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DIVERSIFICATION IN THE USE OF
FARM RESOURCES

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C O N T E N T S

	Page
PREFACE	
1. INTRODUCTION AND BACKGROUND	1
2. THE POSTAL SURVEY	3
A. The Sample	3
B. The Method	5
C. The Questionnaire	6
3. CHARACTERISING THE PATTERN OF DIVERSIFICATION	10
A. Specialty products	10
B. Services	10
C. Contracting	10
D. Processing & sales	11
E. Miscellaneous	11
4. THE OVERALL STRUCTURE OF DIVERSIFICATION AT THE NATIONAL LEVEL	12
A. Diversification in England	12
B. Diversification in Wales	14
C. Diversification in Northern Ireland	15
D. Diversification in Scotland	16
E. Diversification in the UK - An Overview	18
5. FURTHER ANALYSIS OF THE STRUCTURE OF DIVERSIFICATION	20
A. Diversification in Less Favoured Areas	20
B. The Influence of Farm Size	21
C. Diversification on Different Types of Farm	23
D. The Structure of Activity Within Each Enterprise	25
E. Other Findings from the Postal Survey in England & Wales	26
6. DIVERSIFICATION AS A DYNAMIC ADJUSTMENT ON FARMS	28
A. Recent Developments	28
B. Prospective Developments	29
GLOSSARY OF TERMS AND DEFINITIONS	31
APPENDIX I Questionnaire used in Postal Survey	34
APPENDIX II Listing of Activities identified from Postal Questionnaire Responses	35

PREFACE

This report comes out of a two-year research programme, funded by the Ministry of Agriculture, Fisheries and Food, examining the diversification of farm resources to other income earning activities in England & Wales. (The rather ugly term 'pluriactivity', which some use to characterise this phenomenon, is quite deliberately avoided.) The first stage in that programme set out to identify the extent and pattern of new enterprises to be found on agricultural holdings. The picture that emerged is presented in the following pages, along with comparable information for Scotland and Northern Ireland. A second report will be published in early 1991 giving an economic analysis of diversified enterprises and the contribution they make to farm incomes.

The initial concept and organisation of the research project was planned in close association with Mike Pick, whose sad and untimely death earlier this month leaves the authors feeling a great personal sense of loss. As the economist in MAFF with prime responsibility for liaison during the course of the study he was from the outset consistently influential, constructive and collaborative. As a working colleague he was never less than enthusiastic, dependable, and encouraging. The research will continue along lines he helped to lay down. Its results are intended, among other things, to assist policymaking and evaluation in the Ministry; to the extent they do this they will be a further testimony to Mike's contribution to the institution he served.

The authors are grateful to many who have helped propel the research this far through the planned programme. Sue Milward of the Social Studies Data Processing Unit provided crucial assistance in establishing the computing procedures for the major postal survey. A gallant band of clerical staff in the Agricultural Economics Unit, including Sue Elworthy, Daniela Goff and Carol Slaven, helped stuff some 20,000 letters and questionnaires into envelopes. Sheila Magee of the Department of Agriculture for Northern Ireland masterminded the distribution of the questionnaire in that Province and prepared an analysis of the results. Marilyn Pinn did her usual miracle of producing printed text from draft left-handed heiroglyphics. Finally, over 8,600 operators of agricultural holdings in England, Wales and Northern Ireland generously took the trouble to respond to an unsolicited request for assistance by returning information on their activities. All the above deserve recognition for their contribution in extending our understanding of important economic characteristics of the contemporary agricultural scene.

1. INTRODUCTION AND BACKGROUND

Increasingly over recent years farmers have been facing new and more insistent pressures on their incomes as overall agricultural output has approached sufficiency levels, and as the policy framework supporting the sector has been forced to change. In addition, increasing affluence and leisure time, coupled with altered attitudes in society towards the rural environment, have encouraged the growth of new demands for the kind of services that can be provided by the rural resource base. Together, these developments have created both the stimulus and the opportunity for new types of business activity on farms. These new activities have come to be widely referred to under the umbrella term "diversification". Many of them are included in a defined set of alternatives currently being encouraged by government policies, which seek to divert resources away from producing output classed as "surplus" without having to force too many farm families and businesses to leave the industry. However, they should also be seen as simply a natural development for rural resource use in modern economies. The traditional primacy of agriculture's claims for land use has steadily lost force as technology allows food security fears to recede. The demands for new products and services that farmers can provide are not a construction of policymakers but a genuine expansion in the way consumers want to spend their income, or in the way they wish to see their rural environment used. In this sense, diversification is becoming increasingly (though not necessarily uniformly) a 'normal' characteristic of the modern farm business.

The range of the activities to which farmers are turning is extremely broad. Some are products or processes almost entirely novel in the agricultural sector - such as snail farming, new crops like borage and evening primrose, or the provision of woodland sites for recreational activities such as war games or nature trails. Other activities have been long established among a minority of farms and/or in particular localities, but are now being taken up by many more farmers. This includes the provision of farmhouse accommodation, campsites, etc, or increasing the value added to farm products by processing, packaging or retailing direct to the consuming public. Other diversified ways of enhancing farm income do not involve expanding the scope of the farm business as such, but nevertheless imply shifting agricultural resources into other uses. For example, leasing land for sports fields or buildings for rural craft workshops provides an additional source of annual income; the sale of barns for housing conversion creates capital for productive investment in established farming operations. Inevitably, most of the activities will be of only minority importance individually when compared with conventional agricultural production. However, their potential range and diversity means they could have considerable significance in aggregate, especially in certain locations or among particular sizes and types of farm holding.

As the emphasis has turned away from continued agricultural expansion to underpin national and Community food supplies, so the impetus (indeed, necessity) for alternative ways of generating income from the farm resource base has intensified. Many changes were thought to be taking place on British farms in response to these pressures. The

situation appeared to be evolving rapidly, and government advice and incentive were directed to encourage farmers to think in these new ways as widely as possible. As a result, there arose a growing need for much greater information on the pace, pattern and characteristics of diversification of farming activity around the country. Consequently a research project, of which this Report is a first output, was established with funding from the Ministry of Agriculture, Fisheries and Food (MAFF), with two major objectives. The first was to document the situation concerning the nature, extent, and development of diversification on farms in England & Wales. The second was to explore the economic aspects of the main types of "new" business activity and assess their contribution to farm household incomes.

This report covers the first of these objectives - Stage I of the research project. (Stage II is to be pursued from October 1989-December 1990). It provides an overview and structured analysis of farm diversification, as it appeared in the spring of 1989, based on the results gained from a carefully designed questionnaire mailed to a large random sample of farms in England & Wales. The Department of Agriculture for Northern Ireland, using its own resources, agreed to send a virtually identical questionnaire to farmers in Northern Ireland, and the results of that enquiry are included also. In addition summary results from a study conducted along analogous lines in Scotland by the Scottish Agricultural Colleges is included for comparison.¹ The report thus aims to offer a general picture of diversification in the overall UK context - though the more detailed commentary is inevitably restricted to those regions where the same questionnaire was used to yield information.

The tremendous diversity of the new ways in which farmers are generating income presents great problems for analysis (in coding responses to the questionnaire well over 250 activities could have been separately distinguished). In addition, the various characteristics and determining factors to which the results might be related were equally numerous. For practical purposes, therefore, and also in an attempt to retain a manageable and informative framework, the results of the survey at this stage are cast into a fairly tightly defined structure. All diversified activities observed were classified into one of five distinct groupings considered to be analytically or conceptually meaningful; and the pattern of these activities was related to just a limited number of major characteristics (region, farm size, farm type, etc). In this way it was felt the primary features of farm diversification in Britain could best be portrayed, while allowing further detailed exploration and dissection of the data set when resources allowed.

¹ For the full results of this study, see G E Dalton and C J Wilson, "Farm Diversification in Scotland". SAC Economic Report No 12, July 1989.

2. THE POSTAL SURVEY

A. The Sample

It was decided at the outset that, in order to characterise the pattern of diversification, a large random sample of registered agricultural holdings (as defined for the annual June 4th Census of Agricultural Holdings) should be approached to provide information via a postal questionnaire. The sample size was set at 10,000 holdings, representing just under 1 in 18 of all holdings in England & Wales. For Northern Ireland a further sample of 2083 farms (1 in 20) was contacted in the same manner. A number of initial hypotheses were considered as to what might be expected to lead to differences in the structure of farm diversification; of these, three were regarded by MAFF as of primary interest. These were the potential differences due to (a) geographical region; (b) whether the holding was located within a Less Favoured Area (LFA); and (c) farm business size. In consequence the target population of holdings was first distributed into a size-by-region structure, consisting of five size groups and five regions, and each cell then further subdivided into LFA and non-LFA classes. Size of farm business is measured in British Size Units² (BSU), and the five size classes were defined as follows:

	Zero BSU, hereinafter referred to as zero size holdings				
0.1 - 3.9 BSU,	"	"	"	"	very small
4.0 - 15.9 BSU,	"	"	"	"	small
16.0 - 39.9 BSU,	"	"	"	"	medium
40 BSU and over,	"	"	"	"	large

The inclusion of zero size holdings may appear to be questionable. By definition they are not farm businesses per se since, although occupying a particular area of land, they record no cropping or livestock at June in the annual Agricultural Census. However, it was considered by MAFF that this group of occupiers may nevertheless include a number of potentially interesting enterprises and activities utilising agricultural land and buildings - for example, riding stables and rural workshops - which serve many expanding and emerging demands in society.

The regions adopted were the EC Statistical Regions, as used by the Agricultural Departments for statistical purposes. In England these are identified as North, West and East²; Wales and Northern Ireland are each themselves a distinct EC Region.

With the population of holdings in England and Wales distributed into this matrix the sampling procedure was essentially to select randomly, applying the pre-specified sampling factor of 1 in 18.6 to each cell. Two constraints were imposed on this procedure. One was to limit the size of the sample selected from the zero BSU category to 1,000 holdings, thereby reducing its sampling factor to 1 in 23. The other was to ensure sample sizes in each cell did not fall below 20 - an

² See Glossary for definition and explanation.

arbitrary number thought to represent the minimum for meaningful analysis; this had the result that LFA holdings in the East region were concentrated into three, rather than all five, size groups. The overall sampling fraction in Northern Ireland was of a similar magnitude and covered 5 per cent of the total population of holdings. However, since the Province has relatively few businesses in the medium and large size classes (16.0 BSU and over), the sampling rate was doubled in these groups in an attempt to get better representation.

The sample structure, in terms of the numbers in each cell, is shown in Table 1. Apart from the minor constraints noted above, this structure represents accurately the pattern of holdings to be found in England, Wales and Northern Ireland. If response rates do not differ significantly from one cell to another, therefore, the data collected should also reflect the level and pattern of diversification as it exists in those major national regions. The Scotland study (to which only limited reference can be made here) ignored the very small and zero BSU categories. A stratified sample of 4,895 holdings with 4 BSU or above were approached using a postal questionnaire.

Table 1 Distribution of Sample Farms

Region Farm Business Sizes	England			Total England	Wales	England & Wales	Northern Ireland
	North	West	East				
Zero BSU	205	325	300	830	170	1000	488
Very Small 0.1-3.9 BSU	580	880	805	2265	505	2770	763
Small 4-15.9 BSU	595	755	745	2095	515	2610	523
Medium 16-39.9 BSU	600	680	605	1885	350	2235	273
Large 40 BSU & over	300	375	630	1305	80	1385	36
TOTAL	2280	3015	3085	8380	1620	10000	2083
Per cent LFA	30.5	13.4	2.4	14.0	67.0	22.6	68.0

B. The Method

In order to maximise the response rate, great effort was put into eliciting the co-operation of the owners and operators of the holdings contacted. Experience shows that voluntary co-operation with an unknown body, requested through the post without any direct personal contact, is extremely difficult to capture; when targetted at busy farmers, many of whom might be resentful of the sponsoring government agency in the current difficult climate for farming success, the problems are multiplied further. Particular attention was paid, therefore, to (a) the quantity of information asked for and the ease with which it could be provided, and (b) the manner of approach to the occupiers of the selected holdings.

The questionnaire was designed to be as brief, clear and logically structured as possible while nevertheless aiming to harvest the maximum of analytically useful information. It was decided to limit its size to two sides of A4; this required great care in the wording of questions and difficult choices over content had to be made. The putative final draft was rigorously field tested before final specification. Although all analysis was to be undertaken by computer and no respondents were to be identifiable in any reported results, provision was made to include the occupier's name and address on the returned questionnaire so that further contact could be made if required in Stage II of the project (which is now being pursued in England & Wales).

The initial approach to each holding was by personalised letter to the occupier(s) explaining the survey's purpose and requesting return of the completed questionnaire by Freepost envelope. The need for all holdings to repond, whether diversified or not, if sample results were to be representative was emphasised. As replies were received the responses were coded and punched into a computer database. Holdings which had not responded within four weeks were sent a second letter along with a duplicate copy of the questionnaire and return envelope. Holdings which had not responded after a further three weeks were written to a third and final time with a strong plea for assistance.

The outcome of this concerted effort to maximise the response rate was most encouraging. Returns from holdings in England & Wales rose from 40% to 60% to 70% through the three phases of the campaign - and replies continued to trickle in many weeks after the database was closed in order to start analysis. The final response rate of over 70% of holdings contacted, with 68.8% of usable completed questionnaires, is regarded as a major success for an exercise of this kind. The response from holdings in Northern Ireland was even higher with 79% of questionnaires being completed and returned. This generally successful result from the postal enquiry is summarised in Table 2, which shows a reassuringly uniform stability across different regions. Even in Wales, where the response rate was at its lowest, it is only two percentage points below the England & Wales average; the high return rate in Northern Ireland is quite remarkable. All this encourages confidence in the prospect that any regional differences in diversification apparent from the survey data do, in fact, reflect a reality, and that the estimates in the aggregate are representative of the overall national picture.

Table 2 Responses to postal survey, by region

	England			Total England	Wales	England & Wales	Northern Ireland
	North	East	West				
Numbers in original sample	2280	3085	3015	8380	1620	10000	2083
<i>Per cent</i>	22.8	30.8	30.2	83.8	16.2	100.0	-
Number of respondents	1579	2180	2042	5801	1076	6877	1639
<i>Per cent</i>	23.0	31.7	29.7	84.4	15.6	100.0	-
Response rate per cent	69.3	72.3	67.6	69.2	66.4	68.8	78.7

Further light on this is cast by the information in Table 3 (overleaf) which shows how responses in England & Wales relate to particular characteristics of the holdings. There is little difference in response by LFA type or by farm type (although the "grass only" holdings showed distinctly poorer returns). The greatest variation is by farm business size, the lowest response (perhaps not surprisingly) coming from zero BSU farms (58.7%) and the highest from large farms (78.4%)³. These results suggest no major bias in estimates calculated for sub-groupings of interest. There may, of course, have been differential response between holdings that had no diversified activities to report and those that had. If so, this would bias the overall estimate of the extent of diversification on farms, but not necessarily the estimates of relative differences within this group.

In the Scottish study a far lower response rate was achieved, with only 36% of holdings contacted returning a questionnaire in usable form. To assess whether the postal returns were unbiased, one in ten non-respondents were contacted by telephone and asked for some limited information central to the questionnaire's purpose. Comparative analysis of the results from the two methods of contact suggested the questionnaire responses could be judged as being representative of the population.

C. The Questionnaire

The concept of "diversification of farming activities" is not amenable to very precise definition. In its popular usage the term now implies the adoption of income-earning activities outside the range of conventional crop and livestock enterprises associated with agriculture. But this

³ Interestingly, this result is reversed in Northern Ireland where the zero BSU holdings returned over 82 per cent of their questionnaires.

Table 3 Structure of survey responses (England & Wales only)

A. By LFA status

	LFA farms	Non-LFA farms	Total
Number in original sample	2260	7740	10000
<i>Per cent</i>	22.5	77.5	100.0
Number of respondents	1512	5365	6877
<i>Per cent</i>	22.0	78.0	100.0
Response rate per cent	66.9	69.3	68.8

B. By Farm Type

	Dairy	LFA L'stock	Lowland L'stock	Crops	Pigs & Poultry	Hortic	Grass only
Number in original sample	1630	1030	2760	2390	570	590	1030
<i>Per cent</i>	16.3	10.3	27.6	23.9	5.7	5.9	10.3
Number of respondents	1192	681	1881	1754	388	394	587
<i>Per cent</i>	17.3	9.9	27.4	25.5	5.6	5.7	8.5
Response rate	73.1	66.1	68.2	73.4	68.1	66.8	56.9

C. By Farm Business Size (BSU)

	Zero	<4	4-15.9	16-40	>40	Total
Number in original sample	1000	2770	2610	2235	1385	10000
<i>Per cent</i>	10.0	27.7	26.1	22.4	13.9	100.0
Number of respondents	587	1797	1765	1642	1086	6877
<i>Per cent</i>	8.5	26.1	25.7	23.9	15.8	100.0
Response rate per cent	58.7	64.9	67.6	73.5	78.4	68.8

begs the question of whether, for example, producing fence posts, packaging potatoes, or hiring out land for a football field is to be regarded as normal, or as an innovation. Clearly to some farmers these activities would be quite novel while others may have operated such sidelines for years. There is little point in asking farmers if and how they have diversified if there is no accepted view of what that means.

In planning the approach of this research study a particular image of what diversification was to mean was established and adhered to throughout. The image starts with the idea of a particular collection of resources (defined as a farm business) focussed on the production of that range of crop and livestock products presumed under the collective title of "agricultural output". With recent pressures for adjustment and constraint on agricultural production, some of those resources are being redirected to produce other goods and services that would not be classed as traditional agricultural output. This concept of diversification, therefore, is one of diversion to other-income earning uses of any of the resources previously committed to conventional farming activities. This concept is generally applicable to the diversion of land, buildings and machinery resources. The diversion of the labour resources of the farm unit have not been formally included in this study because of the difficulty of defining which labour resources are properly part of the business (farmers wives who are teachers? Farmers' sons with off-farm jobs?).⁴

The diversion of a farm's resources (or diversification) may take place in three ways:

- (a) by expanding the scope of the farm business to encompass these new ways of using resources, so the 'farmer' also becomes the operator of the new enterprise;
- (b) by hiring or leasing the resources to someone else, so the management of the new enterprise lies outside the farm business;
- (c) by selling resources for non-farming uses, so that all aspects of the new enterprise are outside the farm business.

The manner by which farm business income is enhanced differs in each of the above instances, as do the long run implications for the agricultural sector. In (a) and (b) ownership of the resources remains within the sector; thus they could potentially be called back into conventional agricultural production, and so can be considered still part of the agricultural resource base. Where resources are transferred by sale permanently out of the farmer's control they can in general never be returned to the agricultural supply system.

⁴ The study carried out by the Scottish Agricultural Colleges did, however, tackle this difficult issue. All sources of income which required any member of the resident farming family to work elsewhere - i.e. "off-farm jobs" - were included in their definition of diversification.

The postal questionnaire was designed with this particular frame of reference in mind. The primary aim was to collect information on whether resources were being used for diversified activities on the sample holdings, and if so what those activities were. Accessory questions dealt with changes in the past five years (either adopting or giving up enterprises) and any definite plans for the future. In addition a broad indication was sought of the extent to which diversified enterprises contributed to farm business income - though this was not expected to yield rigorous information. For all these aspects the questionnaire was structured to allow a simple YES/NO response, with space to detail the relevant activities wherever the answer was affirmative. In this way the time required to complete the questionnaire was minimal (effectively just reading time) for holdings with nothing to report, and probably little more than 15 minutes for the more complex diversified holding. This ease of completion undoubtedly assisted the response rate, while in no way restricting the amount of the information that could be gathered or the facility for its later analysis.

A copy of the questionnaire used for the England & Wales sample is included in Appendix I. For Northern Ireland a few very minor modifications were made to make the guiding examples more relevant to holdings in that region. The final section of the questionnaire, which was an open invitation to record comments, was an attempt to make the exercise more 'friendly' for the respondent. It yielded a rich and diverse harvest of utterances from enthusiasm to protest, and their review would make for an interesting project when resources permit.

By contrast, the postal questionnaire employed in the Scotland survey was much more substantial, amounting to five sides of A4 plus one page of guidance to the respondent. The greater effort implied in completing the questionnaire satisfactorily probably explains the significantly lower response rate achieved. As well as seeking to identify the alternative enterprises on the holding, questions sought details concerning family structure, work involvement, income sources, and a variety of opinions and attitudes about diversification possibilities.

3. CHARACTERISING THE PATTERN OF DIVERSIFICATION

In order to provide some framework for the analysis of survey responses the questionnaire was structured so as to identify diversified enterprises in five different classes. Each class was considered to embrace a conceptually distinct collection of activities, which were all homogeneous with respect to either the resources they used or the nature of the product/service they yielded. The five diversification "types" have each been given a label as a convenient shorthand, and these are now discussed in turn. It was not easy in every case to choose a label that was both adequately descriptive, yet not subject to alternative interpretation because the word(s) may be applied with different connotations in other contexts. The terms discussed below happen to be merely those employed to distinguish activity groups within the survey; they are not an attempt to establish a definitive nomenclature for this field of economic activity. (Nevertheless the distinctions, if not the labels, are still considered to have enduring merit.)

A. **Specialty products.** This term was applied to all crop and livestock enterprises which were outside the 'conventional' list of farm products. This included such animal enterprises as deer, goats, rabbits, snails, rare breeds, and fish; and non-traditional crops such as vineyards, borage, teasels, Christmas trees, and organic produce. Clearly in every one of these examples it could be argued that the product was not entirely novel in British agriculture, and that some farmers have been involved with such specialist minority activities for many years. However, it is also true that the awareness of, and market opportunities for, these products have been expanding recently, and for many farmers they represent an alternative (and previously unconsidered) means of increasing revenue or substituting for their more traditional farming output.

B. **Services.** This category was defined to include the array of accommodation, recreation and education services that may be provided on farms. Farmhouse accommodation, campsites, etc have long been common in the traditional tourist regions of the country, but again the indications are that wider opportunities for their provision are being recognised. The leisure and educational facilities that farmers can offer are quite diverse, ranging from the predictable picnic sites and pony trekking facilities to the more unusual wildlife parks, hang gliding holidays and opportunities to watch and participate in farming operations.

C. **Contracting.** Although for many farmers it has long been the practice to undertake field operations (ploughing, harvesting etc) for others, contracting fits the definition of diversification in that the farm's (machinery and labour) resources are being used to generate an additional income outside the operator's own farming activity. Even so, because of its widespread occurrence, many might argue to exclude this from consideration in the diversification currently being urged upon farmers. When centred on farming operations, contracting differs from most other forms of diversification in that it does not expand the income accruing to the agricultural sector, since the revenues are simply expenditures of other farmers. However, non-agricultural contracting

(e.g. hedge trimming or snow clearing for the Local Authority) is a genuine addition to farming incomes, and was specifically identified within the survey.

D. Processing & Sales. This term has been applied to the various activities that may be undertaken on farms to add value to the basic agricultural products. The enterprises were considered under three sub-headings. The first was preparation and packaging, such as milk bottling, and vegetable washing. The second sub-group was processing of products, and included cidermaking, cheese production and feed milling. And thirdly, the direct retailing of products to final consumers, as with farm shops and pick-your-own operations, was treated as a distinct sub-enterprises. Again, it is possible to quote instances where such activities are a 'standard' part of the production process - especially, perhaps, with many horticultural enterprises - and therefore should not be treated as diversions of resources towards new income sources. Nevertheless, involvement in processing & sales has a valid standing as one of the ways that farming can widen its base of economic activity, and so deserves inclusion.

E. Miscellaneous. A category with this label was perhaps inevitable. It has been used to embrace all those activities that do not clearly fit the foregoing classes yet are too diverse in nature to support further subdivisions. Classification was often somewhat arbitrary, but enterprises based around rural crafts (hurdle making, basket making, etc) timber products, the provision of managerial or secretarial services, stone and peat extraction, and showground facilities all required a category to hold them.

A sixth grouping of activities was identified on the questionnaire and originally given the label of Environment. It embraced the more recent allocations of farmland to such uses as set-aside, environmentally sensitive areas, sites of special scientific interest and new woodland planting. This class was included because, on field testing the questionnaire, it was evident that many farmers viewed such land uses as part of the contemporary discussion of diversified use of their resources; it was thought prudent, therefore, to allow these presumptions to be expressed. However, apart from new woodland (which could be a genuine transfer of farmland out of conventional production, but in other cases may add up to little more than the planting of odd corners of previously waste land) no serious consideration was given to including these activities in the concept of diversification underlying this study. No positive responses to these questions have been included in the count of diversified activities in the analyses which follow, therefore.

Evidence of diversification was identified under two further headings. Leasing is the label applied to any of the five types of activities just discussed, but which are conducted outside the business of the survey farm by others who use the farm's resources for the purpose. The most common examples are land let for sports fields and barns leased for workshops and offices. Finally, resource sales covers all those permanent transfers of (land and buildings) resources out of the farm business; the new uses specifically recorded were for housing, recreation, tourism, industry and others.

4. THE OVERALL PATTERN OF DIVERSIFICATION AT THE NATIONAL LEVEL

In Chapter 2 it was suggested that a working concept of diversification would include any diversion of agricultural resources into income-earning activities outside conventional farming. From the standpoint of the agricultural sector as a whole this is undoubtedly the most useful concept for use in analyses of agricultural adjustment. However, this study has been focussed on agricultural holdings and in this context it is diversification of the individual farm business that gives the appropriate frame of reference. For present purposes, therefore, we define a holding as "diversified" if it is engaged in one or more of the five distinct enterprise types defined in Chapter 3 (namely specialty products, services, contracting, processing & sales, or miscellaneous). This definition excludes the leasing out or sale of farm resources to others for use in non-agricultural activities, but this restriction is made to enable comparisons between countries in the UK on a consistent basis, given the data available. In this chapter comparable information on the extent and nature of involvement in diversified enterprises is shown for England, Wales, Northern Ireland and Scotland. The Scottish information is extracted from the report published by the Scottish Agricultural Colleges⁵; for the other three countries the account is based on data collected from the postal surveys already described.

One point is worth bearing in mind when interpreting the numerical estimates of involvement in diversified enterprises. The definition of what constitutes "an enterprise", in any context, is inevitably somewhat imprecise since it involves grouping activities that are in practice not identical. For example, is pig production a single enterprise, or must one in reality distinguish breeding and fattening separately? In the analysis employed in this study, diversification has been identified in terms of five named enterprises but each embraces a variety of activities falling into that overall class. A farm business may be involved in one, or several of the activities grouped under one of these general headings. For example, it may provide simply farmhouse accommodation; or it may have a campsite, holiday cottages, a nature trail, and offer clay pigeon shooting. Both cases, however, would be recorded as an involvement in the one diversified enterprise defined as "services". It must be remembered, therefore, that there is considerable diversity within the diversification recorded in the following results. Appendix II gives a full listing of the separate activities classified within each enterprise in the postal enquiry, and the frequency with which each was observed in the England & Wales sample.

A. Diversification in England

Of the 5,801 completed questionnaires returned relating to agricultural holdings in England a total of 2,462 (42.4%) recorded involvement in one or more of the five defined enterprises. Thus, the first broad generalisation to emerge is that more than four out of every ten holdings in

⁵ G E Dalton and C J Wilson, Farm Diversification in Scotland, SAC Economic Report No 12, July 1989.

England have diverted resources to uses outside the conventional framework of farming. Table 4 suggests a distinct regional variation in the extent to which farmers have turned towards new enterprises; almost one half of holdings in the East region are diversified, while the proportion is noticeably lower in the North.

Table 4 Regional pattern of diversification in England

A. Holdings with diversified enterprises

	North	East	West	Total England
Number of survey responses	1579	2180	2042	5801
Number of holdings with diversified enterprises	606	1022	834	2462
Proportion of holdings diversified	38.4%	46.9%	40.8%	42.4%

B. Structure of diversification (per cent of diversified holdings having the specified enterprise)

	North	East	West	Total England
Services	48.5	42.0	51.1	46.7
Contracting	35.5	41.5	37.2	38.5
Processing & sales	28.9	31.6	26.7	29.3
Specialty products	17.5	22.8	17.5	19.8
Miscellaneous	10.7	14.1	12.8	12.8
<i>Total percentage involvement</i>	<i>141.4</i>	<i>152</i>	<i>145.3</i>	<i>147.1</i>

Table 4 also shows the relative frequency with which different enterprises have been adopted. The rank order of importance is the same in every region. Services is always the most common enterprise - found on almost half of all diversified holdings - followed by contracting, processing & sales, specialty products and miscellaneous. In the West, however, diversification into services is more noticeable than elsewhere, while holdings in the East are more heavily involved in contracting, processing & sales and specialty products. The percentages for each region sum to more than 100, reflecting the fact that many holdings are engaged in more than one enterprise. A simple comparison of these percentage totals indicates that such multiple involvement is greatest in the East region.

More detail on multiple involvement is given in Table 5. From this it is evident that two out of every three diversified farms were involved

in only one enterprise, while a quarter had two enterprises. Even three different enterprises was not uncommon. Bearing in mind that each enterprise could encompass several different activities, this suggests a remarkable diversity of resource use on some farms. The overall mean value was 1.47 enterprises per diversified holding.

Table 5 Multiple involvement in diversified enterprises in England

3339 sample holdings (57.6%) were involved in no diversified enterprises

2462	"	"	(42.4%)	"	"	"	some	"	"
of which:									
1612	"	"	(65.5%)	"	"	"	1	"	"
615	"	"	(25.0%)	"	"	"	2	"	"
206	"	"	(8.4%)	"	"	"	3	"	"
42	"	"	(1.7%)	"	"	"	4	"	"
7	"	"	(0.3%)	"	"	"	5	"	"

B. Diversification in Wales

Since the same questionnaire was used to collect data from holdings in Wales, the results obtained are directly comparable with those for England. The first evident difference to emerge is the distinctly lower proportion of Welsh holdings with diversified enterprises. From 1,076 completed questionnaires 371 (or 34.5%) had some involvement in diversification. Thus only about a third of holdings in Wales are diversified, compared to almost a half in England. The pattern of diversification is noticeably different too, as shown in Table 6. Not only is services again the most common enterprise, it is found on over half of all diversified holdings - a higher proportion than the average for England. By contrast, involvement in processing & sales, and in specialty products is distinctly lower in Wales. These findings are not unsurprising. Many of the services activities are linked to tourism and recreation, activities which are perhaps associated more with rural Wales than with England as a whole. On the other hand, the success of processing & sales

Table 6 Pattern of diversification on agricultural holdings in Wales

A. Holdings with diversified enterprises		B. Structure of diversification (% of diversified holdings with the specified enterprise)	
Number of survey responses	1076	Services	52.3
Number of holdings with diversified enterprises	371	Contracting	39.1
Proportion of diversified holdings	34.5%	Processing & sales	21.3
		Specialty products	14.6
		Miscellaneous	13.2
		<i>Total percentage involvement</i>	<hr/> 140.5

and specialty products enterprises would seem to be dependent on availability of relevant markets, and there may be less locations than in urbanised England that provide these opportunities.

Finally, multiple involvement is lower in Wales, in line with the lower overall level of diversification. From Table 7 it is clear that over 70 per cent of diversified holdings had but one enterprise, and only about one seventh (compared to one quarter in England) had two enterprises.

Table 7 Multiple involvement in diversified enterprises in Wales

705 sample holdings (65.5%) were involved in no diversified enterprises

371	"	"	(34.4%)	"	"	"	some	"	"
of which:									
261	"	"	(70.4%)	"	"	"	1	"	"
57	"	"	(15.4%)	"	"	"	2	"	"
30	"	"	(8.1%)	"	"	"	3	"	"
2	"	"	(0.5%)	"	"	"	4	"	"
1	"	"	(0.3%)	"	"	"	5	"	"

C. Diversification in Northern Ireland⁶

The questionnaire sent out by the Department of Agriculture for Northern Ireland to holdings in the Province was identical to the one used in England and Wales, except for a few very minor changes in the detail. As noted already, a very high response rate was achieved. The most distinctive result to emerge was the relative unimportance of diversified enterprises to farming in that region. After adjusting for the higher sampling fraction applied to the larger farms, only an estimated 108 holdings were found to engage in any of the five enterprises identified; this represents just 7 per cent of the holdings in the Province. A definitional complication arises here due to the fact that on over a quarter of all holdings the land is entirely let out to others on an annual basis (the so-called conacre system). This means that the number of operating farm businesses is significantly fewer than the number of registered holdings. In practice it is businesses that are the relevant basis for analysing resource use diversification. The results below, therefore, are based on the number of individual farm businesses responding to the survey. Even so, this makes little difference to the overall picture, since still only 91 (which is 7.9%) of the 1,148 identifiable businesses had any involvement in diversified enterprises.

⁶ The results presented in this section were derived by staff in the Department of Agriculture for Northern Ireland, for whose assistance the authors are most grateful. A more complete account is to be published shortly. See: S A E Magee, A Study of Diversification on Northern Ireland Farms. Studies in Farm Economics, DANI, 1989 (forthcoming).

It is difficult to put great weight on apparent differences which emerge from such a small number of participants. That said, the pattern of diversified enterprises that do exist appears to be quite different from that found in England and Wales (Table 8). Contracting was the one most commonly reported, a finding that is consistent with the generally small size (and hence difficulty of matching machinery and workload) of most farms in the Province. The relative infrequency of services and processing & sales contrasts markedly with the situation in England, but is again explicable in the context of Northern Ireland. The relatively high involvement in specialty products is strongly influenced by the inclusion of horse breeding in this category (representing over one third of the observations). Horse breeding - largely directed at export markets - is a traditional part of the Northern Ireland farming scene and, like contracting, it could therefore be argued that it does not represent diversification in the current use of the term at all. On that basis, it might be said that there were only ~~48~~ genuinely alternative enterprises on the 1,148 farm businesses in the Northern Ireland Survey, emphasising even more how insignificant a feature the phenomenon of diversification is in the Province.

Table 8 Pattern of diversification of farm businesses in Northern Ireland

A. Businesses with diversified enterprises		B. Structure of diversification (% of diversified businesses with the specified enterprise)	
Number of survey responses	1148	Contracting	39.6
		Specialty products	29.7
		Services	16.5
Number of businesses with diversified enterprises	91	Processing & sales	15.4
		Miscellaneous	8.8
Proportion of diversified businesses	7.9%	<i>Total percentage involvement</i>	<hr/> 110.0

Not surprisingly there was not very much multiple involvement either. Of the 91 diversified business 85 (or 93.4%) had only the one enterprise. Just four businesses were involved in two enterprises, and two others were diversified into three types.

D. Diversification in Scotland

The Scottish study was conducted along similar lines in that it was based on a postal questionnaire mailed to a large sample of agricultural holdings. As already indicated, however, it was dissimilar because the focus was limited to full-time farms (over 4 BSU in size) and the questionnaire was constructed around a much broader concept of diversification. This concept recognised essentially two distinct classes of activity, referred to as "alternative enterprises" and "off-farm jobs" respectively. The first of these accords fairly closely with the range of activities covered by the questionnaires used in the rest of the UK,

except that the contracting enterprise was not included, but forestry was. Furthermore, there was no equivalent prior grouping of enterprises on the Scottish questionnaire, but the responses were classified for analysis under 14 headings⁷; in order to present those results on a comparable basis here they have been assigned to the five enterprise types used throughout this report. Off-farm jobs embraced all sources of earned income, whether from paid or self-employment, gained by any resident members of the farm household working outside the farm. Agricultural contracting was classified as an off-farm job rather than as an alternative enterprise, and so estimates have had to be made from the data available to extract contracting enterprises and include them within the standard groupings in order to permit comparisons with results from the other three countries.

Using their wide definition of diversification, which includes all sources for augmenting farm income, the Scottish researchers estimated that about 40 per cent of their survey farms were diversified. However, the most important component of this was due to off-farm jobs, which were found in 28% of farm households. Alternative enterprises, as defined, occurred on 18% of holdings while 6.4% of survey respondents were diversified into both types of income source. The published research report includes some interesting detail on the types and number of off-farm jobs, and on the manner in which they are distributed between farmers, spouses, sons, daughters and others. Numbers involved in contracting were not specifically quoted, unfortunately, but based on the information given we estimate that there were some 100 contracting enterprises among the 1,763 questionnaire responses received. Together with the estimated 313 holdings having one or more of the listed alternative enterprises (excluding 16 with forestry), this suggests that 23.4 per cent of Scottish holdings are diversified in the way the term was defined in Chapter 4⁸.

These results are shown in Table 9. The apparent pattern of diversified enterprises shows some interesting differences compared to the situation found in the other UK countries. The provision of services is again by far the most common form of diversification, being found on well over half of all the diversified farms. This is a higher proportion than in any of the other three countries studied, and reflects the important aspects of tourism and recreation in the Scottish rural

⁷ These were listed as follows: accommodation; field sports; horseculture and kennels; retail and catering; forestry; food and drink processing; craft and manufacture; quarry/landfill/tipping; livestock; crop and horticulture; drying/storage/milling; fuel provision; other sport and leisure; other small business.

⁸ Note that this could be a slight overestimate because with the procedure used there is no way of identifying the number of farms which had both alternative enterprises and contracting. This bias might be counteracted slightly by the exclusion of the holdings listing forestry as a diversified activity, and which may also have had one of the other enterprises.

Table 9 Pattern of diversification of (full-time) agricultural holdings in Scotland

A. Holdings with diversified enterprises		B. Structure of diversification (% of diversified holdings with the specified enterprise)	
Number of survey responses	1763	Services	55.5
Number of holdings with diversified enterprises	413	Contracting	24.2
Proportion of diversified holdings	23.4%	Miscellaneous	12.8
		Specialty products	12.3
		Processing & sales	9.0
		<i>Total percentage involvement</i>	<hr/> 113.8

economy. Similarly, contracting is the other predominant enterprise, although it is relatively less common than in the rest of the UK. Perhaps the most notable feature is the low involvement in processing and sales enterprises, which less than one in ten diversified farms have adopted. There might be a slight underestimate here because various pick-your-own fruit activities appear to have been classed under crops in the specialty products category; nevertheless it is clear that adding value to farm-produced output does not figure very strongly among farm businesses in Scotland. It is not possible with the information available to make any quantitative statements about multiple involvement in diversified enterprises, but the total percentage involvement figure is low relative to those for England and Wales, suggesting a higher proportion of diversified farms have only the one enterprise.

E. Diversification in the UK - An Overview

The results presented in this chapter are summarised in Table 10 in a form that permits some broad cross-country comparisons. The overall UK estimates need to be treated with due caution, having regard to the fact that they are derived from crude sample averages for each country weighted by unadjusted sampling fractions; furthermore, it is not entirely clear what these overall figures can mean, given the very wide intercountry variation they encompass.

Nevertheless, a number of features seem worthy of comment. First, bearing in mind all the qualifications it would appear that about one third of all UK farms have diversified out of "straight" agriculture in some way. The rank order of importance of the different enterprise types - services, contracting, processing & sales, specialty products, and miscellaneous - is approximately the same in all countries except Northern Ireland, where specialty products (dominated by horse breeding) have special significance and services have far less prominence. Second, the extent to which diversified enterprises have become part of the farming scene declines progressively as one considers in turn England, Wales, Scotland and Northern Ireland. Not only is this true for the overall country averages but it is also true for every enterprise type

Table 10 Diversification of agriculture in the UK (per cent of all holdings having the specified enterprise)

Enterprise	England	Wales	Scotland*	Northern Ireland	UK
Services	19.7	18.0	13.0	1.5	15.8
Contracting	16.3	13.5	5.7	2.8	12.8
Processing & sales	12.4	7.3	2.1	1.0	9.0
Specialty products	8.4	4.8	2.9	2.3	6.5
Miscellaneous	5.4	4.6	3.0	0.7	4.3
(None)	(57.6)	(65.5)	(76.6)	(93.0)	(66.1)

*Full-time (over 4 BSU) holdings.

(e.g. the proportion of holdings having a services enterprise is higher in England than in Wales, which in turn is higher than in Scotland and in turn Northern Ireland). This progression may be in accord with broad expectations based upon the geographical characteristics of the different countries and the nature of their agricultural sectors. In England a remarkably high proportion of holdings has some form of additional enterprise, and the fact that one in five farms provides accommodation, leisure or recreation services of some sort is of particular note. Not unexpectedly, contracting is a common activity and the involvement of one in eight holdings with processing & sales of farm products is also an interesting finding. The provision of tourism/recreation services and contracting dominates diversification in Wales, too, with the frequency of the former enterprise on farms being comparable to that in England. Although at a lower level, diversification on Scottish farms is primarily characterised by the provision of services, but the other enterprises could be classed as only relatively minority concerns. As already suggested, Northern Ireland agriculture has experienced little development of any of these alternative income sources.

On reflection, a number of these results may not be entirely surprising. The provision by farms of accommodation and tourist facilities is a long-established practice, especially in the scenic rural areas of England, Wales and Scotland. Contracting out machinery operations, especially in arable farming and for various grassland conservation activities, has been regarded as quite normal for many farms. Nor are processing & sales enterprises a particularly novel feature of the farming scene, especially in connection with dairying or horticultural production. By contrast, it is the various activities grouped under the specialty products and miscellaneous headings that possibly represent the more innovatory (and hence still minority) enterprises that have gained attention in recent years. The interesting aspect will be to see how the incidence of these various enterprises changes in the future as a result of the current emphasis on the needs and opportunities for diversification, and how those developments are associated with particular sizes and types of farm business. Some further exploration of these aspects is pursued in the next chapter.

5. FURTHER ANALYSIS ON THE STRUCTURE OF DIVERSIFICATION

The manner and extent to which any farm business may diversify its income-generating activities are influenced by a number of factors. The three most obvious can be summarised as need, opportunity and inclination.

Increasing economic pressures on agriculture create a need to find new and/or better ways of using productive resources so as to maintain farm business income. This need may be felt more severely by farmers whose businesses are either towards the smaller end of the size range, or have poorer quality resources, or are specialised towards farm products having the least favourable returns. In many cases it will be individual circumstances, such as heavy debt commitments or the desire to provide employment for other family members, which underlie the need to generate additional revenue. The opportunities to exploit new income sources are far from uniformly available to all farmers. Generally speaking it will require particular advantages of location, access to markets, farm characteristics or entrepreneurial skills for a farm business to branch out successfully into new ventures. Finally, not all farmers have the ability or the inclination to move away from the conventional practices of agricultural production and undertake unusual enterprises that many might consider as "not proper farming".

A careful analysis of the many factors which determine - whether to initiate or constrain - the diversification of farm resource use would seem essential to inform the policy-making process as agriculture confronts a new era of adjustment. Such an analysis is well beyond the bounds of this study, obviously. However, it was thought useful to examine the survey data for any associations between the pattern of diversification and possible explanatory factors that might emerge. The results presented in this chapter relate only to England and Wales, and offer some broad indications concerning hypotheses that deserve more detailed examination.

A. Diversification in Less Favoured Areas

In terms of the "needs and opportunities" explanation of diversification the LFA regions represent an interesting situation. By definition they are at some economic disadvantage in terms of agricultural production, but to some extent this is counteracted by the special income support measures targetted at LFA farms. By contrast, being comprised largely of the hill and upland areas of the country they might be thought to possess certain natural advantages in catering for demands associated with tourism and recreation. The results in Table 11 cast some light on these issues. From this it appears that a noticeably smaller proportion of LFA farms have diversified their farm businesses. Among those that have, however, the concentration on services enterprises is far higher than on non-LFA farms; this seems to be convincing evidence that the expected tourism and recreation opportunities are being taken up in these agriculturally disadvantaged regions. Another noticeable feature is that processing & sales enterprises are significantly less common on LFA farms, and to an extent so too are specialty products. This finding seems consistent with presumptions that farms in the more remote LFA

Table 11 Diversification in LFA and non-LFA regions

(a) Holdings with diversified enterprises

	LFA holdings	Non-LFA holdings	All England & Wales
Number of survey responses	1512	5365	6877
Number of holdings with diversified enterprises	552	2281	2833
Proportion of holdings diversified	36.5%	42.5%	41.2%

(b) Structure of diversification (per cent of diversified holdings with the specified enterprise)

	LFA holdings	Non-LFA holdings	All England & Wales
Services	58.0	44.8	47.4
Contracting	37.3	38.9	38.6
Processing & sales	18.5	30.6	28.2
Specialty products	14.3	20.2	19.0
Miscellaneous	12.7	12.9	12.9

regions lack the closeness and ready access to the particular markets or off-farm consumers upon which these enterprises are dependent; furthermore, for many of the specialty products the production conditions in the hills may also be less favourable. (These are all hypotheses for further testing, of course, rather than definite explanations.)

It will be noted that these results bear some similarity to those shown in Table 5 for Wales where two thirds of the sample were LFA holdings (compared to 14% in England). However, they are not dominated by the Welsh situation, for the total sample of LFA respondents is about equally divided between the two countries. Thus one could confidently conclude that the LFA's reflect a distinctive regional difference in the overall national pattern of diversification.

B. The Influence of Farm Size

Plausible hypotheses concerning the influence of farm size on diversification are not particularly self-evident. In one sense the smaller farms may seem more in need of finding alternative sources of income, since large farms can better capture the economies that make for cost-efficient agricultural production. On the other hand, many small farms may be effectively part-time anyway because the operation requires another job to sustain the household income; in such circumstances where the labour resources have not been fully committed to farming, there may be insufficient time (or farm resources) to divert into the establishment of additional on-farm enterprises. Such reasoning could then lead to conclusions that, other things being equal, it is the larger farms that

are more likely to have the resources, the flexibility - and perhaps the enterprising management - to pursue opportunities for diversification.

Table 12(a) seems to suggest some semblance of a link between size of business and extent of diversification.⁹ First, it is clear that diversification is significantly more common on Large farms; almost one half of all holdings in this group have additional enterprises, well above the average for England and Wales. At the other extreme Zero size holdings are the least diversified group, only one third of its members having branched out in this way. This may not be surprising, since many are not agricultural businesses in the conventional sense (by definition they have no recorded agricultural output), so in a sense there is nothing for them to diversify out of; quite possibly also very many of these holdings are just small land areas held in association with a residence or for purely casual amenity purposes. Of what might be called the 'genuine' agricultural holdings there is little strong evidence of any consistent relationship. Those defined as part-time (i.e. the Very Small group) seem no different from the overall average nor from Small or Medium size farms in the extent to which they have diversified.

Table 12 Diversification by size of farm business

(a) Holdings with diversified enterprises

	Size of business					All England & Wales
	Zero	Very Small	Small	Medium	Large	
Number of survey responses	587	1797	1765	1642	1086	6877
Number of holdings with diversified enterprises	199	753	690	675	516	2833
Proportion of holdings diversified (%)	33.9	41.9	39.1	41.1	47.5	41.2

(b) Structure of diversification (per cent of diversified holdings with the specified enterprise)

	Size of business					All England & Wales
	Zero	Very Small	Small	Medium	Large	
Services	63.3	47.1	46.1	47.4	43.4	47.4
Contracting	22.1	23.1	38.7	48.3	54.8	38.6
Processing & sales	16.1	33.9	32.3	25.0	23.4	28.2
Specialty products	18.6	31.5	17.1	10.7	14.5	19.0
Miscellaneous	14.1	16.5	12.6	9.2	12.4	12.9

⁹ See page 3 for definition of farm business size classes.

Table 12(b) offers interesting information on the pattern of activities on diversified farms of different sizes. Taking the overall England & Wales averages as the reference, the Large and Medium sized holdings have a significantly greater involvement in contracting enterprises and markedly less in producing specialty products. Processing & sales enterprises appear somewhat less common on Large farms, too. At the other end of the scale the Zero and Very Small farm businesses have quite low activity in contracting operations - a result that, once seen, is quite easy to rationalise in the circumstances. The Zero size holdings have a remarkably high proportion (almost two thirds) providing services, and this may well reflect the fact that many are not agricultural at all but are operated as 'country' facilities of one sort or another. A number of the other differences presented in the table could be meaningful - for example the high occurrence of specialty products on diversified holdings in the Very Small group; on the other hand, they could be merely a function of this particular set of respondents in the survey. It is worth noting, however, that the results are not drawn from particularly small samples. Apart from the Zero size businesses, the number of holdings in each size group is over 500 in every case and nearer 700 in most. This should help to avoid the dangers of small sample bias and allow some confidence that the figures are representative of the real situation.

C. Diversification on Different Types of Farm

It is an interesting question whether, and how, the type of farming practised on an agricultural holding might affect its diversification into other enterprises. To the extent that farming type is associated with geographical region or size of farm, some hypotheses follow from the discussion under previous sections. In general, however, there are few obvious associations that one might expect to find and it may be best simply to see what patterns emerge from the data.

Those patterns are shown in Table 13. It is clear that involvement in diversification shows about as much variation across types of farming as it does across the range of farm sizes.¹⁰ Compared to the England & Wales average the arable based farms in the crops group have a much greater involvement at 49%. By contrast, the Dairy and LFA Livestock farm types are far less diversified, with only one in three having these enterprises. This latter result is consistent with the finding that diversification is lower among all farms in the LFA regions.

A number of interesting patterns emerge as one examines the structure of diversified enterprises across the different farming types.¹¹ Dairy farmers appear to be markedly less interested than the average in the production of specialty products or in fostering the many miscellaneous

¹⁰ See Glossary for an explanation of the farm type classification.

¹¹ Holdings in the "Grass only" farm type are identical to those in the "Zero BSU" size group discussed in the previous section. Hence they are not referred to again here.

Table 13 Diversification by type of farm

(a) Holdings with diversified enterprises

	Dairy	LFA L'stock	Lowland L'stock	Crops	Pigs & Poultry	Hortic	Grass only	All England & Wales
Number of survey responses	1192	681	1881	1754	388	394	587	6877
Number of holdings with diversified enterprises	420	230	777	859	171	177	199	2833
Proportion of holdings diversified (%)	35.2	33.8	41.3	49.0	44.1	44.9	33.9	41.2

(b) Structure of diversification (per cent of diversified holdings with the specified enterprises)

	Dairy	LFA L'stock	Lowland L'stock	Crops	Pigs & Poultry	Hortic	Grass only	All England & Wales
Services	47.8	59.6	52.3	41.8	41.5	24.3	63.3	47.4
Contracting	43.1	33.5	31.4	54.4	29.8	17.0	22.1	38.6
Processing & sales	30.0	14.3	24.5	25.7	42.1	71.2	16.1	28.2
Specialty products	7.9	12.6	26.3	16.8	17.0	35.6	18.6	19.0
Miscellaneous	7.1	10.4	16.5	12.5	10.5	17.0	14.1	12.9

enterprises. This finding could be in line with the situation of dairy farms which are perhaps facing relatively less economic stress (and hence less need to diversify) since quota introduction, coupled with the necessary regular and concentrated focus on the milking herd which discourages the management of more diverse ventures. Diversified LFA Livestock holdings are very heavily into the provision of services but less involved than other types in processing & sales and specialty products - a characteristic identified for LFA farms as a group and discussed in an earlier section. The largest sub-group of survey respondents were of the Lowland Livestock type and their pattern of diversification shows no really marked deviation from the overall England & Wales picture in relation to any of the enterprises. The distinctive feature of diversified Crops farms is that well over half have a contracting enterprise; this was the case for farms in the Large size group considered earlier, and there may be much commonality between these two groups. An interesting feature of Pig & Poultry farms is their slightly lower than average involvement in the provision of services (a pig slurry tank and a broiler house do not immediately suggest an ideal environment for holiday accommodation and recreation), and their greater involvement with processing & sales enterprises. These divergences from the average national pattern are even more marked in the case of diversified Horticultural holdings, where the provision of services is only half as common - the lowest by far of any farming type. On the

other hand processing & sales enterprises are to be found in seven out of every ten cases; this is entirely consistent with expectations, since many PYO operations and farm shops are likely to be established among these farm types. Finally, the Horticultural holdings are by far the most frequent adopters of specialty products enterprises - presumably being the primary farm type for the many specialist and minority crop products.

D. The Structure of Activity Within Each Enterprise

Reference has been made earlier to the fact that each of the five main enterprises distinguished in this study covers a range of activities, all of which share similarities with respect to particular characteristics. Almost inevitably each enterprise type could be divided further into a number of sub-enterprises, the constituent activities of which are even more homogeneous than for the overall class. While it was not appropriate to conduct the analysis of the survey data using any more refined enterprise classification, it is informative to explore further the structure of activity groups that make up each enterprise. Again, selected sub-groupings are rather arbitrary, but they are thought to possess some logical basis.

The specialty products enterprise seemed to break naturally into four sub-groups - livestock products, crop products, organically produced output and the inevitable group called 'other'. Based on the survey responses the services enterprises can be divided into sub-groups embracing accommodation and catering, leisure, sport and "horse-related" activities (the criteria applied to differentiate between what is leisure and what is sport might not survive close questioning). There are few conceptual problems with contracting enterprises, which involve either agricultural or non-agricultural operations. For processing & sales enterprises a three-part division of activities seems most logical, distinguishing the (relatively simple) preparation and packing of farm-produced products, their processing into higher value commodities, and the sale in wholesale or retail markets. Finally the miscellaneous category, almost by definition, resists sub-division into meaningful groupings. A pragmatic consideration of the activities listed in the survey responses leads to a breakdown under the headings of timber & fuel, building & machinery services, craft work, and other. The above definitions should be read in conjunction with the information in Appendix II, which gives a full listing of the activities recorded under each heading and their frequency of occurrence in the survey.

The relative magnitudes of all these nominated groupings within each enterprise, as reflected in the collective survey responses from holdings in England & Wales, are presented in Table 14. No further commentary is offered, although clearly there are opportunities for some potentially interesting analyses within these figures.

Table 14 Classification of activity groupings within enterprises (per cent of activities occurring within each named sub-group)

<u>Specialty products</u>		<u>Services</u>	
Crop products	31.4	Accommodation/catering	48.2
Livestock products	44.1	Leisure	18.4
Organic products	12.1	Sport	9.2
Other products	12.4	Horse-related	24.2
<u>Contracting</u>		<u>Processing & sales</u>	
Agricultural	70.5	Preparation/packing	19.3
Non-agricultural	29.5	Processing	19.9
		Marketing	60.8
<u>Miscellaneous</u>			
Timber & fuel	41.7		
Building/machinery	14.4		
Crafts	13.7		
Other	30.2		

E. Other Findings from the Postal Survey in England and Wales

On the questionnaire respondents were asked to assess broadly the contribution the various diversified enterprises made to their farm business income. It was recognised at the outset that the responses could not be corroborated, and for a number of reasons it was expected that this question was the least likely of any to be answered accurately. (This was not just because questions of income are perceived as being more personal, but also because many respondents simply would not have the necessary financial information in a suitable form.) The choice offered was to indicate whether diversification contributed nothing, less than 10 per cent, 10-25 per cent, or over 25 per cent of net income from the farm business. It may just reflect the notorious dismalness of farmers that one third of respondents declared diversification added nothing to their income. However, it was also evident from the survey that many holdings had, in a technical sense, diverted resources to other uses but that these were entirely casual, personal recreational or essentially non-commercial pursuits often provided as part of a community service. (This was the case where fields were made available for Pony Club activities, or the casual sale of products at the farmgate, etc.) A further one third of respondents claimed that diversification contributed less than 10 per cent, and these results together suggest that although diversification is quite common on holdings in England and Wales, it is not yet perceived as a major income-earning activity. At the other extreme, a fifth of diversified farms said they received more than 25 per cent of their income from these enterprises. The second stage of this research project aims to address this general question with more precision.

In addition to the above results, which relate to diversified enterprises operated as part of the respondents' farming businesses, there were some 5 per cent of holdings which had leased out resources for others to undertake such activity. Mostly these were farmers who had

themselves diversified also, but 66 survey respondents (a mere one per cent) had only leased-out facilities. By far the dominant enterprise was "miscellaneous", reflecting the fact that it was usually buildings that had been let out for workshops, offices, craft activities, etc. The only other significant activity was services, suggesting that often cottages, barns or land were let to operators of tourist or recreational enterprises.

6. DIVERSIFICATION AS A DYNAMIC ADJUSTMENT ON FARMS

It has been noted already that the so-called diversified enterprises now found on farms may be viewed in two entirely different contexts. On the one hand they may be activities that have long been a common component of the farming scene in particular regions or locations, farm types or among a minority of specialist farmers - for example, farmhouse accommodation in South West England, agricultural contracting by farms with excess machinery capacity, processing & sales by some dairy farms or vegetable producers, etc. In these cases there is nothing particularly novel about the enterprise, which may have been an integral feature of the farm business and its resource allocation as they developed over the years. Operators of such businesses would probably regard these enterprises as a 'normal' part of their commercial activity in which they responded at one time to a particular interest or market opportunity.

At the other extreme are those enterprises which have been relatively recently introduced as an 'add-on' to a farm business seeking to develop alternative sources of income to sustain the holding in the face of declining profitability of conventional agricultural production. It is this latter group for whom diversification is a novel development, and whose present involvement is a result of a particular decision to divert resources away from 'straight' agriculture and into new ventures. The policy encouragement for diversification, whether designed to specifically sustain existing farm businesses or to encourage the adaptation of the farm sector to new demands in society, is more focussed on these new entrants to the field of diversified enterprises.

A. Recent Developments

In assessing the effect these policies and economic stimuli are having it is useful, therefore, to distinguish between what might be termed "established" and "recent" diversified enterprises. This issue was addressed in the postal survey in England & Wales by asking respondents to identify which enterprises they had started in the last five years (i.e. since 1983/84). This time was taken as an approximation for the period over which farmers have been increasingly cognisant of the economic pressures upon them to adjust the level and pattern of resource use. Table 15 shows a division of the recorded survey observations on

Table 15 Enterprise pattern by length of time in operation

Enterprise	Total no. recorded	Proportion "established" (%)	Proportion "recent" (%)
Services	1343	69.3	30.7
Contracting	1094	81.1	18.9
Processing & sales	800	82.7	17.3
Specialty products	539	57.5	42.5
Miscellaneous	365	85.5	14.5
All enterprises	4141	74.9	25.1

each of the five enterprise types depending on the length of time they have been in operation. Overall about three quarters of the enterprises recorded have been established for over five years - an indication of the fact that "diversification" is far from being simply a current phenomenon related to depressed incomes from farming. Alternatively, these results may be interpreted as suggesting that, of the holdings which have resources diverted to other uses, one in four have turned to these new forms of income-earning enterprise in recent years; seen in that light, this is perhaps a remarkable rate at which farmers' conventional image of their role has changed.

The greatest growth in new enterprises in recent years appears to have been in the area of specialty products, and to a lesser extent in the provision of services. This might not be unexpected, given the emphasis that has been placed on the opportunities for a wide range of novel and specialist products¹², and the apparent growth in the demands for recreation and amenity services in the countryside. By contrast, much less of the expansion into new enterprises has been in contracting or processing & sales. In many senses these are the traditional 'side-lines' of the farming business (in the case of contracting) or may be more demanding of capital, organisational and management skills or specific market opportunities for their establishment (as is perhaps true of the value adding activities).

B. Prospective Developments

If the current pattern of diversification is the combination of long established enterprises augmented by many new entrants to the field, that pattern is still a changing one. If policy signals remain consistent, there will be many more farmers facing the decision to divert some resources out of conventional farm products and into the new enterprises. Given the novelty of many of these activities to many farmers, and their unfamiliarity with the technical, financial, managerial and marketing aspects necessary for successful introduction and implementation, there will undoubtedly also be a number of failures.

The opportunity to survey some of these aspects was taken by including in the questionnaire a question on future plans. Respondents were asked specifically if they had definitely decided:

- (a) to introduce a new diversified activity;
- (b) to expand an existing diversified activity;
- (c) to give up an existing diversified activity.

In each case the activity was to be specified.

The results suggest that significant further growth in the extent of diversification is in prospect. Some 484 farmers (7 per cent of all respondents) declared a definite intention to introduce one or more new

¹² See, for example, S P Carruthers (editor), Alternative enterprises for agriculture in the UK, CAS Report No 11, Centre for Agricultural Strategy, April 1986.

enterprises. If all do so, and this is representative of the overall situation, the proportion of diversified holdings in England & Wales will be approaching 50 per cent. Of these intended new entrants, by far the largest number (227) planned to start a services enterprise, while 166 planned something in the miscellaneous category. Specialty products were of interest to 80 respondents, but only 34 farmers were considering starting a processing & sales enterprise, and almost none contracting. These findings are broadly in line with the pattern of new enterprise development over recent years, as discussed above. The regional location of these potential new entrepreneurs was fairly uniform, although proportionately fewer were in the North region of England and rather more in the East. There seemed no differential influence determined by farm size but, to the extent that sample sizes can support the estimates, compared to the overall average a much smaller proportion of these potential innovators were on Dairy and LFA Livestock farms and a significantly higher proportion on Pig & Poultry farms. There may be some intuitive logic behind these findings, but it is not easily set out.

Even more evident were the intentions among survey respondents to expand existing diversified enterprises. A total of 693 farmers declared such an intention, which represents almost one in four of those already involved in diversification. Again it is services and miscellaneous (33% and 27% of intending farmers respectively) which are the favoured enterprises for expansion. Specialty products, contracting, and processing & sales all figure approximately equally prominently, featuring in the expansion plans of about 16% of farmers in each case. If, having already gained experience of augmenting their farming incomes through diversified enterprises, one quarter of farmers are intending to expand this activity further, then this suggests considerable success on their part in establishing a niche in these new markets and in coming to terms with some of the new economic realities facing the owners of agricultural resources.

Finally, to complete the picture 67 already diversified holdings were intending to cease an enterprise. The doomed enterprises were scattered across all five different types, and the numbers are too small to draw any strong conclusions. Since they represented about 1.5% of all the diversified enterprises recorded in the survey, they might be considered as indicative of the "normal" failure rate one might expect amongst those who undertake commercial activity in a perhaps unfamiliar and rapidly changing environment.

GLOSSARY OF TERMS AND DEFINITIONS

LESS FAVOURED AREAS

The Less Favoured Areas (LFA's, alternatively termed Disadvantaged Areas) are those in which farmers receive special treatment under the Common Agricultural Policy; this includes subsidies on production and higher rates of grant for eligible items of capital investment. This support policy is intended to compensate for the natural disadvantages faced by farmers in the LFA's, which correspond predominantly with the hills and uplands. Currently some 9.8m hectares, about 53 per cent of the utilisable agricultural area in the UK, are classified as LFA.

BRITISH SIZE UNITS

Farm business size is measured in British Size Units (BSU). One BSU is equal to 2,000 European Currency Units of Standard Gross Margin (SGM) at average 1978-80 values (equivalent to about £1,300). The total SGM of each farm is calculated by applying relevant SGM coefficients to the stock and crops present on the farm on 1st June. Holdings of less than 4 BSU are judged too small to provide full-time employment for one adult, and are therefore considered to be part-time.

EC STATISTICAL REGIONS (ENGLAND)

COUNTIES

	COUNTIES
NORTH REGION	Cheshire, Cleveland, Cumbria, Durham, Greater Manchester, Humberside, Lancashire, Merseyside, North Yorkshire, Northumberland, South Yorkshire, Tyne and Wear, West Yorkshire
EAST REGION	Bedfordshire, Berkshire, Buckinghamshire, Cambridgeshire, Derbyshire, East Sussex, Essex, Greater London East, Greater London South East, Hampshire, Hertfordshire, Isle of Wight, Kent, Leicestershire, Lincolnshire, Norfolk, Northamptonshire, Nottinghamshire, Oxfordshire, Suffolk, Surrey, West Sussex.
WEST REGION	Cornwall, Devon, Dorset, Gloucestershire, Hereford and Worcester, Scilly Isles, Shropshire, Somerset, Staffordshire, Warwickshire, West Midlands, Wiltshire

DEFINITION OF FARMING TYPES

- Dairy** Farms where the dairy enterprise, including followers, accounts for over one third and commonly over two thirds of total SGM and is the largest enterprise group.
- LFA Livestock** Farms in the EC Less Favoured Areas on which grazing livestock, other than dairy cattle, account for over one third and commonly over two thirds of total SGM and are the largest enterprise group.
- Lowland Livestock** Farms outside the EC Less Favoured Areas on which grazing livestock, other than dairy cattle, account for over one third of total SGM and are the largest enterprise group; or farms on which grazing livestock (except dairy cattle) and field crops each account for over one third but not more than two thirds of total SGM.
- Crops** Farms where field crops including cereals account for over one third and commonly over two thirds of total SGM and are the largest enterprise group, either alone or in combination with horticultural crops or permanent crops (including fruit).
- Pigs & poultry** Farms on which pigs and poultry, either alone or in combination, account for over one third and commonly over two thirds of total SGM and are the largest enterprise group.
- Horticulture** Farms where horticultural crops or permanent crops (including fruit), either alone or in combination, account for over one third of total SGM and form the largest enterprise group.
- Grass only** Farms with no identifiable enterprise other than grassland which may be let for keep, made into hay or silage and sold or used by the occupier solely for recreational purposes.

A P P E N D I C E S

SECTION III DIVERSIFIED ACTIVITIES UNDERTAKEN ON YOUR FARM BY OTHERS

8. ARE ANY OF THE LAND OR BUILDINGS ON YOUR FARM LET OUT TO OTHERS TO UNDERTAKE DIVERSIFIED ACTIVITIES? (e.g. land let for sports field, building leased for workshops/office)

YES	NO
-----	----

Please specify

.....

.....

SECTION IV RECENT CHANGES

9. WHICH OF THE ACTIVITIES YOU LIST IN SECTIONS I AND III HAVE YOU STARTED IN THE LAST FIVE YEARS?

Please specify

.....

10. WITHIN THE LAST FIVE YEARS HAVE YOU GIVEN UP ANY ACTIVITIES COVERED IN SECTIONS I AND III? If you have please specify:

YES	NO
-----	----

Activity; reason

.....

Activity; reason

.....

11. WITHIN THE LAST FIVE YEARS HAS ANY LAND OR ANY BUILDINGS BEEN SOLD FROM YOUR FARM FOR NON-FARMING USE? (Tick as appropriate)

YES	NO
-----	----

	Housing	Recreation	Tourism	Industry	Other
Land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buildings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION V FUTURE PLANS

12. HAVE YOU DECIDED THAT YOU DEFINITELY WILL: Specify the activity

- (a) introduce a new diversified activity YES/NO.....
- (b) expand an existing diversified activity YES/NO.....
- (c) give up an existing diversified activity YES/NO.....

13. (FOR THOSE WHO HAVE NO DIVERSIFIED ACTIVITIES) DO YOU SEE ANY OPPORTUNITY TO INTRODUCE A DIVERSIFIED ACTIVITY INTO YOUR FARM BUSINESS?

YES	NO
-----	----

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SECTION VI YOUR COMMENTS

14. Please add any further comments:

.....

.....

15. Would you like to be sent a complimentary copy of the report summarising the findings of this survey?

YES	NO
-----	----

If your name and address differs from that shown, please amend appropriately

Thank you very much for your time and help in completing this form. We assure you again that all information given by you will remain entirely confidential. Your answers will be coded for analysis by computer, and combined with those for other farms. No individual farm will be identified in any reports that are prepared.

APPENDIX II

LISTING OF ACTIVITIES IDENTIFIED FROM POSTAL QUESTIONNAIRE RESPONSES

Specialty products	Number recorded	
Snails	1	
Goats	140	
Rare breeds	33	
Bees/Honey	15	Livestock
Deer	20	products
Fish	33	
Rabbits	13	
Minority poultry and game	11	
Other livestock	14	
Special flowers/fruit etc	37	
Vineyard	17	Crop
Minority crops	66	products
Christmas trees	62	
Other crops	18	
Organic meat	49	Organic
Organic vegetables	28	products
Dog/Cat/breeding, Kennels	31	
Caged birds	2	Other
Animal feeds	39	products
Turf	9	
Services	Number recorded	
Caravan/camping site	308	
Holiday cottage	281	
Rented accommodation (all year)	54	Accommodation
Bed & breakfast	293	and catering
On-farm catering	58	
Other accommodation	14	
Picnic site	23	
Wildlife/Trail/Museum etc	85	
Activity facilities	26	
Boating	8	
Fishing	150	Leisure
War games	5	
Gliding	5	
Educational facilities	56	
Other leisure	27	
Shooting	169	
Motorsport	9	Sport
Golf	2	
Other sport	12	
Horse riding/trekking	119	
Livery	303	Horse
Horse racing and stud	70	related
Horse trials	14	

Contracting	Number recorded	
Agricultural	900	
Non-agricultural	376	

Processing & sales	Number recorded	
Milk bottling	84	
Egg packing	77	Preparation/packing
Fruit & veg, washing, grading, etc	82	
Milled cereals	8	
Milk products - cows	56	
Milk products - goats/sheep	38	
Game butcher	6	
Meat butcher	83	Processing
Fish processing	4	
Cider/fruit juice	12	
Winemaking	5	
Skins/hides/clothmaking	9	
Other food processing	29	
Pick-your-own	79	
Farm shop	448	
Freezer shop	16	
Market stall	39	
Egg sales	26	
Milk round	43	Marketing
Garden centre/plant sales	29	
Hay, straw sales	19	
Exporting products	6	
Miscellaneous supplies	40	
Other retail	19	

Miscellaneous	Number recorded	
Fuel wood	134	Fuel and timber
Timber products	40	
Rural crafts	47	Craft work
Teaching of crafts	10	
Machinery hire	13	
Hire of buildings	5	
Vehicle storage	16	
Cold storage	2	Building/machinery
Haulage	19	
Alternative technology	2	
Showground	3	
Secretarial services	10	
Consultancy and management	13	
Stone extraction/land fill	8	Other
Agricultural sundries supply	5	
Other miscellaneous	90	