing script was used to conduct the follow-up interviews. This questionnaire is listed in Appendix 3 and was pilot tested prior to commencement.

The computer-assisted program was able to prompt various MPCCI premium levels (prices), depending on the Shire where the grower's property was located. This was necessary as MPCCI's premiums will vary from Shire to Shire (sub-Region to sub-Region), and it was important that the research came as close as possible to simulating *reality* – particularly with respect to pricing.

In essence, the computer program that interfaced with the interviewing script was able to prompt the grower with prices (premium levels) which varied according to location, number and types of qualifying crops grown and nominated excess level (40%⁽⁶⁾, 50% or 60%).

All interviewers (18) working on the project received a detailed two hour briefing prior to commencement. Follow-up interviews in this Stage were conducted from 23 September to 8 October 2000.

Average interview length was 27 minutes and grower co-operation was very good. The structure of the final sample of 513 growers is shown the table overleaf. Emphasis in the survey was on achieving a minimum number of interviews in each of the five agroecological Regions across Australia.

⁽⁶⁾ *Western Australia only.*

| Breakdown | n | % |
|--|------------|-------------|
| Total | 513 | 100% |
| Region (Agroecological Zone) | | |
| 1. Central & SW QLD/NW NSW | 111 | 22% |
| 2. NE NSW/SE QLD/NSW Slopes | 100 | 19% |
| 3. Central NSW/SA & VIC Borders/Wimmera | 71 | 14% |
| 4. SA Mid North/Eyre/Yorke/SA & VIC Mallee | 101 | 20% |
| 5. WA | 130 | 25% |
| Crop Hectares | | |
| Up to 500 | 163 | 32% |
| 501 to 1000 | 180 | 35% |
| Over 1000 | 166 | 32% |
| % of Farm Revenue from Cropping | | |
| 85%+ | 144 | 28% |
| 50-84% | 281 | 55% |
| Less than 50% | 88 | 17% |
| Age | | |
| Under 40 | 117 | 23% |
| 40-49 | 140 | 27% |
| 50-59 | 166 | 32% |
| 60+ | 90 | 18% |

Due to agroecological Regions traversing state boundaries, the sample in some states is significantly higher than others. The sample (unweighted) is significantly lower in Victoria (27 interviews) for logical but quite complex reasons outlined in Appendix 5. However, careful checks show that response in Victoria towards MPCCI is not significantly different to other states, so this will not unduly bias results.

It had originally been intended to achieve 600 interviews in Stage 3. This was not possible due to:

- ⇒ A higher than expect number of growers among those initially agreeing to participate (in Stage 1) saying they:
 - ↳ were now too busy
 - ↳ were sick or away for the duration of the survey
 - ↳ found the MPCCI concept too confusing or said they had read the concept (or claimed to have) but were not interested in continuing with the survey.
 - ↳ lost materials forwarded to them or their spouse had thrown them out.

- Actual interview length (27 minutes) was running well over budget (20 minutes) and this meant that further growers could not be recruited for the survey without significantly exceeding the project's fixed budget. Meeting project timelines was also a problem in this respect.

The following table presents an analysis of the 'status' of the 690 growers recruited for the study, at the conclusion of the call-back interviews (Stage 2).

| Contact Outcome for the 690 Growers Recruited for the Original Panel | n | % |
|---|------------|-------------|
| Achieved full interview | 513 | 74% |
| Too busy/farm problem/harvesting/too tired | 41 | 6% |
| Lost concept/spouse threw out/did not receive | 28 | 4% |
| Refused - no further information available | 18 | 3% |
| Sick/away for duration of survey | 11 | 2% |
| Admitted concept too confusing | 10 | 1% |
| Read concept, but not interested in participating (but did not admit it too confusing) | 16 | 2% |
| Initial contacts with postcodes that were not in the data base of premiums by Shire; could not be interviewed as pricing data not available (mostly Victoria) | 40 | 6% |
| No answer for duration of survey (up to 10 call-backs) | 14 | 2% |
| Total | 690 | 100% |

Discrepancies due to rounding

Sample Weighting and Confidence Limits

The sample was weighted at data processing stage to represent the true geographic distribution of grain growing enterprises in Australia, as per ABARE statistics.⁽⁷⁾

Based on a sample of 513, projections based on the survey, on most issues, will be accurate to within $\pm 4\%$ at the 95% confidence level - quite accurate for the purposes of this survey. Results within each of the 5 agroecological Regions will typically be accurate to within $\pm 10\%$ at the 95% confidence level.

⁽⁷⁾ *Farm Surveys 2000: ABARE*

4. Background Facts on Grain Growers

While reading this report, it is worth keeping in mind:

- 43% of growers claimed to have experienced a yield loss of 40% or more in one of the last three growing seasons, due to weather conditions or other factors after the crop had been sown (More details Section 19).
- 90% of growers currently have fire and/or hail insurance. 86% have *both*.
- 50% of all growers have fire and/or hail insurance *and* purchase this insurance via a broker or local agent .
- 57% use an insurance broker for *any* insurance.
- Nearly all growers (99%) approached to participate in this survey, who were growing crops in the current season, grew one of the MPCCI crops (wheat, barley or canola). Lupins is also likely to be a MPCCI crop, but was not included in this study as premium rates had not been determined. Hence, virtually all grain growers in Australia will be in the target market for MPCCI.
- The proportion of all growers in the final sample growing particular crops is shown in the adjacent table.
- One in five growers is aged 60 years or more. It is an 'old' target market. All other things being the same, this will make the marketing of a new concept more difficult.
- Only 16% of farms in our sample earned less than 50% of farm revenue from cropping (this occurred primarily in Regions 1 and 2 – essentially Queensland & Northern New South Wales).

| Crop grown | % |
|------------|-----|
| Wheat | 99% |
| Barley | 69% |
| Canola | 42% |
| Lupins | 32% |
| Oats | 49% |
| Sorghum | 14% |
| Triticale | 20% |
| Any peas | 36% |
| Any beans | 19% |

5. Is MPCCI Concept Difficult to Understand?

This aspect is not easy to quantify and needs some careful interpretation.

Only 1% of the initial 690 growers recruited in the evaluation panel *admitted* the MPCCI concept was too confusing and that it was pointless to do a follow-up interview. A further 2% said they had read the concept, but were not interested in participating. While these growers did not readily admit they were confused, interviewers certainly obtained the impression that most of these growers *were* in fact somewhat confused. They generally just said they did not wish to participate.

A further 3% of those recruited to the initial panel simply refused to go any further. Interviewers also reported that for these growers it all seemed 'just too hard' – although, once again, the growers did not admit this.

So while we can ask those growers who completed the full interview whether they found the concept easy to understand or not, we must still 'factor in' those who did not participate in the study because they felt the subject matter was too confusing.

When we asked those completing the full interview, whether the MPCCI concept was easy or difficult to understand, 17% said it was difficult. Response is shown in the adjacent table.

Younger Growers (under 40 years) found the concept significantly easier to understand, as did growers on larger properties (see adjacent chart).

| Ease of Understanding MPCCI Concept <i>Base: All growers completing survey</i> <i>(n=513)</i> | |
|--|------------|
| Response | % |
| Very difficult | 1% |
| Fairly difficult | 15% |
| NET DIFFICULT | 17% |
| Fairly easy | 72% |
| Very easy | 12% |
| NET EASY | 83% |
| <i>Question:</i> <i>How easy or difficult did you find the Multi-Peril Crop Insurance concept, including how it works and how claims are calculated? Would you say it was . . .</i> | |

Implications

Overall, after adjustment for those not completing the survey because the concept was too difficult to understand, it is likely that around 20-25% of growers will find the concept and/or its claim calculations somewhat difficult to absorb. Nevertheless this leaves a clear majority able to understand the concept in its current format.

Whilst there remains a clear majority who are able to understand the concept in its current format, there will be merit in simplifying the concept.

.1 Aspects Perceived Difficult to Understand

Key Findings

- Among the 17% of Growers finding the MPCCI concept difficult to come to grips with, key reasons given are summarised in the table below. This highlights that it is the combined effects of calculations/formulae and exclusions which lead to most confusion.

| Aspects Deemed Confusing or Difficult to Understand | |
|--|-----|
| Aspect | % |
| The whole concept/basic concept/too confusing | 35% |
| Calculations/calculations re claims | 25% |
| Exclusions/interpretation of exclusions | 14% |
| How can cover against drought/long dry spells | 8% |
| Excess information/too much information | 6% |
| Why all paddocks need to be insured | 6% |
| Estimation of yield aspects/how do it/who | 5% |
| Paying for cover 30 days before planting | 3% |
| Q4. Can you describe any particular aspect that was difficult, complex or confusing? Any aspects? | |

Base: Those finding concept difficult/confusing (n=39)

Sums to more than 100% due to multiple mentions

- There is no doubt that the MPCCI concept is somewhat complex. Furthermore, it is difficult to simplify without creating a plethora of unanswered questions in the minds of farmers to whom the concept is being explained.

Certainly, expressing the concept in simple terms will be paramount to its success. However, it should be noted that most grain growers will have a strong vested interest in coming to grips with the concept. Grain is their livelihood – this should act in MPCCI's favour.

► **Implications and Recommendations**

- Before product launch, it is recommended that clinics be conducted among grain growers to obtain suggestions for simplifying and thoroughly testing product communications.

Furthermore, it is recommended that those elements deemed confusing or difficult to understand, as per the table above, be kept foremost in mind when further attempts are made to simplify the product and its communication to the target market.

- Excluded events need to be stated in a way that reduces ambiguity and openness to interpretation.
- Several growers made positive comments about the Question & Answers section in the product concept material. It is recommended this aspect be maintained if the product is launched. It removes considerable confusion.

6. Understanding of Excluded Events Within MPCCI Concept

The MPCCI concept forwarded to growers for evaluation included a detailed listing of events not covered by MPCCI (Excluded Events). These are listed in Appendix 2.

It could be argued that growers can only give 'true' ratings and intentions regarding uptake of MPCCI if they *genuinely understand* these exclusions and have them fairly accurately 'stored away' in their minds.

To conduct a thorough check on this aspect, growers were asked the following question:

Q9. *Without looking at the material we sent you, can you tell me whether the following would be covered by Multi-Peril Crop Insurance? If you don't know or can't recall, just say so.*

Key Findings

- Five scenarios or possible exclusions were put to growers and their response was as follows. Shading indicates the *correct* response.

| Whether Believe the Following Would be Covered by MPCCI (Q9.) | | | | |
|---|----------|-----|------------|-------|
| Event | Response | | | |
| | Yes | No | Don't Know | Total |
| 1. Yield loss due to drought in the growing season | 51% | 38% | 11% | 100% |
| 2. Quality downgrade for any reason | 61% | 29% | 11% | 100% |
| 3. Severe damage from birds | 54% | 34% | 12% | 100% |
| 4. Yield loss, but not quality loss, due to very late planting caused by too much autumn rain and water-logged paddocks | 54% | 30% | 16% | 100% |
| 5. Severe frost causing total crop wipeout | 53% | 31% | 15% | 100% |

Base: Total sample (n=513)

- It is clear from the above that recall of exclusions (and implicit inclusions) is not good, with the best result being only a 54% correct mention rate for event #4.
- Furthermore, with a majority of growers believing quality downgrades would be covered by MPCl, the level of misunderstanding (or just poor recall of the facts) is emphasised.
- To emphasise this poor understanding, not a single grower in the sample gave three or more correct answers out of the five prompted events. The frequency distribution of correct answers is given in the adjacent table.
- Younger growers (under 40 years) recall exclusions/inclusions with better accuracy.

| Number of Correct Responses given on Inclusions/Exclusions | |
|--|------|
| Score | % |
| 5 out of 5 (all correct) | NIL |
| 4 out of 5 | NIL |
| 3 out of 5 | NIL |
| 2 out of 5 | 64% |
| 1 out of 5 | 31% |
| 0 out of 5 | 5% |
| Total | 100% |

Implications and Recommendations

- Clearly, it is difficult for growers to readily come to grips and correctly memorise the inclusions/exclusions of MPCl.
- TQA Research has taken this into account in making market projections. It is a reason why some of those saying they are *fairly likely* to purchase MPCl should not be 'believed'.
- An element of error also needs to be factored into any forecast made in this report, simply because understanding of inclusions/exclusions is far from perfect.

- It will be imperative, if MPCCI is launched, that the communication of exclusions is done in a way that makes exclusions easy to remember or keep in mind. The layout, format and complexity of the exclusions table will have a significant influence on this.



7. Aspects Liked and Disliked about MPCCI

Q12. From what you know so far, what things do you like or dislike about Multi-Peril Crop Insurance? First the likes – what do you perceive as the good things about the insurance concept we sent you?

Q13. And now for the dislikes – what things do you dislike about it?

Key Findings

- Ninety-one percent (91%) of all growers made one or more positive mentions (likes), with a similar proportion (87%) mentioning one or more dislikes.

The main *likes* of MPCCI are summarised in the following table – showing clearly that the broad advantages of MPCCI are quite well understood. Response implies that the MPCCI concept would be regarded as a good *risk management* tool.

| Things Liked About MPCCI (Q12.) | % |
|--|------------|
| Net mentioning cover against uncontrollable situations | 31% |
| • Cover against frost damage | 13% |
| • Cover against unpredictable/extreme weather/natural disasters | 10% |
| • Cover against drought/long dry spells | 15% |
| • Cover against heavy/unreliable rainfall | 4% |
| • Cover against mice/rodent plagues | 2% |
| Net mentioning cover cost/guarantees some income/next year's crop | 26% |
| • Cover high cost of cropping/inputs expensive/recoup costs | 14% |
| • Guarantees some income/cash flow | 11% |
| • Covers replanting costs in following year/ensures next crop | 3% |
| • Comprehensive cover/covers wide circumstances | 13% |
| Like the concept/good start/on the right track | 12% |
| Complete crop failure cover/severe loss of yield cover | 11% |
| Reduces risk/lowers risk factor of cropping | 11% |

Base: All respondents (n=513); sums to more than 100% due to multiple mentions

- There was no significant variation in *likes* by Region.
- The main *dislikes* were problems associated with exclusions and insurance coverage, excess/deductible amounts being perceived too high, having to take out insurance 30 days before planting and the fact that all relevant crops (and all paddocks of these crops) must be covered if MPCCI is taken out.

The following table summarises *dislikes* associated with the MPCCI concept.

| Things Disliked about MPCCI (Q13.) | % |
|---|------------|
| Net mentioning problems with exclusions/coverage | 34% |
| • Does not cover hail and fire (want a single policy - not two) | 23% |
| • Too many restrictions/exclusions/cover not broad enough | 10% |
| • Flood insurance from waterways not covered | 2% |
| • Insect damage/locusts not covered | 2% |
| • Does not cover wind damage | 2% |
| • Does not cover diseases | 1% |
| • Bird damage not covered | 1% |
| • Does not cover erosion/land slip | 1% |
| Perceive will be too expensive (before any price disclosed) | 20% |
| Net mentioning excess/deductible amount too high | 19% |
| • Excess too high | 17% |
| • Does not cover for cost of production | 2% |
| • Need to get more money back (75-80%) | 2% |
| Must insure all relevant crops/all paddocks/no choice | 14% |
| Having to take out insurance 30 days before planting/deciding too early | 10% |
| Who arbitrates on agreed value/assessment of yield/good for management | 7% |
| No crop cover during first growth stage/cover starts too late | 4% |
| Too complicated/method of calculations/yield, loss and claim calculations | 4% |
| Not trusting of new concepts/open to rorts | 4% |
| Just don't like it - not interested | 3% |
| Live in fairly stable/reliable area; not necessary | 2% |

Base: Total sample (n=513); sums to more than 100% due to multiple mentions

- A critical finding above is that many growers do not want multiple crop insurance policies. These growers request that fire and hail cover be *included* in MPCCI.

This is unprompted response, so is very important.

- Growers in Region 2 (NE NSW/SE QLD/NSW slopes) had a much higher propensity to believe the excess or deductible amount was too high (33% mentioning).
- Growers in Region 2 were also more critical of the need to take out insurance 30 days before planting, primarily because they sometimes didn't know which crops to plant until rainfall/ moisture availability was known (typically very close to planting time).
- Concern about who might arbitrate on agreed crop value or yield is greatest in Region 1 (Central QLD/SW QLD and NW NSW).
- Growers in WA were more likely to have *no* dislikes.

➤ Implications and Recommendations

While MPCCI clearly has many things going for it, there are some clear messages for product launch strategy, including:

- Catering for grower convenience by incorporating hail and fire cover within the overall MPCCI concept. Growers want a single policy, not two.
- There would certainly be risks in insisting that growers take out insurance 30 days prior to planting. This is discussed further in Section 15.
- Reasons why all relevant crops and all paddocks of MPCCI crops need to be covered must be outlined *clearly* to the target market. Some growers think this is a bit of a 'trick'.
- There is *possibly* scope to introduce a product with a lower excess, but higher premium. Further market research would be required on this before any concrete conclusions could be drawn (as growers were commenting on dislikes after knowing about excess level options, but not corresponding premium levels).

8. Likelihood of Taking Out MPCCI if Premiums Reasonable and Reasons for Same

Q10. Assuming the premiums for Multi-Peril Crop Insurance were reasonable, how likely would you be to take out Multi-Peril Crop Insurance? Would you say very likely, fairly likely, not too likely or not likely at all?

Q11. Why do you say that?

Key Findings

➤ Just over half (52%) of growers said they were *likely (very likely or fairly likely)* to take out MPCCI if the cost was reasonable – an encouraging result.

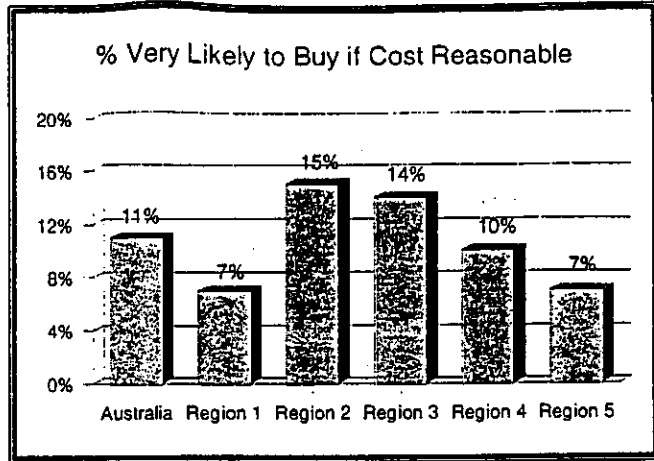
➤ However, the better indicator of latent demand is the 11% stating they are *very likely* to take out MPCCI. This is indicative of a product which will have considerable appeal, but not be a 'runaway success'.⁽⁸⁾

➤ A market projection based on this response alone would be around 21% penetration, based on 'believing' all of those saying *very likely* and one quarter of those saying *fairly likely* – a formula which has worked well in the past on previous TQA Research assignments. Allowance is made in this 'formula' for some growers being confused about MPCCI and not participating in the full (call-back) interview.

| How likely to take out MPCCI if premiums reasonable? (Q10.) | |
|---|------------|
| Response | % |
| Very likely (a) | 11% |
| Fairly Likely (b) | 41% |
| NET LIKELY | 52% |
| Not too likely (a) | 30% |
| Not likely at all (d) | 17% |
| NET NOT LIKELY | 47% |
| Projection (a+0.25b) | 21% |

⁽⁸⁾ Based on many similar studies in agribusiness conducted by TQA Research.

- The proportion *very likely* to buy does not vary significantly by Region, when sub-sample sizes are taken into account.⁽⁹⁾
- Those growers with a higher propensity to be *very likely* to buy, based on this question, are larger properties cropping over 1000 hectares and properties in NSW.
- Attitudes did not vary markedly by age of grower or proportion of farm revenue coming from cropping.



Implications

There are definite signs of firm latent demand. However, the smaller 11% stating they are *very likely* to purchase indicates the MPCCI concept, in its current format, will not be a 'runaway winner'.

Results in this section will certainly provide an indication of market demand, providing grower expectations on price (premiums) are quite accurate. In Section 9 we see this *is* the case.

⁽⁹⁾ At 95% confidence level

8.1 Reasons for Being *Likely/Unlikely* to Buy if Price Reasonable

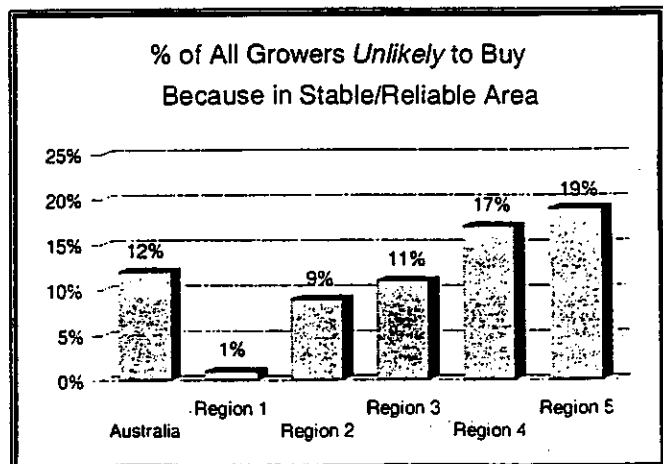
Q11. Why do you say you would be (LIKELY/UNLIKELY) to take out Multi-Peril Crop Insurance?

Key Findings

➤ The following table shows that the 'killers' of demand are:

- ↳ Don't like exclusions/insurance coverage (25% of those unlikely to buy mentioning) - including specific mention of *does not cover hail and fire* (16%)
- ↳ Live in fairly stable area/reliable area/not required (22%) – with more growers in Regions 4 and 5 saying this.
- ↳ Excess/deductible amount too high (15%)
- ↳ Just prefer to take the risk/self-insure (12%)
- ↳ Not able to nominate crop (10%)
- ↳ Want cover for other/riskier crops (5%)
- ↳ Having to take out cover 30 days prior do planting (5%)
- ↳ Who arbitrates on agreed value/assessment of loss (4%)
- ↳ Happy with current insurance (3%)
- ↳ Too complicated (1%)

➤ The 22% of growers saying they are *unlikely* to purchase MPCl and stating this is because their property is in a fairly stable or reliable area, equates to 12% of *all* growers, varying by region as per the adjacent chart.



- Those likely to purchase MPCl if the price is reasonable gave the following key reasons:
- ↳ Provides cover against uncontrollable situations (39% of those *likely* to purchase mentioning)
 - ↳ Covers cost/guarantees some income (22%)
 - ↳ Reduces risk/lowers risk factor of cropping (16%)
 - ↳ Had previous bad experience with extreme weather/natural disasters (7%)

➤ Implications

Clearly, for MPCl to be as successful as possible, perceived shortcomings (as outlined above) need to be minimised.

9. What Expect to Pay for MPCCI?

Q14. Assume you took out Multi-Peril Crop Insurance with a 50% excess or deductible amount. What would you realistically expect the insurance premium for (CROP) to be as a percentage of the gross estimated crop value at the start of the season? Not what you might like it to be, what you would 'expect' it to be, given the cover offered by Multi-Peril Crop Insurance in the 50% deductible amount.

Key Findings

- Not surprisingly, growers tend to give quite a wide spread of estimates. However, on average, growers' estimates are quite accurate (relative to the 'viable' premium determined by the actuarial consultants).
- Due to 'viable' premiums varying from Shire to Shire, we have constructed a summary in the table below which shows the frequency distribution of growers' estimates relative to the 'viable' premium for each crop (i.e. takes Shire to Shire variation in premium into account).

| | Grower's Estimate | % of Growers in Range | | |
|----------------|---|-----------------------|--------------|--------------|
| | | Wheat | Barley | Canola |
| Under-estimate | Less than 30% of viable premium | 12% | 13% | 31% |
| | 30% to 49% of viable premium | 9% | 13% | 11% |
| | 50% to 69% of viable premium | 9% | 7% | 15% |
| | 70% to 129% of viable premium (accurate) | 23% | 25% | 19% |
| Over-estimate | 130% to 149% of viable premium | 10% | 5% | 6% |
| | 150% to 189% of viable premium | 7% | 11% | 7% |
| | 190%+ of viable premium | 30% | 27% | 11% |
| | Total | 100% | 100% | 100% |
| | Actual viable⁽¹⁾ premium (weighted average across Region) | 4.3%* | 5.1%* | 8.4%* |
| | Median estimated premium by growers | 4.9% | 4.9% | 4.9% |

⁽¹⁾ Determined by consulting activities * Of agreed crop value

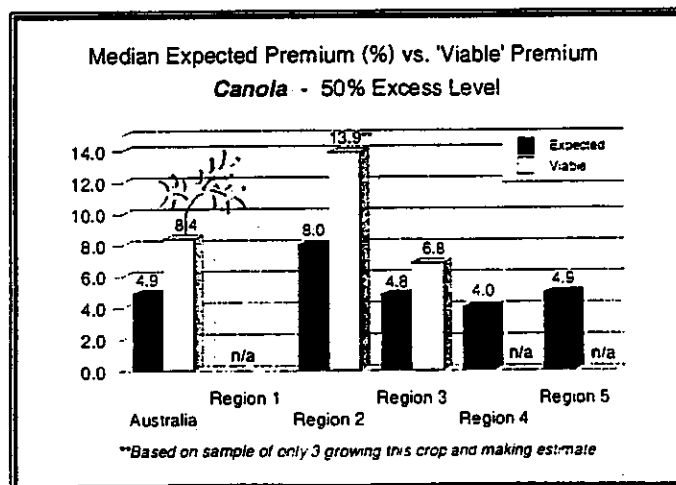
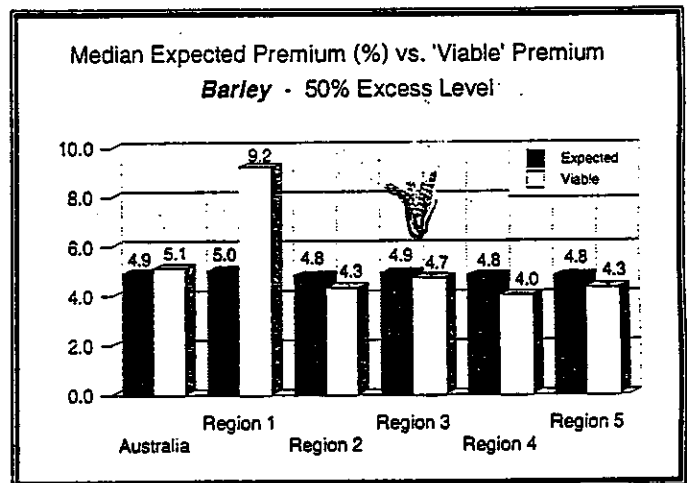
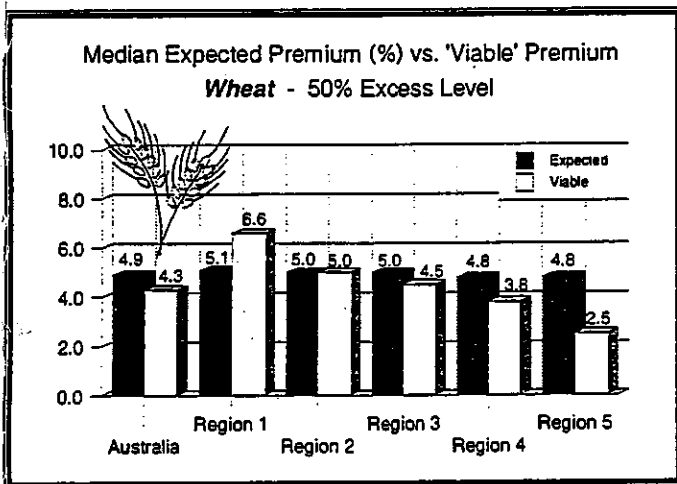
- Highlights of this table include:
 - ↳ Around 25% of growers have a very accurate notion of cost (estimate to within 30%⁽¹⁰⁾ of 'viable' premiums)

⁽¹⁰⁾ This is not 30 percentage points, but rather a 30% variation. For example, if the 'viable' premium was 5.0%, a 30% variation on this would be from 3.5 to 6.5.

- ↳ Growers tend to slightly overestimate the premium required for wheat, are virtually 'spot on' for barley and significantly underestimate the 'true' premium for canola (although note that canola was only relevant to Regions 2 and 3 in this study).
- ↳ However, average or median estimates are correct, essentially due to the 'help' of compensating errors (over-estimation and under-estimation cancelling out).

➤ The following charts show how the median expected premiums compare with the 'viable' premium - by crop and Region. Highlights of the charts include:

- ↳ Premiums are generally anticipated to be *slightly* higher in Region 1 (Central QLD and NW NSW), but not to the extent that 'viable' premiums will be higher in this Region (due to greater risk associated with climatic conditions).



- The following table shows the proportion of Growers expecting premiums to be within $\pm 30\%$ of the 'viable' premium determined by consulting actuaries. This shows clearly that a significant proportion will not be surprised by MPCCI premiums (at the 50% excess level).

| % of Growers Expecting Premium to be Within $\pm 30\%$ 'Viable' Premium ⁽¹¹⁾ | | | | | | |
|---|-----------|--------|-----|-----|-----|-----|
| Crop | Australia | Region | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Wheat | 23% | 33% | 36% | 18% | 21% | 19% |
| Barley | 25% | 38% | 36% | 24% | 23% | 21% |
| Canola | 19% | n/a | n/a | 17% | n/a | n/a |

Conclusions

Many growers will not be surprised or alarmed by premiums charged for MPCCI (with a 50% excess level), assuming the 'viable' or middle rate is charged. For the main MPCCI crops, wheat and barley, more growers tend to over-estimate than under-estimate premiums. All other things being the same, this is encouraging.

Tables 16-24, Appendix of Computer Tabulations, provide a great deal of information on expected versus 'viable' premiums.

⁽¹¹⁾ At 50% excess level.

10. Likelihood of Purchasing MPCl at Expected Premium Levels

Q15. At the premium rates you just mentioned (grower's estimate for each crop), how likely would you be to take out Multi-Peril Crop Insurance? Would you say very likely, fairly likely, not too likely or not likely at all?

Key Findings

➤ In a further pleasing result, 51% of growers said they were either *very likely* or *fairly likely* to take out MPCl at their own estimated premium rates, with 10% in the *very likely* category.

➤ This result is very similar to that achieved when we asked growers to ignore price. It suggests that a significant proportion will buy the product if their price expectations are realistic or viable. We saw in the last section that this was essentially the case for a significant proportion of growers.

| How Likely to Take Out MPCl at Grower's Anticipated Premium (Q15.) | |
|--|--------------|
| Response | % |
| Very likely (a) | 10% |
| Fairly Likely (b) | 42% |
| NET LIKELY | 51% |
| Not too likely (c) | 27% |
| Not likely at all (d) | 19% |
| NET NOT LIKELY | 45% |
| Projection (a+0.25b) | 20.5% |

Implications

Using the projection formula of 'believing' all those who say they are *very likely* to buy and one quarter of those saying they are *fairly likely* to buy, this results in a projection of 20.5% market penetration – to be taken as a guide for now, until we examine growers' reaction to likely *actual* prices.

11. Preferred Excess Level (Deductible Amount)

To conduct the price elasticity analyses of this study, growers were asked to nominate one of two excess levels which were available in their Region. This would then trigger premium levels for these relevant crops. They did this without any reference to premium variation (i.e. they did not know the extent to which premium would vary with changes in excess). In the 'real world', growers would have some idea of the relationship between excess level and premiums.

However, response will give some indication of growers' preference for a higher or lower excess.

Q16. *In your Region, Multi-Peril Crop insurance would probably be available with an excess or deductible amount of:*

| | |
|---------------|------------|
| Regions 1 - 4 | 60% or 50% |
| Region 5 (WA) | 50% or 40% |

Growers were informed that with the upper excess level, premiums would be cheaper than the lower excess level (but not by how much). It was also explained that these excess levels are typically higher than for normal crop insurance (fire and hail) because of the events they cover, with the aim of guaranteeing a minimum income in the event of severe yield loss.

Key Findings

- Growers in Regions 1-4 had a strong preference for a lower excess level (50% rather than to 60%), while growers in Region 5 tended to prefer the higher option (50% in preference to 40%).

The following table summarises preferences:

| % of Growers preferring Particular Excess Level | | | | | | |
|--|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Excess Level | Australia (n=173) | Region | | | | |
| | | 1 (n=36) | 2 (n=33) | 3 (n=24) | 4 (n=36) | 5 (n=44) |
| 40%* | 7% | n/a | n/a | n/a | n/a | 40 |
| 50% | 69% | 74% | 77% | 68% | 72% | 60% |
| 60%** | 23% | 26% | 23% | 32% | 28% | n/a |

* Available in Region 5(WA) only in this concept evaluation

** Not offered in Region 5 (WA), due to higher affordability of 40% excess in WA, due to lower risk

Implications

It appears that only a minority of growers will be inclined to accept an excess around the 60% level.

Acceptability of excess levels offered in the MPCCI product concept are further discussed in Section 14.

12. Demand Estimates and Price Elasticity Aspects

For the purposes of gauging grower reaction to MPCl, three premium (price) levels were used:

1. The *middle* or 'viable' premium, as estimated by consulting actuaries
2. A *low* premium (0.7 x the *middle* or *viable* premium)
3. A *high* premium (1.3 x the *middle* premium)

Hence, the *low* and *high* premiums were 30% lower and higher respectively than the *middle* premium.

How we measured latent demand at a given price and price elasticity

The total sample (513 respondents) was split into 6 panels of similar size. Respondents in each panel were then asked to declare their likelihood in purchasing MPCl at the three price levels, covering the following 6 rotations of price:

- Panel 1 - Middle/low/high (i.e. middle price prompted first)
- Panel 2 - Middle/high/low
- Panel 3 - Low/middle/high
- Panel 4 - Low/high/middle
- Panel 5 - High/middle/low
- Panel 6 - High/low/middle

It can rightfully be argued that a grower who has been prompted with a low price *first* would then be less inclined to purchase MPCl when prompted with the middle or high price. The converse also applies.

For this reason, we place greater emphasis on grower attitudes at the *first* price quoted – particularly when the first price was the middle or 'viable' price.

A computer program was written to interface with the computer-assisted telephone interview, capable of taking the following into consideration when prompting a particular respondent with premium (price) levels:

- ↳ Shire where property located
- ↳ Excess level nominated by grower
- ↳ Crops grown (covered by MPCI)
- ↳ Panel belong to for price rotation purposes

The actual question asked was:

Q17. I will now give you some premium rates. You might like to jot them down. Now if the premium for Multi-Peril Crop Insurance was . . .

X% per wheat

Y% for barley

Z% for canola

. . . and remember these are for multi-peril crop insurance with (GROWER'S NOMINATED EXCESS) and the rate applies to the agreed harvest value of the crop before planting.

Thinking about it carefully, at this premium rate or cost, how likely would you be to take out Multi-Peril Crop Insurance? Would you say very likely, fairly likely, not too likely or not likely at all?

Key Findings

TQA Research's best estimate of MPCCI penetration is 18% of all grain growers. This would arguably take 3-4 years to achieve.⁽¹²⁾

We will now discuss the logic for this projection.

➤ Estimated demand at middle or 'viable' price

The following two tables show growers' likelihood of purchase at the middle price. The first table (Table 12.1) is for those growers who were prompted the middle price *first* (hence no chance of bias due to an aforementioned higher or lower price). This is the better indicator of true demand (at the middle price).

The second table (Table 12.2) is for the total sample, examining attitudes towards purchase at the middle price, but acknowledging two thirds of the sample (4 of the 6 panels) would have been prompted with either a lower or higher price than the middle price, before declaring likelihood of purchase at the middle price.

Table 12.1

| Likelihood of taking out multi-peril crop insurance at 'middle' (realistic) price - prompted first (Q17b.) | | | | | | |
|--|----------------------|-------------|-------------|-------------|-------------|-------------|
| Crop | Australia (n=173) | Region | | | | |
| | | 1 (n=36) | 2 (n=33) | 3 (n=24) | 4 (n=36) | 5 (n=44) |
| Very likely (a) | 9% | 12% | 16% | 10% | 4% | 5% |
| Fairly likely (b) | 40% | 53% | 51% | 35% | 24% | 52% |
| Not too likely (c) | 27% | 17% | 23% | 27% | 45% | 18% |
| Not likely at all (d) | 22% | 8% | 9% | 28% | 25% | 25% |
| Don't know (e) | 2% | 10% | 2% | 0% | 2% | 0% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% |
| Project uptake (a + 0.25b) | 19% | 25% | 29% | 19% | 10% | 18% |

⁽¹²⁾ Not a direct result of this study, but rather intuitive assessment based on market penetration of other services in the rural sector.

Table 12.2

| Likelihood of taking out multi-peril crop insurance at 'middle' (realistic) price - after all price prompts - rotated (Q17b.) | | | | | | |
|---|-------------------|-----------|-----------|----------|-----------|-----------|
| Crop | Australia (n=513) | Region | | | | |
| | | 1 (n=111) | 2 (n=100) | 3 (n=71) | 4 (n=101) | 5 (n=130) |
| Very likely (a) | 9% | 15% | 10% | 7% | 6% | 10% |
| Fairly likely (b) | 34% | 34% | 40% | 31% | 33% | 37% |
| Not too likely (c) | 28% | 32% | 23% | 26% | 33% | 24% |
| Not likely at all (d) | 26% | 13% | 24% | 32% | 25% | 25% |
| Don't know (e) | 3% | 6% | 2% | 2% | 2% | 4% |
| <i>Total</i> | 100% | 100% | 100% | 100% | 100% | 100% |
| <i>Project uptake (a + 0.25b)</i> | 18% | 24% | 20% | 15% | 14% | 19% |

TQA Research has forecast market demand (projected uptake) by 'believing' all growers saying they are *very likely* to purchase and 25% of those saying they are *fairly likely* to purchase. This formula has been heavily influenced by previous assignments conducted by TQA Research over the last 15 years and also makes some allowance for growers not completing the full interview because they found the MPCCI concept somewhat confusing⁽¹³⁾.

TQA Research recommends the 18% penetration as the 'best estimate', with projected latent demand levels for Regions as per Table 12.2. While we stated that Table 12.1 (middle price prompted first) is the best overall indicator, we see that the national projections are very similar (19% in Table 12.1 and 18% in Table 12.2). However, the samples within each Region in Table 12.2 are larger, so we recommend this table be used as the basis for projections - simply because Regional results will be more reliable.

Differences in projected uptake between Regions are not statistically significant at the 95% confidence level. Nevertheless, the results (at 85% confidence level) suggest that demand is likely to be *slightly* higher in Region 1 (Central QLD/SW QLD/NW NSW) and lower in Region 4 (SA North/SA and VIC Mallee).

⁽¹³⁾ See Section 3, *Research Methodology*, for more details

➤ Price elasticity of demand

To measure price elasticity of demand, we examine the proportion of growers likely to purchase at the *low*, *middle* and *high* premium levels.

Furthermore, we are only interested in the monadic response – that is, response to the price nominated *first* in the rotation – so no bias is possible from a previously nominated higher or lower price.

The table below shows the demand projection at each of the three nominated price levels, indicating that demand is quite price sensitive:

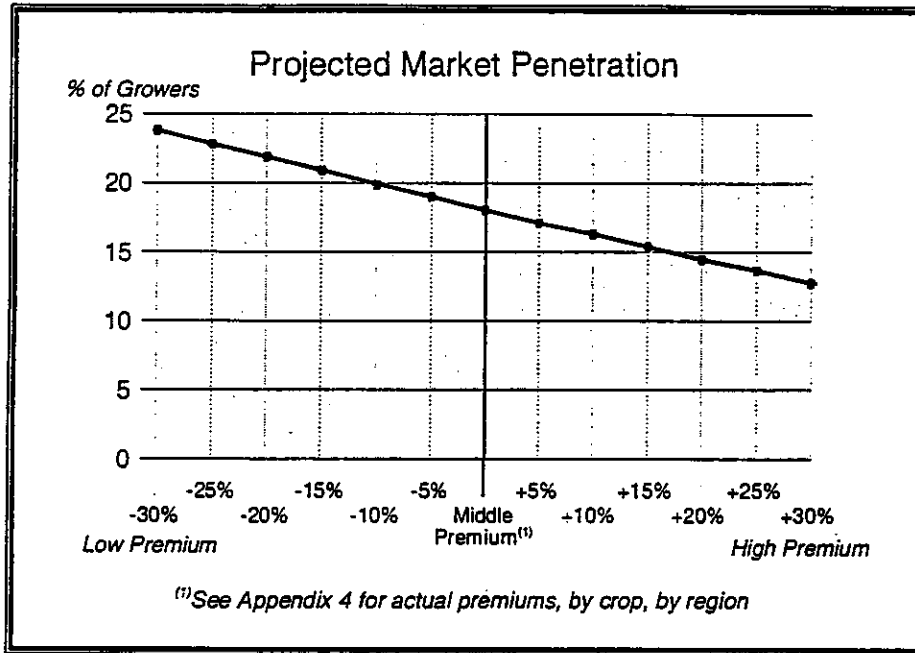
| Proportion likely to buy at nominated premiums - Monadic result (nominated prices prompted first) | | | |
|--|-------------------------------|---------------------------|--------------------------------|
| Response | Nominated Premium | | |
| | Low (-30%) (n=169) | Middle (n=193) | High (+30%) (n=171) |
| Very likely to purchase (a) | 14% | 9% | 4% |
| Fairly likely to purchase (b) | 43% | 40% | 38% |
| Demand projection (a+0.25b) | 25% | 19% | 13.5% |
| Index of demand (middle price =100) | 132 | 100 | 71 |

Highlights of the above table include:

- ↳ When the demand projection formula is applied, it can be seen that demand falls by 29% (from index 100 to index 71), as price rises 30% above the middle premium rate.
- ↳ Similarly, demand increases 32% as premiums fall 30% below the middle rate.
- ↳ The 'reaction' in demand on both sides of the middle price is similar (close to symmetric). For each percentage point increase in price, there is very close to a corresponding one percentage point decline in demand (however, we do not recommend this formula be applied outside the limits of the high and low prices used in this analysis).

If we 'normalise' the demand projection at the middle price to 18%,⁽¹⁴⁾ the following market penetration levels can be determined for various price levels:

| Premium Level | | Projected Market Penetration |
|-------------------------------|------|------------------------------|
| Low Premium | -30% | 23.8% |
| | -25% | 22.8% |
| | -20% | 21.9% |
| | -15% | 20.9% |
| | -10% | 19.9% |
| | -5% | 19.0% |
| Middle Premium ⁽¹⁾ | Base | 18.0% |
| | +5% | 17.1% |
| | +10% | 16.3% |
| | +15% | 15.4% |
| | +20% | 14.5% |
| | +25% | 13.7% |
| High Premium | +30% | 12.5% |



It is therefore apparent that market penetration at a price of 30% above the middle premium (23.8% of growers buying) will be virtually double that at a price 30% below the middle premium (12.5% of growers buying).

⁽¹⁴⁾ We do this simply because we have more robust samples within Regions which are compatible with the 18% market projection, as per Table 12.2.

Certainly, MPCCI would be only a 'niche' product at the higher price (30% above middle premium), whereas it could be considered to have significant market penetration at the middle premium level (with close to one in five growers purchasing after a period of, say, three years).

Summing up this Section . . .

Market demand will be firm, without being buoyant, with an approximate 18% market penetration forecast over a three year period. The product certainly would not fail, nor could it be classified as a 'sure-fire winner'.

This projection assumes effective product communication and the use of insurance brokers and agents to help explain and market the product (further discussed in Section 20).

The market for MPCCI is very price sensitive and it is not recommended that premiums much above the middle rate used in this study be applied for actual market launch.

A Cautionary Note on 'Secondary' Pricing Implications

Consulting actuaries involved in this project have calculated 'viable' or 'middle' prices for evaluation in this research. These prices assume that uptake of MPCCI is widespread.

However, with an estimated 18% market penetration, this may mean viable premiums need to be re-calculated. TQA Research does not have the expertise to conduct this analysis - quite complex actuarial issues are involved - however, these repercussions on pricing (premium levels) certainly need to be kept in mind.

If, however, premiums need to increase by, say 30%, due to product uptake not being widespread, this would reduce demand by around 30% from where it would otherwise be. This would further contract the market, possibly necessitating further premium increases.

This is an important aspect which will need to be taken into consideration in the next stage of product development.

13. Attitudes Towards MPCCI – Overall and on Specific Issues

Q20. I'm now going to read out a few statements other growers have made about Multi-Peril Crop Insurance. Could you tell me whether you tend to agree or disagree with each. (ROTATE STATEMENTS - PROBE FOR LEVEL OF AGREEMENT/DISAGREEMENT)

Key Findings

➤ The prompted statements and national results are shown in the table below.

| Statement | Agree a lot | Agree a little | Neither agree nor disagree | Disagree a little | Disagree a lot | Total | Net agree | Net disagree |
|--|-------------|----------------|----------------------------|-------------------|----------------|-------|-----------|--------------|
| I would definitely take out multi-peril crop insurance if the price was reasonable | 44% | 31% | 7% | 9% | 9% | 100% | 75% | 17% |
| I don't think I would take out multi-peril crop insurance, no matter what it cost | 11% | 5% | 8% | 26% | 52% | 100% | 15% | 77% |
| It's too complicated a product for me | 10% | 11% | 6% | 32% | 41% | 100% | 21% | 74% |
| I would get an insurance broker or company representative or agent to go through it and give me advice | 54% | 18% | 3% | 7% | 17% | 100% | 72% | 25% |
| The excess levels or deductible amounts associated with multi-peril crop insurance are reasonable | 20% | 35% | 12% | 13% | 20% | 100% | 55% | 33% |

➤ Highlights include:

- ↳ 44% of growers *agree a lot* that they would take out Multi-Peril Crop Insurance if the price was reasonable. This is arguably the maximum penetration that MPCCI might achieve (in its current format). If MPCCI is to appeal strongly to more than 70% of growers, some changes would be required to make the concept more appealing.
- ↳ 15% agree (either *a lot* or *a little*) that they would not be inclined to take out Multi-Peril Crop Insurance, no matter what it cost. This is the 'non-winnable' segment and is not worryingly large. Cross-checks show most of these growers claim to live in stable or reliable areas where risks from adverse weather patterns are perceived to be lower (primarily Regions 4 and 5).
- ↳ 21% readily concede the product is too complicated for them.
- ↳ An overwhelming 72% agree that they would get an insurance broker or company representative or agent to go through MPCCI and give advice. This is a key finding, with direct implications for marketing strategies.
- ↳ A majority (55%) agree that the excess levels or deductible amounts associated with MPCCI are reasonable. The 33% indicating that excess levels or deductible amounts are *not* reasonable is certainly cause for mild concern and is discussed further in Section 14.

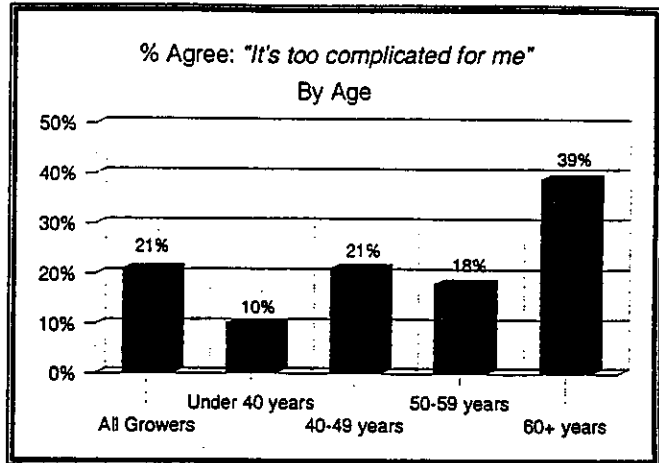
➤ In-depth analysis shows:

- ↳ Growers agreeing a lot that they would definitely take out MPCCI if the price was reasonable had a higher propensity to be in Region 1 (Central QLD/SW QLD/NW NSW). Younger farmers also more inclined.

↳ Those stating they would be unlikely to take out MPCI, regardless of cost, had a much higher propensity to be on properties where less than 50% of farm revenue was generated by grain.

↳ Growers over 60 years of age have a much higher propensity to believe *'it's too complicated a product for me'*, as evidenced by the adjacent chart.

↳ All Regions and grower segments gave strong indication that they would get an insurance broker, company representative or agent to run through MPCI with them and give advice.



Implications

Findings confirm reasonably strong latent demand for MPCI, although significant minorities find the product complicated/confusing and excess levels too high.

Around 15% of growers are unlikely to purchase MPCI, even if it was very reasonably priced.

13.1 How Large is the Truly 'Ripe to Buy' Segment?

In the previous Section we examined grower attitudes by examining level of agreement or disagreement with five key statements.

In this Section, we draw some critical conclusions, by looking at response across *all* statements. In particular, we examine the segment which is truly 'ripe' to buy MPCI. These are the 'hot prospects' and provide useful cross-checks on how many growers are genuinely likely to take up MPCI.

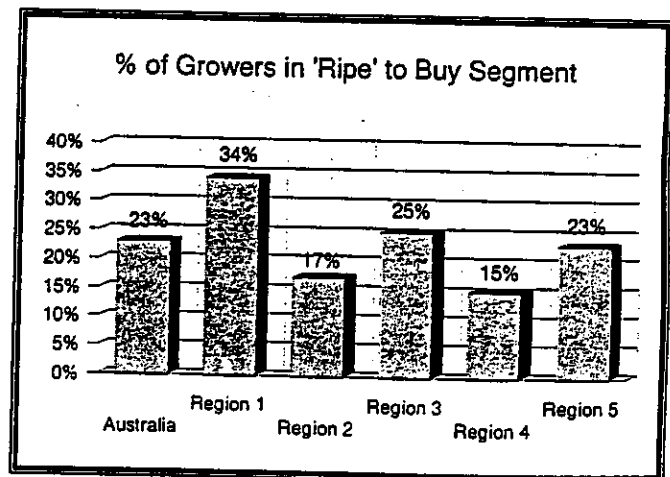
Key Findings

- We define the 'ripe' segment as those growers who say or believe:
 - ↳ they are *very* likely to buy if the price is reasonable
 - ↳ the product is not too complicated
 - ↳ deductible amount (excess) is reasonable

Almost one quarter (23%) of growers are in this 'ripe' segment – a good cross-check on the 18% forecast market penetration in Section 12.

- Notably, the proportion of growers belonging to the 'ripe' segment is highest (34%) in Region 1 (Central Queensland, SW Queensland and NW NSW). The adjacent chart tells the story.

The difference between the proportion of Region 1 growers in the 'ripe' segment (34%) and the corresponding measure for Region 4 (15%) is significant at the 95% confidence level.



- However, differences by State are not significant (range 18-28% in the 'ripe' segment).
- A substantial 45% of growers say the MPCI product is too complicated or deductible amounts are unreasonable.
- Only 5% of all growers state they are disinclined to buy MPCI, even though they regard the product as not too complicated and deductible amounts are not unreasonable.

These are the growers who possibly believe they are either in 'safe' areas or who do not like having to insure 30 days prior to planting.

Implications

The 'ripe to buy' segment, 23% of all growers, gives TQA Research confidence in the projected 18% market penetration, as discussed in Section 12.

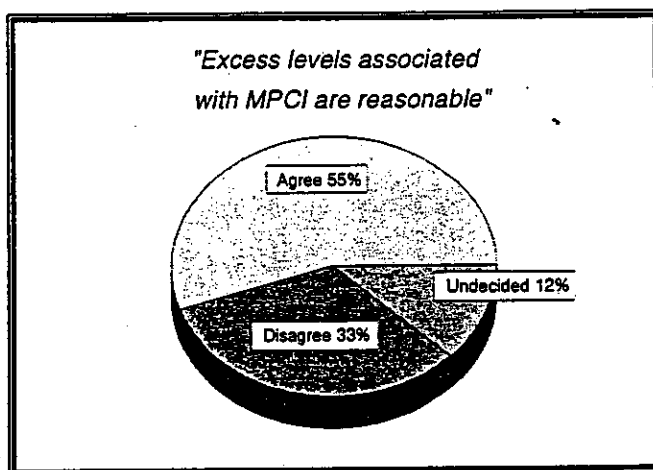
14. What is Regarded as an Acceptable Excess Level?

Those growers disagreeing that excess levels or deductible amounts were reasonable in Question 20 were further probed.

Q20a. *What would you regard as an acceptable excess level or deductible amount?*

Key Findings

- In the previous section we saw that 33% of growers *disagreed* that the excess levels or deductible amounts associated with MPCl were reasonable.
- The adjacent table summarises perceived acceptable excess levels across the entire sample, including respondents believing an excess of 50% or more is acceptable (i.e. those not qualifying for the above question).
- It can be seen that 19% of all growers request an excess level of less than 30%. Of course, this would push premiums up considerably and at the higher premium levels, the product *may* be totally unappealing.



| Excess Level Deemed Acceptable | % of all growers |
|--------------------------------|------------------|
| Up to 9% | 2% |
| 10% - 19% | 5% |
| 20% - 29% | 12% |
| 30% - 39% | 6% |
| 40% - 49% | 3% |
| 50% - 60% | 70% |
| Don't know | 2% |
| Total | 100% |

- Among those deeming excess levels in the MPCCI concept too high, the average grower requested an excess level around 25%, with relatively little variation by Region.

Implications

All other things being the same, the product will be more attractive if excess levels are lower. If further research is undertaken, it could be worth testing an MPCCI product with 30% excess (and, of course, higher premiums).

Nevertheless, it should be noted that excess levels of 50% or slightly higher are acceptable to a clear majority of all growers (70%).

TQA Research recommends that if further evaluation of the product concept is being conducted in growers clinics, a 'pay-off' analysis be conducted between excess levels and premiums – to gauge which combination of excess level and premium is most appealing to growers.

However, it is TQA Research's belief that lower excess levels may not increase total demand for the product, simply because premiums are likely to rise by at least 30% if excess levels are reduced substantially.⁽¹⁵⁾ Furthermore, we know from previous sections that an increase in price of 30% will lead to a decline in demand of roughly equal proportion.

That is to say, while a decreased excess level will increase the appeal of the product, the corresponding increase in premiums will act in the opposite direction, leaving demand for the product arguably no better off. However, detailed actuarial work and further market testing would be required to draw definite conclusions.

⁽¹⁵⁾ *As evidenced by differences in premiums that exist with excess levels of 40%, 50% and 60%.*

15. Whether Having to Take Out Cover 30/60 Days Before Planting Would Deter Growers

Q23. *In the concept it states that if you decide to take out Multi-Peril Crop Insurance, you must take out cover at least 30 days before commencement of planting.*

Would this requirement ever be a deciding factor deterring you from taking out Multi-Peril Crop Insurance?

IF DETERRED:

Q24. *Can you tell me why you say this requirement would why you say this requirement would deter you from taking out Multi-Peril Crop Insurance?*

Q25. *If you had to take out cover 60 days before planting, would this ever be a deciding factor deterring you from out Multi-Peril Crop Insurance?*

Key Findings

- Of some concern, 60% of growers say the 30 day requirement would deter them from taking out MPCI, with this proportion reaching 76% in Region 2 (SE QLD/NE NSW/ NSW Slopes). This factor could therefore be classified as a substantial deterrent, necessitating some reviews.

| Attitudes Towards Product Purchase Lead Time | | | | | | |
|---|-----------|--------|-----|-----|-----|-----|
| Result | Australia | Region | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Having to insure 30 days before planting would deter purchase | 60% | 60% | 76% | 66% | 50% | 53% |
| 60 days before planting would deter | 84% | 87% | 94% | 87% | 80% | 78% |
| 60 days would deter but 30 days would not | 24% | 26% | 18% | 21% | 30% | 25% |
| Neither 30 days not 60 days would deter | 15% | 13% | 6% | 13% | 20% | 22% |

**Denotes significantly different from one or more other Regions at 95% confidence level*

- One quarter (24%) of growers believe having to take out cover 60 days prior to planting would deter them, but 30 days would not. These growers are evenly spread throughout the grain belt.
- Only 15% of growers said they would not be deterred by *either* a 30 day or 60 day lead time. Furthermore, the proportion of growers in this category falls to as low as 6% in Region 2.
- **Why 30 day requirement would deter taking out MPCCI?**

In essence, many growers said they could not predict the weather and hence could not predict planting time. The following table summarises attitudes:

| Reason why would be deterred by having to insure 30 days before planting | % mentioning |
|---|---------------------|
| Can't predict the weather/can't predict planting time | 49% |
| Late changes to cropping plans/not sure what will grow | 27% |
| 30 day period just too long (NFI) | 22% |
| Decision to insure should be at planting time | 7% |
| Too early in season to commit financially/pay | 6% |
| Too many variables between insuring and harvesting | 4% |
| Problems estimating the yield before planting the crop | 4% |
| Not enough flexibility/too much uncertainty | 1% |

Sums to more than 100% due to multiple mentions

- Typical comments coming from growers included:

"You can think you are three or four weeks away from planting and all of a sudden there is an early break - autumn rains - before you know it you're on the tractor sowing."

"Around here, we make late changes to cropping plans. It all depends on the amount of moisture in the soil and when the actual break (in the weather) comes."

"I reckon 30 days is too long you might think you have 30 days up your sleeve. but this can quickly turn into 14 days and you have missed the period when you can take out this Multi-Peril Crop Insurance."

"I can see a lot of growers who might be interested in this insurance not taking out simply because they miss the 30 day critical point. They might be seriously thinking about it a week or so before putting the crop in, but then it's too late."

"You'd have to be very disciplined in your planning to get the timing of your insurance right. I really don't know too many farmers around here who would be in that category."

"What happens if you plant one of the multi-peril crops very early and the other one 10 days later? It's pretty hard."

Implications

Clearly, the necessity to take out Multi-Peril Crop Insurance at least 30 days prior to planting requires serious review. It will deter *many* growers. It will either be necessary to shorten the 30 day period or boldly communicate to growers that if they insure for a crop which is not planted they will receive a full refund.

Similarly, growers could declare their intention to take out MPCCI with a deposit of say 5% of the premium value, paid at the time of declaration.

Based on all feedback, TQA Research believes the best option would be to establish a telephone hotline which allows growers to insure within a few days of planting time. This is simply because many growers will have the best intentions of insuring, but could miss the 30 day 'cut-off' period and then not be eligible to take out MPCCI.

This is a critical aspect which will need fine-tuning before the final product is released. In essence, the current 30 day 'rule' is not consistent with current grower 'psychology'.

16. Attitude to Cover for Wheat and Barley Commencing at First Jointing

Q26. For wheat and barley, the cover would begin at First Jointing. Would this suffice for you or would you require cover from an earlier or later stage?

Key Findings

- Exactly half (50%) of growers are comfortable with wheat/barley cover commencing at first jointing.

However, a substantial 38% say they would prefer cover to commence earlier, with almost an even split between those preferring cover from first emergence (22%) and when crop planted (18%).

| Growers attitudes towards wheat/barley cover commencing from first jointing | |
|---|-------------|
| Response | % |
| OK - no problem | 50% |
| Prefer earlier cover (all mentions) | 38% |
| ↳ from first emergence | 22% |
| ↳ from when planted | 18% |
| ↳ other earlier mentions | 4% |
| Prefer later cover | 9% |
| Can't say | 3% |
| Total | 100% |

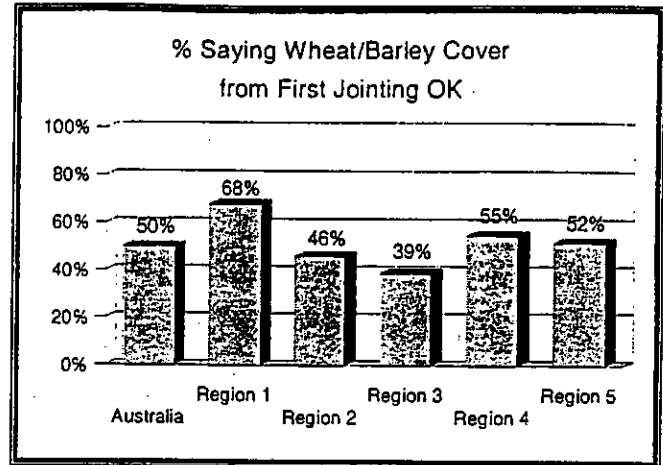
Base: Growers growing wheat or barley (n=513)

- Almost one in 10 (9%) said they would prefer cover to commence later, as they saw the main risk period being later in the season or at the crop ripening stage.

A few of these growers also added that insurance might be a bit cheaper if the cover was for a shorter period.

A majority of growers in three of the five Regions were satisfied with cover commencing from first jointing (see adjacent chart)

Growers in Region 4 (SA Mid North/SA and VIC Mallee) had a higher propensity to prefer cover commencing later (19%).



Implications

It is evident that MPCl will have greater appeal if cover commences earlier in the crop growing cycle.

Only careful actuarial analysis and discussion with agronomists will be able to determine the implications for premiums and economic viability of such cover.

Indeed, it could be possible to offer different options, with different premiums, depending on when cover commences.

17. Whether Canola Cover Commencing at the Eighth Leaf Stage Considered Acceptable

Q26c. For Canola, cover would begin at the 8th leaf stage. Would this suffice for you or would you require cover from an earlier or later stage?

Key Findings

- Almost half (45%) of canola growers felt that cover from the 8th leaf stage was acceptable.

A similar proportion (47%) would prefer earlier cover, with 25% preferring cover from time of planting and 22% from time of first crop emergence from the ground.

| Growers attitudes towards canola cover commencing at 8th leaf stage | |
|---|-------------|
| Response | % |
| OK - no problem | 45% |
| Prefer earlier cover (all mentions) | 47% |
| ↳ from first emergence | 25% |
| ↳ from when planted | 22% |
| ↳ other earlier mentions | 3% |
| Prefer later cover | 5% |
| Can't say | 3% |
| Total | 100% |

- A few canola growers (5%) said they would prefer later cover.

Implications

Once again, we see quite a strong call for insurance to commence earlier in the plant growth cycle. Any shift towards this would certainly make MPCCI more attractive, notwithstanding underwriting risks involved.

Similar to wheat and barley, there could be merit in a variable premium based on period of cover - notwithstanding that this makes the product even more complex.

18. Whether Inclusion of Quality Downgrades Would Make Growers More Inclined to Take Out MPCCI

Q27. *It is not at this stage planned that a quality downgrade be included in the cover. One reason for this is that there is insufficient data to calculate premiums.*

If quality downgrades were included, would you be more inclined to take up the cover? Would you say . . . (READ - ROTATE) . . . much more inclined, a little more inclined or not more inclined?

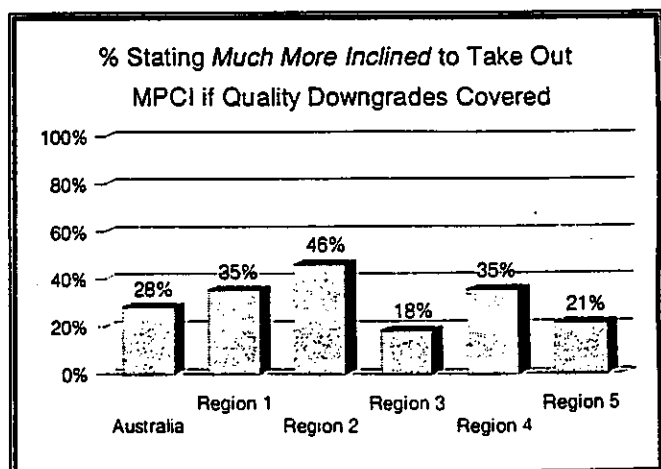
Key Findings

- A substantial 28% of growers said they would be *much more inclined* to take out MPCCI if quality downgrades were included in the cover.

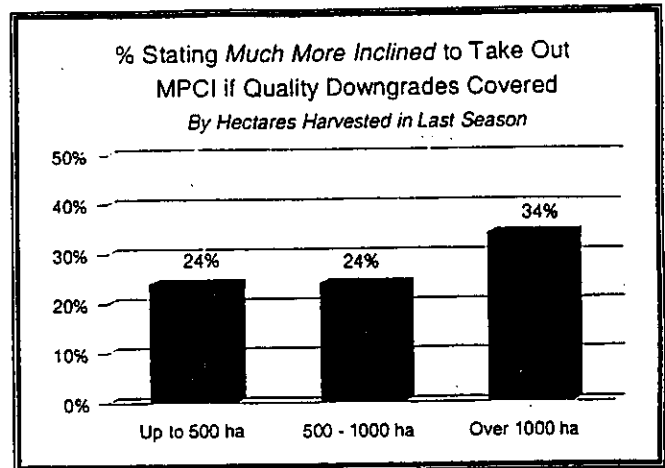
| Whether more inclined to take out MPCCI if quality downgrades covered | |
|---|-------------|
| Response | % |
| Much more inclined | 28% |
| A little more inclined | 43% |
| Not more inclined at all | 26% |
| Don't know | 3% |
| Total | 100% |

A further 43% said they would be a *little more inclined* to take out cover.

- There was significant variation by Region in the proportion saying they would be *much more inclined* to take out MPCCI if quality downgrades were covered. Forty-six percent (46%) of growers in Region 2 were in this category, more than double the corresponding proportion in Region 3 (18%) and Region 5 (21%) - see adjacent chart.



- Growers on larger properties had a greater tendency to say they would be more inclined to take out MPCCI if quality downgrades were covered (see adjacent chart).



Implications

There is little doubt that inclusion of quality downgrades in MPCCI will make the product significantly more appealing.

Projected market penetration could increase from 18% (as discussed in Section 13), to around 30%, if quality downgrades were covered. This assumes premiums were unchanged as a result of inclusion of quality downgrades (unlikely).

However, previous sections of this report have shown significant latent demand for MPCCI even *without* quality downgrades being covered.

The inclusion of quality downgrades in MPCCI will make 'policing' of growers' behaviour and crop management far more critical, as a crop's ultimate quality is very much a function of nutrition and other controllable variables – not just the weather or 'acts of God'.

19. Extent to Which Major Crop Yield Losses Have Been Encountered in the Last 5 Years/3 Years

Q30. In the last five years, since 1995, have you encountered any severe crop yield losses - say losing 40% of yield or more - due to weather conditions or other factors after you've put the crop in the ground. Ignore quality downgrades for now - just yield losses of 40% or more?

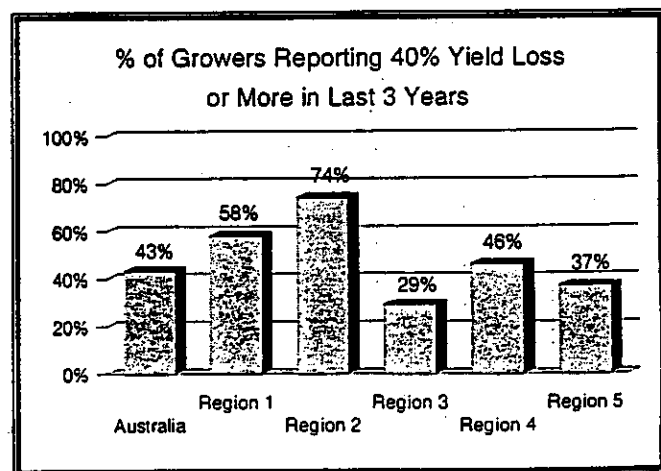
IF YES:

Q31. Has a loss of this nature been experienced in the last 3 years, since 1997?

Key Findings

➤ Results certainly confirm the need for a product like MPCCI, with 58% of growers experiencing yield losses of 40% or more in the last five years (43% in the last three years).

➤ Examining results by Region, a very high 74% of growers in Region 2 (SE QLD/NE NSW/NSW Slopes) said they have encountered such losses in the last three years, whereas losses in Region 3 (NSW Central/SA & VIC Borders/Wimmera) have been small by comparison (see adjacent chart).



➤ By State. Queensland has been the hardest hit with 72% of growers reporting yield losses of 40% or more in the last three years.

- There was relatively little variation between the other States – typically around 35%-40% of growers encountering yield losses of 40% or more in the last three years.
- Cross-checks show those growers who have experienced significant yield losses in the last three years have only a slightly greater inclination to be interested in purchasing MPCl (differences on this aspect are not significant at the 95% confidence level).

➤ Implications

Without doubt, many growers have experienced severe yield losses in recent years, which would engender positive attitudes towards MPCl.



20. Perceived Usefulness of Various Information Channels

Q21. *If Multi-Peril Crop Insurance were to become available, how useful would you regard the following methods as a means of informing you about the product and making it available to you? (READ CHANNELS - ROTATE):*

Discussing the insurance with a local insurance broker, company representative or agent.

Having a web site to obtain information on this insurance.

Dealing directly with the insurer via telephone.

Q22. *And of those methods, which do you think would be best . . . I'll read them again . .*

Key Findings

- Discussing MPCCI with the local insurance broker, company representative or agent was deemed, by far, the most useful method of the three prompted, with 94% of growers deeming this method useful (and 61% saying *very useful*).
- Furthermore, an overwhelming majority (75% of growers) nominated liaison with a local insurance broker, company representative or agent as the *best* method.

| Perceived Usefulness of Information Channels | | | | | | | |
|---|-------------------|-------------------|--------------------|-----------------------|-------|------------------|---|
| Channel | How useful (Q21.) | | | | Total | Net Useful (a+b) | % of growers nominating as <i>most</i> useful |
| | Very useful (a) | Fairly useful (b) | Not too useful (c) | Not useful at all (d) | | | |
| Discussing the insurance with a local insurance broker, company representative or agent | 61% | 33% | 4% | 2% | 100% | 94% | 75% |
| Having a web site to obtain information on this insurance | 28% | 28% | 10% | 33% | 100% | 56% | 13% |
| Dealing directly with the insurer via telephone | 28% | 40% | 20% | 10% | 100% | 69% | 12% |
| Total | | | | | | | 100% |

- There was little difference in result by grower segment, with the exception of Queensland growers being less inclined to prefer a web site and relatively more inclined to prefer dealing directly with the insurer via telephone. However, Queensland growers still had an overwhelming preference for discussing the insurance with the local insurance broker/company representative or agent (75% rating as *best* option).

Implications

These results reflect a strong grower preference for discussing MPCII with a local knowledgeable person.

It will therefore be *critical* that the distribution of MPCII involve *local* brokers, company representatives or agents.

Appendix 1

Grower Recruitment Script and Questionnaire

(As used in Stage 1)



Crop Insurance – Recruitment Phase

September 2000

TQA Research

Region: Qld Central Zone ----- 1
 NE NSW/SE Qld ----- 2
 NSW Central Zone ----- 3
 SA/Vic Mallee ----- 4
 WA Central Zone ----- 5

INTRODUCTION:

Hello, my name is (FULL NAME) from TQA Agribusiness Research in Melbourne. We're involved with an important study on crop insurance in the grains industry. The study has the backing of the Grains Council of Australia and the Insurance Council of Australia. Could I have a brief word with the person on the property who is most involved in crop insurance decisions – even if you don't have crop insurance, you are still very important to us.

RE-INTRODUCE IF NECESSARY (REPEAT BOLD FROM ABOVE)

The study we are conducting is to evaluate a potentially new type of crop insurance called Multi-Peril Crop Insurance. Unlike traditional crop insurance, which essentially covers against fire and hail, Multi-Peril Crop Insurance will offer protection against extremes in the weather, such as drought, severe frost and wet finish.

Firstly, can you tell me approximately how many hectares – that's hectares, not acres – you have planted with winter grains this season?

→
→

Hectares
 IF LESS THAN 100,
 THANK AND END

What I'd like to do is send you a few pages of information on this insurance concept – just so you can read it and think about it for a while – it's not really suitable for describing over the phone - then ring you back to get your thoughts on the concept. The follow-up interview will take about 15 minutes. This is purely for research purposes and is in no way involved with any selling activities. Can you help us with this study, which is quite important for the grains industry.

IF REFUSE OR RELUCTANT: You really would be helping by participating, as we need all types of grain farms in the sample.

IF QUERY TIMING (OLYMPICS): We will call back at a convenient time. If we have to call back a few times that's OK with us

PARTICIPATE? Yes ----- 1 Goto Q1
 No ----- 2 Continue

IF CAN'T PARTICIPATE AT ALL (EXCLUDING CALL BACKS), RECORD REASON:

- Away over next three weeks ----- 1 THANK AND END
 Just refuse ----- 2 THANK AND END
 Don't have or believe in insurance/ crop insurance ----- 3 GOTO 'SAY 1'
 Owner/manager lives off-farm ----- 4 ASK NAME + TEL NO.
 Other reason (specify _____) ----- 5 THANK AND END

SAY 1: We'd still like you to evaluate it so we have a representative sample of growers, and it's a new type of insurance. Can you help us? Yes ----- 1 GOTO Q1
 No ----- 2 THANK AND END

Q1. This year, have you sown... (READ)

- Wheat ----- 1
 Barley ----- 2
 Canola ----- 3
 Lupins ----- 4
 None of the above ---- 5 --> Thanks, but for the study we need to talk to farmers growing at least one of these crops. So I won't need to trouble you now. Thanks anyway.
 END

Note for fieldwork: While Q1 is a qualifier, it will be very unusual for the farmer not to grow one of the four nominated crops. This is why it's better to ask here.

Q2. To be sure I'm sending the information to the right person at the right address, could I just confirm your name and address. PROBE -EXTRA CARE WITH SPELLING - USED FOR MAILING.

Title: Mr/Mrs/Ms: _____ First name: _____
 Surname: _____

No. Street/Road/Property Name: _____

Town: _____

State: NSW ---- 1 Vic ----- 2 QLD ----- 3 SA ----- 4 WA ----- 5

Postcode:

Nadine, is it possible for details from list to come up on screen near this to make it easier for interviewer?

That's great. Thanks for your help. You will receive something in the mail in a few days and we look forward to calling you back to get your views. SIGNOFF+ END

Appendix 2

Detailed Product Concept and Covering Letter Forwarded to Growers





Strategic research for decision makers

A.C.N. 006 485 598

28-30 Station Street,
Sandringham. 3191
Victoria, Australia
Telephone:(03) 9521 9288
Facsimile:(03) 9521 9422
Email: admin@tqaresearch.com.au

4 September 2000

Mr Graingrower

Important Study on Multi-Peril Crop Insurance

Thank you for agreeing to assist us in this important study on Multi-Peril Crop Insurance. You may recall that we called you recently to seek your participation. This study has the approval of the Grains Council of Australia, National Farmers Federation, Federal Government and all mainland State Governments and other stakeholders within the grains industry.

The main purpose of the study is to ascertain the level of grower interest in this potential new type of crop insurance.

Multi-Peril Crop Insurance would be able to offer protection against crop yield losses due to adverse weather conditions (eg. frost, lack of rain or too much rainfall) and is quite different to traditional crop insurance that has essentially covered against fire and hail only.

Rest assured that this study is for genuine market research purposes and is not involved in selling activities in any way. We simply seek your frank and honest opinions and will contact you again by telephone in a few days to discuss your views.

To assist us with the study could you please review and be familiar with the attached material *before* we call. The material outlines how Multi-Peril Crop Insurance would work, but pricing is not mentioned. We will discuss pricing when we telephone you.

You will also need the attached pages handy beside the telephone when we call to discuss your opinions – so please keep these in a safe place.

Your assistance is greatly appreciated and we look forward to talking to you soon.

Yours faithfully,

TONY QUINT
Project Director

P.S. We apologise if some of our interviewing occurs over the Olympics period, but we are endeavoring to meet very tight deadlines for the project. If we call at an inconvenient time, we will be happy to call back. TQ

The Concept
Multi-Peril Crop Insurance
For wheat, barley and canola.

Please read and consider the following carefully. We'll call you to discuss your thoughts.

You could insure your crop against adverse weather and other factors that might have a serious negative impact on your crop yields – even total crop wipeout.

Most graingrowers have regularly insured their crops against fire and hail. But Multi-Peril Crop Insurance could offer protection against those great variations in weather that can severely reduce your crop yield. In fact you may in the future be able to insure against the type of circumstances that in the past could have led to financial ruin of your farm enterprise.

Multi-Peril Crop Insurance can protect against severe crop losses – rather than minor crop losses - due to circumstances such as excessive rainfall, lack of rainfall, lack of sunshine at key growing periods and other whims of nature. In fact it's easier to say what Multi-Peril Crop Insurance does not cover – these are summarised in the Excluded Events Listing (Table 3 in Section 5).

1. How it would work

Crops insured under the policy would be covered for loss of yield due to any event other than an excluded event (see Table 3). You would be covered for yield losses for any event not listed in this table. Quality downgrade is not covered.

Crops covered would be wheat, barley and canola. If you wish to take out Multi-Peril Crop Insurance, you must insure *each* of these crops that you grow. For example, if you grow wheat and barley, you cannot take out cover for wheat only. Both crops grown must be covered, if you decide to take out Multi-Peril Crop Insurance. Also you must insure the *entire* crop – *all* paddocks grown of each crop covered by this type of insurance.

If you decide to take out this cover, you must insure at least 30 days before planting commences for any of the relevant crops.

First, we need to define some terms and a formula.

Agreed value for each crop

For each crop covered by the policy, the insurer agrees with you on projected yield (tonnes per hectare) and projected value (\$ per tonne). Hence there is an agreed value on each crop covered by the policy. Agreed yields per hectare and value per tonne will take into account regional variations and market conditions at the time. They will be realistic.

Deductible amount or Excess (%)

The deductible amount is the proportion of agreed crop value that you cannot claim, should you make a claim against the policy.

The deductible amount will typically be 50% or 60%. While these excess or deductible amounts may appear high, remember this type of crop insurance covers for the vagaries of the weather and is aimed at covering serious loss situations. The aim is to at least recover input costs, should severe crop losses or total wipeout occur.

Indemnity Value for each crop

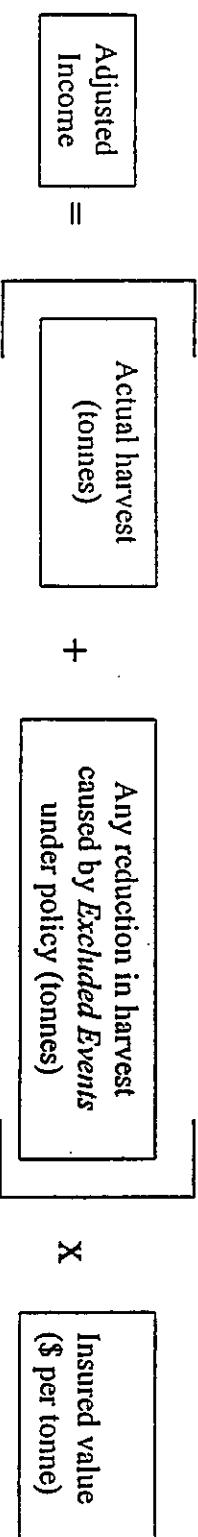
This is the agreed value of each crop covered by the policy, less any excess or deductible amount. For example, if a particular crop had an agreed value of \$100,000 and a 50% excess had been chosen by the grower, the Indemnity Value for this crop would be \$50,000.

Total Indemnity Limit

This is just the sum of the Indemnity Values for each crop covered by the policy.

Total Adjusted Income

An adjusted income is calculated for each crop, as follows:



Total Adjusted Income is just the sum of the adjusted income for each crop covered by the policy. Remember that the insured value per tonne is nominated by you and agreed by the insurer at the time the policy is taken out. This will not change as the season progresses, even if there are fluctuations in the farm gate prices of the crops insured.

The claim payment formula

If an event (other than an excluded event) occurs, claims are paid according to the following formula:

$$\text{Claim Payment} = \text{Total Indemnity Limit less Total Adjusted Income}$$

2. Example of claim settlement

Assume you planted wheat and barley and took out a Multi-Peril Crop Insurance policy as per the area, agreed yields and agreed values per tonne set out in Table 1. You had also nominated a 50% excess. Table 1 shows how a Total Indemnity Limit of \$111,000 is calculated.

Table 1

| | A | B | C | D | E | F | G | |
|--|-----------|--------------------------|---------------------------------------|-----------------------------|------------------------------------|-------------------------------|-------------------------------------|------------------|
| | Area (Ha) | Agreed yield (tonnes/Ha) | Estimated Harvest (tonnes) = A x B | Agreed value per tonne (\$) | Gross agreed crop value = C x D | Excess or Deductible Amount % | Indemnity Value = E x (100% - F) | |
| Wheat | 400 | 2.5 | 1000 | \$150 | \$150,000 | 50% | \$75,000 | |
| Barley | 200 | 3.0 | 600 | \$120 | \$72,000 | 50% | \$36,000 | |
| Total Indemnity Limit -----> | | | | | | | | \$111,000 |

Say, due to severe lack of spring rain (very dry or drought finish), the quality and quantity of grain harvested was below expectations. While quality loss is an excluded event, yield loss is not excluded and you are therefore entitled to make a claim.

..... continued overleaf

The policy covers loss of yield due to an event that is not an Excluded Event. Therefore no cover is provided for the reduction in price (quality) or losses on barley due to Excluded Events. Total Adjusted Income can be calculated as follows:

Table 2

| Crop | Simply transferred from Table 1 | | | | | Actual outcome of season | | | | M |
|--------|---------------------------------|--------------------------|------------------------------------|-----------------------------|--------------------------|---------------------------------|--|-----------------------------------|-----------------------------------|----------------------------|
| | A | B | C | D | H | I | J | K | L | |
| | Area (Ha) | Agreed yield (tonnes/Ha) | Estimated Harvest (tonnes) = A x B | Agreed value per tonne (\$) | Actual yield (tonnes/Ha) | Actual Harvest (tonnes) = A x H | Reduction in Harvest due to Excluded Events (tonnes) | Actual Farm Gate Price \$(/tonne) | Adjusted Harvest (tonnes) = I + J | Adjusted Income \$ = L x D |
| Wheat | 400 | 2.5 | 1000 | \$150 | 1.0 | 400 | 0 | \$150 | 400 | \$60,000 |
| Barley | 200 | 3.0 | 600 | \$120 | 0.7 | 140 | 20 | \$105 | 160 | \$19,200 |
| | | | | | | | | | Total Adjusted Income ---> | \$79,200 |

In the above example, the Total Adjusted Income (\$79,200) is less than the Total Indemnity Limit (\$111,000 from Table 1). Therefore, the claim would be settled as follows:

Total Indemnity Limit - Total Adjusted Income = Claim Payment
 (\$111,000) (\$79,200) (\$31,800)

That is, you would receive compensation of \$31,800.

In the above, it can be seen that it is the loss of yield due to an insured event that gives rise to a claim. A diminished value due to a loss of quality or change in the farm gate price does not impact on the claim calculation.

The following table shows when cover begins and ends for each crop:

| Insured Crop | Period of Insurance |
|------------------|--|
| Wheat and Barley | Cover begins at First Jointing and ends when the crop is harvested or at 4pm on the expiry date of the policy (whichever occurs first). First jointing is the stage of crop growth when the top node or joint can be distinguished on the stem of at least 50% of the crop. |
| Canola | Cover begins at the Eight Leaf Stage and ends when the crop is harvested or at 4pm on the expiry date of the policy (whichever occurs first). Eighth Leaf Stage is the stage of growth when at least 50% of plants have at least eight expanded true leaves, which can be counted on the primary stem without the need for dissection or other handling. |

If a crop fails before reaching the First Jointing (for wheat and barley) or the Eight Leaf Stage (for Canola), no claim is payable.

4. Premium Rates (Cost of Insurance)

These will be discussed when we call to discuss this type of insurance with you. The rates will apply to the total expected income (that is, the agreed value of the total crop(s) when insurance is taken out). A different rate will usually apply to each crop covered by the insurance.

..... continued overleaf

5. Excluded Events

The policy does not cover any claim arising directly or indirectly from the events listed in Column A of the table.

However cover is provided for claims arising from the event, where the circumstances detailed in Column B apply.

Table 3

| Excluded Events (Column A) | However Cover is Provided for: (Column B) |
|--|--|
| Loss of Quality Resulting in a reduction of price | |
| Market Price changes or fluctuations. | |
| Animals, Birds, Vermin or Insects | Locusts or Mice moving onto a crop in uncontrollable numbers |
| Disease | Disease occurring as a direct result of an event that is not excluded (i.e. is not listed in Column A) |
| A Deliberate Act ordered or carried out by you or any person acting with your permission | When the act is carried out to reduce or avoid damage that would have otherwise occurred |
| Flood – which is the escape of water from a natural or modified water course, lake or dam resulting in the flow of water onto land that is normally dry. | |
| Hail | |
| Fire | |
| Genetic Defect of any kind | |
| Erosion or Landslip | |
| Malfunction of Machinery | |
| Mismanagement or failure to apply acceptable crop management practises – This includes the overapplication, underapplication or untimely application of water, fertilisers, growth accelerant, growth retardant, fungicide, herbicide, insecticide or any other chemical treatment of the soil crop. It also includes untimely incompetent planting or harvesting and inappropriate crop rotation. | |
| Events that occurred before the period of insurance | |
| War or warlike activities – including invasion, act of a foreign enemy, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection, military or seized power or terrorism. | |
| Nuclear Weapons material | |
| Lawful seizure, confiscation, or requisition by an order of Government, Public or Local Authority. | We will pay for damage that occurs as a result of the order if it prevents or attempts to prevent loss or damage covered by this policy. |
| Ionising radiation or contamination by radioactivity from any nuclear fuel or waste from the combustion of nuclear fuel or pollution or pollutants of any type | |

6. Common Questions and Answers

Q. When I insure against fire and hail, the excess (deductible amount) is only 5% or 10% of crop value. But with Multi-Peril Crop Insurance, the excess is typically 50% or 60%. Why is this so?

A. Multi-Peril Crop Insurance covers you against many whims of the Australian weather. This insurance would be very expensive if the excess on the policy was only 10%, or even 30%. Multi-peril Crop Insurance covers for a broad range of events and is primarily aimed at covering your crop production costs, in the event of substantial yield losses or crop wipeout.

Q. Will the policy also cover fire and hail?

A. No. These events are excluded from Multi-Peril crop Insurance. You could take out a separate policy for this, with excess levels of 5%, 10% or other as nominated by you.

Q. Is it possible for me to have substantial losses on one crop, say due to frost, but still not be able to claim because my revenue on other crops was very good?

A. This is correct. The idea of Multi-Peril Crop Insurance is to protect the overall farm. So yield losses on one crop might be offset by yield gains on another. If this happens, your farm enterprise won't be seriously disadvantaged and the workings of the policy take this into account. But remember, whenever your total adjusted income falls below your total indemnity limit, you will be able to make a claim, providing the circumstance is not due to an excluded event.

Q. Why can't I insure for just the crops I wish to nominate. Why does the policy cover wheat, barley and canola? If I grow three of these, I must insure all three. Isn't that a bit restrictive?

A. The idea of the policy is to provide you with a guaranteed minimum income in the event of severe yield loss to your entire enterprise. The basic concept is to make sure you are able to cover the costs you incurred in growing the insured crop. Premiums would be more expensive if there was freedom to 'pick and choose' which crops to insure.

Q. Can crops other than wheat, barley and canola be covered under a Multi-Peril Crop Insurance policy?

A. At this stage, no.

After reading and thinking about this Multi-Peril Crop Insurance concept, please keep these pages in a safe place and have them nearby when we call for a chat about the idea.

Appendix 3

Main Questionnaire





Multi-Peril Crop Insurance

October 2000 Final

Call Back Growers from Phase One Growing Wheat, Barley or Canola in a Normal Year

REGION: ----- 1 ----- 2 ----- 3 ----- 4 ----- 5

POSTCODE:

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

AUTO INSERT

GROWER NAME & ADDRESS - AUTO INSERT

INTRODUCTION:

Hello, my name is (*FULL NAME*) from TQA Research in Melbourne. Could I please speak to (*CHRISTIAN NAME OFF LIST*) – it's about the crop insurance study he's/she's helping us with.

RE-INTRODUCE IF NECESSARY

IF BUSY, ARRANGE CALL-BACK

DO NOT TERMINATE INTERVIEW IF MATERIAL NOT BEEN READ OR UNDERSTOOD

Q1. (a) Did you *receive* the material we sent on Multi-Peril Crop Insurance? Yes ----- 1 GO TO Q2.
 No ----- 2 GO TO Q1b

(b) Can I just check we have the right address? **CONFIRM ON SCREEN**

IF RIGHT ADDRESS → The mail must be running a bit slow. I'll leave it a few days and call back. Sorry for ringing a bit early → **REGISTER AS CALL-BACK**

IF WRONG ADDRESS → It appears there has been an error with the address. I think we have enough graingrowers in your area to assist, so we'll let it go for now – but thanks for being co-operative. **END. DO NOT COUNT IN QUOTA.**

2. (a) Have you *read* the material on Multi-Peril Crop Insurance? Yes ----- 1 GO TO Q3.
 No ----- 2 GO TO Q2b.
 Partly/Too Confusing ----- 3 GO TO Q2d.

(b) Would you be able to read it in the next couple of days, so I can call back? Yes ----- 1 **ARRANGE CALL BACK**
 No ----- 2 **CONTINUE**

(c) Is that because you've tried to read it and found it too confusing? Yes/Too confusing ----- 1 GO TO Q2d.
 No/Just don't want to participate ----- 2 **THANK & END**
 Like to help, but too busy ----- 3 **THANK & END**

NOTE: CODE 3 TERMINATED AS QUALITY OF RESPONSE LIKELY TO BE POOR IF WE 'NAG' THEM TO PARTICIPATE

(d) That's important feedback for us. What I'd like to do is ask you to read it again and I will ring you back with a few questions. Don't worry for now that it's a bit complicated because a couple of the questions we would like to ask are to do with its complexity.

Can you try and read it again for me. It's important because we don't have too many growers in our sample from your area.

Yes/Will read again ----- 1 **ARRANGE CALL**

No/Won't read again ----- 2

CONTINUE

BACK

(e) Your reluctance to read it again, is that because you find it confusing, convoluted or difficult understand – or are there other issues?

Yes/Find too confusing ----- 1

No/Just Don't want ----- 2
to be involved

No/No time/Too busy ----- 3

Other (Specify) ----- 4

.....
.....
.....
.....

THANK AND END TO ALL THOSE REACHING Q2e. →
Well, thanks for your help so far. It is appreciated.

Q3. First of all, how easy or difficult to understand did you find the Multi-Peril Crop Insurance concept, including how it works and how claims are calculated? Would you say it was... *(READ, ROTATE TOP/BOTTOM)*

Very Difficult ----- 1
 Fairly Difficult ----- 2
 Fairly Easy ----- 3 **GO TO Q5.**
 Very Easy ----- 4 **GO TO Q5.**

4. Can you describe any particular aspect that was difficult, complex or confusing? Any other aspects? *(PROBE FULLY)*

.....

| |
|--------|
| OFFICE |
|--------|

5. We asked you about crops planted this season, when we spoke earlier.

Can I ask you which of the following crops you would grow in a *'normal'* season, particularly seasonal conditions may have prevented you from growing this year. **IF REGION 1 or 2 ALSO**

| CROP | Q5. | Q6. Ha Growing this year or in normal year... |
|-----------------------------------|-----|--|
| * Wheat | 01 | <input style="width: 100px; height: 20px;" type="text"/> |
| * Barley | 02 | <input style="width: 100px; height: 20px;" type="text"/> |
| * Canola | 03 | <input style="width: 100px; height: 20px;" type="text"/> |
| Lupins | 04 | |
| Sorghum | 05 | |
| Oats | 06 | |
| Triticale (pronounced TRITICARLY) | 07 | |
| Any type of Peas | 08 | |
| Any type of Beans ¹ | 09 | |
| Any other not mentioned already | 10 | (NO NEED TO SPECIFY OTHERS) |

¹Don't ask in WA (Region 5)

26. FOR CROPS GROWN MARKED *, ASK FOR EACH.

Roughly, how many hectares, not acres – hectares, will you grow this year of (*CROP*). If you're not growing due to seasonal conditions this year, what might you grow in a 'normal' year?

27. And what would be the total Hectares of grains you would grow in a normal season. *(INCLUDE SUMMER CROPPING IF ASKED)*

HECTARES

As the concept stands, Multi-Peril Crop Insurance will not cover fire and hail damage. Do you usually insure your crops against fire and hail? *(PROBE – SINGLE RESPONSE)*

| | | |
|--------------------|-------|---|
| Fire Only | _____ | 1 |
| Hail Only | _____ | 2 |
| Both Fire And Hail | _____ | 3 |
| None of the Above | _____ | 4 |

Without looking at the material we sent you, can you tell me whether the following would be covered by Multi-Peril Crop Insurance? If you don't know or can't recall, just say so. *(ROTATE)*

| | Yes | No | Don't Know |
|--|---------|---------|------------|
| Yield loss due to drought in the growing season | ___1___ | ___2___ | ___3___ |
| Quality downgrade for any reason | ___1___ | ___2___ | ___3___ |
| Severe damage from birds | ___1___ | ___2___ | ___3___ |
| Yield loss, but not quality loss, due to very late planting caused by too much autumn rain and water-logged paddocks | ___1___ | ___2___ | ___3___ |
| Severe frost causing total crop wipeout | ___1___ | ___2___ | ___3___ |

Q10. Assuming that the premiums for Multi-Peril Crop Insurance were reasonable, how likely would you be to take out Multi-Peril Crop Insurance? Would you say...
(READ, ROTATE TOP/BOTTOM)

- Very Likely ----- 1
- Fairly Likely ----- 2
- Not Too Likely ----- 3
- Not Likely At All ----- 4
- Can't say (*AVOID*) ----- 5

Q11. Why do you say (Q10)? *(PROBE FULLY)*

.....

| |
|---------------|
| <u>OFFICE</u> |
| |

Q12. From what you know so far, what things do you like and dislike about Multi-Peril Crop Insurance? First the likes – what do you perceive as the good things about the insurance concept we last sent you?

(PROBE FULLY)

.....

| |
|---------------|
| <u>OFFICE</u> |
| |

Q13. And now for the dislikes – what things do you dislike about it? *(PROBE FULLY)*

.....

| |
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Q14. EXCESS LEVEL OR DEDUCTIBLE AMOUNT MENTIONED IN Q13, PROBE FOR LEVEL PREFERRED.

Q14. This year or in a normal year you said you will grow (Q5. – Wheat/Barley/Canola). So if you took out Multi-Peril Crop Insurance, (*Crops*) would be covered.

Assume for now you took out Multi-Peril Crop Insurance with a 50% excess or deductible amount.

ASK FOR EACH CROP COVERED

What would you realistically expect the insurance premium for (*CROP*) to be as a percentage of the gross estimated crop value at the start of the season? Not what you might like it to be, but what you'd expect it to be, given the cover offered by Multi-Peril Insurance and the 50% deductible amount?

| | | | |
|--------|---|---|--|
| WHEAT | . | % | |
| BARLEY | . | % | (To One Decimal Point) |
| CANOLA | . | % | <i>(AVOID DON'T KNOW – JUST WANT BEST ESTIMATE)</i> |

IF GROWER ASKS 'WHY IS DEDUCTIBLE AMOUNT SO HIGH' SAY:

Multi-Peril Crop Insurance covers against many things, including certain weather conditions. Its aim is to guarantee that you can at least cover your input costs, if there was bad loss from a non-excluded event. If the deductible amount was only 10% or 20%, this insurance would be very expensive.

Q15. And at the premium rates you just mentioned, how likely would you be to take out Multi-Peril Crop Insurance? Would you say... *(READ)*

Very Likely ----- 1
 Fairly Likely ----- 2
 Not Too Likely ----- 3
 Not Likely At All ----- 4
 Oddball/Can't say *(AVOID)* ----- 5

16. In your region, Multi-Peril Crop Insurance would probably be available with an excess or deductible amount of: *(PROMPT AS APPROPRIATE)*

| Excess Options | |
|----------------|------------|
| Region 1 | 60% or 50% |
| Region 2 | 60% or 50% |
| Region 3 | 60% or 50% |
| Region 4 | 60% or 50% |
| Region 5 | 50% or 40% |

With the *(UPPER EXCESS LEVEL FOR REGION)* excess level, premiums would be cheaper than with the *(LOWER EXCESS LEVEL FOR REGION)* excess level.

Remember, these excess levels are higher than for normal crop insurance because of the events they cover, with the aim of guaranteeing you a minimum income in the event of severe yield loss.

Just so I can proceed with the next set of questions, can you nominate your preference for either *(UPPER EXCESS LEVEL FOR REGION)* or *(LOWER EXCESS LEVEL FOR REGION)* excess level.

60% ----- 1
 70% ----- 2
 80% ----- 3
 Can't decide ----- 4

➔ Please nominate one – this will then trigger the premiums or prices I will discuss. **PROBE AND RECODE.**

Q17. COMPUTER TO GRAB RELEVANT PREMIUMS, TAKING NOMINATED EXCESS LEVEL AND LOCATION (SHIRE) INTO ACCOUNT

| CROP | PREMIUM | | |
|---------------|---------------------|---------------|----------------------|
| | Low (0.7 x Base) | Middle (Base) | High (1.3 x Base) |
| Wheat | | | |
| - 60% Excess | W - 60 - L | W - 60 - M | W - 60 - H |
| - 50% Excess | W - 50 - L | W - 50 - M | W - 50 - H |
| - 40% Excess | W - 40 - L | W - 40 - M | W - 40 - H |
| Barley | | | |
| - 60% Excess | B - 60 - L | B - 60 - M | B - 60 - H |
| - 50% Excess | B - 50 - L | B - 50 - M | B - 50 - H |
| - 40% Excess | B - 40 - L | B - 40 - M | B - 40 - H |
| Canola | | | |
| - 60% Excess | C - 60 - L | C - 60 - M | C - 60 - H |
| - 50% Excess | C - 50 - L | C - 50 - M | C - 50 - H |
| - 40% Excess | C - 40 - L | C - 40 - M | C - 40 - H |

NOTE: 40% Excess can occur in region 5 (WA) only

- PRICE ROTATION:**
- | | | |
|----------------|-----------------|-----------------|
| 1 | MIDDLE/LOW/HIGH | |
| (Within Shire) | 2 | MIDDLE/HIGH/LOW |
| | 3 | LOW/MIDDLE/HIGH |
| | 4 | LOW/HIGH/MIDDLE |
| | 5 | HIGH/MIDDLE/LOW |
| | 6 | HIGH/LOW/MIDDLE |

100 OF EACH ROTATION

I'll now give you some premium rates. You might like to jot them down.

Now if the premium for Multi-Peril Crop Insurance was... (*PROMPT PREMIUM FOR RELEVANT CROPS/LOCATION/ROTATION*)

[PREMIUM] % for Wheat

[PREMIUM] % for Barley

[PREMIUM] % for Canola

...and remember these are for Multi-Peril Crop Insurance with (*NOMINATED CESS*) excess and the rate applies to the agreed harvest value of the crop before planting.

LOW PLENTY TIME

Thinking about it carefully, at this premium rate or cost, how likely would you be to take out Multi-Peril Crop Insurance? Would you say... (*READ*)

| | | |
|------------------------|---|---------|
| Very Likely | _____ | 1 |
| Fairly Likely | _____ | 2 |
| Not Too Likely | _____ | 3 |
| Not Likely At All | _____ | 4 |
| DO NOT PROMPT → | Can't say because product too difficult to comprehend | _____ 5 |

NOW REPEAT Q17. FOR THE TWO OTHER PREMIUM LEVELS IN THE ROTATION

Q18. Do you currently use the services of an insurance broker – somebody who gets the best deal for you from a range of insurers?

Yes ----- 1
 No ----- 2

19. IF HAVE CROP INSURANCE (Q8=1/3); ASK Do you purchase crop insurance through this broker?

Yes ----- 1
 No ----- 2

Q20. I'm now going to read out a few statements other growers have made about Multi-Peril Crop Insurance. Could you tell me whether you tend to agree or disagree with each.

ROTATE STATEMENTS; PROBE FOR LEVEL OF AGREEMENT/DISAGREEMENT)

| | Agree a Lot | Agree a Little | Neither Agree nor Disagree | Disagree a Little | Disagree a lot |
|--|-------------|----------------|----------------------------|-------------------|----------------|
| 1. I would definitely take out Multi-Peril if the price was reasonable. | —5— | —4— | —3— | —2— | —1— |
| 2. I don't think I would take out Multi-Peril Insurance no matter what it cost. | —5— | —4— | —3— | —2— | —1— |
| 3. It's too complicated a product for me. | —5— | —4— | —3— | —2— | —1— |
| 4. I would get an insurance broker or company representative or agent to go through it and give me advice. | —5— | —4— | —3— | —2— | —1— |
| The excess levels or deductible amounts associated with Multi-Peril Crop Insurance are reasonable | —5— | —4— | —3— | —2— | — |

Q20a. IF DISAGREE WITH STATEMENT#5, ASK:

What would you regard as an acceptable excess level or deductible amount? %
 One decimal place.

Q21. If Multi-Peril Crop Insurance were to become available, how useful would you regard the following methods as a means of informing you about the product and making it available to you? First*READ METHOD/ROTATE*) Would you say it would be... (*READ SCALE*)
 Next.....

| | Very Useful | Fairly Useful | Not too Useful | Not Useful at all | Can't Say |
|---|-------------|---------------|----------------|-------------------|-----------|
| 1. Discussing the Insurance with a local insurance broker, company representative or agent. | ---4--- | ---3--- | ---2--- | ---1--- | ---5--- |
| 2. Having a web-site to obtain information on this insurance. | ---4--- | ---3--- | ---2--- | ---1--- | ---5--- |
| 3. Dealing directly with the insurer via telephone. | ---4--- | ---3--- | ---2--- | ---1--- | ---5--- |

Q22. And of those methods which do you think would be best? I'll read them again
 (*REPEAT/ROTATE - ONE ONLY*)

1. Discussing the Insurance with a local insurance broker, company representative or agent ----- 1
2. Having a web-site to obtain information on this insurance ----- 2
3. Dealing directly with the insurer via telephone ----- 3
4. None of the above ----- 4

Q23. In the concept it states that if you decide to take out Multi-Peril Crop Insurance, you must
 like out cover at least 30 days before commencement of planting.

Would this requirement ever be a deciding factor deterring you from taking out Multi-Peril Crop Insurance? Yes ----- 1
 No ----- 2 GO TO Q25

GROWER ASKS 'IF I END UP NOT PLANTING THE CROP, DO I GET A REFUND?'
 ANSWER IS YES.

Q24. Can you tell me why you say this requirement would deter you from taking out Multi-Peril Crop Insurance? (PROBE FULLY)

.....
IF Q23 = YES, GOTO Q26a

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Q25. If you had to take out cover 60 days before planting, would this ever be a deciding factor deterring you from taking out Multi-Peril Crop Insurance? Yes ----- 1
No ----- 2

Q26. (a) IF GROW WHEAT OR BARLEY , ASK...

For wheat and barley, cover would begin at First Jointing. Would this suffice for you or would you require cover from an earlier or later stage?

Ok/Suffice for me ----- 1 GO TO Q26c.
Prefer earlier cover ----- 2
Prefer later cover ----- 3
Can't say ----- 4 GO TO Q26c.

(b) At what time would you prefer cover to begin?

EARLIER

From when crop sown/planted ----- 1
From first emergence of crop ----- 2
Other earlier mention (Specify) ----- 3

.....
LATER

Specify
..... 4

(c) IF GROW CANOLA, ASK...

For canola, cover would begin at eighth leaf stage. Would this suffice for you or would you require cover from an earlier or later stage?

- Ok/Suffice for me-----1 GO TO Q27
- Prefer earlier cover -----2
- Prefer later cover-----3
- Can't say-----4 GO TO Q27

(d) At what time would you prefer cover to begin?

EARLIER

- From when crop sown/planted----- 1
- From first emergence of crop----- 2
- Other earlier mention (Specify) ----- 3

LATER

- Specify ----- 4

7. It is not at this stage planned that a downgrade in quality be included in the cover. One reason for this is that there is insufficient data to calculate premiums.

- | | |
|--|---------------------------------|
| If quality downgrades were included would you be more inclined to take up the cover? | Much more inclined----- 1 |
| Would you say... (READ/ROTATE) | A little more inclined ----- 2 |
| | Not more inclined at all -----3 |

Q28. Finally, a couple of details for classification purposes.

| | |
|---|----------|
| Your age, would you be... (<i>READ</i>) | Under 30 |
| | 30 – 39 |
| | 40 – 49 |
| | 50 – 59 |
| | 60+ |

Q29. Approximately what percentage of your farm revenue comes from cropping, as opposed to livestock, wool or other farm income? % Cropping

Q30. In the last five years, since 1995, have you encountered any severe crop yield losses – say losing 40% of yield or more – due to weather conditions or other factors after you've put the crop in the ground? Ignore quality downgrades for now – just yield losses of 40% or more.

Yes _____ 1
 No _____ 2 **GO TO Q32**

Q31. Has a loss of this nature been experienced in the last 3 years, since 1997?

Yes _____ 1
 No _____ 2

Thanks very much you've been a great help. We expect the outcomes of this study to be reported in the media in a couple of months.

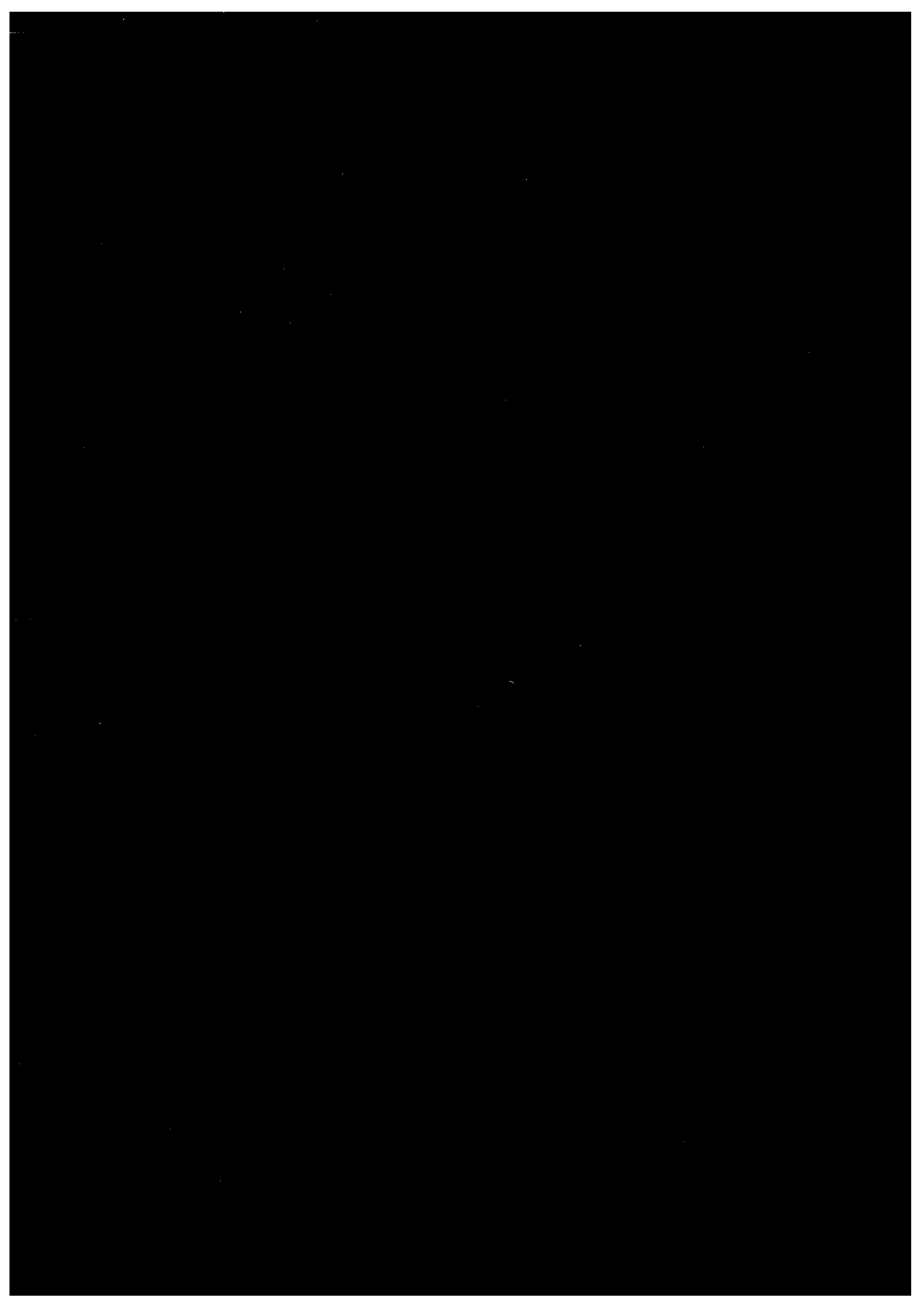
TURN OFF

Appendix 4

Estimated Realistic and Viable Premiums for MPCCI

(Source: MPCCI Project Consulting Actuaries)





Appendix 4

Viabale or 'middle' Premium Rates by Region

The study used a sophisticated 'pricing map', with each Shire in the grain belt having its own pricing or premium structure (as determined by actuarial consultants).

While the map is too complex to list in this report (Ernst & Young and Trowbridge hold spreadsheet versions of the 'price map'), the following table summarises the average 'middle' or 'viable' premium rates by Region. Price elasticity analyses were conducted in this study by varying prices up by 30% and down by 30% in each Shire.

| | | Premium (% of Agreed Crop Value) | | | | |
|-------------------|--------|----------------------------------|-------|-------|------|------|
| | | Region | | | | |
| Crop | Excess | 1 | 2 | 3 | 4 | 5 |
| Average of Barley | 40% | 13.9% | 6.8% | 7.5% | 6.4% | 6.7% |
| Average of Barley | 50% | 9.2% | 4.2% | 4.7% | 4.0% | 4.2% |
| Average of Barley | 60% | 5.6% | 2.4% | 2.7% | 2.3% | 2.5% |
| Average of Wheat | 40% | 10.8% | 7.9% | 7.2% | 6.1% | 4.2% |
| Average of Wheat | 50% | 6.6% | 5.0% | 4.5% | 3.7% | 2.4% |
| Average of Wheat | 60% | 3.6% | 2.9% | 2.5% | 2.1% | 1.3% |
| Average of Canola | 40% | | 21.2% | 10.6% | | |
| Average of Canola | 50% | | 13.9% | 6.8% | | |
| Average of Canola | 60% | | 8.4% | 4.0% | | |

For the purposes of this study, the 40% excess level was used in WA only (Region 5), due to high corresponding premiums in other Regions. Nevertheless, the table shows what premiums *would* be with an excess of 40% in Regions 1 to 4.

Appendix 5

Reasons for Lower Sample in Victoria



Appendix 5

Reasons for Relatively Lower Sample in Victoria

Only 27 interviews were achieved in Victoria (out of national sample of 513). Several reasons contributed towards this:

- ◆ Region 2 was specified as NE NSW/SE QLD/NSW & VIC Slopes, but the 'pricing map' used for the project contained no Victorian postcodes in this region. Hence, Victorian Slopes growers, some of whom were the original 690 growers recruited, could not participate in the follow-up interviews, which required full pricing details. The project timeframe did not permit this problem to be rectified.
- ◆ A higher proportion of Victorian contacts on the original recruitment lists were either not grain farms, not farms at all, were away for the duration of the survey or declined to participate (at Stage 1). Some in the latter category said they found the concept too confusing (interviewers reported that these were mainly older Victorian growers).
- ◆ Victorian respondents could be selected in Region 3 (Central NSW/SA & VIC Border/Wimmera) and Region 4 (SA Mid North/SA & VIC Mallee) - however, the non-Victorian areas in these Regions had more postcodes and hence a higher likelihood of generating a grower in the sample who was non-Victorian. This was partly because some areas of the Victorian grain belt were not in the 'pricing maps' (i.e. not part of Shires for which pricing data was available).
- ◆ Target sample quotas were not applied to each State. Quotas were applied to each agroecological Region, as it was felt more important to achieve a good spread of sample across the five agroecological regions (each having its own climate and soil type). This was achieved.
- ◆ While the Victorian sample is quite modest (n=27), it does not appear that response in Victoria is very different on key issues. Consequently, bias in national results, due to the relatively small Victorian sample, will not be substantial.