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AGRICULTURAL ADVISORY SERVICES IN U.S.A.

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THERE ARE TWO POINTS about this paper which should be made clear from the outset. First, it is not proposed, as the title of this paper may suggest, to describe in detail the full range of advisory services available to the American farmer, but rather to give a brief account of impressions of the advisory services the writer had some contact with, and to go on to discuss some aspects of them which it is felt have application in this country.

Second, as the visit to the United States was not made specifically to study American farm advisory services, this paper is not submitted as anything more than a record of impressions and observations gained intermittently during a period of 10 months.

As in New Zealand, the key man in the American farm extension service is the county agent, who corresponds to our local instructor in agriculture. The county agent's job, however, embraces much wider terms of reference than his counterpart in this country. Among other things, the county agent is responsible for much of the work of the 4-H Clubs (roughly the equivalent of our Y.F.C. organization), including the establishment and assessment of the practical projects which all members of this organization undertake. He thus spends a comparatively larger proportion of his time working with the younger generation; his influence starts early and is maintained and continued into adult life.

It seems to be the accepted principle of the American service that the adviser should work not only for but with farmers, that is, that he should have the co-operation and advice of a chosen group of farmers (usually the ablest and most progressive) in the district in which he works.

In some States the county agent is paid partly from Federal and State funds and partly from county funds. This part dependence on local support has its *quid pro quo* as the local farmers' committee has the right to approve the applicant for the county agent's job. Furthermore, the agent must apply annually for the renewal of his county salary. This may

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sound as if the local farmers crack the whip over the head of their county agent. This measure of control at the local level, however, is a manifestation of the basic American concept that total dependence on Federal or State funds involves some abdication of an individual's democratic rights. More important, however, this system encourages local responsibility and local leadership, breeds pride of ownership in 'our' service, and keeps relationships between the county agent and the local farmers on a person-to-person basis.

It was from this system of county committees that developed the county programme movement. These programmes are prepared by the county committee in co-operation with the county agent, and are designed to meet the particular needs or problems of the district. For example, the committee and the agent may decide that the use of new maize varieties should be boosted in the district, or that an intensive campaign should be conducted to control some diseases of stock. Once these programmes have been agreed to, the full resources of the county's agricultural services, if necessary, are mustered to implement the extension campaign.

The county agent works as a general practitioner, but he has ready access to any one of a group of specialists in their respective branches of science, husbandry, farm organization and management, usually located at the Land Grant Colleges and experiment stations. As the administration of the extension services is directed from the Land Grant Colleges, the agent has a direct line of contact with specialist extension workers, research workers and teachers, and back through them to the farmers he serves.

In addition to all the purely agricultural services directed at the farmer, the American extension service pays particular attention to the rural home. The county agent is therefore partnered by the home demonstration agent who advises the rural housewife on home planning, food, household equipment, and wise spending. The indirect effects of this alliance of services is considerable. The farmer whose wife receives domestic advice is well on the way to accepting agricultural advice. Indeed, if she develops a taste for household improvement, he is given a painfully pressing incentive to improve his farming methods.

It could happen that a home demonstration agent could be called in by a farmer's wife to advise, say, on the planning of a new room for the farmhouse. The home demonstration

agent would be likely to discuss this later with the county agent who might point out that the farm in question needed money for a new barn, more fertilizer, or some other item of expenditure which would improve the efficiency of the farm's output. Assurances were given, in all seriousness, that both the county agent and the home demonstration agent would feel it their duty to convince the farmer's wife that it would be better to postpone the house alterations in the meantime, allow her husband to spend the money on a new barn, and for her to anticipate building a bigger and better room with the extra farm profits. This exemplifies the ultimate, albeit, most hazardous, in extension technique and zeal, and emphasizes the American approach to the farm as a complete unit.

Emphasis on Farm Management

This leads to the discussion of the most striking feature of the American farm advisory services, especially to a visitor. It is the emphasis on farm management and its economic background. Much of this is of comparatively recent origin, for the service, originally, dealt mainly in scientific and technical advice. The change in emphasis reflects the growing need for business efficiency on the farm. Technology can tell a farmer how to do a job but not how to choose which job to do.

Many States therefore have such schemes, as, for example, the Southeastern and Southwestern Minnesota Farm Management Services. This extension service is sponsored by the University of Minnesota, the agricultural research service of the United States Department of Agriculture and the county extension services of southern Minnesota counties. Both these farm management associations were organized by farmers and each farmer member pays an annual fee which covers only part of the cost of the service. The balance of the cost is met by the University of Minnesota and the United States Department of Agriculture.

Each farmer in the association is provided with a farm account book in which he records his farm operating expenses, receipts, livestock and crop data, personal living expenses, and so on. At the end of the year, the farmer sends his book to a centre where experts analyse his records, and send him back a detailed and comprehensive report in which the data for his farm business are tabulated alongside the averages for the top third most profitable farms and the bottom third least profitable ones. A simple thermometer chart superimposed on these

figures enables the farmer to locate readily his standing in respect to various measures of farm organization and management efficiency, such as labour earnings, crop yields, returns from livestock, and productivity per 100 acres. Five hundred farmers participated in this service last year, each paying about £8 for it.

A considerable mass of basic economic data for farms of various types has been accumulated over the years by agricultural economists at the Land Grant Colleges. From this material standards of performance have been selected which advisory workers can use as yardsticks of efficiency with which to judge the individual performance and to select the most paying enterprises for a particular farm business. Indeed, it seems that the Americans have been able to offer farmers a blueprint farming system valid for very large areas having the same soil type and climate.

The vast amount of economic intelligence disseminated to farmers from the United States Department of Agriculture and the Land Grant Colleges is further evidence of this policy of striving for increased efficiency in farm production and marketing.

Rural Sociology

The other aspect of American advisory services which impressed forcibly was the use made of rural sociology as a tool to get accurate information about the structure and organization of the rural community and to evaluate its needs including those on which to base extension programmes and techniques. In the eyes of the American extension worker, the farmer and his family are as least as important a part of the farm economy as his land and stock.

Earlier studies by American rural sociologists had the three main themes of the rural church, the rural home and family, and standards and levels of living. Later this work was expanded to include studies of rural social organizations, population, social stratification, man-land relationships, social participation and social change.

In the years following World War II at least five new or relatively new fields of study were developed by rural sociologists. They were health and medical services, the diffusion of agricultural practices, ageing, and retirement. More recently, rural sociologists have set about investigating the nature of the social processes by which new agricultural information and

techniques reach and are applied by the farmers for whom they were intended.

This is a highly logical development by sociologists located at the State agricultural experiment stations and is expected to expand in the future. Instead of working largely in the dark, the extension planner uses the rural sociologist's studies to tell him with a high degree of accuracy just what impact his extension techniques have on farmers, or on their attitudes in the adoption or non-adoption of recommended farming practices. He can then start out with a factual basis to work on to modify or to eliminate weaknesses in his extension organization.

So much for impressions of the American advisory services. These services are admirable for their highly-developed farm management approach to advisory work, for their pre-occupation with studying the whole economic set-up of farming and passing the results on to the people who can best apply them in practice, and for the way that they have been quick to sense the great possibilities in using rural sociology as an aid to improving their extension services as well as the whole cause of better rural living. It is these three features of American advisory services that provide lessons for extension workers in New Zealand.

Lessons for Extension Workers

It should be emphasized that under American conditions there is a wide choice in farming enterprises in crop and livestock production, hence the need for skilled management advice to help the farmer select the most profitable enterprises suited to his particular farm and resources.

New Zealand farmers do not face this problem because most of them are virtually restricted to choosing between one of two major enterprises—dairying or sheepfarming. What they do need, however, is a farm management advisory service which will help the farmer to pinpoint those weaknesses in his farming operations which are responsible for his lower output relative to that of his neighbour.

The need for advisory workers in this type of farm management in New Zealand was perhaps never greater than at the present time. The monetary return from farming is a major topic of discussion, while farmers and their leaders talk incessantly and vaguely about 'reducing costs'.

There is some encouragement in the knowledge that at least one senior officer of the Department of Agriculture re-

cognizes the need for advisory workers in farm management. Speaking to the New Zealand Institute of Agricultural Science two years ago, P. W. Smallfield, Assistant Director-General of Agriculture, said: 'Personally, I think that concentration on particular subjects in extension work has gone too far, and that any major expansion in services provided should be in farm management. Land, plants and animals should be considered together, and the improvement of farm enterprises planned on a business basis. Expansion on these lines has certain difficulties, and the one of major importance is the staff needed for a full service in farm management' (Smallfield, 1955).

The difficulties are not insurmountable. Rather than do nothing and wait hopefully for non-existent farm management advisory officers to materialize out of the blue, the Department of Agriculture should take a closer look at the potential material it has already in its extension staff, most of whom are graduates in agricultural science and have already had some training in farm business management and economics. These men could, if necessary, be further equipped for farm management work by intensive courses at the agricultural colleges. This would, of course, mean that extension workers would have considerably less time available to give purely technical advice to farmers.

That many New Zealand farmers consciously or unconsciously recognize the need for something more than just piecemeal advice given free by the various extension services is shown by the rapid growth of the Farm Improvement Club movement. Farmers who join these clubs and pay for the advice they get do so mainly because they desire more personal guidance in applying business principles to their farming operations. Results show that in most cases it has been possible for club advisers to assess the degree of efficiency in the use of the available resources of land, labour and capital, to diagnose faults in organization and management, and to substitute amended farming plans which have lead to increased profits, obtained, very often, at lower operating expenses.

Need for Research

As mentioned earlier, farm management advisory services in the United States are able to draw on a mass of basic economic data for farms of various types. With the exception of some studies begun only in recent years by the Meat and Wool Boards' economic service, there are very few economic data for New Zealand farming. Most of the economic studies in this country have been concerned with providing information

on costs movements for the annual review of the guaranteed dairy price. There are too few farm economists available to tackle the amount of investigatory work that needs to be done.

Much less has been done to study and analyse farmers' attitudes, values and opinions. This is surprising, especially in a country which is so dependent on farming.

In his survey of the New Zealand dairy industry, Hamilton (1944) speaks of the changing pattern of farm life in New Zealand, and expresses surprise that so little attention had been paid to rural sociology. 'Surely', he says, 'at least one of the agricultural colleges should support an active research lectureship in rural sociology'.

On his return two years ago from spending six months studying rural education overseas, Prof. L. W. McCaskill, of Canterbury Agricultural College, emphasized the task facing rural sociology in New Zealand. He said: 'There is still a tendency to regard the farmer as a unit of productive value. Governments are bound to think in these terms; but advisory officers, to be successful, must study the farmer as an individual with normal human characteristics and as a member of a living community. We should know more than we do about the farmer in his social and personal settings, we should be more aware of the influences that guide him in his economic and socio-economic activities. It is the job of rural sociology to supply this information.' (McCaskill, 1956).

Even more recently, extension officers of the Department of Agriculture in districts throughout New Zealand spent a lot of time conducting a survey to find out the extent to which short-rotation ryegrass had been used since it was first released to farmers. The report of this survey fell down badly in failing to explain farmers' attitudes towards the grass. In discussing the results of this survey at the last conference of the New Zealand Grassland Association, R. H. Scott (1957) said: 'I must explain that no one in New Zealand who is engaged in so-called farm management and farm economic investigation work has had any experience in obtaining from farmers their attitudes to adoption or non-adoption of particular farm practices'.

Except for Doig's (1940) 'Survey of Standards of Life of New Zealand Dairy-farmers' and the community study by Somerset (1938) in his *Littledene,* no other notable contributions have been made to our knowledge of rural living in New Zealand. This deficiency is not likely to be made good until the

educational institutions teaching agriculture are geared to provide degree courses in rural sociology.

Some of the more urgent rural sociological studies that need to be undertaken in New Zealand include farm labour; occupational ambitions of farm youth; migration from rural to urban areas; the problem of the small farm; tradition in farming and acceptance of extension activities; and the relative impact of the various media of communication used in agricultural extension work.

Summary

A great deal can be learned from at least three aspects of American agricultural advisory services, namely:
(1) The farm management approach to advisory work.
(2) Agricultural economic studies.
(3) The use of rural sociology to measure, evaluate and interpret the structure and organization of rural life, but even more, the attitudes and values which really determine what farmers will decide to do, and not what extension workers think they should do.

To quote a slogan frequently heard in the United States, extension in agriculture should be aimed at 'Better farming; better business; better living'.

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DISCUSSION

Q: : *What percentage of the cost of extension services is provided by the farmer in the United States?*

A: : Agricultural advisory services in the United States are available free just as they are in this country. These services are provided from Federal

and State taxes on all sections of the community. Certain services, such as the Minnesota Farm Management Service I mentioned, are paid for partly by the participating farmer.

Q: : *Has the U.S. county agent a smaller group of farmers to advise than an extension officer of the New Zealand Department of Agriculture?*

A: : I do not know the exact ratio of the number of farmers served by one county agent. Normally in a State there are the agricultural extension specialists who for the most part have their headquarters at the State college of agriculture, and the county extension staff located in every county in the State. They include the county agricultural agent or agents, and assistants, 4-H Club agents, county home agents and their assistants and soil conservation agents. The number of extension staff varies, naturally, with the size of the county and the density of its farming population. I would say, however, that the ratio would be higher in the United States than in New Zealand.

Q: : *Would I be right in assuming that there is not much 'on the farm' advice by U.S. county agents?*

A: : No, such an assumption would be incorrect. Just as our instructors in agriculture in New Zealand use mass media techniques to put their extension story across so do the American county agents adopt similar methods of approach. Both here and in the U.S. personal farm visits are made if farmers request them.

Q: : *In view of the fact that seeing a neighbour doing a thing has been shown to be the most important (in the U.S.) in causing a farmer to adopt a practice, what is being done to make advisory services more directly effective in the U.S.?*

A: : I doubt very much whether the statement that farmers get their information largely from their neighbours is valid for the United States as a whole; it might have been shown to be the case for one State, but I am sure it is not applicable nationally. In fact, I have seen evidence from other State surveys on where farmers get their information which showed that magazines or newspapers were accredited with being the source most commonly used. It is therefore impossible to generalize and say that any one particular extension source or medium is used by farmers more intensively than another in the United States.

Q: : *Part of the answer surely is not how the extension officer tries to change the farmer, but rather that the extension service knows where the farmer gains his information! The extension attack can thus be directed to the leaders of the rural community with the knowledge that other farmers will follow their leader.*

A: : That is what I liked about the county agent working in close cooperation with local farmers' committees. The American extension service knows the extent of its impact on the farmer because it has developed survey techniques to find the answer. We should be doing the same thing in New Zealand.

Q: : *Surely the source of advice will depend on the type of question? Thus a farmer may want to know what type of corn he should grow—information easily obtained from neighbours; or he may want to know whether he should grow corn at all—advice not easily obtained from other farmers.*

A MEMBER: : I recall that in a survey of the top farms in Minnesota the only factor common to the group was the quality of the farmer's wife; this would be a difficult factor to alter! From what I saw of differences be-

tween States, conflict between different parts of the extension service, failure to utilize DHIA records and the like, I very much doubt whether, on the whole, the U.S. extension services are much more effective than those in New Zealand.

A: : I want to make it clear that I selected only farm management advisory services and the use of rural sociology as practised in the American agricultural extension services as aspects which would be well worth study in New Zealand. I hold no brief for the relative efficiency of the U.S. agricultural extension services nor for the readiness of American farmers to utilize them. I suppose American farmers are no different in their attitudes toward asking and accepting advice than their fellow-farmers in this country.

DR. W. M. HAMILTON: : I think there are two factors which differentiate the needs of the New Zealand and U.S. agricultural community in regard to extension. First, the much smaller size of New Zealand results in a much closer contact between the research worker and the farmer; secondly, the level of education in New Zealand is much less variable and the standard of rural education is as high as that of urban education.

A: : I agree that there is greater equality of education in New Zealand than there is in the United States, especially at the elementary and high school level. I doubt, however, if the farmer-research worker relationship in the United States is as remote as it may appear to be. The agricultural colleges and experiment stations in the various States seem to do an excellent job of public relations, and as I mentioned in my paper, the organization of extension services is such that there is a two-way channel of communication from the farmer through the county agent to the teacher and the research worker and back again. We cannot claim to have progressed to this stage in New Zealand.