Gearing up for increased Profitability in Drystock

A Profit Monitor – the first step

Featuring
Teagasc e-Profit Monitor Analysis

Drystock Farms 2011

Agriculture and Food Development Authority

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Drystock Farms 2011

The Teagasc e-Profit Monitor is an internet based system which allows drystock farmers and their advisers to enter physical and financial data on their farm enterprises online. It is available through the Teagasc client site on www.client.teagasc.ie

As an advisory service if we are to give good advice and help farmers make sound decisions as to what direction your business should take in the future then we need to establish how the farm is currently performing.

Having a completed eProfit Monitor will allow us to examine key indicators such as Farm Output, Variable and Fixed costs and current Gross Margin per hectare (excluding all premia payments). Having this information will leave you in the best position to plan for the future and adapt the current farming system to the challenges ahead.

This year's booklet summarises the results from 533cattle farms across the country and 94 lowland sheep farms plus 12 hill sheep farms.

Within the grouping, 429 were categorised as suckling farms and 104 as non-breeding farms. These farms are considered to be among the Top 25% of cattle farms in the country when compared with those that are randomly selected for the Teagasc National Farm Survey (NFS). The 94 lowland sheep farms are returning a similar gross margin to the average for sheep farms in the NFS and it is a consistent feature that the sheep farms with profit monitors are no better than the NFS average.

Where data is presented in the form of Top or Bottom thirds, the farms are ranked on the basis of gross margin excluding premia per hectare. Gross margin excluding premia per hectare is an important indicator because it highlights the current level of technical efficiency at which the enterprise is operating as well as showing the potential for improvement. There is a high correlation between this figure and net profit per hectare. A new feature in this year's booklet calculates the improved margins from productivity by removing the impact of changing prices on margins.

When we refer to premia throughout the analysis, it refers to the Single Farm Payment and, where applicable, the Compensatory Allowance Scheme payment, REPS payments and AWRBS payments on suckler cows.

An introductory section to the booklet this year highlights the factors that contribute to achieving a high gross margin and subsequently a high profit for both cattle and sheep enterprises.

Appendix 2 features the profit monitor results for the farms participating in the Teagasc/Irish Farmers Journal BETTER beef programme and shows the progress achieved compared with 2008. This programme has the clear aim of increasing profitability on the participating farms (and influencing other farms) and has set an ambitious target of €1,000 gross margin per hectare at the end of the three year programme – that is 160% improvement over 3 years.

Appendix 3 features the financial performance of the sheep enterprise on farms participating in Teagasc BETTER Sheep programme.

Bernard Smyth, Programme Manager Drystock

Profit Monitor Highlights

Suckling Systems 2011

- 429 Suckling farms completed a profit monitor for 2011.Below is a summary of variation in performance between top 10% and bottom 10% when ranked on gross margin per hectare.

- The differences in margin between the top and bottom farmers completing profit monitor has increased by approximately €250 per hectare in 2011 compared with 2010.

- The top 10 % of farms (the best 43 farms) achieved a gross margin per hectare almost €1100 more than the bottom 10% (the worst 43 farms) – this represents an advantage of €43,000 on a 100 acre farm for the top 10%.

- **Why do best suckler farms have an advantage of almost €1,100 per hectare?**

  - **Stocking Rate –** the top farms are carrying almost 70% more stock on the same area and have a REPS friendly stocking rate of 2.09 livestock units per hectare

  - **Beef Produced per livestock unit** – despite the higher stocking rate the top farms are producing almost twice as much beef liveweight per livestock unit at 377 kg/LU compared with 205 kg/LU on the bottom 10%. The reasons for the better performance per LU are two-fold – higher breeding efficiency (calving interval, calving spread & less empty cows) and better performance per animal

  - **Beef Produced per hectare –** resulting from the higher stocking rate and better performance per LU the top 10% of farms are producing over three times as much beef liveweight per hectare. The extra beef liveweight produced on the top farms is the equivalent of an extra 71 weanlings, each 300kg, on a 100 acre farm!

  - **Output value per kg beef liveweight –** the output value of each kg of beef liveweight is 23% higher on the top farms due to better quality stock, lower replacement costs and better marketing.

  - **Output value per hectare –** it is the output value that must carry all costs, so high output value per hectare is the first essential requirement needed to generate worthwhile margins. The top 10% are achieving almost four times higher output value per hectare compared with the bottom 10%. This extra output value of over €1250 per hectare results from higher physical beef output combined with the 23% higher value per kg of liveweight produced.

➢ **Variable Costs –** would expect variable costs to track output level
- **Per livestock unit –** 21% higher on bottom farms with 40% of difference due to higher spending on contractor costs. Meal costs per livestock are 37% higher on top farms.
- **Per hectare –** 38% higher on top farms although stocking rate is 67% higher on top farms
- **Per kg beef liveweight** - €0.84 per kg on top farms compared with €1.87 per kg on bottom farms. Higher physical output on top farms is diluting costs per kg beef produced
- **As % of output value –** Variable costs are consuming 107% of output value on bottom farms resulting in a negative gross margin. Variable costs consume 39% of output value on the top farms. The target should be 35% or less for grass based systems but higher levels are acceptable on more intensive high input high output systems.

➢ **Gross Margin per hectare** – the top 10% achieved an excellent gross margin per hectare of €1044 while the bottom 10% returned a negative gross margin of €30. The difference of €1074 per hectare shows the potential that exists for many farmers at suckling to significantly increase margins.

Sheep Systems 2011

94 Lowland Sheep farms completed a profit monitor for 2011. Below is a summary of variation in performance between the top 10% and the bottom 10% when ranked on gross margin per hectare.

- The differences in gross margin between the top and bottom farmers completing profit monitor increased by almost €200 per hectare in 2011 compared with 2010.

- The top 10 % of farms (the best 9 farms) achieved a gross margin per hectare €1208 more than the bottom 10% (the worst 9 farms) – this represents an advantage of over €48,000 on a 100 acre farm for the top 10%.

- **Why do the best sheep farms have an advantage of over €1,200 per hectare?**

  ➢ **Stocking Rate —** the top 10% of farms are carrying almost twice as many ewes on the same land area as the bottom 10% but still have a REPS friendly stocking rate of 2.27 livestock units per hectare

  ➢ **Sheep as a percentage of the overall livestock units –** in the top 10% of farms sheep account for 38% of the livestock units compared to the bottom third where sheep account for 50% of the livestock units.

  ➢ **Lambs reared per ewe –** the bottom 10% of farms with a profit monitor achieved only 1.16 lambs per ewe, the average 1.46 and top 10% achieved 1.71 lambs reared per ewe. Despite carrying more ewes per hectare, the top farms also reared almost 50% more lambs per ewe.

  ➢ **Lambs produced per hectare –** The combination of higher stocking rate and better weaning rate resulted in an output of almost three times as many lambs per hectare on the top 10% of farms compared with the bottom 10%. The extra lamb output produced on the top farms is the equivalent of an extra 470 lambs, each 40kg, on a 100 acre farm!

  ➢ **Output value per kg lamb liveweight –** the output value of each kg of lamb liveweight was 18% higher on top farms.

  ➢ **Output value per hectare –** it is the output value that must carry all costs, so high output value per hectare is the first essential requirement needed to generate worthwhile margins. The top 10% are achieving almost four times the output value per hectare of the bottom 10%. This extra output value of over €1,350 per hectare results mainly from higher physical lamb output.

  ➢ **Variable Costs –** would expect variable costs to track output level
  - Per ewe – 32% higher on bottom farms with 63% of difference due to higher contractor & fertiliser costs.
    Per hectare – 41% higher on top farms but producing almost three times as many lambs per hectare.
  - **Per lamb produced** - approximately €27 per lamb on top farms compared with €54 per lamb on bottom farms. Higher physical output on top farms is diluting costs per lamb produced.

- **As % of output value –** variable costs are consuming 75% of output value on bottom farms compared with 28% of output value on the top farms. The target should be 30% or less.

➢ **Gross margin per hectare –** The top 10% achieved an excellent gross margin per hectare of €1,328, while the bottom 10% returned €120. The difference of €1,200 per hectare shows the potential that exists for many sheep farmers to significantly increase margins.

Why keep a profit monitor?

- **To establish current levels of performance, both physical and financial**
- **To benchmark own performance against others with similar systems**
- **To monitor progress on own farm over time**
- **To identify areas of weakness that need improvement**
- **To use as a guide in setting realistic targets aimed at improving future profitability**
- **In summary, the profit monitor will help farmers with the key business questions that will determine the future success of their farm enterprise**
  - Where are you – financially?
  - Where do you want to be?
  - How will you get there?
- **Maximising the benefit from keeping a profit monitor is dependant on using the information about the farm business**
- **Farmers with a profit monitor for their own farm need to engage with their adviser, discuss the results and identify and agree targets for future improvements. Setting clear and simple targets is essential to ensure the business is going in the right direction**

Profit Monitor follow up

- Overall assessment of current performance and identification of potential improvements
- Closer examination of other factors identified as contributing to below par performance, for example stocking rate, poor weight for age, calving interval, calving spread, barren cows, lambs reared per ewe, grassland management, winter feed quality, health issues, etc
- Prioritise areas for attention and improvement
- Setting clear targets in a simple 3 year plan aimed at improving financial margins

3 Year Farm Plan

- Essential for farmers to buy into the idea of setting targets and agreeing a simple plan aimed at improving farm income – this is a major step in using your information to your future benefit
- Should set out current position and targets for year 3
- Identify key areas for improvement
- Specify required actions needed in each area prioritised
- See template attached for a simple 3 year farm plan. This template was piloted on the BETTER Beef Farms and has proved easy to use by participating farmers.
- All farms participating in Beef Technology Adoption Programme (BTAP) must complete a three year plan.

Teagasc 3 Year – Farm Plan Template

Name: Adviser:

Date:

Farm Plan Summary

Measure	Current 2012	Target 2015
PHYSICAL SYSTEM		
Stocking rate - (LU/ha) - Ewes per hectare		
Land base (adj. ha)		
Cows calving		
Calving spread - Spring		
- Autumn		
Purchases		
Trading system (weanling, store, finish, etc):		
Male progeny - Spring-born		
- Autumn-born		
Female progeny - Spring-born		
- Autumn-born		
Liveweight output (kg / ha)		
FINANCIAL SYSTEM		
Cattle		
- Output value (€/ha)		
- Variable costs (% of output)		
- Gross margin (€/ha)		
Sheep		
- Output value (€/ha)		
- Variable costs (% of output)		
- Gross margin (€/ha)		

Key Areas	Target/Actions Needed
Financial Performance: (Variable & fixed costs, cashflow)	
Physical Performance: (Stocking Rate, kg lw/ha, ewes /ha, weaning rate etc.)	
Grassland Management: (turnout dates, housing dates, number of grazing divisions, silage conserved, etc.)	
Breeding Performance: (Stock quality, replacement strategy, calving spread, etc.)	
Winter Feeding: (Use of alternative forages, winter grazing, brassicas, etc.)	
Health Issues: (need for health plan, screening etc.)	

Key Areas	Target/Actions Needed
Other Issues:	

Notes:

Increasing Your Profits from Beef Farming

There are huge differences from one farm to the next in the level of profits made from beef farming. This can be seen throughout this booklet when comparing the Top 1/3 of beef farms to the average and even greater still when the Bottom 1/3 are looked at. Whether it is suckler farms selling weanlings, suckler farms finishing their progeny or non-suckling beef farms buying weanlings/stores for finishing, the same message is consistently coming through. ***On average, the farms that are producing the highest amount of beef per hectare are making the highest profits per hectare.*** **Combined with this, a control on the costs that are associated with producing this output is also very important. Variable costs represent approximately 50% of total costs and include feed, fertiliser, veterinary and contractor charges.**

Increasing Beef Output per hectare

On suckler farms there are three areas that affect the level of beef liveweight produced per ha. These are:-

- Production per suckler cow
- Performance per head
- Stocking rate per ha.

Obviously on non-suckling farms, production per cow does not play a part and performance per head and stocking rate are the two variables involved.

(i) Production per Cow

The more live weanlings produced every 365 days per 100 cows put to the bull the higher the average production per cow. This is affected by-

- **Cow fertility:** The sooner a suckler cow goes back in calf and produces her next calf the more productive she is. A high empty rate and long average calving interval are both signs of poor fertility. Participation in ICBF HerdPlus for beef will provide detailed information on calving interval for your herd and show how you compare with the national average and identify cows with breeding problems
- **Bull fertility:** It has been estimated that 25% of all stock bulls are sub-fertile and 4% are infertile in any one year. Low fertility in a bull running with a suckler herd can dramatically reduce the productivity of the herd, in that and subsequent years if it is not discovered soon enough. Having the bull prepared well in advance of the breeding season is vital and close observation during the breeding period is essential to ensure the bull is functioning properly
- **Calving pattern:** The more spread out the calving pattern is, the lower the average production per cow. Don't leave the bull running with the cows all year! Herds with a compact calving pattern confine the breeding period to no more than 70 days and remove the bull at this stage. The option with cows not in-calf at this stage is to cull, or some can be let slip 6 months to calve at the start of an autumn herd if they must be kept in the herd. Cows that are consistently poor breeders should be culled and should never be used as a source of replacement daughters.

- **Mortality:** Calf deaths at or shortly after calving can be high on some farms. Pay attention to expected calving difficulty of the bull at purchase to minimize calving problems, monitor cow condition and nutrition from drying off to reduce the risk with the cow. The mortality rate from then until weaning also needs to be kept to a minimum.

(ii) Performance per Head

The more liveweight put on each growing animal the higher the overall output per hectare. This is affected by-

- **Liveweight gain at grass:** The standard of grassland management on the farm will have an enormous influence on this. Where cattle are grazing a plentiful supply of high quality leafy grass, performance will be at the maximum. Where cattle are grazing poor quality swards, due to either low levels of ryegrass or poor management, liveweight gain per day will be very poor. A long grazing season is essential to maximize performance at grass and early turnout in spring is achieved by planned closing/resting of fields from the previous autumn. Performance in the second half of the grazing season from July is an area where grass quality and weight gain are often poor due to poor grazing management in the early part of the year. Pastures must be grazed tightly up to June to ensure the basis for leafy grass later in the year
- **Liveweight gain indoors:** The feeding value of the forage fed over the winter will have the biggest affect here. Grass silage of low dry matter digestibility (DMD) or poorly preserved forages will lead to little or no animal gain for close to half the year. On growing cattle, the higher the level of gain required in the indoor period the higher the costs and it may not be economical to attempt to finish animals indoors unless they are at or above their target weight for age – this is especially true for steers or heifers. Cattle going back to grass should achieve the shortest possible indoor period
- **Level of meal feeding:** The more concentrates or alternative energy sources fed (e.g. beet) the higher the level of output per head. Where there is a return for feeding this extra feed source it makes sense to do it. Where there is not, it needs to be questioned. The duration of the feeding period has a huge impact on the economics of finishing, as feed efficiency reduces over time. This is particularly important for steers & heifers, less critical for young bulls
- **Animal health:** Healthy cattle that are free of parasites, respiratory diseases etc. put on more beef liveweight per day. Timely use of the correct dosing products is essential to maximize the payback. Do not waste money on dosing when it is not necessary – for example a turnout dose for cattle free of parasites is money wasted

(iii) Stocking Rate

Where production per cow and performance per head are high, maximizing the number of animals farmed per hectare should be the next priority. Every farm has a limit on the amount of cattle it can accommodate. This depends on-

- **Land type: Free draining fertile soils can carry more stock per hectare than wet farms with poor soil fertility.**
- **Grassland management system: Rotational grazing gives greater control over managing grass quality and supply and results in higher utilization of grass thereby increasing stock carrying capacity and consequently beef output per hectare.**
- **Availability of cattle housing**
- **Availability of labour**

Controlling Production Costs

that beef. Farms with a high beef output per hectare can afford to have higher variable costs per hectare, whereas, farms that have a very low production of beef per hectare find it difficult to justify even their very low costs of production.

The more beef produced per hectare the more the production costs are diluted. A farm with 400 kg of beef liveweight produced per hectare has very high variable costs per hectare at €400 compared with a farm with variable costs of €600 per hectare but an output of 800 kg of beef liveweight per hectare. Systems with low beef output per hectare must obtain most of their production from grazed grass and must minimize the input of purchased concentrates. High output systems can afford larger concentrate inputs provided the overall cost per kilogram of beef produced is economical – this will be more difficult with current significant increase in meal prices.

The aim with variable costs is that they should match your level of production. The target is that they should be close to 75 cents per kg of beef produced. A farm therefore producing 400 kg of beef per hectare should be aiming for no more than €300 per hectare on feed, fertiliser, vet and contractor charges (this will be extremely difficult to achieve and this type of farm needs to increase its output per hectare to dilute its costs of production). The variable cost limit is €600 or less on the farm producing 800 kg per hectare.

Your Own Farms Figures

When looking at your own eProfit Monitor results what are the key areas that you should focus on to 'benchmark' yourself against other farms and targets?

(i) Output of Beef Liveweight per Livestock Unit (LU)

This is a measure of the amount of beef liveweight that your farm is producing for every livestock unit (LU) you are farming. It takes into account both cow productivity and performance per head. On suckler farms it should be at least 300 kg whereas on non-breeding farms it should be over 400 kg. The higher it is, the higher your output of beef liveweight per hectare will be.

(ii) Stocking Rate

This is measured in LU per hectare. A stocking rate of less than 1.5 LU per hectare is quite low. The aim should be that it is as high as your farm will allow taking into account land quality, REPS and Nitrates Directive limits. The majority of commercial beef farms, looking to maximise their profits from beef production, should be aiming for a figure of at least 2.0 LU per hectare.

(iii) Output of Beef Liveweight per hectare.

This is a combination of (i) and (ii). If either is low it will be difficult to achieve a high output per hectare. On suckling farms selling weanlings, you should aim for this to be over 700 kg per hectare. Where the progeny are brought through to beef it should be over 800 kg and where all the cattle are bought (no suckler cows) it should be over 900 kg per hectare.

(iv) Variable Costs per Kg

Your variable costs of production should match your level of output of beef produced. Farms with low levels of production should have very low variable costs whereas farms with a high output of beef per hectare can carry significantly higher variable costs per hectare and still have a higher margin per hectare than the low output farms. Look at your costs to produce 1 kg of beef liveweight. The target is 75 cents or less for variable costs.

Fixed Costs

The main items in fixed costs include depreciation, machinery running costs, repairs & maintenance, land rental and interest. Motor costs, insurance, hired labour and machinery leases are also included. Generally, any item that can not be directly linked to an enterprise and that varies little with changes in scale of enterprise is termed a fixed cost. Fixed costs represent approximately 50% of total costs on cattle farms and can have a huge impact on overall profitability level. The stage of development on a particular farm can influence the level of fixed costs – farms with good facilities and adequate machinery in place may have low depreciation and interest costs where the investments were made some years earlier. Farms with very recent substantial investments will have much higher current costs for depreciation and interest where the new investment was funded with borrowing.

A very significant influence on fixed cost level, on cattle and sheep farms, is the level of single farm payment. Before decoupling, cattle premia (suckler cow premium, special beef premium, slaughter premium & extensification premium) were included as part of output from the cattle enterprise and generally fixed costs consumed approx 30 – 35% of output value – that is farms with a high output level per hectare had much higher fixed costs per hectare than farms with a low output value per hectare. Since decoupling the old cattle premia are no longer counted as part of the cattle output value and the fixed cost structure inherited from pre-decoupling results in the fixed costs consuming a much higher percentage of the lower cattle output value.

The same principles about reducing variable costs per kg beef output also apply to fixed costs. Achieving the highest physical output of beef produced per hectare is the means of diluting fixed costs per kg of beef. It is essential for farms with low beef output per hectare to have very tight control on both variable and fixed costs.

The absolute level of fixed costs may be more difficult to control but high fixed cost farms can only reduce the cost per kg beef produced by increasing output of beef produced per hectare and/or reducing fixed cost spending level.

Profitability from the cattle enterprise will ultimately be determined by the difference between the cost of producing a kg of beef and the market price of the beef. Efficient farms with a high output of beef per hectare have diluted total costs per kg beef produced and are maximizing profitability. At farm level there is little influence on selling price other than improving quality and/or targeting niche markets and/or contract prices. The target production costs for very efficient operators are approximately €1.50 per kg liveweight with this equally split between variable costs and fixed costs.

Increasing Your Profits from Sheep Farming

There are also huge differences from one farm to the next in the level of profits made from sheep farming. Similar to cattle systems, the big profit driver with sheep systems is also the level of output - the higher the output per hectare, the higher will be the gross margin and the higher will be the profit. The top third of farms have an output level per hectare two and a half times that of the bottom third. Almost 90% of the extra output is retained as extra gross margin and over 70% of the extra output is retained as extra profit. The principal factor contributing to output on sheep farms is the number of lambs weaned per hectare and this depends on the combination of stocking rate (ewes per hectare) and weaning rate (lambs per ewe).

Increasing lambs weaned per hectare

The major factors that determine lambs weaned per hectare are lambs weaned per ewe (lambing rate per ewe to the ram & lamb mortality) and stocking rate in ewes per hectare.

• Lambs weaned per ewe

Lambs weaned per ewe will be influenced by management factors and the breed of the ewe, as different breeds and crosses have a range of potential litter sizes.

➢ **Management factors:** Mature ewes of the predominant breeds in the Irish ewe flock all have the potential, under good management, to scan up to 1.8 lambs per ewe and wean up to 1.5/1.6 lambs per ewe. The key management factors that determine lamb output per ewe are:

- Ewe condition at mating – ewes need to be in good condition at mating to ensure a good lamb crop. The target ewe body condition at mating is 3.5
- Mating management and health programme with special emphasis on prevention of lameness – ewe and ram health must be optimal during the mating season and this requires planning in the 6 week period prior to the commencement of mating
- Adequate feeding in the vital 6 weeks pre-lambing to ensure that ewes are at body condition score of 3 or better at lambing and have a sufficient supply of colostrum after lambing
- Attentive management and care post lambing to minimise mortality from birth to weaning which should be less than 10%
- Barren ewes should not exceed 3% of the flock and annual overall ewe mortality should be less than 4%

➢ **Breed factors:** If the target weaning rate is over 1.5 lambs per ewe it is necessary to focus on a long term breeding policy that will produce more prolific ewes with a litter size up to 2.0 lambs per ewe. Alternatively prolific replacement ewes can be sourced from a reputable breeder specialising in producing replacements – this may involve more health risks but it simplifies the system, particularly in small and medium sized flocks. Proper management of the more prolific ewes is essential to ensure they can realise their potential

• Stocking Rate

This is a key factor in terms of maximising lamb output per hectare. The first priority should be to increase the lamb output per ewe to a satisfactory level, before pushing up stocking rate. Increasing from 6 ewes per hectare at 1.35 lambs per ewe, to 12 ewes per hectare at 1.5 lambs per ewe, more than doubles lamb output per hectare. Based on farm returns on sheep farms with an eProfit Monitor, this will increase output value by approximately €1000 per hectare, gross margin will increase by €900 per hectare and profit by up to €700 per hectare.
Increasing stocking rate can be achieved by confining existing ewe numbers to a smaller area, and releasing surplus land for another enterprise, or reducing expensive conacre. Alternatively, the ewe flock can be increased and kept on the existing area devoted to sheep but at the higher stocking rate. The critical factor when increasing stocking rate is to do it in a planned way – do a grass management and winter feed plan in advance and provide for the financial implications of making the change. Sheep-proof fencing is essential to ensure that you can manage the sheep flock – the sheep should not be the decision makers on where they should graze! A small investment in upgrading handling facilities could be a vital investment on many sheep farms where facilities are less than adequate. An efficient sheep handling unit makes it much easier to undertake any essential tasks in a timely manner.

The target stocking rate on lowland farms should be 12 ewes per hectare and weaning over 18 lambs per hectare. This should yield a gross margin in excess of €1,300 per hectare based on 2011 profit monitor returns.

Controlling Production Costs

In general, the higher the lamb sales per hectare, the higher the total costs per hectare. Data from the eProfit Monitor results consistently shows that the top farms with the highest output, while incurring the highest production costs per hectare, have the lowest cost of producing a lamb. The 2011 figures show an advantage of €26 per lamb in lower total costs, to the top third compared with the bottom third. Farms that have a very low output of lambs sold per hectare must be vigilant at controlling spending on both variable and fixed costs or profit potential is destroyed. It is the difference between the cost of producing a lamb and the lamb selling price combined with number of lambs produced that determines the profit level of the sheep flock. Controlling the cost of producing a lamb is where farmers have most control.

The greater the number of lambs sold per hectare the more the production costs are diluted. A farm selling 8 lambs per hectare has very high variable costs per hectare at €350 compared to a farm with variable costs of €600 per hectare but selling 19 lambs per hectare. Systems with low lamb sales per hectare must obtain most of their production from grazed grass and must minimize the input of purchased concentrates. High output systems can afford larger concentrate inputs provided the overall cost per lamb produced is economical.

The aim with spending on variable costs per hectare is that they should match your level of production. The target is that variable cost spending should be close to €30 per lamb produced. A farm therefore producing 8 lambs per hectare should be aiming for no more than €250 per hectare on feed, fertiliser, vet and contractor charges (this will be extremely difficult, if not impossible to achieve and this type of farm needs to increase its output per hectare to dilute its costs of production). A farm selling 19 lambs per hectare can afford to spend €600 per hectare on variable costs.

Your Own Farms Figures

What are the key areas in your own eProfit Monitor results that you should focus on to 'benchmark' yourself against other farms and targets?

1) Stocking Rate – ewes per hectare
The target stocking rate on lowland farms should be 12 ewes per hectare for a high output system. At 8 ewes per hectare or less too few lambs are produced to carry total costs and leave any potential for profit at current lamb prices.

2) Lambs weaned per ewe to the ram
A reasonable lamb output per ewe is required to cover the costs of keeping the ewe and leave some profit potential. There are only small differences in the cost of keeping the ewe between the top and bottom sheep farmers, so the main avenue to reducing cost per lamb is achieving a higher weaning rate. The minimum target should be to wean 1.5 lambs per ewe to the ram – more prolific flocks should be aiming to wean 1.7 lambs per ewe.

3) Lambs weaned per hectare
Achieving a high output of lambs weaned per hectare is the key to increasing profit potential. The target should be 18 to 20 lambs per hectare. Low output producers need to set realistic targets over a two to three year period based on modest increases in stocking rate and weaning rate.

4) Variable costs per lamb produced
The most efficient farms have lower variable costs per ewe in 2011 profit monitor data. The top third are spending €10 less per ewe, of which fertiliser accounts for €4 and contractor €5, despite producing an extra 11.8 lambs per hectare. The target for spending on total variable cost per lamb should be €30 or less for the most efficient producers.

- ➢ Meal feeding accounts for over 30% of total variable costs and is often identified as an area of overspending on many sheep farms. However, many sheep producers feel meal feeding to lambs is essential to achieve a satisfactory sales pattern and to avoid being left with too many store lambs. Spending on meal feeding on most sheep farms needs to be closely examined and a plan put in place that will reduce dependence on meals and also ensure that the most economical response is obtained from meals fed. In 2011 meal feeding per ewe was similar for top & bottom thirds of farms with a profit monitor.

➢Meal feeding to the ewe pre lambing should not exceed 30 kg and should not cost more than €8 to €9 per ewe. For mid season flocks lambing in mid-March no meals should be fed to ewes after lambing. Early closing of fields in October combined with spring nitrogen application, are the basics of the grassland management plan to provide adequate grass for ewes after lambing. Insufficient grass after lambing is the most common problem on sheep farms in spring – the principal reason is that pastures were not closed up in time the previous autumn.

➢ Creep feeding to lambs: Excellent grassland managers and some farms with low stocking rates are able to finish the majority of their lambs without creep feeding. However, where target drafting dates are not being achieved it may be necessary to feed meals to compensate for poor performance. The target must be to control and minimise the meal input to a maximum of 25 kg per lamb. Lamb health and grass quality are key to reducing the need for creep feeding. Generally, lamb performance is adequate up to the end of May on most farms and poor thrive is more of an issue from early June as grass quality deteriorates and ewe milk supply dries up. The best response to creep meals is obtained at low feeding levels. Enhance the response to creep meals by using them to encourage lambs to creep graze ahead of the ewes. Limit creep meals to a maximum of 300 to 400 grams per lamb per day.

- **Target drafting pattern:** When lambing in mid-March, the target drafting pattern for a moderate to good performer should be 20% sold by weaning at the end of June; 55% sold by the end of July; 75% sold by the end of August; 90% sold by the end of September and all lambs sold by the end of October.

If creep meal feeding is required to achieve the drafting pattern outlined above, introducing meals from June 1st at 300 grams per lamb per day will result in total consumption of less than 25 kg per lamb in the flock. In the present economic climate and at current lamb and meal prices the medium term target for sheep producers must be to concentrate their efforts on improving grass quality and incorporating clover to minimise dependence on meal feeding. Strategic use of concentrates may be necessary to finish tail-enders but spending on concentrates should be reduced to 20% of total variable costs (from the current 35%). Achieving this target is worth up to €100 per hectare.

5) Fixed costs per lamb produced

Fixed costs represent approximately 50% of total costs and consequently have a large impact on profitability. It is essential to have a high output of lambs per hectare to spread fixed costs per lamb. The bottom third of farms with low lamb output (8.6 lambs per hectare) and fixed costs of €388 per hectare are still ending up with the highest level of fixed cost of €45 per lamb. The target for fixed cost should be €35 per lamb or less – this is only achievable with a high lamb output per hectare.

Profit Focus Farms 2010 to 2015

Business and Technology Drystock advisers selected a group of farmer clients in 2011 that have a strong interest in increasing profitability and applying recommended technologies that will boost farm output and/or reduce unit costs of production. The aim was to have a group of farmers across the country that are focused on improving the profitability of their cattle and sheep enterprise by following a clearly defined plan for their farms that incorporates applying the most relevant technologies aimed at improving output, minimising production costs and maximising profitability from production.

The essential components will include:

- ➢ Clients of advisers that are striving to improve the profitability of their drystock enterprise through working with their B & T adviser
- ➢ Adviser and farmer client agreeing and preparing a three year plan that sets out targets to be achieved aimed at improving profitability
    - 2010 profit monitor will set the base line and determine reasonable and achievable targets for each farm.
        - * Plan should be agreed between farmer and adviser
        - * Specialist support will be provided where requested
        - * Use simple farm plan template developed and used in BETTER Beef Programme – outlined earlier in this booklet
        - * Main focus should be on increasing output – stocking rate, simplifying system, grassland plan, minimising cow wintering costs, finishing / selling strategy, breeding efficiency and animal performance, etc
        - * Active participation in discussion group and membership of ICBF HerdPlus are essential

- **Targets should be specified for:**
    - Stocking rate
    - Beef output – kg beef liveweight per hectare
    - Output value per ha
    - Gross margin per hectare
    - Profit per hectare
    - Days at grass (turnout dates & housing dates)
    - Breeding efficiency
        - Calves per cow per year
        - % cows calved in 12 week period
        - % of heifers calving at 24 / 26 months

➢ Clients nominated by each adviser and amalgamated into a national target group with base line set using 2010 profit monitor returns

➢ Targets set for each participating farmer and progress reported annually in published Teagasc Drystock Profit Monitor Analysis

➢ Initially approximately 100 farmers have agreed to participate and their base line performance figures are summarised below. Additional farmers will be added to this group provided they are prepared to follow the recommended procedures and their goal is increased profitability

➢ Performance for the initial group of participating farms indicate they are very much at the national average for farms that complete a Teagasc Drystock Profit Monitor – this places them at or near the top 25% of cattle farms in the country compared with National Farm Survey returns. Nevertheless, they have huge scope for increased profitability and the target over the next five years will be to increase gross margin to over €1,000 per hectare with up to 70% of the increased gross margin retained as profit.

Teagasc Profit Focus Farms 2010 to 2015

Teagasc Profit Focus Farms - Cattle

Performance	2010	2011	Change	Change %
Physical	**74 Farms**	**74 Farms**		
Farm Size ha	58	58	-	-
Stocking Rate LU/ha	1.67	1.75	0.08	+ 5%
Beef Liveweight produced - kg/ha	545	559	+ 14	+ 3%
- kg/LU	326	319	- 7	- 2%
Financial €/ha				
Gross Output Value	**918**	**1184**	**266**	**+ 29%**
Variable Costs	591	647	56	+10%
Gross Margin	**327**	**538**	**211**	**+65%**
Fixed Costs	492	510	18	+ 4%
Net Profit excl. Premia *	-165	**28**	**193**	
Total Premia *	617	574	- 46	-8%
Total Premia Retained %	73%	**105%**		
Single Farm Payment	**452**	**432**	-20	- 4%
Single Farm Payment Retained %	99%	142%		

(* Includes Single Farm Payment, AWRBS, REPS & CAS)

Teagasc Profit Focus Farms 2010 to 2015

Teagasc Profit Focus Farms - Sheep

Performance	2010	2011	Change	Change %
Physical	**19 Farms**	**19 Farms**		
Farm Size ha	66	68	2	+ 3%
Stocking Rate LU/ha	1.83	1.76	- 0.07	- 4%
Ewes/ha	7.8	8.19	0.39	+ 5%
Liveweight produced - kg/ha	510	496	- 14	- 3%
Lambs reared per ewe to ram	1.47	1.49	0.02	+ 1%
Lambs reared per hectare	11.47	12.2	0.7	+ 6%
Financial €/ha				
Gross Output Value	**996**	**1106**	**110**	**+ 11%**
Variable Costs	526	571	45	+ 9%
Gross Margin	**470**	**535**	**65**	**+ 14%**
Fixed Costs	464	460	- 4	- 1%
Net Profit excl. Premia *	**6**	**75**	**69**	**+ 1150%**
Total Premia *	569	485	84	- 15%
Total Premia Retained %	**101%**	**113%**		
Single Farm Payment	**417**	**393**	- 24	- 6%
Single Farm Payment Retained %	**138%**	**142%**		

(* Includes Single Farm Payment, AWRBS, REPS & CAS)

Progress on Profit Focus Farms – Year 1

The target for participating farms is to apply best practice and new technologies aimed at improving profitability over a five year period. Both cattle and sheep prices improved in 2011compared with 2010 but costs have also increased. The principle route to improving profitability is to achieve a greater increase in physical and financial output of beef and lamb that more than offsets any increase in input costs. A brief summary of the progress in year one is as follows:

- **Cattle Farms**
  - ➢ Stocking rate increased by 5% and kgs beef output by 3%
  - ➢ Output value per hectare increased by 29%
  - ➢ Gross margin increased by 65% despite an increase of 10% in variable costs. Fixed costs increased by 4%
  - ➢ Farm profit before premia increased by €193 per hectare
  - ➢ Gross Margin gain from productivity at €27 per hectare accounted for 13% of total gross margin improvement. The productivity gain at €27 per hectare represents an annual improvement of over 8%.

2011 Cattle Focus Farms Productivity

	2010	2011	2011
2 Year matched sample 74 Farms	Base Year	Actual	No Gains
Production (kgLW/ ha)	545	559	545
Revenue (€/ kgLW)	€1.69	€2.12	€2.12
Variable Cost (€/ kgLW)	€1.08	€1.16	€1.18
Gross Margin (€/ kgLW)	€0.60	€0.96	€0.94
Gross Margin (€/ ha)	€327	€538	€510
GM From Productivity (€/ ha)			€27
GM Difference (Actual 2011 V Base Year 2010)			€211
GM From Productivity %			13.1%

- **Sheep Farms**
  - ➢ Ewes per hectare increased by 5% - a key factor in pushing up output.
  - ➢ Weaning rate increased by 1%
  - ➢ Lambs produced per hectare increased by 6%
  - ➢ Output value per hectare increased by 11% with about half the increase coming from increased lamb price
  - ➢ Gross margin per hectare increased by 11% despite a 9% increase in variable costs.
  - ➢ Fixed costs decreased by 1%
  - ➢ Profit before premia increased by almost €70 per hectare

eProfit Monitor Analysis 2011 – Cattle Farms

Comparison - 2007 to 2011 (Cattle Farms)

Table 1 below shows the performance of 57 cattle farms, both suckler and non-breeding over the 5 year period 2007 to 2011.

Table 1: Comparison of costs and income on the same 57 beef farms over five years

	2007	2008	2009	2010	2011
Physical					
Stocking Rate LU/ha	1.80	1.85	1.88	1.86	1.90
Liveweight Produced kg/ha	578	571	630	629	658
Liveweight Produced kg/LU	321	309	335	338	346
Financial €/ha					
Output Value	917	1060	987	1059	1355
Variable Costs	520	579	576	595	641
Gross Margin Excl. Premia	**398**	**481**	**411**	**464**	**714**
Fixed Costs	441	501	474	449	473
Profit Excl. Premia	-43	-20	-63	15	241
Total Premia*	667	667	683	665	635
Premia Retained	93%	97%	91%	102%	138%

(* Includes Single Farm Payment, REPS ,CAS & Suckler Welfare premium)

In terms of physical criteria there is a 5% increase stocking rate from 1.8 LU/ha in 2007 to 1.90 LU/ha in 2011. Beef liveweight produced per livestock unit dipped in 2008 but recovered in later years and was almost 8% higher in 2011 compared with 2007. The combination of inceased stocking rate and better performance per livestock unit resulted in an extra 80 kg beef output in 2011 compared with 2007 – this is a 14% improvement over the period. There was an increase in spending on concentrates of 18% in nominal terms over the same period, while total variable cost spending increased by 23%.

The extra physical beef output combined with higher cattle prices resulted in the financial value of the output per hectare increasing from €917 in 2007 to €1,355 in 2011. This represents an increase of 48% over the four years and is a result of improved productivity, improved quality and increased prices. This increase in the value of output on the 57 farms was achieved alongside a variable costs increase of 23% in nominal terms over the same period. As is shown the variable costs rose from €520/ha in 2007 to €641/ha in 2011.

The gross margin improved by €316/ha or 79% over the period. In 2011 the average gross margin achieved on these farms was running at €714/ha. Fixed costs per hectare in nominal terms increased by 7%.

With the increase in output value, variable costs and fixed costs, overall profitability has improved substantially over the period. The 57 farms have improved profitability by €284 per hectare over the 4 year period. Premia retained as profit has risen from 93% in 2007 to 138% in 2011. The challenge in the years ahead will be to further improve the production aspect of the business so that it can add more significant profit to the existing premia.

Figure 1 illustrates the change in gross margin per hectare on the farms over the five years.

FIGURE 1

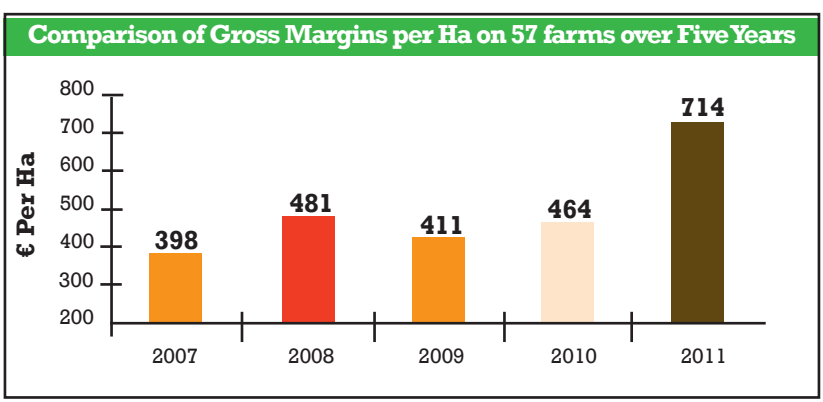
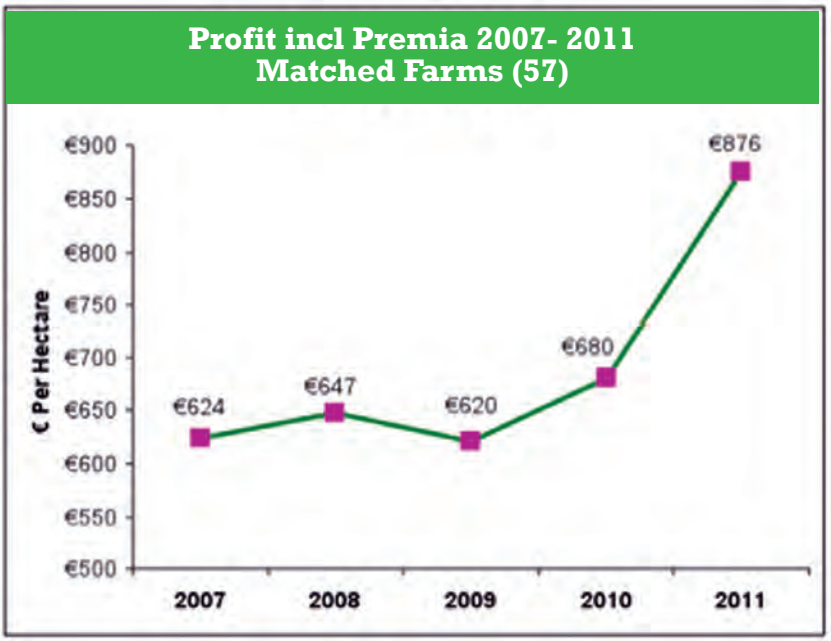


Figure 2 plots the change in profitability where premia has been included on the farms over the five years. The increase from €624/ha in 2007 to €876/ha in 2011 represents a profit improvement of 10% per annum over the period. Profit level was hit with reduced cattle prices in 2009 but has recovered well in 2010 & 2011.

FIGURE 2


Profit incl Premia 2007- 2011
Matched Farms (57)
€ Per Hectare
€900
€850
€800
€750
€700
€650
€600
€550
€500
€624
€647
€620
€680
€876
2007
2008
2009
2010
2011

Gross Margin Improvement from Productivity

It is obvious from table 1 that the matched sample of 57 farms has made significant gains in output value, gross margin and profit before premia despite increased costs. To determine the contribution of improved productivity to gross margin improvement on this group of farms it is necessary to correct for both changes in cattle prices and input costs over the period. Improved selling prices would have contributed to increased margins on all farms, if productivity was maintained. However improved productivity, if maintained, will contribute to improved margins on a permanent basis and thereby improves long term viability. Table 1A makes the necessary adjustments to input and output prices over the five year period to establish the contribution of increased cattle prices and improved productivity to the improvement in gross margin over the period.

Extra margin derived from productivity over the period is calculated at €115 per hectare so extra productivity on this group of farms accounts for 36% of the total improvement. This would represent a gain of over 7% per year from productivity over the period which is excellent progress.

Table 1 A:
Gross Margin gain from Productivity on 57 farms using Drystock eProfit Monitor

2011 Cattle Farm Productivity

5 Year matched sample-57 Farms	2007	2011	2011
	Base Year	Actual	No Gains
Production (kgLW/ ha)	578	658	578
Revenue (€/ kgLW)	€1.59	€2.06	€2.06
Variable Cost (€/ kgLW)	€0.90	€0.97	€1.02
Gross Margin (€/ kgLW)	€0.69	€1.09	€1.04
Gross Margin (€/ ha)	€398	€714	€599
GM From Productivity (€/ ha)			€115
GM Difference (Actual 2011 V Base Year 2007)			€316
GM From Productivity %			36.3%

Comparison – 2010 v 2011 (Cattle Farms)

Table 2 below highlights the performance of the same 243 farms from both the suckling and non-breeding sectors in 2010 and 2011. Stocking rate is up 1% in 2011, beef liveweight produced per livestock unit increased by 7% resulting in an 8% increase in beef liveweight produced per hectare in 2011.

The output value increased by €287 per hectare in 2011, a 31% improvement. Variable costs increased by 9% resulting in a gross margin increase of €234 per hectare or 66%.

Table 2: Comparison of costs and income on the same farms in two years

Profit Monitors – Cattle Farms Matched Sample (243 Farms)

	2010	2011	% Change
Physical			
Stocking Rate LU/ha	1.73	1.75	+ 1%
Liveweight Produced kg/ha	561	604	+ 8%
kg/LU	324	345	+ 7%
Financial €/ha			
Output Value	940	1227	+ 31%
Variable Costs	587	640	+ 9%
Gross Margin Excl. Premia	**353**	**587**	**+ 66%**
Fixed Costs	463	488	+ 5%
Profit Excl. Premia	- 110	+ 99	+209
Total Premia	644	619	- 4%
Premia Retained	83%	116%	

Fixed costs increased by €25 per hectare in 2011, which is equivalent to a 5% increase. The bottom line figure before premia is €320 per hectare better for 2011 compared with 2010.

Table 3 shows the detailed changes in variable costs between 2010 and 2011. There is an increase in all elements making up variable costs resulting in an overall increase of 9% in 2011 over 2010.

Table 3: Changes in Variable Costs between 2010 and 2011 – Cattle Farms

Matched sample 248 farms

Variable Costs € / ha	**2010**	**2011**	**Change %**
Concentrates	191	217	+ 13%
Fertiliser	124	140	+ 13%
Veterinary	72	78	+ 8%
Contractor	107	110	+ 3%
Other Variable Costs	93	95	+ 2%
Total Variable Costs	587	640	+ 9%

Table 4 examines how fixed costs have changed from 2010 to 2011. Overall spending on fixed costs increased by 5% with machinery running costs showing largest increase of 16%.

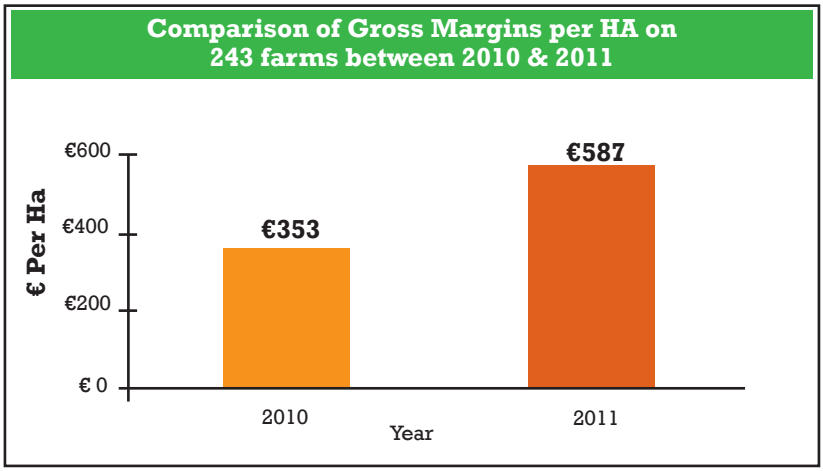
Table 4: **Changes in Fixed Costs between 2010 and 2011 – Cattle Farms**

Matched sample 248 farms

Fixed Costs € / ha	**2010**	**2011**	**Change**
Hired Labour	31	33	+ 8%
O/D, Loan Interest & Bank Charges	25	23	+ 7%
Machinery Running Costs	76	89	+ 16%
Car / ESB / Phone	51	56	+ 11%
Depreciation	101	98	- 2%
Repairs & Maintenance	48	51	+ 7%
Insurance	32	33	+ 5%
Land Lease	48	50	+ 4%
Other Fixed Costs	51	55	+ 8%
Total Fixed Costs	463	488	+ 5%

Figure 3 below graphs the change that has occurred over the two years in gross margin per hectare on the 243 farms. Gross margin increased by €234 per hectare or 66%.

FIGURE 3



Suckling Farms 2011

Table 5 below shows the performance of 429 suckling farms in 2011. These farms include 264 farms where the suckler progeny are sold as weanlings or stores and the remaining 165 farms bring all their suckler progeny to beef. Farms are ranked by gross margin per hectare excluding premia into Top 1/3, Average and Bottom 1/3. The difference between the Top and Bottom 1/3 is also shown.

Table 5: Suckling farms 2011 – per hectare analysis Profit Monitor (429 Farms)

	Top 1/3	Average	Bottom 1/3	Top v Bottom
Physical				
Farm Size ha	58	50	42	+16
Stocking Rate LU/ha	1.90	1.62	1.32	+0.58
Liveweight Produced kg/LU	359	321	241	+118
Liveweight Produced kg/ha	682	520	318	+364
Financial €/ha				
Gross Output Value	**1407**	**1036**	**616**	+791
Variable Costs	603	552	489	+114
Gross Margin	**804**	**485**	**127**	+676
Fixed Costs	499	472	433	+65
Net Profit excl. Premia	**305**	**13**	-306	+611
Total Premia *	603	577	561	+42
Total Premia Retained *	151%	102%	45%	
Single Farm Payment	459	417	385	+ 74
Single Farm Payment Retained	198%	141%	66%	

(* Includes Single Farm Payment, REPS, CAS & Suckler Welfare premium)

It is important to bear in mind that all of these farms would be classed as good farms nationally but it is alarming to see the variation between the Top and Bottom 1/3 even within this group resulting in a gross margin difference of €676 per hectare and profit difference of €611 per hectare – the advantage to the top farms has increased in 2011 compared with 2010 with most of the improvement on the top farms coming from greater output value.

Much of what is highlighted in table 5 is similar to what we have recorded in previous years within the suckling sector. The main points are listed below:

- Farm size is larger for the top third – they are farming 16 ha (38%) more than the bottom third.
- With a stocking rate of 1.90 LU/ha, the Top 1/3 farms are carrying 0.58 LU/ha more stock than those in the Bottom 1/3 – a staggering 44% extra stock on the same area.
- Despite the higher stocking rate on the top farms, they are also producing more than twice as much beef liveweight per livestock unit which is due to better animal performance on foot of better breeding, feeding and management.
- With a higher stocking rate it is not surprising then that the Top farms are able to produce more kilograms of liveweight on a per hectare basis. The top third of farms produce more than twice as much beef liveweight on a per hectare basis than those in the lower grouping and this is the secret of their success.
- More kilograms produced equates to a higher output value for the Top farms where they achieved €1,407/ha compared to €616/ha on the Bottom 1/3, a staggering difference of €791/ha. Achieving high output per hectare is the first essential requirement on the road to achieving a good profit level.
- The efficiency of these Top farms is borne out by the fact that although they have €791 higher output value per hectare they only spent €114/ha extra on variable costs compared to those in the Bottom group – a modest 23% extra variable costs for an extra 128% output value.
- Gross margin, which indicates technical efficiency, demonstrates the gulf that exists within the group. At €804/ha the Top group are €676/ha ahead of the Bottom 1/3 and €319/ha ahead of the Average for the group.
- Fixed costs are significant within all groups at €433 per hectare for the bottom third and €66 higher for the top third and underlines the need to achieve a good output level. Fixed costs account for 70% of output on bottom third but only 35% of output on top third. The target should be approximately 35% or less. Prior to decoupling premia receipts were included as part of farm output and both variable and fixed costs each accounted for 30 to 35% of the higher output figure. Excluding premia receipts from farm output post decoupling results in fixed costs accounting for a much higher percentage of the lower output figure.
- Both the Average group & Top Third generates a sufficient gross margin to cover fixed costs. The Bottom Third had to subsidise their production by taking €306 out of their premia payments in 2011.
- Both Average group (€13) and the Top Third (€305) generated a profit from their stock that could be added to their premia receipts.
- The bottom third had to use 55% of their premia receipts to subsidise production.

It is a concern that the Bottom 1/3 only retained 45% of total premia as profit in 2011. Some hard decisions must to be taken by this group if they hope to turn their fortunes around in the future. Increasing individual animal performance is the first step followed by some increase in stocking rate. Beef output per livestock unit for the bottom third is less than half that achieved by the top third and provides huge scope for improvement.

Figure 4 below illustrates quite clearly the difference that exists between the farms, first in terms of the output per hectare that they generated and second in terms of how efficiently that output was generated. Looking at the level of variable costs across the three groups, relative to their output value, they account for 43%, 53% and 79% of output for the Top, Average and Bottom groups, respectively. This shows the wide disparity that exists in efficiency.

The bottom third have the lowest level of fixed costs per hectare at €433 but are only generating a gross margin of €127 per hectare resulting in a €300 per hectare loss before premia. The only route to increased gross margin for this group is through extra output. The first step in to improve breeding efficiency and individual animal performance thereby improving per livestock unit output and once achieved to follow with increased stocking rate. A gross margin in excess of €400 per hectare is required to breakeven before premia.

FIGURE 4

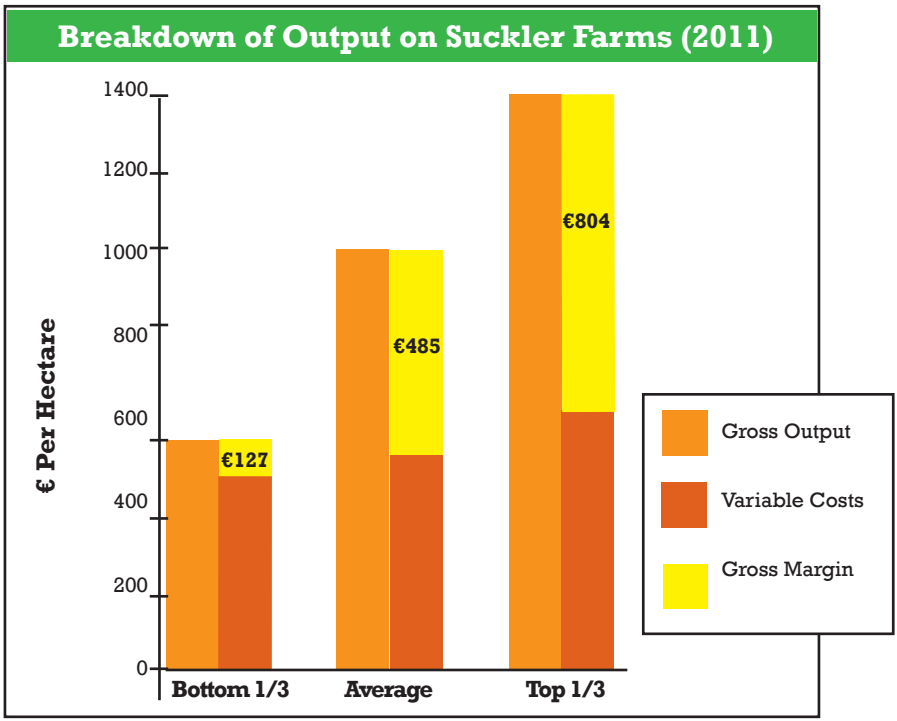


Figure 5 identifies the key variables that influence gross output and consequently gross margin per hectare on the suckling farms. Stocking rate is 44% higher on the top third of farms compared with the bottom third. In addition to the higher stocking rate the beef output per livestock unit is 49% higher on the top third, with both combining to produce a gross margin more than 6 times higher on the top third of farms.

FIGURE 5

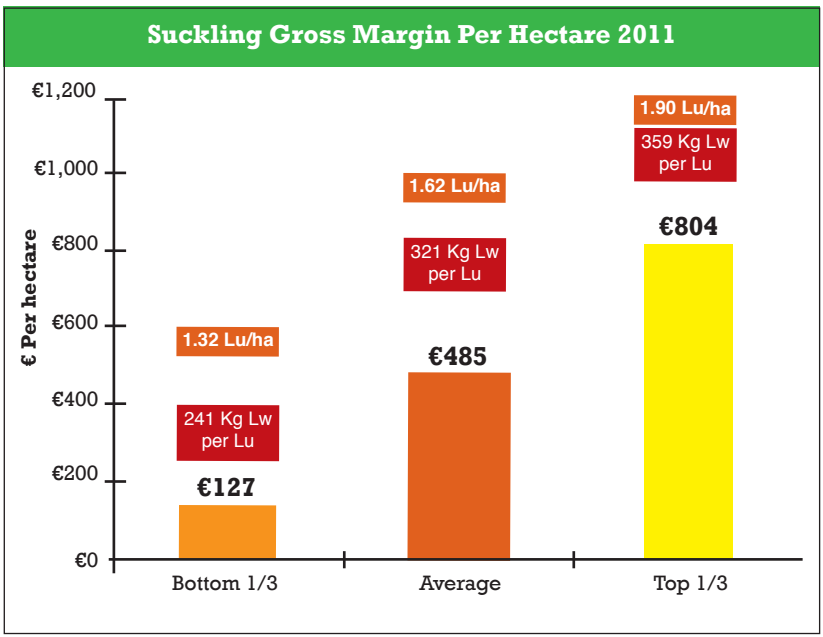
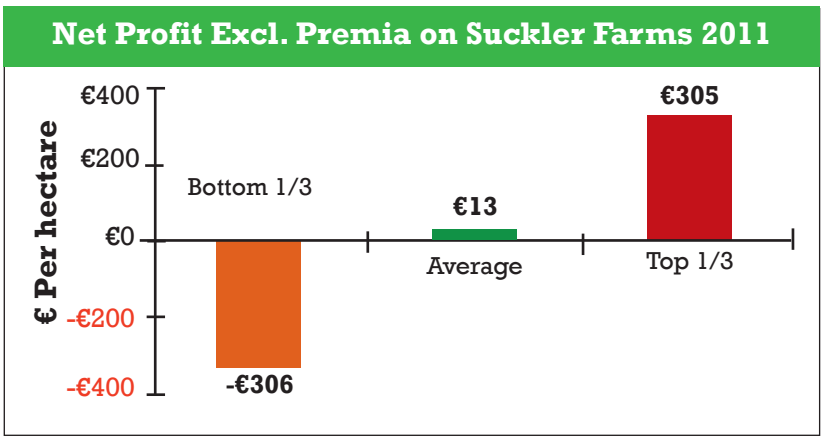


Figure 6 illustrates the difference between the Top 1/3, the Average and the Bottom 1/3 in terms of the profit per hectare generated excluding premia. Both Average and Top Thirds generates a profit from their farming activity. The Bottom Third have to dip into their premia to the tune of €306/ha in order to cover production costs.

FIGURE 6



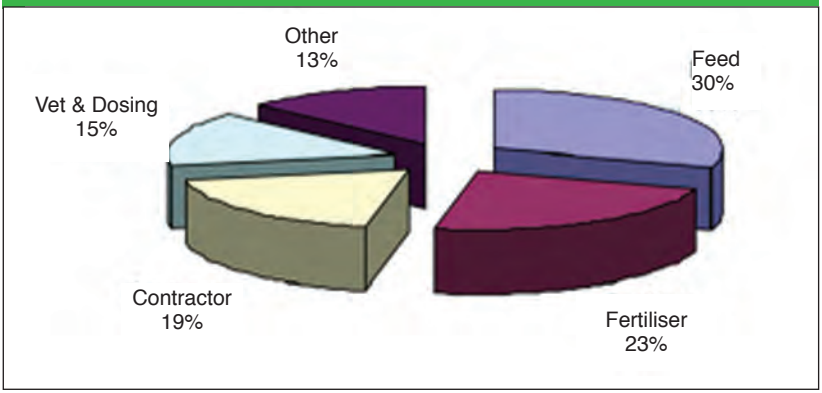
Breakdown of Costs – Suckling Farms

Both pie charts in **Figures 7 and 8** demonstrate the major costs in both the variable and fixed cost sectors on the Average suckler farms in 2011.

The four major components of variable costs are feed, fertiliser, contractor and veterinary, which account for 87% of all variable costs.

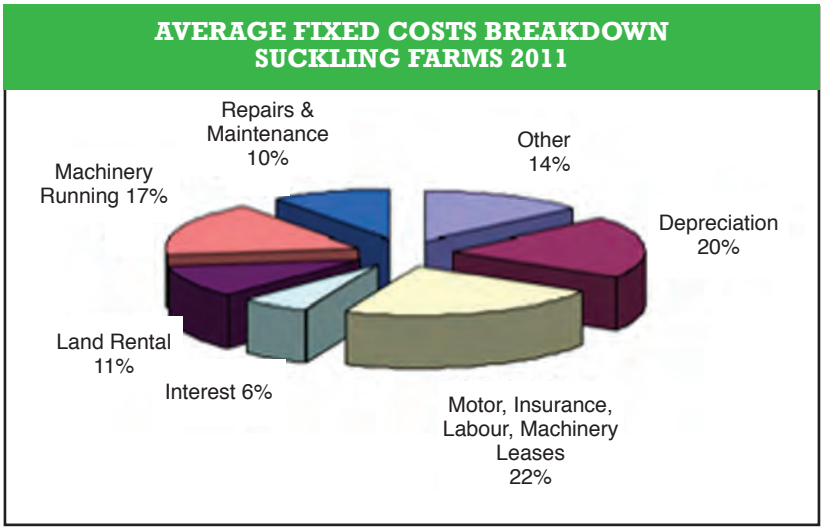
FIGURE 7

AVERAGE VARIABLE COSTS BREAKDOWN SUCKLING FARMS 2011



On the fixed costs side, depreciation, machinery running, repairs & maintenance, land rental, and interest account for almost two thirds of the total fixed costs. Motor costs, insurance, hired labour and machinery leases account for an additional 25% of fixed costs.

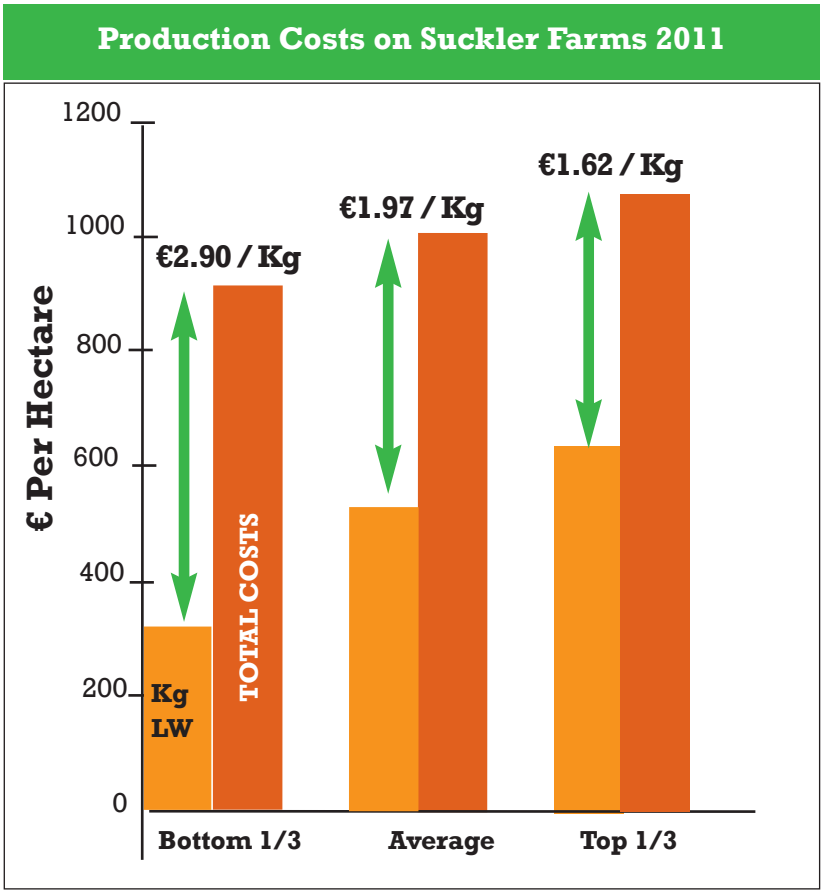
FIGURE 8



Costs per kg liveweight on Suckling Farms

Figure 9 below demonstrates extremely well that even though the total costs per hectare on the Top farms is slightly higher at €1,102 compared to €1,024 and €922 on the Average and Bottom 1/3 of farms, respectively, the Top farms because they produce substantially more kilograms of liveweight per hectare are able to dilute their costs. It costs the top farms €1.62 to produce a kilogram of liveweight compared to €2.90/kg on the Bottom farms. The Top farms produce 364 kg more liveweight per hectare compared to the farms in the Bottom 1/3. This is the equivalent of the Top farms producing an extra 364 kg weanling for every hectare they farm compared to those in the Bottom 1/3. That amounts to an extra 40 weanlings (each 364kg!) beef output on a 100 acre farm for a farm in the top third compared to the bottom third.

FIGURE 9


Production Costs on Suckler Farms 2011
€ Per Hectare
1200
1000
800
600
400
200
0
€2.90 / Kg
€1.97 / Kg
€1.62 / Kg
TOTAL COSTS
Kg LW
Bottom 1/3
Average
Top 1/3

Non-Breeding Cattle Farms 2011

Table 6 below looks at the performance of 104 non breeding cattle farms in 2011. These farms would have purchased weanlings or stores and either brought them on to forward store stage or brought the animals through to finish. The group is again ranked according to their gross margin excluding premia into Top third, Average and Bottom third.

Table 6: **Non-breeding farms 2011 – per hectare analysis Profit Monitor (104 Farms)**

	Top 1/3	Average	Bottom 1/3	Top v Bottom
Physical				
Farm Size ha	55	47	39	+17
Stocking Rate LU/ha	1.90	1.55	1.25	+0.65
Liveweight produced kg/LU	565	432	303	+262
Liveweight produced kg/ha	1073	669	379	+694
Financial €/ha				
Gross Output Value	2423	1356	585	+1838
Variable Costs	1310	782	481	+830
Gross Margin	1113	574	104	+1009
Fixed Costs	644	517	433	+211
Net Profit excl. Premia	**469**	**57**	-329	+798
Total Premia*	630	702	594	+ 108
Total Premia Retained	164%	109%	45%	
Single Farm Payment	635	523	448	+ 187
Single Farm Payment Retained	184%	131%	59%	

(* Includes Single Farm Payment, REPS, CAS & Suckler Welfare premium)

Many of the trends that existed between the Top and Bottom 1/3 in the suckler group are again evident in the non-breeding group.

The main points from **table 6** are:

- Farm size is largest for the top group and smallest for the bottom group.
- Stocking rate on the non breeding farms is marginally lower than the corresponding groups of suckler farms. The stocking rate is higher than non-breeding farms in 2010. The Top group of non-breeding farms are carrying an extra 0.65 LU/ha compared with those in the Bottom 1/3 – this represents over 50% more stock on a similar land area.
- The top farms are producing almost twice as much beef per livestock unit as the bottom third which is a function of better animal performance on foot of better feeding and management.
- The 52% higher stocking rate combined with better animal performance results in the top third producing almost three times as much beef per hectare as the bottom third.
- At €2,423/ha the Top group are producing €1,838 more in terms of output value per hectare compared with a very poor €585/ha in the Bottom 1/3
- The extra 830/ha spent on variable costs within the Top farms can be justified

on the basis that they are getting the return in terms of extra output. However, variable costs are consuming 54% of output on the top farms just leaving 46% of output value to cover fixed costs and profit. It is hard to justify the Bottom group spending €481/ha on variable costs when they are only generating €585/ha in output value. Significant inefficiencies exist with this group in terms of variable cost spending, poor stocking rate, poor on farm animal performance and/or poor buying and selling of stock. The poor output level combined with the high variable cost level results in a very poor gross margin for the bottom third.

- ➢ The difference in efficiencies between the farms is clearly illustrated in the difference in gross margin of €1,113/ha on the Top farms versus €104/ha on the Bottom 1/3 of farms – an advantage to the top farms of over €1,000 per hectare.
- ➢ Fixed costs on the Top farms are €211/ha higher than those on the Bottom 1/3 of farms. At €644 per hectare fixed costs are consuming 27% of output value and results in the top third returning profit of €469/ha before premia. The average profit before premia is €56/ha. Although fixed costs were much lower with the bottom third their very low gross margins resulted in losses of €329 per hectare before premia. This resulted in the bottom third only retaining 45% of total premia receipts.
- ➢ Single farm payment per hectare was highest on the top farms with an extra €187/ha on the top third compared with bottom third.

As was the case for the Bottom tier in the suckling system, the Bottom 1/3 of the non-breeding group need to examine their farming activity closely. Their extremely low level of output coupled with proportionally higher variable costs leaves them very vulnerable in the future. It is not viable to continue with an enterprise that generates virtually no gross margin as the enterprise is making no contribution to farm fixed or overhead costs. Low output systems must operate on the basis of very low inputs and must achieve good levels of animal performance. Low stocking rate may hit output levels but can be offset somewhat by achieving high levels of animal performance and cutting spending on variable and fixed costs.

Figure 10 clearly shows the difference in output level between the Top, Average and Bottom 1/3 of farms. Approximately 54% of the output value on the Top 1/3 of farms went on variable costs, compared with 58% and 82% on the Average and Bottom 1/3 of farms, respectively. Therefore, the Bottom 1/3 of farms had virtually none of their output value available to cover fixed costs. Contrast this to the Top group who had 46% (€1,113/ha) of their output value available to meet fixed costs

FIGURE 10

Breakdown of Output on Non Breeding Farms (2011)

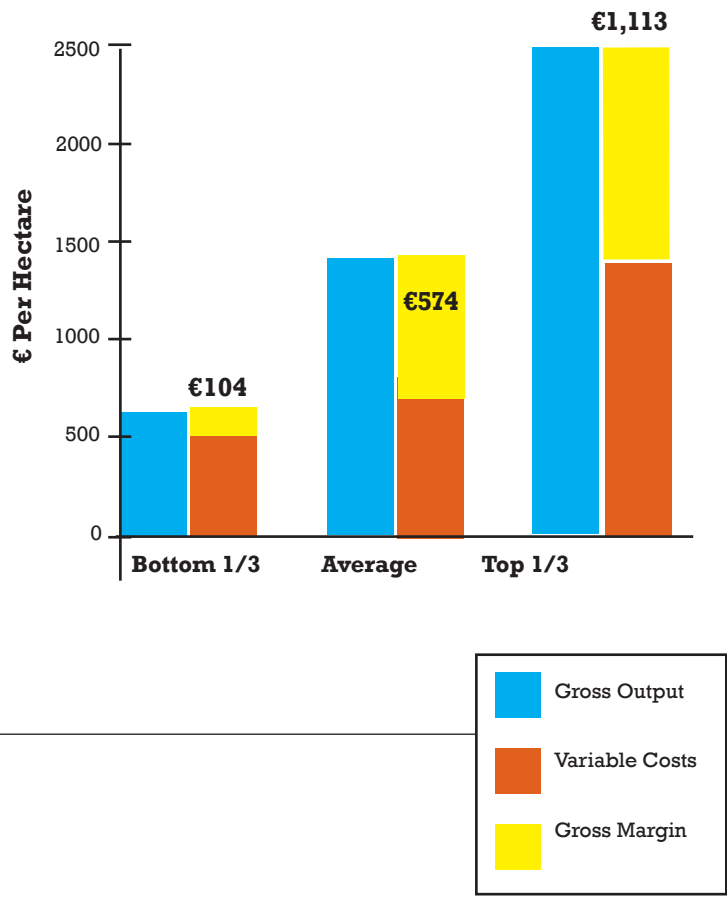
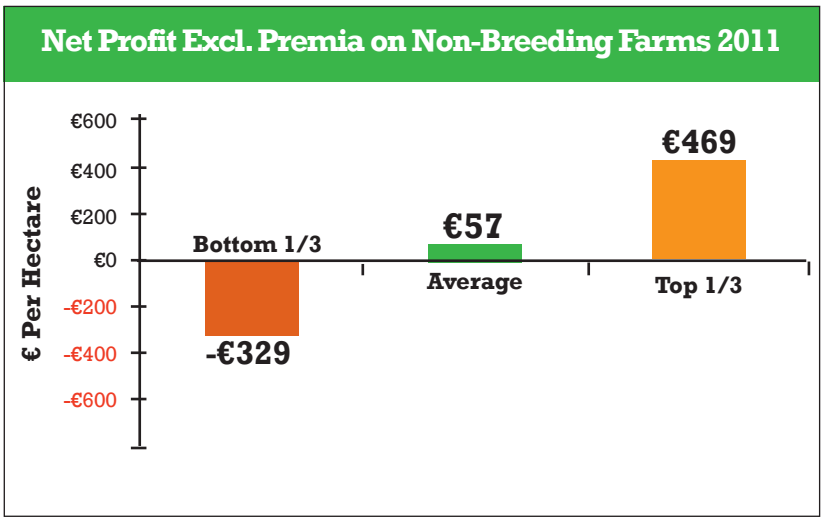


Figure 11 shows that the Bottom 1/3 of non-breeding farms had a deficit of €329/ha after meeting production costs which would have to be taken out of their premia. The average group had a profit of €56/ha before premia receipts. The Top 1/3 of farms had a profit of €469/ha before premia receipts.

FIGURE 11

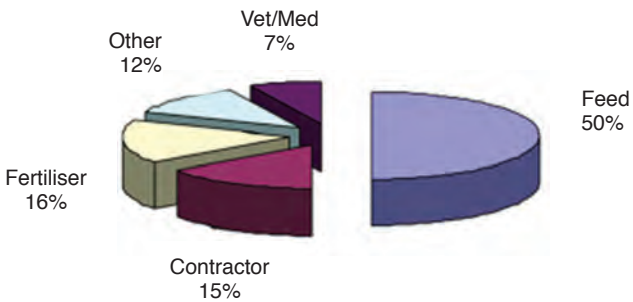


Breakdown of Costs – Non-Breeding Farms

Figures 12 and 13 illustrate the breakdown of the variable and fixed costs across the non-breeding farms. Feed, fertiliser and contractor are the three main costs accounting for 81% of overall variable costs. Not surprisingly given the level of finishing that takes place on these farms, feed costs account for half of total variable costs.

FIGURE 12

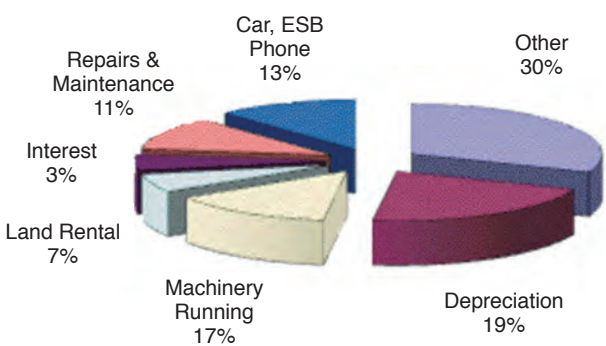
AVERAGE VARIABLE COSTS BREAKDOWN NON BREEDING FARMS 2011



On the fixed costs side, depreciation, machinery running costs, land rental costs, repairs and maintenance and interest make up 57% of fixed costs. Farm share of car, ESB and phone costs account for 13% of total fixed costs.

FIGURE 13

AVERAGE FIXED COSTS BREAKDOWN NON BREEDING FARMS 2011

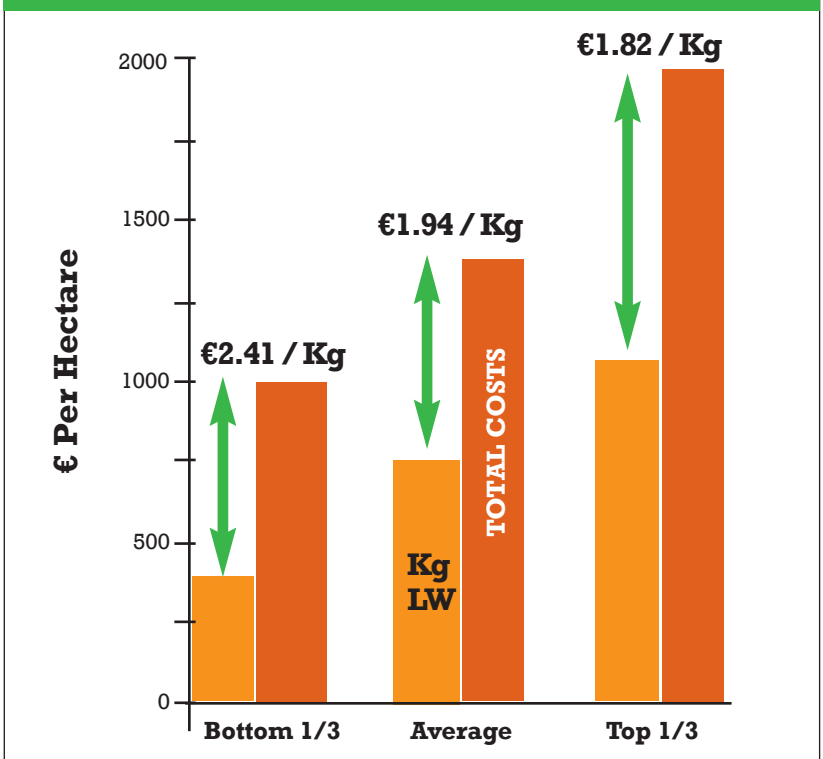


Costs per kg liveweight on Non-Breeding Farms

Figure 14 illustrates that even though the Top farms have higher costs on a per hectare basis at €1,954 compared to €914 on the Bottom 1/3 of farms, the fact that the Top farms are producing 1,073 kg of beef liveweight per hectare as opposed to 379 kg on the Bottom 1/3 means that the Top farms are producing a kilogram of liveweight for €1.82 while the same kilogram costs €2.41 on the Bottom 1/3 and €1.94 on the Average of all of the non-breeding farms. Therefore, as was the case with the suckling farms, higher costs can be carried provided enough output is generated to dilute these costs.

FIGURE 14

Production Costs on Non-Breeding Farms 2011



Comparing Cattle and Sheep Systems 2011

Table 7: Per hectare analysis – cattle and sheep systems Profit Monitor 2011

	Suckling-to-Beef	Suckling-to-Weanling/ Store	Cattle Non-Breeding Purchased weanlings or stores-to-beef	Sheep Mainly mid-Season
Physical	**165 Farms**	**264 Farms**	**104 Farms**	**94 Farms**
Farm Size ha	64	42	47	59
Stocking Rate LU/ha	1.78	1.52	1.55	1.88
Ewes/ha				8.15
Liveweight Produced kg/ha	596	453	669	534
kg/LU	335	298	432	
Lambs Reared per Ewe to Ram				1.41
Financial €/ha				
Gross Output Value	**1185**	**903**	**1356**	**1133**
Variable Costs	614	496	782	480
Gross Margin	**571**	**408**	**574**	**652**
Fixed Costs	503	444	517	440
Net Profit excl. Premia *	**68**	-36	**56**	**212**
Total Premia *	603	553	630	469
Total Premia Retained %	**111%**	93%	**109%**	**145%**
Single Farm Payment	**460**	**382**	**523**	**385**
Single Farm Retained %	**146%**	**135%**	**125%**	**177%**

(* Includes Single Farm Payment, AWRBS, REPS & CAS)

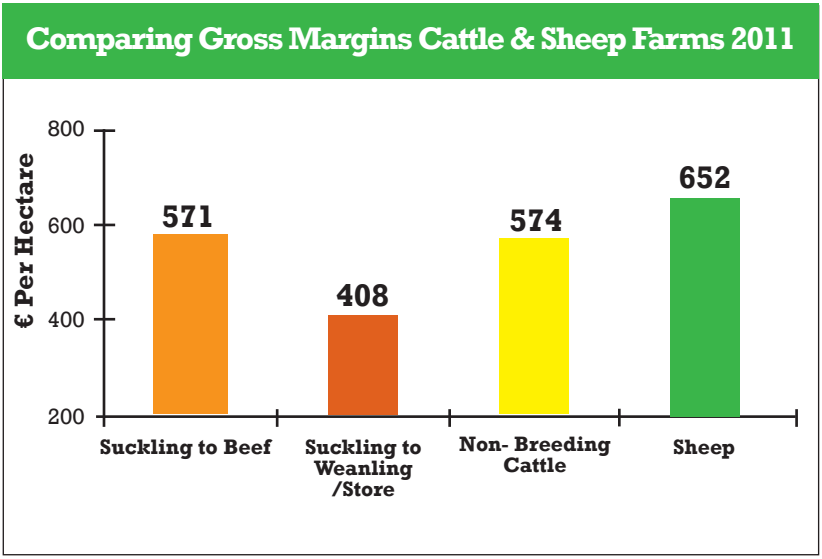
Table 7 shows a breakdown of the physical and financial performance of the various cattle systems when compared with sheep farms completing a profit monitor in 2011. Cattle systems appear as three categories, suckler systems where the progeny are sold as weanlings or stores, suckler herds where the progeny are brought to beef and farms where the predominant system is based on the purchase of weanlings or stores for further feeding (non-breeding systems). Sheep systems are mainly mid-season lamb production.

The main points from table 7 are:

- Overall farm size is larger for farms with suckling to beef and sheep systems..
- Stocking rate is highest for sheep farms at 1.88 LU/ha followed by suckling to beef farms at 1.78 LU/ha. Stocking rate on suckling to weanling/store and non-breeding farms are lower at approximately 1.5 LU/ha.
- Liveweight produced per hectare was highest for non-breeding cattle systems with suckling to beef systems 11% lower.
- Sheep farms averaged 1.41 lambs reared per ewe put to the ram at a stocking rate of 8.15 ewes per hectare
- Output value per hectare was highest for non-breeding cattle systems. Suckling to beef 13% lower, sheep 16% lower and suckling to weanling/store 33% lower.
- Sheep farms had lower variable costs than any of the other systems examined at €480/ha which reflects their lower winter feed costs. Non-breeding cattle farms and suckler to beef had the highest variable costs per hectare. Variable costs consumed 58% of output value on non-breeding systems. This is a very high figure and leaves it difficult to achieve a profit unless output value is exceptionally high.
- In terms of gross margin per hectare, sheep were at €652 per hectare. Suckling to beef systems were 12% lower and suckler to weanling/store 37% lower.
- Fixed costs are highest for non-breeding cattle systems and suckling to beef systems at approximately €510 per hectare. Fixed on sheep and suckling to weanling were 14% lower. Fixed costs as a percentage of output are highest on suckler to weanling systems at 49% and run around 38 to 42% for other systems. Efficient farms should target fixed costs not accounting for anymore than 35% of output value.
- All systems, except suckling to weanling/store, generated a positive margin before premia – retention of premia as profit was best with sheep systems at approximately 145%.
- Single farm payment per hectare was 16% lower on sheep systems than suckling to beef systems. Non-breeding cattle farms had the highest level of single farm payment per hectare.

Figure 15 illustrates the variation that occurred in gross margin per hectare across the various livestock systems in 2011.

FIGURE 15


Comparing Gross Margins Cattle & Sheep Farms 2011
€ Per Hectare
800
600
400
200
571
408
574
652
Suckling to Beef
Suckling to Weanling /Store
Non- Breeding Cattle
Sheep

SHEEP FARMS

Comparison - 2009 to 2011

Comparison of sheep farms over the last three years 2009, 2010 and 2011 (mainly mid season lowland flocks)

The information from a matched sample of 29 mainly mid season lowland flocks is contained in table 8 below. The data shows that over the three year period, lambs reared per ewe joined to ram improved by just 2%. The starting point in 2009 at 1.48 lambs weaned per ewe was well above national average of approximately 1.3. Average lamb price increased by 28% over the three years. Lambs reared per hectare increased marginally. Output value by year 3 increased by over 33% on foot of increased lamb selling prices.

Variable costs per hectare increased by 7% with all of increase in 2011.
.
The increase in output value over the three years resulted in a 65% increase in gross margin per hectare in 2011 compared with 2009. Fixed costs were unchanged in 2010 but were 9% higher in 2011 compared with 2009.

Average lamb output of around 14 lambs per hectare each year has room for improvement.

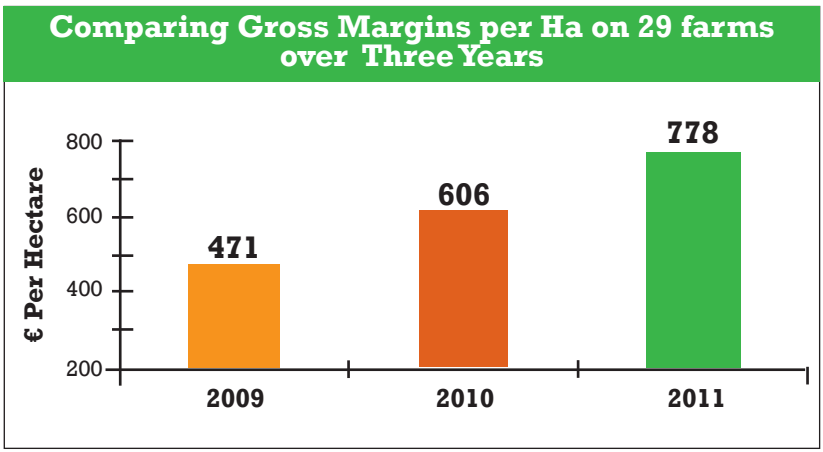
Table 8: **Comparison of costs and income on the same sheep farms over three years**

Profit Monitors
Matched sample 2009, 2010 & 2011 (29 farms)

		2009	2010	2011
Physical data				
Stocking rate LU/ha		2.05	2.03	2.04
Ewes to ram		219	220	231
Lambs reared per ewe joined to ram		1.48	1.45	1.51
Ewes per hectare		9.68	9.12	9.61
Lambs reared per ha		14.3	13.2	14.5
Financial (€)				
Average lamb price	€ / head	81.35	92.68	104.48
Gross Output per ha	€ / ha	1043	1173	1391
Variable Cost per ha	€ / ha	572	567	613
Gross Margin per ha	€ / ha	471	606	778
Fixed Costs per ha	€ / ha	484	482	528
Net Margin per ha	€ / ha	-13	125	250

Figure 16 shows the change in gross margin per hectare on matched sample of sheep farms from 2009 to 2011.

FIGURE 16



Comparison - 2010 v 2011

Comparison of matched sample of sheep farms for 2010 and 2011 (mainly mid season lowland flocks)

Information relating to a matched sample of 46 flocks for 2010 and 2011 are contained in table 9 below. The farms contained in this analysis are predominantly mid season lowland enterprises. In terms of output, there is an increase in lambs reared per ewe to ram (+6%), a 1% decrease in stocking rate with an increase of 5% in the number of ewes carried per hectare and a 13% increase in average lamb price. Consequently, gross output increased by 20% or €227 per hectare.

On the 46 flocks, ewe numbers have increased by 3% from 188 to 193 while ewe lambs retained as replacements have increased by 18% indicating confidence in the future potential for sheep.

Variable costs increased by 8%. The output increase less the increased variable costs resulted in a gross margin improvement of €183 per hectare (32%). Overall fixed costs increased by 9% in 2011 with the main increase on hired labour and repairs and maintenance. A detailed analysis of these costs is contained in **table 11.**

Net profit improved significantly in 2011 by €144 per hectare on foot improved gross margin. Both years achieved a profit before premia.

Table 9: Comparison of costs and income on same sheep farms over two years
Profit Monitors
Matched sample for 2010 & 2011 (46 farms) – mid season lowland flocks

	2010	2011	Difference	Change %
Physical data				
Stocking rate LU/ha	1.97	1.95	- 0.02	- 1%
Ewes to ram	188	193	+ 5	+ 3%
Lambs reared per ewe joined to ram	1.43	1.52	+ 0.09	+ 6%
Ewes per hectare	8.68	9.12	+0.44	+ 5%
Lambs reared per hectare	12.4	13.9	+1.5	+12%
Ewe lambs retained	42	50	+8	+ 18%
Financial €/ha				
Average lamb price	92.67	104.31	+ 11.65	+ 13%
Gross Output per ha	1120	1347	+ 227	+ 20%
Variable Costs per ha	545	588	+ 44	+8%
Gross Margin per ha	575	758	+ 183	+ 32%
Fixed Costs per ha	453	492	+ 39	+ 9%
Net Margin per ha	122	266	+ 144	+ 117%

Figure 17 shows the change in gross margin per hectare on a matched sample of 46 sheep farms from 2010 to 2011.

FIGURE 17

Comparison of Gross Margins per Ha on 46 farms between 2010 & 2011

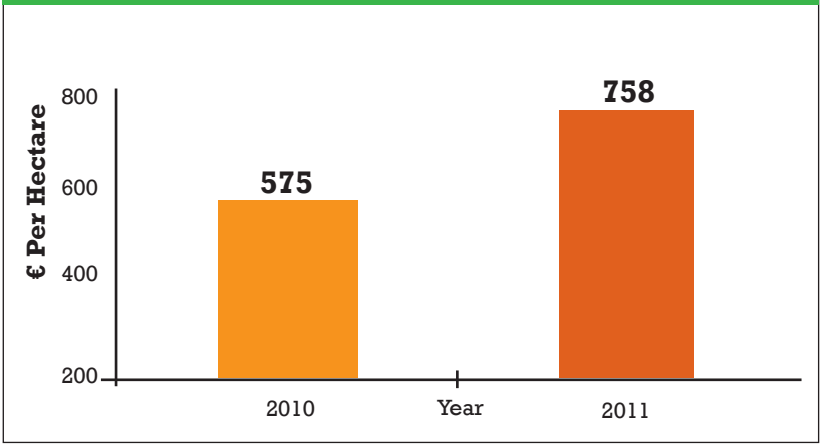


Table 10 and 11 demonstrates price changes in some of the major input costs on sheep farms over the last two years. In table 10 there is an 8% increase with most of change in fertiliser and veterinary costs.

Table 10: Changes in Variable Costs between 2010 and 2011

Matched sample 46 farms

Variable Costs € / ha	2010	2011	Change %
Concentrates	198	198	No change
Fertiliser & Lime	112	126	+ 13%
Veterinary	70	101	+ 13%
Contractor	75	78	+ 4%
Straw	18	17	- 6%
Total Variable Costs	545	588	+ 8%

Table 11 examines how fixed costs have changed from 2010 to 2011. Overall spending on fixed costs is up 9%.

Table 11: Changes in Fixed Costs between 2010 and 2011

Matched sample 50 farms

Fixed Costs € / ha	2010	2011	Change %
Hired Labour	34	46	+ 34%
O/D, Loan Interest & Bank Charges	25	20	- 18%
Car / ESB / Phone	57	62	+ 8%
Depreciation	82	91	+ 11%
Repairs & Maintenance	47	57	+ 21%
Insurance	30	33	+ 8%
Land Lease	49	53	+ 10%
Total Fixed Costs	453	492	+ 9%

Lowland Sheep farms 2011

The analysis for the 2011 eProfit Monitor for sheep is based on the returns of 94 sheep farms that are primarily involved in mid- season lamb production. Table 12 shows farms ranked on the basis of gross margin per hectare, excluding premia and segregates farms into the Top 1/3, Average and Bottom 1/3.

Table 12: Sheep per Hectare Analysis 2009 (91 farms)

	Top 1/3	Average	Bottom 1/3
Physical Performance			
Flock size	210	190	161
Stocking rate(LU/ha)	2.14	1.88	1.61
Ewes/ha	10.20	8.15	6.39
Lambs reared per ewe to ram	1.53	1.46	1.34
Lambs reared per hectare	15.6	11.9	8.6
Financial Performance €/ha			
Gross output	1605	1133	649
Variable costs	523	480	393
Gross margin	1082	652	255
Fixed costs	504	440	388
Net profit excl premia	578	212	-133
Net profit include all premia*	1126	681	325
% Premia* retained	205%	145%	71%
Average lamb price € / head	105.84	100.35	88.34

(* Includes Single Farm Payment, Reps & CAS)

Flock size is largest for the top third and smallest for the bottom third. The bottom third are using 60% more land to carry the same number of ewes compared with the top third. The combination of the higher weaning % (0.19 lambs extra per ewe) and the better stocking rate on the top third results in an extra 7 lambs reared per hectare over the bottom third. This is what contributes to a higher output figure worth an extra €956 per hectare and is the foundation for the higher gross margin and higher profit.

The average gross margin was €652 per hectare. The gross margin per hectare for the top third at €1,082 is €827 higher than the bottom third. The gross margin per hectare for the top third in 2011 is more than four times greater than that of the bottom third. There is almost €18 per head difference in lamb price per head between top & bottom thirds.

The main contributing factors influencing the difference in gross margin per hectare are:

1. Lambs reared per ewe to the ram – 1.53 for the top third compared with 1.34 for the bottom third.
2. Higher stocking rate, 10.2 ewes/ha compared with 6.39 ewes per hectare.
3. Lambs weaned per hectare, 15.6 compared with 8.6
4. Higher lamb price, €105.84 compared with €88.34

Figure 18 shows lambs weaned per hectare for bottom 1/3, average and top 1/3 for the 94 farms with sheep profit monitors for 2011.

FIGURE 18

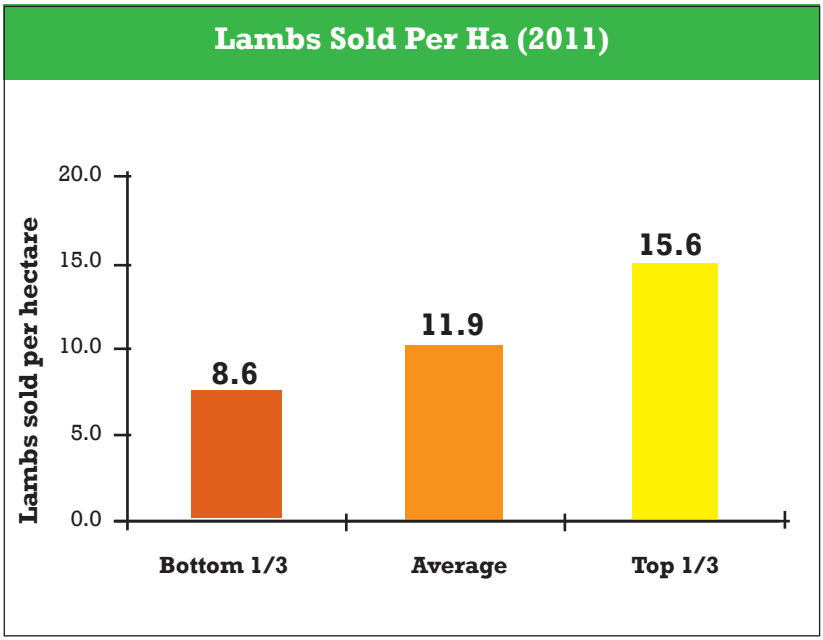
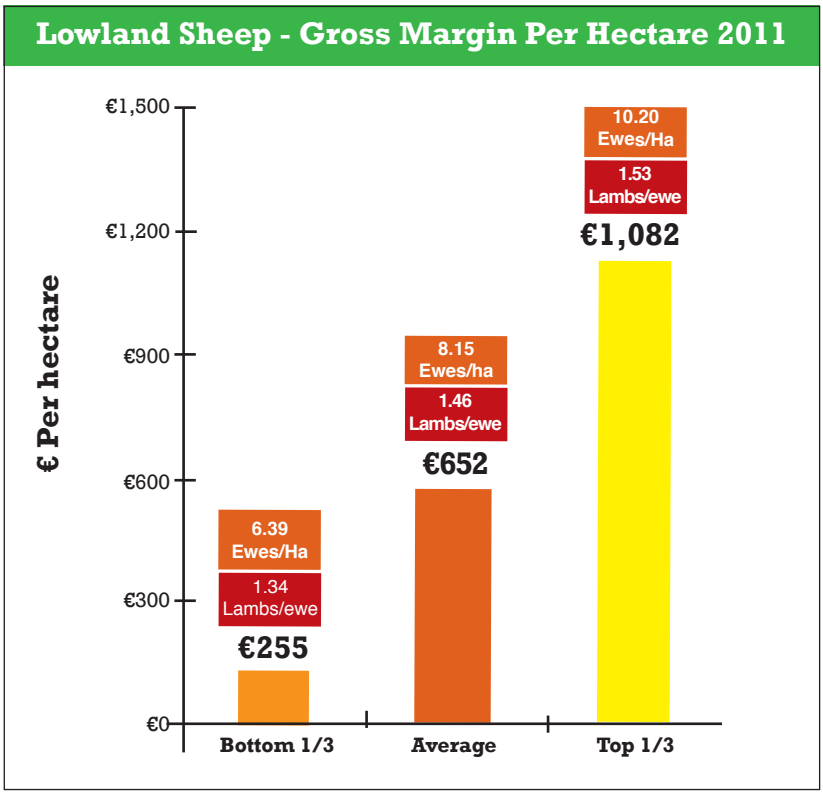


Figure 19 shows the variation in gross margin across the three groups and the principal factors that influence gross margin for sheep farmers.

FIGURE 19



On average, sheep farmers with profit monitors in 2011 achieved a profit of €212 before premia. On average, they retained 145% of premia but the bottom third only retained 71% of all premia and had a net profit excluding premia of -€133 per hectare. The top third had a net profit excluding premia of €578 per hectare. This results in a difference of €711 in the net profit per hectare between the top third and bottom third and amounts to over €16,000 for the average area devoted to sheep (23ha) for farms keeping a profit monitor.

Ewe to ram performance 2011

Table 13 shows the output, costs and margins on a per ewe basis. The results are placed in three categories top1/3, average and bottom 1/3, ranked on the basis of gross margin per hectare.

Table 13: Per ewe to the ram analysis 2011 (94 farms)

	Top 1/3	Average	Bottom 1/3
Physical Performance			
Lambs reared per ewe to ram	1.53	1.46	1.34
Financial Performance € / Ewe			
Gross Output	157	139	102
Variable Costs	51	59	62
Gross Margin	106	80	40
Fixed Costs	49	54	61
Net Profit excl Premia	57	26	-21
Average Lamb Price € / head	105.84	100.35	88.34

There is a difference in output per ewe of €55 between the top and bottom third. This results from a higher number of lambs weaned per ewe to the ram (0.19 lambs /ewe) which increased output by €20/ewe and a higher lamb price of €17.50 per head (€27per ewe).

Variable costs per ewe are highest for the bottom third at €62 and when combined with the lower weaning % for the bottom group results in higher variable costs per lamb of over €12.

The top third is achieving a gross margin per ewe of €106 compared with €80 for the average and just €40 for the bottom third.

In the average flock of 190 ewes, the top third are achieving an extra gross margin of €5,000 over the average and €12,000 over the bottom third.

Fixed costs per ewe were highest for the bottom third. Fixed costs per lamb was €13 lower on top third compare with bottom third.

This results in a net profit excluding premia of €57 per ewe for the top 1/3, a profit of €26 per ewe for the average and a loss of €21 per ewe for the bottom third.

Based on these figures sheep farmers in the top third with the average ewe flock of 190 are achieving an extra profit of almost €6,000 compared to the average and almost €15,000 more than farmers in the bottom third.

It is alarming, despite a substantial increase in market prices, that sheep farmers in the bottom third are loosing €21 per ewe before taking premia into account. Sheep farming in this situation is not sustainable and unless this situation can be changed quickly the viability of the sheep enterprise on these farms must be questioned.

Figures 20 and 21 shows the gross margin breakdown and profit figures per ewe for 94 sheep farms with profit monitors for 2011 in diagram format.

FIGURE 20

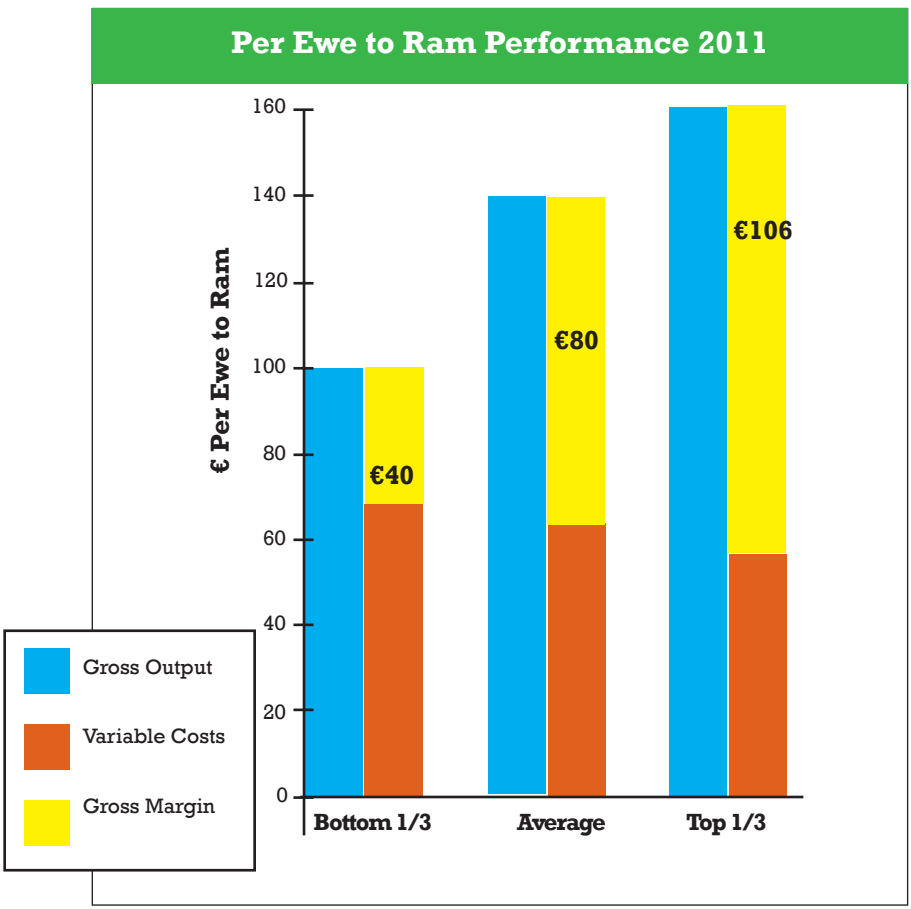
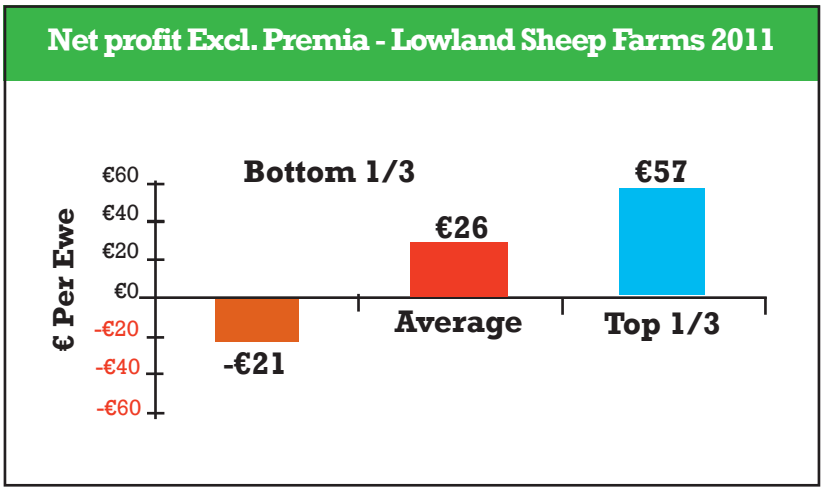


FIGURE 21



Costs per Ewe

A breakdown of the major variable and fixed costs on a per ewe basis are given in **Table 14**.

Table 14: Major costs per ewe to ram analysis 2011 (94 farms)

	Top 1/3	Average	Bottom 1/3
Total Variable Costs (€/ewe) (of which)	**51**	**59**	**62**
Purchased Feed	18	20	16
Fertilizer	10	12	13
Veterinary	9	10	10
Contractor	6	8	11
Other	8	9	12
Total Fixed Costs (€/ewe) (of which)	**49**	**54**	**61**
Machinery Running	9	9	7
Labour	4	7	11
Land Lease	5	5	4
Depreciation Buildings	3	4	7
Depreciation Machinery	5	5	5
Repairs & Maintenance	5	6	8
Car, ESB & Phone – farm share	8	7	6
Interest	2	2	3
Other	8	9	10

Purchased feed is the largest single variable cost on sheep farms. On a per lamb basis, purchased feed is costing €11.76 per lamb on the top 1/3, €13.70 on the average and €11.94 per lamb on the bottom1/3 of sheep farms.

Contractor charges are costing €5 per ewe more on the bottom 1/3 farms compared to farms in the top 1/3, while fertiliser and veterinary costs are similar on a per ewe basis across all three groups.

Depreciation, machinery running, labour and land lease charges are the four major fixed costs. These four fixed costs combined represent almost 50% of total fixed costs. Labour costs at €11 per ewe are €7 higher for the bottom third compared with top third.

The total annual cost of maintaining a ewe is €100 in the top third, €113 for the average and €123 for the bottom third.

Figures 22 and 23 shows the breakdown of variable and fixed costs in diagrammatic format.

FIGURE 22

AVERAGE VARIABLE COSTS BREAKDOWN ON LOWLAND SHEEP FARMS 2011

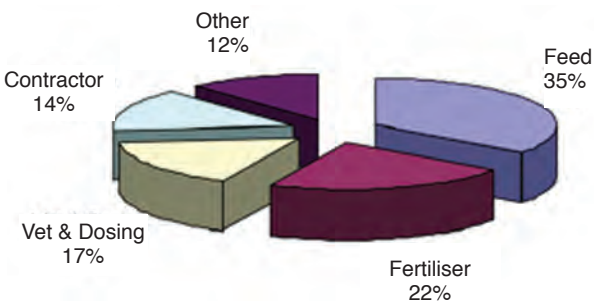
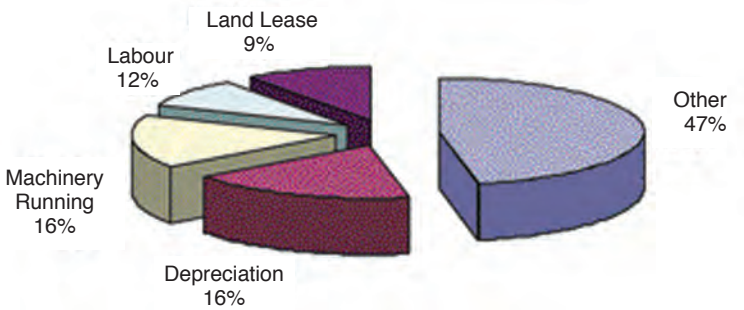


FIGURE 23

AVERAGE FIXED COSTS BREAKDOWN ON LOWLAND SHEEP FARMS 2011



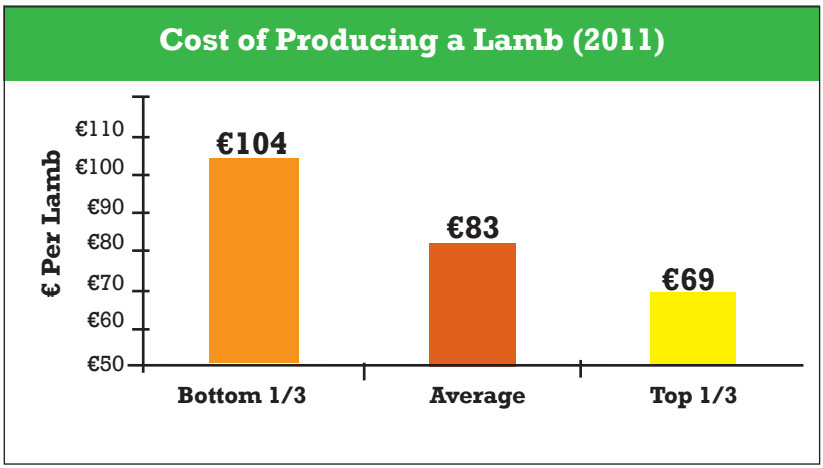
Cost of producing a lamb in 2011 – Lowland Mid Season

Based on the above variable and fixed costs and the number of lambs reared per ewe to the ram, the average cost of producing a lamb in 2011 was €77 excluding replacement and ram costs. Comparable costs for the top third were €72 and for the bottom third were €91. Estimated replacement and ram costs per lamb amounted €13, €5 and €3 for the bottom, average and top thirds respectively.

Consequently the total production and replacement costs per lamb amounted to €104 per head for the bottom third, €83 on average and €69 for the top third of sheep farms with profit monitors. The difference between the top and bottom thirds represents a staggering €35 per lamb and is the prize to be gained by getting performance on your farm to match the top third of sheep producers. Figure 24 shows the cost of producing a lamb for the top, bottom and average for all farms.

It is difficult to estimate replacement costs accurately from the data available as flock size is not constant. Consequently replacement costs stated above may be underestimated by €2 to €4 per lamb.

FIGURE 24



Performance of Hill Sheep Flocks 2011 –

Details of the hill sheep analysis for 2011 are listed in the **Table 15**. Average performance was 1.09 lambs reared per ewe joined to the ram with the range from 0.63 to 1.43. Average lamb price was €80.69 with the range from €52 to €99. This indicates that many of the flocks in question are predominantly finishing their lambs to factory weights and not selling store lambs as is more common on hill farms. Average gross margin was €51 per ewe with a range from €3 to €103 per ewe. It is important to remember that the analysis consists of information collected from only twelve farms.

Table 15: Hill sheep per ewe to ram analysis 2011 (12 farms with Profit Monitor)

Physical	
Average Flock Size	278
Lambs reared per ewe joined to ram	1.09
Average Lamb Price (€/head)	80.69
Financial	**€/ewe**
Output	81
Purchased feed	11
Fertilizer and Lime	7
Vet	7
Contractor	3
Other	1
Total Variable Costs	29
Gross Margin	**51**
Total Fixed Costs	24
Net Profit Excl Premia	28

Similar to the lowland flocks, purchased feed is the single largest variable cost on hill sheep farms and accounts for approximately 38% of total variable costs. The top third with a weaning rate of 1.29 lambs per ewe incurred spending of almost €8 per lamb on concentrates and achieved an average selling price of €87 per lamb. The bottom third with a weaning rate of 0.85 lambs per ewe incurred spending on concentrates of €9 per lamb and achieved an average selling price of €71 per lamb.

Output per ewe, with this group of 12 hill sheep farms, is approximately 58% the output level achieved on the 94 lowland flocks in 2011. Variable costs per ewe were 49% the level of lowland flocks. Despite the lower variable costs, the hill ewes on average achieved only 64% of the gross margin per ewe of the lowland ewes.

Average fixed costs for the twelve hill sheep farms was €24 per ewe, leaving a net profit excluding premia of €28 per ewe.

Appendices

Appendix 1

Table 1: Major Costs on Suckling Farms 2011 (429 Farms)

	Top 1/3	Average	Bottom 1/3
Total Variable Costs			
€/ha	603	552	489
€/kg liveweight	0.89	1.06	1.54
Of which:			
Feed €/ha	199	157	108
€/kg liveweight	0.29	0.30	0.34
Fertiliser & Lime €/ha	136	129	118
€/kg liveweight	0.20	0.25	0.37
Contractor €/ha	93	106	115
€/kg liveweight	0.14	0.20	0.36
Vet/Meds/AI €/ha	92	83	74
€/kg liveweight	0.14	0.16	0.23
Total Fixed Cost			
€/ha	499	471	433
€/kg liveweight	0.73	0.91	1.36
Of which:			
Land Rental €/ha	55	51	38
€/kg liveweight	0.08	0.10	0.12
Machinery Running €/ha	91	82	66
€/kg liveweight	0.13	0.16	0.21
Hired Labour €/ha	37	25	19
€/kg liveweight	0.05	0.05	0.06
Depreciation €/ha	99	94	87
€/kg liveweight	0.18	0.18	0.28
Interest €/ha	29	28	28
€/kg liveweight	0.04	0.05	0.09

Appendices

Appendix 1

Table 2: Major Costs on Non Breeding Farms 2011 (104 Farms)

	Top 1/3	Average	Bottom 1/3
Total Variable Costs			
€/ha	1310	782	481
€/kg liveweight	1.22	1.17	1.27
Of which:			
Feed €/ha	798	386	127
€/kg liveweight	0.74	0.58	0.33
Fertiliser & Lime €/ha	151	127	117
€/kg liveweight	0.14	0.19	0.31
Contractor €/ha	135	117	119
€/kg liveweight	0.13	0.18	0.32
Vet/Meds/AI €/ha	80	55	36
€/kg liveweight	0.07	0.08	0.10
Total Fixed Cost			
€/ha	644	517	433
€/kg liveweight	0.60	0.77	1.14
Of which:	40	37	29
Land Rental €/ha	0.04	0.06	0.08
€/kg liveweight			
Machinery Running €/ha	106	89	69
€/kg liveweight	0.10	0.13	0.18
Hired Labour €/ha	100	63	29
€/kg liveweight	0.09	0.09	0.08
Depreciation €/ha	134	96	79
€/kg liveweight	0.13	0.14	0.21
Interest €/ha	25	17	12
€/kg liveweight	0.02	0.03	0.03

Appendix 2 – Teagasc/Farmers Journal BETTER Farm Beef Programme

The Teagasc/Farmers Journal BETTER Farm Beef Programme was launched in September 2008. The word BETTER is an acronym for Business, Environment and Technology through Training, Extension and Research. The programme is sponsored by **The Farmers Journal, Dawn Meats, Kepak, AIBP and FBD Trust.**

The aim of the programme is to develop a roadmap for profitable beef production through focussing on improving technical efficiency at farm level. In order to increase profitability the programme has focused on:

- Increasing farm output
- Controlling production costs

The Farm Plan

A farm plan was agreed for each farm. The first page of the farm plan summarises the starting position of each farm in terms of key physical and financial indicators. It also sets out the targets to be achieved by the end of the 2011.
The subsequent pages of the plan identifies a number of keys areas to be targeted such as:

- Financial performance
- Physical performance
- Grassland management
- Breeding performance
- Winter feeding
- Animal health

The plans are reviewed annually, and, if necessary, amendments made to reflect changes in the market or if it was found that something was not working.

Increasing Output

The programme has targeted an increase in output on the farms both in terms of kilograms of liveweight produced and increased output value. This increase in output has been targeted through:

- Increasing stocking rate
- Improving breeding performance
- Improving individual animal performance
- More astute marketing

Progress to Date

Two Thirds of Improvement in Gross Margin comes from Production

From the outset the main objective of the Teagasc/Farmers Journal BETTER Farm Programme was to try to achieve a gross margin of €1000/ha on the selected suckler farms over the three year period of the programme. A tall order when you consider that the average gross margin of the group was €386/ha in 2008.

Output an Issue

As with many Irish beef farms the level of output or the lack of it is an issue. When you are starting out from a position where you r output in terms of €/ha is low then even with very modest variable costs your gross margin is going to be poor and this will follow through to you bottom line or net profit.

The programme targeted output as an area that had to be addressed if financial performance was to improve. The simple reality is that if the kilos of liveweight aren't going out the gate then the euros won't come back in.

If we look at the 2008 Profit Monitor Results (n=252) in **Table 1** and some of the key physical and financial indicators it gives some idea as to why output is low. The average suckler farm was stocked at 1.71LU/Ha. They were producing 505kg liveweight/Ha or 296kg/LU. This translated into a gross output value of €926/Ha. With variable costs of €531/Ha the average gross margin as already mentioned was €395/Ha.

Table. 1	2008 ePM Results	2008 BETTER Farms
Stocking Rate LU/Ha	1.71	1.85
Kg Liveweight/Ha	505	536
Kg Liveweight/LU	296	292
Gross Output Value €/Ha	926	1016
Variable Costs/Ha	531	630
Gross Margin/Ha	**395**	**386**

The trend was similar on the BETTER farms except with a marginally higher stocking rate they generated an a gross output of €1016/Ha.The extra output value however was eroded due to higher variable costs leaving their gross margin of €386/Ha.

Our focus was to try and produce more kilograms of liveweight as efficiently as possible.
This increase in output has been targeted through;

- Increasing Stocking Rate
- Improving Breeding Performance (more calves on the ground)
- Improving Individual Animal Performance (weight for age)
- Regular budgeting to optimise sale price

Stocking Rate

At the start of the programme the average stocking rate on the BETTER farms was 1.85LU/Ha and the target was to drive the stocking rate to between 2-2.2LU/Ha by 2011. The stocking rate has increased to 1.93 and 2.02LU/Ha in 2009 and 2010 respectively and has levelled off at 2.03Lu/ha in 2011. Within the group we have a range from 1.73LU/ha to 2.44Lu/ha.
The increase in stocking was brought about in a number of ways from, increasing stock/cow numbers, dropping of leased land, to putting more ground into tillage.

Breeding Performance

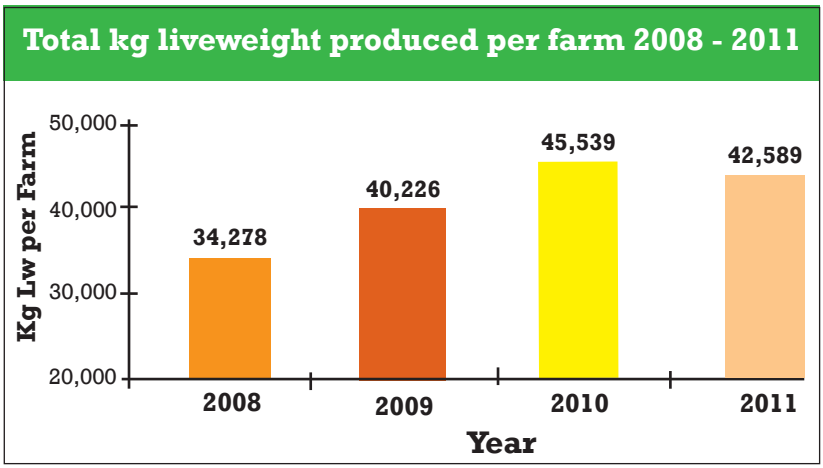
Our aspiration here is that our sucklers cows produce a live calf every year, of good quality that achieves a good weight for age. The reality on the ground however is different. ICBF whom we have worked closely with on the programme tell us that the average calving interval in suckler herds in 2011 was 405 days and that we produce on average 0.85 calves /cow/year.

The programme has targeted culling of poor performing cows. Using the ICBF Herdplus individual cow breeding performance is recorded and combined with strategic weighing of their progeny poor performers are quickly identified. Calving spread was on many farms very protracted. This leads to increased labour, more stock groupings, potentially more disease problems and more importantly lack of focus. The programme has been working towards confining the calving spread to an eventual 12 week period for both spring and autumn herds
The biggest single impact that we see across the herds is tightening up of the calving spread, virtually all the herds are now operating a 12-14 week calving spread in autumn or spring and they will continue to work at tightening this further.

Animal Performance

With improved cow type and sire selection calf quality on the farms has undoubtedly improved. Calves are now able to achieve better weight for age and this means we have more liveweight to sell off the farms which is essential in improving gross margin. Figure 1 below shows how the level of liveweight produced on the farms has increased over the three years. Farms that were producing 34,278kgLW in 2008 had increased to producing 42,589kg in 2011. This represents an increase of 24.2%.

FIGURE 1



As well as this all the key physical output indicators such as kilograms of liveweight (LW) per hectare and per livestock unit (LU) have all moved in the right direction signalling improved efficiencies.

FIGURE 3

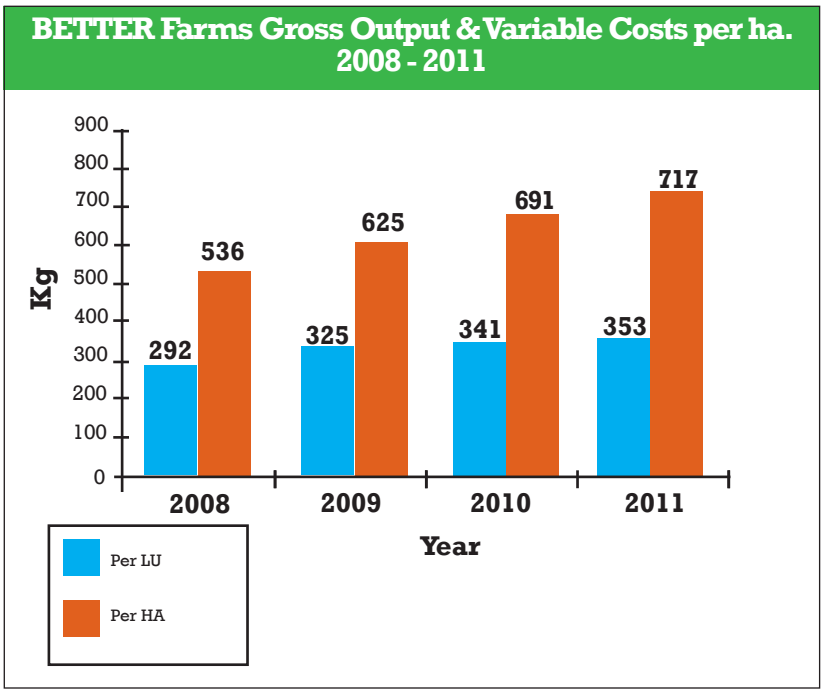


Figure 2 above shows how kilograms of liveweight per hectare, has increase from 536kg in 2008 to 717kg in 2011 and increase of 33.8%. While kilograms produced per livestock unit has increased by 61kg or 21%.
It is vitally important for anyone contemplating increasing stocking rate that these two indicators are at a sufficiently high level first before you embark on carrying extra stock.

Grassland Management

It is all very fine to try and produce extra liveweight provided it is done efficiently. Within the programme we have tried to get the farmers to exploit the potential of grass both in terms of driving animal performance and in controlling costs.

Animal Health

An area that can be overlooked is animal health. All your good work in other areas can quickly unravel if problems arise in this area.
The programme tackled the issue of BVD eradication on the farms head on. The involvement of the local vet, regional labs and Animal health Ireland protocols were all key in getting to the bottom of many health issue.

49% Increase in Gross Output

All the areas we have already mentioned were geared at lifting the amount of liveweight produced on the farms. Combine this with optimum marketing of stock and you can see how the farms have achieved a higher gross output.
Figure 4 shows how gross output per hectare has risen from €1016 in 2008 to €1512 last year an increase of 49%. This increase obviously reflects the higher output from the farms but it will also include the increase in stock values in 2011.

FIGURE 3

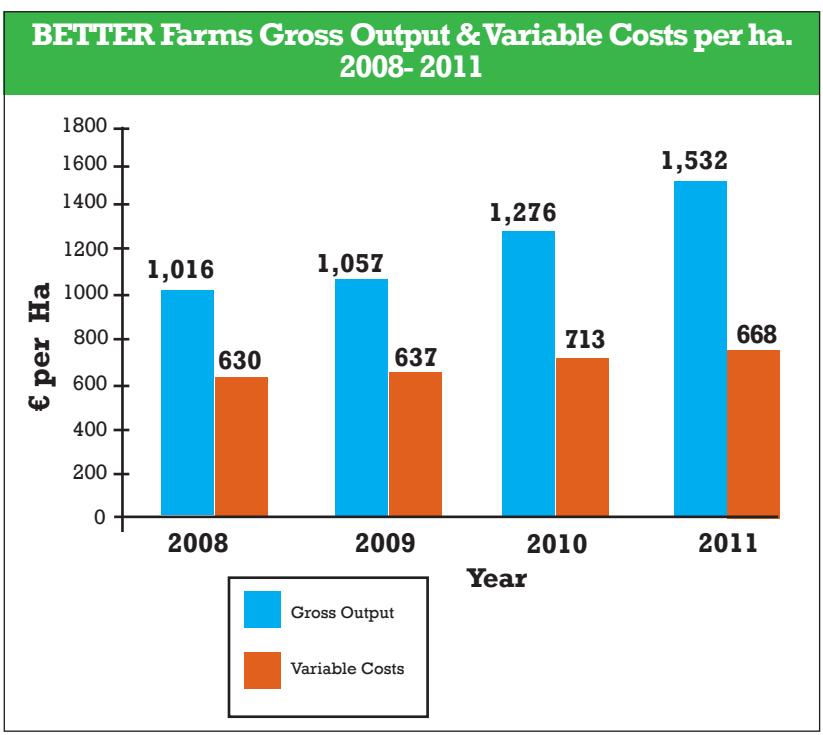


Figure 3 also shows the trend in variable costs associated with achieving this extra output. The have increased, but only marginally by 6%. The other point about this was that at the start of the programme variable costs accounted for 62% of output. This has now decreased to 43.9% of output.
We could have curtailed variable costs further but it would have only been a short term gain. Expenditure of extra P&K fertiliser and reseeding will ultimately benefit the business in the longer term.

Gross Margin Increases by 118%

With a dramatic increase in Gross Output and controlled variable costs it is not surprising to see a rise in gross margin from €386/ha in 2008 to €843/ha in 2011. This is an increase of €457/ha.or 118%. On a whole farm basis across the group these farms are better off at gross margin stage to the tune of just over €27,000.

In order to correct the gross margin rise for the factors such as the rise in beef price over the period and the change in input costs between 2008 and 2011 we looked at a matched sample of 11 of the farms in Table 2.
Profit derived from Productivity on these farms shows that of the €512 lift in gross margin achieved from 2008 to 2011 - €338 or 66% was coming from productivity gains. In other words two thirds of the gain in gross margin on the farms came from production gains and not as a result of increase in beef price.

Table 2 Gross Margin gains from Productivity

2001 Beef BETTER Farms Productivity

	2008	2011	2011
	Base Year	Actual	No Gains
Production (kgLW/ ha)	532	729	532
Revenue (€/ kgLW)	€1.91	€2.20	€2.20
Variable Cost (€/ kgLW)	€1.22	€0.94	€1.18
Gross Margin (€/ kgLW)	€0.69	€1.26	€1.02
Gross Margin (€/ ha)	€367	€879	€541
GM From Productivity (€/ ha)			€338
GM Difference (Actual 2011 V Base Year 2008)			€512
GM From Productivity %			65.9%

The Teagasc/Farmers Journal BETTER Beef Programme has clearly shown that with a targeted and focussed approach farmers can make significant gains in improving their output and their gross margin.

Appendix 3 – Teagasc BETTER Farm Sheep Programme

BETTER Sheep Farm Programme

The BETTER Sheep Farms programme is an integral part of the overall Teagasc response to the Malone Report on the sheep sector. It is a joint initiative between Teagasc Research and Knowledge Transfer and is led by Michael Diskin (Sheep enterprise leader), Ciaran Lynch (technologist), sheep specialists, Michael Gottstein, Frank Hynes and local business and technology advisers. The word BETTER is an acronym for Business, Environment and Technology through Training, Extension and Research.

Objective of the programme:

To establish focal points for the on-farm implementation, development and evaluation of technology that is relevant to the sheep sector with a view towards improving technical efficiency and profitability at farm level. BETTER farms will act as a conjugate to aid in the dissemination of best practice to commercial sheep farms through visiting discussion groups, farm walk and media publications.

Participants

There are currently nine participating farms strategically located throughout the Country. Of these two are exclusively hill flocks (Mayo & Sligo), one (Donegal) has both a hill and lowland flock. Six of the farms have mid season lambing flocks (Roscommon, Offaly, Donegal, Kerry, Kilkenny, Wicklow) and the remaining flock is producing early lamb in Wexford.

Farm Plan

Each farm has had a specific plan drawn up for it. The plan is drawn up by the Farmer with the help of his adviser, the regional sheep specialist and the programme technologist. The farm plan is tailored to meet the needs of the farmer and to achieve realistic and achievable targets in the life time of the programme.
Key indicators in the farm plan

- Financial Performance
- Stocking Rate
- Reproductive Performance
- Breeding Programme
- Grassland Management
- Labour Efficiency
- Animal Health

All plans are reviewed from time to time and amended if necessary.

Financial Performance

All farms, record their data under the National Farm Survey guidelines and also have a profit Monitor drawn up annually. This allows for detail cost/profit analysis in addition to allowing the farms to be benchmarked against the industry. Profit Monitor results for the lowland flocks show substantial improvement in financial performance

- Gross Output has increased by 148% per hectare ewe
- Variable Cost have reduced by 5% per hectare
- Gross Margin has increased by 252% per hectare

Financial and physical performance from the four lowland farms participating in the programme from the outset is presented in tables 1, 2 & 3.

Table 1: Financial performance of BETTER Sheep farm lowland flocks (€/ewe)

Financial performance (€ per ewe)			
Year	**Gross output**	**Total variable costs**	**Gross margin**
2009	42.71	22.88	19.83
2010	45.02	20.91	24.11
2011	72.31	15.24	57.04

Table 2: Financial performance of BETTER Sheep farm lowland flocks (€/ha)

Financial performance (€ per hectare) Lowland Flocks			
Year	**Gross output**	**Total variable costs**	**Gross margin**
2009	857	567	290
2010	1051	520	531
2011	1271	540	731

Increasing Output

Increasing output in terms of lambs available for sale/retention is key to increasing farm profitability. Increases in output are achieved by;

- maximising stocking rate
- increasing litter size
- increasing the percentage of ewes that lambed per ewe joined to ram
- reducing mortality

Stocking Rate

Target stocking rate depends on land quality and farm structure. For lowland farms the target stocking rate falls between 10 and 12.5 ewe equivalents per hectare.

Reproductive performance

Table 3 shows improvements made on the Lowland BETTER farms over the last four seasons. Key points are;

- Litter size
- Ewes lambed / ewes joined to ram %
- Lamb mortality %
- Lambs reared per ewe joined to ram

Table 3:

Reproductive performance Lowland Flocks (n =4)

Year	08/09	09/10	10/11	11/12	Target	% increase
Litter size (lambs/ewe)	1.71	1.77	1.85	1.93	>1.9	13%
Ewes lambed / ewe joined (%)	90.2	93.8	95.5	94.6	>94%	5%
Lamb Mortality (%)	7.8	8	7.3	7	<10%	-10%
Lambs reared / ewe joined	1.43	1.53	1.61	1.70	>1.6	18%

Improvements in reproductive performance have been brought about by focus on a number of key areas;

- Breeding policy - the use of prolific breeds to sire flock replacements (e.g. Belclare)
- Body condition / liveweight of ewes at joining
- Ram turnout date
- Length of breeding season
- Late pregnancy nutrition

Other areas that are being examined is the effect or using high index (5 star production index - Sheep Ireland Euro Star index) compared to low index (1 star production index – Sheep Ireland Euro Star index) terminal sire rams to evaluate what differences if any their progeny will exhibit in terms of growth rate.

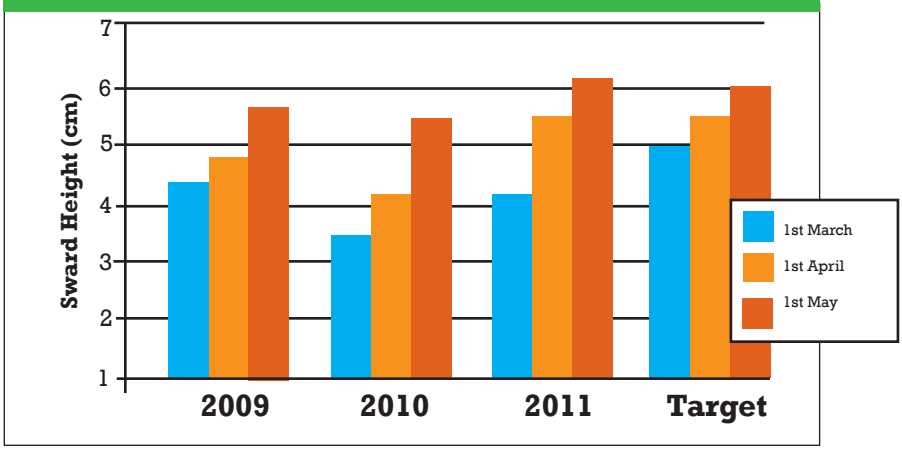
Grassland Management

All farms measure grass weekly in early spring – summer and every two weeks after 1st July. Grass heights are measured using a rising plate metre and the information is processed through the Teagasc Excel Grass Budget Calculator. One of the main grassland management issues identified at the beginning of the programme was that virtually all participants had inadequate sward heights at turnout.

Figure 4 shows the improvement in average sward height at turnout(1st March), 1st May and 1st June compared to target heights.

FIGURE 4

Sward Height Lowland Farms (n=4)



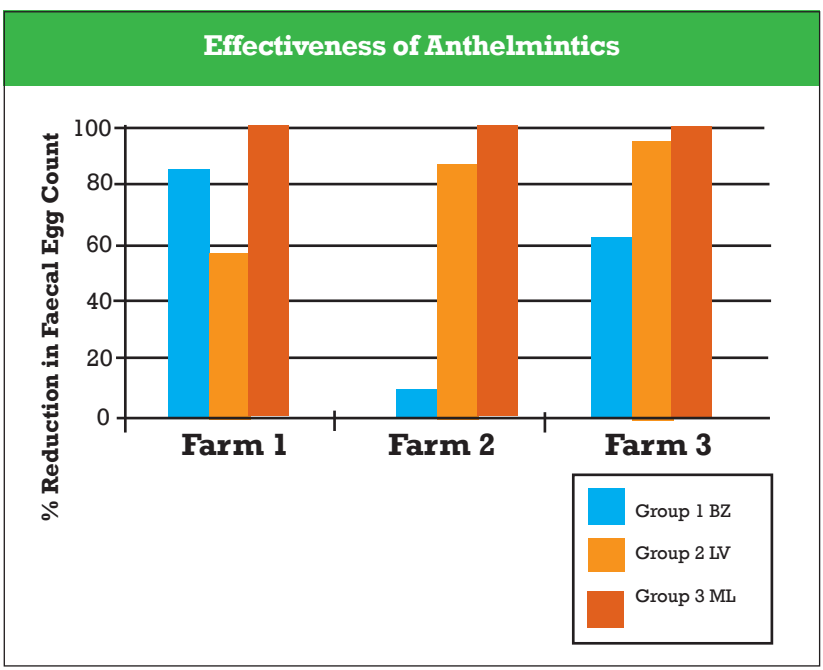
The purpose of measuring grass heights and growth rates is to enable management decisions to be taken based on this information. Maximising animal performance from grazed grass is an important aspect of reducing the reliance on expensive concentrate feed to ewes immediately post lambing and to lambs during the growing and finishing phases. Since the beginning of the programme concentrate usage (measured in kg/ewe) has been reduced on all farms.
All farms have had soil samples analysed to ascertain phosphate, potassium and lime levels. An appropriate fertiliser programme has been put in place to rectify deficiencies over the next 3 - years.

Animal Health

Veterinary costs are the second largest variable cost on sheep farms. Apart from the costs associated with treating animals for various disease and parasites there is also a cost associated with lost or suboptimal performance when animals are being challenged by diseases.

All farms participating in the programme use faecal egg counts to determine when intervention is necessary against internal parasites. Faecal egg count reduction tests have also been carried out on a number of farms to determine the level of resistance to various anthelmintic groups. The results are shown in figure 5.

FIGURE 5



Lameness & foot problems have also been surveyed on a number of the ewe flocks participating in the programme. A control programme to reduce the level of lameness below the target of 5% has been implemented on these farms.

Labour

Participating farms are required to record significant amounts of information throughout the year. In order to be able to carry out this task efficiently all sheep (including the mature ewes) where tagged with EID tags at the outset of the programme and all lambs are tagged with an EID tag set at birth. The farmers use EID handheld readers to record all the information relating to animal weights, births deaths and sales. Handling facilities have been upgrade where necessary.

Summary:

- The farmers involved volunteered to participate in the programme. They were selected because they are enthusiastic about progressive development of their sheep enterprise. They are open to change to achieve better financial returns and labour efficiency.
- In the first season the farmers engaged with Teagasc in a comprehensive review of their current system identifying opportunities for improvement. The results of the review are incorporated in a farm plan with key changes highlighted.
- Participating farmers have are now clearly demonstrating the benefits of implementing best practice on their farms
- The real benefit of the BETTER sheep programme can however only be realised if the wider body of commercial sheep farmers visit these farms, observe how progress was achieved and implement lessons learned by implementing the relevant technologies on their own farms.
- The starting point is to make contact with you local Teagasc Adviser with a view to doing a profit monitor and joining a discussion group.

Conclusions

Where drystock farmers have to farm with a fully decoupled premia system, it is essential to look to efficiency improvements and product price increases for extra profit in future. Future reform of the CAP is likely to put increased downward pressure on premia receipts. In particular, individuals with high levels of Single Farm Payment per hectare (compared with national average of approximately €270 per hectare) may be most at risk. There is a more urgent need than ever for drystock farmers to focus on improving efficiency through the implementation of improved technology and improving the value of output with better quality. In order to control our costs we need to know what they are.

The Teagasc eProfit Monitor is an invaluable tool, initially in benchmarking the current situation and then in highlighting the areas for improvement in the future. Having a simple plan with clear targets to aim for will ensure that you will be in the best possible position to face future challenges. Putting the plan into action is the best means of safeguarding future profitability levels.

The 2011 Profit Monitor results clearly demonstrate that there is huge potential for increased profitability for both cattle and sheep even on our best managed farms nationally.

If you want to safeguard your future in drystock farming and focus on improving profitability you need to start by preparing a Profit Monitor.

Acknowledgements

Teagasc sincerely thanks all those involved in the collection and inputting of all the data used in compiling this report on the Drystock Profit Monitor farms for 2011.

A special word of thanks to all the drystock farmers for their help and co-operation in making available both the financial and physical information needed. Thanks also to the advisors and technicians who collected much of the data and to Kevin Connolly, Financial Management Specialist, for his overall co-ordination of the ePM system and providing calculations to determine gains from productivity. Thanks to Pearse Kelly for production of all graphics, Karen Dukelow for editing cattle section, Frank Hynes for editing the sheep section, Aidan Murray for contribution on Teagasc/Irish Farmers Journal BETTER Farm Beef Programme and Michael Gottstein for contribution on Teagasc BETTER Sheep Programme.

September 2012