



**Rural Economy
& Development
Programme**



Teagasc Organic Farm Walk
on the farm of
Eugene Kirrane,
Cullane, Claremorris, Co Mayo
Tuesday 1st September 2015
www.teagasc.ie/organics





Table of Contents

Introduction.....	1
Animal Housing.....	4
Nutrients and Manure Management.....	6
The Financial Worth of Farmyard Manures	7
Red Clover	10
Cattle Production	13
Animal Health in Organic Farming	21
Market Demand for Organic Beef	23
White Clover, Pasture Management and Re-seeding.....	24
Steps to Successful Organic Conversion	26
Teagasc/DAFM National Organic Demo Farm Walk Programme 2015-2016.....	27
Organic Capital Investment Scheme.....	27
Organic Certification in Ireland	29
Additional Organic Certification Bodies	30
Information on Organic Farmin:	31



Introduction

Welcome to today's farm walk


The topics that we are be discussing at today's farm walk are:

- Overview of organic sector and Eugene's farm.
- Animal housing.
- Red clover silage.
- Organic manure management.
- Cattle husbandry and animal health.
- Financial performance and organic markets.
- Organic grass clover management.
- Organic certification requirements.
- DAFM scheme and grant aid.

Farming Background

Eugene Kirrane made the considered move into organic farming primarily to switch to a lower cost system that would cut down on labour, but still return higher margins. After completing an organic course, he converted his farm in early 2011 and after a 2 year conversion period, achieved full organic status in May 2013. He was previously finishing approximately 70 to 90 cattle per year.

Overall Eugene has put a lot of emphasis on paddock grazing and on re-seeding pastures by sowing white and red clover. He is firmly focused on producing beef while keeping costs down low and aims to be as self-sufficient as possible.



Eugene now runs a 24 suckler cow herd and buys in weanlings from other organic farmers to finish approximately 35 cattle per year. Eugene together with his son Martin also operate a farm machinery business on the home farm

The farm is a fragmented holding made up of 4 separate blocks, totalling 43.6ha forage (108ac) of which 25.54 ha is owned and 18.06ha is leased. The home block of situated land at Cullane (25ha) is used for red clover silage ley (5ha) and cow and calf grazing (20ha) with some surplus grazing cut as silage. The other 3 blocks (18.6ha) are used for red clover (new ley sown 2015 - 2.74 ha) and for grazing larger cattle. The third and furthest away block (7.35ha) is 7 miles away in Cloonfad .

Eugene's Kirrane's Farm Details

Figure 1- Eugene Kirrane - Land Status

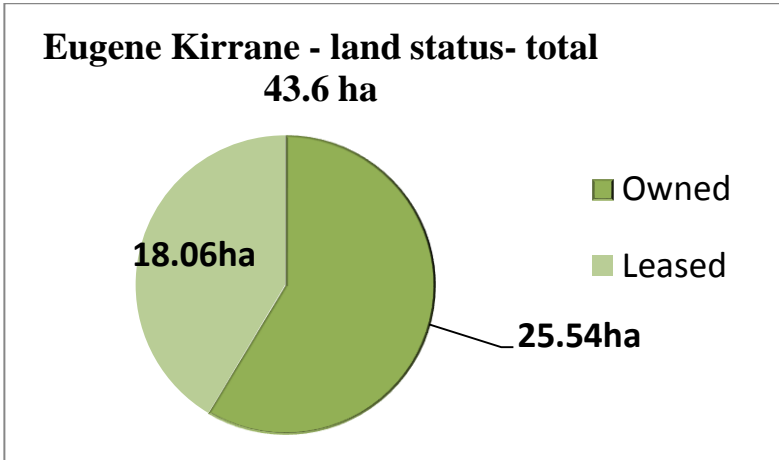


Figure2 -Eugene Kirrane - Land Use

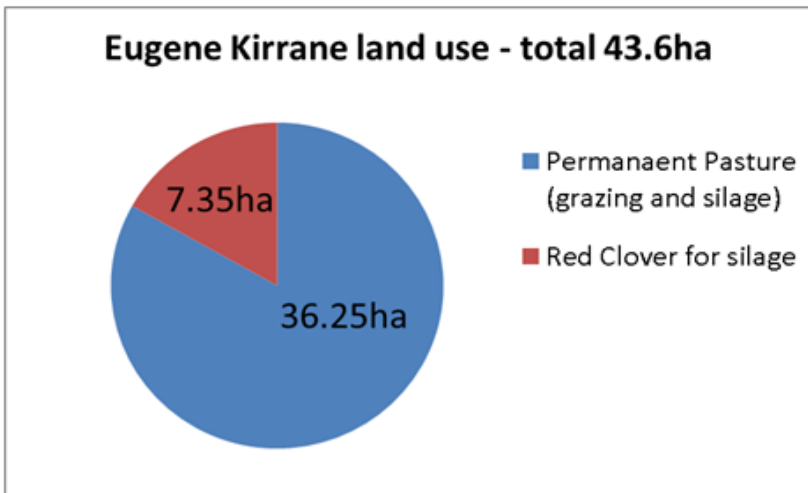




Table 1- Farm stocking rate

Animal type	Average numbers
Suckler Cows	24 spring calving
0 – 1 yr. old calves	23
1 – 2 yr. old	35
>2 yr. old bull	5 + 1 bull (Aberdeen Angus)
Stocking Rate:	60.2 L.U.; 1.4 L.U./ha approx.

Animal housing

The animal housing consists of a slatted/straw bedded lie-back for cows and straw bedded sheds connected to a slatted area for both weanlings and finishing cattle. As part of the adjustments required under organic housing standards, Eugene built a new slatted/straw bedded shed in 2012.

Straw bedding

Amount: Approximately: 160 8x 4 x 3 bales/Winter period (mainly barley straw). Approximately 1 bale per day used for all cattle over the Winter period

Cost: €20/bale

Method: Straw chopper and blower used to help bed cattle.



Organic Housing guidelines

- 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 do not need to be organic.
- All animal housing is subject to inspection and approval by the Organic Certification Body (OCB)

Table 2 - Minimum housing area per head and by weight

Animal	Minimum indoor areas (net area available to each animal)	
	Live-weight Minimum (kg)	m ² /head
Calves; Beef Cattle; Bull Beef; Suckler Cows	Up to 100kg	1.5
	Up to 200kg	2.5
		4.0
	Up to 350kg Up to 500kg Over 500kg	5.0 Min. 1 m ² /100kg
Dairy Cows	Up to 600kg	6.0 min
	Up to 600kg	1m ² /100kg
Breeding Bulls		10m ²



Nutrients and Manure Management

Farmyard Manure, Cattle Slurry Manure Analysis

Table 3- Farmyard Manure, Slurry Manure Analysis

Analysis type	Eugene Kirrane's Farmyard Manure (FYM 2015)	Typical Nutrient content of FYM (SI 610 2010)
Total N Nitrogen (kg/t)	4.2	4.5
Total P Phosphorus (kg/t)	0.6	1.2
Total K Potash (kg/t)	3.6	6.0
Total Dry Matter (%)	16.6	

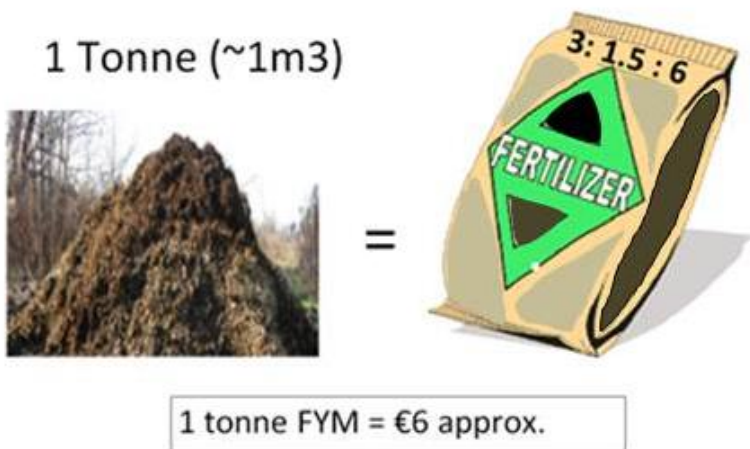
* FYM N 30% available (Teagasc research findings) 1 t FYM = 1m³ approx.
*Note; FYM and Slurry analysis carried out by Southern Scientific, Killarney,
Co. Kerry*

The Financial Worth of Farmyard Manures

Farm Yard Manure

Fig 1 - Eugenes's Farm Yard Manure

1 Tonne (~1m³) of farmyard manure = 1 bag of 3:1.5:6 conventional fertilizer



Cattle Slurry

Fig 2 - Eugenes's Cattle Slurry Manure

1 Tonne (~1m³) of farmyard manure = 1 bag of 3:1.5:6 conventional fertilizer



Source: Teagasc

Free Range or Organic Poultry Manure

Layers Litter

Fig 3 - Eugenes's Poultry Manure

1 Tonne (~1m³) of poultry manure = 1m³ volume approx = 1 bag of 9:11:24 conventional fertilizer



=



1 tonne = €27.50

*Source: DAFM spec. reps planner handbook.
Poultry FYM N 40% available assumed.*

Red Clover

Value

- Can fix ~ 200kg N/ha (160 units N/acre).
- High yielding 13 – 16 tonnes D.M. /ha.
- Principally for silage cutting and fertility building.
- High Protein 15-20%.

Silage conservation

- Cut twice to three times per year
- Cut before red flower develops
- Often given a 'light' graze at end of year
- Important to wilt (24 hours) after cutting due to high nitrogen content
- Lasts 3 - 6 years.

Red clover/grass seeding rate and varieties used on Eugene's farm



5.60kg Merviott
1.40kg Alice (large leaf white clover)
3.50 kg Dunluce (intermediate heading tetraploid)
3.50kg Kintyre (late heading tetraploid)
14.0 kg bag/acre



Red clover sown

Behind house: 4.61 ha in 2013

Out-farm: (1.5 miles away):2.74ha in 2015

Reseeding Method

Plough → subsoil → power harrow → roll →
broadcast seeds → broadcast seeds → roll again
(air-seeder)

(All re-seeding work done by Eugene except air-seeding carried out by a local contractor).

Time of Sowing: May/June

Table 4 - Yield of red clover silage 2015

Cut	Date	Yield
Cut 1	7 th June '15	9 bales/acre
Cut 2	29 th July '15	4 bales/acre

Yield in 2014: 17 bales /acre off 4 cuts.

Nutrient Applied

Slurry :2,000 gallons per acre slurry in early March plus 2, 00 gallons slurry after each cut.

Farm Yard Manure :The farm yard manure is mainly spread on the red clover silage ley in autumn and on newly established red clover ley (prior to ploughing).



Costing of re-seeding

Table 5 - Material Costs per acre

Material Costs	€/acre
FYM 10 Tonne (purchased)	90
Organic grass/clover seed	90
Lime-1 tonne	25
*Slurry (watery)-2000gals/ac purchased	20
*post emergence	
Total	225

Table 6 - Machinery Costs per acre

Machinery Costs	€/acre
FYM spreading	25
Ploughing	30
Rolling	7
Power harrowing x1	30
Einboch harrow (air - seeder)	20
Rolling	7
Slurry spreading * post emergence	20
Total	139

* Note significant savings can be made if using on-farm sourced FYM and slurry and /or own machinery



Cattle Production

Breeding

Bull: Aberdeen Angus

Cows: Charolias, Simmental and Limousin cross.

Breed choice for this farm: On conversion to organics Eugene chose to use these breeds as it strikes a balance between adequate milk for the young calves, quality carcass and ease of finishing.

Replacement heifers: brought in from other farms.

Cattle feeding

Cows and calves are put out onto grass from early February/early March onwards on suitable dry ground. The older yearling cattle are let out a little later depending on weather conditions. During the summer, all cows and calves are generally rotated around 20 ha of grazing ground around the home farm separated into 9 paddocks. During the winter, all cows are fed ad-lib normal grass silage, while weanlings and 1-2 year olds are fed red clover silage.

No meal has been fed to animals since Eugene's conversion period commenced in 2012. An additional 10-12 (1 ½) year old cattle are bought from the organic mart in Drumshanbo, for

feeding over the winter time with a view to slaughtering all animals around 2years old by late spring.

31 cattle have been slaughtered so far this year in both in April and June. All cattle were supplied to the organic market through Slaney Meat and have been finished between 24 - 27 months approx.

Table 7 - Cattle sales details 2015, 24-27 months old at slaughter

	Days on farm	Date	Carcase Wt	Price	€/kg	Grade
Born on farm	778	10/4/15	304	1489.60	4.90	R=4+
Born on farm	775	10/4/15	278	1362.20	4.90	R=4+
Born on farm	768	10/4/15	258	1264.20	4.90	O+4+
Born on farm	731	10/4/15	291	1425.90	4.90	R=2+
Born on farm	796	24/4/15	314	1538.60	4.90	O+3+
Born on farm	798	24/4/15	248	1215.20	4.90	O+4-

Table 7 - Cattle sales details 2015, 24-27 months old at slaughter

	Days on farm	Date	Carcase Wt	Price	€/kg	Grade
Born on farm	799	24/4/15	289	1416.10	4.90	R-3+
Born on farm	797	24/4/15	282	1381.80	4.90	O+3=
Born on farm	797	24/4/15	329	1612.10	4.90	R=4=
Born on farm	791	24/4/15	258	1264.20	4.90	O=3=
Born on farm	788	24/4/15	260	1274.00	4.90	O+4=
Born on farm	786	24/4/15	262	1283.80	4.90	O=4+
Born on farm	783	24/4/15	289	1416.10	4.90	O+3=

Table 7 - Cattle sales details 2015, 24-27 months old at slaughter

	Days on farm	Date	Carcase Wt	Price	€/kg	Grade
Born on farm	763	24/4/15	254	1244.60	4.90	R-4=
Born on farm	763	24/4/15	280	1372.00	4.90	O+4+
Born on farm	761	24/4/15	233	1141.70	4.90	O+4=
Born on farm	744	24/4/15	288	1411.20	4.90	R-4-
Born on farm	717	24/4/15	275	1347.50	4.90	O-3+
Born on farm	704	24/4/15	247	1210.30	4.90	O+3+
Bought	187	24/4/15	240	1176.00	4.90	O=2+

Table 7 - Cattle sales details 2015, 24-27 months old at slaughter

	Days on farm	Date	Carcase Wt	Price	€/kg	Grade
Bought	236	12/6/15	277	1356.32	4.90	R-3+
Born on farm	837	12/6/15	278	1363.67	4.91	R=3+
Born on farm	832	12/6/15	212	955.35	4.51	R-4-
Born on farm	782	12/6/15	253	1241.66	4.91	R-4-
Bought	201	26/6/15	258	1263.71	4.90	R-3=
Born on farm	827	26/6/15	262	1285.76	4.91	O+4+
Born on farm	823	26/6/15	250	1224.51	4.90	O=4=
Born on farm	215	26/6/15	268	1312.71	4.90	O=4=



Table 7 - Cattle sales details 2015, 24-27 months old at slaughter

	Days on farm	Date	Carcase Wt	Price	€/kg	Grade
Bought	215	26/6/15	245	1356.32	4.90	R-3+
Bought	215	26/6/15	240	1178.45	4.91	R-2-
Bought	250	26/6/15	238	1164.24	4.89	O=3-

Table 8-Weight gain of 27 winter fed cattle on red clover silage

	Liveweight kg 5th Feb '15	weight gain/day over 36 days	Liveweight 13th March '15
	455	1.33	503
	515	0.89	547
	506	1.22	550
	548	0.75	575
	575	1.06	613
	435	1.69	496
	600	0.94	634
	452	1.33	500
	530	0.89	562
	580	0.78	608
	475	0.89	507
	527	1.19	570
	509	1.56	565
	514	1.28	560
	504	1.64	563
	514	1.56	570
	420	0.92	453
	448	0.69	473
	453	0.92	486
	388	0.89	420
	453	0.92	486
	403	1.17	445
	408	0.72	434
	408	0.72	434
	377	1.19	420
	448	0.69	473
	453	0.92	486
Average	478kg	1.06kg/day	516kg

Table 9 – Profit Monitor Analysis 2014

Output/ha (Physical)	Eugene Kirrane	Average National Suckler Beef n = 253
Stocking Rate	1.5 L.U./ha	1.73 L.U./ha
Output /L.U. (kg)	253	324
Output /ha (kg)	367	561
Output/ha (Financial)	€/ha	
Gross Output	€819	€1,242
Variable Costs (€)	€264	€710
Gross Margin (€)	€555*	€532
Variable costs breakdown (Financial)		
Feed (€)	€0	€272
Fertilizer (€)	€0	€156
Vet/AI (€)	€17	€82
Contractor (€)	€117	€120
Straw, transport, seed, other etc. (€)	€130	€80
Total	€264	€710

*Note: Extra €106/ha not included for Organic Framing Scheme.



Animal Health in Organic Farming

Eugene's annual veterinary inputs

- Blackleg vaccine for calves
- Fluke (one treatment per year at housing)

Myths:

- Organic animals can receive no veterinary treatments.
- Organic farmers do not require the services of a veterinary surgeon.

Facts:

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

Livestock Health

Livestock health is based on 4 Principles:

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



The Conventional Veterinary Treatments Permitted on Organic Farms

The conventional veterinary treatments permitted are the following:

- 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.
- If limits exceeded: organic status taken away from animal.

Withdrawal Periods for use of Veterinary Products

- Guideline: x2 the legal withdrawal period for anthelmintics, antibiotics or x3 for mastitis treatment.
- Min 48hrs adhered to if no period specified or at least..
- 7 days eggs
- 14 days milk (or x3 times mastitis withdrawal period whichever shorter).
- 28 days for poultry.
- If treated with organophosphates, lose organic status permanently.

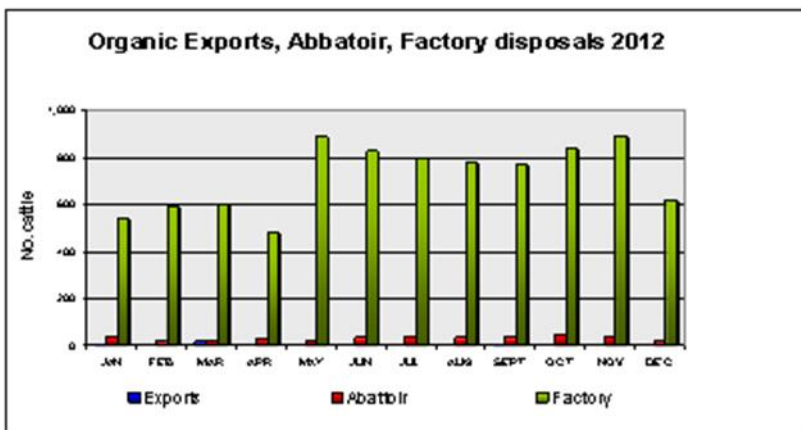


Market Demand for Organic Beef

In 2012, there were over 9,000 organic cattle slaughtered in Ireland by 526 farmers (source DAFM). The majority of animals were slaughtered by processors. Approximately 5% of animals were slaughtered in organically certified abattoirs with the meat sold through farmers markets, box schemes or direct to consumers, speciality retailers, local shops or restaurants. Beef farmers interested in organic conversion should speak with other organic farmers, processors and wholesalers about potential markets. The major factory outlets for organic beef are Goodherdsmen, Slaney Meats and AIBP. Premium prices of +15 to +20% have generally been achievable for organic beef in recent years.

The majority of organic cattle are exported (~70%) mainly to UK and mainland Europe, especially Germany and Scandanavia. The main processors are currently paying 4.90 /kg for finished organic cattle. There is also a market available at present for calves to supply the organic veal market. The organic beef price fluctuates throughout the year, it is usually at its lowest from October to January when large volumes of grass fed animals are presented for slaughter. Organic cattle sold in Spring tend to achieve highest prices but they may also incur higher costs associated with winter finishing.

Figure 4 - Organic exports and factory disposal



*Factory – 8,627; Abattoir – 377; Live exports – 23; Total – 9,027 cattle
Source: DAFM

White clover, pasture management and re-seeding

For Irish farms, the simplest and most financially rewarding system of production is based on maximizing the use of grazed-grass. With good grassland management it is possible to have a long grazing season, of high quality feed, at a low cost. On an organic farm, clover, is the driver of grassland production.


A complete reseed is considered the best means of getting clover into a sward in dense pastures. Over-sowing into permanent pastures has a 75% success rate, but the management of the sward before and after over-sowing is the key to success.

A productive clover sward is able to fix up to 150 kg of N per ha per year (120 units per acre).

On an economic basis 1 kg of un-pelleted white clover costs around €10. If you are spreading 5 kg per hectare on 20% of the farm every five years then the cost is just €10/ha/year.

This is a return on investment of over 15 to 1 per annum.

Whitclover/grass seeding rate and varieties used on Eugene's farm



2.0 kg	Kintyre (late tetraploid perennial rye grass)
4.0 kg	Clanrye (late diploid perennial rye grass)
1 kg	Drumbo (late diploid perennial rye grass)
1 kg	Aberherald (medium leaf clover)
1 kg	Crusader (small / medium leaf clover)
Total	12 kg per acre



Table 10 – Target white clover in sward

	% Ground Clover	% Clover in Dry Matter
spring	5	
early summer	20	10
mid summer	40	20
late summer	70	35

The correct grazing of grass/clover grazing paddocks is essential.


- Down to 4 cm between turnout and mid-April.
- Down to 5 cm during the main grazing season.
- Down to 4 cm before it is closed for the winter.
- Do not have very heavy covers over the winter – if you do, get them grazed by early March.

Eugene’s weed control

No sprays or ‘weed licks’ are permitted on organic farms. Eugene tops all pastures very regularly using a mower to control weeds.

Steps to successful organic conversion

1. Get acquainted with the adjustments required by attending farm walk(s), talking to other organic farmers and or contacting a local advisor.

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2. Choose an Organic Certification Body (OCB) and get an information pack.
 3. Prepare a conversion plan and submit to OCB.
 4. All entrants to the Organic Farming Scheme (OFS) must enter for an initial five year plus term.
 5. Please consult DAFM website: 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.

Teagasc/DAFM National Organic Demo Farm Walk Programme 2015-2016


See full schedule August '15 to April '16 below:

Link:<http://www.teagasc.ie/events>

Organic Capital Investment Scheme

New On Farm scheme

A standard rate of aid of 40% on investments up to a ceiling of €80,000 (ie. 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 facility. Closing date is towards end October 2015.

Full details and T&C:

<http://www.agriculture.gov.ie/farmingsectors/organicfarming/organicsscheme/organiccapitalinvestmentschemeocis/>

Queries: DAFM Organic Unit, Johnstown Castle: 053 9163400.

New Organic Processing Scheme

Grant aid of up to 40% on €1.25 million (ie. 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.

How to apply: Copies of the terms and conditions of the new Grant Scheme, together with application forms, are available from the Organic Farming Unit, Department of Agriculture, Food and the Marine, Johnstown Castle, Wexford. Email: organicunit@agriculture.gov.ie

More details:

<http://www.agriculture.gov.ie/press/pressreleases/2015/august/title,84203,en.html>

Queries: DAFM Organic Unit, Johnstown Castle: 053-91634

Organic Certification in Ireland

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 (i.e. - 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 and 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 and inspection process of each individual's unit or farm. Further information can be sourced from these organic certification bodies:

IOFGA (Irish Organic Farmers and Growers Association)

16A InishCarraig, Golden Island, Athlone

Tel: 090 6433680 www.iofga.org

Organic Trust

2 Vernon Avenue, Clontarf, Dublin 3

Tel: 01 8530271 www.organic.trust.ie



Additional Organic certification bodies:

Demeter

40/11 Woodhall Rd, Edinburgh EH13 ODU Scotland
.UK. 00 44 131 4781201. www.demeter.net

Institute of Marketecology (IMO),

4 Lough Owel Village, Tullaghan, Mullingar, Co Westmeath
Mob: (087) 2517291

Global Trust Certificate Ltd.

3rd floor, Block 3, Quayside Business Park, Mill Street, Dundalk,
Co Louth.
Phone no: (042) 9320912 Fax no: (042) 9386864
email info@gtcert.com

BDA Certification- Organic and Demeter

The Painswick Inn Project, Gloucester, Gloucestershire, GLS 1QS,
United Kingdom.
Phone: 0044 1453 766 296 Fax: 00441453 759501



Information on Organic Farming:

Website: www.teagasc.ie/organics for further information.

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