

**SEARCH CRITERIA**

<b>Model</b>	Model C: Technological Development Model
<b>Industry</b>	Citrus
<b>Focus/Level</b>	Industry
<b>Purpose</b>	Testing available knowledge, Creating knowledge
<b>Outcomes</b>	Development of a management practice, Development of a specific technology
<b>Special Interest Groups</b>	Other
<b>Design and Implementation</b>	Designed and managed by researchers/experts

**1. PROJECT TITLE:**

The value of CITTGROUPS to the citrus industry -  
Citrus Information and Technology Transfer Groups

**2. FUNDERS:**

Citrus Research and Development program  
Horticulture Research and Development Corporation  
Marketing Board  
Sponsorship  
Growers Association  
Citrus Growers of South Australia  
Industry  
Voluntary input for time

**3. PROVIDERS:**

Queensland Department of Primary Industries  
New South Wales Department of Agriculture  
Department of Agriculture Western Australia  
Department of Natural Resources and Environment  
Northern Territory Department of Agriculture  
Private consultants

**4. KEY CONTACTS:**

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**5. INDUSTRY/ISSUE/GEOGRAPHY:**

This project operates within the citrus industry nationally.  
The issue was to create an informal environment in which information could be exchanged in the hope that this would increase the uptake of new technology.

Specific regional locations are:  
NSW - The Riverina, Murray valley, Riverland  
Qld – The Burnett  
WA  
NT – Katherine  
Victoria – Sunraysia

## **6. PROJECT CONTEXT:**

CITTgroups (Citrus Information and Technology Transfer Groups) are local grower groups that meet to facilitate information exchange in an informal environment.

Responding to an initiative of Australian Citrus Growers Inc (ACG), the Citrus Research and Development program encouraged their development by funding a part-time national coordinator (1992-95) and then part-time national and regional coordinators (1995-98). Their role was to introduce CITTgroups in regions beyond the Riverland and to facilitate CITTgroup activities that improved communication between growers and resulted in increased adoption of new practices.

Initiated in 1987, CITTgroups are informal, small, self-help groups of citrus producers that meet regularly or as needed. They meet in non-threatening surroundings that allow free discussion on problems or successes in the production of citrus.

CITTgroup Co-ordinators, funded through the Horticultural Research & Development Corporation, collect and collate information and research results, and translate the results for growers. CITTgroup coordinators organise group meetings and guest speakers and set up new CITTgroups where required.

## **7. PROJECT NICHE (SPECIFIC OBJECTIVES):**

The specific objectives of the CITTgroups are to be effective in facilitating the communication of research and development outcomes and bring about change in production practices on-farm.

## **8. PHILOSOPHY/APPROACH:**

The approach adopted by the CITTgroups is to create an informal atmosphere at their meetings and events to make it more attractive for those growers who are difficult to reach through the usual extension channels. This difficulty may arise because growers come from a diversity of cultural backgrounds.

In NSW, at the outset, the approach was to work with five districts and get a group together every two months for a guest speaker. This concept worked well for approximately 12 months and then numbers and interest dropped off.

As a result of analysing the strengths and weaknesses of the situation, a new approach evolved. Emphasis is now placed on selecting interesting topics and holding the farm walk on a property where a grower has tried a different approach. The CITTgroup activity is open to all and is promoted on a district basis.

The approach now is “topical” and “demand driven”.

As a result, the number of meetings has dropped but the numbers at each meeting have increased.

Two other approaches have evolved to fill particular needs. The first is the more traditional CITTgroup approach. For small, localised groups of growers, an on-going

and regular CITTgroup structure is used. All of the participants know each other, attendance is by invitation and results and analyses are shared.

The second approach builds on from the initial CITTgroup activities through the formation of Export Action Groups. These are also groups whose members are there by invitation only.

Members are selected from regular CITTgroup attendees, make a commitment to meet for 12 months and focus on best practice and objective measurement. The findings from these groups often flow back into the more open CITTgroup meetings.

It should be noted that a number of tours and market visits have been held and have attracted good support. The tours are a logical extension of the informal, awareness raising approach that growers favour.

## **9. RESOURCES, MANAGEMENT AND STAFFING STRUCTURES:**

There is a management committee, a board, CITTGROUP coordinators.

## **10. PROCESS/METHODS USED:**

CITTgroups activities are:

- short, usually 1.5 to 3 hours;
- scheduled at the most convenient time for growers, usually before or after working hours;
- informal in style;
- based wherever possible, on site (eg: grower property, packer's shed, processing facility);
- involving a practical demonstration of a new practice, innovation or technique wherever possible;
- held regularly in a district;
- based on group extension principles and grower interaction;
- focussed on topics that are timely to the coming season;
- utilising guest speakers on an opportunistic basis; and
- awareness raising through study tours or visits.

## **11. Impacts to date (and evaluation approaches used):**

The approaches used to evaluate the CITTgroups included focus groups and telephone surveys. Within each of the five citrus regions focus groups of participant and non-participant (growers who had participated in less than five CITTgroups) focus groups were held. Where possible, these were organised by CITTgroup coordinators, or through the use of participant mailing lists.

The results of the evaluation identified two impact areas. These were the impact of CITTgroups on grower awareness and uptake of technology, and the impact of CITTgroups on grower awareness and uptake of R&D.

According to the results, there was a high level of impact of CITTgroups on grower awareness and uptake of technology:

- 92% cited an example of what they had learned at a CITTgroup
- 78% cited an example of changes they had made as a resulting of this learning

Topics of learning and change covered all aspects of citrus production.

Other impacts under this area included:

- CITTgroup participants were implementing a greater number of best-practices than non-participants.

- Fifty four percent of participants reported implementing at least half of the 16 best-practices nominated in the survey and only 32% of non-participants reported undertaking these best-practices.
- In all but one topic (chemical thinning), a higher proportion of CITTgroup participants were undertaking the best-practice than were non-participants.

A high level of impact of CITTgroups on grower awareness and uptake of research and development outcomes also became apparent:

- 86% cited at least one research project (compared with 28% of non-participants)
- 33% reported changing as a result of learning about research findings (compared with 9% of non-participants)
- 100% demonstrated knowledge of new varieties (compared with 62% of non-participants)
- 70% reported finding out about new varieties at CITTgroups

Opportunities for improvement in the communication of R&D were also identified. These included ensuring that CITTgroup coordinators are informed of relevant research progress and outcomes, publishing research information in grower friendly form(s), and training researchers in presentation skills and adult learning techniques.

## **12. EFFECTIVENESS:**

Bessan's (1999) discussion with individual participants indicated that the CITTgroup activities were valued by producers, as they were a chance to see what others are doing, had no pressure, were grower based, had good topics and speakers worth supporting, as well as allowing them to keep abreast of developments and what is happening in the industry.

### **Individual growers**

Individual growers indicated strong support for CITTgroup activities. The positives were seen as the independence of the advice, the opportunity to look at trials and the transfer of information to growers. CITTgroup meetings were seen as a powerful source of change, with comments including; "it's the only way that extension is occurring; we've lost the extension services from the Agency; it's our main contact at ground level";

"CITTgroup practices spread over the fences between growers"; and "I'm convinced that CITTgroups work for a percentage of growers".

### **Board members**

A number of Board members commented that they were certain that CITTgroup activities resulted in growers coming together and focusing on common issues and practices.

Several members stressed the importance of choosing the right personality for the role, emphasising the need for rapport with growers and a "down to earth" approach.

Comments included: "you see people at CITTgroup that you never see at other things"; "CITTgroup is getting to the ones that we haven't seen before"; "I can see evidence that growers are applying what's been learnt or picked up; there's more awareness of specifications and an increase in fruit size and pack-out percentages;" and "when we reviewed the situation, we agreed that we were happy with CITTgroups; no-one ever thought that they weren't essential".

## Organisations

The marketing and growers associations were also very supportive of the CITTgroup approach. It is considered a major conduit for industry input at the grower level and for grass roots feedback to the marketing and policy areas.

### Whitley Report (1999)

In February 1999, Amanda Whitley of *bite Promotions & Events* conducted focus groups in the Riverina region that covered 65 growers or 10% of the Riverina citrus industry (Appendix IV).

She concluded that CITTgroups are widely recognised as the citrus industry's most effective form of technology transfer. The informal atmosphere of CITTgroups had achieved great results both for researchers getting information to the ground level and for growers sharing their own knowledge and experience with each other.

According to Whitley, Growers and researchers agree that the CITTgroups are popular and successful in the citrus industry. Growers are becoming increasingly sure of what they want out of CITTgroups; those who attended these forums needed little prompting to speak their mind, and were eager to give feedback on how to improve the system.

### South Australian Citrus Industry Survey (1999)

Nigel Duddy, the former CITTgroup Coordinator from the Riverland region completed a comprehensive survey of 10 packers and 50 growers in July 1999. The survey contained a section on CITTgroup activities. The findings show the effectiveness of the CITTgroups.

- Field days and farm walks were the highest ranking for usefulness as an information channel.
- Other growers were the second highest ranking for usefulness as an information channel.

## Levels of activity

Levels of activity were investigated for each region by Bessan (1999) and summaries of the profiles are presented below:

### Murray Valley

A total of 34 CITTgroup activities (farm walks, pruning workshops, etc) can be identified over the 18 month period. In the 12 month period to November 1998, 24 CITTgroup activities attracted 540 participants at an average of 22 participants per activity.

At activities that involve a feature or guest speaker, the Coordinator estimates that up to 40% of the participants may be new faces. As seen above, this trend is supported anecdotally by Board members and growers who report that farm walks are getting to the growers that do not attend more formalised forums and seminars.

In the Murray Valley, it appears that CITTgroup activities are attracting different people to different topics on a selective basis. If this is correct, it means that the CITTgroup impact is wider than is suggested by the number of meetings that have been held.

### Riverina

A total of 40 CITTgroup activities were held, attracting 920 participants over a 16 month period and averaging 25 mostly regular attendees each meeting. This does

not include 2 tours (one to Melbourne, one to Sydney) that attracted a total of 71 growers.

There are four CITTgroups covering the Leeton area and the Griffiths area.

These four CITTgroup meetings are termed “a round” and a round is run every second month on average, attracting approximately 65 – 75 growers. It is clear that each round is attracting approximately 10% of the growers and qualitative feedback indicates that the same core of growers (plus several new faces) are attending each round.

It is assumed that other activities such as pruning workshops, guest speakers and featured topics are attracting another 10 – 15% of the growers.

### **13. PROJECT DOCUMENTATION AVAILABLE:**

Yencken 1997

Bessan 1999

Duddy, Nigel 1999

[www.austcitrus.org.au/CITTGropus.htm](http://www.austcitrus.org.au/CITTGropus.htm) [sic]

Whitely A. 1999, *Future Directions*

Fulton, A. 2001, *Evaluation of the impact of CITTgroups on the awareness and uptake of new technologies and information by citrus growers*

### **14. ISSUES:**

Non-participants recognized the potential of CITTgroups, but saw issues such as subject matter, quality of speakers, distance and timing as weaknesses of the groups.

There are cross cultural issues that some coordinators have handled very well and this needs more investigating.

The effectiveness of the informal atmosphere and its attraction to individuals who do not normally go to extension events needs more investigating also.

### **15. COMMENTS/CONCLUSIONS:**

The informality of the CITTgroups seems to be what is attractive to growers who do not usually attend organised extension events. This combined with the fact that CITTgroups are not seen to be government sponsored and target issues that growers are interested in learning more about.

#### **Lessons learned:**

Yencken report

We know that:

- face to face communication is the essence of CITTgroup activity and it works well;
- there are reasonable lists of CITTgroup attendees that cover the past two to three years;
- written evaluation forms or any form of pen and paper evaluation do not work;
- there is plenty of anecdotal evidence that there has been significant progress made within the industry in regard to new practices and approaches;
- there is anecdotal evidence that a lot of information flows across the fence and over the back of the ute; and

- there is good evidence of improvement within the industry, in terms of outcomes (eg: pack-out percentages) and practices (eg: increase in pruning practice).

### Bessan report

With regards to any evaluation of CITTgroups it is suggested that a focus group approach be used to establish the impact of CITTgroup activity. This type of approach has been trialed in the Riverina with the *Future Directions* exercise and the process worked well.

The steps to be used are:

1. Identify a sample for each region, from the lists of CITTgroup attendees (approximately 7 - 10% of the growers).
2. Invite up to 25 growers at a time to attend a single, short, sharp event that is run just like a traditional CITTgroup activity.
3. Utilise the Group Coordinator or other trusted figures to run the focus question process in five smaller groups of five growers (this will require training for the Group Coordinators).
4. Ensure that all responses are verbal and use a tape recorder for each group.
5. Work from a predetermined focus: focus on Washington Navels for the American market; focus on pack out percentages; probe on four practices, eg: pruning, planting of new varieties, thinning, and nutrition and fertiliser.
6. Ask each participant in turn to identify new practices that they have implemented and determine what influenced their adoption.
7. Ask each participant to identify any flow on effects that they have observed in their local area.
8. Encourage stories and observations to build a rich picture.
9. Finish the exercise with a BBQ and a social gathering.
10. Transcribe all responses and conduct a theme analysis.
11. Compare the outcomes with the benchmarks set in the Yencken (1997) report and subsequent studies.

Recommendations from the 2001 CITTgroup evaluation included the following:

1. The current CITTgroup program has no clearly defined outcomes in terms of what levels of adoption of best-practice and knowledge of R&D programs it is aiming to achieve, with which growers and in what time frame, at either the national or regional levels. Such a focus should be developed to provide a defined basis for the planning of CITTgroup activities.
2. The current model of CITTgroups should be built on for the future of the program, with an increased emphasis on the development of multiple strategies for ensuring growers are well informed about citrus R&D activities and outcomes. These strategies should include an improvement in the quantity and quality of publications on R&D, improved linkages between coordinators and researchers, training of researchers in adult learning and increased grower involvement in the identification of grower R&D priorities at the local level.
3. The improvements suggested in the regional summaries (**Error! Reference source not found.**) should be considered by the coordinators in terms of their relevance to their particular region, and used in the development of improvements to the current system.
4. Strategies should be implemented to address non-participant perceptions of CITTgroups. These could include overall promotion of the benefits (through the media, grower liaison officers, packing sheds, industry associations) and one-on-one discussion with non-participants.
5. The CITTgroup coordinators work with an evaluation expert (if required) to develop a framework for reporting on the knowledge and practice impacts of the

CITTgroup program and to develop a corresponding evaluation plan. Data collection and analysis would be undertaken by the coordinators and brought together in the form of an annual report of program outcomes. The report would be peer reviewed by an evaluation expert.

**16. REVIEW METHODS:**

Bessan

Desk top reviews

Observation at farm walks

Focus groups

Interviews face to face and by telephone.

2001 CITTgroup Evaluation