

# **Conversion to Organic Farming: Case Study Report Ireland**

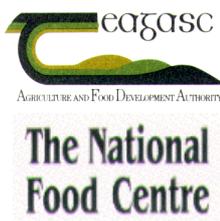
**Brendan Howlett**

**Liam Connolly**

**Cathal Cowan**

**Hilary Meehan**

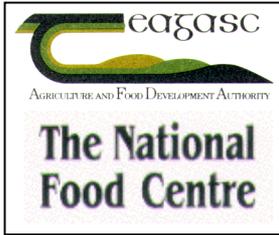
**Robert Nielsen**



**The National Food Centre,  
Dunsinea,  
Ashtown,  
Dublin 15  
Tel: 00-353-1-8059583; Fax: 00-353-1-8059550  
E-mail: [ccowan@nfc.teagasc.ie](mailto:ccowan@nfc.teagasc.ie)**

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## **‘Conversion’ Farm Case Study Report for Ireland**

### **EXECUTIVE SUMMARY**

In Ireland approximately 60% (29,999 ha total land under organic) or 17,985 ha are in conversion with 12,014 ha fully organic. Of the 1083 registered producers 65% are in meat production with 40% in beef and 25% in sheep meat production. Vegetable production accounts for a further 13%, with cereals, milk, poultry and fruit making up the remainder.

Twenty-seven farms considering conversion to organic production were recruited as case studies for the project. The breakdown of these 27 farms was as follows meat production 19, dairy 4, and tillage 4. The participants were located in all four provinces throughout the Republic of Ireland.

Farms were visited in the winter of 2001 and spring 2002 by trained farm recorders. Detailed financial accounts of existing farm operations were also obtained for the year 2000. Financial output, costs and margins were budgeted for during the organic phase using data obtained from surveys of similar organic farm enterprises and also published farm planning data used by the National Farm Advisory Service. A long-term premium of twenty percent was assumed for the farm gate price of organic beef and lamb. In Ireland, due to the low volume of organic production, premiums on cereals of 60% and vegetables of 50% were assumed. Average farm sizes varied between forty-five hectares and ninety-two hectares for all farm types. Seventeen of the farms are owned outright by the farmers, while the ten remaining farmers had some rented land in addition to their own land that they farm.

Family labour appears to be important as over half of the spouses were involved in farm labour. All but one of the farmers interviewed was male. Three were under thirty; twelve were aged between 30-44, while eleven were aged between 45-59. One farmer was aged over sixty. Three farmers had just Primary education, twelve had a secondary education while four and eight farmers respectively had a technical college and higher education. Twenty-three of the farmers were brought up in a 100% rural environment, three were from a rural/urban mix and one farmer was from a 100% urban background.

When asked about what conversion farming involved the main factors mentioned by farmers were reduced fertiliser use, reduced veterinary involvement, changing farm practices and less chemicals / residues. When asked what type of organic enterprise they were interested in

more than half of the farmers expressed an interest in beef / cattle and twelve farmers were interested in lamb / sheep production.

When farmers were asked what the benefits of organic farming would be to them, they stated that they were highly motivated by income earnings and better prices. Environmental concerns were also frequently mentioned. The majority of farmers questioned have livestock holdings and are concerned with how they can control disease and sickness in their animal herd if they convert. Farmers also mentioned the lack of market outlets and inadequate marketing of organics and the problems associated with this. Twelve respondents found information on organic farming in the farming press. Accreditation bodies and state bodies were also utilised by farmers, as well as other farmers / friends/ family to source relevant information.

Converting to organic production resulted in reduced stocking rates and livestock numbers. The majority of the farmers interviewed were involved in meat production and planned to convert to organic meat production. The meat producing farms were divided into three size groups; small, medium and large, with respective average sizes of 18, 36 and 82 ha. Ten meat-producing farmers had mixed sheep and cattle enterprises, with eight farms having cattle only and one farm having sheep only. There was insufficient numbers of dairy and tillage farmers to subdivide into different size categories.

Meat and dairy farms required either new buildings or modification to existing buildings on sixteen out of the twenty-three farms, whilst only one of the four tillage farms required investment in buildings and machinery. It was imperative to qualify for REPS payment plus the extra incentive payment under REPS for converting to organic production. The average extra investment required on drystock farms was €357 per ha, €949 per ha on dairy farms and €253 per ha on tillage farms.

During conversion a decline of four per cent resulted in Family Farm Income on dairy farms. However when fully organic, Family Farm Income increased by 5% over the conventional margin due to a 20% premium in milk price, the organic REPS payment of €242 per ha and lower direct costs of production. Family Farm Income on tillage farms declined from €808 to €721 per ha during conversion but increased to €1003 per ha for organic production. This was due to a twenty-five per cent premium on organic cereal prices combined with organic REPS payments and reduced direct production costs.

Stocking rate was low on many of the meat farms, one third of meat farms were not in REPS and direct costs declined following conversion. The price premium of 20% assumed for organic meat, together with higher REPS payments and higher extensification payments combined with lower direct costs resulted in higher organic Family Farm Income. Family Farm Income on meat farms increased from €261 to €360 per ha during the conversion phase but decreased to €346 per ha for organic production

Principal Component Analysis (PCA) was used to measure the differences and similarities of farmer attitudes. Overall farmers agreed that converting to organic farming would improve the environment, be beneficial to animal welfare, provide good marketing opportunities and create products of better quality compared to traditional farm products.

Based on an analysis of twenty-four attitudinal statements and ten variables, using the Kruskal-Wallis and Mann Whitney tests, the following significant correlations were

identified. Only three statements showed any significance with regard to *product sector*. For example meat farmers agreed more strongly ( $p = 0.004$ ) than dairy and arable farmers that they could make more profit by converting to organic farming. Analysis of the same twenty-four statements mean ranked by *age*, highlighted four significant statements. For example younger farmers also agreed more strongly that market potential for organic food is growing ( $p = 0.015$ ). Farmers who have higher *education* levels more strongly agree that their family will have a better quality of life in organic farming compared to conventional farming ( $p = 0.041$ ). Overall, farmers who earned 50% or more of their *income off farm* more strongly agreed with three significant statements covering animal welfare ( $p = 0.007$ ), information ( $p = 0.025$ ) and personal values ( $p = 0.033$ ).

## **1. INTRODUCTION**

### **1.1 National context of the organic sector**

The number of registered organic producers in Ireland grew rapidly during the 1990's albeit from a very low base. In 1993 there were 238 organic producers farming 5,800 ha and by 2001 there were 1,083 producers farming approximately 30,000 ha. Total land under organic production in 2001 accounted for 0.7% of utilised agricultural area, which is only one third of the EU average. Approximately 60% or 17,985 ha are in conversion with 12,014 ha fully organic. Of the 1,083 registered producers 65% are in meat production, 40% in beef and 25% in sheep meat production. Vegetable production accounts for a further 13% with cereals, milk, poultry and fruit making up the remainder. The increased grant payment under the government Rural Environmental Protection Scheme has encouraged many new entrants into organic production. The market for organic food in Ireland is currently very small with a value of about €25 m. This represents only 0.4% of the total Irish food market compared to the EU average of 2%. However, there has been steady growth and it is expected to reach €86 m by 2006. Fruit, vegetables and meat account for most sales with dairy products accounting for 10% of all organic sales.

### **1.2 Stages and options for conversion**

#### **1.2.1 Sequence of conversion**

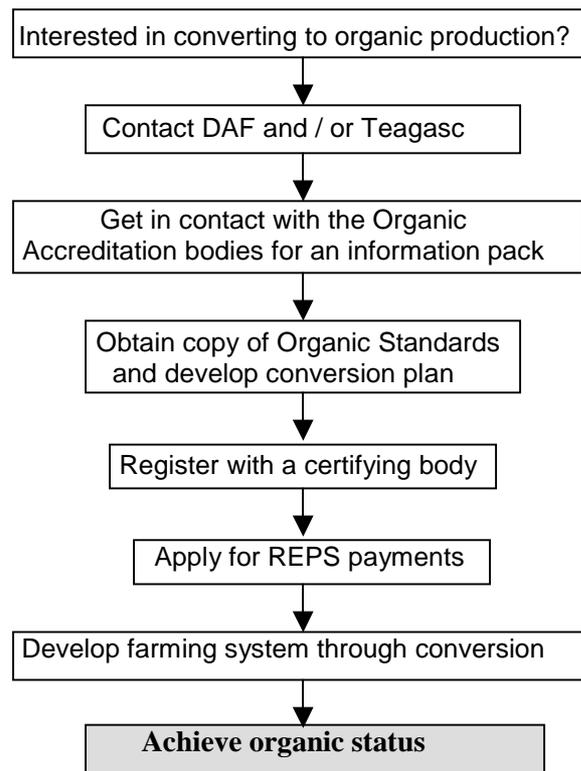
Conversion must be effected according to a progressive plan approved by the Certification Panel that encompasses the entire holding or a physically, financially and operationally separate section of the holding. Produce may only be sold or classified as In-Conversion after:

- a) A Certification Panel has approved a production plan or conversion plan.
- b) The land and production has been inspected and registered with an Organic Certification Body.
- c) A registered conversion period of at least 12 months from the last use of materials, other than those permitted in these Standards, to the harvest, has been complied with.

The EC Regulation provides that in-conversion produce may not be marketed as organic. The EC Regulation further provides that the indication that the produce is in-conversion does not

mislead the consumer regarding its difference from products that satisfy all the requirements of EC Regulation 2092/91. The EC Regulation 2092/91 provides that labelling of in-conversion produce must take the form of the words "product in-conversion to organic farming" and must appear in a colour, size and style of lettering etc. which does not mislead the consumer regarding its difference from products which satisfy all the requirements of EC Regulation 2092/91. All other relevant sections of these standards need to be referred to in this regard also. The process that farmers follow when considering converting to organic farming is highlighted in the flowchart below.

**Figure 1: Flow diagram showing possible sequences prior to achieving organic status.**



### ***1.2.2 Options for conversion***

There are certain procedures farmers must adhere to when deciding to convert to organic production in the Republic of Ireland based on the type of enterprise(s) that are involved.

Land and production may be eligible for Symbol Registration and products may only be sold under a description that indicates or implies that the product has been produced in accordance with these Standards, after a period of registered conversion (usually two years). This normally means the following periods:

- a) For arable and horticultural crops, 24 months from the date of signature that an undertaking is given to farm to these standards before sowing or planting the Symbol Crop.
- b) For grassland, 24 months from the last use of any materials not permitted in these Standards until the grass is used for Symbol grazing or the production of Symbol hay or silage.
- c) For perennial crops (excluding grassland) - 36 months from the date of signature to an undertaking to farm to these standards until the harvest of the first Symbol crop. There is derogation to this rule on the treatment of Orchards. Where there is an established history of non-intensive management, the conversion period may be reduced to 24 months, at the discretion of the Certification Panel, on the recommendation of the Inspector. Grassland, under fruit trees, is Symbol Standard after 24 months.

The Certification Panel may, however, with the approval of the Competent Authority - The Department of Agriculture and Food, decide in certain cases to extend or reduce the conversion period having regard to the previous use of the land area in question.

The conversion may be reduced to a strict minimum of 12 months in situations where the parcels have been treated with a product not included in Annex 11, part B of EU regulation 2092/91 as amended as part of a pest and disease control scheme made mandatory by the Department of Agriculture and Food in the Republic of Ireland and the United Kingdom Register of Organic Food Standards in Northern Ireland on its territory or on certain parts of its territory, in respect of a specific crop. The reduction in the conversion period must take account of all the following points

- a) The parcels were already converted or were undergoing conversion to organic farming.
- b) The degradation of the plant protection product concerned must result in an insignificant level of residue in the soil and, where the latter is a perennial crop, in the crop.
- c) Products of the harvest following treatment may not be sold bearing an indication referring to organic production.

### ***1.2.3 Organic support schemes***

Financial support schemes to support organic farming were introduced in all EU member states under the Agri-environmental measures of the 1992 CAP Reform and continued via the CAP rural Development Plan implementing Council Regulation (EC) 1257/1999 (Makin, 2002). There are two main sources of direct funding from the Department of Agriculture and Food for organic farming. The Rural Environmental Protection Scheme (REPS) has embraced organic production and provides financial support to those entering into the conversion phase or continuing in organics while in REPS. Conventional farmers can get the basic REPS of €6,040 per annum, which is area-based. The in-conversion rate of payment is available for up to two years. A farmer with 40 hectares (the maximum area eligible for

payment) receives €13,280 per annum a year during the conversion period. This is made up of a REPS payment of €6,040 and a conversion payment of €7,240. A farmer receives €9,680 when full organic status has been obtained. This is made up of €6,040 (REPS) and €3,640 of organic payments. (Mackin, 2002).

Table 1 shows the REPS payments received by organic farmers during conversion through to full organic accreditation status.

**Table 1: Organic support payments**

Eligible REPS Land € per Hectare	Year 1	Year 2	Year 3	Year 4	Year 5
3 Hectares up to 40 Hectares	181	181	91	91	91
Less than 3 Hectares	242	242	121	121	121

Supplementary Measure 6 (SM6) of the Rural Environmental Protection Scheme (REPS) provides additional payments to REPS farmers who wish to convert to or continue with organic farming methods. The objective of SM6 is to encourage producers in REPS to respond to the market demand for organically produced food (DAF, 2002).

The second source of direct funding is the scheme of grant aid for the development of the organic sector. The National Exchequer funds this scheme under the National Development Plan 2000-2006. The scheme provides grant assistance towards investments in equipment and facilities for the production, preparation, grading, packing and storage of organic products (DAF, 2002). For on-farm investment costing over €2,540 the Department of Agriculture and Food will provide 40% grant assistance up to a maximum of €50,790, while grants of up to €253,948 are available for off-farm projects. Since REPS was introduced in 1994 some €21.6 million has been paid to over 700 organic farmers, moreover €7.6 million has been provided for the organic sector under the Regional Operational Programmes of the National Development Plan (DAFRD, 2001).

## 2. METHODOLOGY

### 2.1 Selection criteria and recruitment of case study farms

The majority of farmers converting to organic production in Ireland develop a meat production system (65%). The remaining 35% are engaged in vegetable, fruit, poultry, arable crops, milk and pig production. This created difficulties in identifying a sample of equal numbers of farmers considering organic meat, dairy and vegetable production. Secondly, Ireland does not have an identified population of farmers who have expressed an interest in organic production but have not converted. In order to obtain a sample an advertisement was placed in the main farming papers requesting farmers considering organic meat, dairy or tillage production to contact Teagasc to have a free financial evaluation of the conversion process carried out. This yielded a sample of 37 farmers throughout Ireland. However, when visited only 17 of those were suitable or wished to proceed with evaluation. An additional sample of 10 farmers, who had expressed an interest in organic production, was selected from a larger random sample of 1200 farms participating in the annual Teagasc National Farm

Survey. The breakdown of these 27 farms was as follows; meat production 19, dairy 4, and tillage 4. Table 2 shows the sector and size of the case study farms recruited. The sample did not equate to that originally planned, with a larger number of meat and fewer dairy and arable/horticultural producers being recruited. The meat producing farms were divided into three size groups; small, medium and large, with respective average sizes of 18, 36 and 82 ha. There was insufficient numbers of dairy and tillage farmers to subdivide into different size categories.

**Table 2: Product sector and size of case study farms (nr.)**

Size range	Arable or Horticulture	Dairy	Meat
Small (0-50 ha)	0	1	13
Medium (>50-150 ha)	4	3	5
Large (>150 ha)	0	0	1
TOTAL	4	4	19

## 2.2 Construction of farm budgets

The possible organic options and preferences were discussed and the most suitable organic enterprise identified. Detailed financial accounts of existing farm operation were obtained for the year 2000. Additional farm building, slurry storage and farm machinery required were identified and costed. The data collection for each case study farm followed a standard farm budgeting format i.e. output (sales plus direct payments) direct costs and overhead or fixed costs. These data were then used to calculate conventional farm gross margin and Family Farm Income. The financial impact of the conversion process was estimated by applying conventional prices to the reduced levels of physical outputs resulting from the changeover to organic production. Additional incentive payments for conversion were also included in output. The decline in physical output was estimated from the literature, discussions with farmers who had already converted and also discussions with research and advisory scientists involved in organic farming. Financial output, costs and margins were budgeted for during the organic phase using data obtained from (1) surveys of similar organic farm enterprises and published farm-planning data used by the National Farm Advisory Service. (2) Assuming a long-term premium of 20 percent for the farm gate price of organic beef and lamb. The present price premium is higher (30%) but with increased supply this is likely to decline in the medium to long term. Following discussions with advisors involved with organic dairying a farm gate price premium of 20 percent was used to calculate output from organic milk production. In Ireland, due to the low volume of organic production, it is assumed that the premium on cereals will be 60%, with vegetables at 50%.

### **3. THE CASE STUDY FARMS**

#### **3.1 Farm Characteristics**

##### ***3.1.1 Location***

Figure 2 illustrates the geographical spread of the twenty-seven case study farms. Participants were located in all four provinces throughout the Republic of Ireland.

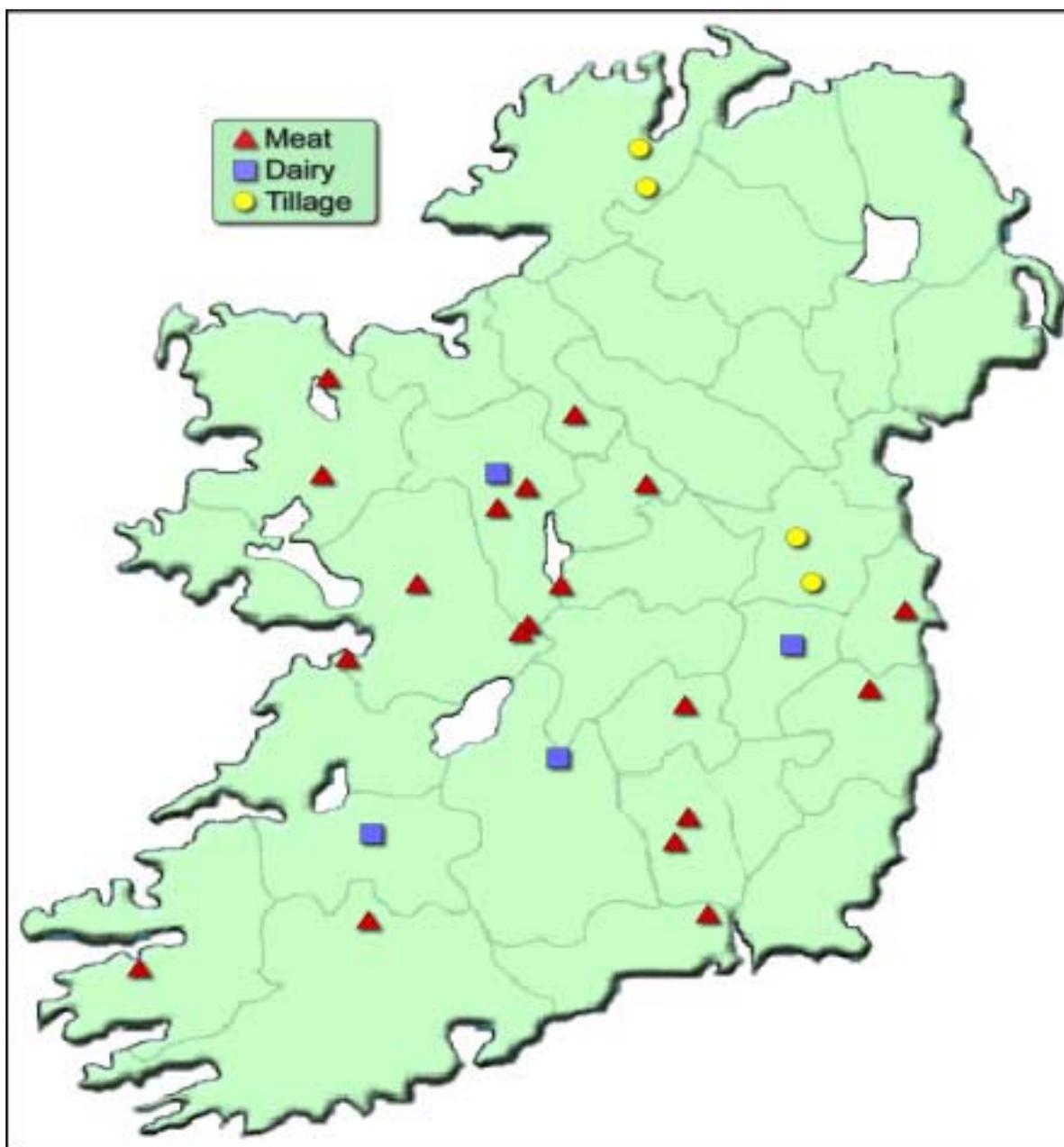
##### ***3.1.2 Size***

The smaller number of tillage farmers had the largest average farm size of 94 hectares, largely owner occupied. The dairy farms had an average farm size of 60 hectares and the meat farms had an average farm size of 53 hectares.<sup>1</sup> Average farm size for all twenty-seven farms was 60 hectares. Overall, eighty-three percent of the land was owner-occupied, five percent rented long term and twelve percent was rented short term. Figure 3 shows the average farm size and under what arrangements the land is farmed for the different product sectors.

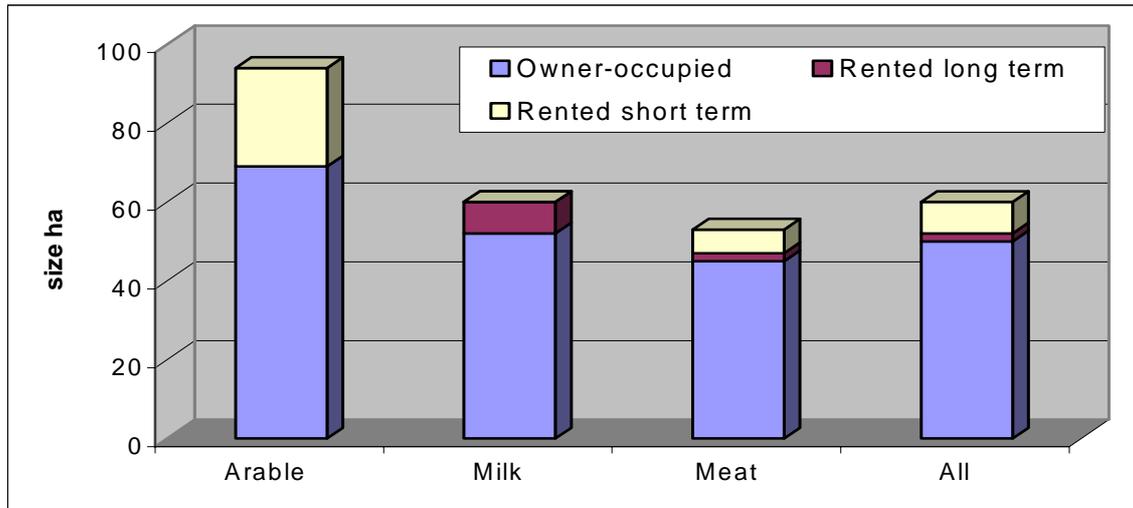
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<sup>1</sup> This included both owned and rented land. Only land considered suitable and/or available for conversion was used in the financial calculations. Thus for financial calculations the average farm sizes were 83 hectares for tillage and 45 hectares both for dairy and meat farms respectively.

Figure 2: Map of Ireland showing location of the case study farms



**Figure 3: Average farm size and under what arrangement the land is farmed**



### **3.1.3 Ownership**

Seventeen of the farms are owned outright by the farmers, while the ten remaining farmers have some rented land in addition to their own land that they farm.

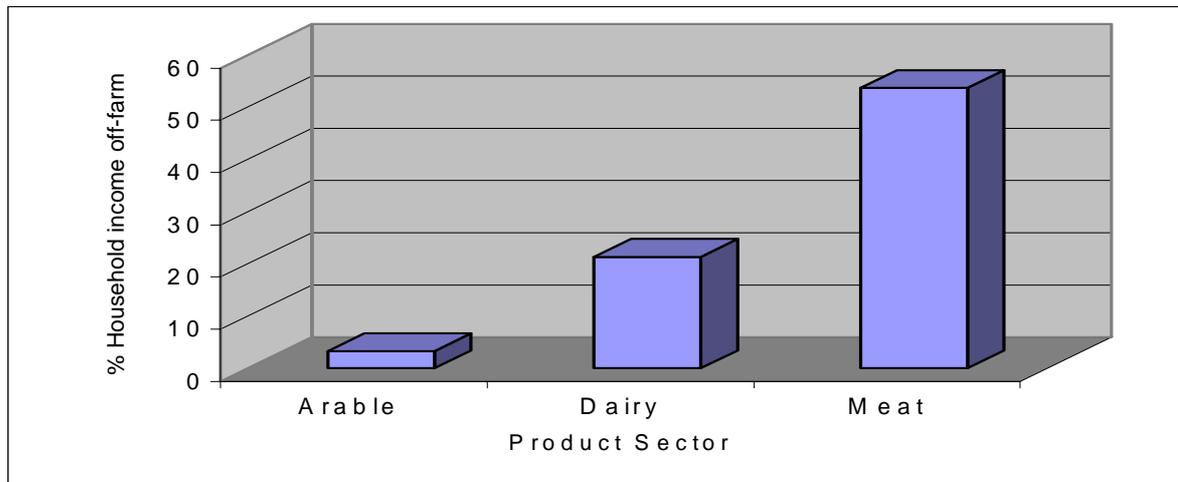
### **3.1.4 Employment**

Fourteen of the farmers' spouses worked on the farm in some capacity, with nine children working on them. Of these nine children who worked one was full time and paid, one was working full time and unpaid, three were being paid for part-time work and four were working part-time unpaid. Five of the farms hired outside help in some capacity.

### **3.1.5 Farm household income**

Actual data relating to off-farm income and total household income was not collected however farmers were asked to estimate off-farm income as a percentage of their farm incomes in section A of the questionnaire. These percentage estimates were then used to generate total household income. The results in figure 4 show that as expected off-farm income contributed a higher percentage to household incomes on meat farms (54%) than on either dairy farms (21%) or tillage farms (3%). In addition the contribution from off-farm income to household income was larger on the small meat producing farms than the medium to larger farms.

**Figure 4: FFI at present by percentage household income off-farm**



### 3.2 Farmer Characteristics

Table 3 shows some of the farmer characteristics. All but one of the farmers interviewed was male. Three were under thirty years; twelve were aged between 30-44 years, while eleven were aged between 45-59. One farmer was aged over sixty. Farmers' general education varied, three farmers had just primary education, while a majority of twelve had a secondary education. Those who had technical college education and higher education were four and eight respectively. Ten of the farmers had obtained agricultural education to at least technical college or equivalent. All the farmers in the sample had none or only informal organic farming education. Twenty-three of the farmers were brought up in a 100% rural environment, while three farmers were in a mix between rural and urban and one had a 100% urban background. Of those who were considering converting to organic, two farmers stated that they would soon convert, two stated they would convert but not quite yet, while three stated they will definitely not convert and the remainder were still considering it.

**Table 3: Characteristics of farmers**

Variable	%
Male	96
Aged between 45 – 59	40
General education – technical college or higher	44
100% rural upbringing	85

## **4. IMPACT OF CONVERSION ON THE CASE STUDY FARMS**

### **4.1 Strategic considerations**

#### ***4.1.1 Chosen method of conversion***

The conversion period is two years and all the farmers interviewed would convert all their enterprises in this two-year period. In relation to land farmed, farmers would only convert land owned or land that was on a long-term lease i.e. greater than five years. Farmers would not convert land currently being farmed on a short-term (one-year) lease. Only one farmer decided not to convert all his owned land, as it was in two blocks forty miles apart. He would farm the land furthest from his residence conventionally and convert the second block.

#### ***4.1.2 Farming enterprises***

When farmers were asked what type of organic enterprise they would be interested in more than half expressed an interest in beef / cattle (14) with thirteen farmers interested in lamb / sheep production. It is important to highlight the point that over twenty of the respondents are currently livestock farming, thus reflecting the strong interest in these types of enterprises. Breeding stock / weanlings (7) and dairying (4) were the next most important enterprises. The remaining enterprises that received some but minimal interest were potatoes, vegetables and fruit and poultry (2) respectively. Compared with livestock farms, horticulture and poultry were of less interest to farmers. This may be possibly due to the higher organic price premiums received for organic livestock.

The majority of the farmers interviewed were in meat production and planned on conversion to organic meat production. Ten meat-producing farmers had mixed sheep and cattle enterprises, with 8 farms having cattle only and one farm having sheep only. Converting to organic production results in reduced stocking rate and livestock numbers. The average reduction on technically efficient lowland, drystock farms was in the order of twenty per cent, whilst on extensively stocked drystock farms, the reduction was two to ten per cent. The majority of mixed cattle and sheep farms opted to reduce or cease their sheep enterprise, which is similar to that occurring on conventional farms. Five cattle and sheep farms dropped the sheep enterprise to concentrate on beef production whilst two cattle and sheep producers opted for organic sheep meat production only, resulting in 13 cattle farms, three cattle and sheep enterprises and three all sheep enterprises.

Of the four conventional dairy farms, one decided to exit from dairying and concentrate on beef production. The tillage farmers' plan on concentrating on cereal production, with one large farm opting to continue in cereals and potato production. The average size of meat producing farms was 45 ha with size ranging from 12 ha to 135 ha. Average area farmed by dairy producers was also 45 ha with sizes ranging from 23 to 79 ha. Tillage production was on the larger farms with an average size of 83 ha with sizes ranging from 38 ha to 112 ha.

## **4.1 Financial implications**

*Farmers participating in the study were given a confidentiality undertaking that no individual farm data would be published and all results would be in-group format in accordance with Teagasc policies and procedures in relation to the National Farm Survey Data.*

### **4.2.1 Fixed costs**

The average increase in fixed costs over the 27 farms was €1756 due to changing from conventional to organic production. This ranged from an increase of €8000 on one meat-producing farm to a decline of €5058 on a tillage farm as a result of reducing root crops. The increase in fixed costs on the meat farm was due to additional investment in buildings, breeding stock and quota resulting in higher depreciation and interest charges. Overall increase in fixed costs was due to additional investment in animal housing and slurry storage to meet REPS requirements and qualify for payments plus investment in breeding livestock and quota. Additional labour requirements due to converting to organic production was not a problem in Ireland due to the scale of enterprises involved. In addition to the asset investment, organic farmers had the additional financial cost involved in drawing up their 5-year REPS plan plus the costs of registering and inspection costs with the organic association.

### **4.2.2 Investments**

The change to organic production on meat and dairy farms required either new buildings or modification to existing buildings on 16 out of the 23 farms, whilst only one of the four tillage farms required investment in buildings and machinery. The additional investment in buildings on meat farms was also required to qualify for Rural Environmental Protection Scheme (REPS) incentive payments, e.g. adequate control of slurry on farms, good fencing, nutrient management plan etc. Following discussions with the farmers and organic advisory service, it was decided that if converting to organic production were to be financially viable, it was imperative to qualify for REPS payment plus the extra incentive payment under REPS for converting to organic production. The average extra investment required for conversion to organic production on drystock farms was €357 per ha, €949 per ha on dairy farms and €253 per ha on tillage farms. All extra investment was financed through borrowing over 10 years at 10 per cent interest rate.

The average investment required per farm for all systems of production was €6,000 to convert to organic production. There was enormous variation between systems and individual farms that had extra investment ranging from €1,666 per ha on a cattle farm to €100 per ha on a sheep farm. On a per farm basis the average extra investment required was €3,000, €30,500 and €17,500 for meat, dairy and tillage farms respectively. Farm buildings, fencing and slurry storage accounted for the bulk of extra investment (90%), with livestock machinery and quota purchase accounting for 10%.

### **4.2.3 Family Farm Income**

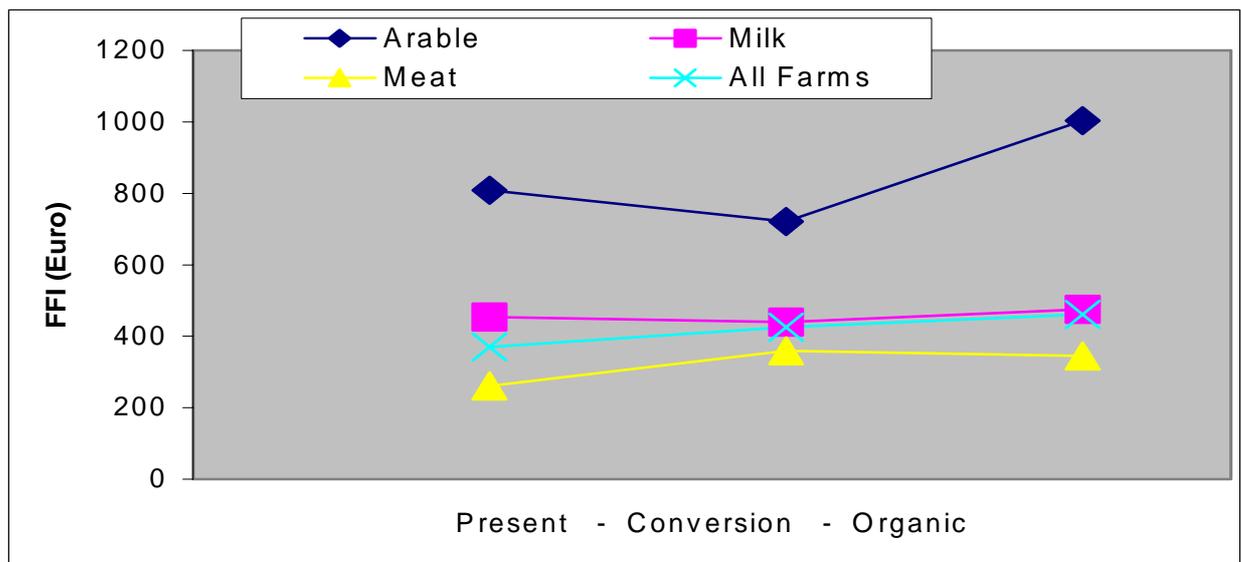
Table 4 shows Family Farm Income (FFI) under the three scenarios. It can be seen that FFI increased for meat farmers during conversion by thirty-eight percent but dropped back to a thirty-three percent increase when they became fully organic. Both dairy and tillage farmers'

income dropped during conversion however they increased by five per cent and twenty-four percent respectively. The data is shown in figure 6 below with FFI for different product sectors shown under the three scenarios.

**Table 4: Family Farm Income (FFI) under the three scenarios**

Farm Type	Size	Family Farm Income €/ha		
		Conventional	Conversion	Organic
Meat	Small	230	364	314
Meat	Medium	297	373	409
Meat	Large	257	344	316
Meat		261	360	346
Dairy	All	454	440	475
Tillage		808	721	1003

**Figure 5: FFI for different product sectors under the three scenarios**



The impact on Family Farm Income of conversion to organic production was examined for meat, milk and tillage production. Family Farm Income in this study is defined and calculated on the same basis as for EU Farm Accounts Data Network System (FADN). Co-operating farmers provided data to calculate Family Farm Income for the conventional phase on the basis that no individual data would be published. Family Farm Income increased in the conversion and organic phases for meat producers. The main reasons for the increased margins were:

- (i) Stocking rate was low on many of the meat farms, as they were quite extensive resulting in very small to negligible decline in stocking rate following conversion.

- (ii) Farms that had high stocking rates qualified for higher EU extensification direct payments following reduction in stocking rate due to conversion. These extra payments partially compensated for decline in financial output.
- (iii) One third of meat farms were not in REPS. In the conversion and organic phases all farms were assumed to be participants in the scheme. Therefore small farms availed of the €151/ha from regular REPS plus the extra conversion incentive payment of €81/ha giving a total of €332/ha during conversion and an organic incentive of €1 per ha giving a total of €42/ha for the organic phase. Payments are paid up to a maximum of 40 ha.
- (iv) Direct costs declined following conversion and fixed costs increased but not to the same extent, as the only major change was due to extra investment in building and facilities.

Table 5 provides an overview of the differences in profitability found between conventional and organic systems, along with the extra investment (per ha) involved in converting to organic production. Family Farm Income on Irish tillage farms increased by 24 per cent, 5 per cent for dairy and 33 per cent for meat farms respectively.

**Table 5: FFI and investment under conventional and organic management**

	Family Farm Income € ha		Investment € ha
	Conventional	Organic	
Arable	808	1003	253
Dairy	454	475	949
Meat	261	346	357
All	371	462	429

#### **4.2.4 Price premiums and subsidies received**

A price premium of 20% over conventional price was assumed for organic meat and this together with higher REPS payments, higher extensification payments combined with lower direct costs resulted in higher organic Family Farm Income. For the reasons mentioned above, Family Farm Income on Irish meat farms increased by 38 per cent and 33 per cent for the conversion and organic phases respectively.

The conversion process on dairy farms resulted in an additional investment of €49 per ha and a decline of four per cent in Family Farm Income. The major factor compensating for reduced milk output was the additional REPS payment. The organic Family Farm Income increased by 5% over the conventional margin due to a 20% premium in milk price and the organic REPS payment, combined with lower direct costs of production. Appendix II shows the average product price used when constructing the budgets.

Family Farm Income on tillage farms declined from €808 to €721 per ha during the conversion phase but increased to €1003 per ha for organic production. This was due to a 25 per cent premium on organic cereal prices combined with organic REPS payments and reduced direct production costs with higher fixed costs having a downward effect.

The impact of REPS payments plus the extra conversion and organic incentive payments is shown in Table 6. Table 6 shows that the farms would claim an average, €7,217 (€147 / ha) during the second year of conversion, and €3,627 (€74 / ha) in the first year of being fully organic. Tillage farms would receive the highest conversion subsidy per hectare. The dairy farms have the lowest conversion subsidy per hectare.

**Table 6: Average conversion subsidies received per ha of land converted**

Average conversion subsidies received € (€ ha)		
	Conversion – Year 2	Organic – Year 3
Arable	8,632 (104)	4,316 (52)
Dairy	6,525 (145)	3,285 (73)
Meat	7,065 (157)	3,555 (79)
All	7,217 (147)	3,627 (74)

Organic REPS contributes €15 per ha or 62 per cent of Family Farm Income on all meat farms ranging from 80 per cent on small farms to 45 per cent on the larger meat farms, as REPS is paid to a maximum of 40 ha. REPS contribute 41 per cent and 14 per cent respectively to dairy and tillage farm incomes. The data shows that REPS is the major factor affecting dry stock farm incomes during the conversion and organic stages with the price premia being the second most important factor. REPS is also important but to a lesser extent on organic dairy farms. The lowest contribution from REPS is on tillage farms, which have the highest gross margin per ha due to vegetable sales and also as tillage farms are almost double the size (83 ha) as meat (45 ha) and dairy (45 ha). The maximum farm size on which REPS is paid is 40 ha which means that an average area of 43 ha on the tillage farms receives no payment.

## 5. MOTIVATION FOR CONVERSION

### 5.1 Analysis of open-ended questions

This section highlights the analysis of the open-ended answers that farmers gave outlining various aspects of organic farming that were important to them. The numbers in brackets indicate the number of mentions made of benefits, factors involved in conversion, problems of converting to organic farming and information sources on organic farming.

#### 5.1.1 *What benefits would organic farming have for you?*

When farmers were asked what the benefits of organic farming would be to them, they stated that they were highly motivated by income earnings. The benefits most frequently mentioned were better prices for produce (10) and greater income (9). Environmental concerns about less environmental pollution (6) was the next most frequently mentioned. Other benefits identified included less work (6), market security (4) and safer / healthier food (4). It is interesting that conventional farmers perceive organic farming to involve less work when in

actual fact organic farmers state that their experiences contradict this opinion. Market security (4) along with improved payments (3) and reducing inputs (4) are all financial factors. However, some farmers are concerned about the production of a safer / healthier food (4) and especially the consumers perspective of this.

### ***5.1.2 What would be involved during conversion?***

The main factors that farmers mentioned were reduced fertiliser use, reduced veterinary involvement, changing farm practices and less chemicals / residues. Farmers primarily mentioned the financial implications of converting to organic farming such as the costs associated with reducing fertiliser usage and the effects that this may have on production yields. Reduced veterinary involvement (8) and changing farm practices (8) would also have an effect on farming inputs. Interestingly some farmers mentioned the environment, as they believed there would be less chemicals/ residues involved.

Other factors mentioned were reduced stocking levels of farm animals (6) and clover growing (4). Again these factors are focussed on the input changes involved during conversion. A number of other factors that were infrequently mentioned included increased manual / sourcing labour (3) and crop rotation (2).

### ***5.1.3 What are the barriers to conversion for you?***

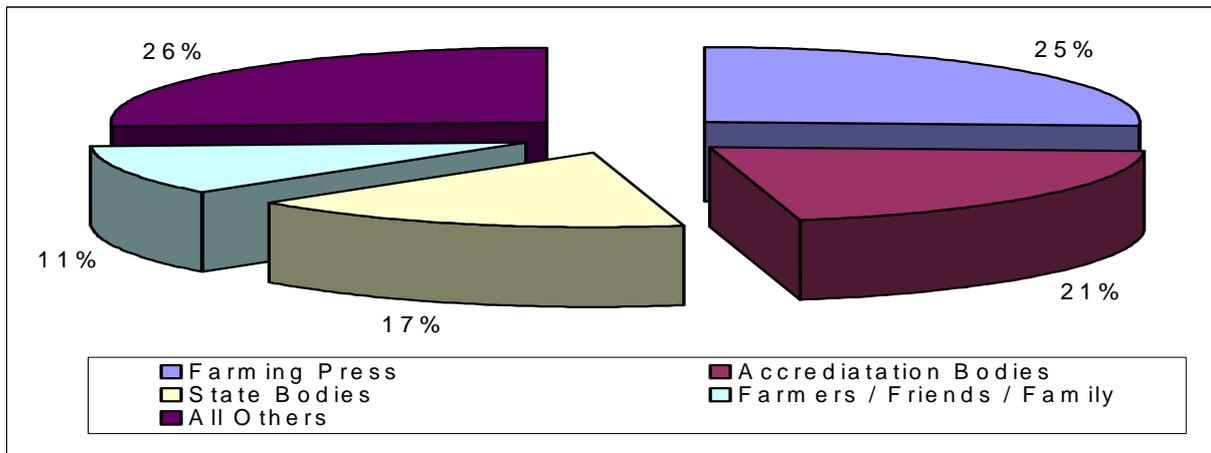
When farmers were asked what problems they expected to encounter during conversion, over one third of respondents mentioned disease control in animals as an issue. This identifies a major worry as the majority of farmers studied have livestock holdings and are concerned with how they can control disease and sickness in their animals. The second most frequently mentioned problem was the lack of market outlets / inadequate marketing of organics (8). This relates to farmers concern in finding markets for their produce and this is not surprising considering that some organic produce is currently sold into conventional markets.

The third problem identified was structural changes on the farm/capital expenditure (7) and this related to extra costs involved in changes required to existing farm buildings under organic regulations that could mean additional expenses for some farmers. Other problems identified were technical issues and included problems sourcing materials (6), reduced yields (6), weed infestation (3) and proper farm management (3). There was also a financial concern that reduced income (5) and extra costs involved (3) might result in a reduction in their overall earnings.

### ***5.1.4 Where do you find information on conversion?***

Figure 6 shows that the farms gathered information on organic farming from a wide variety of sources. There were four main areas that conventional farmers sourced their information on conversion to organic farming. Twelve of the respondents found information in the farming press, for example The Farmers Journal. Accreditation bodies and state bodies were utilised by ten and eight farmers respectively, while five used other farmers / friends / family to source relevant information. A small number found information in books, publications and people with organic sector experience as important sources of information.

**Figure 6: Sources of information on conversion to organic farming**

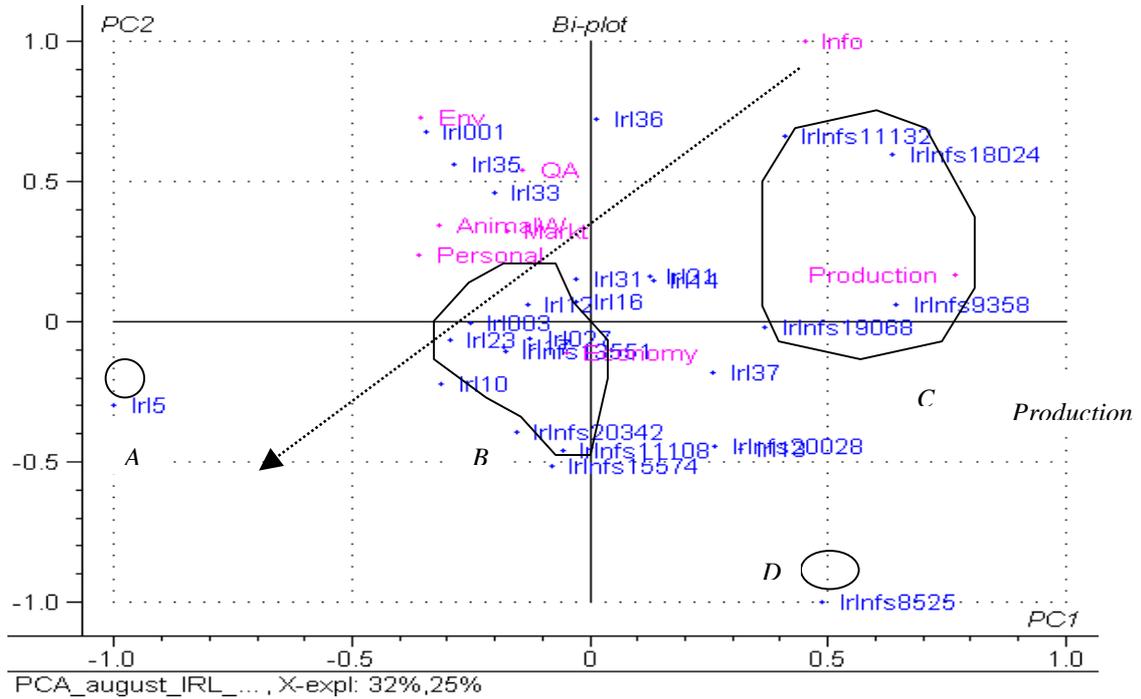


## 5.2 Analysis of attitudinal statements

### 5.2.1 PCA

The PCA plot for the Irish farmers can be seen in figure 7. This shows a PCA plot with two dimensions showing the Irish interviewed farmers and the categories of statements. It can be shown that the two main categories explaining the biggest difference amongst the farmers is “Info”, which is illustrated with the dotted arrow, and “Production”. The grouping of farmers of importance are illustrated with the boxes and elliptic figures on the plot. The farmer in group A have given extreme low scores of agreement to the statement “We are getting enough and satisfactory information about converting to organic farming” and to the statement “Organic farming needs more work and more effort compared to traditional farming”. The farmers’ in-group B have all given lower scores of agreement to the “Info” statement. The farmers’ in-groups C have given high scores of agreement to the “Production” statement. The farmer in group D has given a low score of agreement to the statements “Organic farming is more friendly to the environment compared to traditional farming” and “The quality of products from organic farming are better than the products from traditional farming” and also the statement of “Info”. The farmer in-group D has negative views on organic.

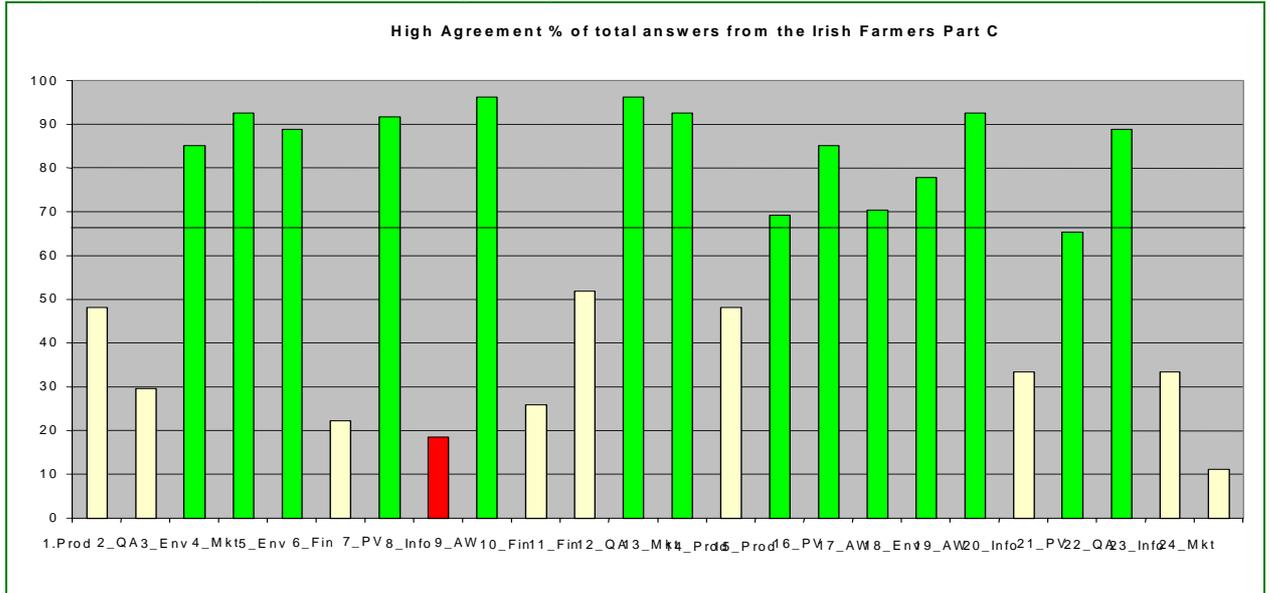
**Figure 7 Preference Mapping of Farmers' Attitudes**



**5.2.2 Mean scores**

Figure 8 shows the mean scores for all twenty-four statements. This is calculated by expressing as a percentage all farmers that agreed (i.e. ‘I agree a little’, ‘I agree on the whole’, and ‘I agree very much’) with each of the statements (See appendix I). Figure 8 illustrates that a majority of the Irish farmers have given high score of agreement to 14 of the 24 questions asked. These 14 statements cover environmental questions, Marketing questions, personal values, animal welfare and quality of organic products. Interestingly many farmers do not agree that the information about converting is sufficient from colleges, organisations and authorities.

**Figure 8 Percentage of farmers agreeing with the statements**



### 5.2.3 Correlation between attitudes and farm / farmer characteristics

Based on an analysis of twenty-four attitudinal statements and ten variables, using the Krukis-Wallis and Mann Whitney tests, the following farm and farmer variables produced significant correlations as shown in the table below and subsequently discussed:

**Table 7. Number of significant statements for tested variables**

Variables	Prod	QA	Mkt	Fin	PV	Info	AW	Total
Product sector/ Farm type		2		2				4
Age	1	2	1					4
General education					1			1
Off-farm income					1	1	1	3
Total	1	4	1	2	2	1	1	12

Only three statements showed any significance with regard to *product sector* Irish dairy farmers surveyed for the case study agreed more strongly ( $p=0.04$ ) than meat and arable farmers that organic products look better than conventional products. The dairy farmers also agreed more strongly that the flavour and taste of products from organic farming are better compared to products from conventional farming ( $p=0.033$ ). This suggests that *quality issues were of greatest importance to surveyed dairy farmers considering organic conversion*. Overall meat farmers agreed more strongly ( $p=0.004$ ) than dairy and arable farmers that they could make more profit by converting to organic farming. Within this group small meat farmers most strongly agreed with this statement, followed by medium meat, large meat and medium dairy farmers ( $p=0.028$ ).

Analysis of the same twenty-four statements mean ranked by *age*, highlighted four significant statements. Younger farmers more strongly agreed with three of the four statements than farmers aged over 45 years. Younger farmers more strongly agreed that organic products

look better and are better quality than conventional products ( $p=0.024$ ,  $p=0.044$ ). Younger farmers also agreed more strongly that market potential for organic food is growing ( $p=0.015$ ). Farmers aged over 45 years however; more strongly agreed that it is necessary to employ additional labour after converting to organic production ( $p=0.039$ ).

Farmers who have higher *education* levels more strongly agree that their family will have a better quality of life in organic farming compared to conventional farming ( $p=0.041$ ).

Overall, farmers who earned 50% or more of their *income off farm* more strongly agreed with three significant statements covering animal welfare, information and personal values. These farmers more strongly agreed that animals used in organic production have more freedom to move around ( $p=0.007$ ), that governments and their agencies provide a lot of useful information about converting to organic farming ( $p=0.025$ ), and that their families would have a better quality of life from organic farming compared to conventional farming ( $p=0.033$ ).

## **6. IMPLICATIONS OF CASE STUDIES FOR THE FARMING SECTOR**

### **6.1 Matrix analysis of the case study farms**

In order to gain a better insight into the farm case studies a matrix that was constructed showed a number of farm and farmer characteristics. ‘Sorting’ these characteristics highlighted a number of patterns:

- The majority of farmers (26) were male and kept livestock, owned their own farms, and would convert for ‘*financial reasons*’, i.e. better prices for produce and greater income.
- Most farmers were unsure as to whether they would convert to organic farming. Most farmers were under the age of 45. Of the 13 small farmers 10 needed to work off farm to earn over 50% of their farm income.

### **6.2 ‘Composite’ farms types**

A number of the case-study farms have similar size, enterprise and motivational characteristics enabling them to be grouped together into farm types as identified below (numbers in brackets refer to the number of producers falling into the category). Because farmers participating in the study were given a confidentiality undertaking that no individual farm data would be published and all results would be in group format<sup>1</sup>, only twenty-five farms were grouped into composite farm types, the remaining two farms were in groups on their own and their individual incomes could not be made public.

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<sup>1</sup> In accordance with Teagasc policies and procedures in relation to the National Farm Survey Data.

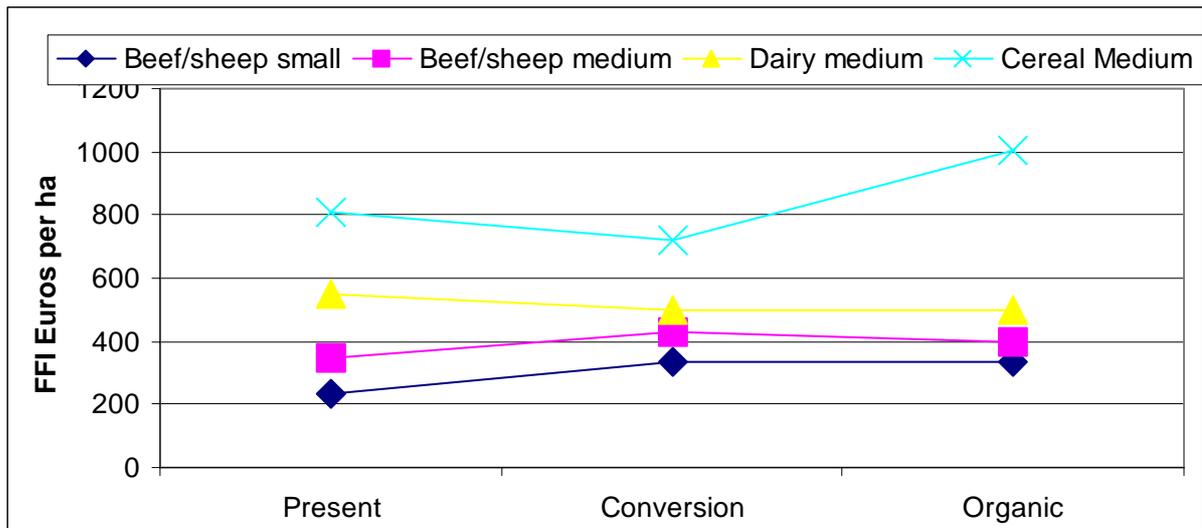
1.	Small beef/sheep producer (13) High % off-farm income Convert for ' <i>financial reasons</i> '
2.	Medium beef/sheep producer (5) Convert for ' <i>financial reasons</i> '
3.	Large beef/sheep producer (1) No off-farm income
4.	Small dairy farm (1) No off-farm income Convert for ' <i>financial reasons</i> '
5.	Medium Dairy farm (3) Low % off-farm income Convert for ' <i>organic values</i> ' and ' <i>financial reasons</i> '
6.	Medium cereal producer (4) No % off-farm income Landowners

Table 7 and Figure 9 show a comparison of FFI Euros per hectare for the twenty-five farms grouped by similar characteristics.

**Table 7. FFI for the Irish composite farm types identified**

Composite type	Case numbers	FFI € ha		
		Present	Conversion	Organic
1. Beef/Sheep small	5, 6, 7, 8, 9, 12, 14, 15, 18, 19, 20, 21, 23	(231)	337	332
2. Beef/Sheep medium	1, 11, 16, 17, 22	(345)	431	400
3. Dairy medium	10, 13, 26	(551)	501	498
4. Cereal medium	2, 4, 24, 25	(808)	721	1,003

**Figure 9 FFI for the composite farms identified**



## 7. CONCLUSIONS

The majority of farmers recruited were considering conversion to organic livestock farming. There were four tillage and four dairy farmers and there from each group interested in converting to organic farming. If there is a further increase in the level of organic meat production it will lead to increased demands of organic feedstuffs and there may not be enough farmers converting to organic tillage to meet this feed demand. The decline in Irish exports of organic meat to the UK market has resulted in an increased supply on the domestic market and with demand remaining stable Irish organic producers are forced to sell at conventional prices. There is need to secure more outlets for the sale of all organic produce by producers, processors and retailers to ensure secure prices for the primary producers, organic farmers.

Farmers stated that they were highly motivated by financial considerations (income earnings and higher prices). Environmental concerns were also frequently mentioned. The majority of farmers who had livestock holdings were concerned with how they could control disease and sickness in their animal herd if they converted. Farmers also mentioned the lack of market outlets, inadequate marketing of organic products and the problems associated with this sector of the market.

The study has shown that all three farming sectors would experience moderate improvements to their FFI if they converted to organic farming. These increases would require additional investment particularly for dairy farmers and small meat farmers who would have to invest €49 and €32 per ha respectively on a whole farm basis. The long-term price premium of 20 percent for organic meat over conventional prices was assumed and the market is still delivering that price to the farmers. However recently the price premiums received for milk and cereals that were at 20 percent and 25 percent respectively have been slightly eroded in recent months.

Closer examination of the farm case-study characteristics has shown that six ‘composite’ farm types were identified. This illustrates the different types of farms interested in converting to organic production. A subsequent work-package (WP5 – Feasibility study) on this project will investigate these farm types further and conduct some scenario analysis, looking at what effect these have on FFI.

This case study has shown that in theory organic farming in Ireland is potentially a viable farming option, however its future is very much dependent on government and EU support and promotion of the sector both in terms of policy and adequate marketing of products.

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## Appendix I

### *Attitudinal Statements*

<b>Attitudinal Questions Farm Case Study</b>		
<b>1. Prod</b> I can effectively control weeds & pests using organic measures.	<b>9. AW</b> Animals used in organic production have more freedom to move around	<b>17. AW</b> The animals do get more care in organic farming compared to conventional farming
<b>2. QA</b> Organic products look better than conventional products	<b>10. Fin</b> The government does provide adequate financial support to farmers converting to organic farming	<b>18. Env</b> Conventional farming does damage the environment
<b>3. Env</b> If I convert to organic farming it will make a difference to the environment	<b>11. Fin</b> Conversion to organic farming does require a greater level of financial investment	<b>19. AW</b> Organic farming helps to retain levels of farmland birds.
<b>4. Mkt</b> Consumers are prepared to pay a premium for organic foods	<b>12. QA</b> The flavour and taste of products from organic farming are better compared to products from conventional farming	<b>20. Info</b> Government and their agencies do provide a lot of useful information about converting to organic farming
<b>5. Env</b> Organic farming will help save the `environment for future generations	<b>13. Mkt</b> The market potential for organic food is growing	<b>21. PV</b> My family will have a better quality of life in organic farming compared to conventional farming
<b>6. Fin</b> I will make more profit by converting to organic farming	<b>14. Prod</b> It is necessary to employ more labour after converting to organic farming	<b>22. QA</b> The quality of organic products is better than products from conventional farming
<b>7. PV</b> My partner's opinion is of importance for my decision to convert	<b>15. Prod</b> I will have problems in sourcing organic inputs if I convert to organic farming	<b>23. Info</b> I did get a lot of information from farming organisations about conversion to organic farming
<b>8. Info</b> Other farmers gave me a lot of helpful information about converting to organic production	<b>16. PV</b> There are more challenges in organic farming compared to conventional farming	<b>24. Mkt</b> There are enough processors of organic food

## Appendix II

### *Average price premia for farm case studies*

Product Category	Average Price		Average % Premium
	Conventional	Organic	
Milk Cows (ppl)	28.5	34.2	20
Beef-Steer price (€/kg) Carcass	2.30	2.76	20
Beef-Heifer price (€/kg) Carcass	2.15	2.58	20 Store
Steer price (€/100kg lw)	158	197.50	25
Store-Heifer price (€/100kg lw)	114	142.50	25
Lamb (€/kg) Carcass	3.20	3.84	20
Beef Breeding €/head	1000	1200	20
Barley (€/t)	96.50	154.40	60
Wheat (€/t)	102	163.20	60
Potatoes (€/t)	254	381	50
Vegetables	---	---	50

## Appendix III

### *Farm case study matrix of characteristics*

Code	Sex	Age	Will convert	Benefits	% owned	% OFF inc	size	labour	Current Enterprise
Irl5	M	>45	y	Financial	>50%		M		Meat
Irlnfs15574	M	>45		Both	>50%		M		Tillage
Irlnfs11108	M		y	Financial	>50%		S		Dairy
Irlnfs19068	M	>45	y	Values	>50%		M		Tillage
Irlnfs20342	M	>45	y	Both	>50%		S		Meat
Irlnfs13551	M	>45	y	Both	>50%		S		Meat
Irl37	M		y	Values	>50%	>50%	S		Meat
Irl31	M		y	Financial	>50%	>50%	S		Meat
Irl001	M		y	Financial	>50%	>50%	S		Meat
Irl10	M		y	Both	>50%		M		Dairy
Irl14	M		y	Financial	>50%		M	Labour	Meat
Irl16	M		y	Financial		>50%	S		Meat
Irl36	M		y	Financial	>50%		M		Dairy
Irl17	F		Y	Both	>50%	>50%	S		Meat
Irl003	M		Y	Financial	>50%	>50%	S		Meat
Irl33	M		y	Financial		>50%	M		Meat
Irl21	M	>45	y	Both	>50%		M		Meat
Irl027	M	>45	Y	Both	>50%	>50%	S		Meat
Irl12	M		y	Values			S		Meat
Irl13	M		y	Financial	>50%	>50%	S	Labour	Meat
Irl23	M		Y	Values	>50%	>50%	S		Meat
Irlnfs18024	M	>45		Financial	>50%	>50%	M		Meat
Irl35	M		y	Values	>50%	>50%	S	Labour	Meat
Irlnfs8525	M	>45	y	Financial	>50%		M		Tillage
Irlnfs9358	M	>45	y	Values			M	Labour	Tillage
Irlnfs11132	M	>45		Both	>50%	>50%	M		Dairy
Irlnfs20028	M	>45	y	Financial	>50%		L		Meat

#### KEYS

<b>Benefits of converting</b>	<b>Size</b>
values = traditional organic values, e.g.	L= >150ha
environment	M= >50-150 ha
Financial = for financial reasons	S= up to 50 ha
<b>% owned</b> = % of farmland owned	<b>Y</b> = Yes will convert
	y = unsure
<b>%OFF inc</b> = % of household income off-farm	
<b>labour</b> = farms employing regular paid labour	

## **Appendix IV**

### ***Description of case study farms***

#### Case study 1 – Meat

*This is a 42 ha cattle farmer. His present system involves single suckling selling at weanling stage. His organic plan involves a reduction in number of sucklers and finishing all progeny. Stocking rate at 1 LU/ha will be maintained and extra investment will be required in cattle housing.*

#### Case study 3 - Meat

*A cattle and sheep farmer involved in single suckling - to - beef and purchasing weanlings to finish. There is also a mid-season sheep flock. Plans on changing to a single suckling cattle system to finish and also to maintain mid-season sheep flock. Extra investment required for suckler cows, suckler cow quota and cattle housing.*

#### Case study 5 – Meat

*This is an 88 ha hill sheep farmer who sells lambs as stores at 25 – 30 kilos. His organic plan involves a reduction in ewe numbers and finishing all lamb for market. Extra investment will be required for housing to finish lamb on concentrates indoors.*

#### Case study 10 – Dairy

*This 63ha farm's main enterprise is a dairy herd producing 297,000 litres of winter (liquid) milk per annum and includes 6ha devoted to a broadleaf forestry enterprise. The organic plan would change milk to summer production and reduce the the drystock to 10 dairy herd replacements. Stocking density will reduce from 1.2lu /ha to 1lu /ha and extra investment will be required for slurry storage and housing.*

#### Case study 12 – Meat

*A cattle and sheep farmer involving single suckling to weanling and a mid-season sheep flock on 34 ha. His organic plan involves elimination of sheep enterprise and changing the single suckling cattle system by lowering the number of sucklers and finishing all progeny, thus reducing existing stocking density of 1.48LU/ha to 1.2LU/ha. Extra investment will be required for cattle housing.*

#### Case study 13 – Meat

*This is an 18ha cattle farm. The present system is single suckling to weanling. The organic plan involves a drop in the number of sucklers and changing to a finished beef system. This will increase the stocking density from 0.87LU/ha to 1.3Lu/ha and extra investment will be required for renovation of existing farm building.*

#### Case study 14 – Meat

*This is a 135ha cattle farm, two thirds of which is devoted to a suckler to finished beef unit and the remaining third to a purchased calf - to - beef system. The organic plan involves dropping the calf – to - beef system and increasing the suckler to finish beef unit resulting in a reduction of the present stocking density of 1.2LU/ha to 1LU/ha. Extra investment will be required for new buildings, conversion of existing buildings and purchase of extra quota.*

#### Case study 16 - Meat

*This 23 ha farm is rented by an agricultural contractor who buys in store cattle and finishes as beef. The present stocking density of 0.6LU/ha would be maintained in a similar system to finish as organic beef. No extra investment would be required.*

#### Case study 17 – Meat

*The 15ha farm has a ewe flock and finishes lamb. It also has suckler cows and finishes beef in a present stocking density of 0.6LU/ha. The organic plan would increase the ewe flock, finishing lamb and dropping the suckler cow enterprise resulting in a similar stocking density of 0.6LU/ha.*

#### Case study 21 – Meat

*This 55ha farm includes 16ha of rented land and has a single suckling to finished beef system and also a mid season sheep flock. The organic plan proposes to reduce the stocking density from 2LU/ha to 1.6LU/ha by discontinuing the sheep enterprise and slightly reducing the suckler herd to produce finished organic beef. Additional investment will be required for buildings, fencing and slurry storage.*

#### Case study 23 – Meat

*The present system on this 32ha farm is a single suckling to finished beef and also a mid - season lamb enterprise with a 95 ewe flock. Present stocking density is 1.9LU/ha. The organic plan proposes a modest increase in suckler herd to finished organic beef and a withdrawal from from the sheep enterprise resulting in a stocking density of 1.4Lu/ha. Extra suckler cow quota investment will be required.*

#### Case study 27 – Meat

*This 16ha farm has a single suckler system selling the progeny at weanling stage and also a small ewe flock selling finished lambs each year. Present stocking density is 0.97 LU/ha and the organic plan is to continue the single suckler system with less cows and finish as organic beef. The sheep enterprise will cease, leaving a stocking density of 1 LU/ha and additional investment in cattle housing will be required.*

#### Case study 31 – Meat

*The 40ha farm has a single suckler unit selling progeny at one and a half years and a sheep flock to finished lamb with an overall stocking density of 1.9LU/ha. Plans on continuing with a slightly reduced suckler unit finishing as organic beef and a reduced ewe flock finishing as organic lamb which would give a new stocking density of 1.5LU/ha.*

#### Case study 33 – Meat

*This is a 23ha farm with a single suckling herd. All progeny are sold at weanling stage and present stocking density is 1.1LU/ha. The organic plan is changing to a single suckler cattle system to finish, with a reduced suckler herd and stocking density of 1.0LU/ha. Extra investment involved for renovation of existing buildings.*

#### Case study 35 – Meat

*This is a 40ha cattle farmer. His present system involves purchase of store cattle and finishing them to beef at over 2 year old. His organic plan involves a similar system but reducing numbers purchased and the stocking density from 2.2 to 1.5LU/ha. The only extra investment involved is renovation of existing buildings which he will carry out himself.*

#### Case study 36 – Dairy

*This 79ha farm has a 57 cow dairy herd producing 259,394 litres of milk annually. The farm also finishes all calves and has a present stocking density of 1.5LU/ha. The plan is to maintain dairy herd numbers as at present but to reduce drystock numbers finishing organically at a stocking density of 1.2LU/ha. This will not require extra investment.*

#### Case study 37 – Meat

*The 38ha farm has a single suckler system, sells half of progeny as weanlings but finishes 20 heifers to beef. It also has a mid-season sheep flock with a combined total stocking density of 1.74LU/ha. The organic plan is for a 25 suckler cow unit to finished beef which will give a stocking density of 1.3LU/ha. Extra investment will be required for cattle housing.*

#### Case study 8525 – Tillage

*This is a 112ha farm devoting 36.5ha to cereals and 75.5ha to a sucklers-to-beef enterprise with a stocking density of 1.8LU/ha. The organic plan will reduce the stocking density to 1.2LU/ha by reducing the suckler enterprise and will restrict the cereals area to 30ha. No extra investment required.*

#### Case study 9358 – Tillage

*The 112 ha farm currently grows 74ha potatoes and 31ha barley and has 4ha setaside. The proposal is to maintain the current enterprises and produce organically. No extra investment required.*

#### Case study 11108 – Dairy

*This 23ha farm has a small dairy herd, raises calves to stores, a small suckler herd and also has a mainly store sheep enterprise. The stocking density is 1.49LU/ha. The organic plan involves dropping the dairy enterprise and increasing the suckler cow enterprise to finish beef. It also continues the sheep to finish lamb in a lower stocking density of 1.2LU/ha. Extra investment required for slatted and straw bedded sheds and fencing .*

#### Case study 11132 – Dairy

*This 22ha farm produces 93,396 litres of milk from a herd of 24 cows plus replacements in a stocking density of 1.63LU. The organic plan is to slightly increase the dairy enterprise and reduce cattle to 5 cattle replacement units with an overall stocking density of 1.34LU/ha. Additional investment will be required in housing and fencing.*

#### Case study 13551 – Meat

*The 34 ha farm has a hill sheep enterprise of 135 cheviot ewes, selling as store lambs at 20 to 30 kg and also runs a single suckler to weanling enterprise at a stocking density of 1LU/ha. The plan is to cease cattle production and concentrate on organic sheep system to finish.*

#### Case study 15574 – Tillage

*This 69ha farm has 7 ha of spring barley, purchases store cattle to finish each year and also has a mid season sheep flock. The present stocking density is 1.27LU/ha. The plan does not change but extra investment will be required for housing and fencing*

Case study 18024 – Meat

*This 37ha farm runs a single suckler to finished beef system and also purchases 20 weanlings to finish in a present stocking density of 2.15LU/ha. The proposal is to increase the suckler to finished beef system and cease the weanlings to finish system. This would give a new stocking density of 1.5LU/ha and additional investment will be required for 5 suckler cow housing units and 5 quotas.*

Case study 19068 – Tillage

*Of the 38ha in this farm, 28ha is spring barley, 5ha is hay and silage and 5ha is setaside. The organic proposal is to continue with the same plan but with no hay or silage and no extra investment will be required.*

Case study 20028 – Meat

*A flock of 220 ewes to finish lamb and a suckler to finish enterprise are operated on this 120ha farm at a stocking density of 1.27LU/ha. The plan is as above with all livestock finished. New investment for cattle housing and fencing will be required.*

Case study 20342 – Meat

*The present system on this 12ha farm is a single suckling to yearling system with a stocking density of 1LU/ha. The proposed new system will not effect the stocking density and reduces the number of sucklers and finishes beef. Extra investment in housing and fencing will be required.*