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SYMPOSIUM: EXTENSION ECONOMICS IN AUSTRALIAN AGRICULTURAL EXTENSION SERVICES (I)

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The Australian rural community has a high level of literacy and well-developed communications. Farm earnings are sufficient to permit new investment—and changes of great significance are under way as our well-endowed scientific research programme reveals new opportunities for improving efficiency of production. Our extension services are responsible for interpreting and disseminating these results.

The accent on commercial farming in Australia contributes to a favourable “climate of opinion” towards new methods of production which provides plenty of scope for the use of economics and farm management in extension work.

This does not imply that Australia has no extension problems. Many of them have already arisen in other countries, especially those which also have government departments conducting the extension services. An assessment of overseas developments is therefore useful in analysing our own problems, and prepares the way for some comments on the use of economics in extension work here.

Not that we should necessarily accept the solutions worked out in other countries as the ones most suited to Australian conditions. There are differences between any two countries in cultural traditions, ideals, and in the institutions established to provide research and advisory services for the rural people.

Extension Services in Overseas Countries

The United States

The Smith-Lever Act of 1914 marked the establishment of the co-operative extension service in the United States. But as A. C. True's review of the history of this Act shows,¹ it took many years of preliminary work and several false starts, both in the House of Representatives and in the Senate, before the extension concept could be expressed in a form which made it acceptable to Congress. As early as 1908, K. L. Butterfield, President of the Association of American Colleges and Experiment Stations, expressed the view that the chief means of stimulating the proper recognition and adequate organisation of exten-

¹A. C. True, *A History of Agricultural Extension Work in the United States 1785-1923*. (U.S.D.A. Miscellaneous Publication No. 15, 1928.)

sion work in agriculture would be by Federal appropriation for the work. He was quite aware of the objections that could be made to this proposition: that there was too much Federal supervision; that the Federal Treasury was inadequate to meet the demands made upon it; that it was becoming too easy to rush to the Federal Government whenever money was desired for any public purpose; and that initiative should be left to the States.²

Since those early days, characterised by all the intellectual turmoil and political activity which is so necessary when a new policy is being hammered out, a co-operative system of extension has been established in which Federal, State and local authorities participate.

Now, in 1959, extension work is established as an important phase of rural life and of national agricultural policies. Kepner³ in 1957 reported changes under way in the United States extension services. As a result of these changes, more attention is being given to intensive farm advice, designed to help the farm family improve its analysis and decision-making ability; extension programmes are coming to be based more and more on problems to be solved, rather than on the specialised fields of interest of the workers engaged in extension. There is also a trend towards increased participation by extension officers in educational work associated with U.S.D.A. agricultural policies and programmes.

This close link with agricultural policy programmes is one of the features of the United States extension services. That is to say, over the years, the different "action" programmes—A.A.A., Soil Conservation, and the like—have come to be closely associated with the extension services.

The agricultural price support policies, and the so-called "technological explosion" which has occurred, have brought problems of adjustment in their wake. Heady⁴ considers this change has transformed the role of the extension services—from one of emphasising biological and physical techniques, to one of bringing about adjustments in agriculture that are consistent with and called for by a growing economy.

I have succumbed to the temptation to include one expression of these U.S. policy problems which recently came to my notice. The author of this enchanting letter to a U.S. Senator obviously has been giving some thought to adjustment problems:

"Dear Mr. Senator,

My friend Bordeaux over in Pima County received a \$1,000 check from the Government this year for not raising hogs. So I am going into the not-raising-hog-business next year. What I want to know is, in your opinion, what is the best kind of farm not to raise hogs on and the best kind of hogs not to raise? I would prefer not to raise razorbacks, but, if that is not a good breed not to raise, I will just as gladly not raise any Berkshires or Durocs.

The hardest work in this business is going to be in keeping an inventory of how

² *Ibid.*, pp. 100-1.

³ P. V. Kepner, "Recent Developments in Agricultural Extension Work in the United States," *N.A.A.S. Quarterly Review* No. 39. (Spring 1958.) (For a more recent statement of the U.S. position, see *The Co-operative Extension Service Today*. U.S.D.A. 1958.)

⁴ E. O. Heady, "Adaptation of Extension Education and Auxiliary Aids to the Basic Economic Problem of Agriculture," *Journal of Farm Economics* XXXIX No. 1 (February 1957), p. 113.

many hogs I haven't raised. My friend Bordeaux is very joyful about the future of this business. He has been raising hogs for more than 20 years and the best he ever made was \$400 until this year, when he got \$1,000 for not raising hogs. If I can get \$1,000 for not raising 50 hogs then I will get \$2,000 for not raising 100 hogs.

I plan to operate on a small scale at first, holding myself down to about 4,000 hogs, which means I will have \$80,000. Now another thing:

These hogs I will not raise will not eat 100,000 bushels of corn. I understand that you also pay farmers for not raising corn. So will you pay me anything for not raising 100,000 bushels of corn not to feed the hogs I am not raising? I want to get started as soon as possible as this seems to be a good time of the year for not raising hogs.

Signed OCTAVE BROUSSARD.

P.S. Can I raise 10 or 12 hogs on the side while I am in the not-raising-hog-business—just enough to get a few sides of bacon to eat?"

Thus, there is much to learn from U.S. experience because in that country farm management and broader problems of agricultural economics are part and parcel of the extension services. The great strength of the U.S. system is the close link with research services, and the participation by rural people in planning extension work at the county level. But we should be wary of some features of the U.S. extension services which have emerged over the years. For example, strong local "grass roots" influences may involve the county agent in court-house politics at the county level; the relationships between the American Farm Bureau Federation and the Extension Service appear to be causing some difficulties, and finally the changing objectives of the service create new problems of relationships with those government agencies which are responsible for the programmes being implemented as part of national agricultural policies.⁵

The United Kingdom

The National Agricultural Advisory Service was established on 1st October 1946, to give "free of charge, technical advice and instruction, whether practical or scientific, on agricultural matters." This service was created after some forty years of government encouragement in one form or another of agricultural research and education. Most of the staff previously employed in advisory work by county councils, universities and colleges transferred to the new service. Veterinary advisory staff moved to the Ministry of Agriculture's Animal Health Division but advisory officers in economics remained with the universities.

In a review of the first eight years of its operation, part of the official policy of the N.A.A.S. is expressed in the following terms:

"The service has, moreover, endeavoured to concentrate its efforts on the lines of activity that seem most important in relation to farming efficiency. Technical advice to the individual farmer, to be effective, has to be related to the particular farm and its problems. In some cases the answer to a question of crop disease, crop variety or production technique may be simple. Other problems demand consideration of the organization of the farm as a whole, i.e. the integration of its several enterprises in the most efficient manner so as to secure the highest profit. The new economic climate is rapidly calling for more advice of this more comprehensive kind, though, of course, economic advice is the necessary counterpart of technical advice. The N.A.A.S. in cooperation with the Provincial Agricultural Economics Service has during recent years, been preparing itself to extend its activities in this wider field."⁶

⁵ P. Selznick, *T.V.A. and the Grass Roots*. (University of California Press, 1953.) p. 118.

⁶ *Report on the National Agricultural Advisory Service. The First Eight Years 1946-54*. (Ministry of Agriculture, H.M. Stationery Office, 1955), pp. 58-9. A valuable review of the position in the United Kingdom is also provided in A. Jones, "England and Wales—Farm Management in the National Agricultural Advisory Service," *Cooperation in Advisory Work*, Supplement to *Fatis Review* (1955).

This general statement of policy indicates the present role of agricultural economics in the N.A.A.S. The emphasis is on farm management, and this in turn has arisen in large part from the emphasis on cost accounting which has prevailed in the U.K. at least for the last thirty years. Thus the Farm Management Handbook⁷ devotes a considerable amount of space to budgeting and to the establishment of standards of production. Consequently, the prevailing concept of farm management is a somewhat narrower one than that which has developed in the United States. Although the "whole farm" approach is evident, at least until very recent years, emphasis on decision-making studies and the more dynamic aspects of production problems does not appear to have exerted a very great influence on extension work.

Following this statement of policy, the *Report on the N.A.A.S.* draws attention to three problems relating to the service which had become evident by 1954. To some extent they are akin to problems which have appeared in the United States and are emerging here in Australia. The first of these, states the report, is the association of the N.A.A.S. with non-advisory functions (such as inspection work on behalf of the government) because the county agricultural executive committees are also concerned with the promotion of agricultural production policy; when the advisory officer has enforcement duties, the N.A.A.S. faces a "difficult" but "not impossible" task in retaining the confidence of the farmers.

The second problem listed is manpower. The N.A.A.S. aims at becoming a service manned by university graduates. But there are not enough qualified men, with a staff of some 1,500 advisory officers for 300,000 farmers. The third problem is that of co-operation with local educational authorities, and the Report mentions efforts designed to improve this.

In the United Kingdom we see a growing association between farm management and extension work. The farm management research concepts which have prevailed in the U.K. are reflected in the information and techniques being used in extension work. The close link between the implementation of rural policies and extension activities, so evident in the United States, has its parallel in the United Kingdom to the extent that the policy changes set out in the Annual Review of Price Guarantees⁸ are incorporated in the advice given by extension services.

The U.K. extension services are organised by the government, and some outstanding unsolved problems are evident. These include the relationships between N.A.A.S. and the farmers, as well as difficulties in establishing satisfying professional careers for government officers who devote themselves to extension work.

Other European Countries⁹

There is a great diversity in the organisation of agricultural advisory

⁷ *The Farm as a Business: A Handbook of Standards and Statistics.* (Ministry of Agriculture, Fisheries and Food, H.M. Stationery Office, 1957.)

⁸ E.g., *Annual Review and Determination of Guarantees, 1958.* Cmnd. 390. (1958.)

⁹ *Fatis Review*, a periodical published by the European Productivity Agency (a branch of O.E.E.C.) for farm and home advisory workers in Europe, provides an excellent cover of advisory work in different European countries. See especially *Cooperation in Advisory Work*, Supplement to *Fatis Review*, O.E.E.C. (1955.)

services in European countries. Valuable reports have been prepared by the Organisation for European Economic Co-operation describing the advisory services in different European countries.

A review of progress was made at a Conference of Agricultural Advisory Services organised by O.E.E.C. in May 1953.¹⁰ D. Hctor summarised the results of a study by O.E.E.C. in 1950 which had defined the principal defects of the services in European countries. Most of the difficulties were associated to some degree with a shortage of funds for extension use. For our present purposes, note No. 10 especially:

- “(1) Insufficient advisers
- (2) Inadequate practical training of advisers
- (3) Absence of training in advisory methods
- (4) Neglect of induction and in-service training
- (5) Unsatisfactory salary scales and service conditions for advisers
- (6) Lack of office accommodation, transport facilities and equipment such as visual aids
- (7) Want of co-ordination between workers in agricultural research, agricultural education and the advisory services
- (8) Too many regulatory, control and administrative duties being placed on advisers
- (9) Too restricted a range of methods
- (10) Insufficient attention to agricultural economics and farm management, animal nutrition, farm mechanization and farm buildings, drainage, irrigation and animal health
- (11) Absence of efficient information services.”

By 1953 Hctor was able to report a quickening of interest in the use of advisory aids, demonstration farms, in-service training, and the use of press and radio in extension work. But he reported that “with few exceptions there is little change in the organization, aims or scope of services.” The Conference made a large number of recommendations about advisory services, drawing attention to the dangers of linking “advisory” work and “inspection” work too closely. It also recommended that farmers should take part in planning advisory programmes at the national as well as the local level; and it drew attention to the need for more advisory work in farm management. The Conference also referred to the need for continual review of the aims and methods of advisory services to ensure that they re-orient their approach, where necessary, to current problems. The usefulness of “evaluation” studies was also stressed, as was the importance of the personal and social standing of the adviser in the rural community.¹¹

Summary of Overseas Extension Services

These developments in overseas countries reveal the wide range of problems and situations within which agricultural economics is finding a role in extension work. While farm management is recognised as a vital part of extension programmes, there are many different concepts of its scope, and of the aspects most suited to particular problem situations. Few countries appear to have integrated extension pro-

¹⁰ *Development of the Agricultural Advisory Services in Europe Since 1950*. O.E.E.C. Ag. (53) 16. (1954.)

¹¹ In a later review of *Agricultural Advisory Services in Europe and North America, 1957* (O.E.E.C. 1958), A. Jones and B. B. Burlingame discuss the contributions which farm management can make in advisory work.

grammes with national policy objectives to the extent that this has occurred in the United States; and problems of staff training and status for extension officers, which depend so much on adequate finance, appear to be widespread in other countries.

Thus, our review of overseas extension services points to the following aspects of any extension service, which together determine its nature:¹²

1. Existence of research services which provide an adequate flow of research results, expressed in such a way that they can be used in practice; close working relationships need to be maintained between the extension services and the organisations conducting research.
2. Relationships with the rural people, including the extent of their participation in planning extension work. This includes:
 - (a) Relationships at the national level, with the primary producer industry organisations;
 - (b) "Grass roots" relationships at the level of the local farm community.
3. Career opportunities for extension personnel, which provide for the full development and expression of individual abilities, sustained throughout the whole working life of the officers.
4. Whether the extension service is organised by the government or not, and if it is, the extent to which other aspects of government rural policies impinge on and influence the operation of the services. The extension services need both freedom and opportunity to pursue the objectives of extension, even though the departments providing the extension services have other responsibilities, such as inspection and control work of various kinds.

Economic Information in Extension Programmes

We can now proceed to mention some of the ways in which economic concepts can play a useful role in extension programmes in Australia.

Agricultural Policy

We can begin with problems which are, in one sense, furthest removed from the farmer's everyday management decisions. Is the rural community being kept advised of the implications of different policy measures and changes in the market outlook for different commodities?

Admittedly the farmers' most urgent need is for facts which relate to feasible changes in their own local environment. But they also need more help in understanding broader issues, such as price stabilisation schemes, income and probate taxes as well as rural credit, including hire purchase. These are unexplored fields for our extension services, and there is a tremendous deficiency in the information available to

¹² For a fuller discussion of these points, and of the structure of the Australian extension services, see D. B. Williams, "Getting Research Results to Woolgrowers," *Journal of the Australian Institute of Agricultural Science*, Vol. 25, No. 3 (Sept 1959.)

rural people about agricultural policies. Yet these unexplored fields are the heart of many of our rural problems and are relevant to everyday management decisions. Their neglect has led to a virtual vacuum of understanding about major problems such as wool promotion and stabilisation. Then, come the crisis, it is all the more difficult to avoid *ad hoc* corrective measures which do not take proper account of all the issues involved. So often there is a vacuum, or even worse, prejudice, where there should be understanding of the problems.

Efforts have been made to develop information about our rural policies suited for use by the rural people.¹³ But the emphasis on policy needs to be part of a continuous well-rounded programme. This programme should describe measures of economic changes occurring in each locality, as a routine service to the rural community. In the Bureau of Agricultural Economics, McLennan's work on wheat acreage changes, Boeree's work on the structure of our rural labour force, Suter's studies of changes in sheep numbers, and Bollman and Ward's analysis of changes in the dairy cattle population, are all illustrations of the usefulness of information of this kind.¹⁴ But the important missing link is an integration of all this information, together with changes in policy and outlook, to enable the combined effects of economic forces in each major agricultural region to be assessed.

We have lost the momentum created by the 1952 statements of rural production policy¹⁵ linked with the idea of production aims. This has been lost partly because of lack of follow-up action to implement the policy, and partly by the failure to integrate this statement of policy in our extension programmes. Crawford's Fisher & Farrer Memorial Orations,¹⁶ the various Commodity Situation and Outlook Reports of the Bureau of Agricultural Economics, and the Quarterly Review of Agricultural Economics, all indicate the scope for incorporating more information about policies and markets in our extension programmes.

An annual Agricultural Policy and Outlook conference would provide a forum for assembling and discussing problems such as these. It could cover analyses of recent policy decisions and discussions of the

¹³ E.g. *Income Tax for Farmers and Graziers* (4th Ed., Commonwealth Government Printer, Canberra, 1957) contains a full and readable account of provisions of the income tax laws as they apply to primary producers.

¹⁴ L. W. McLennan, "The Significance of Changes in Wheat Acreage in Western Australia," *Quarterly Review of Agricultural Economics*, vol. IX, No. 4 (October 1956). R. M. Boeree, "Rural Labour in Australia," *Ibid.*, vol. X, No. 2 (April 1957). F. H. Bollman and A. B. Ward, "The Changing Distribution of Australian Dairy Cattle," *Ibid.*, vol. XI, No. 2 (April 1958). K. Suter, "Movements in Australian Sheep Numbers Since 1943," *Ibid.*, vol. XI, No. 4 (October 1958). More detailed data on each of these subjects, as well as a detailed review of changes in areas under improved pastures in different localities, are available from the Bureau.

¹⁵ As expressed, for example, in *Agricultural Production Aims and Policy*. Issued by the Minister for Commerce and Agriculture, Commonwealth Government Printer, 1952.

¹⁶ J. G. Crawford, "Economics—The Nation and the Individual," *Agricultural Gazette of New South Wales*, vol. 68 (1957), p. 518. *Australian Agricultural Policy*, Joseph Fisher Lecture in Commerce, University of Adelaide, 1952.

outlook for both costs and prices. Such a conference might be sponsored by the Commonwealth Government and be attended by a wide range of representatives from extension services and industry, and others such as scientists concerned with planning research programmes, representatives of banks, trade unions and the like. Much of the information is already assembled and published, but a forum for discussion would increase its effectiveness.

Farm Management

Reviews of the usefulness of farm management in extension work are already available,¹⁷ and it is proposed here merely to draw attention to some points which appear to be of particular interest or importance. We are gradually accumulating the necessary knowledge, by means of surveys, to enable extension programmes to incorporate economic aspects of production problems. Despite the great usefulness of surveys for this purpose there is still a very important role for more detailed case studies and for farm account books, as an aid to extension workers—whatever their value as research tools may be.¹⁸

No extension programme can hope to cater for all individual needs. The range of problems to be solved, and the rapid changes in available techniques which come to hand make it feasible only to stress where facts can be found, and how decision-making problems can be solved. Beyond that, the farmer must be left to find his own salvation. For these reasons, we are on the right lines in stressing to farmers how to go about analysing the costs and benefits of different alternatives. Thus budgeting (and linear programming) become the core of advice to individual farmers provided they are founded on an understanding of decision-making processes, and on adequate data about input-output relationships. Budgeting and linear programming have an important role in working out general recommendations for the district, as well as specific detailed ones for individual farmers. Our research should be designed to provide data to serve these purposes.

The extension worker, for his part, should be able to identify separately for each category of farmers the critical items of money cost or of other costs which influence the farmer's decisions, and which therefore need to be incorporated in, or superimposed on, the budget. Advice of this kind can become very costly and farmers can reasonably be expected to contribute to costs of detailed individual advice.

One factor which needs to be considered in the budgeting process is the effect of changes in capital values, and the possibility of capital gain, in analyses of farm management decisions. Much of our economic analysis, arising as it does from production economics, quite properly is devoted to analyses of productivity of resources within specified time periods. Problems of definition of capital and identification of capital

¹⁷ For example, D. B. Williams, "Farm Management Research in Australia," *Journal Aust. Inst. of Agric. Sc.*, vol. 19, Nos. 3-4 (September-December 1953), pp. 158-166, 226-237.

¹⁸ A more detailed discussion is presented in H. C. M. Case and D. B. Williams, *Fifty Years of Farm Management*. (University of Illinois, Urbana, 1957.)

values arise, but are often then set aside as irrelevant to analyses of production problems. But we need to think more carefully about the effects of expected capital gains, as distinct from trading profits, on management decisions. In an era of rapid economic change, expectations about future earnings may well be governed by changes in capital values as distinct from purely "trading" or "revenue" gains. Instead of including this important factor in "other factors which remain equal," we need to analyse it and expose its complexities. Our income tax laws, which do not tax capital gains, have thrown emphasis on this aspect of farm management.¹⁹

This influence of prospects of capital gain in a dynamic economy leads me to my next point. In an era of continual technological change, it is far more important to be doing the right thing than to be worrying too much about fine adjustments in accord with changes in cost-price relationships. Recent advances in our knowledge of the part played by sulphur and zinc in superphosphate applications cannot but stress the need for care in interpreting input-output relationships. In New South Wales in some areas many of the so-called phosphate responses are now known to be sulphur responses. In Western Australia, a change in the source of supply of rock phosphate used for manufacture of superphosphate led to quite marked differences in response rates. Further study revealed that zinc impurity levels in the two sources of rock phosphate varied so much that in some zinc-deficient areas they were responsible for the differences in responses. Identification of the separate responses to zinc and to phosphate therefore became the important issue.

This leads one to say that the aim in extension work should be to get on to the right production surface and not worry too much about location on that surface, especially when this is subject to uncertainty anyway. Some changes can be made to the farm organisation in the balance of different farm enterprises as cost-price relationships change between those enterprises. But we are worshipping a false and transient image, in the present state of our knowledge, if we try to base extension programmes on changes in input levels, up and down, in accord with changes in cost-price ratios. W. W. Wilcox has expressed this view in these terms:

"This analysis also suggests that the manipulation of existing data using formulas based on our equilibrium models gives us answers which cannot be useful, because the assumptions of the equilibrium models are not approximated in real life. And the writer at least is sceptical about the practical value of the current emphasis on refinement of the static production and resource substitution functions for existing technologies. The pressing economic problems in production in this generation are

¹⁹ See, for example, "Drought Feeding of Sheep," *C.S.I.R.O. Leaflet No. 23* (1957), especially Table 4, where an example is presented of the effects of changes in capital value of sheep which survive a drought.

Again, see *Poultry Farm Management Survey, 1957-58*, Department of Agriculture, Victoria. In this survey some farms were described as follows: "From a poultry farming point of view this is almost certainly uneconomic, even taking into account the value of nearness to suburban markets. It must be remembered, however, that although they are not showing a high return as a poultry venture, as a real estate investment, these farms have, in almost all cases, great potential."

associated with and grow out of the social process of incorporating the continuing stream of new technologies into the farm production process."²⁰

This emphasis on the social problems involved in introducing new changes on farms, and on ensuring that the correct technology is being used, is appropriate under present-day conditions in Australia.

In a similar vein, pointing towards the inadequacy of too much emphasis on the ideal of optimum resource use, T. W. Schultz has recorded the following viewpoint:

"The malallocations in resources in agriculture associated with economic development are in the main not the consequences of bad farm management *per se* but of particular imperfections in the way the factor markets work when subjected to the strains and stresses of economic development."²¹

To realise the significance of Schultz's remark in relation to the Australian environment, one needs only to look to experiences such as the shearers' strike in the pastoral industry, the restrictions on road transport, land tenure systems, existing rural credit facilities and perhaps pricing policies for agricultural machinery, fertilisers and chemicals. Factors such as these are often critical in determining management decisions.

Conclusion

Research and extension services for our rural industries are an essential part of our agricultural policies. They form part of our institutional system within which economic forces can operate. Our extension work is one of the "fringe" factors which Professor Campbell is disposed to discount,²² but I feel that it is a vital part of our agricultural policy.

In our dynamic economy we are faced with rapid changes in technique and evolutionary changes in tastes and in institutions.²³ We need to ensure that information becoming available from research is presented in such a form that farmers are fully aware of the constantly changing range of economic changes available to them.

This information needs to be presented in a form which meets the needs of rural people, rather than one determined by the subject matter

²⁰ W. W. Wilcox, "Effects of Farm Price Changes on Efficiency in Farming," *Journal of Farm Economics*, vol. XXXIII, No. 1 (February 1951), p. 65. In a personal communication, written in January 1959, Dr. Wilcox kindly made the following comment on this paragraph:

"Developments since 1950, in my opinion, have confirmed my observations at that time. In 1950 I changed to my present position and have never developed that particular line of thought any further.

"I have had practical farming experience both in Wisconsin and in Virginia in recent years, however, and I find the important management decisions are those concerned with the adoption of new techniques or new production functions. The theory of the more refined models makes excellent teaching materials of a type and the relevant data may be accurate, yet when one applies the test of economic significance under farm operating conditions he usually finds that other variables not included or held constant in the model are the key to more profitable farming practices."

²¹ T. W. Schultz, *Economic Organization of Agriculture*, McGraw-Hill Book Company, New York (1953), p. 253.

²² See his review of my *Economic and Technical Problems of Australia's Rural Industries* in *The Economic Record*, vol. XXXIV, No. 68 (1958), pp. 271-3.

²³ For an excellent review of possible future changes and their implications for extension services, see A. N. Duckham, "Extension Work and the Future," *FATIS Review*, vol. V, No. 4 (August 1958).

interest, or specialised knowledge, of extension officers. But there is a role for subject matter specialists in extension work, and one such specialist is the agricultural economist. His primary role at this stage is one of integration of the work of the different other subject matter specialists. In due course, as a discipline of extension develops, the extension specialists themselves will assume this responsibility, using the concepts of agricultural economics as a basis for doing so.

As the profession of agricultural economics develops, it should retain flexibility of method and content to ensure that it meets the changing needs of an evolving extension service. Recently I mentioned to one of the State Directors of Agriculture that our Society was holding this Symposium. He replied, "Well, I hope the Society will define, in a positive and constructive way, what is needed to help our extension services make full use of agricultural economics and farm management. What else needs to be done, from now on?"

It is by looking to future needs and opportunities in this enquiring spirit that further progress can be made.