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*Farm
management*

WITHDRAWN



AGRICULTURAL ADJUSTMENT UNIT · UNIVERSITY OF NEWCASTLE UPON TYNE

Modern Management

by J. R. Gemmell

TP 8

THE AGRICULTURAL ADJUSTMENT UNIT THE UNIVERSITY OF NEWCASTLE UPON TYNE

In recent years the forces of change have been reshaping the whole economy and, in the process, the economic framework of our society has been subject to pressures from which the agricultural sector of the economy is not insulated. The rate of technical advance and innovation in agriculture has increased, generating inescapable economic forces. The organisation of production and marketing, as well as the social structure, come inevitably under stress.

In February 1966 the Agricultural Adjustment Unit was established within the Department of Agricultural Economics at the University of Newcastle upon Tyne. This was facilitated by a grant from the W. K. Kellogg Foundation at Battle Creek, Michigan, U.S.A. The purpose of the Unit is to collect and disseminate information concerning the changing role of agriculture in the British and Irish economies, in the belief that a better understanding of the problems and processes of change can lead to a smoother, less painful and more efficient adaptation to new conditions.

Publications

To achieve its major aim of disseminating information the Unit will be publishing a series of pamphlets, bulletins and books covering various aspects of agricultural adjustment. These publications will arise in a number of ways. They may report on special studies carried out by individuals; they may be the result of joint studies; they may be the reproduction of papers prepared in a particular context, but thought to be of more general interest.

The Unit would welcome comments on its publications and suggestions for future work. The Unit would also welcome approaches from other organisations and groups interested in the subject of agricultural adjustment. All such enquiries should be addressed to the Director of the Unit.

Unit Staff

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PREFACE

"The Agricultural Development Association and the Agricultural Adjustment Unit together put on a one week course under the title 'Taxation, Partnership and Capital in Agriculture'.

Several of the papers prepared for this course dealt with technical and financial subjects in an authoritative way and it was decided to issue the papers so that a wider audience could benefit from the information which had been assembled."

December 1968

"MODERN MANAGEMENT"

by J.R. GEMMELL, M.A., Dip.Ag.

My task this morning is to bring together all the topics you have heard on this course and to tell you how they affect the farmer or manager in the field. You must be aware that the considerations we have given to these papers must ultimately be put into practice on our farms and I hope that I can highlight the areas where we need further research and new thinking. This is the only logical way to make progress.

First of all I should like you to consider what in fact are the responsibilities of management in farming or any other business.

The classical definition is this -

1. Technical production.
2. Commercial activities.
3. Financial activities.
4. Accounting activity.
5. Security.
6. Other managerial activities - Co-ordination, planning, training.

These principles of management function are valid today and likely to remain so for many years to come. It is the interpretation or emphasis that is likely to change. For example, a farm manager twenty years ago, was almost exclusively concerned with the technical production - the farming and there was no scope or interest in the other functions. One of the advantages of the modern methods of land occupation is that the management functions have become specialised as in other industries. For example, in a "father and son" partnership, it often happens that the son specialises in the production sphere - the farming, and father looks after the financial side, but it may well be that this is a specialisation into physical activity and sedentary activity. Very little seems to have been studied on the way in which specialisation should occur in farm management for the large establishment of three or four actively farming partners.

The functions of farm management today can be summarised into three major activities.

Budgeting & Planning.

Execution & Control.

Accounting & Analysis.

I should now like to examine these three activities in the light of present day circumstances and the likely future trends.

Budgeting and planning. Before I summarise the methods available in this field, I must draw your attention to the common fallacy that has been highlighted by this course and that is the frequent situation where budgets and plans are constructed on the acreage basis with no prior reference to the policy for capital. In fact, the usual procedure is for the farm plan to be worked out first, and secondly the Capital policy is accepted or rejected as a supplementary item in the Appendix. It is my conviction that this Policy should be the starting point.

Today we have two excellent approaches to farm planning in the Gross Margin analysis and its more complex form of Linear programming. In commenting on the Gross Margin analysis system it has two great advantages - the first is that it has a surprisingly wide application and the second, the very rapid spread in its comprehension by farmers. Likewise its disadvantage is that it must be applied with care, particularly when using data and results without a knowledge of the agricultural set-up in which it is to be applied. In every case of farm planning, the basic appraisal of the farm, from an agricultural point of view, is the most vital step in the proceedings. In the more sophisticated technique of Linear programming, the collection and reliability of the data must be done with even greater care. But once the basic data has been applied, it is possible to examine the effect of single changes with great speed. For instance, the stability of a farm plan can be assessed for a major fall in the price of one commodity. On my farm I was able to examine the date of ploughing out leys and the resultant effect on the farm plan. I think Linear programming is a really efficient tool for examining complex farm systems with a wide range of enterprises and markets, but the cost of use is high and not to be undertaken lightly.

How frequently should these plans be made? Clearly the capital policy will hold good for long periods of time but once any substantial change of policy occurs a full scale farm plan must follow. Otherwise, I think an annual budget with replanning every three or four years would seem to be indicated on most farms.

At the present time we are well served by these systems of budgeting and planning. I feel that they will be adaptable for any future changes that will arise.

Two final points on planning I should like to put before you. First, the farm plan must command the confidence of the manager, or whoever is responsible for executing it. In the execution of the day-to-day running of a farm any manager must feel secure in that he has a good plan behind him. He must appreciate the perils and advantages in diverging from it. Then he can concentrate all his ability on organising his men and land for his main task of production. This is still the main objective for any manager - the technical production - the farming.

This leads to my second activity of management:-

Execution and control. The logical sequence of management I have presented to you will now extend from Capital policy to Farm Plan, to the outline of labour and machinery requirements. None of these steps in practice is isolated from the others. There are in the U.S.A. areas where "Systems farming" has been the basis of farm management policy. Three such systems are worth considering in the U.K. The combine harvester farm of the arable areas, the milking parlour farm of the grassland areas, and the hill sheep flock of the highlands. The deployment of capital and labour is centred around these pieces of equipment or stock, usually in a simple farming system capable of repetition. Here the problems of management arise in the structural organisation of the "multi farm" unit. This is an area for further research on such a question as the conflicting evidence of "economy from size" versus "increased management & supervision".

A good starting point for labour and machinery is the Gang Work Day basis. This system depends on the gang size required for every task on the farm and its output in a standard day. The number of available days is known for every month with reasonable allowance for sickness, weather interruption and holidays. This method is an improvement on the straightforward labour and tractor hours requirement, which are virtually useless on their own. However, I believe that considerable improvement is still needed in the Gang Work Day method, which produces a reasonable assessment for free working land in a normal season, but on the stiffer soils and in years of abnormal weather, the requirement is often very different from that as planned.

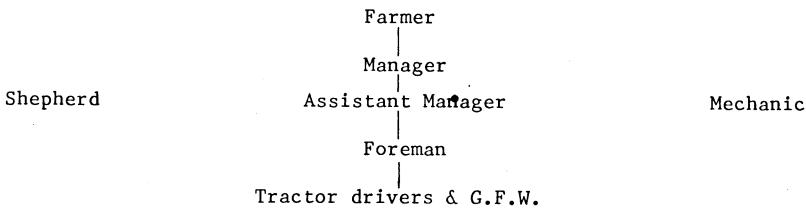
However the labour and machinery requirement has been assessed, this must tie in with the Capital policy for buildings and replacement of equipment in the light of the current taxation policies, which were discussed on Tuesday.

Management Control of Labour. As I indicated earlier in my paper, the farm manager's main task is the production part of the business. Here the conditions of weather and soil are changing more frequently than in any other aspect of the business. Men and machinery may have to be re-deployed several times a day in haymaking and most of us would re-assess our employment of men and machines once or twice each day. These frequent changes are in contrast to the Capital policy and Farm plan, which will remain stable for one to two years at any time.

Labour management is then a critical link in the management complex. It is one that is so often neglected by educationalists and research workers. It is clear that the trend in farming is towards fewer workers, each one with a larger amount of capital in his care. This line of development creates as many problems as it solves. The effect on the business of a really "good man" can be surprising, but equally the bad employee can be disastrous. There is one great danger in man management in modern farming systems and that is the danger of a man feeling remote driving a 120 horsepower tractor ploughing a 300 acre block of land. A less obvious picture is the one man milker in a 100 cow herd surrounded by pipes and cows, physically he may be in the centre of the farmstead, but mentally he still feels isolated from human contacts. I think that farming can learn two lessons here from the mistakes made in industry. It seems that there are two great weaknesses in industry - the one of remoteness, at least from the management, and the second is poor supervision at the foreman and junior

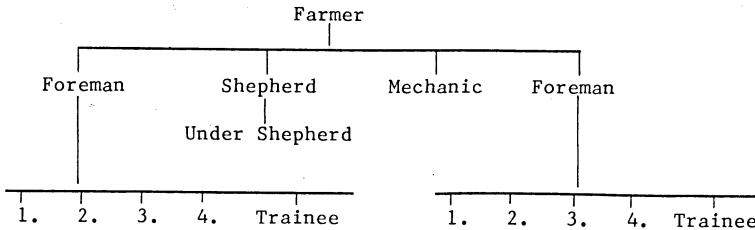
management levels. This is usually caused by conflicting loyalties and weak leadership at this level. In farming we must maintain the close contact of men and managers; this has been one of the strongest characteristics in our industry. As farming businesses grow, the younger managers must be taught the art of leadership and the real human feeling of caring for their employees. Again this characteristic has been a source of strength in the past, but there is a real danger of it becoming smothered and lost.

I mentioned earlier in my talk about the need for more information on the larger management structures. The same need applies to the manning of large farms. You may be interested in the case of a 2,000 acre arable farm I was concerned with recently. This was a heavy land farm growing corn, potatoes, sugar beat and leys for sheep. The structure of this farm was as follows:-



This para-military arrangement had serious faults for a heavy land farm. The chain of command was too long and inflexible, the shepherd and mechanic were not fully integrated, they also "sub-employed" unnecessarily from the tractor driving force. The movement of men and materials over this acreage was time consuming and expensive. The farming clearly showed signs of weak supervision and I felt certain that the areas of responsibility had not been defined.

The whole structure was re-organised as follows:-



The farm lent itself to equal division along with major machines. A central roadway was a convenient boundary and two sets of buildings provided the focus for men and materials. The sub division also created an interest and a sense of competition, particularly when harvesters were "lent" from one section of the farm to the other.

Accounting and analysis. This aspect of management I described earlier as the third major activity in which the farm manager is engaged. To a large degree he must rely on outside assistance from the accountancy profession. They must advise him on Income Tax matters and the complexities of Company Law. The speed and volume of recent legislation has been overwhelming and it is unlikely that the farm manager needs more than a general appreciation of these topics.

In the case of farm management accounts he must be fully conversant with the details. It is clearly the manager's responsibility to collect the best possible data. This simple fact is often overlooked by people outside farming. Whereas the financial items are usually exact, the physical measurements can carry very large errors indeed. I find that a large part of the data collection can be delegated to the employees. For instance, the grain level in a corn bin filled from two fields can be shown by a chalk mark, if the tractor driver concerned is briefed at the start of the day. It certainly creates an interest and gives a direct responsibility to the man concerned. It does require a positive action by the management to get adequate data, because this is the foundation on which decisions will be made.

In the analysis of the farm's performance, the whole farm and its enterprises must be considered. The data available from the Advisory services and Universities can be used to analyse the farm's performance and that of its various enterprises. I think that the industry is now well supplied with comparative results provided that they are used with intelligence as to their accuracy and agricultural validity.

At this point I must make it clear that these three functions of management, budgeting, execution and analysis are in practice inseparable. They are continuous from year to year; often the analysis of one year is providing data for the following budget.

There are certain special problems associated with a major change within the farm business. It is a surprising fact that the combination of a manager and his farm is a remarkably stable unit, on a fixed programme. The main causes of variation in profit are the current weather and increases of costs. There are usually two types of change in farm businesses. The first which I believe is the most difficult, is a change within an existing enterprise. A typical case would be a change of feeding programme for a ewe flock to increase the lambing percentage. Whilst the past performance of the flock is known with some precision, the likely change in output for a more intensive feeding regime at tupping and before lambing is a matter of some uncertainty, in spite of reports on other farms.

The second type of change is the more positive course of action where an enterprise is eliminated and substitutions made elsewhere. On my own farm, sheep and poultry were eliminated to make way for potatoes and more dairy cows.

The timing of these kinds of changes is most important and invariably when things go wrong it is not the farm aspect but some external feature like building work behind schedule or a failure in the delivery of machinery. The results from re-organisation are seldom satisfactory in the first and second year with

livestock. Food supplies have to be accumulated in advance and from half a year's grazing there may only be one or two productive months from the additional stock.

Managerial qualities. So far I have defined the activities of management and the methods of modern management that are in use today, but I should like to say something of the qualities and character needed in the farmer or manager as these seem to be changing. It is worth commenting on a point which I have taken for granted throughout this paper. I have assumed that the manager is technically competent in the actual job of farming. It is my experience that the modern generation of farmers are, in fact, most able in this respect. It is also apparent that our educational establishments are successfully geared to developing these talents. However, today we have more and more capital coming into the industry from outside farming. Typically the banks and other city sources with no intimate knowledge of farming are becoming the landlords. The future managers of farming may well have to communicate and satisfy this industrial type of landlord. This makes it imperative that they approach their farming from a rational and business-like attitude. For many future farmers the capital requirements of land occupation will be beyond their personal resources. They will only reach their farming within the framework of a partnership or company structure, where they will require two further qualities. First, they will need a broad outlook to enable them to assess the effects of international and national policy, which you heard about on Monday, as these influences will always be bringing pressures on the agriculture of our country. Secondly, they will need a deeper quality of leadership than is necessary today. As farm businesses are clearly increasing in size, then personal effort must give way to personal leadership. I emphasise these qualities because I feel that they are inadequately developed in the present structure of our educational system, and yet the farming community is not lacking in ambitious and able young men.

LIST OF PUBLICATIONS

Bulletins

		<i>Price</i>	<i>Postage & Packing</i>
1.	Farmers and the Common Market B. H. Davey and S. J. Rogers	5s 0d	6d
2.	Efficiency in Agriculture and the Share of the Domestic Market J. Ashton	5s 0d	6d
3.	Trends in Agriculture: A Review of Current and Future Developments B. H. Davey	5s 0d	6d
4.	Elements of Agricultural Adjustment S. J. Rogers	5s 0d	6d
5.	Farming Systems and the Common Market C. S. Barnard, H. Casey and B. H. Davey	10s 0d	1s 0d
6.	Farm Size Adjustment A Workshop Report	5s 0d	6d
7.	Capital Adjustment in Agriculture A Workshop Report	5s 0d	6d

Books

Economic Change and Agriculture Edited by J. Ashton and S. J. Rogers (Oliver and Boyd 1967)	42s 0d	4s 6d
Research, Education and Extensions in Agriculture Edited by J. Ashton and R. F. Lord (Oliver and Boyd 1968)	30s 0d	3s 0d

Technical Papers

			Price	Postage & Packing
TP1.	Organisational Possibilities in Farming by M. A. Gregory	3s 0d	6d
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Details of the publication programme and a subscription scheme can be obtained from the Administrative Officer of the Unit.

December 1968