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# The Extension Worker And His Work

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IN preparing this paper I have confined myself purposely to the type of extension work which is being carried out in the livestock and arable farming fields by officers of the Extension Division of the Department of Agriculture, the Dairy Board's Consulting Officers and by a number of other workers along similar lines. At the outset, I would like to make it clear that in thus limiting the boundaries of my comments, I am not implying in any way that I have not a full appreciation of the very useful work done by other branches of farm extension. The limitation is necessitated by the scope of the subject and the patience of my listeners.

I accepted the invitation of your committee to give this paper with some hesitation as I realise my own limitations. The opinions that I hold on this subject have been formed over a period of 23 years as an agricultural journalist, in the course of which, I have come into contact with and formed many friendships among extension workers and have had the opportunity of seeing them at work under a fairly wide range of conditions.

I propose to deal with my subject under broad headings, defining extension work as I visualise it, giving my idea of the essential requirements of a good extension officer, making some suggestions as to the selection and training of men for extension work, going on to deal with the channels of extension and what I consider to be the most effective methods of assisting the field worker and concluding with some comments on present and possible future extension organisation.

## DEFINITION OF EXTENSION:

Firstly, to endeavour to define extension. An effective extension service must work in two directions. Extension is a two-way bridge between agricultural research and the farming community and if it is to be effective, research and extension must work in close co-operation. The task of extension is not only to bring to the farmer the knowledge and help—largely based on the findings of research—that will enable him to farm more effectively and increase his income, but also to provide research with an assessment of the value of its findings when translated into farming practice. Extension must study as well as advise, must be constantly analysing and evaluating the merit of different farming practices. It is the link between science and practice and at the same time the measuring stick for the effectiveness of scientific findings when they are translated into practice. Extension should provide a live and vigorous intelligence service for research on the farming front. Every new finding of research should be carefully appraised in the cold light of practice and in addition, with its close contact with the factual position on the farms, extension should point the way to problems of immediate significance to the farmer which justify investigation by research workers.

But not all the worthwhile ideas in farming practice come from our research stations and scientific institutions. Many of them are born of the ingenuity and enterprise of individual farmers, or of agricultural engineers. A good example of this is to be found in modern silage-making methods. The buck-rake and the wedge-shaped clamp—two innovations which have contributed much to the streamlining of silage-making over the past two years—were both thought up by the same British farmer, who set out to find a means of streamlining his own large scale silage-making operations. Many worthwhile labour-saving devices and sound innovations in farming practice

which have been thought up by individual farmers to meet their own particular problems could be of value to other farmers. It is one of the jobs of extension to see that this information is circulated. To my mind some of the most effective work that can be done in the farm extension field is the passing on of information on the results achieved by successful farmers and the methods used to obtain those results. There is no more effective way of impressing a farmer with the soundness of a particular practice than by telling him and, where possible, showing him the results achieved by other farmers who follow that practice.

### REQUIREMENTS OF A GOOD EXTENSION OFFICER:

Having tried to define the aims of extension as I see them, we now get down to the extension officer himself. For, whatever the organisation behind it, an extension service will in the long run depend for its success upon the calibre of the men who are doing the job. What are the requirements of a good extension officer? Of all those factors and qualities that go to provide the necessary background, I think there are four main essentials and my listing of them is not necessarily in order of their relative importance:—

- (1) A sound, practical grounding in his subject.
- (2) Enthusiasm.
- (3) A questing mind.
- (4) Ability to sell the principles and practice of good farming to farmers of widely differing personality and outlook.

The first item on my list—"a sound practical grounding in his subject"—could really be taken for granted and would call for no other comment if it did not raise another question—and an important one. I have heard the opinion expressed frequently that a degree in agricultural science, or at least a diploma in agriculture, should be regarded as one of the essential qualifications for a worker in the extension field. I would agree that a training in the scientific principles of agriculture, such as is provided in the degree or diploma course, would be an excellent initial grounding for a future extension officer—of great assistance to him in his contact with research workers and in his field work generally. But I do not agree that lack of qualification in agricultural science should necessarily be a bar to a man of reasonably mature years who has a sound background in farming practice and who possesses all the other essential attributes for extension work.

I have formed this opinion because some of the most outstanding extension workers that I have met in the course of my job—men who have the full confidence of the farming community in the areas in which they are working and are leaving an indelible imprint on our farming pattern—have graduated only in the school of practical experience and possess no scientific qualifications whatever. These men may start off with an initial handicap, but in many cases, over the course of a few years of close contact with scientific workers, they acquire a useful working knowledge, at least of the basic essentials of agricultural science.

On the other hand, a man with a first class academic record at one or the other of our agricultural colleges may lack the ability to pass that knowledge on to the farmer and at the same time to so enthuse him that he is eager to put the advice into practice. So far as future extension workers are concerned, the training they receive in a degree or diploma course at an agricultural college is lacking in one essential in particular—they get no training in extension. So far as I know, this is not peculiar to New Zealand, but applies also to Britain and a number of other countries. To my mind it is a serious deficiency and one that should be remedied.

As to the second essential—"enthusiasm"—no extension worker can succeed without it. Extension work is really good farming in a vicarious form. Instead of applying his knowledge to the farming of his own land, the extension worker passes it on to others to apply and his satisfaction in his work comes from the success that these others achieve through the application of his advice. To the real enthusiast there is a lasting reward in that satisfaction. He needs enthusiasm too to bear with the disbelievers, the doubting brethren in his flock and—human nature being what it is—with those few of the hard shelled variety whom he will certainly meet and who will seek his advice, take it and thereafter take all the credit for themselves for the success that they achieve. For the most part though, if an extension officer does his work well, he will find his enthusiasm fed by the genuine appreciation of the farmers amongst whom he works.

A good extension officer must be able to analyse the value of different farming practices under the conditions ruling in his area. He must be able to probe and challenge the findings of research in the light of practice if he is to give effective service at one end of the two-way bridge. For this aspect of his work, a questing mind is an essential part of his equipment.

And obviously, if he is to do an effective job, an extension worker must be able to sell the principles of good farming to the farmers that he contacts in terms that they can understand and appreciate. To do this, he must in the first place be able to distill the somewhat tortuous technical jargon in which some scientists cloak sound advice into good plain English. The average New Zealand farmer has a genuine appreciation of the value of the work done by agricultural science in his interests, but most farmers are too busy to grapple with the language of the scientist. They are looking for advice in a form that they can apply directly in their own practice, and this is the form in which it should be given to them.

For many years the farming community has been the No. 1 target for a wide range of sales campaigns. Salesmen of many types burn up vast quantities of petrol every year roaming the countryside, calling upon farmers and exercising their talents. While many of these men are giving a worthwhile service and some are helping the cause of extension, there are others who are just a nuisance to a man who wants to get on with his work. So it is not really surprising that a proportion of our farmers have their protective mechanism fairly well developed.

Extension work is really a highly specialised form of salesmanship—differing from other forms in that the extension officer is not seeking a commission on the deal. He's merely trying to help the farmer by selling him the idea of helping himself. To this end he can guide and advise, but must avoid any attempt at direction. He must study the psychology of his contacts at the outset and determine the most effective method of inoculating them with a measure of his own enthusiasm for the principles and practices which he believes will assist them to increase production.

This part of the job calls for a sound knowledge of human nature, plus tact, patience and the ability to be a good listener as well as a sound talker. Every farmer has his own ideas about his farm management and he wouldn't be human if he didn't like to talk about them. Time spent in discussion, listening to the farmer's opinions, drawing him out on certain points and gently inserting his own views as opportunity offers, is usually fruitful time for the extension worker. It's as good a way as any to get to know the farmer and to build up his own background on district conditions. Frequently too, he will gain worthwhile ideas that he can pass on to other farmers.

It would be folly to suggest that there are any hard and fast rules on which an extension worker can fashion his approach to farmers however. The really outstanding workers in the extension field that I know and have seen at work all possess the four essentials that I have named, but their method of getting the information across to the farmer varies in accordance with the extent of their experience in the work and their personality.

The young extension worker, starting out on the job, has a particularly hard row to hoe. Most of the farmers that he is contacting are older men than he is and he is hampered in his approach to them by his age and paucity of experience in the field. A young extension worker needs some knowledge of farmer psychology and more than average tact if he is to succeed in his purpose and win the confidence of farmers. Under present circumstances, this is a branch of his work in which he receives next to no training before he goes out into the field.

### **TRAINING OF EXTENSION WORKERS:**

This brings us to another most important aspect of any extension service, the selection and training of its workers. To my mind it is more by luck than management that we have so many good extension workers in the farming field in New Zealand today. This specialised service which is capable of making as great a contribution to the national prosperity as any—a service that is essential to our farming development and that calls for outstanding qualities in its personnel—lacks any specialised form of initial training for its workers which will target their thoughts, energies and ambitions towards extension from the time that they enter agricultural college.

It would be interesting to know what proportion of the young men who enter our agricultural colleges with the idea of graduating for work in some branch of agricultural science actually set out in their training with the firm intention of going into the extension field when they qualify. From what I have been told by a number of our younger extension workers as to their original ambitions, I believe that in all too many cases, extension work is a second choice, determined by expediency rather than by initial inclination. There was not an opening in research for them when they graduated and so they turned to extension. I am not suggesting that a fair proportion of these men do not make really good extension officers, but I do suggest that it is a somewhat haphazard way of providing the manpower on whose work extension depends for its success.

I believe that the importance of our extension service justifies its own special scheme for the selection and training of workers, that every effort should be made to encourage young men of the right type, and preferably with a grass roots background, to set their sights on agricultural extension as a future career at the stage when they are still in high school. The most effective means of providing that encouragement would, I consider, be a bursary scheme, similar in many respects to that operated by the Veterinary Services Council for the training of young New Zealanders in veterinary science. I would suggest that in this case, students of suitable type should be selected by a special committee representative of the extension services, educational authorities and the farming community, and set up by the Government for this purpose. The committee could also administer the bursary funds, which should, I consider, be provided by the Government from education allocations.

The bursaries should meet the costs of taking the degree course in agricultural science at either Massey or Lincoln College, with special extra provision for training in extension. In addition to the subjects necessary for their degree course, these extension bursars

should also receive training in public speaking and debating, in the art of radio broadcasting and in such aspects of public relations work as will assist them in their future career. They should spend a proportion of their long vacations attached to extension workers in the field, gaining experience of the work and its problems. And finally I would suggest that on graduation, they should spend twelve months gaining practical experience of farming before being employed on extension work. The granting of a bursary would, of course, be conditional upon each bursar signing an undertaking that on graduation he would spend a minimum of five years working in the extension field.

Such a scheme should provide the extension services of this country with a constant supply of recruits of the right type—young men whose abilities and ambitions have been targeted towards extension from the high school stage onwards and who have received an intensive training, aimed at giving them the best possible foundation for their future career.

### **CHANNELS OF EXTENSION:**

Having dealt with the essential qualities which I believe are required in an extension worker and given my ideas on a system of specialised training for the job, which, I would expect to develop those qualities, what about the channels of extension—the methods that it uses in aiming to fulfill its function. These are extensive as they bring into the picture a number of people, apart from the actual extension worker in the field, all of whom are really assisting him in his work in a major or minor degree. In addition to the individual contact by extension officers on the farm, methods by which information on sound farming practices is being disseminated to the farmer include:

Farming journals and farming features in newspapers and periodicals, farming extension pamphlets.

Radio broadcasts.

Instructional films and film strips for use at farmers' meetings.

Short courses at the agricultural colleges and research stations.

Organised and conducted tours of research centres and other farming districts by groups of farmers.

Visits by groups of specialists to farming district for short periods for the holding of field days and meetings.

A soundly directed farming press, aimed at spreading the gospel of good farming methods and keeping the farmer up-to-date on developments in scientific agriculture, must play an important part in extension and assist the extension worker in the field. Through the medium of the written word the agricultural journalist is an interpreter between the agricultural scientist and the farmer in much the same way as the field extension worker interprets through the spoken word. Farming magazines depend for their circulation on the soundness of the material they contain and on the presentation of this material in a form in which it will be read by the farmer. Through their pages, and through the farming features in the general press, information can be rapidly and widely disseminated. This holds for extension pamphlets also.

Radio broadcasts can be another effective means of providing a wide coverage of the farming community. Like journalism, broadcasting is a specialised field, calling for special talent in the presentation of the material. For some years, farming broadcasts in this country were notable largely for their extreme dullness, consisting

almost entirely of papers prepared by busy workers in the field of farming science and at times obviously prepared in a hurry. More recently, however, there has been a very marked improvement, both in the selection of the men making the broadcasts and in the manner of their presentation. The use of the tape recorder by the National Broadcasting Service for interviews between extension workers and farmers on the farms and of discussions with workers at research stations has, to my mind, vastly improved the farm listener appeal and at the same time the effectiveness of radio extension work. Discussion groups composed of research and extension workers and farmers and farming "brains trust" sessions should be another means of stimulating interest in farming broadcasts.

The value of the instructional film and of the film strip in extension work has been so well demonstrated that it needs little reference, except perhaps, to say that the work of the Dairy Board's Herd Recording Department in the film field has provided convincing evidence of the fact that first class instructional films can be produced by some amateur film-makers. Furthermore, they can be produced at reasonable cost. As a magnet to draw farmers out to a meeting on a cold winter's night, there is nothing to compare with a film and meetings enable the extension worker to widen his coverage effectively.

The success of the special farmers' "weeks" held at the agricultural colleges and at the Ruakura Animal Research Station in the winter months can be measured in some degree by their expansion. At these gatherings the farmer has the opportunity of hearing leading scientific workers discussing problems and practices which concern him in his farming and of bringing himself right up to date on developments in farming practice.

The group tour by farmers, organised by and under the guidance of extension workers, can be another most effective extension medium. Every farmer must benefit from observing at first hand the methods of successful farmers in other districts and swapping ideas with them.

The descent of a group of research and extension workers upon a farming district for a series of field days and meeting has a double advantage. The research worker can talk over his own work with farmers on their own farms and this must benefit both parties. The time that can be devoted to this type of work by the average research worker is, of course, strictly limited, but where time can be spared, I think it is well spent in this direction.

In the long run, however, provided there are sufficient workers to provide adequate coverage, the most effective work in extension must be done by the individual extension officer, working in the field in a defined area, contacting the farmers and passing on sound knowledge by every means at his disposal. He is the spearhead of the extension effort and at the same time the eyes of research in the field. He should therefore be given all reasonable freedom and assistance to get on with his job.

Assuming that he has this freedom, the methods he employs and the effectiveness of his coverage will be governed very largely by the number of farmers in his area, the extent of that area and the farming conditions pertaining there. So far as personal contact is concerned, we are still a long way from the point where every farmer in New Zealand can expect to be visited by an extension officer on his farm at least once a year. Thus, while personal contact with the farmer on his farm is undoubtedly the most successful method of extension from the viewpoint of the individual farmer, the worker's problem is to spread the results of his work over the widest possible proportion of farmers in his area each year by a blend of this method with others.

While on the subject of extension work on individual farms, I would suggest that some of the most valuable work achieved to date in extension in New Zealand has been in the direction of group farm improvement schemes. The Dairy Board's Production Improvement Project is a striking example of this type of work, centred on farms selected because their average herd production is below the average for their group. Each of the farms is visited by one of the Board's Consulting Officers, who explains the principles of the project to the farmer and invites his co-operation. If the farmer is willing, then the Consulting Officer goes to work to co-operate with him in drafting a three year plan to lift production by the quickest possible means and at the smallest possible total outlay by the farmer. At intervals over the three years he re-visits the farm to discuss progress and give any further guidance that is needed. Seventy two farms completed three years under the P.I.P. scheme at the end of the 1950-51 season. After deduction had been made from their actual increased output to allow for unusual seasonal conditions, the average increase in production for the 72 farms was 1,500 lb. butterfat, or 16 per cent. Ninety more farms completed their three years under the scheme at the end of last season and on the same basis they showed an average increase of 2200 lb. butterfat, or 17.6 per cent. Equally interesting is the fact that the advisory work involved occupied considerably less than 20 per cent. of the total working time of the five Consulting Officers concerned.

Projects such as this and the Extension Division's Group Farm Improvements Schemes represent the fulfilment on a small group of farms of the ideal in individual extension work, but the effect of this work spreads far beyond the actual farms in the scheme. There is a "snowballing" effect to this kind of extension, for the results achieved on each farm stimulate interest amongst other farmers in the area and since most farmers are public-spirited enough to show the other fellow what has been done and to discuss it with him, a large number of these properties have become in effect private demonstration farms — "pilot plants" for sound farming methods in their districts.

I would like to see this "pilot-plant" principle extended to the stage where every extension worker had a number of these units scattered through his area. For I am satisfied that there is no quicker way to convince a farmer of the soundness of any practice than to show him the results of its application on a farm in his own district, broadly similar to his own. These improved farms are the logical bases for the district field days which should be part of every extension officer's programme, aimed at a wider coverage than is possible by individual visits.

Another recent development in extension practice which should assist the extension officer to contact more farmers and spread the work more widely is the formation of groups of farmers who are prepared to meet periodically and discuss work of practical importance taking place on their farms. The extension officer for the district attends as many meetings as possible and acts as secretary for the group. Nothing but good can come from group discussions of this nature, confined entirely to farm, herd and flock management problems.

The Young Farmers' Club Movement offers another fruitful field for group extension work and the Extension Division of the Department of Agriculture have done very good work in the fostering of this movement and in the education of its members in sound farming principles. Young men starting out in farming are mostly eager to learn and progressive in their outlook and they will frequently carry home from the Y.F.C. field days and demonstrations, good evidence with which to convince their elders.

## ORGANISATION AND ADMINISTRATION OF EXTENSION SERVICES:

So much for the methods available in extension work, now what about the organisation and administration of our extension services as a whole. Over 95 per cent. of the full-time extension workers in the livestock farming field in New Zealand are officers of the Extension Division of the Department of Agriculture. The work of the Extension Division has been ably dealt with by Mr. Smallfield in his paper. The Division has done a great deal for New Zealand farming and is doing a very good job today within the strict limitations which unfortunately appear to be inseparable from any large bureaucratic organisation. The reputation of the Division, based on the work of its field officers, stands high in a great many farming districts in New Zealand, but I believe that those officers could do an even better job if some means could be devised of freeing them from their part-time duties in the administration of other services, such as seed certification, and the administration of the Young Farmers' Club Movement (as apart from extension work in the clubs), if their paper work could be cut to a reasonable minimum instead of holding them to their offices for a considerable proportion of their time as at present and if every officer could be allowed to devote at least 80 per cent. of his time to straight extension work. Earlier in my talk I mentioned freedom as a major factor in good extension work and one wonders whether it is possible to achieve a full measure of freedom for your workers in the field when they are under the control of a Government Department, which, however liberal its administration may be compared with other departments, is inevitably more restricted in its policy and more cautious in its approach than an autonomous body would be. Reasonable caution is justified, but undue caution can be a potent inhibiting influence on extension work.

While I believe that extension work in the farming field—which is essentially educative and which should have a direct influence on the national income in a primary producing country—is very largely the financial responsibility of the Government, I think that a more effective extension service could be given if the personnel and operations of the Extension Division were removed from Government control and placed under autonomous direction. I would suggest a Council of Agricultural Extension, set up by statute, comprising representatives of the Government Departments concerned and of the farming industry. The Council could be charged with the responsibility of administering the funds provided by the Government for the purely extension activities of the Extension Division and given the right to re-organise the extension service if it considered that this was justified.

As its chief executive officer, the Council would have a Director of Extension, who would supervise the organisation and administration of extension in accordance with the policy which it laid down. The organisation would include a statistical survey department for the collation and analysis of data on the efficiency of various practices collected by extension officers in the field. Field survey work has provided research and the farmer with much useful information in recent years, and there is ample scope for its expansion.

It is not easy to forecast the shape of the future extension policy likely to be laid down by an autonomous body of this nature, but I believe that it might ultimately take the form of a combination of the present type of service with a more strictly localised and much more intensive service, such as that now being provided by a farmer-financed extension club in the Franklin district. Mr. Athol Wood, who is the next speaker, is the chairman of the executive of the Franklin

Farm Improvement Club and will no doubt be explaining the basis of its organisation and its plan of operation in his paper. It is encouraging to find a group of farmers sufficiently confident of the value of an extension service to regard it as a sound investment. Since the effectiveness of extension under a club scheme will be limited to the club members, who will get the full value of a more intensive service, I believe that farmers who wish to organise similar clubs will also be prepared to pay membership fees to assist in financing their club's operations. But if under the set-up suggested, there should be a demand for extension service on the club principle, I see no reason why the clubs should not also be assisted by subsidy from the Council to meet portion of the salaries of their extension officers.

In conclusion I would again affirm my earlier contention that extension work stands or fall on the calibre of the men who are doing the job and on the degree of freedom, and assistance that they are given in their work. I think that it is time that agricultural extension was given its true status as an essential national service and that the present somewhat haphazard method of recruiting workers to the extension field was replaced by a specialised training scheme for selected bursars whose energies and enthusiasm would thus be directed towards extension work in their formative years.

And finally the organisation of extension work would be so directed that it will give the workers now in the field and the young men who would be coming along under the scheme every encouragement and assistance to carry on and further extend the good work that has been and is being done in the interests of greater production from our land.