



Know-how for Horticulture™

**FRESH POTATO INDUSTRY
TECHNOLOGY TRANSFER
NEEDS ASSESSMENT AND
STRATEGIC RECOMMENDATIONS**

PT 452

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RICHARD MARKETING

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INDEX

1. INTRODUCTION 6

2. SCOPE 9

3. EXECUTIVE SUMMARY 12

3.1 Critical Issues12

3.2 Current Situation13

3.3 Recommendations14

4. CRITICAL ISSUES 17

4.1 Technology Transfer - Is it Needed?.....17

4.2 The Two-Way Flow.....17

4.3 Effective, Attractive and Exciting18

4.4 Technology Transfer for all Growers18

4.5 But Who Are We Talking To?18

4.6 Measuring Technology Transfer Effectiveness19

4.7 Growers Support the Communication Process.....19

4.8 Decline of the Local Grower Group.....20

4.9 The Importance of Local Interpretation20

4.10 Researchers and the Extension Function21

4.11 The Importance of Face-to-Face Communication21

4.12 Communicating At the Right Level. A Hierarchy of Growers.....22

4.13 You Can Take a Horse to Water22

4.14 Communicating This Report.....23

5. CURRENT SITUATION.....	25
5.1 How do Growers Get Information Now?	25
5.2 Communicating With Growers - Their Preference.....	25
5.3 Information From Overseas	26
5.4 The Media	26
5.5 Technology Adoption	28
5.6 Disappearing Local Structures and Changes in Technology Transfer.....	29
5.7 Current Projects - How Much do Growers Know?	30
5.8 Communications From Horticultural Research & Development Corporation.....	30
5.9 Market Signals and Other Statistics	31
5.10 Publications - Some More Details	31
5.11 Local Meetings - The Do's and Don'ts	32
6. RECOMMENDATIONS.....	34
6.1 Philosophies.....	35
6.1.1 A Customer Focus	35
6.1.2 Marketing Your Product	37
6.2 Management & Structure	39
6.2.1 The Potato Technology Transfer Manager	39
6.2.2 'Potato Australia'.....	42
6.2.3 Potato Industry TT Bulletins.....	43
6.2.4 Database of Growers and Other Industry Contacts.....	44
6.2.5 Field Days, Meetings and Workshops.....	45
6.2.6 Using Existing Structures and People and Publications.....	46
6.2.7 Using the Media.....	47
6.2.8 Components of the Technology Transfer Program.....	48
6.3 Related Issues	49
6.3.1 The Role and Responsibility of Researchers.....	49
6.3.2 Measurement and Evaluation	50
6.3.3 Market Information and Statistics.....	51
6.3.4 The Essential Two-Way Flow.....	52
6.3.5 Communicating the Results of this Study.....	53

7. SPECIFIC STATE ISSUES OR DIFFERENCES	55
7.1 New South Wales	55
7.2 Queensland.....	55
7.3 South Australia.....	56
7.4 Tasmania	56
7.5 Victoria.....	56
7.6 Western Australia	57
8. APPENDICES.....	59
8.1 Group Discussion Invitation Letter	59
8.2 Group Discussion Outline	60
8.3 Telephone Interview Questionnaire	62
8.4 Telephone Questionnaire Results.....	70
8.5 Fresh Market Grower - Interview List	77
8.6 Fresh Market Grower - Discussion Outline.....	78
8.7 State Department and Other Representatives - Interview List.....	80
8.8 State Department Person - Discussion Outline	82
8.9 Pig Research & Development Interview	84
8.10 Citrus Research & Development Interview	87

SECTION 1

INTRODUCTION

1. INTRODUCTION

In Australia and overseas a considerable amount of R & D work is undertaken for, or by, the potato industry, at various levels, and in numerous organisations. Much of it deals with topics which are of interest to growers. In many cases the findings of the research lead to useful information which should be communicated to growers. Information which may lead to increases in productivity; improvements in quality; better handling; less wastage etc, etc.

The process of communicating this information to growers and others is described as **Technology Transfer**.

The potato industry's Research & Development Committee suspects that some growers, particularly those growing for the fresh market, are not taking advantage of this useful information. They are not modifying their practices or activity to incorporate the changes suggested by the R & D work. This may be because:

- They are not getting the information.
- The information they are getting is not easily understandable, user friendly and, actionable.
- As the information is delivered, there is not sufficient incentive / motivation / encouragement to change practices.

In fact, the problem could well be a combination of these.

The HRDC see the process of technology transfer, to the people who can benefit from it (particularly fresh market potato growers), as a high priority.

The problem does not seem to be as acute for Potato growers for the processing sector. It is felt this is because those growers are served, in part, by the processors' own liaison staff and technology transfer systems. Presumably the processors see that a partnership or co-operative approach helps to ensure both growers and processor benefit - as well as enhancing the relationship between the two.

This role of pushing information out to growers (including those supplying the fresh market) has in the past, to some extent, been carried out by the various State Primary Industry and Agriculture Departments and their Extension Officers. However it is understood that departments (to varying degrees in the different States) are reducing such staff and limiting this type of function. The rationale seems to be that it will save costs, and that industries should be able to provide these services for themselves. The extent to which the different States are still fulfilling the technology transfer function is not exactly known.

As with any form of communication, technology transfer must be tailored to the needs of the recipient and presented in a way that will ensure maximum benefit.

Therefore, the **OBJECTIVES** for this research project are:

- 1. To identify, describe and, to some extent, quantify the types and sources of information which might be of interest to fresh market potato growers under a structured technology transfer program.**
- 2. To determine what information is being disseminated at present and how it is communicated.**
 - Do growers find it interesting/useful/actionable?**
 - Are they taking action or changing practices as a result of having the information? If not...why?**
- 3. Note that it will be important to gather this information across all major potato growing areas so that regional and State differences can be identified.**
- 4. To determine grower reaction to, and call for, a structured program of technology transfer. Do they see a need for it? Will they use it?**
- 5. To identify and recommend the most appropriate and cost efficient strategies and activities for effective technology transfer to fresh market growers and others in the industry.**

It will be noted that the objectives have a logical flow - from identifying the information available, and sources; to understanding what is happening at present; to determining future needs; and finally to recommending how it should be done.

SECTION 2

SCOPE

2. SCOPE

As mentioned, this project concentrates on understanding the needs of, and developing recommendations for, growers in the fresh market. So where group or phone interviews have been conducted with growers they have, by and large, been supplying the fresh market. That is not to say that the findings and recommendations are not appropriate for processing growers also. They are, and this point is covered in more detail in Section 3.4.

Specifically, this project has involved:-

1. Interview with Jonathan Eccles & Chris Rowley - H.R.D.C.

2. Focus Group Discussions

Ten controlled group discussions with groups of growers with farms in the following areas:-

Adelaide Hills - SA

Busselton/Donnybrook - WA

Mt. Gambier - SA

Manjimup - WA

Atherton - QLD

Gatton/Lockyer Valley - QLD

Devonport - TAS

Warragul - VIC

Ballarat - VIC

Finley - NSW

Composition of the groups was determined in conjunction with key industry or department people in each region. Those chosen were sent a personal invitation, with a project outline, and then followed-up by phone. In almost all areas attendance was good and participation enthusiastic.

All sessions were tape recorded for reference purposes.

Copies of the letter inviting participation, and the Group Discussion Outline are provided as Appendices 8.1 and 8.2.

2. Individual Telephone Interviews

With 51 growers across Australia. Again these were chosen in conjunction with local industry people with the aim of achieving a representative cross-section of all growers in that area.

A questionnaire was developed, and a sheet detailing some of the more complex questions was posted to the growers beforehand, together with a letter inviting their participation. In most cases it was necessary to then phone growers to line up a time for the interview.

Generally speaking, their participation, comments and opinions were freely given and forthright.

All questionnaires have been held for reference purposes and the data collected entered into a database program for analysis.

For a copy of the telephone questionnaire and the details of the questionnaire results, see Appendices 8.3 and 8.4.

3. **Extended Personal Interview - Growers**

Was conducted with a fresh market grower leader in each State. A list of those interviewed and the Interview Outline are provided as Appendices 8.5 and 8.6.

4. **Extended Personal Interview - State Government Department People**

Interviews were conducted with one or more senior State Government department people in each State. A list of those interviewed and the Interview Outline are provided as Appendices 8.7 and 8.8.

5. **Extended Personal Interview - Another R&D Organisation**

An interviews was conducted with a key executive in the Pig Research and Development Corporation. Notes of this interview is provided in Appendices 8.9.

6. **Extended Personal Interview - Citgroup Co-ordinator**

An interview was conducted with Mr Craig Feutrill, Citgroup Co-ordinator for the Citrus Industry. This is a position/function already funded by the Horticultural Research & Development Corporation. Notes of this interview is provided in Appendix 8.10.

We are confident that the research structure undertaken, and the representative cross-section of opinions gathered, has provided a sound basis for the findings and recommendations which follow.

SECTION 3

**EXECUTIVE
SUMMARY**

3. EXECUTIVE SUMMARY

3.1 CRITICAL ISSUES

The following points summarise a number of critical issues which must be considered as you review the research results and our recommendations:

- A strong and obvious need exists for technology transfer support for fresh market growers.
- In developing channels for the transfer of technical information to growers the Corporation must also provide the means for growers to get their opinions and questions back to the Corporation.
- Technology Transfer programs must be attractive and exciting if they are to grab growers attention and interest, and be effective.
- While the greater need for technology transfer support is among fresh market growers, the programs developed should be directed to all growers.
- A serious problem exists in the lack of specific data on growers. A complete database is essential.
- All technology transfer programs developed must be measured for their effectiveness both in reaching the growers and prompting a change in practices.
- The vast majority of growers strongly support the concept of structured technology transfer programs and are prepared to see a proportion of their levy monies committed to the task.
- The local grower group, a traditionally effective mechanism for technology transfer is in sharp decline.
- Any recommendations which are part of technology transfer must be locally validated before being promoted in various areas.
- Researchers must be required to provide interim and final reports and participate in technology transfer programs as appropriate.
- Personal communication is the most effective form of technology transfer and programs developed should include meetings, workshops and field days etc. wherever possible.
- Technology transfer activities must be cost efficiently directed to the groups of growers most likely to adopt the recommendations.

- The task of technology transfer is to provide the information and encourage change. Growers have to be prepared and keen to help themselves.
- Preparation of this report has generated significant interest in the industry. The Corporation should ensure the report, and its decisions on the recommendations, are widely circulated.

3.2 CURRENT SITUATION

The following points describe the current background or environment within which the proposed technology transfer programs will operate. The comments relate primarily to fresh market growers.

- At present, growers receive information about potato growing via a number of different sources. Primary among these are: magazines, other growers, and field days, workshops, or meetings.
- Growers show a strong preference for 'direct mailed bulletins' as a means of getting information. Important too, are the personal communication forms such as meetings, field days and workshops.
- Few growers currently receive any information on R&D topics from overseas sources, though this is seen as important in the total picture.
- Growers and their families are regularly exposed to local regional and general rural media. These can and should be used to publicise the technology transfer programs and specific activities.
- Some technology adoption is taking place at present, though there is plenty of room for much more.
- The disappearance of regional State department offices and field officers has taken away one of the previously important sources of technology transfer. This is a significant change. In some cases the paid consultant appears to be partially filling the gap.
- At present growers know little about the many projects currently funded by the H.R.D.C.
- There are significant problems with the distribution of Potato Australia, and other information from the Corporation. This must be addressed.
- Little formal and reliable statistical information on the fresh potato industry exists. It is appropriate to examine if it is necessary to set up a data collecting and reporting system.

3.3 RECOMMENDATIONS

Following are the recommendations arising from this study. Explanatory notes for each can be found in the 'Recommendations' section later in this report.

1. The Corporation, the Committee and all involved in R&D projects embrace the philosophy that the growers are their customers.
2. The Corporation and the Committee embrace the concept that each funded project is a product which must be successfully marketed to your customers.
3. Establish the full-time position of Potato Industry Technology Transfer Manager, and recruit the appropriate person to fill that role.
4. By means of a separate H.R.D.C. project, take over publishing the industry publication 'Potato Australia' increasing the frequency of issues to two per year in the first year and consider four per year in the second.
5. By means of a H.R.D.C. project, develop the format for, and then publish and distribute as appropriate, special 'Potato Industry TT Bulletins'.
6. By means of a H.R.D.C. project, establish and maintain a comprehensive database of all growers and other relevant industry contacts.
7. Establish an active national program of meetings, field days or workshops as an integral part of the technology transfer process.
8. Wherever possible, utilise the resources and assistance of existing people, structures and publications to support the technology transfer process.
9. Wherever possible, through media releases, interviews etc., utilise local and specialist rural media to:
 - Communicate research outcomes
 - Support particular planned activities
 - Promote the new technology transfer structures and strategies
10. The Potato Industry Technology Transfer program should include a broad range of information drawn from various sources in Australia and overseas.

11. All researchers and others controlling all projects funded through the Corporation still be required to prepare regular interim reports, and a final report, in a format to be developed by the Technology Transfer Manager.

Also, project managers must be actively involved in the preparation of the communication/marketing plan for their project.

In addition, all people involved in projects must recognise the importance of their role in the technology transfer process.

12. For each and every Project the Technology Transfer Plan must have built into it the appropriate systems to measure and evaluate:

- The extent and success of the communication activities.
- The extent to which the recommendations in the communication have been adopted.

In addition, an annual phone survey should be carried out among a representative group of growers in all States to gather opinions about and ensure their satisfaction with the overall technology transfer program.

13. The Potato Industry Research & Development Committee to examine and determine the extent and need for a system of collecting and publishing data on wholesale sales and growing practices across Australia.

14. Through research, regional meetings and other means, ensure that the opportunity is provided for growers to get their opinions and suggestions on R&D programs, and the technology transfer process, back to those responsible for policy, development and implementation.

15. That the Corporation and the Potato Industry Research and Development Committee ensure the findings of this study, and any subsequent decisions taken on the recommendations, are communicated to the industry, and in particular to those who participated in the interviews, discussions etc.

SECTION 4

CRITICAL ISSUES

4. CRITICAL ISSUES

Following are a series of Critical Issues which we believe must be considered when looking at the question of technology transfer in the potato industry. They provide important background to the 'Current Situation' and 'Recommendations' sections which follow.

4.1 TECHNOLOGY TRANSFER - IS IT NEEDED?

Yes, definitely. As will be seen, fresh market potato growers in Australia are almost "on their own". Few external systems are in place to provide them with any kind of information, and only the very keen have established their own networks and strategies of technology transfer.

By contrast, it is abundantly clear that growers for processing are enjoying technology support and this appears to be increasing.

If fresh market growers are to prosper, they must have access to information and advice which will help them to be more efficient and more profitable.

4.2 THE TWO-WAY FLOW

We started this project looking at the technology transfer flow, from various sources, to the fresh market grower. In particular, we examined the process of communication from the Horticultural Research & Development Corporation (and associated researchers), to the growers. While this is in itself a problem, there is a related issue. Growers have no easy channels for information, comment or opinions to go back to the Corporation.

Potato growers feel voiceless and unheard. Even frustrated and angry.

This issue is dealt with in more detail in a separate report to the Corporation. But it bears highlighting here, because we firmly believe that any systems developed for communication flow to the growers, must also provide for information flow back up the line. Only then will:

- true communication take place
- the Corporation be able to take full account of the opinions and needs of the growers
- some much needed bridges be built between growers and the Corporation.

4.3 EFFECTIVE, ATTRACTIVE AND EXCITING

It is important to emphasise here that any technology transfer strategies and systems developed must capture the interest of growers. Many are jaded and disillusioned after a number of years of poor returns. But they are thirsty for something that is different, positive and progressive.

Like everyone, they are bombarded with communication messages every day. They have *"too much to read, and not enough time"*.

So whatever is produced must excite and interest them. It need not, and in fact should not, be showy or glossy. But it must be good quality, professional, coordinated and eye catching.

It should be noted the growers who received the recent H.R.D.C. report were quite impressed.

4.4 TECHNOLOGY TRANSFER FOR ALL GROWERS

The primary target for this project were fresh market growers. To varying degrees, processing growers are currently provided with some form of technology transfer support.

But any systems or activities put in place by the Horticultural Research & Development Corporation, utilising Potato Levy funds, should in our opinion be designed to benefit all growers. Certainly there may be some emphasis in support of the fresh growers, but all ought to be served by the system, to a certain level.

Such equity in the communication process will ensure that none can say they are ignored, and it may even go some small way to breaking down the current 'them and us' attitudes between fresh and processing growers.

4.5 BUT WHO ARE WE TALKING TO?

Indeed! Who exactly are the fresh market potato growers? With the exception of Western Australia, no one seems to know. Various people and groups have at different times drawn up lists for their own areas or States. But unfortunately, no comprehensive list exists.

It is just not possible to ensure efficient communication when we don't know who we should be communicating with.

So it will be seen that one of our primary recommendations is that an accurate, detailed database must be established and maintained.

4.6 MEASURING TECHNOLOGY TRANSFER EFFECTIVENESS

Much has been said and written in recent times about technology transfer measurement. As with any H.R.D.C. funded activity, technology transfer must be audited and the cost/benefit analysed. Both the growers, and government will require it. If the Corporation proceeds to establish various activities and programs for technology transfer it must also ensure that appropriate systems to measure effectiveness are implemented too.

This project has not looked in detail at the systems for such measurement, however at it's simplest level, it seems to us that you must measure both the volume, type and costs of activities; and the adoption (over time) of the practices or changes recommended.

From our investigation it seems clear other R & D Corporations are facing the exact same challenge. It may be well worthwhile 'comparing notes' with them.

4.7 GROWERS SUPPORT THE COMMUNICATION PROCESS

94% of the growers in the phone survey, and virtually all involved in the group discussions agree that a proportion of their levy funds (matched by government funds) should be reserved to cover the cost of communicating research results and other information to growers. In the groups they talked of the "nonsense" of doing the research and then not allocating resources to get the information out.

The phone questionnaire proposed three levels of such funding, based on a rough estimate of what type and form of communication might be achievable at each level. In answer to this question then:-

- 85% said they would favour 10% or more of the levy funds
- 58% said they would favour 20% or more of the levy funds
- 13% said they would favour 30% of the levy funds

On the basis of this, there is a clear mandate among those researched to allocate substantial resources to the technology transfer process.

4.8 DECLINE OF THE LOCAL GROWER GROUP

In most areas it appears that the structure and strength of a local grower group is declining. In some it has disappeared altogether. The notable exception is Western Australia. With the loss of this formal structure, is going one of the most effective forms of information transfer (see later Section 4.11).

At a more personal level, growers in the groups talked of a loss of "fellowship" with other growers. They talked of a sense of heightened competition between growers.

There may be a number of reasons for this trend:-

- Reduction in the number of growers, and larger farms, meaning greater distances between growers.
- Reduction in Field Officers - the ones who may have traditionally organised meetings etc.
- Disappearance of regulated marketing and statutory authorities.
- No strong individual grower keen to 'drive' the local organisation.
- Time constraints.

Whatever the causes, the impact is a marked change in the social nature of the local potato grower community.

In our view, any strategies which see groups of growers called together for common purpose, even if only twice a year, will have other benefits beyond the important process of technology transfer. It may even be the catalyst for further meeting or activity.

4.9 THE IMPORTANCE OF LOCAL INTERPRETATION

Any process of technology transfer must take account of the significant regional differences throughout Australia. Growers highlighted the critical need for information, research results, recommendations etc to be locally interpreted and if necessary locally validated.

It will be important for the Corporation's activities to accommodate this. Inappropriate recommendations, or information which is not relevant will simply call into question the professionalism and credibility of the whole program. Therefore it will be an advantage if the technology transfer programs are implemented with a fair degree of local expertise and validation.

4.10 RESEARCHERS AND THE EXTENSION FUNCTION

While of course it can not be a blanket assumption, growers express some scepticism about the ability of researchers to carry out the extension or technology transfer function.

We would tend to agree. By and large research and technology transfer are separate functions, calling for different skills and experience. Certainly researchers should be required to provide the appropriate interim and final reports, and indeed participate in the technology transfer process. But as a general rule, they should not be required to develop, manage and implement the program. It is a specialist job.

4.11 THE IMPORTANCE OF FACE-TO-FACE COMMUNICATION

In both the group discussions, and the phone interviews, growers described the real benefit of face-to-face communication. Whether at a field day, workshop, farm visit, structured meeting or just a gathering in a shed, the strength of this form of communication as a means to new technology adoption can not be underestimated.

Many forms of written material can be produced and distributed (as they must). But it is when a grower can see and hear something first hand; and then ask questions, discuss, and debate (together with other growers); that the proposals in question will have greatest chance of earlier acceptance and adoption.

4.12 COMMUNICATING AT THE RIGHT LEVEL. **A HIERARCHY OF GROWERS**

In potato growing, as in virtually all activity, people will vary in their expertise, educational standard, motivation etc. The total group can be divided into three:-

- The first group, often known as 'early adopters' will be the keener more progressive growers. Not afraid to try new things, and possibly doing a fair amount of their own investigation and information gathering in the technology transfer process.
- The second (and often largest) group, sometimes called the 'followers', will willingly take on board the information given - but probably not act immediately. They might consider their options for longer, and also wait to see local evidence that the recommendations worked before making a change themselves.
- And the last group (sometimes called 'resisters' or 'late adopters'), will take much longer - possibly not even interested in the information, nor prepared to make any changes at all.

We are not in a position to estimate the size and distribution of three such groups in potato growing. However your own industry knowledge should come close.

The important thing to consider is, the level at which to 'pitch' your communication. Our recommendation would be to design activities that will interest and motivate the second group. This will naturally also satisfy the needs of the first group. To spend the considerable effort and time necessary to capture the third group may not be cost efficient.

Remember too, to always keep in mind the education level of the growers to whom you are appealing.

4.13 YOU CAN TAKE A HORSE TO WATER . . .

In the discussion groups some growers talked of "not doing too much" for growers in general. Not "holding their hand".

There is some truth in this. The days of field officers who would work closely with growers, advising and helping them make decisions are gone.

Management of the technology transfer programs will need to take account of this. The aim should be to provide comprehensive, useful information - but to leave the business and growing decisions up to the grower himself/herself.

4.14 COMMUNICATING THIS REPORT

Conducting this study has been an interesting exercise to say the least. For many growers it was the first 'personal' contact they had had with the Corporation, and certainly the first time they had been invited to express their opinions.

In commissioning this study you have built a significant degree of grower interest. There is an expectation that something might now happen in this important area.

Furthermore, the industry leaders, and State department officers interviewed are anxious to see how the Research and Development Committee, and the Corporation responds.

We believe it is imperative that you take steps to communicate the findings of this report, and your decisions, to all involved as soon as possible.

Should you decide to take positive and significant action in the area of technology transfer, the story will be newsworthy. You should take every advantage of that - enhancing the image of the Corporation in the process.

SECTION 5

**CURRENT
SITUATION**

5. CURRENT SITUATION

In this section we have detailed a number of the key findings of our telephone and group research. It will be seen how these have shaped the 'Recommendations' which follow as Section 6.

5.1 HOW DO GROWERS GET INFORMATION NOW?

Growers were asked to nominate their two most important sources or avenues of new information on potato growing. A comprehensive list of options was suggested as a guide. In order, those they chose were:

- Magazines
- Other Nearby Growers
- Local Meetings and Workshops
- Field Days
- Chemical Suppliers; and
- Local State Department Staff

This clearly emphasises the importance of written material. Growers often mentioned that they would ensure they found the time to read publications such as Potato Australia, Peelings (if they received it) and the various State department publications.

Obvious too, is the value of advice and information from fellow growers - even though as mentioned earlier, this is happening less and less in a structured way.

Meetings, Workshops and Field Days fall into a similar category. Numerous individual growers were able to provide examples of useful information gained, and then changes made, as a result of a farm visit, field day or local grower workshop/meeting.

5.2 COMMUNICATING WITH GROWERS - THEIR PREFERENCE

The research asked growers to nominate their preferred method of getting new information to assist them with potato growing. Again, they were given a range of options.

By far and away the most popular method was as "*Special bulletins mailed direct to growers*". This they felt, would ensure that all growers received the material, and that they had the flexibility to read and review it in their own time.

Next, in preference and in order, came "*Field Days*", "*Local Grower Meetings*" and "*Department of Ag or P.I. Officers*". These all reflect the value to growers of the face-to-face meeting, discussion, questioning and interaction.

Lower then on the scale, and again in order, were:-

- *Suppliers* (such as Chemical companies, machinery manufacturers etc)
- *Industry Publications*
- *Videotape*
- *Private consultants* (Possibly because not all use one)
- *Government Publications*
- *Radio*
- *Industry Conferences* (Possibly because only a limited number would attend)

In fact no single option is the best and only way to go. It is likely that any technology transfer program will be most effective if it uses a combination of different communication channels, determined according to what needs to be communicated, to whom, and the cost.

5.3 INFORMATION FROM OVERSEAS

While many feel it is important, only a small number of growers feel they have any access to R & D or other relevant information from overseas. Those that are receiving material have usually sought it themselves via an overseas contact or subscriptions.

Whether seeing the material or not, growers recognise the need for overseas information to be carefully reviewed and interpreted for local conditions.

In any proposed technology transfer programs there is certainly a place for the sifting, and then dissemination of relevant or interesting overseas information.

5.4 THE MEDIA

Questions were asked about the various general media which reach growers and their families. Some key points were:-

- 51% of growers (or someone on the farm) usually listened to the 'Country Hour'.
- 57% watch TV Rural programs, and of those:-
- 72% usually watch 'Landline' on ABC TV on Sundays.

In addition, around 20% mentioned they regularly listen to other local regional radio rural programs - often broadcast at around 6.00 to 6.30 am.

A small number said they read the relevant state rural weekly newspaper.

The media can be a very useful tool in generating awareness of something new, something newsworthy. Local media especially can be used to promote a local event such as a meeting, workshop etc. They are always keen for media releases, interviews etc.

So planned use of the media should be an integral part of the total technology transfer communications plans.

5.5 TECHNOLOGY ADOPTION

In an effort to put some measure on the rate or scope of technology adoption we asked a few questions in this area as part of the phone survey.

To the questions:-

- **"Have you ever heard of Integrated Pest Management or Integrated Crop Management?"**:-

63% Answered Yes; and

- **"Are you using IPM or ICM on your farm?"**

43% Answered yes

- **"How or where they had first heard of IPM/ICM"**

The responses can be grouped as:-

25% At a meeting
25% At a course
13% Read about it
13% From a chemical supplier
9% Other growers
6% From a consultant, and
9% Did not know/could not recall.

Another question asked them to tell us about:

- **"Any major changes they may have made in the way they grow potatoes over the last two years or so".**

76% had made one or more major changes in the last 2 years
67% had made two or more, and
51% had made three or more.

These changes fall generally into the following categories:

26% Irrigation
16% General Farming Practices
14% Chemicals and Pest Control
13% Harvesting
11% Fertiliser and Soil Testing
8% Variety improvements
5% Integrated Pest Management
3% Equipment
4% Other

And we also asked:

- *"What it was that prompted their decision to make the change".*

By general categories, the responses were:-

36%	The grower himself
16%	Other growers
11%	Increased efficiency
8%	Read about it
8%	Department information/recommendation
6%	Processor information/recommendation
6%	Supplier information/recommendation
4%	Consultant information/recommendation
3%	Other
2%	Market need

5.6 DISAPPEARING LOCAL STRUCTURES AND CHANGES IN TECHNOLOGY TRANSFER

In all States, the days of local Department Field Officers are gone. In some areas, the few that remain are not to be replaced as they retire. Growers recall the valuable assistance these officers provided - but are resigned to the fact that the structure and type of State department assistance has changed.

In almost every case where there are still State Officers dedicated to the potato industry, growers are fulsome in their praise. They talk of these people as "doing the best they can", but working under significant workload and administrative pressures.

Growers have noted that in some areas the role of State Department officers has shifted more towards the research side of things, with part salaries sometimes being met by the Potato Levy. This is not universally supported.

It is clear that in every state, as the Field Officers were pulled out, no alternative systems were developed to accommodate the important technology transfer role they previously fulfilled. The only exception to this is in Victoria where new initiatives are now being taken in this area.

What has happened though is the growth of the paid, private horticultural consultancies. Use of such services is mixed, probably depending much on the qualities and ability of the consultant in that area. The point to note is that those consultants may be among the few people getting access to useful information for growers - some of which should presumably be freely available. There is a feeling among some, that the consultant may therefore be the only source, and so if you want to know, you have to pay.

A similar theory can be advanced when looking at other suppliers such as chemical companies. They too may be a good source of information - but perhaps only that information which will benefit their sales.

5.7 CURRENT PROJECTS - HOW MUCH DO GROWERS KNOW?

In both the group discussions and the phone interviews growers were asked if they knew of any current projects funded by the Potato Levy. Over one third were able to name one project, reducing to less than a quarter able to identify three.

We would suggest that the knowledge of projects might be linked to either having read about it (in 'Potato Australia' and the 'H.R.D.C. Report' which had been issued only weeks earlier) or to the fact that some were directly involved by way of on-farm surveys, trials etc.

Active technology transfer programs will certainly increase grower knowledge about, and understanding of, projects relevant to them.

5.8 COMMUNICATIONS FROM HORTICULTURAL RESEARCH & DEVELOPMENT CORPORATION

The telephone interview included some specific questions about recent communication to growers from the Horticultural Research & Development Corporation.

- Only 53% said they had received the 32 page "Research Report for 1992/93", and of those only 55% had read it.
- Just 27% had seen the 4 page "Potato Industry R & D" report, and of those only 57% had read it.

While in a survey this size, such low numbers are not conclusive, it does point to a serious communication problem. Our enquires clearly showed that there have been problems with the distribution of both items. In one State, no growers at all had received them, while in a number of the others, it was obvious not all growers were covered. There is absolutely no point in producing material if it is not to be efficiently distributed.

Our recommendations in this area call for the Corporation to more comprehensively manage the distribution of this and other most important material.

5.9 MARKET SIGNALS AND OTHER STATISTICS

While the issue of market information and statistics was raised by only a few growers, when it was, it received very positive response from others in the groups.

The point seems to be that growers feel they are not as aware of market and growing trends around Australia as they need to be. Some believe that information on varieties, planting levels, weather conditions etc from different growing areas will help them plan their own growing. This seems to make sense. A comprehensive knowledge of your competitors' activities is essential to almost every other area of business, so why not potato growing.

A number of growers expressed the view that the only available national data, the ABS statistics, are not at all accurate.

Market signals seem limited or unclear too. With the exception of the Consumer Survey conducted now 2 years ago (and about which most know very little), growers have no direct understanding of consumer or retailer demands and preferences.

By contrast for example, dairy farmers have access to monthly statistics of all milk and dairy product sales, including issues such as the level of low fat product sales. This is essential information for farmers whose income is based partly on the compositional quality (levels of fat, protein etc) of the milk they send to the factory.

Our recommendations call for a further look at this area of market and growing information.

5.10 PUBLICATIONS - SOME MORE DETAILS

- Across the board, "Potato Australia" is considered to be a good publication, though some believe it should be issued between 2 and 4 times a year. Growers like the Glossy production, pictures, graphs etc.

But the delays with it's production and distribution are real problems which should be addressed if it is to be one of the major technical transfer vehicles.

- Growers receiving "Peelings" speak very positively about it. "Regular", "useful information", "straightforward-not glossy and expensive" are the kinds of words they use. In the group discussions, growers not currently receiving "Peelings" had the opportunity to leaf through it and their response was equally positive.
- From the phone survey, just 33% of growers said they regularly receive "Good Fruit & Vegetables".
- The various State publications, where they exist, are also well regarded.

5.11 LOCAL MEETINGS - THE DO'S AND DON'TS

Having said that Meetings and Workshops are a good source of information, most growers in the groups had some pretty strong ideas about what goes to make up a good, successful meeting - and what does not. Following are some of the points they raise:-

- Keep to the issue/problem. Stick to the essential information.
- Make it only as long as it needs to be.
- Keep it relatively informal. Formal meetings put growers off and inhibit their participation.
- The more you can have things to show (pictures, samples etc) the better.
- Not too showy. It's not necessary, and it "wastes our money".
- If it only needs one person, don't bring two.
- Have a handout to take away - and for those that could not attend.
- Schedule the meeting at a time and place that is most convenient. Remember the growers' busy times.
- Make sure growers know the meeting is coming up. Use various different ways of telling them.

SECTION 6

RECOMMENDATIONS

6. RECOMMENDATIONS

These recommendations have been prepared based on the following assumptions:-

- *The HRDC and the Industry Research and Development Committee are prepared to commit the required level of funding to ensure efficient technology transfer in the potato industry.*
- *The size of the task ahead means that the implementation of the recommendations should be on a staged basis - probably over a two year period.*

Our recommendations fall into three separate groups:

- 1. Management and Structure*
- 2. Other Related Issues*
- 3. Philosophies*

6.1 PHILOSOPHIES

6.1.1 A Customer Focus

RECOMMENDATION 1

The Corporation, the Committee and all involved in R&D projects embrace the philosophy that the growers are their CUSTOMERS.

Let's look at growers in a different way. Consider them - Your Customers.

If we start from that position, there are a few searching questions that might be asked. For example:

6.1.1.1 What do they want to buy?

Your customers want to buy information and advice which will lead to increased profitability. A better farm. A better living. That's what they believe they are paying for.

6.1.1.2 How will they pay?

They are already. Many, probably a majority, feel they have been paying for some years but have still not received a thing. Understandably they might be disillusioned or negative. Many too, are unwilling customers. But there is no need for that to remain the case. With a customer focus and the right products, they can be converted to willing enthusiastic customers.

6.1.1.3 What do they think of you, the sellers?

Frankly they don't know much about you. They hardly ever hear from you. But they would like to.

Now, some of the positives. A customer focus will:-

- Help you develop the 'Products' they want and need. You must diligently talk to them; ask them; get their feedback. Just like any other successful seller of goods or services.

- Assist in 'segmenting' your market. That is, dividing the customers up into logical groups so that the communication process can be better targeted, tailored to each segment and more cost-efficient. Segmentation may be possible along the lines of crop size, variety grown, end use (processing or fresh), growing season, irrigation type, location, etc.
- Ensure that exciting, interesting and effective communication, designed to satisfy your customers' needs, is developed.

6.1.2 Marketing Your Product

RECOMMENDATION 2

*The Corporation and the Committee embrace the concept that each funded project is a **PRODUCT** which must be successfully **MARKETED** to your **CUSTOMERS**.*

This concept links directly with the Customer Focus just described.

The first link comes right at the start, in determining what products (Research and Development Projects) you will have. Your process should be to research the customers (growers) to clearly identify their needs. In this regard, the program of regional meetings and other forms of grower input will be important.

Then, embracing this philosophy, there are two levels at which you will want to market a project.

1. Initially when approved for funding, and as the project progresses, to build grower (customer) interest in the project; expectation of the outcome and; support of the Corporation, the Levy and the overall R & D process.
2. At the completion of the project, to advise growers of the outcome and secure their action in response to the recommendations.

A planned approach to marketing each project, and the information from it, will ensure that you:-

- Clearly identify the segment(s) of your customers to whom the communications should be directed.
- Set clear and measurable communication objectives.
- Determine the right methods and channels of communication to reach the chosen segments most effectively.
- Establish the timetable for action and allocate responsibilities.
- Measure the effectiveness of activities.

This concept may be difficult to grasp. So, consider the analogy of the NSW Cancer Council's, Skin Cancer Awareness Campaign which is often referred to as "*Slip, Slop, Slap and Wrap*". In this case the Council have numerous messages they want to get to a wide cross-section of the community. Like you, they aim to communicate information and recommendations, to result in positive 'customer' action.

So they have segmented their market (youngsters, teenagers, senior citizens for example) and tailored messages for each group.

They use various 'channels' to get the messages out. Catchy TV for kids, posters in doctors surgeries and pharmacies, doctors information, school kits, etc.

Measurement of their impact is vital. So they not only measure how much communication is happening, but also the level of adoption of their recommendations.

While your communications tasks are not as broad and complex, the principals remain very much the same.

6.2 MANAGEMENT & STRUCTURE

6.2.1 The Potato Technology Transfer Manager

RECOMMENDATION 3

Establish the full-time position of Potato Industry Technology Transfer Manager, and recruit the appropriate person to fill that role.

(Note that if it is not appropriate for such a position to exist within the structure of the HRDC, then submissions should be sought for the establishment of the position on a project basis).

There is no doubt that there is a real need for this position. The establishment and maintenance of the Technology Transfer strategies called for in this report is a complex task, well beyond the resources of an industry committee, an individual State Department officer, or the existing APIC administration.

6.2.1.1 Role and Responsibilities

A comprehensive Position Description and list of duties would of course be proposed. As a guide, we see the responsibilities of the position should include:

- Oversee the project to set up and maintain the national growers and contacts database.
- In consultation with the various Research Project Managers, prepare the marketing/communication plan for each Corporation funded research program.
- Oversee the implementation of the above plans.
- Schedule and co-ordinate a series of meetings with growers in major growing areas in each State.
- Develop and maintain contact with others involved in the technology transfer area.
- Oversee the project to produce and distribute 'Potato Australia'.
- Oversee the project to produce and distribute technology transfer bulletins as required.

- Develop and maintain programs to maximise media coverage of project outcomes and technology transfer activities.

6.2.1.2 The Person

You will be looking for a very special individual. Naturally a full prospect specification should be prepared, but ideally, the successful applicant will have the following qualities:

- Already respected within the potato industry - particularly among growers.
- A good organiser. Methodical and detailed.
- An existing network of contacts and associates within the industry
- Open and friendly.
- Dynamic and keen. A leader and motivator.

In addition, required qualifications should ideally include:

- Past experience and proven success in the Technology Transfer field.
- Computer competent.
- Skilled in writing for the process of technology transfer.
- Experienced and capable with media interviews, preparing media releases etc. (alternatively, you may be prepared to provide some training in this area).

Very importantly, this person must be prepared to undertake a significant amount of travel.

6.2.1.3 Reporting Structure

We would see this individual reporting to a small (say 3 people), well qualified committee. (Perhaps this could be composed of two members from the existing Potato R & D Committee and one from the HRDC). It is important to the status of the position that the Manager be given the authority, and responsibility and independence to implement the overall plan once approved by the committee.

A quarterly report and meeting with the committee would be required. Budget provision should be made to accommodate these meetings, some of which could well be via teleconference or videoconference.

The Committee and Manager should carry out a review of the program, role and responsibilities etc. six months after commencement. This formal process will ensure that changes can be made, if required, and further resources and support sought if necessary.

6.2.1.4 Remuneration and Support Systems

The position is a senior one, and must be seen to be so by the industry. In addition, to attract the right candidates, it will be necessary to offer an appropriate remuneration package (or project budget).

Beyond this budget provision should provide for such things as:-

- Provision or use of a car.
- Phone, Fax, Answering Machine and Mobile Phone.
- Office space
- Secretarial support as required
- Media liaison and management support as required.

6.2.2 'Potato Australia'

RECOMMENDATION 4

By means of a separate Horticultural Research & Development Corporation project, take over and publish the industry publication "Potato Australia" increasing the frequency of issues to two per year in the first year and consider four per year in the second.

Note that we are recommending the production and distribution be commissioned as a separate H.R.D.C. funded project. While it should be overseen by the Tech Transfer Manager the task is too complex and time consuming to be done by him/her.

"Potato Australia" is a well regarded publication. But the recent delays with it's production, and inefficiencies in distribution, only lend weight to the argument that it should be bought fully under the technical transfer umbrella, and managed as part of the total program.

There has been little critical comment of 'Potato Australia'. The glossy format and extended stories are generally liked. Therefore we see little need for format change.

6.2.3 Potato Industry TT Bulletins

RECOMMENDATION 5

By means of a Horticultural Research & Development Corporation project, develop the format for, and then publish and distribute as appropriate, special "Potato Industry TT Bulletins" (working title only).

Our research, and experience in the potato and other industries shows that printed material is vital to the process of technology transfer communication. Growers have listed direct-mailed bulletins as by far their most preferred form of communication.

We see the bulletins as being project or topic specific - rather than some form of regular newsletter. In that way, they will be focussed and full of information. In addition, their distribution will be able to be efficiently managed via the database information held on each grower.

In terms of design, the bulletins should be straightforward and workmanlike. Not showy and expensive, but eye-catching.

In the area of content, this would be better advised by professionals experienced in that field. But from our research, the following comments are appropriate:-

- The content (and format) of 'Peelings' is generally well regarded. It may serve as a model.
- Growers want information distilled to the key points, but with a clear indication of the costs, and benefit of any actions recommended.
- Ensure that any recommendations have been validated for their correctness/appropriateness in all areas where they are recommended. If not, clearly state so.
- Provide contact details for more information.

Both the bulletins and 'Potato Australia' are essential tools for the process of technology transfer. Their distribution will be efficiently handled by means of the industry database (see next Section 6.2.4).

6.2.4 Database of Growers and Other Industry Contacts

RECOMMENDATION 6

By means of a Horticultural Research & Development Corporation project, establish and maintain a comprehensive database of all growers and other relevant industry contacts.

Preparation and management of this database, while not a 'research' task as such, does fall squarely within the Corporation's industry 'development' role. An up-to-date and complete database is a basic foundation to all communication activity. It may also be used, with appropriate controls, by others in the industry.

6.2.4.1 Who should be on the database?

- All growers throughout Australia. These should be coded according to a set of criteria which might include, but not be limited to:

Name and Address (farm and postal)
Phone and Fax
Region (perhaps postcode will do)
Growing for fresh, processed (crisp or fries), or both, and varieties.
Any research projects involved in.
Size of farm/crop

Growers could be cross-tabbed with relevant others on the database - such as field officers covering the area.

- State department officers with involvement in the potato industry. Other relevant details such as address, phone/fax etc would be included.
- Key executives in companies involved in the supply of goods and services to the industry (eg Chemical, Machinery, Horticultural Consultancy etc.)

6.2.4.2 Who should prepare and maintain it?

There is no doubt that initial preparation of this database will be a significant task, and that ongoing management is substantial too. But it may be found that a significant amount of the leg-work has already been done by State Department officers and others in the preparation of lists for their own use.

In any case, it is a specialist task which could well be contracted out, but overseen closely by the new Tech Transfer Manager.

6.2.5 Field Days, Meetings and Workshops

RECOMMENDATION 7

Establish an active national program of meetings, field days or workshops as an integral part of the Technology Transfer process.

It is worth re-stating here that throughout the research, growers nominated field days, workshops and meetings as the preferred and most effective means of obtaining new information.

And when it comes to adoption of recommendations, it is clear that the process of being able to talk personally with the individual recommending the changes, ask questions, and discuss the topic, leads to quicker acceptance and adoption. Presumably that is why Field Officers in the past played such an important and successful role in changing farming practices.

Naturally, it is not presumed that the Technical Transfer Manager will be able to carry out widespread meetings, workshops etc. But a schedule which ensures meetings in all major growing areas, say twice per year, ought to be achievable.

A further and very important benefit of the process of structured gatherings will be to encourage the flow of information, comment, criticism and opinion from growers, back up the line to the Research and Development Committee and the Horticultural Research & Development Corporation.

Lastly, as has been highlighted earlier, in many areas meetings are virtually non-existent. Just holding two per year, on topics which should be positive and interesting, might start to rebuild the spirit of fellowship some say has been lost.

6.2.6 Using Existing Structures and People and Publications

RECOMMENDATION 8

Wherever possible, utilise the resources and assistance of existing people, structures and publications to support the technology transfer process.

States

Despite marked changes in recent years, in every State there is still some form of structure in place to support growers. For example:-

- In Victoria, a specialist group has been formed with a specific brief to develop technology transfer strategies for that State.
- In Western Australia, the growers association is still strong and active.
- In Queensland, the growers co-op at Atherton can act as a channel for information.
- And in all States there are Industry Officers/Field Officers/Program Managers etc interested and keen to support the technology transfer process.

Individuals

In addition, there are various regional projects, (managed by skilled individuals) funded through the Corporation, and operating to some extent in the field of technology transfer. Again, some examples might be:

- Tony Myers crising group
- Sandra Lanz' work with growers in the NSW southern highlands, and
- Mark Heap's Potato Crop Management Service in South Australia.

These people too, are a valuable resource which should be included in the total overall technology transfer program.

Suppliers and Consultants

Into this 'network' of supporters also comes the various suppliers to the industry. People and organisations such as chemical companies, irrigation suppliers, and horticultural consultants. We have no doubt that, as the industry's own technology transfer structures and systems are developed, these people and organisations will want to tap into it. They will want to be seen to be part of, and supporting the programs. So they too can be used, with care - and on your terms.

Newsletters

Lastly, in various regions, and through State Departments, there are a number of publications or newsletters circulating to growers. These should be used to both publicise the industry's new technology transfer structure and system, and help spread specific technology transfer messages.

6.2.7 Using the Media

RECOMMENDATION 9

Wherever possible, through media releases, interviews etc, utilise local and specialist rural media to:

- *Communicate research outcomes*
- *Support particular planned activities*
- *Promote the new technology transfer structure and strategies*

It is a truism, that those people and organisations that make the most noise get the greatest coverage. The potato industry as such has been pretty silent in the media in recent years. But your decision to be very pro-active in this technology transfer area is a 'good news' story well worth promoting.

And, as the program progresses there will continue to be many other opportunities to promote the research activities and outcomes and the industry.

Coverage in the media will enhance growers positive feelings about the technology transfer process, and encourage their interest and participation.

6.2.8 Components of the Technology Transfer Program

RECOMMENDATION 10

The Potato Industry Technology Transfer program should include a broad range of information drawn from various sources in Australia and overseas.

A Technology Transfer program covering only information from H.R.D.C. funded projects is too limited. It is clear there are numerous other sources of useful information which must be tapped if growers are to be provided with a comprehensive service.

Naturally, it will be important for the Manger and his Committee to sort and prioritise material and it may be appropriate to enlist the assistance of specialists in certain areas if appropriate.

From our discussions, it would seem that input material for consideration should include, but not be limited to:

- Research interim and final reports - H.R.D.C.
- Research interim and final reports - Other Projects
- Overseas research
- Overseas publications
- Information and data from State departments and officers.
- Case studies/experiences in different areas.
- Speeches, addresses, lectures.

6.3 RELATED ISSUES

6.3.1 The Role and Responsibility of Researchers

RECOMMENDATION 11

All researchers and others controlling all projects funded through the Corporation still be required to prepare regular interim reports, and a final report, in a format to be developed by the Technology Transfer Manager.

Also, project managers must be actively involved in the preparation of the communication/marketing plan for their project.

In addition, all people involved in projects must recognise the importance of their role in the technology transfer process.

It is currently the case that all managers of projects are required to prepare interim and final reports in a particular form. The format of the reports should be reviewed by the Technology Transfer Manager and revised to suit his/her needs.

Note particularly that we have not recommended that projects must have within them, a provision and budget allocation for technology transfer (extension). As detailed earlier, we believe the management and funding of technology transfer is a specialist task which calls for separate skills, plans and resources. The only exception to this may be those projects which have been running for a couple of years and which may not have made budget provision for the interim reports now required.

This recommendation applies to all current and future projects. Presentation of the reports needs to be vigorously encouraged/policed and we see this as a joint responsibility of the Technology Transfer Manager and relevant Corporation staff.

6.3.2 Measurement and Evaluation

RECOMMENDATION 12

For each and every Project the Technology Transfer Plan must have built into it the appropriate systems to measure and evaluate:-

- . The extent and success of the communication activities.***
- . The extent to which the recommendations in the communication have been adopted.***

In addition, an annual phone survey should be carried out among a representative group of growers in all States to gather opinions about and ensure their satisfaction with the overall technology transfer program.

Not much explanation required here. If the Corporation is to devote a significantly increased proportion of it's funding to the technology transfer process it is essential to see that results are being achieved.

The methods of measurement will vary from project to project, and should be developed by the Technology Transfer Manager and his Committee, and approved by the Corporation.

The phone research we would not see as a lengthy or complicated process, and could probably be handled either internally or contracted out.

6.3.3 Market Information and Statistics

RECOMMENDATION 13

The Potato Industry Research & Development Committee to examine and determine the extent and need for a system of collecting and publishing data on wholesale sales and growing practices across Australia.

For an industry as large, and valuable as potatoes, the amount and availability of hard data on growing patterns, and sales is woeful. Virtually all information at present is estimates or opinions.

Growers are in our view, in a very difficult position, with little or no regular market information or signals to help them in their variety or crop size choices.

This recommendation calls for the issue to be looked at in more detail so that a decision can be made as to whether a formal system of data collection and dissemination is needed, and if so, the form it should take.

6.3.4 The Essential Two-Way Flow

RECOMMENDATION 14

Through research, regional meetings and other means, ensure that the opportunity is provided for growers to get their opinions and suggestions on R&D programs, and the technology transfer process, back to those responsible for policy, development and implementation.

To be effective, and confident that efforts and finances are directed to the areas of most need/benefit, the Committee must have regular feedback from growers and others in the industry.

A concerted effort, and structured activities, must be undertaken to ensure this. Such activities could include:

- A brief questionnaire to be completed by all attending any workshop, meeting etc.
- A questionnaire distributed with an issue of Potato Australia.
- Annual phone survey of a representative sample of growers.

6.3.5 Communicating the Results of this Study

RECOMMENDATION 15

That the Corporation and the Potato Industry Research and Development Committee ensure the findings of this study, and any subsequent decisions taken on the recommendations, are communicated to the industry, and in particular to those who participated in the interviews, discussions etc.

As we went about this project, there was a significant degree of interest expressed by almost all we contacted. An almost universal feeling that 'something must be done' exists, and there was quite a deal of positive reaction to the fact that the Committee and Corporation were now addressing the situation.

It would not be understating things to say that an air of expectation exists.

To disseminate the information, and details of your decisions, will enhance the positions of the Committee and the Corporation and, provided the decisions are generally positive, improve the environment for your proposed technology transfer initiatives.

SECTION 7

**SPECIFIC STATE
ISSUES OR
DIFFERENCES**

7. SPECIFIC STATE ISSUES OR DIFFERENCES

This section lists briefly any major characteristics that are particular to individual States. The aim is to highlight things which need to be borne in mind when considering the preceding Recommendations.

The significant common characteristic across all States is the reduction of government support through a system of Field Officers, and a resultant trend toward fee-for-service provision of services to growers.

In a number of States growers expressed a strong concern that their State was not "getting back" its fair share of the levy monies sent to the Corporation. The view seems to be that only if the research is done in that State will issues important to that State be covered. This view could be alleviated by:

- Better communication about the projects that are funded and their applicability in different areas.
- Ensuring appropriate input from all areas in establishing project funding priorities.

7.1 NEW SOUTH WALES

1. No formal state-wide growers association exists, though there are strong initiatives from some growers to form one. This move is supported and endorsed by the NSW Farmers Association. The situation regarding this should be clearer following a meeting scheduled for mid March. A fair amount of preliminary work has been done in preparing a State growers list. Contact for this would be Geoff Moar.
2. "Potato News", produced by Stephen Wade at the Finley Department office appears to be well distributed and widely read.

7.2 QUEENSLAND

1. Growers in Queensland are quite critical of the dual levies imposed upon them. There is some discontent in that they feel they are paying for R & D twice. Some previous financial problems with the COD levy have heightened their concern about the prudent management of any levies collected.
2. Growers in the Atherton region feel particularly isolated. Their view is that the conditions under which they grow potatoes are so different to all other areas, that the industry as a whole cares little about them.

3. Atherton is the home of what seems to be the only potato grower co-operative in Australia. While it has in the past seen some problems, things appear to be well run and profitable now. The co-op could act as a good conduit/contact in that region - particularly as the local Department officer has recently retired and is not to be replaced. The Co-op would be prepared to distribute information to growers in the region, both their members and non members.
4. Queensland Fruit & Vegetable Growers have a regular publication which appears to reach most potato growers. They may be a useful contact.
5. In view of their State levy, the relevant department must have a list of all growers, though some believe that the list is not complete. Nevertheless it may be of some assistance.

7.3 SOUTH AUSTRALIA

1. While there is a Growers Association, and they have a names list, the feeling is that it is not comprehensive and up-to-date.

7.4 TASMANIA

1. Fresh growers in this State feel very much in the minority. They know, and can see that processing growers are pretty well supported by technology transfer assistance.
2. Distances are small as well, so there is a more cohesive group feeling among the growers.
3. Concern expressed that some smaller growers are not paying the levy (as they sell direct) and so should not enjoy the benefits.

7.5 VICTORIA

1. Recent formation of a specialist technology transfer group with a brief to develop technology transfer strategies for potato growers in that State. The group are based at the Knoxfield complex. They are keen to work closely with any initiatives developed by the Horticultural Research & Development Corporation.
2. A fair deal of work being done out of the Ballarat Department of Ag office in the area of overall Regional agricultural development, and setting in place the structure and services required to achieve set objectives. Again, any Horticultural Research & Development Corporation technology transfer activities should be dovetailed with this where appropriate.
3. The Farmers Association are very keen to see increased support of potato growers in that state and have taken a keen interest in this project.

7.6 WESTERN AUSTRALIA

1. The Growers Association is active and appears well supported by growers.
2. Regular publication put out by the Association is widely read.
3. The Association considers appropriate technology transfer a priority for its members. It has expressed a strong interest in this study and are keen to hear the results as soon as possible.

SECTION 8

APENDICES

8. APPENDICES

8.1 GROUP DISCUSSION INVITATION LETTER

Dear Sir

Re: Fresh Potato Industry - Technology Transfer

Richard Marketing has been appointed by the HRDC to carry out a 'Needs and Assessment Analysis' on the transferring of Research and Development information to Fresh Potato Growers around Australia. The details of the project are covered in the outline attached.

An important element of the project is a group meeting of growers from your region. The meeting will be coordinated by Richard de Vos, from this office, and will cover what is happening in your area at present and options and opportunities for the future.

We need to meet with 6-8 growers from your region and would like to invite you to attend the meeting. It is essential we have at least 6 people at the meeting, so your attendance would be greatly appreciated.

The details of the meeting are as follows:

Date:

Time:

Place:

Would you be able to call me and confirm whether or not you can attend? My phone number is (02) 439 8146. At this time I can also answer any questions you may have. If I am unavailable please leave a message on the answering machine, and either Richard or I will get back to you at a convenient time.

Thank you for your assistance.

Yours sincerely

Karin Richard

LTK004PO

8.2 GROUP DISCUSSION OUTLINE

1. Introduction

- Open with an explanation of the project, why it is being conducted, and what is the expected result.
- Explain the various elements in the research - emphasising the importance placed on the group discussions.
- Describe what will happen in this session, detail the guidelines for an effective & productive group and explain the need to record.
- Explain that while it is important we get the views of the people in the group, it will also be helpful if they can say, on the various topics covered, what they think might be the view of other farmers in the area.
- Ask for any questions.
- Introduce group members participation by asking them to describe their farms, current markets, weather patterns, processing/fresh mix etc.

2. Potato R & D

- What do they know about R & D work done for the potato industry at present, or in the past? Who does it? How do they decide what will be researched? How is it funded?
- What do they know about the HRDC? Do they know how the funding works? How project priorities are decided? Probe for any concerns/reservations.
- Can they name or describe any projects recently completed or currently underway through the HRDC? Can they see the relevance/application of these to fresh potato farming?
- How much information do they feel they are getting back from the HRDC past and current projects? In what form? How useful?
- Do they see value in the contributions they make to the HRDC. Pick-up and probe carefully any negatives.

3. Extension Services for Fresh Growers

- Explain and discuss what we mean by 'extension', 'technology transfer' and 'technology adoption'.
- Who provides these at the moment? How good are they? What form do they take? Probe for strengths & weaknesses of current extension services. What sort of extension services used to be provided that now aren't? If they could have the services back . . . would they?
- What sort of things in the area of extension services do State departmental officers do? What did they do in the past that they do not now?

4. Information On How To Manage their Farming

- Where do they get information at present? Prompt with Publications, Magazines, Meetings, Field Days, TV, Radio, Videos, Courses etc. Looking at each source type mentioned, probe on measures such as:- How effective is it? How reliable? How regular? How practical? Is there a cost?
- What sort of publications do they read? How good/useful/valuable?
- Do they ever see or hear of useful information from overseas? Where do they hear about it?
- Do they ever go to meetings, workshops, field days etc? How good/useful/valuable? What sort of things are discussed?

5. Technology Adoption

- Can they provide any examples of where they learnt something from R & D research, a publication, a workshop or whatever - and then went on to adopt it, changing past practices.

6. Future Options

- If there was a central place which had lots of data and information on farming, plus the results and recommendations from R & D research, would they use it? How would they expect to get access to it? Would you expect to pay? In what form would you expect to get the information (hard copy, diskette etc). Does this option sound more like it is a problem solving one, rather than ongoing information.
- If there was a person you could ring and get advice from. Someone who would have all the latest info to hand. Would you call him/her? What sort of person is he/she? Again, does this sound more like a problem-solving option rather than one which is positive & pro-active as well as problem solving?
- What about newsletters or printed information. Where would you expect them to come from? Who would write them? What do they look like (ie hole punched; by category heading; heavy duty for taking out on the farm. When would you read them? When do you have the time? Who on the farm would read?
- What about local workshops or network meetings. Would they go? How would they see them being run? Who would co-ordinate? Dates? Times? Place? Frequency?
- Consider other media such as Radio, TV, Videos etc.
- Do any of the group have computers they use in their farm management? If so, what type? Any CD Roms? How would they feel about receiving information on diskette or CD.

7. Finish

- Give group members the chance to talk about anything else which may be of interest or topical at the time.
- Do they have any questions about the project?

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8.3 TELEPHONE INTERVIEW QUESTIONNAIRE

Name: _____
Phone: _____ State: _____ No: _____
Comments: _____

Introduction (see separate sheet)

1. I'd like to get from you a list of the types of people and organisations that you would describe as useful contacts or advisers in your potato growing. They might be suppliers, industry people, from government or whatever.

Prompt for full list.

- | | |
|--|---|
| <input type="checkbox"/> Chemical suppliers | <input type="checkbox"/> Horticultural consultants |
| <input type="checkbox"/> Irrigation suppliers | <input type="checkbox"/> State department field officers. |
| <input type="checkbox"/> Machinery suppliers | <input type="checkbox"/> Other growers |
| <input type="checkbox"/> Grower Association people | |
| <input type="checkbox"/> Others (list) _____ | |

2. Can you estimate for me how many growers there might be in a radius of say 50 kms around your property? _____

3. Is there a local Potato Growers Association? Yes (Go to Q.4)
 No (Go to Q.5)

Do you attend the meetings? _____

4. About how often would they meet? Once a week
 Once a month
 Once every 2-3 months
 Less often

5. Talking about the ways you receive new information about potato growing. Information about things like disease or pest control; irrigation; harvesting; and new varieties. Would you tell me how you hear about these sorts of things?

Record unprompted response, then prompt for more - ask them to refer to questions sent to them by mail.

<i>Unprompted</i>	<i>Prompted</i>	<i>Most useful (Q6)</i>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Magazines
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Research reports
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The Radio
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local department people
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chemical supplier
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Equipment/machinery supplier
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Paid consultant
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other nearby growers
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local meetings or workshops
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Field days
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other (list) _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

6. And, of the ones you have mentioned, which two would you say are the most useful? Tick two most useful (Q5) or

Can't say it varies

7. Just looking at Magazines for a moment. Could you tell me if you regularly receive?

- Potato Australia
- Good Fruit & Vegetables
- The Potato Grower *(put out by the WA Potato Growers Association)*
- Our Growing Business *(put out by the WA Potato Marketing Authority)*
- Potato News *(put out by the NSW Dept of Agriculture)*
- Peelings *(put out by the Vic Dept of Agriculture)*
- Qld Fruit & Vegetable



News
VegeLink

(put out by the Tasmanian DPI)

8. Are there any other magazines or newspapers you get, which have information about potato growing, that I have not mentioned?

List other magazines mentioned

9. And Radio. Do you, or does someone at the farm, usually listen to the Country Hour?

Yes

No

10. Are there any other rural-type radio programs you usually try to listen to? What are they?

No

Other programs (list below):

Station _____ Program _____

11. And TV. Are there any, specifically rural, programs you usually watch?

No

Yes (list below):

Channel _____ Program _____

12. There are a number of ways the Horticultural Research and Development Corporation can get R & D information to growers? Would you please tell me which you think is the best? And the next best? And the third best?

This questions was sent to them in the mail. Read out with them and ask them to number preferences 1,2,3.

Industry

Publications Radio

Government

Publications Suppliers (ie Chemical & Equipment Companies)

Dept of Agriculture/Primary Industry Officers

On videotape

Private Consultants

By special bulletin mailed direct to Growers

Field Days

Industry Conferences

Local Grower Meetings

13. I'd like to ask you a question about the Research & Development levy paid by all growers. Before we contacted you about this study, did you know that you, and all Potato growers and Processors are contributing to the levy? No
(Levy is 50c per tonne collected at the first point of sale) Yes
14. Do you know of some Research or Development projects that are currently funded by the Potato Levy through the Horticultural Research & Development Corporation. What are they? (List first three mentioned)
1. _____

2. _____

3. _____

15. I'd like to ask you if you can recall actually seeing, or hearing about the results or recommendations from any Horticultural Research & Development Corporation funded projects? Yes (Go to Q.16)
 No (Go to Q.17)
16. Where did you hear or see the results? Was it a magazine or on radio or at a meeting? Please give details.
- _____

17. Do you recall receiving the magazine 'Potato Australia' in the last 2 months? Yes
 No
18. Just recently the Horticultural Research & Development Corporation put out a report on their work for 1993/94. It was a colour newspaper style, about 30 pages. Did you receive it? Yes (Go to Q.19)
 No (Go to Q.20)
19. Before we approached you for this interview, had you read it? Yes
 No

20. Also recently the Corporation produced a Potato Industry R & D report. This was 4 pages, black & white. Do you recall receiving it?

Yes (Go to Q.21)

No (Go to Q.22)

21. Have you read it?

Yes

No

22. Just a couple of questions about one aspect of potato growing. First, have you ever heard of IPM or ICM? If so, can you tell me what the letters stand for?
(Integrated Pest Management or Integrated Crop Management)

Yes (Go to Q.23)

I _____
I _____

P _____
C _____

M _____
M _____

No (Go to Q.25)

23. Can you tell me where you heard about IPM or ICM?

24. Are you using IPM or ICM on your farm?

Yes

No

25. I want to ask you to think about any recent major changes you've made to the way you grow potatoes in the last 2 years. Things like changes to the way you control pests and diseases, different irrigation, improved harvesting methods etc. Can you name three changes like this that you've made?

(Sent to them in the mail)

1. _____

2. _____

3. _____

26. And can you tell me how you heard about each one. For example did you read about it, did a Department Field Officer suggest it or did one of your suppliers tell you?

1. _____
2. _____
3. _____

27. Looking outside Australia, there is a large amount of potato growing Research & Development work done in other countries, and some of it would be of interest to growers in Australia. Can you tell me if you ever hear about overseas research, or developments - and if so, where you heard about them.

- No
- Yes Details: _____
- _____

28. Lastly, I'd like to ask your opinion on what the Horticultural Research & Development Corporation should do in the future about getting important information out to growers. (Questions 28 and 29 sent to them in the mail)

It has been said that the Horticultural Research & Development Corporation should ensure that a proportion of the levy funds collected from growers (and matched by the government) should be spent ensuring the results are communicated to growers. Would you agree with this?

- Yes (Go to Q.29)
- No (Go to Q.30)

29. The HRDC could approach this task a number of ways. Here are some examples:

- 10% of the Potato Research and Development Levy
Would mean that one person could be employed to take information from the Research & Development studies, rewrite it so that it could be clearly and easily understood by growers, and then distribute that information to central points such as grower Associations, Departments of Agriculture etc.

It would also cover the cost of a central database or library of information which all growers could access.

- 20% of the Potato Research and Development Levy
Would include all of the 10% work, plus ensure that the relevant overseas information is covered too. It would also mean that the information is distributed direct by mail to growers, as well as to departments and others in the industry.

- 30% of the Potato Research and Development Levy
Would include the 20% work, plus cover the cost of staff to co-ordinate and attend meetings in major growing areas where the information would be presented and discussed, with opportunities for questions and workshops.

Which of these would you favour? (Go to Q.31)

30. No to Q.28. Why do you say that?

31. One of the ways information can be sent to growers is direct by mail. To do this the Horticultural Research & Development Corporation would need to put together a list of all growers. Would you be happy to have your name on that list?

- Yes
 No

32. That's the end of our questions, but do you have any questions or particular comments or suggestions you'd like to make?

33. Can you give me the number of acres/hectares of potatoes you grew this year?

Thank you very much for your help with this project

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8.4 TELEPHONE QUESTIONNAIRE RESULTS

Question 1

The types of people and organisations that the grower would describe as use contacts and advisers in their potato growing. Note that growers could answer yes to as many contacts as they wanted. The percentages represent the numbers of growers who said yes to that particular contact.

76%	Chemical Suppliers	37%	Irrigation Suppliers
43%	Machinery Suppliers	61%	Grower Association
47%	Consultants	67%	Department People
88%	Other Growers	%	Other

Question 2

Estimate the number of growers there would be in a radius of say 50 kilometres around your property

20%	Up to 20	47%	21 to 60
4%	61 to 110	20%	Over 110
5%	Didn't know		

Question 3

Is there a local Potato Growers Association

67% Yes

Do they attend meetings

69% Yes

Question 4

About how often would they meet

28%	Once a month	56%	Once every 2-3 months
16%	Less often		

Questions 5 & 6

The two most useful ways they receive information about Potato Growing

<u>Ways to receive information</u>	<u>1st Preference</u>	<u>2nd Preference</u>	<u>Total</u>
Magazines	14	5	19
Research Reports	1	4	5
The Radio	0	0	0
Local Department People	5	3	8
Chemical Supplier	3	9	12
Equipment or machinery supplier	1	1	2
Paid consultant	3	2	5
Other nearby growers	9	7	16
Local meetings or workshops	5	8	13
Field days	5	8	13
Other	2	1	3
Can't say it varies	1	0	1

Question 7

Can you tell me what magazines you receive

67% Potato Australia

35% Good Fruit and Vegetables

The other magazines were limited to the States in which they were produced.

Question 8

Are there any other magazines or newspapers which have information about potato growing

The answers here were varied they included local newspapers; overseas publications; Agricultural publications and Processor publications.

Question 9

Listens to Country Hour

51% Yes

Question 10

Listens to other Rural Radio Programs

22% Yes

Question 11

Watches Rural Television Programs

57% Yes

72% Watched Landline other programs included Country Wide and Cross Country

Question 12

Ways in which the HRDC can get R & D information

(T/T) out the Growers. What are their preferences.

<u>Ways to distribute</u> <u>R & D information</u>	<u>1st</u> <u>Pref.</u>	<u>2nd</u> <u>Pref</u>	<u>3rd</u> <u>Pref</u>	<u>Total</u>
Industry Publications	4	3	2	9
Government Publications	0	2	3	5
Depart of Ag/PI Officers	4	5	9	18
Private Consultants	1	2	3	6
Field Days	6	9	9	24
Local Grower Meetings	0	11	9	20
Radio	3	1	0	4
Suppliers	1	8	1	10
On videotape	2	4	1	7
Special bulletin	27	4	6	37
Industry Conferences	0	0	3	3
Other	2	1	0	3

-
- Question 13** *Did they know that they and all Potato Growers and Processors are contributing to the R & D Levy*
100% Yes
- Question 14** *Do they know of some R & D projects that are funded by the levy*
41% Yes
- Can they name three projects that are currently being funded*
76% Could name one project (the others couldn't recall any names)
33% Could name two projects
24% Could name three projects
- Question 15** *Can they recall seeing or hearing the results of any HRDC Research Project*
29% Yes
- Question 16** *Where did they hear or see the results*
47% In a magazine
40% Talked to someone involved in the project
7% Research was on his property
7% At a meeting
- Question 17** *Do you recall receiving the magazine Potato Australia*
59% Yes
It should be noted that a number of people had just received the magazine ie a few days before
- Question 18** *Did they recall receiving the HRDC report*
53% Yes
- Question 19** *Had they read the HRDC Report*
56% Of the people who received the report had read it
- Question 20** *Did they recall receiving the Potato Industry R&D Report*
27% Yes
- Question 21** *Had they read it the R&D Report*
57% Of the people who received the R&D report had read it

Question 22***Had they ever heard of IPM or ICM***

63% Yes

Question 23***Where did they hear about IPM***

25%	Meeting	25%	Course
13%	Read about it	9%	Chemical Supplier
9%	Other growers	9%	Didn't know
3%	Consultant		

Question 24***Are they using IPM on their farm***

69% Yes

Question 25***Have you made any major changes to the way you grow potatoes in the last 2 years***

76%	Had made one change
67%	Had made two changes
51%	Had made three changes

What changes did they make

26%	Irrigation	16%	General Practices
5%	IPM	11%	Fertiliser/soil testing
14%	Chemicals/pest control	8%	Varieties/improvements
3%	Equip./machinery	13%	Harvesting methods
3%	Other		

Question 26***What prompted them to make the change***

11%	Efficiency	15%	Discussion with growers
35%	Themselves	6%	Suppliers
3%	Other reasons	8%	Read about it
6%	Discussions with processors	4%	Consultant
8%	Department Person	2%	Market need

Question 27***Do they ever hear of overseas R&D Work***

47% Yes

Where do they hear of the overseas R&D Work

The answer to this questions was varied. Broadly speaking the information came from overseas publications; potato growers overseas; processors (ie McCains etc).

Question 28

Do they agree that a proportion of the Potato R&D Levy should be spend on communicating the results back to the growers

96% Yes

Question 29

Which percentage of the allocation of funds would they favour

28% 10% of the total HRDC funds

46% 20% of the total HRDC funds

14% 30% of the total HRDC funds

12% Did not like the options available

Question 30

Why didn't they want the HRDC to spend money on communicating the results

There were only two responses:

1. The HRDC does a good job already (crisping grower)

2. More important to do the work. The information will get there eventually.

Question 31

Would they be interested in having their name on a HRDC direct mail list

100% Yes

8.5 FRESH MARKET GROWER - INTERVIEW LIST

Western Australia

Bert Russell
DONNIBROOK

South Australia

Brian Clarke
VIRGINIA

Victoria

Brian Hanrahan
DUNNSTOWN

Tasmania

John Smink
DEVONPORT

Queensland

Craig Wilson
REDLAND BAY

New South Wales

Geoff Moar
OAKLANDS

8.6 FRESH MARKET GROWER - DISCUSSION

OUTLINE

1. Introduction

- Open with an explanation of the project, why it is being conducted, and what is the expected result.
- Explain the various elements in the research - emphasising the importance placed on the individual interviews.
- Explain that while we will be talking with a number of groups of growers around the country, it is important to get an overall 'industry' perspective from each state. Hence this interview.
- Ask for any questions.

2. Potato R & D

- What do you know about R & D work done for the potato industry at present, or in the past? Who does it? How do they decide what will be researched? How is it funded?
- What do you know about the HRDC? Do you know how the funding works? How project priorities are decided? Probe for any concerns/reservations.
- Can you name or describe any projects recently completed or currently underway through the HRDC? Can they see the relevance/application of these to fresh potato farming?
- How much information do you feel the industry is getting back from the HRDC past and current projects? In what form? How useful?

3. Extension Services for Fresh Growers

- Who provides these at the moment? How good are they? What form do they take? Probe for strengths & weaknesses of current extension services. What sort of extension services used to be provided that now aren't? If they could have the services back . . . would they?
- What sort of things in the area of extension services do State departmental officers do? What did they do in the past that they do not now?
- What is the "industry's" view or position on State department cutbacks?

4. Information On How To Manage Potato Farming

- Where do growers get information at present? Prompt with Publications, Magazines, Meetings, Field Days, TV, Radio, Videos, Courses etc. Looking at each source type mentioned, probe on measures such as:- How effective is it? How reliable? How regular? How practical? Is there a cost?
- What sort of publications do you and other growers read? How good/useful/valuable?
- Do you ever see or hear of useful information from overseas? Where do you hear about it?
- Are there meetings, workshops, field days etc held in this state? Who runs them? How often? How good/useful/valuable? What sort of things are discussed?

5. Technology Adoption

- Can they provide any examples of where growers in this state have learnt something from R & D research, a publication, a workshop or whatever - and then went on to adopt it, changing past practices.

6. Future Options

- If there was a central place which had lots of data and information on farming, plus the results and recommendations from R & D research, would growers use it? How would they expect to get access to it? Would they expect or be prepared to pay? In what form would you expect to get the information (hard copy, diskette etc). Does this option sound more like it is a problem solving one, rather than ongoing information.
- If there was a person growers could ring and get advice from, someone who would have all the latest info to hand, would they call him/her? What sort of person is he/she? Again, does this sound more like a problem-solving option rather than one which is positive & pro-active as well as problem solving?
- What about newsletters or printed information. Where would you expect them to come from? Who would write them? What do they look like (ie hole punched; by category heading; heavy duty for taking out on the farm. When would you read them? When do you have the time? Who on the farm would read?
- What about local workshops or network meetings. Would they go? How would they see them being run? Who would co-ordinate? Dates? Times? Place? Frequency?
- Consider other media such as Radio, TV, Videos etc.
- Do any growers have computers they use in their farm management? If so, what type? Any CD Roms? How would they feel about receiving information on diskette or CD? What's the penetration of VCR's?

7. Finish

- Give interviewee a chance to talk about anything else which may be of interest or topical at the time.
- Do they have any questions about the project?

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8.7 STATE DEPARTMENT AND OTHER REPRESENTATIVES - INTERVIEW LIST

Western Australia

Tom Carstairs
Executive Officer
*Potato Growers
Association*

Peter Dawson
Development Officer
*Department of Agriculture -
WA*

South Australia

Mr. Barry Philp
Program Manager -
Vegetables
Primary Industries - SA

Mr. Derek Cameron

Horticulture Officer
Potato Crop Management
Service
Primary Industries - SA

Victoria

Rene de Jong
*Victorian Department of
Agriculture*

David Lewien
*Victorian Horticultural
Growers Council*

Ralph Cadman
Karen Freeman
Tony Kelloch
*Institute for Horticultural
Development*

Tasmania

Bruce Beattie
Horticulturist
*Department of Primary
Industries & Fisheries -
Tasmania*

Queensland

John Kerr
Senior District Adviser
*Qld Department of Primary
Industry*

New South Wales

**Stephen Wade
District Horticulturist
NSW Agriculture**

8.8 STATE DEPARTMENT PERSON - DISCUSSION

OUTLINE

1. Introduction

- Open with an explanation of the project, why it is being conducted, and what is the expected result.
- Explain the various elements in the research - emphasising the importance placed on the individual interviews.
- Explain that while we will be talking with a number of groups of growers around the country, it is important to get views and opinions from the State Government departmental perspective, both personally and officially. Hence this interview.
- Ask for any questions.

2. Potato R & D

- What do you know about R & D work done for the potato industry at present, or in the past? Who does it? How do they decide what will be researched? How is it funded?
- What sort of R & D work is done by this State? Who does it? Who sets the priorities? Is it growing/declining/constant. What sort of work was done in the past?
- What do you know about the HRDC? Do you know how the funding works? How project priorities are decided? Probe for any concerns/reservations.
- Can you name or describe any projects recently completed or currently underway through the HRDC? Can they see the relevance/application of these to fresh potato farming?
- How much information do you feel the industry is getting back from the HRDC past and current projects? In what form? How useful?

3. Extension Services for Fresh Growers

- Who provides these at the moment? How good are they? What form do they take? Probe for strengths & weaknesses of current extension services. What sort of extension services used to be provided that now aren't?
- What sort of things in the area of extension services do State departmental officers do? What did they do in the past that they do not now? Probe for detail?
- What is the official department/government view on extension services?

4. Information On How To Manage Potato Farming

- Where do growers get information at present? Prompt with Publications, Magazines, Meetings, Field Days, TV, Radio, Videos, Courses etc. Looking at each source type mentioned, probe on measures such as:- How effective is it? How reliable? How regular? How practical? Is there a cost?
- What sort of publications you see? How good/useful/valuable?
- Do you ever see or hear of useful information from overseas? Where do you hear about it?
- Are there meetings, workshops, field days etc held in this state? Who runs them? How often? How good/useful/valuable? What sort of things are discussed?

5. Technology Adoption

- Can you provide any examples of where growers in this state have learnt something from R & D research, a publication, a workshop or whatever - and then went on to adopt it, changing past practices.

6. Future Options

- If there was a central place which had lots of data and information on farming, plus the results and recommendations from R & D research, would growers use it? How would they expect to get access to it? Would they expect or be prepared to pay? In what form would you expect to get the information (hard copy, diskette etc). Does this option sound more like it is a problem solving one, rather than ongoing information.
- If there was a person growers could ring and get advice from, someone who would have all the latest info to hand, would they call him/her? What sort of person is he/she? Again, does this sound more like a problem-solving option rather than one which is positive & pro-active as well as problem solving?
- What about newsletters or printed information. Where would you expect them to come from? Who would write them? What do they look like (ie hole punched; by category heading; heavy duty for taking out on the farm. When would you read them? When do you have the time? Who on the farm would read?
- What about local workshops or network meetings. Would they go? How would they see them being run? Who would co-ordinate? Dates? Times? Place? Frequency?
- Consider other media such as Radio, TV, Videos etc.
- Do any growers have computers they use in their farm management? If so, what type? Any CD Roms? How would they feel about receiving information on diskette or CD? What's the penetration of VCR's?

7. Finish

- Give interviewee a chance to talk about anything else which may be of interest or topical at the time.
- Do they have any questions about the project?

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8.9 PIG RESEARCH & DEVELOPMENT INTERVIEW

DR ROSS CUTLER **PIG RESEARCH AND DEVELOPMENT CORPORATION** **DISCUSSION - 4 JANUARY 1995**

PRDC - STRUCTURE FOR COMMUNICATIONS

- Corporation is set up much like the Horticultural Research & Development Corporation with similar Mission and objectives, and same system of collection of levies, matching government funds etc.
- Separate Communications Plan, and budget, into which the technology transfer function falls. Dr Cutler responsible for preparation and implementation of those plans.
- In each of the various fields of the Corporation's research work, and also for Communications, there is an industry sub-committee who's responsibility it is to:
 - Determine R & D priorities.
 - Commission projects
 - Review reports and, together with staff, determine publicity and technology transfer strategies
 - Get the relevant information out to farmers.
- Dr Cutler has been on staff for just over 2 years. He has a Communications Officer and one other reporting to him.
- As a general principle, the Corporation sees it has a large responsibility to communicate useful information to farmers, and undertake other activities which will enhance the development of the industry as a whole. Not just a research focus.
- Have a database of all farmers (4750) which is accurate and rigorously updated. Used extensively.

WHAT HAPPENS AT THE COMPLETION OF A RESEARCH PROJECT

- Communications staff recommend to the Communication Committee the strategies to be employed for each research project.
- All projects will be reported in the Annual Report.
- All projects will be promoted through the PRDC newsletter and trade press etc.
- For most, a Research Summary will be produced (which is fairly technical in nature) for distribution to those most likely to be interested and able to use it. Often too technical for all but the best farmers.
- Many projects will be submitted to relevant Scientific journals for consideration.
- The details, recommendations where appropriate will be incorporated in the series of production manuals see later section.

TECHNICAL WORKSHOPS

- Around twice a year all researchers in a particular field are brought together in a Technical Workshop.
- Discuss current projects, common interest areas, etc.
- Might lead to recommendations for direction of research, recommendations to the relevant sub committee, vets workshops etc.
- Also provides input on the system of technology transfer to farmers.

THE PRODUCTION MANUALS

- Significant part of PRDC activities is around development, production, promotion and distribution of set of Production Manuals covering the 5 basic areas of pig production.
- In effect, these are training and 'best practice' manuals.
- They draw information from the research studies, and many other areas.
- Considerable resources applied to this area. The first was over \$250,000 in development.
- They say, the manuals take information and turn it into knowledge, by ensuring everything in them is practical and understandable.
- Design of manuals critical - taking into account farmer comments on size, format, content, etc.
- Manuals take outcomes of research reports and other information and makes it relevant to farmers.
- Manuals are totally consistent with the Corporations Mission as they contribute to the efficiency of production.
- Professionally written, professionally designed, rigorously checked, by two different groups of leading farmers & professionals in the field.
- Manuals originated 4-5 years ago as a result of research within the industry to find out what they wanted.
- Manuals sold to farmers at \$ 100 each. Which is print production cost.
- Research has shown manuals very much liked by farmers.

PROMOTION OF THE MANUALS AND OTHER PUBLICATIONS

- Through PRDC own publications.
- Through private enterprise (vets, and other suppliers to industry). This is encouraged.
- Attendance at shows and field days etc.
- Advertising and general coverage in trade press.
- Generally they are aggressive about selling these, because they are only useful if in the farmers hands.
- Launch functions in each State. An event.

ROLE OF STATE DEPTS

- Generally considered by farmers to not be a primary source of info & assistance.
- Recent years seen significant budget and staff cutbacks.
- But they are very useful/helpful in providing venues, facilities, mechanisms for meetings etc.

ROLE OF VETERINARIANS

- Most farmers would retain one on a permanent basis.
- Most effective means of communication to farmers. Trusted. See farmers one to one.
- Therefore PRDC do a lot to communicate with them.

OTHER NETWORKS

- NPEN (National Pig Extension Network) is group comprising head Dept person from each state.
- Meet twice year (PRDC cost) to discuss extension and try to co-ordinate and develop national focus and direction. Aim is to encourage them to pick up and run with the PRDC's activities.
- State Key Influence Groups is another.
- Again bought together by PRDC. Made up of key influencers (vets, nutritionists, farmers), in each state.
- PRDC provides some limited funding to each KIG to bring in interstate speakers etc. Helps to set them up as a network of regional supporters and advocates for the PRDC.

FARMER LEADER TRAINING

- Have identified need to help farmer structure become stronger, so new area for PRDC is covering cost of specific training for farmer leaders.
- Still seen as totally consistent with PRDC Mission.

MEASUREMENT OF ACTIVITIES

- Measurement of adoption seen as a hole in their Communications Plan.
- So have recently commissioned specific projects to set up means of measuring technical adoption across all farmers.
- Measuring both adoption in numbers and rate, and decrease in time lag for adoption.
- Systems like this seen as essential as Govt & Farmers now demanding it.

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8.10 CITRUS RESEARCH & DEVELOPMENT

INTERVIEW

CRAIG FEUTRILL

CITGROUPS

DISCUSSION - 3 FEBRUARY 1995

HOW CITGROUPS STARTED

- 1987 David Ingerson commenced Citgroups after a visit to South Africa and seeing the success of grower run meetings.
- When Craig Feutrill started there were 13 groups running - there was no co-ordination they were running by themselves.
- 2 years ago Craig was employed by the HRDC.
- He has been instrumental in setting up another 15 groups around Australia (there are now 30 groups in all).
- In the near future they are looking at employing 2 regional co-ordinators to work 2-3 days per week.
- There are 3,000 Citrus growers. All growers are members of an Association and are listed on a database.

HOW A CITGROUP IS SET UP

- Firstly they select a Chairman based on an enthusiastic person in the area. They may be at the initial meeting or may need to be identified from discussions with Department people. Chairmen tend to burn out if there is not enough support.
- There is no typical Citgroups they are all different. For example:
 - Some meet monthly others less often
 - Some have Beer and BBQ afterwards others hold formal minute taking meetings.
 - Some have 30-40 people attending others much less.
- When determining the agenda for future meetings Craig sits down with the key people from a Citgroup and determines (with them) what is important to the growers in that region. This is often done over a beer at the pub. Once the agenda is set Craig then approaches fertiliser companies or Ag department people etc. and asks them to prepare a talk for that group. Craig encourages the groups to be held in a round (say 2 meetings a day). So that he can go to one area and attend all the meetings within a few days. The growers have no problem with this.
- They now have a line up of people wanting to talk at Citgroup meetings so they have to be selective.
- Recently they have asked commercial companies to contribute \$500 towards the cost of the meetings (ie Beer & BBQ). He is not sure if this is the way to go yet.
- The groups are made up of growers who want to learn. They are good farmers.
- *The key to Citgroups is that they run by themselves; they are not too controlled or structured. Their group is their group. But they have the ability to talk to other groups.*

WHAT DOES CRAIG'S JOB ENTAIL?

- Initially Craig Feutrill wrote his own Job Specification which included:
 - Setting up a database (Primary Objective)
 - Liaising with researchers and growers
 - Liaising between Citgroups
 - Identifying small scale research Citgroups could do
- Within the first few months it became obvious that the database wasn't the way to go. Growers didn't have time to read, they needed to see someone face to face.
- He now goes to meetings and talks to the growers face to face. If he can't go he gets someone else to go.
- He also puts together one page summaries of the research projects and sends them out to the Citgroups.
- Ask the grower groups when their next meeting is.
- Puts together a full page report in a Citrus Magazine every month. And the growers read it.
- Every year goes to meeting of Citrus Researchers to determine what research has been nearly completed or completed and then collates the information and sends it out to growers.
- Responds to request for information - only if he has it on file.
- If literature search is required then he asks the grower to contact the HRDC.

What are the costs involved?

- Meant to be spending 2 days per week but spends 3 days. But new co-ordinator's will assist in reducing this time.
- Grower's pay 1/2 and the HRDC pays the other 1/2.
- Little costs in running groups.
Only costs are his salary, travel costs etc.

WHERE DO THE RESEARCHERS FIT IN

- Researchers who use HRDC money now come out and talk to growers:
 - before they start their project.
 - during the course of their trial
 - Before they write the report.
 - And again to present the resultsThis is to ensure they find out what the growers want.
- Researchers are now learning to speak to growers at their level and importantly it keeps grower interest in the research project.
- Researchers now contact him to ask him what they growers would think.

THE FUTURE

- A survey is being carried out to determine how much of the information produced by the researchers and paid for by the growers is useful.
- New co-ordinators will be employed to get together information from all the research projects in those areas and put it into a form that is useable to the growers. They will then talk to each other ie keep the information flow running.

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