

**Teagasc Organic Farm Walk  
on the farm of Frank O'Brien,  
Ballybroder, Kilbeggan, Co. Westmeath.  
Wednesday 27th June 2018**



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine



---


## Introduction

Frank O'Brien farms at Ballybroder, Kilbeggan, Co. Westmeath with his wife Aisling and his mother Ann. Frank & Aisling have three children Rose (11) Hugh (10) & Adam (7). Frank has been an organic farmer for nearly twenty years and in that time has continued to produce high quality organic lamb and beef.

The total area farmed is 54ha. This is made up of 49ha of owned land which is divided in two, a 37 ha farm at Ballybroder and a 12ha farm 2km away. Frank leases a further 5ha on a long term basis, approximately 4km away. Frank's farm consists of free draining soils with very challenging terrain. The farm is predominantly calcareous type soil with a natural soil pH of over 7.

Frank maintains a mid-season lambing flock of 160 mature ewes with a further 40 ewe lambs (lambing as yearlings). The Texel, Belclare, Suffolk cross ewes are bred to a Texel ram and ewe lambs are bred to a Charollais ram. All lambs are sold through the Offaly Quality Lamb Producer Group. The sheep enterprise contributes most to the output generated on this farm.

In addition, Frank maintains a Suckler to Beef enterprise of ten cows. The cows are bred to AI bulls with many of the cows double suckled which adds to beef output on the farm. Cattle are slaughtered from 24 to under 30 months. The average carcass weights are 340kg, with range from 280kg to 410kg. Cattle and sheep are mixed grazed on this farm.





***Frank farms 54ha including 37ha on the home farm and 2 out farms (12ha and 5ha) less then 4km away.***



# Animal Housing

## Organic Animal Housing Standards

- Adjustments to meet organic standards may be necessary – depends on farm situation.
- Housing is not compulsory.
- At least 50% of floor area must be bedded.
- Straw, rushes or untreated wood shavings are acceptable bedding materials and these need not be organic.
- All animal housing is subject to inspection and approval by the Organic Certification Body (OCB).
- See Table below for organic space requirements.

**Table:** Minimum Housing Area per head and by weight

Animal	Minimum Indoor Areas (net area available to each animal)	
	Live-weight Minimum (kg)	m <sup>2</sup> /head
<b>Calves; Beef Cattle; Bull Beef;</b>	Up to 100kg	1.5
	Up to 200kg	2.5
	Up to 350kg	4.0
	Up to 500kg	5.0
<b>Suckler Cows</b>		6.0
<b>Dairy Cows</b>	Up to 600kg	6.0 min.
	Over 600kg	1m <sup>2</sup> /100kg
<b>Breeding Bulls</b>		10m <sup>2</sup>
<b>Sheep</b>		1.5m <sup>2</sup> per ewe
		0.35m <sup>2</sup> per lamb



***Frank uses straw (sourced from conventional farms) as bedding material for his stock***

## **Soil Nutrient Management**

One of the biggest challenges in an organic farming system is to maintain soil fertility and adequate crop/grass growth. Organic farmers do not have the option of purchasing artificial fertiliser to replace nutrients removed by grazing livestock or crop off-takes. Therefore, nutrient management and nutrient planning is an essential skill of any organic farmer.

## Nutrient management planning steps:

1. Take soil samples & identify fields requiring attention.
2. Correct soil pH to 6.3 or greater.
3. Correctly calculate the N, P, K removed (grazing/silage).
4. Know the N, P, K profile of the manures produced on the farm or imported from elsewhere (source of imported manure is subject to Organic Regulation rules).
5. Prioritise fields with low P & K index values for attention.
6. Balance nutrient deficit with permitted imported material e.g. dairy sludge or sulphate of potash.

The soils on Frank's farm are naturally high in pH, ranging from pH 6.3 to 7.7, removing the need to apply additional lime. The P and K status of the farm is outlined in the table below.

**Table:** Percentage of soils on Frank's farm in various indices for both phosphorus (P) and potassium (K).

Index	% of soils – Phosphorus	% of soils – Potassium
1	14	0
2	14	44
3	28	28
4	44	28

Almost half the soils on this farm are Index 4 for P. This limits the opportunity to import large quantities of organic manure such as cattle slurry or farmyard manure for example. On the plus side however, having such fertile soil is of benefit to the farm.



***Straw from the animal housing bedding material provides an important source of manure on the farm***

## **Grazing Infrastructure**

Grazed grass is our cheapest feed and we need to grow and utilise more grass in our livestock production systems. This is especially the case in organic production where organic concentrate prices are approximately double the price of conventional. The amount of grass which is grown can vary considerably between farms. Factors which cause this variation can include farm geographical location, land quality, soil fertility, soil drainage, stocking rate and the grassland management skills of the farmer.

The objective of effective grassland management for beef and sheep farms is to supply high quality digestible grass throughout the grazing season. Animal performance and liveweight gain can be excellent

where effective grazing management takes place, leading to lamb performance similar to that outlined in the tables below.

**Table:** Target Lamb Performance for Mid-Season Lambing Flock (Pre-Weaning)

<b>Lamb Performance at Grass (Pre-Weaning)</b>			
	<b>Single</b>	<b>Twin</b>	<b>Triplet</b>
<b>Birth weight (kg)</b>	6	5	4
<b>Growth rate (g/day)</b>	340	295	250
<b>Weaning weight (kg)</b>	39	34	29

**Table:** Target Lamb Performance for Mid-Season Lambing Flock (Post Weaning)

<b>Lamb performance Post Weaning Targets</b>	
	<b>Grams per day</b>
<b>Excellent</b>	225
<b>Good</b>	175
<b>Average</b>	125
<b>Poor</b>	75

A high proportion of sheep farms still operate a set-stocked grazing system, where ewes and lambs continue to graze the same field all through the summer period. They have little or no opportunity to access fresh new pasture and are forced to eat less digestible stemmy material as the season progresses. Lamb thrive can suffer significantly in these grazing systems.

Investing in grazing infrastructure, such as more divisions and additional water supply are key to implementing a more effective grazing rotation on any farm.



Traditionally, Frank operated a set stocked system in his main sheep grazing pasture. He was keen to improve and felt that installing additional divisions would deliver improved use of grassland. In Spring 2018 Frank planned and installed 285 meters of sheep fencing to partially divide a 50 acre grazing block. Seeing the impact of this, he now plans to continue investing in sheep fencing as outlined in the table below.

<b>Investment</b>	<b>Meters</b>	<b>Cost Before Grant</b>	<b>Net Cost to Frank</b>
<b>New in 2018</b>	285m	€2,310	€1,462
<b>Proposed Phase 1: 2019</b>	333m	€2,592	€1,647
<b>Proposed Phase 2: 2020</b>	304m	€2,424	€1,535
<b>Total</b>	<b>922m</b>		<b>€4,644</b>

## Grazing Management Plan



**New Sheepwire Fence:**



**Proposed Fencing – Phase 1:**



**– Phase 2:**



By strategically planning the location of permanent fences, the 50 acre grazing block, previously grazed in two divisions will now be split in five permanent divides, with the opportunity to easily subdivide each one into 2 parts. Consequently, by 2020, Frank's 50 acre set-stocked pasture will operate as ten x 5 acre grazing paddocks using an additional temporary dividing fence.

### **Permanent Fence**



**Posts & hi-tensile sheep/barbed wire.**

**Cost €6.00 per m**

### **Temporary Dividing Fence**



**Electric sheep netting,  
50m length roll.**

**Cost €1.90 per m**

Frank's new rotational grazing system will allow him greater flexibility in grassland management and more control over sward quality. He is in a much better position than ever before to reach the targets set out in Table 1 and Table 2.

The benefits for Frank's farm:

- Higher liveweight gains in lambs
- Lambs reach slaughter weight earlier
- Less store lambs in Autumn/overwinter
- More lamb sales in high price periods
- Easier to manage ewe condition

All these benefits far out-weigh the initial investment cost of €4,644 which works out at a mere €10/acre over a ten year period. Money spent on grazing infrastructure is one of the most worthwhile investments on any farm.



*In Spring 2018, Frank installed 285 meters of sheep fencing to partially divide a 50 acre grazing block.*

## Livestock health

### Myths:

- Animal Health is compromised in organic farming.
- Organic animals can receive no veterinary treatments.

### Facts:

- Animal welfare is one of the most important objectives of the organic farmer.
- The professional recommendation of the veterinary surgeon is final.

---

## **Principles of animal health on organic farms:**

- Appropriate breeds or strains of animals.
- Animal husbandry practices appropriate to the requirements of each species.
- Good feed, regular exercise and access to grassland.
- Appropriate density of livestock.


## **Herd Health Plan**

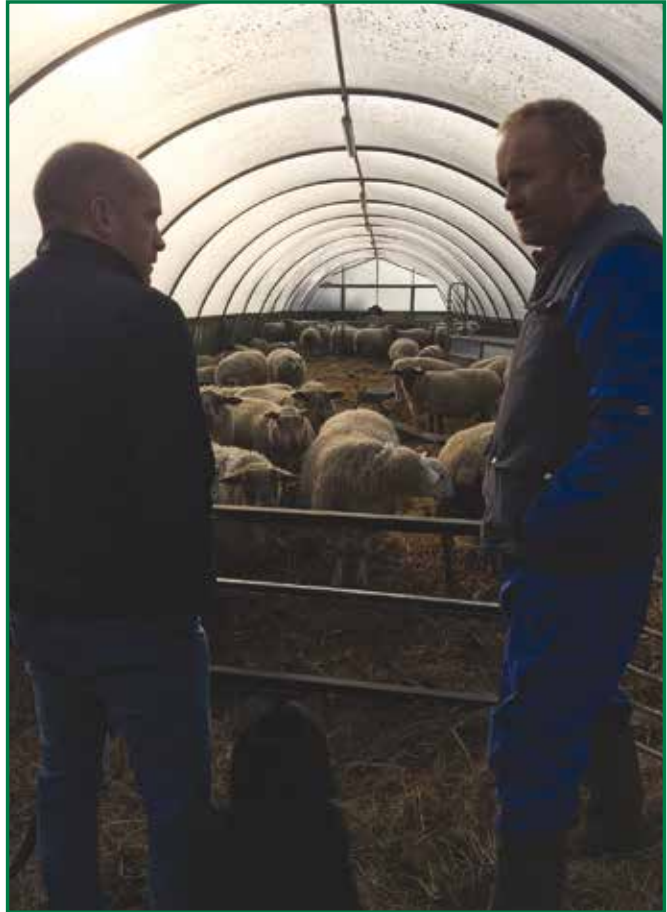
- When a farm undergoes conversion to organic status an Animal Health Plan is required to be drawn up by the veterinary practitioner, who specifies the current animal health issues on the farm and how the farmer will tackle these problems into the future, while conforming to the requirements of organic certification standards.
- Detection of problems needs to be early, and timely veterinary advice is invaluable – when an animal is ill the organic farmer reacts in the same manner as their conventional neighbour and veterinary assistance is required immediately.

## **Conventional Veterinary Treatments Permitted**

- Animals for meat consumption: 1 course antibiotics within 12 months.
- Animals for breeding: 2 courses antibiotics within 12 months.
- Dairy Mastitis: 2 courses antibiotics within 12 months, otherwise the cow is removed from the milking herd.
- If limits exceeded, organic status is taken away from animal.

## **Withdrawal Periods for use of Veterinary Products**

- Min 7 days adhered to if no period specified.
  - Under 18 days triple the withdrawal time.
  - Between 18-28 days adhere to a 56 day withdrawal period.
  - 29 + days, twice the withdrawal time.
  - If treated with organophosphates, lose organic status permanently.
- 



***Texel and Belcalre breeds predominate on the farm. Both breeds have a relatively good degree of resistance to worm build-up and are thus well suited to organic sheep production.***

## **Profitable organic production**

In order for any farm enterprise to be profitable, the returns from the enterprise must be greater than the costs of production. Organic sheep and beef farming systems are no different to any other farm enterprise. The profitability of Frank's enterprise and a comparison of his performance with other farmers is included in the table below.

**Table:** E-profit monitor (Epm) results for Frank's farm (2016) v similar farms nationally (2016)

	<b>Frank O'Brien e-PM results 2016 SHEEP and SUCKLER TO BEEF Enterprise</b>	Average Teagasc e-PM results SHEEP Farms 2016 (national)	Average of Teagasc SUCKLER TO BEEF farms 2016 (national)
Stocking rate	1.39 L.U./ha	1.71 L.U./ha	1.90 L.U./ha
Gross Output	€1,189/ha	€1,016/ha	€1,441/ha
Variable Costs <i>including</i>	€307/ha	€491/ha	€714/ha
• <i>Feed</i>	• €134/ha (including €101/ha on concentrate feed)	• €157/ha	• €251/ha
• <i>Fertiliser</i>	• €0/ha	• €109/ha	• €155/ha
• <i>Contractor</i>	• €90/ha	• €78/ha	• €124/ha
• <i>Vet</i>	• €66/ha	• €78/ha	• €93/ha
• <i>Other</i>	• €17/ha	• €70/ha	• €91/ha
<b>Gross margin</b>	<b>€882/ha</b>	<b>€525/ha</b>	<b>€727/ha</b>
	Source: Teagasc e-profit Monitor Analysis Drystock farms 2016		

Note: Direct payments including the Organic Farming Scheme (OFS) are excluded from gross output calculation.

## Key observations on Frank's financial performance

### High degree of stockmanship leads to higher output:

Frank has a gross output figure of €1,189 per ha for 2016. This compares favourably to the average gross output of conventional drystock farmers nationally who on average are stocked at a higher rate than Frank. Frank is a very good stockman. This is reflected in his gross output and the physical figures generated from his e-PM report.

For example, weaning rates for his lambs of over 1.6 lambs reared per ewe to ram. Mortality rate at lambing is low at 8%. Attention to detail and excellent husbandry techniques around lambing time are responsible for low levels of mortality and subsequent high weaning rates. Having ewes in correct body condition at mating and adequate nutrition pre lambing is of fundamental importance to Frank.

### **Organic Market Premium Price Achieved:**

Lambs are mainly supplied to Irish Country Meats at a premium organic market price with some also supplied to a local butcher. Finished cattle are supplied to organically licenced meat processors. Organic beef & lamb prices are generally about 15-20% ahead of conventional price, therefore adding to output value.


### **Lower costs of production:**

The **lack of artificial fertiliser** helps to significantly lower variable costs, although in the medium term, costs from bought-in organic manures and perhaps other commercial organic fertiliser options will likely have to be factored into the system to keep the farm sustainable.

The **low spend on concentrates** on Frank's farm is 8-9% of the gross output and is relatively low compared to conventional systems. The total annual tonnage of concentrates purchased (approximately double the price of conventional) by Frank is 10 tonnes year (organic combi crop – pea and cereal mix & manufactured organic concentrate). Concentrates are mainly fed to ewes pre-lambing and to finishing beef animals. The higher costs of organic concentrates provides an extra incentive for organic farmers to gain more production from grass and home produced legumes/cereal crops.

**Veterinary spend is lower** at €56/ha compared to the national average of €93/ha which also help

**Contractor spend** is about the same compared to conventional farmers.





***Lambs are sold into  
Irish Country Meats  
(organic premium price achieved)  
and also to a local butcher.***



***17-18 cattle are slaughtered  
per year and supplied into  
the organic market through  
organically licenced factories.***

## **Steps to Successful Organic Conversion**

1. Get acquainted with the adjustments required by attending farm walks, talking to other organic farmers and or contacting a local advisor.
2. Research market opportunities. Contact relevant processors to explore market requirements, specifications and when the product is in demand. Many organic farmers choose to sell directly which requires extra work to develop your own market.
3. Choose an Organic Certification Body (OCB) and get an information pack.
4. Prepare a conversion plan and submit to OCB.
5. All entrants to the Organic Farming Scheme (OFS) must enter for an initial five year plus term. Please consult DAFM website: [www.agriculture.gov.ie](http://www.agriculture.gov.ie) for updates on a new Organic Farming Scheme.
6. A 25 hour 'Introduction to Organic Production' course has to be completed by all new applicants before acceptance into the Organic Farming Scheme.



# Organic Certification in Ireland



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine

A major factor that distinguishes organic farming from other approaches to sustainable farming is the existence of internationally acknowledged standards and certification procedures. The standards for organic production within the European Union are defined and enshrined in law by Council Regulation EC 834/2007 as amended. In Ireland the Department of Agriculture, Food and the Marine is the competent authority (the Department's Organic Unit is based at Johnstown Castle Estate Wexford) for regulating the organic sector and ensuring that the obligations and requirements of Council Regulation (EC) No. 834/2007 as amended are adhered to.

The Organic Unit of the Department of Agriculture, Food and the Marine have designated Official Certification Bodies whose role is to certify organic producers, farmers and processors through an inspection process of each individual's unit or farm. Further information can be sourced from these organic certification bodies:

## **IOA (Irish Organic Association)**

13 Inish Carraig, Golden Island,  
Athlone.

Tel: (090) 64 33680

[www.iofga.org](http://www.iofga.org)

## **Organic Trust**

2 Vernon Avenue, Clontarf, Dublin 3.

Tel: (01) 853 0271

[www.organictrust.ie](http://www.organictrust.ie)

## **Global Trust Certificate Ltd.**

3rd floor, Block 3, Quayside Business  
Park, Mill Street, Dundalk, Co Louth.

Tel: (042) 93 20912 Fax: (042) 93 8686

*Email: [info@gtcert.com](mailto:info@gtcert.com)*

## **BDA Certification- Organic and Demeter**

The Painswick Inn Project, Gloucester,  
Gloucestershire, GL5 1QS,  
United Kingdom

(0044) 145 376 6296

Fax: (0044) 145 375 950.

# Targeted Agricultural Modernisation Scheme Organic Capital Investment Scheme (OCIS)



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine

## On-Farm Scheme

A standard rate of aid of 40% on investments up to a ceiling of €80,000 (i.e. can generate a grant of €32,000 from an investment of €80,000). For qualifying young organic farmers who meet the specific eligibility criteria, the standard rate of aid is 60% on investments up to a ceiling of €80,000.

## How to Apply and Closing Date:

Online applications only through [www.agfood.ie](http://www.agfood.ie) facility.

## Organic Processing Scheme

Grant aid of up to 40% on €1.25 million (i.e. can generate a grant of €500,000 for an investment of €1.25 million) in facilities for the processing, preparation, grading, packing and storage of organic products with minimum level of investment in excess of €3,000.

## Full details and T&C:

<http://www.agriculture.gov.ie>

## Queries:

DAFM Organic Unit, Johnstown Castle: (053) 91 63400

## Teagasc contacts:



Dan Clavin, Organic Specialist,  
Teagasc, Athenry, Co. Galway.  
[dan.clavin@teagasc.ie](mailto:dan.clavin@teagasc.ie)

Elaine Leavy, Organic Specialist,  
Teagasc, Grange, Co. Meath.  
[elaine.leavy@teagasc.ie](mailto:elaine.leavy@teagasc.ie)

## Acknowledgements

Teagasc would like to acknowledge the assistance of The Department of Agriculture, Food and the Marine (DAFM) in supporting today's farm walk and organic lamb cookery demonstration. The assistance of Irish Country Meats (ICM) is also acknowledged for the provision of organic lamb for catering at today's event.



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine





An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine



## Teagasc/DAFM Organic Farm Walk

Frank O'Brien, Kilbeggan, Co. Westmeath

### Walk Stops

- | 1. | Profile of Farm                |
|----|--------------------------------|
| 2. | Animal Housing                 |
| 3. | Soil Nutrient Management       |
| 4. | Grassland and Lamb performance |
| 5. | Animal Health                  |
| 6. | Cattle Production              |

### Topic

### Information Stands

Organic Certification Bodies, Teagasc, DAFM



## Farm Profile



Area farmed

54ha

37ha

(home farm)

12ha

(outfarm  
2 km away)

5ha

(outfarm, 4km  
away, long  
term lease)

Enterprise

Organic Sheep and  
Suckler to Beef

Stocking rate

1.4 L.U./ha





## Sheep Enterprise



### Flock numbers

200  
breeding  
sheep



160 mature  
ewes



40 ewe lambs

### Breed

Texel, Belclare &  
Suffolk cross sheep

- Ewes x  
Texel ram
- Ewe lambs x  
Charollais ram



## Cattle Enterprise



### Average cattle numbers

Stock Type	Numbers
Suckler Cows	10
0-1 yr olds	18
1-2 year olds	18
>2 year old	9

### All progeny brought to finish

- age at slaughter  
24-30 months
- carcass weight  
280 – 410kg





## Organic Housing



### Why Winter Housing?

- To avoid causing damage to land during adverse weather conditions
- To give grass an opportunity to rest and produce new growth for Spring grazing
- To ease management of stock and facilitate grouping of cattle for feeding purposes

### Organic Standards

At least 50% of the floor area must be solid and bedded (non-slippery floor)

Bedding options: straw (non-organic allowed), wood shavings (un-treated), rushes

Minimum floor areas for different categories of livestock

Organic Certification Body must approve that the housing is compliant



## Frank's Cattle Housing





## Soil Nutrients



### Soil Fertility Status in this Field

Soil pH:

pH 6.8

Phosphorus (P):

Index 3

Potassium (K):

Index 2



## Soil Nutrients



### Typical nutrient removal of N, P & K on this farm (units per acre)

	N	P	K
1 <sup>st</sup> Cut Silage	80	16	80
2 <sup>nd</sup> Cut Silage	60	8	60
Grazing* (per year)	45	6	12

\* Based on the Stocking Rate of this Farm



### 1<sup>st</sup> Cut Silage Nutrient Balance

(in units per acre)

	N	P	K
1 <sup>st</sup> Cut Silage removes	80	16	80
3,000 gals Cattle Slurry per acre adds	20	18	90
<b>Balance</b>	<b>- 60</b>	<b>+2</b>	<b>+10</b>

Slurry applied using a trailing shoe in Spring



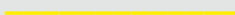
### Grazing Plan- Frank O'Brien



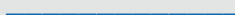
New Sheepwire Fence:



Proposed Fencing - Phase 1:



- Phase 2:







## Lamb Targets



### Lamb Targets at Grass (PRE-WEANING)

	Singles	Twins	Triplets
Birth Weight (kg)	6	5	4
Growth Rate (g/day)	340	295	250
Weaning Weight (kg)	39	34	29

### Lamb Targets at Grass (POST-WEANING)

	Grams per day
Excellent	225
Good	175
Average	125
Poor	75



## Frank's Sheep Enterprise



**2017**

### Flock Performance

Ewes to the Ram  
(incl. Ewe Lambs)  
Lambs Weaned  
in 2017

**2018**

### Lamb Performance (to date)

Ewes to the Ram  
Litter Size  
No. of lambs on  
farm today  
Daily Live-weight  
Gain (g/day)

## Myths and Facts of Organic Animal Health



### Myths



*'Animal Health is compromised in organic farming'*

*'Organic animals can receive no veterinary treatments'*

### Facts



**Animal welfare is one of the most important objectives of the organic farmer**

**The professional recommendation of the veterinary surgeon is final**

## Organic Sheep Health



### Grazing Management

- Rotations
- Stocking Rate

### Faecal Egg Count

- ### Breed Choice
- Worm resistance



### Veterinary Advice

- Dosing justification
- Vaccination
- Foot-care
- Ecto-parasites
- Minerals + Vitamins

### Withdrawal periods

- x 2 or x 3

**Always check that the product is permitted**



## Faecal Egg Counts

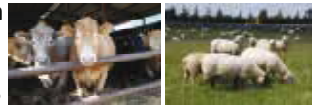


	Nematodi -rus	Coccidia	Trichostr -ongylus	Liver Fluke



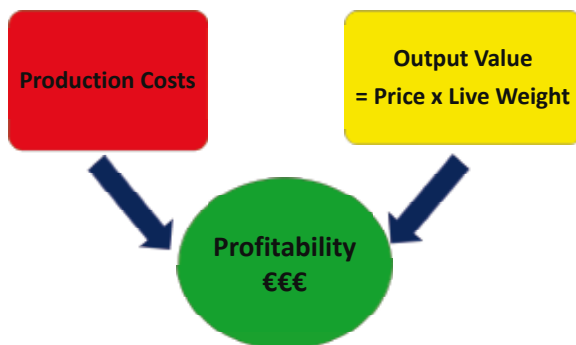
## Steps to Successful Organic Production

1. Get the Information
2. Assess the Markets
3. Maximise Payments
4. Complete an Organic Course
5. Choose an Organic Certification Body
6. Complete an Organic Conversion Plan
7. Provide Quality Forage
8. Animal Health
9. Animal Housing
10. Nutrient Recycling





## Organic Livestock Production What Drives Profit ?



## Organic Lamb now on sale



Organic lamb from F. O'Brien's farm now available

Kilbeggan

**Hugh Murray Butchers**



Moate

**Gillivan's Butchers**



Dublin (Malahide)

**Kerrigan Butchers**



Lamb slaughtered and packaged at Troy's organically certified abattoir, Tyrrellspass, Co. Westmeath







Printed by Naas Printing Limited