

DEPARTMENT OF AGRICULTURE, SOUTH AUSTRALIA

Agronomy Branch Report

WHERE IS AGRICULTURAL EXTENSION GOING?

A report on the Extension Session held during
Branch Conference, 1971.

P.M.S. Potter,
Agricultural Officer.

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FOREWORD

The rapidly changing agricultural outlook experienced recently in South Australia has forced the Agronomy Branch to plan changes to its extension services to meet these new challenges.

With this in view a half-day session was set aside at the Branch Conference held in March, 1971 to involve the field extension staff in defining their needs to meet these challenges and to discuss plans to make their contact with the farming community more helpful.

One hundred and twenty officers attended the session of which about forty were visitors from other branches of the Department or other organisations.

This Agronomy Branch Report, compiled by Mr. P.M.S. Potter, aims to record the views expressed at that session which was lead by Mr. G.D. Webber, who has recently completed post-diplomate extension training at Hawkesbury College in New South Wales.

All field extension officers were asked to submit papers, either dealing with the problems confronting them or methods of dealing with the integration of their technical knowledge into farming practice in view of current economic and social trends. These background papers were supplemented by papers from officers who had special experiences to offer and for these our special thanks are due because many work in other branches and their efforts made our Conference particularly successful.

At the beginning of the session Mr. Webber reviewed these papers. His review has been printed in full but only the highlights of the background and special papers have been published. The important points raised in the two hour discussion which followed, have also been included.

Should any readers require further information they are welcome to contact the authors direct or to write to the Chief Agronomist in this Department.

A.F. Tideman,

Principal Agronomist.

July, 1971.

SECTION I

PAPERS PRESENTED BY EXTENSION OFFICERS

AGRONOMY BRANCH CONFERENCE, 1971

PROBLEMS CONFRONTING THE EXTENSION OFFICER AS A
RESULT OF THE CHANGES OCCURRING IN AGRICULTURE

By D.M. Crawford, Field Officer, Mt. Gambier

"Perhaps the most serious problem is the lack of a planned extension programme. There are periods of the year when the agricultural scene is very quiet. At these times the office chairs are kept well warmed. Without a plan, some working time is not spent as usefully as it could have been. We should be able to have a plan to follow. Without a programme, I feel we lack direction"

As the prices for their products continue to drop, farmers' reluctance to improve management increases. This is a perfectly natural reaction. The farm economic situation has therefore created an extension problem. On the one hand we have a farmer who wonders where he is going. On the other hand we have an extension officer who wonders if his advice now, will be economically sound in three or four months

Another extension problem is the lack of co-ordination between the various branches of the Department. This is mainly due to a lack of liaison between the branches. Regular meetings of all officers could give a more united front to the extension work in the district"

By T.R. Davidson, Agricultural Adviser, Minnipa

"The changes confronting my extension work are the result of the present low profit margin for farmers. This has come about by:-

- a. Low sheep returns, from low wool prices, and in parts of the district, lack of water or the expense of carting it to stock.
- b. The imposition of wheat quotas, and the possibility of barley quotas.
- c. The increased costs of production - labour, machinery, rates, taxes, etc.
- d. Lowered land values.

The changes taking place are:-

- (1) Virtually stopping new land development by both new farmers and investors.
- (2) Making farming, and especially sharefarming, less attractive.
- (3) Restricting the buying and borrowing power of farmers, so that the money required to make changes is limited.

Already, energetic and capable young farmers and sharefarmers have left the district, and older more established farmers would leave too, if they could sell out for a reasonable price. Throughout the district there is a reducing interest in agriculture as a profitable source of investment"

By T.J. Dillon, Agricultural Adviser, Nuriootpa

"Farm incomes have dropped due to restrictions on wheat production and a decrease in prices received for produce. These two factors coupled with an increase in the cost of production have seriously affected the profitability of all farmers, in fact some are struggling for survival.

The first step in this situation must be to evaluate the possible avenues of financial gain for the farmers. These possibilities may involve the introduction of new enterprises or changes in present production techniques. The ability to advise farmers, how best to integrate existing and/or proposed farm activities, will be very important for any extension in the next few years.

A detailed knowledge of the technical aspects of an enterprise, will be of no use if we cannot make a reasonably accurate estimate of the financial prospects of that enterprise. The farmer's financial situation does not allow him to make a costly mistake; this emphasises the need to carefully consider the "risk factor" in any future extension programme.

Having acquired the necessary farm management skills and the relevant economic and technical data, we then have to decide how best to extend this information. I have doubts about the place of mass media and even small group participation, in the present farming climate. The solution to any one farmer's problems will be most unlikely to suit any other farmer. No matter how similar his situation may appear there will be difference in his social and/or financial background" . . .

I would like to believe that with new extension methods we could educate the farmer, firstly to make a more critical assessment of his farming practices, and ultimately assess his entire situation from a financial point of view". . .

By P. Fairbrother, Agricultural Adviser, Keith

"Previously extension work has been closely associated with the need to increase production and efficiency firstly to overcome food and fibre shortages, and then the increases in costs of production. The aim of the adviser was to increase agricultural production in his district. The main problems at the time were associated with production, and research and extension work could help overcome them.

A new set of problems has arisen and it is doubtful if research and extension can do much to overcome them.

Low prices for agricultural products
Surpluses and hence marketing problems
High costs
Difficulty in obtaining finance (long term
at low interest rates)
Reduced owner's equity in the property
Weak demand for land

Because the major problems are of a financial nature and the future is uncertain, farmers are often wary about following the advice of the adviser (also members of his social group and district leaders). He requires answers to be specific on the farm problems and wants evidence to back up the advice . . .

Previously a large effort has gone into defining farmers' problems and needs. In the future the extension officer will have close liaison with industries, boards, committees, etc., so that the needs of the farmer, consumer and government (policy), can be integrated. Extension programmes will have to satisfy these combined needs.

Farmers should receive information concerning the market outlook for their products so that they can plan with more confidence. . . .

A large effort has gone into up-grading the lower level of farmers. If they are not prepared to or cannot acquire new skills or if resources are limiting, then our efforts are greatly wasted. . . .

There are few incentives for farmers to change because of declining prices for many products and uncertainty about the future...

Extension work may be associated with work such as farmer rehabilitation and farm reconstruction. This would mean that

an adviser would be required to conduct surveys and collect statistical information"

By R.C. Hagerstrom, Agricultural Adviser, Cleve

"By 1970, land prices and quotas had made many farmers realise that further borrowing was suicidal. Those worst affected are generally in the 25 to 45 year age groups - they bought land between 1965 and 1970, and now face large repayment commitments, stock mortgages, old machinery and buildings in need of repair. Overdrafts vary between \$50,000 and \$80,000, and average wheat quotas on such "new land" average about 5,000 bushels. . . .

We cannot offer much constructive advice in this situation, so as I see it our main job is to quietly gain the confidence of farmers to the extent where they are willing to divulge their financial positions to us, and then we give our technical advice accordingly. . . .

I feel that we have little worthwhile information to give to groups or mass media. It is the individual farmer who is in trouble and it is only on this basis that I feel we can be much help now.

Many of our traditional extension avenues have been closed by quotas and lack of finance, e.g. aerial topdressing, weed control and insect control in crops and pastures, fencing, bulk storage, seedbed preparation, use of costly fertilisers. Now, their needs are more than ever governed by their ability to pay their debts, or, put another way, to stop incurring so many debts.

But, as new avenues are closed, new ones emerge. There can now be more emphasis on using recommended and approved varieties, quality, yield per acre, harvest and storage care, seedbed preparation, seeding rates, fertilisers - types, rates, costs, trace elements, and so on, budgeting, cheaper fencing, assessment of alternatives, feeding stock, etc. . . .

Much of the technical knowledge is already understood and accepted in theory by farmers, but putting much of into practice yet at the same time honestly helping farmers to assess their current and possible future position is our major extension problem as I see it". . . .

By A.E. Hincks, Agricultural Adviser, Loxton

"Problems

(1) The breakdown of a community. This is probably the most serious problem which can evolve because of falling income, drought and subsequent lack of income. Many adjust by obtaining outside work to supplement income, or by leaving the district.

The former regular lines of communication within and outside their community break down and change. In particular, they become very limited. . . .

(2) The limit of time available to assess the needs in all communities.

Whilst the person to person media can have the advantage of considering all alternatives, perhaps using techniques of gross margin analysis on budgets, it is a service limited because of the time available to individual farmers in a large district, or even farmers' time and their priority. However, what is done, given the time, is beneficial". . . .

By N.R. Matz, Agricultural Adviser, Kadina

"The ever increasing need for uniform wheat grain samples of high milling and baking quality so as to to maintain a good relationship with overseas buyers" has in my mind, become a problem to me with Yorke Peninsula growers. While they are prepared to make the necessary changes, many of them feel that the grain is not being segregated to the best advantage by operators at the regional and terminal silos. This certainly appeared to be the case last season and while it might be said that this is a marketing problem - it affects us indirectly. We're making recommendations to growers who feel that it could be a waste of time implementing them when there's such a laissez-faire attitude by the C.B.H. at the silos in grading the grain.

I believe that this is a fairly valid point - after all - to achieve what we set out to do, there cannot be any breakdown along the line. . . .

We have to go further than straight technical information. We need to more than ever before analyse the overall farm and financial situation which lends itself to more like a "farm

consultants" job, and there's the everlasting problem of whether we should be encouraging what we consider to be non-viable units". . . .

PASTURE IMPROVEMENT IN HILL COUNTRY GRAZING
AREAS OF THE CENTRAL DISTRICT

By C. Phillips, Field Officer,
Hill Country Improvement

"The biggest problem confronting pasture improvement today is the shortage of money farmers have available for property improvement. Decreasing returns for wool, mutton and lamb, coupled with rising costs of production, has severely reduced farm profit". . . .

PROBLEMS CONFRONTING THE EXTENSION OFFICER
IN THE PASTURE SEED INDUSTRIES

By D.C. Ragless, Seed Production Officer

"It would seem sense for the extension worker to concentrate his major efforts on improving the lower third because with these people the greatest potential improvement should be possible. Efforts in this regard have proved however, to be rather disappointing and it is becoming increasingly difficult and often impossible to obtain the necessary improvement to convert these enterprises to a profitable operating level. This has come about due to a number of reasons all resulting in my opinion from lack of personal management ability. . . .

No doubt it could be argued that progress with the least successful growers has been poor because they do not readily accept advice or new ideas and therefore more sophisticated and enlightened extension techniques may be the answer. . . .

In the South Australian pasture seed industry producers are very keen to obtain advice. . . .

In general terms the only answer for these in the un-profitable group is for them to sell out and do something else. This realistically involves phasing out, retraining and assimilation"

It could be assumed that in the category making reasonable profits, which contains those who are best informed and have best management skills, that there would be no major extension problems. This is not so, however. There is a problem of providing worthwhile cultural advice. This stems from a lack of research proven precise local knowledge". . . .

PROBLEMS CONFRONTING THE EXTENSION OFFICER
IN BUSHFIRE PREVENTION

By B.J.T. Graham, Bushfire Protection Adviser

"Basically the programme has been aimed at promoting improved fire protection measures by integrating them with sound farm management practices. These "broad acre" fire protection methods are backed up by the promotion of hazard reduction measures for the homestead and farm building area and the adoption of fire prevention and suppression measures by the whole family...

Recommendations were made to fit each situation and care taken to assess the physical aspects of the farm, the personal attitudes of the farmer and his financial position". . . .

THE INTEGRATION OF TECHNICAL, ECONOMIC & SOCIAL
ASPECTS OF AGRICULTURAL EXTENSION

By K.G. Bicknell, Agricultural Adviser, Murray Bridge

Mr. Bicknell formulated the following eight needs of a district adviser:-

"1. Regional (district) offices to be staffed by technical officers covering all aspects of production, including economics, in that district so that advice can be related, not piece-meal.

2. In each regional office a master card system developed to record relevant information of all farms and farmers within the district. All officers could then check to find out if farmer had been contacted, for what reason, and the outcome of the contact.

3. Information of farm visits, office enquiries, 'phone advice, etc., to be kept on file.

4. All officers to record local information of value, e.g. areas of trace element deficiencies, disease, etc.

5. All officers to have the same basic filing system so other officers can extract information, if necessary.

6. Close liaison between branches both in Head Office and country offices to prevent overlap, e.g. Soils and Agronomy, Animal Health and Animal Husbandry. Do these branches need to be separate identities?

7. Integration of branches instead of segregation and further specialisation.

8. Close liaison between research and extension officers to get a better appreciation of what each is trying to do. The difficulties and problems involved".

By F.C. Gross, Agricultural Adviser

"Some change in present agricultural extension procedure is needed in view of the poor economic condition of our main rural industries.

Extension methods have been developed during the 1950's and 1960's when all types of rural production were profitable and all products, regardless of quantity or quality, were saleable.

The theme song of agricultural extension has been quantity. Produce more and more. Little consideration has been given to quality and not very much to efficiency. This has been Departmental policy on extension. . . .

Now, all lines of farm production are uneconomic, cereals, wool, lamb, mutton. Beef and dairying are barely payable. The horticultural, poultry and pig industries have an uncertain future. 30% of farmers this year are seeking a hand out from the Government for carry-on expenses. This will be for essentials. There will be no money for refinements.

Technically, new methods and practices which are acceptable are those which cost little to put into practice. New varieties of cereals with proven higher yields or inbuilt pro-

tection against loss are examples, and are readily acceptable. On the other hand, farmers are reluctant to grow better quality varieties which might be lower yielding. Producers are also reluctant to apply practices which are comparatively costly, although a net gain can be demonstrated. Examples of this are the more costly weedicides and insecticides, desiccant weedicide and sod seeding and higher rates of fertiliser. The reason for this is risk. The additional production probably will be unsaleable or adverse weather result in little benefit from the improved practice.

Market and price uncertainty of even the so-called stabilised lines such as wheat, barley, meat and fruits are very discouraging, makes planning almost useless and leads to an attitude of laissez-faire. . . .

The social effects of these economic and technical changes are summed up in fewer farms and fewer farmers. 35,000 farms 25 years ago; 28,000 farms today, and no more than 20,000 effective farms in a few years' time.

In addition, 30% of the State's farm production would be from absentee owned properties. Sharefarmers and managers, particularly working managers, do not have the same interest or attitudes as owner-operators.

A number of owner-operated farms have become part-time farms. To obtain income farmers have taken jobs as salesmen of cosmetics, land, anything, jobs as teachers, jobs in Department of Agriculture and other government departments, shearing, fruit picking, and so on. Farms receive minimum attention and in some cases have been virtually abandoned. Large numbers of farms are on the market, at a price, of course, but once a farm is on the market the farmer loses interest and operates on a maintenance basis. In the fruit areas many properties have been sought by Italians, Yugoslavs and other Europeans, who seem to be difficult to integrate into the accepted extension set-up.

All this has, or is, breaking down the cohesion of districts and district activities". . . .

By P.L. Marrett, Agricultural Adviser, Mt. Gambier

Results from technical work are often useless because the result of the trial has no bearing or place in the farm operation.

It is therefore necessary to find out in any possible way the needs of farmers and the priorities of these needs.

Three ways are suggested:-

- (1) Statistical information as a means of forecasting trends and requirements necessary to service these trends.
- (2) Research and extension officers to forecast the likely needs, problems, etc., of an area for the enterprises within it.
- (3) Personal survey of relatively small but well marked areas in which each farmer is interviewed. After this groups can be selected to collect needs and priorities. . . .

When this material has been collected an extension programme of value to a group can be developed. Not only is this programme likely to be of better value to the group but much of it should be useful to other groups and officers with similar problems. . . .

It is highly desirable that some (not all) research be aimed directly at answering farmers' problems and providing future farmer guidelines. . . .

Possibly some research work could be centred about sample farm methods. It is meant by this that research work, once developed, be taken to whole farm situations to find out whether the techniques will fit farm operations.

Probably more consultation between research and extension officers would help solve this. But the extension officers would need to provide better information than they are presently doing. . . .

It could well be preferable to allot an area to an officer in which he becomes the single contact man for all enterprises. Naturally all other officers, be they research or extension personnel, would contribute to this officer's area as specialists in the field in which they operate. . . .

Probably the greatest need for farmers and extension officers is reliable market projection. Available information of this kind would greatly help extension.

Changes will always occur in agriculture and extension requirements will always change but successful extension, in the long term, will always get the best results on the personal basis". . . .

By P.J. Mowatt, Agricultural Adviser, Jamestown

"Recent experience has shown that from our "classroom" approach to extension in the past, farmers have absorbed a considerable amount of technical knowledge. In fact it is worrying to discover just how much technical information is available in a group yet find that little of it is being put into practice due to some other restraint - social or economic? . . .

The farmer awareness and understanding of economics is sadly lacking. The education system and way of life in rural areas have bred into farmers an almost complete disregard for economics or business management. This is a situation that must be remedied as soon as possible. Unfortunately, this "fear of figures" and apathy towards planning is often tied to local social feelings or past family experience and is not a matter that can be overcome with mass media approaches nor in most cases, group education. Money is a private matter and our activities will have to go private to achieve success in the economic field. . . .

I feel that our whole Department extension work must become more personal, gain better understanding of farmer practices and attitudes, and become less bound by technical responsibilities. Extension officers, within a district, should firstly aim at the best possible understanding of the physical and social problems of that area. . . .

Of course, officers need technical and economic information at their finger tips. This is best handled by resource officers with defined technical and/or economic responsibilities, operating on a state-wide basis. Their job being to keep district extension officers up to date by means of personal contact, newsletters, short courses, etc. These could be confined to the particular farm enterprises most common in the district in question.

Whilst this should be our aim, initially each district office could have a group of four or five extension officers, with each individual having the responsibility of keeping himself well informed in one technical or economic facet of agriculture, thus allowing the group to act as its own information centre.

Extension is a matter of dealing with people. This, we have yet to accept". . . .

By K.J. Holden, Agricultural Adviser, Pt. Lincoln

"Much advice in the past has been given from the Department's point of view - furthermore it has been given to farmers in the form of "ready made" answers. Also with a lot of advice there is a conflict between the Department's goals and the farmer's goals.

Such advice is evaluated by a farmer in relation to his resources, farm, social and personal situations.

Insufficient consideration has been given to the farmer's financial ability to adopt advice, to markets, to his managerial ability, to his goals or whether such advice is acceptable to his social group. Any advice must take into consideration these inter-acting factors which affect the implication of that advice. Consequently adoption of advice has been poor and slow.

Extension officers, therefore, have to diagnose problems not only of a technical nature but of a social and economic nature. He has to not only recognise the farm as part of a farming system but the farmer himself as part of a social system.

The aim should be to teach or help farmers to make decisions for themselves. Such decisions are likely to be adopted as they would be relevant to his situation, to his resources, goals and to the norms of his social group.

Recently, more emphasis has been placed on directing advice at farmers within social groups. This technique owes its success to the fact that farmers are helped to see the relevance of information to their technical, economic and social situations and therefore increases their tendency to use information.

In these groups the use of farmers' knowledge and experience and the use of the Department's technical knowledge provides a greater pool of knowledge. . . .

Involvement of extension officers with groups shows more clearly various attitudes of farmers (e.g. those relating to costs - social and material); and their tolerance limits - the speed with which the farmer will accept change. Group involvement also shows the farmer's resource limits - both mental and physical. . . .

Then the farmer can see the information as fitting into the farm pattern on his property and any change as being socially acceptable as well as economical. . . .

Once incorrect knowledge has been corrected and the group can see the important variables involved, the extension officer and group begin to obtain a common point of view". . . .

By W.A. Michelmore, Agricultural Adviser,
Nuriootpa

"These three aspects will have to be integrated for each farmer as few farmers can have the same problem when we take into consideration the full importance of these three aspects. Yes, he can have the same technical problem as 20 of his neighbours but his economic and social aspects will be different.

If this is the case it will be necessary to consider each farmer as a separate extension problem if we are to get close enough to him to get action which is needed to complete integration. . . .

Technical information must be sound and acceptable in economic and social aspects. This degree of integration must be infused into the technical information during the advanced research stages so that by the time the farmer hears of it, this basic integration has taken place.

Basic research can be divorced from economics and from sociology but as we progress to a final answer there must be a degree of integration which will be added to by the extension officer as he progresses to the individual farmer. By this time integration is complete.

The actual steps to be taken are like the footballer getting to the ball. It does not matter how many steps he takes or where he comes from so long as he is on the ball at the critical time", . . .

By S.G. Williams, Agricultural Adviser

"Technical information must be accurate and prove economic if adopted. The information must be given in such a way that it is fully understood and the information must suit the particular farm and also the particular farmer.

We should use the media best suited to the subject. . . .

The Bureau meeting or field day is ideal for imparting new ideas, new techniques, and timely advice, but how often are these things available? . . .

Why should we attend a Bureau just to fill in for a scheduled meeting? How often are we invited to attend to speak on a subject often as broad as Agriculture or one of your own choosing? How often do you hear - well we haven't had Mr. X for a long time - I move we invite him to our next meeting? . . .

In the past it did not really matter if some of the technical advice did not prove economically sound. At present advice must suit the particular situation and must prove to be an asset rather than a liability. Advice must be given with the full understanding of each individual situation.

Fertilisers - machinery - used fuel are three of the major costs on most farms. If sound technical advice on the use of these items can be given, then we must be helping to reduce farm costs. . . .

THE INTEGRATION OF TECHNICAL, ECONOMIC &
SOCIAL ASPECTS OF WEED CONTROL EXTENSION

By J.M. O'Neil, Weeds Advisory Officer

"Farmers in general cannot afford to cease weed control but it is often difficult to find money which may not be returned by the property enterprises within the year, or it may not

be recoverable. For example, weed control on roadsides. Conversely, through militant action by some councils, herbicide weed control can increase economic stress. In addition, herbicide spraying is an easy cost to cut because adverse effects are slow to appear.

To ease this situation and particularly in regard to noxious weeds, it is essential that the Weeds Section classify weeds from district to district according to their ability to depress income, rate of spread, practicability and cost of control, particularly in regard to agricultural and mechanical methods". . . .

THE EFFECT OF RURAL RECONSTRUCTION ON
FUTURE EXTENSION

By J.D. McAuliffe, Senior Agricultural Adviser

. . ."A series of droughts in Australia up to and including 1967; the recess in wool prices which began in 1967 and reached an all time low in 1970; restricted wheat production in 1969 following the "bumper" Australian crop of 1968; a lack of worthwhile alternative crops, followed by the depreciation that has taken place in land values has caused a critical situation in agriculture.

So serious is the position that the Commonwealth Government has indicated that it is prepared to spend \$100m. over four years on rural reconstruction in addition to the \$30m. already allocated for the Dairy Reconstruction Scheme. In relation to rural indebtedness this does not seem an adequate amount (\$2000m= the Commonwealth rural indebtedness; \$231m. = S.A. share).

It can be expected that the scheme will influence extension services. "It is an essential part of the scheme that close supervision of property management and the financial affairs of the assisted farmer is maintained. The advance to each applicant will be related to a plan of operation and budget for the property, within which, the assisted farmer will be obliged to work". Whether or not we are directly involved with these farmers the approach will set a pattern that we will need to follow if our extension is to be effective. It will still contain the three major components of accurate technical information, a knowledge of the overall economic situation into

which such technical advice is tendered, and the social implications that may follow; but much more attention will be required to integrate advice to fit the need of the particular case. The farmers' needs are now more strongly orientated towards economic issues than at any time since the 1930's. This will mean that advice which ensures saving or earning \$1 will be much more acceptable than it was in the affluent 1960's.

Less emphasis will be needed on the sociological aspects and more on the economic integration of technical advice. This integration will need to be more precise in the future. The weaknesses in this direction in the past have often been condoned because economic pressures have not been so severe".

BASE LINE SURVEY

(The Yacka Survey)

By P.J. Mowatt, Agricultural Adviser,
Jamestown

"The main criticism of surveys would be the time involved. All other factors involved in conducting the survey went smoothly and the whole idea was accepted more easily than anticipated. . . .

A satisfactory knowledge of the communication pattern in a group can be obtained from the less time consuming, informal approach to two or three farmers during the course of your other work. This has usually been easily carried out over a cup of tea. I mention the cup of tea because I find that the women are as helpful as the men and are often eager to add their information.

The fact that we are seeking this information and are interested in working with the group, does filter through the group. Although limited, this has brought favourable response.

To gain sufficient background information on farm practices need not involve a visit to every farm in the group - probably 25% would be sufficient. However, I am sure that this is not enough to understand the group's feelings, attitudes, prejudices and the reasons for them.

It is no good knowing that a farmer is not sowing pastures, if you don't know why. For the future, I suggest that it would be valuable training for all extension officers to conduct

two of these surveys. They would provide a valuable understanding of the "grass roots" thinking of farmers.

Then the following could be steadily achieved by informal contact:-

- (1) Delineation of all groups in a district.
- (2) An understanding, then a brief report of the communication pattern of each group.
- (3) An expression of recognition of and interest in each group.
- (4) A broad record of farm practices and potential. (In Queensland some shires have produced hand-books compiled by the district agricultural adviser which provides district agricultural records).
- (5) An emphasis on group work whenever possible.

The surveys have proved to us what farmers have known and lived with for years. They live and work within a social framework. It is ready made and available for us to work with also". . . .

EXTENSION AS A PROCESS IN A CHANGING AGRICULTURE

By J.S. Potter, Principal Soils Officer

"The Campaign Approach

This is the traditional view. It sees agricultural research - particularly basic research - as providing the opportunities for change and the Department as the initiator in the change process. . . .

Individual extension campaigns also exhibit standard behaviour. The officers are socially aggressive, they prefer to work with individuals rather than social groups (the farm visit is the only way to get things done) and place much importance on working with so-called progressive farmers (innovators). They don't like to waste time on "small uneconomic farm units", or small "hopeless" bureaux. Above all they pursue their campaigns relentlessly over a wide variety of situations - usually without regard to social and economic factors (there has been only slight improvement in the last ten years

of recognition of the importance of farm management) and often in direct opposition to the farmers' needs, opinions and wishes.

The Client-centred Approach

This view recognises that change in agriculture is really the result of occurrences which place the farmer in some type of difficulty. Few farmers change for fun - in fact readiness to change can usually be equated with how much the farmer is "up against it". . . .

The view also recognises that social and economic factors can disallow adoption of technology. For example, security is a prime consideration for every farmer and the smaller and poorer he is the greater is his concern. He will seldom make changes which risk his current standard of living. Knowledge of risk attitudes is a basic pre-requisite for extension. Farmers are also members of social groups and resist radical changes which may isolate them from their group - either through increased wealth, or success, or the uniqueness of an enterprise. Innovation on a group basis overcomes this problem. . . .

Client-centred extension officers need two characteristics - a sensitivity to the needs of farmers and the humility to place these needs above his own (status seeking, salary, etc.). He will see his task as supplying, advising and assisting farmers to make advantageous changes in the face of difficult circumstances.

Such officers, recognising the importance of social influence, see social group definition and the promoting of group action as essential strategies. They are just as concerned with small farmers as the more prosperous; in fact they see greater need to work with groups in difficulty than those who are well off. Above all, they recognise the need to begin at the point of farmers' expressed wants and to continue to be client-centred throughout the extension process - to the extent that the community is involved in the study of its own problems and in working out improvement programmes in which there is a large element of self-help. . . .

Summary

The main effect on extension of the changed agricultural situation is to make it urgent that we change our out-moded campaign approach for a client-centred, farm problem oriented, group development approach. This does not only apply to extension officers. Research must change too. For extension is

most effective where it can depend on a strong backdrop of solid, practical relevant research. This is certainly not the case at present".

SYSTEMS EXTENSION

Summary

By H.M. Nash, District Livestock Officer,
Kadina

"Systems extension to me means extension which takes in the whole system of farming and includes a combined approach to problems by the various extension officers from the different branches of our Department.

Maybe the closest we come to a systems extension officer would be a horticultural adviser on the River. Everything to do with the production of horticultural crops is his domain. This contrasts very much with livestock production. Here we see a division within extension services where an extension officer can handle management or disease, but not both. . . .

Now look closely at the district office and the systems of extension officers represented. Bringing together the various branches in a combined approach to extension is made easy when an overall planning approach to extension is the aim. . .

To develop this thinking further we would move into programme planning of major extension work bringing all extension officers together to look at problems on the farm which is a system made up of various parts fitting together to earn a living for the farm family". . . .

HOW SHOULD AN EXTENSION OFFICER PLAN HIS WORK?

By A.E. Engel, Senior Extension Officer

"1. Plan your work just as you expect a good farm manager to budget his operations - to plan from detailed and objectively derived records. . . .

2. Each office should develop and maintain a consolidated set of data showing fluctuations in such things as district statistics, market prices of stock and fodder, seed, fertilisers, chemicals and the like. The items to be maintained should be co-operatively decided between officers. Each officer by agreement may contribute those items that concern his discipline. One officer should be the custodian. The figures to be available to any officer as he requires. . . .

3. Organisationally, the most rational type of educational programme is an overall district programme co-operatively decided by officers in a district office, each of whom contributes to the overall from his own discipline. . . .

4. Operationally, the plans that are likely to prove most acceptable and educational to farmers are those programmes that are developed with the farmers. . . .

5. Extension work will most effectively satisfy the farmers' needs, the Department's needs and the officer's own aspirations when, in co-operation, extension officers devise a compromise of operations consisting of day-to-day work, planned campaigns and planned programmes. . . .

Success in this whole venture depends on your decision to plan your own self-development.

And finally, it will be a pity if you procrastinate. Co-operative action initiated by district officers can be much more effective and satisfying to all concerned than instruction from the top".

CO-ORDINATION OF ADVISORY OFFICERS' WORK

By G.N. Thomas, Senior Extension Liaison Officer

The Need for a Co-operative Approach

.. . ."There are several reasons why co-operation between officers will improve the quality of extension and help us to meet our objective - to give the best possible advice to farmers.

(a) To understand problems more fully

The work of some officers tends to cover more than one subject matter field. Some do it well. But agriculture is becoming more complex in its trend towards specialisation. So, unfortunately we need more information in each discipline, and at the same time a greater appreciation of the whole farm situation. Perhaps it is this that makes administration feel that co-operation between officers is essential today. No one officer knows all the facts of a problem situation. But we need all the facts to ensure that our information is relevant. Even with co-operation, there will be a need to gather further details to get a full appreciation of farm problems. Information in the social and economic fields is required.

(b) Better use of time in terms of results

Having got all the facts it is still rarely possible for one officer to run a programme on his own, since it inevitably involves several changes in farm management. Sharing can allow each individual to do more work by spreading the load.

(c) Farmers are presented with similar recommendations by all officers

All officers know what advice is to be given in a programme. Differences in information have, in the past, blotted the image of individuals and the Department.

(d) Responsibility is shared

Sharing gives mutual support and boosts the confidence, especially of junior officers.

(e) Continuity

Co-operation between officers in extension ensures that a programme will continue when an officer (even a key officer) leaves. Someone else takes his place. A co-operative programme helps the newcomer to adjust.

(f) Promotion

If we follow interstate trends it is fair to assume that promotion will be influenced by an officer's ability to plan with his fellows.

The Problems of the Co-operative Approach

To highlight some of the problems of the co-operative approach, I pose the following questions:-

- (1) Do you believe that the modern expectation of an extension officer - to become a highly competent adult educator is asking too much?
- (2) Should an extension officer know of and appreciate what others in related extension fields are doing? Would such information result in sounder advice?
- (3) Should an extension officer know what research is being done? Should he assist in its applicability to farms by providing factual information at the planning stage?
- (4) Are you the officer who works alone in a district? Do you find it hard to get along with others? Are you making co-operation difficult for the others?
- (5) Again, are you the type of person who wants to retain information for your own advantage?
- (6) On odd occasions officers feel that because of pressing day-to-day demands they don't have time to enter into co-operative activity. Do you consider this a valid opinion?
- (7) Is it possible that senior Branch staff could ever reach the stage where they could reasonably accept officers of other branches encroaching on their fields?
- (8) Do administrators appreciate the need for officers in the various disciplines to have the time and opportunities to confer? . . .

Some Steps Towards Co-operation

The co-operative approach will come slowly - people like time to change.

But it can be facilitated by the appointment of an officer, one of whose duties is to assist in extension planning, i.e. a liaison officer. This officer should encourage co-operation amongst officers by:-

- (i) Encouraging information discussion between staff and acting as an information bridge himself - a continuous job.

- (ii) Arranging more formal liaison meetings at which factors involved in specific problems can be discussed. All subject matter disciplines and extension, economics and research must be involved.
- (iii) Technical, economic and social aspects of the subject must be discussed and a statement of the current knowledge of the situation collated. Depending on whether an extension campaign* or programme is envisaged, further investigation of the situation with farmers may be necessary.

* Campaign - by this I mean planned activity developed entirely by Departmental officers.

* Programme- Developed in conjunction with farmers.

- (iv) Assisting officers to decide on the objectives of the programme (on the basis of the above information).
- (v) Assisting officers to draw up and work a plan of the type of information to be presented, when, how and by whom.
- (vi) Encouraging officers to provide for evaluation of the plan and record their findings.

The liaison officer's job is then to follow the programme through. He has the time to check it and suggest adjustments.

But such an officer can only assist in bringing co-operation, he cannot enforce it on officers who do not want it. Without extension officers feeling the need for co-operation his efforts will be fruitless".

FARM RECORDS AND CASH FLOW BUDGETING

By V. Cook & G.D. Webber

. . . "Attempts by extension services to produce record keeping books, have in the main not been successful in getting the farmer-business man to keep better records.

The reason appears to be that they have been too complex, have involved a lot of work, and have not met the immediate needs of farmers.

The criterion of any good record keeping system must be:-

- (1) That we can easily get information into it.
- (2) That we can easily get information out of it.

There are a number of farm records which can be kept, but how can we select the important ones? The first step appears to be to look at the farmer in his situation.

1. He is a manager of a business - to start with he needs to have a physical plan of operations. He also needs to have some sort of a budget of finances involved.
2. Most farmers deal with two financial people most of all, the banker and their accountant. His relationship with the banker is in the present situation, a most important factor. Most farmers work on borrowed capital and by the look of the rural debit situation many farms are in a critical situation in relation to paying interest and repayment of borrowed capital.
3. This means his cash flow situation is something he needs to have his finger on all the time and needs to be able to discuss and plan this with the banker.

So what is needed is a set of records which fulfil the following requirements:-

1. A production plan.
2. An operating budget - indicating peak debt period.
3. A cash flow summary.
4. A comparison of actual cash flow with budgeted income and expenditure.

Budgeting

Budgeting is a management tool used for farm financial planning that emphasises monthly and one or more year plans for the future. Here we wish to view the budgeting process as a tool for obtaining the most productive, efficient and profitable use of farm resources.

Budgeting systems can become so complete and detailed that they become unwieldy and meaningless. Over-budgeting is dangerous. Cash budgets should be a means of obtaining increased efficiency and profitability. Cash flow budgeting is an adviser's or farmer's tool, not an end in itself". . . .

FARMER SCHOOLS IN THE EXTENSION PROGRAMME:

A CASE STUDY

By G.D. Webber, Agricultural Adviser, Kadina

Introduction

There has in recent times been considerable discussion about the need to strengthen the educational component in agricultural extension services. It has been suggested we are out of the "service" stage and into what might be called the "education" stage. This emphasis is changing because extension services need to help farmers meet the rigorous challenges of their occupation in the 1970's.

If this is so then there is a need to look at the effectiveness of our teaching methods so as they add up to an efficient total educational programme.

In Australia, there is now a lot more attention being directed towards group extension. The reasoning behind this appears to be that new knowledge in and of itself does not change attitudes and thus does not change behaviour.

Klapper (1960) suggests that the facts which are communicated may simply not be recognised as pertinent to the attitudes they are intended to change, i.e. facts are not seen as relevant to the recipient's own situation as he sees it. Information is certainly onevariable in changing behaviour but only one of many.

These findings in part explain why extension has in many cases been ineffective. We have concentrated on one variable when there may be many. Perhaps we should concentrate more on the farmer and how we can understand his position better. (J. Tully, 1966).

Research by both educationalists and social psychologists has shown that appropriate changes in behaviour can best be arrived at by discussion in face to face groups.

If the extension worker is going to place a greater emphasis on agricultural education, then working with groups is going to be a more important part of his work.

An important part of group extension work has been in the form of farmer schools.

The aim of this paper is to:-

- (1) Examine the validity of some of our assumptions about schools.
- (2) Examine the value of traditional schools and courses in attaining extension objectives.
- (3) See how schools and courses could be made more effective.

Farmer Schools

1. The present position

Short term schools and courses have been regarded as valuable in the extension education programme. The assumptions are:-

- (a) They provide the opportunity to teach in greater depth and detail than at normal group meetings.
- (b) They give the extension worker the opportunity to teach in a more "logical", step by step manner all the facts of a particular subject.
- (c) Schools are prestige extension activities (they are currently fashionable) and make people more aware of Departmental services and extension objectives - somewhat of a shop window effect.
- (d) They are a means of getting larger groups of farmers together for educational purposes - which enables extension workers to spread their resources over a greater area, more "efficiently" and in a more organised manner.
- (e) Enrolment in the school or course indicates interest in the subject matter and attendance can be used as an evaluation of their success as an extension teaching medium.

The real criteria for measuring effectiveness of such group activity would appear to be:-

- (1) Do they meet farmers' needs?
- (2) Is all the material presented seen as relevant by farmers?
- (3) Could schools be presented more effectively?

The answers to these questions will be looked at in the following case study.

Case Study - Warooka Agricultural Bureau, S.A.

The S.A. Department of Agriculture runs a number of different types of schools, e.g. Farm Management, Livestock, Agronomy schools, which vary in length and format from 1 day to several days, or a series of night meetings.

Two of the more popular agronomy schools in the cereal areas are pasture and cereal schools. The Warooka Agricultural Bureau requested a pasture school course consisting of three night meetings and a field day. This was a conventional type of school which has been conducted with a number of other Agricultural Bureaux.

Evaluation sheets from other schools had indicated they were relatively successful. Attendance had been good, but farmers had indicated that they wanted more time for discussion. A stereotype booklet of notes was prepared on the A to Z of pastures, setting out all the information on pastures relevant to the Warooka area as the extension worker saw the situation.

Testing for Relevance

At the beginning of the first meeting at the school a short problem census was conducted to define the farmers' problem about pastures. The attached sheets shows the extension worker's interpretation of the problem and the farmers' definition of the problem (see pages 30 and 31).

It became obvious following this discussion that the prepared material would not meet the needs for information as seen by the farmers. The prepared notes were distributed for reference only. It was decided the school become a joint Agronomy/Livestock workshop type school, to deal with the problems as defined.

Discussion

In reviewing the school the officers concerned suggested:-

- (1) The educational aims of a farmer school need to be clearly defined. If we are to follow the basic philosophy of "working with people" not "for people" this needs to be discussed with the group concerned to come to a common frame of reference.

As J. Tully (1968) points out.

The extension worker sees a situation from the standpoint of his training and experience in agriculture - but agriculture is not farming.

The farmer sees it in the light of his own and his reference group's experience and as part of the whole farm system. It is inevitable the two points of view will be different.

- (2) In defining farmers' needs and problems (e.g. the ten points listed as subject matter for the school), it highlighted the deficiencies in the prepared notes in such a problem solving situation. However, it is believed the notes were very useful reference material in conjunction with group discussion.
- (3) In this case study the agenda became overloaded for the amount of time allotted for the school. Being pushed for time too much lecturing was carried out, this resulted in less participation than would have been desirable. This lessened the effectiveness of the school.
- (4) The order of presentation of material was decided by the extension workers prior to the meetings. This tended to encourage postponement of important issues when they were raised. Because of this, important opportunities for discussion were lost and communications were interrupted.

It would appear farmer schools will continue in the future to be an important part of our extension education programme.

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The questions raised by this case study are:-

- (1) Can we increase the effectiveness of schools in the agricultural education programme.

- (2) The problems of the extension worker appear to be:-
- (a) He is asked to conduct a school on a particular topic - in some cases a number of speakers are involved. The tendency is for each speaker to prepare his lecture before the school.
 - (b) The expectancies are that he will prepare for the school with booklets of notes, aids, etc., and present a lecture in the traditional manner.

But does this type of school really meet the needs of the farmer in his present situation?

References

- Tully, J. (1968) - Paper - The Application of Sociological and Social Psychological Research in Agricultural Extension.
- Tully, J. (1966) - Changing Practices - A Case Study - Journal of Co-operative Extension, Fall 1966.
- Klapper, J.T. (1960) - The Affects of Mass Communication, Free Press.

The Extension Workers' Viewpoint

The farmers had requested a school on pastures. There was a need for more productive pastures in the district to enable farmers to increase stocking rates.

Aim of the school. To each in depth the subject of pastures as it applied to the Warooka district.

The extension worker had a booklet of notes from a previous school which were carefully modified to suit the Warooka district.

The subject matter in the school was:-

Lecture I: The Role of Legume Pastures in the District

- Impact of ley farming in the District
- Soil nitrogen and the nitrogen cycle
- The effect of legume pasture on soil structure
- The role of legume pastures in reducing cereal diseases

Lecture II: Clover & Medics for the Cereal Areas & Their Establishment

- The place of medics and clovers in the district
- Effects of soil type, rainfall and seasonal length on species selection
- Medic varieties for the district soil types and their establishment
- Characteristics of medic species and regeneration.

Lecture III: Management of Legume Pastures

- Effect of crop rotations
- Superphosphate use and insect pests and their control
- Hay cutting and topping
- Value of medic and clover residues.

Lecture IV: Field Inspection

- To be arranged at end of school.

The Farmers' Point of View

From the problem census the group identified their main problem as a need to increase stocking rates to make up for income lost through wheat quotas, lower barley prices, and lower wool prices.

They suggested that they could make up to some extent income lost by increasing carrying capacity. They defined the increases in stocking rate that could be made - from 1.5 to 2 D.S.E. per grazed acre.

The problems or barriers they saw arising for discussion to enable them to achieve this were:-

- (1) How to establish higher carrying capacity pastures and the cost.
- (2) Capital cost of higher stocking rate.
- (3) Supplementing pastures with conserved feed and cost.
- (4) Additional fodder reserves for drought.
- (5) Subdivision and water - eaten out watering points and bare paddocks.

- (6) To topdress pastures or not.
- (7) Unthriftiness in young stock and general stock health at higher stocking rate.
- (8) Problem of maintaining stock in marketing conditions for sale.
- (9) Pest control in pastures.
- (10) Use of grazing crops to increase stocking rate.

GROUP EXTENSION - A CASE STUDY AT HOPE FOREST

By J.P. Blencowe, A.E. Engel & J.S. Potter

(This paper presented some details of the "Hope Forest exercise". A full report will be published later, probably in "Experimental Record" - P.M.S. Potter).

WHERE IS AGRICULTURAL EXTENSION GOING?

Review of prepared papers - G.D. Webber

Review of Papers

The first comment that must be made is that the set of papers we have before us, present an excellent coverage of the subject of agricultural extension. This is the first comprehensive problem solving effort we, as a group, have had on extension, and probably the first this Department has had on this large a scale. As you have read there has been a vast amount of information presented and there is also considerable variance of opinion on many aspects of the subject.

Objectives of this Session

In reviewing these papers and setting the stage for a discussion I believe we need to define what our objectives are. It appears we have two jobs to do:-

- (1) We need to come to some agreement that the majority of papers indicate we need to adapt our extension service to meet changing situations at the farming level. It

is well documented that we have ended a phase in extension - which has been called the technical or production phase.

- (2) We must also come to agreement that we are in a new stage in extension, in which we need to modify our methods to be more effective. What the new methods will be, we must discuss and come to some agreement in operational terms, so that we can develop a more effective extension service.

In this session we have a job to do, it is a work session. As we expect farmers to change to adapt to their changing situations so we must change to meet our changing situation.

Where is Extension Going?

Many countries are currently having a look at the purpose of extension services, where they are going and what changes are necessary. Why should this subject suddenly create so much enquiry? The answer emerges generally through the papers, i.e. because there have been changes in agriculture and changes in farming communities.

What Are These Changes?

Three papers have concentrated on looking at these aspects, those of Gross, Hincks and Fairbrother.

Gross sees the need to re-examine our extension services because most of our current extension methods were developed post-war when all types of rural production were profitable and all products, regardless of quantity or quality, were saleable.

Now the situation has changed - but what are the changes:-

(1) Changes in agriculture itself

Gross suggests some of these are:-

- * It is no longer a sellers market. Markets and prices are uncertain.
- * Low prices for agricultural products generally.
- * Many lines of production are close to being un-economic.

There are also some other far reaching changes that weren't mentioned specifically in that the rural contribution to the gross national product is falling and hence its influence

reduced. This, of course, means the relative status of agriculture in our community is declining.

(2) Changes in the farming community

Several contributors have pointed out the resultant changes in the farming community.

- * A trend towards fewer farms and fewer farmers.
- * Large numbers of farms on the market - many of these are being operated on the minimum cost maintenance basis.
- * Increasing number of part time farmers.

These changes vary from district to district, Hincks has reported the rather dramatic changes occurring in the Mallee districts, one of the hardest hit by the rural recession.

- * Land values find new low levels.
- * 30% of farmers have left one community.
- * Many farmers are without prospects of getting out of their situation.

This, he reports, has resulted in a breakdown of the traditional rural community. Changes are taking place rapidly. This is why we, as extension officers, need to look at this situation urgently. The extension service we provide has to meet new needs. Fairbrother and others have outlined the types of new problems farmers face.

- * Critically low prices for agricultural products.
- * Surpluses and hence marketing problems.
- * High costs.
- * Difficulty in obtaining finance (long term at low interest rates).
- * Increased debts aggravated by reduced owner's equity in the properties.

He concludes that our extension will need to change to meet this new situation.

(3) Our present situation

Before we talk about changes, perhaps it is necessary to look critically at where we are now.

It has been suggested that our Department, and no doubt other state departments have been, as Gross points out:-

- * Production orientated.
- * Heavily committed to technical advice.

Several other factors are mentioned through the papers such as:-

- * We have done little work on market research and insufficient on product quality.
- * Made little progress with economic advice.
- * Some of our extension has been lacking in social skills, and the application of results of sociological studies.

It appears we are generally agreed that we are out of the technical "service" stage into some other new phase in extension.

The requirements suggested for more effective extension in this phase seem to fall into four main sections:-

- (a) A more educational approach - to assist farmers in decision making.
- (b) More emphasis on economic factors.
- (c) Better extension planning.
- (d) A more co-ordinated effort within the organisation.

Extension Approach

This is the area where we have the greatest diversity of opinion. What is the best extension approach to meet the current situation? We have people on extreme ends of the continuum.

On the one hand some officers express the opinion that we should just service information for those that want it, others take the educator approach and accept more responsibility - they see the goal of extension as establishing relationships and getting practices adopted.

Then we have those who suggest the main part of extension should be on an individual basis and those who feel the group approach is more effective.

There is wide variation of opinion expressed. I wondered at times if we were all discussing the same subject.

Potter, in a hard hitting paper, suggests there appears to be two main views of extension in this Department :-

- (1) The campaign approach.
- (2) The client-centred approach.

He sees the campaign approach as the traditional view, where the extension officer and his organisation decide what is good for farmers. Technical campaigns are pursued without due regard to social and economic factors - in fact often in direct opposition to farmers' needs, opinions and wishes.

Mowatt also hits pretty hard at the traditional recipe expounders, he also sees important variables in the situation apart from information.

These are pretty strong statements in view of the fact that this is how most of us were basically trained within our branches.

Mowatt, in what I considered to be a very good paper, expresses the problem well:-

- * Information is most often not the limiting factor.
- * So much is available in the farmer groups - so little is being put into practice, due to some other restraint, social or economic.

He concludes "extension is a matter of dealing with people - this we have yet to accept". Looking through the papers I think we are starting to.

He certainly gets support from a number of contributors who agree that information is rarely the main restraint to adoption. It has often been stated by sociologists that information is certainly one variable in changing behaviour but only one of many.

Holden also suggests we should concentrate more on the farmer and how we can understand his situation better. He claims insufficient consideration has been given to the farmer's financial situation, management ability and to his goals. Any advice must take into account these interacting factors which affect the implication of the information. Where these factors aren't considered adoption has been poor and slow.

Potter agrees with this and points out that the client centred approach, which is universally acclaimed by F.A.O. and other community development agencies, looks more closely at the farmer in his own environment. This view recognises that social and economic factors can disallow adoption of technology.

Most of the advisers do suggest problems need to be diagnosed in terms of their social and economic implications as well as the technical ones.

Holden has defined an aim for extension - it should be to teach or help farmers to make decisions for themselves. Such decisions, he claims, are likely to be adopted as they would be relevant to his situation, to his resources, goals and to the norms of his social group.

I think we must agree extension should have an aim, do we agree with him?

So it appears there is some general agreement that the new stage in extension is to help farmers make decisions, and to make them well. But how is this to be done?

Here I am afraid we get into some sort of a divided group again.

Some papers call for more extension on an individual basis, and the real problems can only be sorted out on the individual farm. Others see the need for more emphasis to be placed on directing information and problem solving efforts to farmers within groups.

Holden is pretty convincing in his comments to support the latter view. He claims, in groups the use of farmers' knowledge and experience and the use of the Department's technical knowledge provides a greater pool of knowledge. This creates social satisfaction, a tendency towards new goals, and changes of attitudes.

Blencowe, Engel and Potter - have outlined a successful programme planning and problem solving operation at Hope Forest. An example of working with farmers in their own social group setting. The result, a greater rate of adoption. Robinson also discusses the problem solving approach to group extension with larger groups. Joan Tully has been advocating these types of approaches for a long time now.

In the other camp, Dillon, Marrett and Fairbrother and Hagerstrom strongly emphasise the need to integrate technical

and economic information, but suggest the best results are obtained on the personal visit basis. The factors put forward to support this view are that each farmer has a different financial situation and managerial ability - extremely important factors at this point in time.

Then we have a number of contributors taking various positions in the middle. But are we really many poles apart? I have a feeling we all agree on some principles, such as different situations require different approaches, with some extolling the virtues of one approach but also recognising the need for the other. I think we are in fact looking for where the main emphasis should be placed. Perhaps it takes a philosopher of the calibre of Michelmore to put his finger on the button - he defines his main problem as working out how far he should go with the group and when it is necessary to go solo with individuals in the group. A problem we might all dwell on.

Mass Media

What has happened to mass media? It's place is acknowledged here and there, but generally only a passing mention. Hagerstrom suggests we have reached a stage where there is little to offer group or mass media, the individual wants information specific to his situation. Davidson and others have also mentioned physical and technical limitations of our former favourite media which prompts the question, has the role of mass media waned in its relative importance?

Farm Management Extension

In the current economic farming situation most contributors see the need for a much greater farm management bias to extension. The economic crisis on many farms is well recorded.

Hagerstrom has dealt with this issue in some detail, he estimates 20-25% of farmers in his area are in an over-committed position. Some with overdrafts of \$50-80,000. No doubt this situation exists in many districts - it must, when we see the national rural debt at something over \$2,000m.

Dillon sees the first step in extension is to evaluate possible avenues of financial gain for farmers.

Marrett sees the major need is for integrated technical and economic information, and points to the need for greater market research and reliable market projection.

McAuliffe in his paper points out that low wool prices, wheat quotas, lack of worthwhile alternatives, the depreciation in land values, have caused a critical situation in agriculture leading to the need for rural reconstruction.

He sees farmers' needs are now more strongly orientated towards economic issues than at any time since the 1930's.

The important point he makes is that integration of technical and economic advice will need to be more precise in the future. The weaknesses in this direction in the past have often been condoned because economic pressures have not been so severe.

Mowatt, Ragless and others point to the need for extension education to increase awareness and understanding of economics and business management.

All however, stop short of suggesting how this might be best done.

I feel the farm management extension in all Australian extension services has been the least successful aspect of extension work. No doubt because it is the hardest. I think we must come up with some better suggestions on this subject.

Cook and Webber support the need for greater farm management bias to our extension work. They see farm records and cash flow budgeting as initial steps necessary for better management.

Their reasoning is that the management of any business surely starts with an adequate record keeping system, which will provide physical and financial information for the manager to make decisions.

The farmer is a manager of a business - to start with he needs to have a physical plan of operations. He also needs to have some sort of a budget of finances involved.

It seems that attempts by extension services to produce record keeping books, have in the main, not been successful in getting the farmer-business man to keep better records.

Cook points out most farmers work on borrowed capital and by the look of the rural debt situation, many farms are in a critical situation in relation to paying interest and repayments on borrowed capital.

This means his cash flow situation is something he needs to have his finger on all the time and needs to be able to discuss and plan this with his banker.

The cash budget will indicate what financing is required throughout the year, and therefore should be one of the financial manager's most important tools.

Ragless supports their view claiming accurate records, forward planning and budgeting are now basic essentials for successful management.

Marketing

Marrett and others have stressed the need for more and better market information to assist the extension officer. During this era, we have to be market orientated as it is a vital part of the whole situation. This information in many cases takes precedence over technical information. How can we improve this service?

Co-ordination

The farmer looks at his farm as a whole system, with each section or enterprise relating to and competing for resources with the other. To him relationships are vitally important.

The Department is divided into divisions. It has been highlighted in most of the papers that the present need is for co-ordinated information related to all technical and economic factors of the farm. So surely extension activities and programmes must also be co-ordinated. The question asked in several papers is where is this co-ordination going to best take place?

Crawford sees the lack of co-ordination between the various branches of the Department as a problem brought about by lack of liaison. He sees the need for a more united front.

Bicknell also discusses the need for greater liaison and suggests some branches are already close together and asks do they need to be separate identities?

Marrett and Mowatt make a suggestion of each officer in a district being a contact - liaison man for one part of the district, to give better co-ordination. This is an interesting thought.

Thomas outlines the need for a co-operative approach to better understand and service the whole farm situation. He outlines the problems involved with some pretty searching questions about extension officers, which need to be looked at to get better co-operation. He suggests as does Nash in his paper, that working together starts with planning together. This I think is the key point in both of these papers.

Nash discusses how extension officers can work together in a farming system, with appropriate examples. He sees moving into more formal programme planning would bring together officers to look at the overall problems.

Matz has brought forth the need for co-ordination at a different level, i.e. between extension services and marketing organisations. His example of some breakdown in confidence of the wheat quality programme because of the lack of co-ordination and problem solving approach between all involved in handling the product.

Another aspect of co-ordination has been brought forward in the papers of the specialist sections. Graham, O'Neil and others have all stressed the need to concentrate their specialist information on relationships with other parts of the farming system.

The theme of most papers highlighted the need for a more co-ordinated approach. The answer submitted by some was better co-ordinated planning of extension work.

Planning Extension

This subject has already been introduced from the last section. A number of the papers have pointed to the lack of planning in extension work as being a major problem. It is also pointed out that other state departments do considerably more planned extension than we do. Are we falling behind? From some comments it could well be we are.

Crawford sees the most serious problem in extension today as lack of planned extension programmes. Without a programme we lack direction and established objectives. He sees programme planning as a planning of the on-going process.

Fairbrother also mentions the need for careful planning of extension work, looking at all the implications.

Marrett talks about collating information into what might be called a situation statement, so that an extension

programme can be developed. Others mention the need for planning at various levels as previously mentioned.

Engel in a somewhat controversial paper discusses the advantages of planning from the individual, organisation and national viewpoint.

He has pointed out the Commonwealth's and industries' increasing demands for greater efficiency from extension workers. Some Departments of Agriculture are re-organising their structures to meet these demands. He projects changes in the structure of our own organisation and the possibility of regionalisation. I interpret his paper as saying that unless we get moving, with greater emphasis on adult education and planned educational programmes, some awkward questions will be asked.

A very important principle brought forward by Engel is that the extension officer should plan as he expects a good farm manager to plan, i.e. to plan from detailed and objectively derived records.

In a challenging statement he sees recording and planning as the professional approach. The kick in this statement was that outsiders have distinguished research people from extension people because of the former group's 'scientific method of planning.

I read this to say, are we prepared to adopt the more professional approach - many among us have stated the need to do so.

As pointed out, programme planning of extension simply uses the problem solving principle. The steps simply stated are:-

- (1) Collation and relevant analysis of data.
- (2) Defining the problems.
- (3) Setting objectives.
- (4) Drawing up a work plan.
- (5) Implementation.
- (6) Evaluation.

Engel like others, stresses the need for co-operative planning.

A distinction is made in two papers between extension programmes and extension campaigns.

Campaigns

Many of the Branch programmes we have run could perhaps better be described as campaigns. Where the Department has defined a need and organised a programme of extension for a wide area of influence, e.g. skeleton weed campaign, wheat quality campaign.

Programmes

The actual district level planning of an on-going extension work, developed with the people involved using a similar step by step process have been called extension programmes.

Engel also adds that part of planning is to be inward looking, to see what skills and information are required to carry through a programme, i.e. plan for self development.

So it appears - the need has been defined for more planning of extension work. How planning can be carried out at various levels has been discussed - the message seems to be practice what we preach.

Any good manager - plans well.

Summary

So what are the main points brought forward?

Agriculture is changing, so are rural communities.

A new set of problems face the primary producer.

There will have to be changes at the farming level to meet the new challenges.

There appears general agreement that our extension effort will have to change to meet the new situation.

It also appears we have passed through the production orientated, technical information stage into a new phase.

The requirements suggested in the next phase are:-

- (1) A more educational approach to assist farmers in decision making

Where should we put the major emphasis?:-

- * On group work, i.e. a new type of group work with a problem approach, or
- * On more individual service - co-ordinated service looking at all technical, economic and social factors.

The question might also be asked, has the importance of mass media waned?

(2) A greater farm management bias to extension is required

The rural debt situation, the need for rural reconstruction has been covered.

The inadequacies of present farm management extension has been highlighted.

A greater emphasis on farm accounting is suggested as an approach.

Then there is the need for more and better market information.

(3) More co-ordinated extension

We need to look at the whole farm situation, each segment of the farm influences the others.

The need for more co-operation and liaison was highlighted.

The answer suggested - planning together.

(4) Planning extension

The need for planning of extension work is well documented. It is suggested the professional approach to extension is through greater use of programming.

The obvious thing and most encouraging feature is that we see the need for change. In the discussion which follows, I hope we can sort out the best way for the future.

SECTION II

DISCUSSION: "WHERE IS AGRICULTURAL EXTENSION
GOING?"

WHERE IS AGRICULTURAL EXTENSION GOING?

Discussion: Chairman, Mr. A.F. Tideman,
Principal Agronomist

Discussion followed the four main headings of G.D. Webber's summary:-

Extension Approach

Aim

The individual or the group

Extension schools

Mass media

Farm Management Extension

Co-ordination

Extension Planning

Extension Approach:

Aim

A.F. Tideman

Holden defined the aim of the extension in his paper, "The aim should be to teach or help farmers to make decisions for themselves".

Is this definition satisfactory?

J.B. Doolette,
Principal Research Officer
(Agronomy)

Sometimes all farmers must accept direction from extension officers, e.g. in soil conservation, but generally today we are only interested in farmers who wish to be successful and maybe we should not be aiming at full acceptance. Should we only be interested in those who seek advice?

A.F. Tideman

Mr. Herriot, what aims did you have in the soil conservation campaign?

R.I. Herriot,
Principal, Roseworthy
Agricultural
College

This campaign had an overall aim - to get soils conserved. To achieve this we also had to get farmers to recognise the problem, and persuade them to work on the problem. This was the first experience the Department had of such an extension campaign.

P.L. Marrett,
Agricultural
Adviser, Mt.
Gambier

The aim of extension should be to make people feel safer. To do this we must remove the risk factor in advice. At the moment we do not have the necessary lessons on which to base extension.

H. Nash,
Livestock
Adviser,
Kadina

Livestock Branch has not been in the extension field for long, whereas Agronomy Branch has traditional communications with farmers.

The most efficient method for extension has been to work with groups.

The aim of Livestock Branch is to extend at the cheapest rate per farmer, and this is best achieved using group techniques.

P.E. Beale,
Research
Officer,
Kangaroo
Island

Many people assume that the Department of Agriculture exists to help farmers.

Either we aim to help farmers because we love them, or to stabilise agriculture for the benefit of this State. The first aim is expressed by tailoring advice to the individual needs, the second at the present time would be achieved by convincing some farmers they should abandon farming.

G.N. Thomas,
Senior Extension
Liaison Officer,
Naracoorte

There are three basic types of extension officers:-

1. Ego centred extension officers who take delight in dealing with individuals, and seeing their own advice acted upon.
2. Officers who place emphasis on the welfare of the State, even at the expense of individuals.
3. Officers who think men matter most. That is they feel that each individual has the right to survive on the land. Such officers can work with groups.

Officers generally have all three of these characteristics to some degree. But individuals tend towards one or other in their extension approach. Such differences between officers are important when introducing new extension methods, e.g. programme planning or joint plans.

Extension Approach:

The Individual or The Group

J.S. Potter,
Principal Soils
Officer

An extension officer must conform to the responsibility he has to his employer "the State", and the responsibility he has to his clients "the farmers". In soil conservation there is an Act which says that a campaign has to be implemented. In other areas there is no Government policy to guide extension officers.

We should use the campaign where we are doing regulatory work, and a client centred approach where there is no Government brief.

To work with individuals or groups?

Working only with individuals will lead to problems, since the theory of information diffusion from innovators simply does not work in practice. The only practical solution is to work with groups beginning at the point of what farmers believe they need.

The group approach of course also involves individuals.

We do not have people who work solely with groups.

The main difference between advisers is in their mental approach. Some are campaigners using Departmental goals, some are client centred and use goals they derive with farmers.

Mr. Herriot

Whether we work physically with individuals or groups is not really important, if we recognise that the individuals with whom we work are part of their groups.

Pre-war we had District Agricultural Advisers who worked on a general front.

During the war years these people were enmeshed in a programme to provide agricultural products in kind and quality determined by Government.

Mr. Herriot
(Contd.)

In the post war period it has been Government policy that farmers should organise into "Industry Groups" to speak with one voice to Government and that there should be no Government interference, or new Agricultural Policy until the "Industry" has spoken.

The fallacy of this approach is that usually it is Industry leaders who speak and not those who make up the industry.

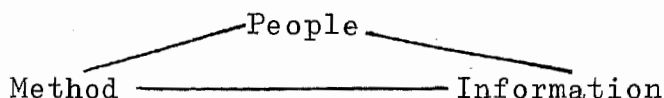
Arising out of this, development has switched from professional officers of Government to supposed Industry leaders. Professional people have been kept in the background.

Another critical result from this switch in thinking is that farmers' organisations, Government and professionals now talk glibly of industries (impersonal) being in good or bad shape. If we are to grapple sensibly with the problems of agriculture, we have to recognise, for instance, that it is not wheat that is in trouble, but some farmers who grow wheat. Programmes must be devised to handle the problems of these people.

Mr. Nash

We must learn more about people.

We learn things because we associate with a group.



Method and information have been studied with respect to extension, but our knowledge of people is lacking.

J.P. Blencowe,
Soil Conser-
vation Adviser

We should deal with individuals, through groups. An example where the innovator approach did not work occurred in a district of the Mid North, during the soil conservation campaign. They selected a person whom they thought was a leader in a community. This farmer contoured his property, but no-one followed his lead. Further contouring in the district did not occur for 7 years.

Mr. Blencowe
(Contd.)

When an individual is given an idea to evaluate, he consults his group, and if they disagree, the idea is rejected. Yet, when working with the whole group, close contact with individuals within the group occurs. We should attempt to define the social groups throughout South Australia. This task is not difficult.

Extension Approach:

Extension Schools

Mr. Tideman

I believe the Department is running a series of beef schools. How effective are these?

Mr. Nash

Farmers are given a book of information on running and managing beef, to help them in the future. That is, the beef school is a mass campaign.

Jack Blencowe's approach would be to first find the problems of a district.

A Sheep Seminar for stock agents held at Kadina did not teach anything new, and did not cover their problems; a questionnaire before the seminar could have defined the areas of teaching needed.

P.C. Angove,
Chief Extension Officer .

A meeting held before the dairy school held at Yankalilla defined the relevant areas of discussion for that school. The Sheep Seminar for stock agents at Kadina failed because the subjects discussed were irrelevant. This school had no pre-planning of its topics which involved the stock agents. The Sheep Seminar for stock agents to be held at Mt. Gambier is being planned and a questionnaire to the agents has gone out now.

G.K. Robinson,
Senior Advisory
Officer,
Agricultural
Bureau

The aim of beef schools, at the present time, is to introduce general husbandry to people who have not had much experience with this enterprise. I consider that present beef schools meet the initial need for information.

We have planned a one day pig production symposium at Wanilla, and in developing the programme we circularised pig owners in the region and asked them what they wanted to discuss.

Mr. Robinson
(Contd.)

The approach to planning such schools must be to appraise what people want. To gather such information a questionnaire can be used, but we must expect distortion of the meaning of questions, despite careful wording.

Extension Approach:

Mass Media

Mr. Tideman

Mr. Tideman asked Mr. Davidson to introduce this section of the discussion in relation to comments he made in his paper.

T.R. Davidson,
District
Agricultural
Adviser,
Minnipa

Mass media is a cheap way of reaching many farmers. On Eyre Peninsula we have one paper and one radio programme (on 5CK, 6.45 a.m.) which is well listened to. These two media are helping our extension programme.

I. Pickett,
Poultry Adviser,
Kadina

In my district producers are scattered, and mass media is an efficient way of making farmers aware of their problems.

Dr. P.S. Cocks,
Senior Research
Officer,
Naracoorte

A danger with mass media is the people using it - they must come over well to be effective.

F.C. Gross,
Agricultural
Adviser,
Adelaide

Mass media has a place in timely messages, and as an educator. For example, mass media during a cockchafer outbreak, would be used to warn and give control methods.

Mr. Thomas

If our purpose in using mass media is to contact more farmers then we may be misleading ourselves. Research in the Upper Murray showed that those people using mass media the most also made greatest use of group and individual sources. In this case mass media may be more important as reinforcement than in creating awareness in more farmers.

Mr. Marrett

Mass media is good for stimulating interest; for example, in developing groups.

Mr. Potter

Mass media undoubtedly has a place in our extension programme. However, studies of communities show that the use of mass media differs between groups. When contemplating

Mr. Potter
(Contd.)

the use of mass media, we must know, and consider, who reads what papers, and who listens to what programmes.

Farm Management Extension:

J.H. Dawes,
Weeds Officer,
Naracoorte

Naracoorte is a regional centre, the district being divided into 6 agricultural areas.

The "G.P." adviser to an agricultural area looks at the whole farm, and then he can call on specialist officers in the centre for technical advice.

The farmer should not have to deal with 10 different people.

K.G. Bicknell,
District
Agricultural
Adviser,
Murray Bridge

I can see the value of a whole farm approach to extension, but I find implementation difficult.

Having been able to attend only 2 schools in 15 years in farm economics, I cannot advise in the farm management field, because of the lack of training. Advice to me on economics must be on hand at the office; I should not have to rely on Adelaide-based officers.

A.E. Hincks,
District
Agricultural
Adviser, Loxton

The Loxton office has an economist available, who has the advantage of figures available on budgets. He is the key man in our office.

Mr. Pickett

We must get the farmer to keep records. We must devise a simple record system. The economist must have these records available for him to use.

P. Mowatt,
District
Agricultural
Adviser,
Jamestown

We must establish something more than a record system in order to get effective farm management.

Mr. Nash

Some farmers like to keep records. However, records do not mean anything unless they are analysed and used. Records give a farmer an idea of his business, but we must also develop the gross margin technique, for farmers to use themselves in making decisions.

G. Crome,
Field Officer
Weeds,
Adelaide

(Mr. Crome was previously a private farm consultant).

The Department should approach consultants left in the field, in order to use their experience in the social and economic aspects of extension.

The techniques employed at Hope Forest, while being new to the Department, are very routine for consultants.

Market projections must be made to enable management to draw up budgets.

Mr. Angove

The farm management section of our Department has seven men. The three country stationed officers are at Loxton - servicing both horticulture and dryland farming, Naracoorte and Kadina. Their role is to help the adviser in that area. The four officers in Adelaide are more specialised. This group developed the comparative analysis scheme. This is based on tax returns, and figures are not available until the May of the following year. Such figures are too late for the farmer to use in planning. This group will now develop a system of simple, mail-in records for comparative analysis and immediate use. They are also developing a market report, to be released 4 times a year.

Co-ordination:

Mr. Mowatt

In agriculture we cannot foresee events as easily as in industry. For co-ordination to be effective, people must work side by side - not only extension people of various branches, but also research and extension people.

Mr. Marrett

We must get some of the research officers' work expanded out onto properties.

For example, the potassium trials conducted were useless, because they were not related to the farmer. The farmer only applies potassium in small amounts.

- J.A. Beare,
Chief Soils
Officer &
Soil
Conservator
- There is a need for extension-research liaison. Research takes time, and often the problems disappear before they are solved.
- Too often, research officers have chosen their own problems, rather than those most important to the farmer.
- Mr. Doolette
- Mr. Webber made it quite clear that extension problems were not all technical.
- Mr. Blencowe
- The extension officer should define the problem for the research officer, in order to obtain relevant research. He should define the problem relevant to farmers' needs, and then approach the research officer.
- Mr. Nash
- An example: farmers thought they had a problem of low fleece weights.
- Research officers thought they had solved the problem - they suggested that farmers weigh fleeces, and select their sheep from there.
- However, this requires more labour at shearing, and was not accepted by farmers.
- T.R. Usher,
Field Officer,
Seed
Production,
Naracoorte
- There is a problem of liaison between branches in bigger centres due to the large number of officers. Keith and Naracoorte offices are two extremes. The two officers at Keith naturally have closer contact. Casual contacts could overcome this problem, for example, at morning tea.
- N.R. Matz,
Agricultural
Adviser, Kadina
- Graham Trengove (economics adviser) is coming to Kadina. This will improve liaison. His advice will be of tremendous value in a co-ordinated effort to provide a more effective extension service. A local man in the district is looked to more by farmers, than are head office people.
- There is a need for more co-ordination with district officers at times, for example, the wheat quality campaign 1970-71.

J.E. Bromell,
Senior Vermin
Control Officer,
Lands Department

Mr. Irving has inferred that an extension officer's work is enhanced if he has had some research experience.

In our section of the Lands Department, extension officers, when time permits, assist in current field research programmes. They act temporarily as technical assistants, and in so doing receive first hand experience with the rabbit problem under field conditions.

P.D. Fairbrother,
District
Agricultural
Adviser, Keith

The South East officers' liaison group, is good for South East officers. However, there is no co-ordination with Adelaide, because of lack of contact with town. I have known of officers from town who have been in my district, but they have not contacted me so that I can have the opportunity of discussing problems with them. (I am only agronomist in district).

Mr. Doolette

How does this affect your extension?

Mr. Fairbrother

Farmers want facts. A lot of advice has been "rule of thumb" advice. We need more information on trace element requirements, maintenance fertiliser dressings, alternate crops.

Mr. Thomas

The question should rather be, "How does lack of liaison affect research?" Extension officers are in a position where they should be able to define problems for research. But they must provide more facts than they are at present.

One of the greatest difficulties is liaison at head office. The lack of liaison between branches needs to be overcome and the example of a co-ordinated approach set to the field staff.

Liaison at a regional level takes time and travelling money. Both are limiting at times.

P.M. Kloot,
Research Officer,
Weeds, Northfield

If an officer wants information, he can write to, or ring the appropriate research officer. If he feels that there is a problem, he could discuss it informally with the appropriate research officer. For example, in 1970, Allan Hincks and Steve Hogg contacted the Weeds Research Officer about woolly salvia in the mallee. Work commenced and has since been brought to a successful conclusion. Generally, if the research officer is approached, he will welcome such contact.

Extension Planning: (Programme Planning)

Mr. Webber

Engel's paper defined programme planning as a problem solving approach.

Any business manager plans.

Steps in programme planning are simply steps in problem solving. Then, when implementing a plan, the people to be involved are already known.

Evaluation must be planned and then carried out. At Hope Forest they did evaluate the rate of adoption.

Dr. Cocks

This is the way a research officer sets about planning a programme.

He has aims.

He looks at his resources, time and materials.

He does the work. This is the easiest part.

He collects and interprets the results.

He publishes the results - to ensure that other research officers know what he has done.

Mr. Potter

Extension research has involved looking at the stages in the problem solving process - or the model of education.

The steps are:-

1. Who are you working with? That is, what group.

Mr. Potter
(Contd.)

2. What are their problems?
This involves a problem census in the form of a questionnaire, group meeting, or visiting each farmer.
3. Diagnosis of the causes of problems.
4. Research programmes developed to provide solutions.
5. Presentation of all possible solutions to farmer.
6. Assisting farmers to adopt the solutions they feel most relevant.
7. Evaluation of the efficiency of resource use in the programmes, and whether the programmes did solve farmers' problems. The latter is judged by the farmers' attitude change.

Mr. Beare

The impression has been given that research is finished when it is published. Extension and research officers should co-operate to evaluate research, as to its relevance and application to the farm.

There is a word problem in the problem solving approach; the farmer may not think he has a "problem", but rather he has "interests".

Mr. Tideman

It is much easier for the research and the extension officer to have a day in the field, than to plan.

Mr. Marrett

The extension officer is a teacher, and he will teach the same things all his life.

Mr. Tideman

Is the extension officer a teacher, educator or something else?

Mr. Hincks

He is an educator, covering all factors.

Mr. Mowatt

Co-ordination amongst people is essential to obtain discussion and ideas. Co-ordination requires some direction from the chiefs.

P.R. Gibson,
Research Officer,
Northfield

Is research into phase 2 (research into sociology) to be done by the research officers, or the extension officers?

Mr. Webber

I guess any extension research would best be done by extension officers with the required training or guidance.

Where is Agricultural Extension Going?

Summary - G.D. Webber

In order to evaluate the progress we have made in this discussion, it is perhaps necessary to look at what were our objectives.

- (1) I think we have come to some general agreement we need to adapt our extension service to meet the challenges of a new phase in extension.
- (2) We have discussed how we might best modify our methods to be more effective. What guidelines then did we get from the discussion?
 1. We have defined extension as an education process to assist producers to make decisions. In considering aims for extension we felt the need to consider:-
 - (a) The stability of our agricultural industries.
 - (b) The welfare of the people involved in agriculture.
 2. It has been pointed out that there is need for more agricultural policy to guide technical people in agriculture. This has been described as an urgent need.

Extension Approach

Some important basic principles which have emerged are:-

- (1) We need to look more closely at the economic and social factors associated with agriculture as well as the technical ones.
- (2) There is need to co-ordinate our approach to extension.
 - The group problem solving approach to extension has been highlighted in many papers and the discussion.
 - The individual farm approach is seen as important in many cases.

- (3) Some issues raised were related to extension "campaigns" - it is suggested regulatory and policy matters lend themselves to the campaign approach. But can we always decide what is good for farmers?
- (4) It is suggested activities, such as conferences and schools should take a more "problem solving workshop approach" to extension.

This will ensure information presented is relevant to the farmers own situation.

- (5) Little has been said about mass media. Comments generally suggest it is important as a part of the extension process. Its purpose, it has been suggested, is to "create awareness".

Farm Management Extension

There has been many comments about the need for a more "whole farm" oriented approach to extension.

We have discussed our efforts in relation to record keeping books and the FAMIS scheme which really aren't meeting current needs. Mr. Angove has reported that a change in approach is being introduced into this Section.

One point of concern is that some comments have suggested that farm management extension is different from other extension. We have at times dodged our responsibilities and tried to unload this effort onto the economists. Surely we agree extension is a job for the extension officer. Some officers have expressed their need for further training for this task.

It has been pointed out that in farm management extension work we should look for points of relevance, and that the same basic educational principles apply in this work as in other extension areas. Blencowe, Potter and Robinson have all commented on this point.

We agreed generally on the need for greater use of farm records and greater attention to "cash flow" budgeting. Surely we can learn from farmers who keep adequate records. In this area as in others we need to look at the farmer in his economic environment - his basic need is to service information and be able to discuss his affairs with his accountant and his bank manager. Have we taken this into account in our farm management extension?

We agreed that we need more market information. However, every district office receives all the technical papers. How many officers get the "Financial Review"?

Co-ordination

There have been comments on research - extension - co-ordination. Before we knock research being carried out, it has been suggested we extension officers should put our own house in order, have we:-

- (a) Defined what the problems are?
- (b) Accepted responsibility of defining relevance of problems?

It is suggested we can get better co-ordination by more united planning.

The matter of involving extension people in research has been raised - the question is to what extent? One department in Australia which has been inclined to combine extension and research in the field, has recently changed their whole structure with more emphasis on extension.

Planning

This emerged to be possibly the most straight forward segment. Discussion generally has agreed almost unanimously on the need for more planning of extension. The problem solving or decision making steps have been defined as the ones we should follow in extension planning.

The matter of evaluation of extension has also been raised. A need for a more objective and educational approach to evaluation has been called for.

It has been suggested some other extension agencies do considerably more extension planning than we do. The need for programme planning at the field level has been highlighted.

So, how far have we got in our discussion? I think we have looked at some of our problems, we have discussed them in operational terms, and from this we have developed some motivation to adapt our methods to meet the changes in agriculture. I consider therefore we must have made progress.