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Farm Diversification Activities:

**Benchmarking study 2002
Final report to DEFRA**

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Benchmarking study 2002
Final report to DEFRA

Centre for Rural Research, University of Exeter
&
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EXECUTIVE SUMMARY

Introduction

Research aims

E1. This report is based on research undertaken to review the state of farm diversification in England analysing, in particular, developments during the past decade. The key aim is to identify the importance of diversified enterprises to farm business viability.

Research objectives

E2. The specific research objectives addressed by the research were as follows:

- **Objective 1.** To provide a review of the major studies of farm diversification in England carried out during the last decade since the previous national study.
- **Objective 2.** To examine how farm diversification has evolved over that period.
- **Objective 3.** To examine the nature and extent of the contribution of non-farming activities on agricultural holdings in England.
- **Objective 4.** To examine financial outlays and returns for diversified activities.
- **Objective 5.** To compare the relative economic performance of different activities.
- **Objective 6.** To examine what farm based resources are currently allocated to diversified activities, in particular with regard to labour and land.
- **Objective 7.** To examine the importance of diversified activities to the total incomes of farm households.
- **Objective 8.** To examine the extent to which the Rural Enterprise Scheme has stimulated increased interest in farm diversification since October 2000.
- **Objective 9.** To consider the outlook for developments in farm diversification.

Background

Policy issues in farm diversification

E3. Diversification became a popular policy prescription in the 1980s as incomes from farming came under pressure due to over-production and consequent adjustments to the Common Agricultural Policy. This section of the report examines the development of relevant policies.

The baseline study

E4. The research seeks to up-date research undertaken by Exeter University for MAFF in the late 1980s. That research recorded 42.4 per cent of agricultural holdings in England to be involved in one or more of five defined enterprises (services, contracting, processing and sales, speciality products, miscellaneous).

E5. One of the most notable features of the diversified enterprises studied was the variation in their financial performance. The mean value of *output* was just over £22,000 per enterprise, but varied from a few hundred pounds to over £1 million. Nearly two thirds of enterprises generated an output of less than £5,000. The average diversified enterprise earned a *net profit* of about £5,200 and an average *net margin* of just under £2,300 per enterprise. Thus, in most instances diversified activities were conducted on a relatively small scale and represented a minor income source, contributing approximately 11 per cent of total business income earned on the farms.

Diversification during the 1990s

E6. This section provides a review of the literature on farm diversification in the 1990s. During the 1990s a number of studies were conducted by academics and these are reviewed for what they tell us about the extent and nature of farm diversification. A key issue that emerges of particular relevance to this research, is the need for an operable definition of diversification for conducting empirical research.

E7. Farm households may have a variety of income sources, including employment off the farm (pluriactivity) and we gathered some information on this. However our focus is on the different possible combinations of capital and land assets. The definition used in the first baseline study is of *diversion* to other-income earning uses of any of the resources previously committed to conventional farming activities. This offers two difficulties: first, with regard to the definition of conventional agriculture as this will vary between times, places and people; and secondly with regard to the notion of the diversion of resources as this might imply that diversification only takes place if a farm household re-allocated resources within a particular time period.

E8. The report reviews a number of approaches to dealing with these problems. The diversified activities dealt with in this report were sub-divided into speciality crop or livestock products, on farm services, contracting services, food processing or direct marketing, and miscellaneous products or services. Each of these categories were sub-divided into a wide range of specific possible enterprises, making 92 in total.

Methodology

Approach adopted

E9. A postal survey was undertaken of a sample of English holdings, to establish the extent and nature of farm diversification nationally and to record the level of change since the baseline study. An interview survey was undertaken with a sub-sample from the postal survey to provide economic and social data on the operation of diversified enterprises.

The postal survey

E10. The postal survey comprised a total of 5,500 questionnaires sent out, and produced a 'usable' response rate of 51 per cent, with no particular bias either by farm type or ESU size category. Geographically, the North East and North West

Government Office regions produced below average rates of response at around 50 per cent while all the other regions were about average. Wholly tenanted holdings produced below average response with mainly owned above. Because the sampling (and response) rates were not uniform it was necessary to weight the data collected so as to reflect accurately the characteristics of the population of holdings.

The interview survey

E11. The sample was randomly drawn from the 1,716 postal survey respondents that had indicated some diversified activity.

The nature of farm diversification

Patterns of diversification

E12. Using the results of the postal survey, a total of 1,624 holdings (58.3 per cent) were found to be engaged in some form of diversified activity. Nearly one in five diversified holdings have no conventional agricultural production. Considered in the context of England's agricultural sector, therefore, it is estimated that about ten per cent of all 'farm' holdings are engaged only in diversified activities.

E13. It appears that larger farms are more likely to have the resources, flexibility and entrepreneurship to pursue diversification. Compared to the 'all holdings' average, diversification is significantly more common on 'cereals', 'general cropping' and 'mixed' farms, and notably less common on 'dairy' and 'cattle and sheep (LFA)' farms, and on 'other types'. These findings are consistent with the earlier study of farm diversification.

E14. Owner occupied holdings are less likely than average to be involved in any form of farm diversification, at 54.5 per cent compared with the 'all holdings' figure of 58.3 per cent. Wholly tenanted holdings are the most heavily involved, at 66.4 per cent. Sixty five per cent of full-time holdings are diversified, compared with 48 per cent of part-time holdings.

E15. There are notable variations in the incidence of farm diversification across regions, and between full-time and part-time farms within regions. A key finding is that at the 'all holdings' level, the North West has the lowest proportion of diversified farms (48 per cent) and the South East the highest (68 per cent). The same ranking is seen in respect of full-time holdings (the South East at 78 per cent, the North West at 53 per cent) and part-time holdings.

E16. More than two thirds of England's farmed area is closely associated with diversification. A further 4 per cent of land is held by farm businesses which do not themselves produce any conventional agricultural product, suggesting that approaching three quarters of the nation's farmland is associated with diversified activities. Key findings are:

- Agricultural services account for more than one in three of diversified farms (e.g. contract machinery services, machinery hire, consultancy and

management advice and haulage provision of cold storage facilities and the supply of agricultural sundries).

- Trading enterprises are found on almost a third of diversified holdings. This group contains all those enterprises which involve the selling of agricultural or non-agricultural products to the general public.
- The provision of accommodation and catering services to the general public occur on 24 per cent of diversified holdings.
- Equine enterprises are found on nearly a quarter of diversified holdings.
- Nearly a quarter of diversified holdings recorded having at least one activity categorised as recreation and leisure services.
- More than one in five diversified holdings have an unconventional crop or crop-based processing activity.
- Sixteen per cent of diversified holdings are involved with unconventional livestock and livestock processing.

E17. The provision of agricultural services as a form of diversification is positively correlated with business size, with 58 per cent of 'very large' holdings involved. While most of the other enterprises do not show clear patterns in relation to business size, there is evidence that for a number of enterprise types, farms in the largest one or two categories appear to be more diversified than smaller units. This applies for 'accommodation and catering', 'recreation and leisure' and 'unconventional crops and crop-based processing'.

E18. The postal questionnaire addressed the issue of grant assistance for diversification. A little over five percent of all diversified holdings had received grant aid in setting up their diversified activities. This figure excludes the woodland grant schemes and also various agri-environmental schemes.

Financial aspects of farm diversification

E19. This section draws on the interview survey of some 225 diversified farms in England, carried out during July and August 2002 in which we collected summary physical and financial data for diversified enterprises. This covered output, inputs specifically attributable to the enterprise and the estimated share of all other resources used by the enterprise. These included general overheads, labour (paid and unpaid family labour), machinery, buildings and rental charge (including an imputed 'rental value' on owned land and buildings).

E20. The report focusses on *net profit*, a measure of trading performance broadly consistent with that used in conventional accounting, and *net margin*, which is an estimate of the residual return to the entrepreneur's management skills and capital resources committed.

E21. The detailed financial results relate to a sample of 421 diversified enterprises on 225 holdings.

E22. The interview survey identified 445 diversified enterprises on 225 farms, of which detailed financial records are available for 421. Where the financial

performance of these enterprises was adversely affected by the FMD epidemic, the estimated 'normal' position has been recorded so that the survey estimates provide an updated benchmark of farm diversification. The estimate of the contribution of diversification to aggregate agricultural income during 2001 is based on the actual position, and is thus fully comparable with the agricultural account.

Enterprise output

E23. The first indicator of scale in the diversified enterprises studied is *enterprise output*, which reflects the amount of resources committed and the potential for generating profits. The average value of output from commercial-scale diversified enterprises on farms in England currently stands at £25,500, with a range by type of enterprise of between £8,836 (equine enterprises) and £38,251 (agricultural services).

E24. The overall mean is clearly influenced by the scale of 'agricultural services', for which the average output is 1.5 times larger. This category is dominated by agricultural contracting, which ranges in scale from relatively small through to substantial business enterprises which in some cases dominate the original farm business. Two other types of enterprise recorded an average output significantly above the overall mean of £25,500, namely 'unconventional crops and crop-based processing' (£34,931) and 'trading enterprises' (£30,608). 'Equine enterprises' were by far the smallest in terms of turnover, at £8,836.

E25. Overall, more than four out of five diversified enterprises have an output below the mean, and this general characteristic is evident for all types of diversification. Thus relatively few large scale operations in each enterprise type tend to dominate the picture compared to the numerically much more important smaller scale enterprises.

E26. There is a general tendency for larger diversified enterprises to be located on larger agricultural holdings.

E27. Horticultural holdings have the smallest diversified enterprises, in output terms, closely followed by farms within the Less Favoured Areas. Both 'lowland cattle and sheep' and 'dairy' farms also recorded levels of output from diversification which were well below average. At the other end of the spectrum 'pigs and poultry' farms had a very large scale of diversification, with an average enterprise size some 2.7 times larger than the overall mean.

E28. Both of the Midlands regions, East and West, have the smallest diversified enterprises but record rather more enterprises per farm than average. The South West recorded the largest average scale of diversified enterprises, followed by the South East, and both regions recorded slightly above the overall mean in terms of the number of enterprises per farm.

Enterprise operating costs and net profits

E29. The sample mean value for retained profits from diversified activities – net profit as a percentage of enterprise output – is 27.8 per cent, giving an overall net

profit of £9,474 per enterprise. With average operating costs of £16,026, direct costs represented about 43 per cent and overhead costs 57 per cent.

E30. Given the very obvious range in the sizes of diversified enterprises discussed above, a number of important features about farm diversification have been identified. This summary of the cost and profit structures of farm diversification highlights those which are important in understanding the nature of this form of farm business activity:

- On average, direct costs represent about 43 per cent of total operating costs, and overhead costs 57 per cent;
- However, cost structures vary widely by type of enterprise, with overhead costs accounting for between 36 and 78 per cent ('trading' and 'recreation and leisure' respectively) of total operating costs;
- The average diversified enterprise brings in a net profit per farm of £9,474, with a range by type of enterprise of between £5,617 ('trading enterprises') and £12,546 ('miscellaneous services');
- For all diversified enterprises, the average net profit margin is 27.8 per cent;
- Profit margins also vary widely by type of enterprise: they are lowest for 'trading enterprises' (at 18.4 per cent) and highest for 'equine enterprises' (at 64 per cent);
- Variability from the overall mean by enterprise type is greatest for total operating costs, particularly direct costs, and least for net profits, with variability in output levels somewhere in between.

E31. Based on these findings some broad categorisation of the various forms of diversified enterprise has been attempted. The one type of diversification which can be classed as high output, 'agricultural services', scores poorly in terms of *net profit ratio*, at least in terms of its relative ranking under this factor. Conversely, the two low output categories, 'equine enterprises' and 'accommodation and catering', also have the two highest net profit ratios.

E32. At the average levels of profitability identified by this study, it is very evident that farm diversification is making an important contribution to overall business profitability on many farms. Against the background of the farming recession, an average net profit of £9,474 from diversified enterprises appears to compare very favourably with the margins from conventional agriculture.

Imputed costs and net margins

E33. While net profit offers the best representation of enterprise performance in *financial* terms it is not a complete measure of the true costs, since it does not account for the value of the non-traded resources that are utilised in production. The costs associated with these resources have to be imputed, and relate to the unpaid labour of the farmer, spouse and family workers and the rental value of owned land. Deducting these additional imputed costs from net profit produces the *net margin*, the residual available to the entrepreneur as the two-fold return on (a) the investment in tenant's capital and (b) management performance.

E34. Because of the importance of land and family labour in the essentially family-based businesses of farming these imputed costs are typically significant elements in the overall cost structures of the industry. Thus, while the net profit may be high enough to suggest that the performance of the enterprise is satisfactory, the real *economic* outcome as reflected by net margin may well tell a different story. This is not to imply that the enterprise is not worthwhile, of course – the perspective here is principally that of the farming industry regarded as a sector of the national economy.

E35. The overall effect of accounting for imputed costs was to reduce the net profit by almost 40 per cent (£3,681), giving an overall net margin across all enterprises of £5,793. Although this varied by enterprise type, the differences were not as great as might have been expected: ‘trading enterprises’ and equine enterprises’ fared worst, at £1,679 and £2,379 respectively; while ‘miscellaneous services’ achieved the best net margin at £9,311. The observed differences in cost structures mean that the rankings by type of enterprise change quite dramatically depending upon whether output, net profit or net margin is chosen.

E36. So what do these results mean show about the current profitability of farm diversification? Several important points emerge:

- The existence of healthy net profits (taken here to include both average profit *levels* as well as profit *margins*) in an era when profitability in conventional agriculture is weaker than for many years provides clear evidence of the importance of diversification as a feature of the modern farming sector;
- Furthermore, the not insubstantial average net margins obtained from diversification, irrespective of the type of enterprise involved, compare very favourably with mainstream agriculture at the present time;
- Clearly ‘miscellaneous services’, ‘agricultural services’ and ‘accommodation and catering’ are very attractive financially, returning substantial net margins on average;
- Those enterprises primarily connected with tourism and leisure (i.e. ‘accommodation and catering’, ‘recreation and leisure’ and ‘equine enterprises’) appear to be very useful adjuncts to a farm business, with the first two generating above average net margins and very good net profit margins also; equine enterprises are typically smaller, but as a group show the best net profit margin of all.

The employment patterns of the farm family

E37. A detailed examination of the structure, functions and degree of involvement and employment of the farm family was undertaken. These questions were addressed only on farms operated as family farms in the broadest sense. The work patterns of the individual family workers are often quite complex, involving different types of employment in different areas of the business or, indeed, in other businesses either on or off the farm.

On-farm employment: agricultural and diversified enterprises

E38. The pattern of employment on the farm was also examined, showing the labour input both on the farm and in the diversified business. These figures

include non-family workers, the managers of corporate farms and also members of unrelated families farming in some form of partnership with the respondents. The key findings are:

- For this sample of farms, broadly similar numbers of people are employed in both the agricultural and diversified sectors of the business (627 in agriculture, 651 in diversification);
- The composition of the respective labour forces, however, is quite different: diversified businesses appear to involve relatively few full-time employment opportunities and a correspondingly high level of casual staff;
- This general finding applies to both family and non-family workers, although the overall level of non-family involvement is fairly similar as between agriculture and the diversified enterprises.

E39. One final area for investigation was the estimated proportion of the total hours worked accounted for by the diversified enterprises, with respect both to family labour and to the total available labour. The overall finding is that on these diversified farms the non-agricultural enterprises account for more than a third of the total family labour input and about the same proportion of the total labour.

Length of involvement in diversification

E40. The interview survey gathered information on the length of time each farm has been involved in farm diversification, based on the dates of establishment of current enterprises. On average, it was found that current enterprises have been established for 16 years, but the variation by farm business size showed a much lower average age for diversified enterprises on 'very small' farms, at 11 years. The data appear to suggest that the pace of diversification has steadily increased over the period, from 1.5 enterprises per farm in the early years to 2 in 2002.

The aggregate income from farm diversification in England

E41. Two levels of comparison between the incomes generated respectively by farming and by farm diversification have been made: at the farm business level for diversified farms, and at the England level. It is clear that diversification makes a major contribution to 'total business income' on many diversified farms, with its average share of the total (before allowing for the value of the labour of the farmer and spouse) ranging from 24 per cent on dairy farms to 103 per cent on lowland cattle and sheep farms.

E42. Although direct comparison with the aggregate income from agriculture in 2001 is not possible, it is concluded that farm diversification produced a total of some £785 million in that year. It is further estimated on the basis of the 2000 data that, assuming a similar level of income from diversification, farming activities alone would have produced an aggregate income of £1.03 billion. It is concluded that, in broad terms, farm diversification contributes about 43 per cent of the total aggregate income from agricultural holdings of £1.815 billion.

Dynamic aspects of farm diversification

Comparison with the original baseline study

E43. One of the principal objectives of the present study has been to update the 1989/91 study to provide a new baseline from which one aspect of the structural adjustment of the agricultural sector over the next few years - the diversion of resources from food production towards alternative uses – can be judged.

E44. In the previous study it was noted that, notwithstanding the results from the financial accounting undertaken in the survey, four out of five diversified farmers considered their diversified enterprises to be successful in the context of their own particular objectives, and almost one third had intentions to expand or to introduce new ventures. This discussion focusses on the directly comparable findings of the two studies to set the scene for a review of the dynamic aspects of farm diversification.

E45. For a number of reasons direct comparisons with the 1989 postal survey are far from straightforward. **Because of these differences in methodology there are small variances between data presented in this section and certain corresponding figures found elsewhere in this report.**

Survey response

E46. The usable response achieved in the 2002 survey is markedly lower than that of its predecessor, at 49.6 per cent compared to 69.2 per cent (England only). Probably the most important factor influencing the lower response rate was the timing of the postal survey mail-out, which coincided (late April) with a particularly busy time of year for livestock and crop farmers alike. It thought likely that a number of other factors were also involved since, within the overall response, the pattern found is broadly similar.

Defining farm diversification

E47. The earlier discussion touched on the range of uses of the term ‘diversification’ and identified the conceptual approach used in both the present and the previous surveys. However, although both surveys use a common basis there are necessarily certain differences of definition between the main analyses used for the 2002 survey and the 1989 report. In this section, therefore, the definition of diversification used for these comparisons has been adjusted to be the same as that used in the 1989 survey. **It should be noted that this definition differs from that used in the main body of this report both by the inclusion of organic production as a diversified activity in itself and the exclusion of the leased farm resources.**

The incidence and structure of diversification

E48. The data would appear to confirm anecdotal evidence suggesting a substantial increase in the proportion of holdings engaging in some sort of diversified activity between 1989 and 2002. At regional level farms in the North continue to be the least likely to be diversified and those in the East the most. Diversification in the West region has shifted from being below the England average to being slightly above.

E49. The incidence of the five broad ‘enterprises’ indicates some changes in the relative importance of the *types* of diversification. The proportion of all farms engaged in each of the enterprises has risen, but only marginally in the case of contracting. This ‘deepening’ of diversification is confirmed by the marked increase in the proportion of diversified holdings engaged in two or more enterprises rising from 29.6 per cent to 52.1 per cent.

E50. The first thing to note about the levels of diversification of the different groupings is that the proportion of holdings that are diversified has risen right across the board, without exception. This finding not only adds depth to the headline increase in the overall incidence of farm diversification but also clearly suggests that farm diversification is now a major development shaping farming with widespread implications for the rural economies of England, and important policy ramifications.

E51. The degree of increase in diversification, however, has not been evenly distributed, so that now there is clear pattern related to farm business size. Larger farms are more like to be diversified, and this tendency is much more pronounced now that it was in 1989.

Length of time in operation

E52. There is a significant reduction in the proportion of recent ‘enterprises’ that is, those less than five years old, compared with the 1989 findings. One important conclusion from this is that the policy impetus given to farm diversification in the second half of the 1980s did ‘kick-start’ a significant increase in the numbers of farmers engaged in some form of diversification, and that this pattern was reflected in the 1989 findings.

Prospective developments

E53. Perhaps surprisingly, respondents’ future expectations with regard to diversification seem to have been broadly similar in 2002 to those recorded in 1989. Even though the current level of diversification is considerably higher than it had been at the time of the earlier survey a similar number of respondents indicated that they were ‘definitely’ going to introduce a new activity. The activities cited were concentrated in both years in the ‘services’ and ‘miscellaneous’ categories. In 2002 slightly fewer already diversified holdings than previously were planning to expand an existing activity, but in both years only a very small proportion were planning to give one up.

Baseline studies of diversification: a summary

E54. Despite the methodological difficulties in comparing detailed results from the 1989 and 2002 studies of farm diversification, the findings in this section have identified some fascinating developments in the incidence and patterns of this form of business growth. Some of these have very obvious implications for rural policy, while others confirm both the pace and, in this area at least, the direction of change if the nation’s farming sector.

E55. During the intervening period between the two studies farming has experienced ‘the best of times’ (the unpredicted boom in farm incomes between 1992 and 1997 following sterling’s ejection from the Exchange Rate Mechanism)

and ‘the worst of times’ (the multi-faceted farming recession since about 1998). Whatever the pattern of establishment of new diversification enterprises during the 1990s, careful comparison between the updated baseline study and its 1989 predecessor has identified:

- Diversification has increased substantially both in terms of the proportion of holdings reporting some diversified activity and in terms of the number of diversified ‘enterprises’ that the diversified holdings are engaged in;
- The one area of diversification that has seen relatively little growth is machinery contracting;
- The widening of diversification has encompassed all groups of holdings: LFA and non-LFA, all farm types and all farm sizes;
- The greatest increase in the proportion of holdings with some diversified activity has been in the larger holdings;
- The number of enterprises established for more than five years has shown a significant increase;
- The proportion of respondents planning to introduce new activities has remained about the same, while those planning to expand existing activities has fallen.

Drivers of business and income diversification

E56. A very wide range of factors are involved in the evolutionary development of a more diverse, less agriculturally focussed, farming sector in England. The present study identifies the income factor (that is, the financial need to find an alternative, supplementary source of income) as quite clearly the most important motivation behind the establishment of a diversified enterprise, with six out of ten listing ‘increase family income’ and more than four out of ten citing ‘maintain family income’ principal causal factors.

E57. However, a wide range of forces are involved in the diversifying of English agriculture, many of which are associated with the opportunity afforded by the development of a new, non-agricultural enterprise to make better use of existing farm resources. Other important motivations lend further emphasis to the attitude of mind which many identify as a central element in successful diversification. More than a fifth considered that the diversification would enhance the asset value of their farm, an interesting observation which suggests that at least some diversifiers may have an eye on their ultimate retirement or, at least, the sale of their present holding.

E58. An element of serendipity is introduced by the finding that 17 per cent of diversified respondents had grown their enterprise from what was originally an informal hobby while, in keeping with the small scale of many such enterprises, 16 per cent still regarded their diversification as little more than indulging an interest or hobby. Overall five per cent had established a new, diversified enterprise in order to create employment for family members. As would be expected, these general findings vary very substantially according to the type of enterprise involved.

Establishment of diversified activities

E59. The postal survey explored the nature of recent changes affecting one or more of a respondent's diversified activities, providing a number of alternatives to obtain a broad indication of change in the diversified sector. The results give an interesting overview of recent change in farm diversification, suggesting that 16 per cent of all holdings started, and a similar proportion expanded, a diversified enterprise during the past five years. For already diversified holdings, however, the equivalent proportions are about 27 per cent.

E60. The data show that the largest concentration of new activity has been in 'miscellaneous services' (at 23 per cent of all new business activities), followed by 'trading' and 'accommodation and catering' activities (both at 16 per cent). Relative to the total number of activities in each category, however, a slightly different picture emerges. Although total new provision is slightly more evenly distributed than the foregoing analysis, the largest expansion has been in the 'accommodation and catering' group, closely followed by the 'equine' and 'miscellaneous services' groups.

E61. One of the conclusions from this analysis is that farmers are less likely to initiate new business activities in types of diversification of which they have no experience than they are for those in which they are already active. It should be noted that, in this study, a distinction is drawn between *activities* and *enterprises*, the latter being regarded as broadly equivalent to an integrated business unit. On this basis, it may be stated that (a) more than a quarter of diversified holdings have established at least one diversified *activity*, and (b) nearly one in five have set up a diversified *enterprises* in the last five years. These are key findings which highlight the continuing dynamics of farm diversification in England.

E62. Earlier it was seen by comparison between this study and its 1989 forerunner that some 15 per cent of all holdings may have become diversified over the thirteen years between the two studies. Consequently, the finding that only an additional three per cent of holdings have diversified for the first time over the past five years could be taken to suggest that there has been a significant slowing in the pace of change, but some care is necessary in interpreting this information.

E63. Perhaps the most striking finding from this analysis is the remarkably widespread pattern of continuing diversification, with substantial proportions of each of the sub-groups examined recording recent diversified activity. These data provide an unequivocal indication of the strength of this movement towards more diverse farm businesses, and may also be read as evidence of a broad-based and fundamental shift in the outlooks and expectations of the farming community.

E64. Even so, there are distinctive regional differences in the pattern of new diversification, among the most notable of which is that more than a third of recent diversification has occurred in the South West. The next most active region for the establishment of new diversifications was the South East. Although less diversified as a group, 'small' and 'very small' holdings have nevertheless seen significant developments in diversification over recent years.

E65. It was found that ‘miscellaneous services’ activities represent the category of diversification most likely to have been improved over the last five years, followed by ‘accommodation and catering’. The latter finding probably reflects, at least to some extent, the market requirement for improved quality in such ventures. Again, though, it is clear that there is an across-the-board pattern in the *expansion and improvement* of diversified activities, much as was seen in terms of newly established ventures.

E66. The study looked at changes to diversified enterprises over time, and found that a third or more of recently established activities were subsequently expanded or improved, reinforcing the picture of a vibrant, expanding business sector. While it is likely that many of these expansions and improvements form part of an original business plan, this finding does suggest that a significant proportion of new diversified activities perform well enough in the early years to encourage further investment.

E67. In terms of problems with diversification, the notable finding is that more than six out of ten diversified enterprises were apparently set up without any real degree of difficulty – certainly nothing that, in retrospect, stood out as a major problem at the time the operator completed the questionnaire. Even so, it is clear that many who are new to diversification can expect to encounter a wide range of problems ranging from such fundamentals as the nature and strength of market demand for the product or service, through aspects of the business background and personal skills of the entrepreneur to various regulatory issues.

Success and failure in diversification

E68. The issue of the respective success and failure rates of new diversified enterprises has important implications for agricultural and rural policy. One of the broad conclusions from this study is that on about one in three of diversified enterprises the owner has been sufficiently confident of its business potential to invest further in either expansion or improvement subsequent to its establishment.

E69. The interview survey provided an opportunity for the in-depth investigation of the pattern of development of diversified enterprises over time, and it was found that there is a degree of solid continuity, with nearly half (47 per cent) which had not changed the current enterprises since establishment; and 44 per cent do not envisage changing their enterprises over the next five years. Interestingly, the dynamics of both ‘very small’ and the ‘very large’ farms appear to be different from others, in that they are seen to be more likely both to have given up a diversified enterprise and to be considering a new one.

E70. The study also looked at failed diversification, and found that the overall percentage of holdings having given up at least one diversified activity in the five years prior to the survey was about four per cent. It should be noted that this figure refers only to those cases where the farm itself has remained in business: what cannot be known from a survey of this type is either the number and type of diversified activities that have closed together with the parent farm business on which they were situated, or the connection between (nor the nature of causality) these two events.

Successful diversification: a review of the survey evidence

E71. The survey evidence of the reasons for success in farm diversification shows that, as would be expected, most respondents cited a number of reasons for the expansion of their diversification but, in contrast to the findings with regard to closures, a business focus is very evident in expansion. Thus, 63 per cent mentioned 'market conditions', 54 per cent the need to 'improve or maintain margins', 32 per cent the need to 'improve or maintain competitiveness'. More apparently opportunistic reasons also feature, such as 'availability of buildings' (22 per cent), 'availability of machinery' (17 per cent) and 'availability of labour' (17 per cent).

E72. These and some of the other reasons cited for expansion begin to identify and define a group of people with a developed (or developing) entrepreneurial approach to business growth, seeing opportunities for re-deploying resources of land (including buildings) labour and capital to more productive and profitable uses. In stark contrast to the grant-aided expansion of much post-war agricultural activity, this is clearly not an option in modern diversification and yet the sector is apparently thriving.

E73. A similar picture of a strongly market-led approach in the development of diversification emerges from the analysis of the reasons for upgrading diversified activities. Major factors influencing the decision to upgrade the activity in some way include 'response to customer demand' (62 per cent), to 'improve or maintain competitiveness' (55 per cent), to 'improve profit margins' (37 per cent) and to 'establish a niche market' (26 per cent). This further strengthens the perception that the drivers of successful farm diversification are much more likely to be 'market-led' than 'input-driven'.

E74. This analysis is taken further, with respondents' own perceptions of the reasons for the profitability of their enterprises identifying a broad range of 'success factors' in successful and profitable diversification, among the most important of which are:

- 'Good market for product' (all types);
- 'Family involvement and commitment' (most types not independent on family);
- 'Good proximity to market' (depending on type);
- 'Attractiveness of location' (for accommodation and leisure activities);

E75. While a number of other factor such as 'management ability', 'level of capital investment', 'good marketing', 'competitive advantage' and 'market research' are clearly very important, respondents' assessments of the principal factors underpinning their profitability may be summarized as *market-led*, *personal commitment* and *location*.

E76. Perhaps of equal importance in assessing success is a clear understanding of the reasons for a current lack of profitability. In fact, of the seven per cent who knew their enterprises were unprofitable, nearly half (45 per cent) expected this to be a short-term problem because the enterprise was in the start-up phase when losses were to be expected. However, nearly a quarter reckoned that the market

for their product was not strong enough, while 19 per cent identified a 'lack of competitive advantage' as a major factor. Nine per cent blamed 'inadequate marketing' for the problem of a lack of profitability.

E77. A final perspective on successful farm diversification is respondents' assessments of the factors (including profitability) which they regard as being important indicators of success. While two financial measures - 'cash flow' (66 per cent) and 'profitability' (61 per cent) - come top of their list, it is clear that these farmers take a very rounded view of 'success' in assessing their diversification. Synergy with the remainder of the business is very important (56 per cent), but so is 'customer satisfaction' (53 per cent). Personal and family satisfaction is also widely seen as important, including 'fitting in with farm life' (41 per cent). 'operator satisfaction' (35 per cent) and 'family employment' (21 per cent).

E78. This study has both confirmed and strengthened many of the findings of earlier studies about the dynamic nature of farm diversification as a largely market-led adjustment in farm resource use, a process which is a growing part of the farm sector's adaptation to the new economic and policy environment in which it increasingly operates. However, the diversion of 'agricultural' resources into diversified enterprises can take place only as fast as the markets for those particular products and services grow. Far from being recent discoveries, many of these markets have been growing steadily over many years. As they have grown, so enterprising farmers have seen the potential for business activity, established new 'diversified' enterprises and catered for the consumer demands they expressed.

E79. Along the way, there has been a major change in attitudes among many owners of agricultural resources. There is a now among farmers a growing recognition not only that agricultural resources can validly be used for forms of economic activity other than food production, but also that this wider definition of their role makes sense in meeting the wider needs of society in the twenty first century. It is against this background that the prospects for the future development of farm diversification are now discussed.

Prospective developments

E80. The study concluded with a careful review of respondents' plans for new diversification ventures over the next few years. It was found that nearly half (46 per cent) of currently diversified farmers plan to introduce a new diversified activity in the foreseeable future, either in conjunction with expanding an existing activity or as a stand-alone venture. More than half (56 per cent) plan to expand an existing activity, many of which will be in conjunction with setting up something new. Only 1.5 per cent plan to give up an existing diversification.

E81. The *types* of diversification in which these already diversified farmers see most potential make interesting study, with most seeing potential in various parts of the service sector. Some 42 per cent of the planned new activities will be in the area classified as 'miscellaneous services', and 27 per cent will be 'accommodation and catering' activities. No other category of diversification comes close in terms of planned development to these two types

1 INTRODUCTION

1.1 Research aims

1.1.1 This report is based on research undertaken between February and October 2002. The aim of the research is to provide a comprehensive review of the current state of farm diversification in England. In particular it seeks to analyse its development during the decade since 1990 when a baseline project was undertaken for MAFF (McInerney *et al* 1989; McInerney and Turner 1991) and to identify the relative importance of diversified enterprises in terms of the contribution they make to farm business viability.

1.2 Research objectives

1.2.1 The specific research objectives addressed by the research were as follows:

- **Objective 1.** To provide a succinct review of the major studies of farm diversification in England carried out during the last decade since the previous national study.
- **Objective 2.** To examine how farm diversification has evolved over the last decade.
- **Objective 3.** To examine the nature and extent of the contribution of non-farming activities on agricultural holdings in England.
- **Objective 4.** To examine the financial outlays and returns for different types of diversified activity.
- **Objective 5.** To compare the relative overall economic performance of different diversified activities.
- **Objective 6.** To examine what farm based resources are currently allocated to diversified activities, in particular with regard to labour and land.
- **Objective 7.** To examine the importance of diversified activities to the total incomes of farm households (including income from off-farm activities).
- **Objective 8.** To examine the extent to which the Rural Enterprise Scheme has stimulated increased interest in farm diversification since it was launched in October 2000.
- **Objective 9.** To consider the outlook for future developments in farm diversification.

1.3 The structure of the report

1.3.1 The remainder of the report is broadly structured around achieving these objectives, although inevitably there is some overlap and cross-cutting of themes. Objectives 1 and 2 are dealt with in Chapter 2, which essentially provides a review of the relevant literature. Chapter 3 provides a commentary on the methods used in the remainder of the research. Objective 3 is dealt with in Chapter 4, Objectives 4 through to 7 in Chapter 5, and Objectives 8 and 9 in

Chapter 6. Chapter 7 provides conclusions for each of the objectives and a number of policy and research recommendations.

2 BACKGROUND

2.1 Policy issues in farm diversification

2.1.1 Diversification became a popular policy prescription in the 1980s as incomes from farming came under pressure due to over-production and consequent adjustments to the Common Agricultural Policy. The first significant direct policy development took place under Article 16 of the original Less Favoured Areas Directive in 1975 (75/268/EEC) that provided the opportunity for grant aiding small-scale tourist and craft enterprises. This was not implemented in the UK until 1985 when 25 per cent grants for tourism and craft work developments on farms were introduced in the Less Favoured Areas. The development of LFA tourism grants occurred at the same time as the UK confronted the implications of the 1985 Structures Regulation (Reg 797/85). From this emerged *The Farm Diversification Grant Scheme* (FDGS) in 1988 and applied throughout Great Britain until the end of 1992. Between the 1st January 1988 and the 1st October 1992, 3,200 applications were received in England and Wales, of which 2,443 were approved and 1,396 completed at a total cost to the public purse of £10.4 million (Edwards *et al* 1994). The majority of grant schemes in the first two years were for tourist accommodation.

2.1.2 Both of MAFF's own sponsored policy evaluations suggested that the majority of farmers in the scheme would have diversified without its aid (Edwards *et al* 1994; Ilbery and Bowler 1993):

...the grant appears either to subsidise farmers in carrying out development schemes they would have completed anyway, or to encourage those on the verge of making an investment decision. This seems to be confirmed by the fact that 43 per cent of adopters had used the FDGS to expand existing diversified enterprises rather than to start new ventures.

(Ilbery and Bowler 1993: 168)

2.1.3 Moreover, Ilbery and Bowler (1993) produced evidence that the low take up of the scheme was unlikely to be improved upon without major modifications to the EC's own guidelines. For example, the exclusion of occupiers deriving less than 50 per cent of income from agriculture, working less than 1,100 hours per year on the holding, or who had not been in farming for a minimum of five years all served to bar many farmers from entry into the scheme.

2.1.4 The demise of the FDGS at the end of 1992, officially a response to its success, did not amount to the termination of all publicly funded grants for diversification. For example, some were still available for the conversion of redundant buildings through the Rural Development Commission. Nor, indeed, is grant aid the sole means by which public policy may be gauged. Development control policy, for example, is one means by which government policy towards farm diversification is expressed. From the mid 1980s onwards, attempts were made to ease planning restrictions on farmers' use of buildings. For example, the Department of the Environment (1992) issued fresh planning guidance suggesting that local authorities should drop the requirement that farm buildings for re-use must first be genuinely redundant (Cole and Kernon, 1995).

2.1.5 The important report by the Performance and Innovation Unit of the Cabinet Office suggests that restrictive behaviour by planning authorities "does not fit with the new economic

realities of life in rural areas” (PIU 1999) and the precise relationship between planning control and diversification has been covered in a number of recent reports (e.g. Land Use Consultants 2001, Milbourne et al 2001, Shorten and Daniels 2000). The Prime Minister, addressing the NFU’s annual conference in 2000, referred to planning as a factor impeding farm diversification. Subsequently, in May 2001, PPGs 7 (relating to farm diversification) and 13 (rural areas) were amended to provide more encouragement to planners to allow diversification.

2.1.6 CAP reform in the 1990s, including the shift of a small proportion of CAP commodity payments to agri-environmental and rural development support measures under the Rural Development Regulation (RDR), re-opened the promotion of farm diversification as a significant feature of rural policy. There are currently a number of ways in which policy encourages diversification in England. The current RDR schemes are shown in Table 2.1.

2.1.7 The Curry Commission (2002) report to the UK government on the future of food and farming following the Foot and Mouth crisis of 2001, strongly urges diversification and modulation of CAP commodity payments to fund schemes under the RDR. This theme is taken up by the European Commission in its initial contribution to the mid-term review of CAP in 2002. The Commission urges moving in stages towards 20 per cent modulation, a significant increase on the UK’s current commitment to 4 per cent modulation. It is reasonable to expect, therefore, that a wide range of farm diversification opportunities will be pursued by farmers in the years to come encouraged by fresh policy initiatives or adaptations of existing schemes.

Table 2.1 Key RDR schemes relevant to farm diversification

	Description	Eligibility
Rural Enterprise Scheme	The primary aim of the Rural Enterprise Scheme is to provide targeted assistance to support the development of more sustainable, diversified and enterprising rural economies and communities to assist their regeneration and adjustment to the declining importance of agriculture and to the demands of the rural economy.	Farmers and a range of other rural businesses (partnerships and companies) and rural communities.
Planning Consultancy Advice for Farm Diversification	Reimbursement of costs associated with land use planning feasibility studies to those farmers who intend to pursue a viable diversification project under the Rural Enterprise Scheme.	Applicants must be intending to apply for RES funding. Farmer defined as someone who spends at least 50 per cent of their time in farming activities (as defined by Section 109 of the Agriculture Act 1947)
Vocational Training Scheme	Provides funding for training that contributes to an improvement in the occupational skill and competence of farmers and others involved in farming and forestry activities and their diversification.	Recipients of training must be either: farmers and growers (full or part time); other people involved in agricultural and horticultural activities; people involved in forestry activities; or those involved in the conversion of farming (including horticulture) and forestry activities.
Processing and Marketing Grant Scheme	Aimed at developing processing facilities for primary agricultural products in England, for the benefit of processors and the producers of the raw material. Grants are awarded towards the construction of new buildings, the refurbishment of old buildings and the purchase of new equipment.	Individuals, groups of primary producers and companies can apply for grants. To be considered for grant, projects must cost at least £70,000.
The Producer Organisation (Fresh Fruit and Vegetables) Aid Scheme	The scheme provides financial support for recognised Producer Organisations who submit 3-5 year operational programmes aimed at encouraging the use of environmental techniques and improving the quality, marketing and end value of the product.	Producer Organisations

2.2 The baseline study

2.2.1 The research undertaken for MAFF on farm diversification in the late 1980s, which the current report attempts, where possible, to replicate resulted in two reports (McInerney et al 1989 and McInerney and Turner 1991). In this section we reiterate the most salient points drawn from the summary of findings at the outset of the second report. Later, in chapter 6, we examine some of the comparative findings in more detail. Alongside the concurrent work undertaken by the Europe-wide Arkleton Trust Pluriactivity project (Bryden et al 1997), the Exeter study represented the first major survey-based study in the UK of the diversification phenomenon.

2.2.2 The 1980s study into diversified enterprises took place on agricultural holdings in England & Wales, with some additional information on farm diversification in Scotland. The study was undertaken in two stages. The first used a postal questionnaire sent to a random sample of 10,000 holdings in England & Wales seeking information on the extent and nature of farm diversification. The results were published in the 1989 report, along with comparable findings from similar studies in Northern Ireland and Scotland. Of the 5,801 completed questionnaires returned relating to agricultural holdings in England a total of 2,462 (42.4 per cent) recorded involvement in one or more of five defined enterprises (services, contracting, processing and sales, speciality products, miscellaneous). Thus over 40 per cent of all holdings in England & Wales had at least one non-farming enterprise, with an estimated one third of all holdings in the UK having diversified in some way. A distinct regional variation emerged with almost one half of holdings in the East region diversified, with the proportion noticeably lower in the North.

2.2.3 The second stage of the study involved visiting a random sample of diversified holdings spread throughout England & Wales seeking data on the costs and returns of specific diversified enterprises, the resources they used, and various other aspects of the diversification process. The detailed results covered 692 different enterprises on 488 agricultural holdings, with comparisons using a structure of nine enterprise types with geographical distinctions across three regions of England and of Wales, as well as further breakdowns by size and type of agricultural holding.

2.2.4 One of the most notable features of the diversified enterprises studied was the tremendous variation in their financial performance. Averaged across all observations the mean value of *output* was just over £22,000 per enterprise, but varied from a few hundred pounds to over £1 million. In general the scale of operations was fairly low, with nearly two thirds of enterprises producing less than £5,000 output and one quarter generating less than £1,000; thus it was the few very large concerns that pulled up the overall average figure. There was a clear distinction between high output ventures such as diverse trading enterprises at one extreme, and the almost consistently small scale operations oriented towards the leisure sector, such as farm tourism. The average diversified enterprise earned a *net profit* (output less actual expenses paid, and equivalent to a trading profit) of about £5,200, representing some 23 per cent on turnover. However, this was extremely variable, with a half of all enterprises making less than £2,500 and almost one in eight showing a loss. The more correct economic measure of performance is the *net margin* which accounts also for the imputed cost of 'owned' resources (such as operators' and family labour, and own land). It is thus the pure residual income accruing to the capital and management invested in the enterprise. Making these adjustments reduced net profit by a further 60 per cent to yield an average net margin of just under £2,300 per enterprise. Overall some four out of ten

enterprises showed net margin losses, implying that they did not cover the full economic cost of the resources used. Notwithstanding the results from the financial accounting undertaken in the survey, 80 per cent of operators considered their diversified enterprises successful in the context of their own particular objectives, and almost one third had intentions to expand or introduce new ventures.

2.2.6 The image of diversification emerged as something which, although widely practiced on agricultural holdings of all sizes and types, in most instances involves activities conducted on a relatively small scale and representing a minor source of income. This view was reinforced by data on the extent to which farms' resources were diverted into these enterprises which showed that diversification had initiated very little transfer of land out of agriculture. This amounted to just over 2 per cent of the total area overall, even though the survey included a significant proportion of part-time and non-commercial agricultural holdings. Nor had it attracted much in the way of specific capital investment, except in special cases, with the common practice being to make use of existing buildings and machinery. In terms of farm labour use the diversified enterprises were more demanding; on average, the equivalent of approximately 0.3 of a hired worker and a similar amount of farmer and spouse labour, was utilised by each enterprise. Based on the mean levels of hired labour use it was estimated that diversification at that time created the equivalent of 31,000 opportunities for full-time paid employment in England & Wales agriculture, and taking in part-time labour of all types totalled the equivalent of some 77,500 full-time people. That represented a noticeable proportion of the total labour force involved in farming.

2.2.7 In many parts of the country and on many types of holding an involvement with tourism and recreation, value adding processing activities, or the provision of services to others had long been common practice. Among the holdings in the survey, 60 per cent of the enterprises had been established before the mid-1980s - taken as the point when income pressures and the diversification 'solution' began to be most prominent. There had been an accelerating rate of establishment of new enterprises since then, however.

2.2.8 A final objective of the research was to assess the contribution that diversification made to the total income generated on agricultural holdings. Direct measures of farming income were not possible on the sample farms, but could be estimated (using the national Farm Business Survey data) for full-time farms of similar sizes and types to those studied. The results suggested that diversification contributed in aggregate something in the order of £230 million to the (net margin) income on all agricultural holdings in England & Wales. It was estimated that some £150 million of this was generated on full-time farms, and when put alongside the comparable measure for *farming* income (i.e. management and investment income), diversification appeared to contribute approximately 11 per cent to the total business income earned on those farms.

2.3 Diversification during the 1990s

2.3.1 In this section we examine, from a review of the literature, some of the trends in diversification during the 1990s with regard to both its extent and form. Given the variety of often competing definitions of diversification it is not surprising that there are many different perspectives on its extent and significance. In addition to employing a variety of definitions of diversification, different studies have adopted different research methodologies. Typically the research studies have been one-off cross-sectional surveys, often conducted in a limited geographical area further complicating the task of making comparisons and discerning general trends. Against this background, this section explores the extent of diversification in terms of levels of participation and contribution to income and then goes on to examine trends in the type of diversification activity undertaken.

The extent of diversification

2.3.1 As we have seen, McInerney et al (1989), focusing on on-farm diversification, suggest that 40 per cent of holdings in England and Wales were involved in diversified activity. Bowler et al (1996) in a survey of farms in the Northern Pennines discovered that 29 per cent of the sample undertook on-farm diversification and 33 per cent had some off-farm work. Expanding the definition of diversification to include all non farming income leads to estimates of 62 per cent of farms in receipt of diversified income in 1998 (NFU 1999) cited in Hodge et al 2000). Similarly, research undertaken by FPD (FPDSavills 2001) suggest that 21 per cent of British farmers were ‘diversifiers’ (defined as those who derive any income from a non-agricultural enterprise) and 33 per cent were ‘multi-activists’ (those dependent ‘to some extent’ on off farm income).

2.3.2 Hodge et al (2001) have examined indicators of diversification for 1997 from three major data sets (The Farm Business Survey, June Census and Farm Structures Survey) (Hodge et al 2000). Analysis of FBS data indicates that 40 per cent of the sample are engaged in hirework¹, 30 per cent are renting out buildings and 17 per cent engaged in off farm work. Clearly, multi-activists may be involved in more than one of these activities and Hodge et al do not give a figure for the proportion of all business with any diversified activity. In their analysis of June Census data and Farm Structures Survey data, Hodge et al employ three indicators of part time farming: the number of farms, partners and directors who work less than 40 hours per week on their holding, those with a major or minor OGA (Other Gainful Activity) and the proportion of holdings classified as *other*. Each of these indicators produces a different picture of the extent of diversification. The proportion of part time FPDs exceeds 40 per cent, the proportion of holders with an OGA is approximately 30 per cent and the proportion of other holdings is recorded at 20 per cent. The latter points to “the emergence of specialist diversification holdings” (Hodge et al 2001:21).

2.3.3 The significance of diversification is not just revealed in levels of participation however and it is important to distinguish between the extent of participation in diversification and the contribution to income from diversification (Hodge et al. 2000; Hodge et al. 2001). Inland Revenue data (quoted in (FPDSavills 2001) indicates an 85 per cent growth in farmers non-agricultural income between 1991 and 1999. 38 per cent of this growth is accounted for by increases in investment income and transfer payments, while off-farm employment emerges as a more significant source than on-farm diversification. In total, non-agricultural income

¹ Hirework is defined as all work performed off the holding using farm resources (labour and machinery), either carried out on other farms or for others when separate accounts of the activity are not kept.

accounted for 62 per cent of farm income in 1998/99. Analysis of FBS data points to great variability in the income contribution of diversified activities. In most cases diversified activities account for only a small proportion of net farm income although farm-retailing activities make a more significant contribution accounting for an average of 30 per cent of total farm revenue on FBS farms between 1988-97 (McNally, 2001).

The form of diversification

2.3.4 As we see in greater detail, in section 2.4 below a wide range of activities constitute diversification although most research suggests that a few activities account for the bulk of diversification. As indicated above, FBS data suggests that hirework is the most common form of activity followed by renting out farm buildings (which includes self-catering accommodation as well as commercial and other forms of letting). Where the diversified activity is a separate enterprise from the farm (i.e. with separate accounts) tourism accommodation and catering emerge as the most frequent activity (McNally, 2001) accounting for some 90 per cent of all separate diversified enterprises (FPDSavills, 2001).

2.3.5 Despite the great differences in definitions of diversification, survey technique and sample size the dominance of tourist enterprises (when agricultural contracting is excluded) is common to most empirical investigations. FPDSavills (2001) report that 17 per cent of 'diversifiers' were engaged in the provision of holiday lets or bed and breakfast with a further 12 per cent being involved in house letting. Similarly, Bowler, et al (1996) report tourism (mostly farm accommodation) to be the most common form of diversification followed by agricultural contracting services. Recent analysis of 1997 June census data also shows that while 'off farm services' forms the largest single type of diversification combining the various forms of tourist accommodation (camping, B&B and self catering) results in this being the most frequently occurring activity (DEFRA, personal communication).

What initiates diversification?

2.3.6 The factors behind diversification, why some people diversify and others do not are of considerable importance to the literature. To date the literature can be divided into two broad streams:

- those concerned with the interface between the farm and external forces – policy, market opportunities or spatial factors;
- those concerned with the factors internal to the farm: its type, size and the people running the farm.

2.3.7 A clear picture has yet to emerge about why certain farms diversify and others do not, but the areas in which new research should focus are indicated. Bowler, Ilbery and colleagues have focused on the spatial factors that might underpin diversification, since the location of the farm may influence the market opportunities open to the farm and the type of diversification that is possible (Ilbery 1992; Bowler et al. 1996). A comparative study of lowland agricultural areas, marginal upland areas and urban fringes showed definite patterns in the types of diversification adopted. For example, accommodation (primarily Bed and Breakfast) appears to be the dominant form of diversification in upland areas, which reflects the presence of tourists. Busby and Rendle's work on farm tourism seems to indicate that proximity to major tourist attractions does influence adoption of on-farm tourist facilities (Busby and Rendle 2000). On farm retailing is more common on the urban fringe, where a

large pool of customers are within a short journey time. However, the spatial location of farms or their access to markets does not alone appear to be a variable driver of diversification, as some farms in these areas remain un-diversified.

2.3.8 The interface between policy, institutions and the farm family business is another area which research has focused upon. Ilbery's study of the Farm Diversification Grant scheme, found that uptake was very low. Those applying for the grant tended to be located in the south of England and focused on taking up capital grants for projects that in all likelihood would have happened anyway (Ilbery 1991a; Ilbery 1992). The policy environment in which the farms operated appeared to have little effect on the decision to diversify or not. Clark and colleagues focused on the institutional environment in which the farms operated, seeking to discover if local institutions could create a more favourable context for diversification. They concluded that:

It was clear that the institutions had not had a major effect on farmers' behaviour. (Clark et al 1997:739)

2.3.9 Farmers were resistant to the grant schemes being offered to them and rarely sought advice about their diversification plans. Shaw and Hale in a study of the use of residential planning permissions by farmers found that they were using them to augment the capital value base of the farm, but not actually building the property (Shaw and Hale 1996). The farmers in their study preferred to augment their capital base rather than generate extra income. The motivation to enhance capital values had been noted by Winter (1987) in a study of farm tourism in the early 1980s. These studies point toward the importance of factors internal to the household that influence the farm, an area that has not been investigated in relation to diversification in any great depth to date.

2.3.10 Research into families becomes an increasingly complex matter, as the particular arrangements in families are unique. Bateman and Ray's study in Wales offers a range of factors - farm size, farm type, tenure, indebtedness, household type, culture and education – as factors affecting diversification (Bateman and Ray 1994). Although they were concerned with pluriactivity in general all of these factors have been identified as being important in diversification as well, but only Bateman and Ray note the importance of culture. They found that migrants into Wales were more likely to be active in non-agricultural activities, an important insight into the political economy of agrarian change. Studies of farm type and size offered a complex picture, with cash cropping farms more likely to be involved in on-farm retailing, and intensive dairy farms less likely to be (Bowler, Clark et al. 1996; Ilbery et al. 1996). The adoption of a diversification strategy seems to be linked to a greater complexity of factors than farm type alone.

2.3.11 Farm size initially might appear to provide a guide to the likelihood of diversification with larger farms offering more opportunities to diversify, due to greater resources. Equally a small farm might be an indication of limited resources, a limited ambition for the farm or someone very active outside of farming. Bateman and Ray found that it was medium sized farms (50 –200 ha) who were most likely to be active in on-farm non-agricultural work (Bateman and Ray 1996:8). Other studies have found both small and large farms to be more involved in diversification, indicating that more than farm size needs to be considered. In a similar manner indebtedness could be taken to indicate a greater entrepreneurial drive, but may also reflect the lack of available capital or a troubled farm. In contrast, farm tenure does

seem to be clearly linked with diversification with those renting their land less likely to diversify due to clauses in their tenancy agreements.

2.3.12 The composition of the farm household and the plans and resources they have at their disposal appear to be central in diversification, but the area least well researched. Women take the lead in many forms of diversification, particularly serviced accommodation. Busby and Rendle note that the quality and professionalism of farm tourism has been transformed in the last ten years. Whether this represents a shift in the role of women on the farm, and a change in the manner in which they support the farm family business has been the subject of discussion but no specific recent research. The stage in the life cycle of the family and the presence or absence of a successor has been identified by Potter and Lobley as particularly important in deciding the strategy of farm (Potter and Lobley 1992; Potter and Lobley 1996). This is not easily separated out from the other complexities of the household and the management of the farm.

2.3.13 The reason why some diversify and others do not appears to be embedded in the internal relations of the farm household. Research on the farm family business has established the complexity of household businesses, and that they operate on a different economic logic than most other businesses (Gasson et al. 1986; Errington and Gasson 1993). It is this complexity of family, business and farm that the future research on family farm needs to focus on.

How successful is diversification?

2.3.14 Judging the success of diversification is a difficult proposition, as the aims of those undertaking it are not always obvious. In policy terms the Farm Business Diversification Grant scheme and many of the institutions established to encourage diversification appear to have met with limited success (Ilbery 1991,1992 Clark et al 1996). The evidence from studies of rural tourism, the uptake of planning permissions and farm business activity does indicate that there has been a qualitative shift in how diversification is considered by farmers. The forms of diversification improving in professionalism and there may now be a greater strategic use of diversification to secure the future of the farm business. The policy imperative behind the drive towards diversification may not have been immediately successful, but it does appear to have had a broader impact.

2.3.15 The factors internal to the farm household appear to be more opaque, in that the motivations and strategies they are following are more complex. A range of studies identify the most important reason behind the adoption of a diversification strategy as being an extra source of income (McInerney et al. 1989; Bateman and Ray 1994; Ilbery et al. 1996). At the same time the scale of this income is reported as being relatively minor in comparison to agricultural income. As McNally reports only a minority of farmers actually keep separate accounts for the diversification activity, which makes tracing its economic size more difficult (McNally 2001:252). The scale of the diversity income should not be confused with its importance, for some farms it may be 'pin money' but for others the difference between leaving farming or not. The use and importance of the diversification income will be directly related to the particular circumstances of the family. A diversification project may be the sheet anchor for a family in the face of agricultural storms, but more needs to be known about how families use these monies before that can be confirmed.

A new conception of diversification?

2.3.16 The literature on farm diversification started to fall away in the late 1990s as the methods used to analyse it became exhausted. As suggested above, the complexity of diversification, once the processes internal to the farm household are considered, has defeated the methods used to date. Ilbery and his colleagues bravely acknowledge this, arguing that diversification requires:

Intensive research methodologies and qualitative analyses of decision-making processes operating within farm households. (Ilbery et al 1996:310)

2.3.17 They argue for the importance of understanding how the farm household works in relation to its business to build a fuller understanding of the processes of diversification. McNally's recent work on the Farm Business Survey points again to the necessity of understanding the social process that intertwine with the economic (McNally 2001). The future areas for research are well sign posted in the existing literature: it requires new questions and methodologies to take them up.

2.3.18 To take the research forward it is perhaps necessary to re-think the difference between the diversity of incomes that is pluriactivity and the diversion of resources that is diversification. Rather than being totally separate activities one may support the other, or they may be combined in complex configurations, the motivations for which can only be found in the internal dynamics of the farm family household. Recently completed research is attempting to unravel these processes more systematically and creatively (Reed et al 2002).

2.4 Defining diversification

2.4.1 Hitherto our discussion has treated farm diversification as though its meaning were self evident. However, there are clearly considerable definitional difficulties surrounding the term, as was recognised in the baseline Exeter research which noted that "the concept of 'diversification of farming activities' is not amenable to very precise definition" (McInerney et al. 1989). Although researchers acknowledge how difficult it is to provide a precise definition of diversification, it is necessary to make a definition that is operable within any empirically-based project. The assumptions or premises need to be clearly stated and understood if confusion is to be avoided.

2.4.2 Most commentators would now agree that diversification encompasses business activities that are run on the farm or are dependent on farm based land and capital assets. To that extent, diversification may be seen as a sub-set of the broader conceptualisation of farm household pluriactivity which covers 'all forms of non-agricultural income generation on and off the farm' (Ilbery et al. 1996). In other words, farm households may have a variety of streams of income. These include the employment of members of the household off the farm and such employment is not usually considered to be an element within diversification. Hence our research does not focus on income gained from employment off the farm, although we gathered some information on this and, of course, fully recognise the significance of this activity to many farm households. But even here we acknowledge there are fuzzy edges, for if off-farm work on other farms is undertaken as a business activity in the form of contracting it is usually conceptualised as diversification.

2.4.3 As suggested in Figure 2.1, it is the different possible combinations of the capital and land assets of the farm and the availability of labour that lie at the core of attempts to conceptualise diversification. The range of all the possible combinations has resulted in a number of definitions of diversification.

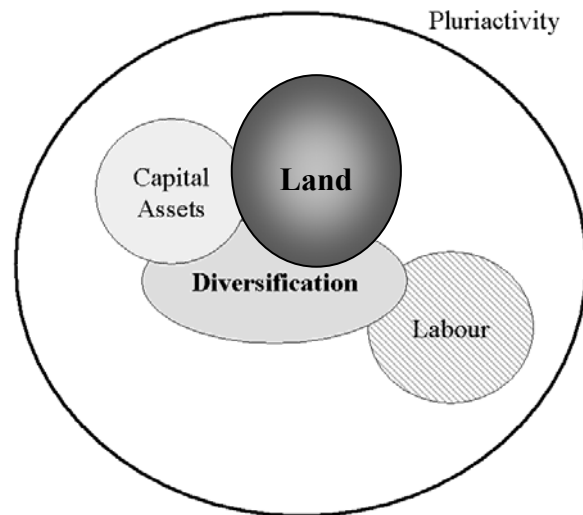


Figure 2.1 Imagining the elements of diversification.

2.4.4 The definition offered by McInerney et al (1989) in the first baseline study of diversification, remains influential (as does their acknowledgement of the difficulties):

One of **diversion** to other-income earning uses of any of the resources previously committed to conventional farming activities. (McInerney et al. 1989) (emphasis as original)

2.4.5 Thus they emphasise that diversification involves the movement of resources away from where they were deployed previously in 'conventional' agriculture. This approach raises two particular difficulties. The first is with regard to the definition of conventional agriculture as this will vary between times, places and people. The 'novel' crops and products of today might become the orthodoxy of tomorrow. For example, in the original baseline survey organic farming was considered to be a form of diversification whereas today it might be more legitimate to consider it as a variant of mainstream agriculture.

2.4.6 The second issue is with regard to the notion of the diversion of resources. If applied strictly, this would imply that diversification has only taken place if a farm household had re-allocated resources presumably within a particular time period. This is potentially problematic if a particular business is long standing with no recent re-allocation of resources. An example might be a long-established farm retail business. Or perhaps the resources were never, strictly speaking, allocated to conventional farming, for example the use of non-agricultural land resources such as woodland for game shooting.

2.4.7 Shucksmith and Winter (1990) were acutely aware of the difficulties posed by notions of conventionality and novelty. They define diversification as:

The on-farm use of the resources of the farm for producing new agricultural products, which are not in surplus, or non-agricultural products. (Shucksmith and Winter 1990)

2.4.8 Although the definition does not use the terms ‘conventional’ or ‘diversion’ it relies on a sense of what is ‘new’ and therefore the crucial importance of differing conceptualisations over time and space. It also ties diversification to the policy process, explicitly mentioning the importance of agricultural surpluses. With diversification defined in such a broad way in the earlier literature, throughout the 1990s there were efforts to try to define it more rigorously.

2.4.9 Ilbery (1991a), when picking up the task, notes the difficulty of defining diversification. He views diversification as being part of a range of possible farm adjustment strategies. Ilbery uses Griffith’s definition of diversification:

Farm based activities not directly concerned with producing crops or livestock, and which involve marketing contact outside the agricultural industry. (Griffiths 1987: cited in Ilbery 1991a:209)

2.4.10 This is a much tighter definition and, by focusing on the transfer of farm resources out of the agricultural industry, is conceptually tighter than earlier definitions. In a later paper, concerned with the business diversification by farming households, the definition becomes even more restrictive:

Only those members of the farm household who work on the farm (i.e. involved in agricultural production) are included in this definition of business diversification. (Ilbery et al. 1996)

2.4.11 Here Ilbery and his colleagues are trying to pursue more explicitly the labour of the ‘farmer’ and the capital assets of the farm moving away from the agricultural industry. McNally, writing as part of the latest wave of interest in diversification, again focuses on the farm business, proposing a general definition of diversification as the ‘development of a non-food production enterprise on the holding’ (McNally 2001).

2.4.12 These more restrictive definition of diversification may be conceptually elegant. They also have a certain salience, given the central concern within the diversification policy agenda for a diversion of resources from agricultural production. However, we would argue that too rigid a definition runs the risk of excluding activities that, in pragmatic terms, most non-academic commentators would readily recognize as diversification. MacNally’s definition is a case in point as it would exclude value added on-farm food processing activities from a definition of diversification. But that in turn returns us to the complexity of diversification being essentially contingent on perceptions of novelty. Farmhouse cheese production in areas of France where it has taken place since time immemorial might not be constructed as diversification whereas a new cheese unit on a modern dairy farm in lowland England might be.

2.4.13 One way round these difficulties is to reduce the analytic and conceptual significance of diversification by placing it within an overriding context of how farms might adjust to change. In this context, diversification becomes one option in a range of possibilities. Table 2.2 presents the range of strategies or elements of a strategy open to the family, some of

which might be combined in a dynamic way. Although this does not define diversification, it does demonstrate the *field of possibilities* within which diversification, variously defined, might be an option. It also illuminates how diversification may be combined with other options.

Table 2.2 Elements of farm adjustment strategies

- 1** *Farm enterprise change* – changing the emphasis of the farm enterprises (e.g. expanding sheep while contracting dairy enterprises).
- 2** *Labour change* – usually substituting family for hired labour in order to reduce costs, but could be an increase in hired labour.
- 3** *Business structure change* - usually by changing from sole operator to a partnership to reduce tax.
- 4** *Tenure change* – either by buying land that was previously rented or by selling owner-occupied land and leasing it back.
- 5** *Size change* - buy or sell land either to expand the farm business or to finance restructuring.
- 6** *Economic centrality change* - increase (or decrease) income from off-farm sources, thus changing the economic centrality.
- 7** *Diversification change* - increasing income from non-farming enterprises based on the farm (e.g. bed and breakfast or farm shop).

(Munton 1990:5-6 cited in (Ilbery 1991b)

2.4.14 Another twist in the manner in which diversification in has been defined is to consider its ideological components. Winter and Shucksmith note that diversification is a term:

That provides an ideological bridge, not only between economic and environmental objectives, but also between the contradictory objectives of liberal and conservative strands of thought. (Shucksmith and Winter 1990)

2.4.15 Thus various authors, with different opinions about policy, the role of the farming in society, the fate of the family farm, protection of the environment and a plethora of other issues, can shelter under the broad term ‘diversification’. Acting as a bridge between different schools of thought, diversification is always going to be term that is hard to define. Our own approach, as seen later in Table 2.3, has been a pragmatic one. We have selected those crops and categories of livestock that appear to us to remain unconventional within English agriculture. We did so, quite simply, by considering on a case by case basis different activities which might be claimed as diversification, covering both the *diversion* of assets available to the farm into new activities, and pluriactivity as the *diversity* of sources of income to the farm household.

2.4.16 Our starting point was the sub-division by Ilbery (1991a) of diversification into structural, agricultural and passive forms (see Table 2.3). Structural diversification shifts the resources of the farm away from the production of food, whilst agricultural diversification shifts away from producing the common agricultural products. Passive diversification, is where land and/or farm buildings are leased to another business. This typology reveals the many forms diversification might take, but does not cover them all. It does however provide an indicative map of what activities might be considered.

Table 2.3 A typology of farm diversification options

Structural diversification
<p>1 Tourism <i>Accommodation:</i> Bed and breakfast, Self-catering, Camping and caravan sites <i>Recreation:</i> Farmhouse teas/café, demonstration/open days, Farm Zoo/children's farm, water/land-based sports, war games, horsiculture, Craft centres, Nature trails/reserves, country/wildlife parks. <i>Combined:</i> activity holidays</p> <p>2 Adding value to farm enterprises <i>By direct marketing:</i> Farm gate sales, Farm shop, Delivery round, PYO scheme. <i>By processing:</i> Cheese, Ice cream/yoghurt, cider/wine, jam/preserves, potato packing, flour milling <i>By selling skins/hides/wool</i></p>
Agricultural diversification
<p>1 Unconventional enterprises <i>Crop products:</i> Linseed, Teasels, Evening primrose, Borage, Triticale, Fennel, Durum wheat, Vineyards <i>Animal products:</i> Fish, Deer, Goats, Horses, Lamoids, Sheep milk <i>Organic farming:</i></p> <p>2. Farm woodland Energy forestry, amenity/recreation, wildlife conservation, For timber</p> <p>3. Agricultural contracting For other farmers, for non-agricultural organisation.</p>
Passive diversification
<p>Leasing of land Leasing of buildings</p>

(after Ilbery 1991a: 210)

2.4.17 Even within this seemingly uncontentious typology, there are problems of definition. Does Organic farming constitute diversification, if it is farming the same land and the same products just in a different manner? For some people it may be sideline, a diversion of resources, but for others it is their main strategy and passion. More has to be known about the motivations of farmers, and how they manage their particular farm to assess if it should be constructed as diversification or not. A certain gender bias is also evident in including agricultural contracting off the farm. This would appear to be concerned with men working off the farm, diverting their labour from full time farming. This leads into two debates, the first about the nature and role of part-time farming, the second about gender roles (Evans and Ilbery 1993). The debate about what constitutes part-time farming and what role it might have in farm survival is a lively and on-going one. The second is around gender roles on the farm. If the wife of a farmer takes work off the farm is it not usually considered diversification, but what if the money she earns underpins a new farm business or the farm itself. Her labour may have been previously used on the farm, in support of the farmer, who is left to work alone. Labour and its 'proper' place on the farm is one of the most difficult areas to define in the diversification debate. It does usefully open the question of diversification to addressing the actual complexity of how business, farms and families are intertwined.

2.4.18 As we have seen, defining diversification has caused considerable debate over many years. For the purposes of the current investigation certain pragmatic decisions had to be

taken. Thus we decided to exclude the following categories from our definition of diversification: organic farming, participation in agri-environmental schemes, and new woodland planting. These activities were all included under the definition of diversification employed in the earlier Exeter research, but now seem to us to be so much part of mainstream agricultural activity as to no longer warrant special treatment. Moreover, a significant quantity of research has been separately undertaken on economic and financial aspects of each of the three of these². To have devoted time and energy to the collection of financial data on these enterprises would not have been the best use of the resources available for this project.

2.4.19 Our own definition of diversification for the purposes of most of the analysis in this report is follows the list of activities set out in Sections II and III of the postal survey, excluding agri-environment schemes (covered in Question 7 of Section II). The major categories of activity are set out in Table 2.4.

² For the economics of organic farming see Lampkin and Padel 1994; Morris et al 2001; for agri-environment schemes see Short et al 2000, Whitby 2000; and for new woodland planting see Crabtree 1996, ENTEC 1996.

Table 2.4 Diversified activities covered in the research**Speciality crop or livestock products***Livestock products*

Goat dairying
 Angora goats
 Rare breeds
 Bees/Honey
 Deer
 Fish
 Rabbits
 Minority poultry and game
 Wild boar
 Sheep dairying
 Ostriches
 Other livestock

Crop products

Special flowers/fruit etc
 Vineyard
 Minority crops
 Christmas trees
 Other crops (please specify)

Other speciality products

Dog/cat/breeding, kennels
 Caged birds
 Animal feeds
 Turf
 Energy crops
 Minority products (please specify)

On farm services on your farm*Accommodation and catering*

Caravan/camping site
 Holiday cottage
 Rented accommodation (all year)
 Bed & Breakfast
 On-farm catering
 Other accommodation and catering

Sport

Shooting
 Motorsport
 Golf
 Other sport

Leisure

Picnic site
 Wildlife/Trail/Museum etc
 Activity facilities
 Boating
 Fishing
 War games
 Gliding
 Educational facilities
 Other leisure

Horse related

Horse riding/trekking
 Livery
 Horse racing and stud
 Horse trials
 Other horse related

Contracting services

Agricultural (e.g. farming operations)
 Non-agricultural (e.g. plant hire, snow clearance)

Food processing or direct marketing*Preparation/packing*

Milk bottling
 Egg packing
 Fruit and veg, washing, grading, etc
 Other preparation/packing

Marketing

Pick-your-own
 Farm shop
 Freezer shop
 Market stall
 Farmers' markets

Processing

Milled cereals
Milk products – cows
Milk products – goats/sheep
Game butcher
Meat butcher
Fish processing
Cider/fruit juice
Winemaking
Skins/hides/clothmaking
Other food processing

Box scheme
Egg sales
Milk round
Garden centre/plant sales
Hay, straw sales
Miscellaneous supplies
Other marketing/retail

Miscellaneous products or services

Fuel and timber

Fuel wood
Timber products

Craft work

Rural crafts
Teaching of crafts

Other

Secretarial services
Consultancy and management
Stone extraction/land fill
Agricultural sundries supply
Other miscellaneous

Building/machinery

Machinery hire
Hire of buildings
Vehicle storage
Cold storage
Haulage
Alternative technology
Showground

3 METHODOLOGY

3.1 Approach adopted

3.1.1 The research was based primarily on three main methods of research. First, we undertook a literature review of recent research undertaken on farm diversification. As an integral part of this task we re-examined the findings of the baseline research undertaken by the University of Exeter a decade earlier (McInerney *et al* 1989; McInerney and Turner 1991). Some of the findings of the literature review have already been given in the previous chapter. Other data drawn from comparative projects are included, as appropriate, in the remainder of the report.

3.1.2 Secondly, a postal survey was undertaken of a sample of holdings from England. The postal survey was designed primarily to establish the extent and nature of farm diversification nationally and to record the level of change since the previous baseline study. A copy of the postal survey questionnaire and accompanying letter is included in Appendix A.

3.1.3 Thirdly, an interview survey was undertaken with a sub-sample of respondents to the postal survey who had indicated participation in some form of diversified activity. The principal aim of this survey was to provide a range of economic and social data on the operation of diversified enterprises with particular emphasis given to financial data for a selection of enterprises. A copy of the interview questionnaire and letter to farmers is given in Appendix B. Appendix C provides a copy of the instructions for interviewers. Detailed survey results are given in Appendices D, E and F.

3.2 Postal survey sampling

3.3.1 The sample was drawn from the June 2000 Census of agricultural and horticultural holdings in England by DEFRA (see Table 3.1). The only stratification introduced in the sample specification was that holdings classed as 'very small', that is with an output of less than 8 ESU, were sampled at approximately one third of the rate used for holdings drawn from larger size groups.

3.3.2 The sample drawn failed to pick up any holdings at all from the very small lowland cattle and sheep cell as shown in Table 3.2. This cell alone accounts for nearly a quarter of all of the very small holdings and over ten percent of all holdings so it was unfortunate that it was missed in the sampling process. The absence of these holdings led to some, but not all, of the remaining farm type cells in the very small group being sampled at somewhat higher rates than might have been expected. The sampling rates for each size category are shown in Table 3.3.

Table 3.1 The population of registered holdings in England by farm business size (European Size Units, or ESU³)

	'Very small' <8	'Small' 8 - <40	'Medium' 40 - <100	'Large' 100 - <200	'Very large' 200 and over	All sizes
<i>Type of farm</i>						
Cereals	3,168	7,148	6,188	2,898	1,114	20,516
General cropping	608	2,400	2,969	2,016	1,707	9,700
Horticulture	2,863	3,482	1,130	382	282	8,139
Pigs & poultry	2,133	1,134	895	531	374	5,067
Dairy	366	2,435	7,574	4,053	698	15,126
Cattle & sheep (LFA)	3,789	3,884	1,633	243	32	9,581
Cattle & sheep (Low)	17,043	9,347	1,914	411	85	28,800
Mixed	1,897	3,560	2,618	1,354	967	10,396
Other types	37,744	1,131	42	21	84	39,022
All types	69,611	34,521	24,963	11,909	5,343	146,347

Table 3.2 The sample population of registered holdings in England by farm business size

	Very small <8	Small 8 - <40	Medium 40 - <100	Large 100 - <200	Very large 200 and over	All sizes
Type of Farm						
Cereals	192	346	344	160	59	1,101
General cropping	32	83	181	96	81	473
Horticulture	144	179	66	19	16	424
Pigs & poultry	118	42	38	37	18	253
Dairy	20	146	371	233	45	815
Cattle & sheep (LFA)	132	234	101	13	1	481
Cattle & sheep (Low)	0	584	133	23	8	748
Mixed	32	218	140	71	63	524
Other types	605	68	1	3	4	681
All types	1,275	1,900	1,375	655	295	5,500

³ One ESU is defined as 1200 European Currency Units of Standard Gross Margin. It is therefore a measure of the economic size of business.

Table 3.3 The structure of the postal sample: sampling rates by farm type and farm business size

	Very small <8	Small 8 - <40	Medium 40 - <100	Large 100 - <200	Very large 200 and over	All sizes
<i>Type of farm</i>						
Cereals	6.1%	4.8%	5.6%	5.5%	5.3%	5.4%
General cropping	5.3%	3.5%	6.1%	4.8%	4.7%	4.9%
Horticulture	5.0%	5.1%	5.8%	5.0%	5.7%	5.2%
Pigs & poultry	5.5%	3.7%	4.2%	7.0%	4.8%	5.0%
Dairy	5.5%	6.0%	4.9%	5.7%	6.4%	5.4%
Cattle & sheep (LFA)	3.5%	6.0%	6.2%	5.3%	3.1%	5.0%
Cattle & sheep (Low)	0.0%	6.2%	6.9%	5.6%	9.4%	2.6%
Mixed	1.7%	6.1%	5.3%	5.2%	6.5%	5.0%
Other types	1.6%	6.0%	2.4%	14.3%	4.8%	1.7%
All types	1.8%	5.5%	5.5%	5.5%	5.5%	3.8%

3.3 The postal survey response

3.3.1 Of the sample of 5,500 questionnaires sent out 125 (2.3 per cent) were returned uncompleted because the addressee was no longer at or associated with the holding. A further 281 (5.1 per cent) were returned without being fully completed, typically because the addressee, although at the holding, felt themselves to be outside the scope of the survey. In most cases, however, enough information was given in the explanation of why the form had not been completed to conclude whether or not there was likely to be any diversified activity on the holding. These 'usable but not fully completed responses' have been grouped in Table 3.4 in a simple classification of how the land is being used. The only significant area of uncertainty was the group where the respondent had simply written 'retired' without giving any further information. Although it is possible that this might have meant that the farm (or land) had been sold it was felt that in the great majority of cases the respondent would have been resident at the holding but had let the land. Bearing this caveat in mind the overall usable response rate was 51 per cent.

3.3.2 When the response from the 'very small' holdings is compared to that of the other holdings in the survey (Table 3.5), it is clear that these holdings present a particular challenge in this type of survey. Only 33 per cent completed the questionnaire but a further 15 per cent responded but felt themselves to be outside the scope of the survey.

3.3.3 The response rate across the sample, as shown in Table 3.6, does not seem to show any clear trend suggesting that neither farm type nor ESU size category have a strong influence on response rate. Geographically, the North East and North West Government Office regions produced below average rates of response at around 50 per cent while all the other regions were about average. With reference to tenure, wholly tenanted holdings produced a below average response rate with mainly owned above average.

Table 3.4 Summary of the response achieved in the postal survey

	Completed	Not fully completed		No response
		Usable	Not usable	
Completed	2504			
Land let		121		
Retired		93		
No commercial output		24		
Private dwelling		14		
All land diversified		17		
No longer a farm		12		
Addressee no longer at holding			125	
Non co-operator			58	
No response				2532
Total	2504	281	183	2532
Per cent of sample	46%	5%	3%	46%
Cumulative per cent	46%	51%	54%	100%

Table 3.5 Postal survey response: 'very small' vs. other holdings

	Very small (less than 8 ESU)	All other holdings (8 ESU and over)
Fully completed	33%	49%
Other usable responses		
Land let	6%	1%
Retired	4%	1%
No commercial output	2%	0%
Private dwelling	1%	0%
All land diversified	1%	0%
No longer a farm	1%	0%
	15%	2%
Total usable	47%	52%
<i>Non usable responses</i>		
Addressee no longer at holding	6%	1%
Non co-operator	1%	1%
	7%	2%
No response	46%	46%
Total	100%	100%

Table 3.6 Postal survey response rates, by farm type and business size⁴

	Very small	Small	Medium	Large	Very large	All sizes
Cereals	57%	53%	58%	59%	76%	57%
General cropping	50%	52%	52%	57%	60%	55%
Horticulture	57%	46%	65%	*63%	*56%	54%
Pigs & poultry	53%	52%	42%	62%	*39%	51%
Dairy	*65%	43%	56%	58%	42%	53%
Cattle & sheep (LFA)	51%	55%	49%	*77%	*100%	53%
Cattle & Sheep (Low)	**	53%	59%	52%	*75%	54%
Mixed	47%	50%	48%	51%	62%	51%
Other types	54%	43%	*100%	*67%	*25%	53%
All types	54%	51%	55%	58%	60%	54%

* Cells with 20 holdings or fewer in the sample

** Not sampled

3.4 Weighting

3.4.1 Because the sampling (and response) rates were not uniform it was necessary to weight the data collected so as to reflect more accurately the characteristics of the population of holdings. However there were two particular complications to the normal weighting procedures:

- the failure to sample any very small lowland cattle and sheep holdings.
- a number of not fully completed questionnaires.

The absence of the very small lowland cattle and sheep holdings

3.4.2 This missing category will only have introduced a sampling bias to the extent to which these holdings would have behaved differently to other respondents. Given that this group is defined by farm type and ESU size the question is how these characteristics may influence responses. Looking at the unweighted incidence of diversification in Table 3.7, it seems to generally hold true that within farm type the smallest holdings are the least likely to be diversified. Within the size groups sampled lowland cattle & sheep holdings come out at around the average.

⁴ Includes usable and non-usable responses.

Table 3.7 Unweighted rates of diversification by farm type and business size

	Very small	Small	Medium	Large	Very large	All sizes
Cereals	43%	69%	74%	87%	87%	70%
General cropping	50%	67%	69%	72%	88%	72%
Horticulture	52%	68%	74%	*58%	*89%	64%
Pigs & poultry	46%	70%	81%	68%	*57%	59%
Dairy	*27%	44%	49%	56%	58%	50%
Cattle & sheep (LFA)	47%	52%	52%	*56%	*100%	51%
Cattle & Sheep (Low)	**	59%	63%	58%	*67%	60%
Mixed	80%	73%	74%	66%	84%	74%
Other types	47%	86%	*100%	*0%	*100%	50%
All types	47%	63%	64%	68%	82%	62%

* Cells with 20 or fewer usable responses

** Not sampled

3.4.3 Two possible courses of action were considered:

- Option 1. To accept that the absence of this group from the sample would result in a slight over-estimate of the overall level of diversification.
- Option 2. To seek to compensate for the absence of the group by combining cells so that other holdings in the response are made to represent those missing. This could be either by bringing together other livestock farm types within the very small size group or by bringing in larger holdings of the same farm type, or both.

3.4.4 The problems with the second option arise from the very small lowland sheep holdings being such a large group. Taking the other very small livestock type holdings to ‘cover’ the lowland cattle and sheep would raise their collective weighting from 70 to 269. Any subsequent analysis based on *farm type* would, for the three merged livestock types, be markedly biased towards the responses of the very small holdings. Taking the ‘small’ lowland sheep holdings to cover their very small counterparts would raise their weighting from 31 to 89. Any subsequent analysis based on *size groups* would mean that the small holdings would be unduly influenced by the lowland cattle and sheep. On balance it was felt that the first option, not compensating for the missing holdings, was preferable.

Incomplete questionnaires

3.4.5 As discussed in section 3.1 above, of the 2,785 usable responses slightly over ten percent comprise questionnaires which were not fully completed. Where the information given by the respondents indicated farming or diversified activities these were included in the database. In effect, most of these cases had completed sections I to III of the questionnaire for these cases. This raises a question about how to weight the responses to the remaining sections of the questionnaire. Our solution has been to exclude the partial responses from analyses of sections IV to VIII and use a second set of weightings based on the fully completed questionnaires only. In order to preserve the diversification rates at cell level the weights were sub-divided into diversified and not diversified (Tables 3.8, 3.9 and 3.10). Because the majority of ‘usable but not completed’ responses were from very small holdings

this group has a particularly high concentration of differences between the two sets of weightings.

Table 3.8 Derivation of ‘weights’ based on usable responses

	Very small	Small	Medium	Large	Very large
Cereals	33	42	33	32	25
General cropping	43	62	34	37	36
Horticulture	39	45	27	32	31
Pigs and poultry	40	57	56	28	53
Dairy	33	39	38	31	37
Cattle and sheep (LFA)	63	32	36	27	32
Cattle and sheep (lowland)		31	26	34	14
Mixed	126	35	40	39	26
Other types	135	40	42	21	84

Table 3.9 Derivation of ‘weights’ based on completed responses

	Very small	Small	Medium	Large	Very large
Cereals	42	46	34	32	26
General cropping	51	73	34	39	36
Horticulture	55	51	30	35	40
Pigs and poultry	59	63	56	28	62
Dairy	52	43	39	31	41
Cattle and sheep (LFA)	71	32	36	30	32
Cattle and Sheep (lowland)		34	26	34	14
Mixed	146	36	40	40	26
Other types	222	45	42	21	84

Table 3.10 Derivation of ‘weights’: the usable postal survey response, by farm type, farm business size and whether diversified

	Diver- sified	Very small	Small	Medium	Large	Very large
Cereals	No	53	56	37	34	37
	Yes	33	42	33	32	25
General cropping	No	61	114	34	43	36
	Yes	43	62	34	37	36
Horticulture	No	76	66	33	40	31
	Yes	44	46	29	32	42
Pigs and poultry	No	104	85	56	28	80
	Yes	40	57	56	28	53
Dairy	No	67	47	40	31	49
	Yes	33	39	38	31	37
Cattle and sheep (LFA)	No	78	32	36	36	0
	Yes	65	32	36	27	32
Cattle and Sheep (lowland)	No	0	38	27	34	14
	Yes	0	31	26	34	14
Mixed	No	190	39	42	42	26
	Yes	138	35	40	39	26
Other types	No	437	81	0	21	0
	Yes	142	42	42	0	84

3.5 The interview survey

3.5.1 The sample was randomly drawn from the 1,716 postal survey respondents that had indicated some diversified activity. However, a decision was taken to avoid sampling farmers whose sole form of diversification was participation in agri-environment schemes. It was felt that participation in agri-environment schemes had been the subject of much previous work and it would be better to concentrate the resources of this study on enterprises that were less well researched and more readily fitted into what is normally understood by diversification.

3.5.2 The interview survey was carried out by the eight English Universities and Colleges (or Centres) involved in DEFRA’s Commissioned Work Programme (CWP) in Agricultural Economics. The investigational staff involved in the CWP are experienced farm interviewers with a good track record of collaborative involvement in a wide range of farm economic studies. Consequently, with comprehensive briefing notes, and using a methodology consistent with that used for CWP studies, the survey team ensured high quality data from the interview survey. The initial provincial quotas were set to reflect each Centre’s relative share of the National Farm Business Survey, although due to problems with differential response across the country (see paragraph 3.5.3) and time constraints some of the final quotas were slightly adjusted.

3.5.3 The timing of the interviews for July and August, although unavoidable given the overall programme for the work, was somewhat unfortunate. Not only is this invariably a busy time of year for farmers but it presented particular challenges to those seeking to conduct fieldwork in 2002 due to the very wet weather through most of June and July. Consequently farmers contacted in August, who might in any case have been busy with wheat harvesting at this time were, in some instances, also catching up with barley crops that should have been combined in July. In some cases farmers were still trying to catch up with second cut, or even first cut, silage. Thus our response rate, particularly in the east of England, was not as high as we would have hoped. Nonetheless a combination of extending the interview period and the use of a reserve sample meant that full quotas were achieved by most Centres.