GROWING ORGANICS

Supporting & Increasing Organic Production

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

Organic Beef Farm Walk

on the farm of
Thomas Kavanagh,
Dingle, Co. Kerry

Supporting & Increasing Organic Production

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

Contents

Introduction and Welcome

Thomas and Noreen Kavanagh joined the Growing Organics Monitor Farm Programme in 2023. Their participation will run for five years and is aimed at promoting the adoption of best practices at farm level to increase the future viability and sustainability of the Irish Organic sector.

The Kavanagh's farm in the historic townland of Ballymoreigh Upper. They have three children, Louise, Cliona and Ronan. Both Thomas and Noreen have full time jobs off-farm.

There are 286 organic farmers in Co. Kerry – it is an attractive option to farmers in the region. Thomas and Noreen joined the Organic Scheme in March 2022 principally due to frustration at large inflation in the prices of fertiliser, fuel and feed. In addition the production of cattle in an organic, environmentally capacity appealed to them. The farm has recently converted from store beef production to a suckling system. The Kavanaghs both feel that this system can work well within the organic system, using grass and the excellent housing present to drive a high level of sustainable production.

Farm Details and Land Use

The holding is made up of one block of land all of which is owned. The total area of the farm is 78 Ha.

Table 1 *– Land Use 2023*

Land Use	Area (ha)
Grassland	34.3 net
Forestry	42
Total	**76.3**

Soil type in this area is a good Brown Podzol type on a bedrock of sandstone gravel. The farm is south facing and sloped with a range in altitude from 29 metres up to a peak of 270 metres. A decision was made years ago to take 46 Ha of lower ground out and plant Ash, Sycamore and Sitka Spruce in this block. Thinning and routine forestry management have developed into a successful side enterprise of dried log supply to local households.

Prior to switching to organic suckling beef Thomas & Noreen purchased 60 weaned Aberdeen Angus / Hereford heifer calves at approximately 3

months of age. They were normally retained until 18-20 months of age and sold as forward stores at weights of approximately 400 kgs. Beef output per LU in 2022 was 343 kgs whilst output per Ha was 266 kgs.

Given the layout of the land in one block and the suitable infrastructure a move to suckling took place in 2023. 24 Aberdeen Angus cows calved down in 2023 with a plan to have 27 calf in 2024.

Calves born in the Spring of 2023 will be held until March 2024. Thomas feels that there will be an excellent market for these type of organically certified cattle for both breeding and fattening for slaughter in the future.

Thomas is a participant in the Suckler Cow Efficiency Programme.

Cattle Breeds

Suckler Cows Aberdeen Angus x Friesian crossbreds.

Calving dates 2023 – mid April to Mid July

Sire used 2023 – Orcun Ultan 5 Star replacement rating across all breeds. €uro value 134.

Calf Management

In 2023 in-calf heifers were housed in a purpose built shed with adequate straw bedding and ad-lib access to good quality baled silage. Most were calved outdoors in a sheltered stone wall surrounded paddock which allowed for close observation. After a number of days each mother and calf were amalgamated with the larger group. Rotational grazing with creep feed offered to young calves throughout the summer.

Winter Feed Management

Silage is predominantly cut from the lower plots on the farm, with cows and calves able to graze higher plots for long periods during dry and wet weather.

Land is generally fertile with no major element deficiencies. Given high rainfall regular liming is required. 40 tonnes of lime was spread in September 2023.

Farm Yard Manure was retained on a suitable concrete base until mid-

September 2023. Silage was cut on the 26th May and on the 8th July 23. Bale quality will be discussed during the walk. A total of 234 silage bales were made in 2023 with a further 35 bales of hay available if necessary.

Clover content of the swards is variable and this will be looked at as a means of growing sufficient silage. The winter housing period is very weather dependent in West Kerry and long winters are planned for.

Topping is carried to improve grassland performance and to control weeds. Thomas is a firm believer in the use of regular topping to assist with grass quality and palatability.

Approximately 10 tonnes of organic feed is purchased annually from Reg Roeper. The nutrient content of this feed will be discussed on the stand. Thomas feeds this liberally to ensure cattle perform suitably.

Soil Nutrients and Manure Management

- Management of organic farms should ensure regular inputs of manures and a level of microbial and earthworm activity sufficient to breakdown organic matter and ensure continuous and efficient nutrient cycling.
- Keeping soils at a pH that facilitates organic matter breakdown and nutrient recycling is essential for successful organic farming.
- Organic manure nutrient content can vary widely depending on the source of nutrients and it is advisable to have the nutrient content of manures checked through laboratory analysis.

Sources of Nutrients used on Farm

- Nitrogen from atmospheric fixation by clover
- Farmyard manure and slurry from cattle when housed for winter

Where and when are nutrients spread?

Grassland Area

On 17th June cattle slurry was applied at a rate of 2700 gallons per acre to Plots 10, 11, 12 and 13. Slurry was applied to Plot 12 at a rate of 1750 gallons per acre in September also. Supersoil was also applied on a number of plots. In the autumn all stored farm yard manure is applied to suitable

fields – primarily the silage ground. 40 tonnes of lime was spread in early September 2023.

Composting

It involves mixing and aerating organic materials to produce a stable product, which has a great value as a soil conditioner. It is encouraged because

- It has improved handling qualities and reduces the mass of manure
- Nutrients are in a more stable forms and thus reduces nutrient losses
- Weed seeds, pests and diseases are killed by high temperatures
- It helps improve soil structure

On the Farm

The farmyard manure is stored in a clamp Because of space limitations regular turning is not possible. Nevertheless it handled well and was spread on Plots in early September. It will contribute to the organic matter and nutrient content of the soil over the next few months as it is broken down.

Livestock Enterprise

Table 2 – *Current Livestock Numbers – September 2023.*

Animal Type	2023 Average Numbers
Sucklers	**21**
0-6 months	20
6 – 12 months	
1 – 2 Year Olds	
2+ Year	**7**

Suckler Cow Performance

Table 3: *HerdPlus – Beef Calving Statistics (01/07/22- 30/06/23)*

	Farm	National Average
Calving Interval (days)	N/A	396
Mortality- Dead at Birth (%)	0	0.91%
Mortality – Dead at 28 days (%)	5.3%	2.23%
Calves per Cow per Year	0.95	0.87
Spring 6 week Calving Rate %	84%	56%
Calf Breakdown 2023	8 Male	11 Female

Source: www.icbf.com

Calf Performance 2023

Calf performance is regularly assessed. Under organic rules a derogation for disbudding and dehorning must be sought in advance of treatment. Similarly the use of medicines must be addressed in advance of joining the Organic Scheme by means of a Veterinary Health Plan which must be prepared in conjunction with you Vet. The plan outlines anticipated herd health needs for the year and advises on the use of medications. So far in 2023 the only medication used was a veterinary sanctioned Multi Mineral injection based on soil test results showing certain mineral deficiencies.

Calves were weighed on the 26th August 2023. All calves had put on over a kg per day since birth. Average daily gain from all calves since birth was 1.29 kgs per day.

Teagasc targets from male suckled calves from beef x dairy cross cows 1.15 – 1.30 kgs per day. The target for females is 1.05 kgs average daily gain. Given that this is a first year suckler conversion with all calving from heifers the performance on this farm has been very satisfactory.

Calf Average Daily Gain 2023

Date of Birth	Weight Kg	Average Daily Gain kg
02-MAY-23	189	1.27
05-JUN-23	157	1.41
13-MAY-23	178	1.3
19-APR-23	224	1.41
02-MAY-23	176	1.16
03-MAY-23	174	1.15
21-APR-23	222	1.42
28-Apr-23	203	1.36
25-APR-23	196	1.27
28-APR-23	214	1.46
30-APR-23	206	1.42
30-APR-23	188	1.27
10-MAY-23	160	1.12
14-MAY-23	185	1.41
14-MAY-23	160	1.17
22-MAY-23	179	1.45
05-JUN-23	124	1.04
09-JUN-23	121	1.06
		1.29

Source: www.icbf.com

Animal Welfare in Organic Farming

Livestock Health

- A healthy herd in organic farming is achieved by a combination of good management, sound nutrition and good animal husbandry skills.
- When a farm undergoes conversion to organic status an Animal Health Plan is required to be drawn up with 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.

Livestock Health on the Farm

According to Thomas, the switch to organics has not lead to any adverse effects with regard to herd health. Faecal analyses will be taken to assess the level and identify the type of internal parasites if present. If faecal test results show that animals need to be treated, an appropriate and permitted product will be administered and the extended longer withdrawal period is observed.

Conventional Veterinary Treatments Permitted

- Animals for meat consumption: one course of antibiotics within 12 months.
- Animals for breeding: two courses antibiotics within 12 months.
- Dairy Mastitis: two 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

All withdrawal periods shall be doubled.

Unless the medicinal product used indicates a withdrawal period, the specified withdrawal period shall not be less than:

- 14 days for eggs
- 14 days for milk
- 56 days for meat from poultry and mammals

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.
- See Figure 1 for organic space requirements.

	Minimum Indoor Areas (net area available to each animal)	
Animal	**Live-weight Minimum (kg)**	**m^2/head**
Bovine animals		
	Up to 100kg	1.5
	Up to 200kg	2.5
	Up to 350kg	4.0
	Over 350kg	5.0
		with a minimum of $1m^2$ / 100kg
Dairy cows		6.0
Bulls for breeding	$10m^2$	
Sheep		$1.5m^2$ per ewe
		$0.35m^2$ per lamb

Figure 1: *Indoor area (net area available to animals)*

Calculating the stock carrying capacity of your shed

Conversion of animal housing to become compliant with the organic standards can be one of the major tasks drystock farmers have to undertake.

To calculate the stock carrying capacity of your shed, you will need three figures;

1. The total indoor area of the shed
2. The lying area in the shed
3. The area required for each animal to be housed

Profitable Organic Production

Organic farming systems are no different to any other farm enterprises. In order for any farm enterprise to be profitable, the returns from the enterprise must be greater than the costs of production.

A number of key components that lead to profitable organic production are included below in Figure 2.

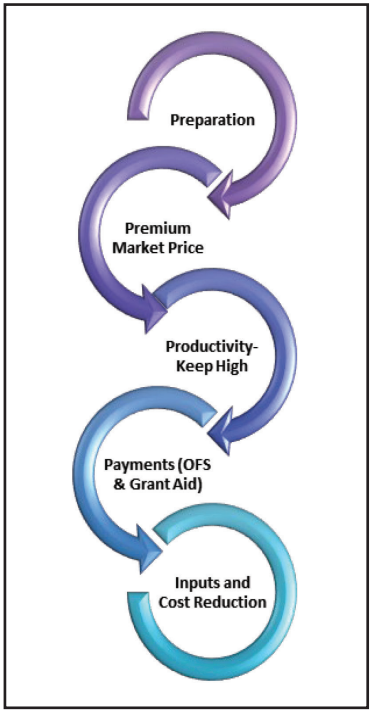

Figure 2: *Components of Profitable Organic Production*

Keys to Financial Performance on the farm

There are two main elements to profitable beef production;

1. High output.

2. Efficient systems of production.

There are several key components of having a high output in an organic suckling system. The main drivers of production are having a high standard of fertility, achieving low mortality and maintaining substantial growth rates in calves over the cow's lactation period. Milk yield is the primary driver of calf growth. Where milk yield is lowered because of insufficient grass quality the use of expensive creep feed may be required. Other contributors to output include market returns, stocking rate and sward quality and sward management throughout the grazing year.

Stocking rate has direct influence on farm profit. The average stocking rate in Ireland is less than 1 LU per Ha. With excellent grassland management and the use of clover it is possible to achiever substantially higher stocking rates than this on organic farms.

Future Plans

Knowing the market and offering a type of animal for that market is key. Here Thomas has clearly identified the growing number of organic farmers which will be looking for lighter stores in springtime. Given the breed quality of heifers produced on this farm there may also a possible suckler cow replacement market available to Thomas.

Farm stocking rate in 2022 was 0.78 LU / Ha – with the conversion to suckling farming in 2023 it currently stands at 0.88 LU / Ha. Thomas aims to calf down 28 sucklers in 2024 potentially allowing for a stocking rate of over 1 LU / Ha. Given that excellent quality housing is in place on the farm, the key requirement will be to maximise grass grown and silage conserved with FYM / slurry use and incorporation of clover.

The Importance of Good Soil Health

Cathal Somers

ASSAP Advisor, Waterford

"To be a successful farmer one must first know the nature of the soil"

(Xenophon, 430-354 BC)

Farming has come a long way in the last fifty years, with huge improvements in how we grow our crops and rear our animals. These days farmers are constantly finding ways to become more efficient and have become very aware of environmental challenges, however with advancement comes increased pressure on our soils.

'It's in our DNA'

Farmers are always drawn to soil, I think it's in our DNA. I have had great chats with farmers about compaction, soil type and looking to solve specific problems in relation to production or ponding on land. But what really interests people is hearing about the life in soil and all the hard work that goes on behind the scenes underneath our feet 24 hours a day, 365 days a year carried out by the soil microbiome.

'There are more organisms in one tablespoon of healthy soil than there are people on earth'

A microbiome is all of the microorganisms within or associated with a particular environment, you would often hear of the human microbiome in relation to products you can buy to improve digestion and health. The soil microbiome is much more complex and it does vital work for farmers in helping to produce food.

The soil microbiome consists of a diverse community of micro-organisms such as bacteria, archaea and fungi. Each group consist of millions of different species that carry out different functions in our soils such as

producing food, releasing nutrients, cleaning water, storing carbon and a home for biodiversity. Lots of farmers know earth worms are a great sign in land but we also need to be aware of the huge amount of microbes doing other vital jobs for us such as rhizobia bacteria for example who work with white clover to produce free nitrogen for us to grow grass.

In order for us to ensure our soil is resilient enough to deal with the pressures our management puts on it we must look after it to the best of our ability. Different soil types have different abilities to carry out the vital functions mentioned above, however it is important to remember that our management on the farm can improve or damage soil health. The three main areas for a farmer to focus on in order to improve soil health is physical, chemical and biological management of soil. Maintaining balanced fertility and pH, avoiding physical damage to soils and increasing organic matter in our soils helps to build a healthy and resilient soil.

Top tips for safeguarding your soil biology

- Avoid physical damage (compaction) to soil as much as possible
- Return organic matter to soils (straw, dung & slurry), in particular to arable land and silage ground
- Balanced fertility and pH
- Diversify your crops and crop rotation (mixed species swards/cover crops/ green cover)
- Always have a living root in the soil
- Check your soil health, take out the spade and have a look for yourself

How to Assess Soil Structure (QR code)

Supporting the Growth of Irish Organics

Emmet Doyle, Bord Bia Organic Sector Manager

Summary

- Positive developments for the Irish organic sector through increase farmer participation
- Strong consumer purchase intent for Irish organic produce in the domestic market
- Bord Bia will be launching the first national marketing campaign for Irish organic food on November 6th 2023

Introduction

Aligned to the European Green Deal, Ireland's Climate Action Plan 2023 has set a target of 450,000 ha to be farmed organically by 2030. This will bring Ireland's agricultural land under organic production to 10% from less than 2% in 2022.

Ireland's organic sector vision will be delivered by increasing the scale and capability of Irish organic production through increasing the participation in the Organic Farming Scheme (Green Deal Action Plan axis 1). While developing and activating a clear marketing proposition for Irish organics to help the consumption and consumer trust of Irish organics in the domestic and export markets (Green Deal Action Plan axis 2).

Organic Sector Growth

In January 2023, the new Organic Farming Scheme (OFS) begun with over 4,000 Irish farmer participants, which is double the number of farmers from the previous scheme. Such an increase in OFS participants has led to the Irish agricultural land under organic production growing from approximately 2% in 2022 to 4.5% in 2023. The application process will open again Autumn 2023 with forecasts of another strong uptake into organics by farmers.

This growth in organics is not only impressive but actually very important as this will increase the volumes of Irish organic food, drink and horticulture produced, helping to deliver the necessity scale to supply key retail and foodservice customer both in the domestic and export markets.

Beef Sector Overview

Cattle Data from DAFM shows that the organic cattle herd stood at 62,000 head in 2021, which is just under 1% of the total cattle population recorded in December 2021. Cattle numbers on organic farms increased by 9% between 2017 and 2021 with an acceleration in 2022 as over half of the applications accepted for the Organic Farming Scheme came from the cattle sector. As a result, numbers are projected to reach around 70,000 head reflecting cattle numbers on farms going through the conversion process.

Within the total organic cattle herd, it is estimated that there were around 19,500 suckler cows in 2021. It is estimated that around 22,000 calves were born on organic farms that are destined for beef production or breeding in 2022.

The number of finished cattle processed increased by 20% between 2019 and 2022 resulting in organic beef output reaching an estimated 4,100 tonnes carcase weight equivalent (cwe).

Sheep Sector Overview

Similar to cattle, increasing numbers of sheep farmers have applied for the Organic Farming Scheme in 2022. Total sheep numbers on organic farms are estimated to have stood at 95,000 head at the end of 2021, which represents a rise of just over 20% on 2017 levels. Data from DAFM showed that breeding ewe numbers stood at over 62,000 head in 2020. By the end of 2022, it is estimated that this figure will be closer to 85,000 head.

It is estimated that 73,000 lambs were born on organic farms in 2022. Leakage of store and indeed finished lambs into conventional remains a real challenge for the organic lamb category and all organic industry stakeholders are working together to address this supply chain challenges,

The number of finished lambs processed as organic stood at an estimated 22,000 head in 2022, this number doubling from annual numbers in 2017, reflecting increased sales of organic lamb in Ireland and the emergence of additional export markets.

In 2022, total organic production stood at around 450 tonnes carcase weight equivalent for 2022. Like beef there has been a considerable jump in the level of carcase utilisation over the last few years, which is estimated at over 95% for 2022 with increasing volumes of product frozen rather than being sold as conventional.

Dairy Sector Overview

Figures from DAFM suggest that there were just over 4,700 dairy cows on just over 70 organic dairy farms in 2021. This represents an increase of 85% relative to 2017. With a further increase predicted to over 5,400 cattle on organic farms in late 2022.

The slower growth in the organic dairy herd is due to the fragmented nature of the sector and due to high conventional costs in 2022. However due to changing market and sector dynamics in 2023, this could lead to increase number of dairy farmers joining the Organic Farming Scheme when it reopens in the autumn of 2023.

Cereal Sector Overview

Organic cereals have increased in importance over recent years, tied in to the importance and need for organic feed. The land area dedicated to organic cereals stood at 3,342 hectares in 2021 according to DAFM data. The cereals area is dominated by oats, which accounted for over 70% of the total in 2022. The organic oats areas have recorded consistent growth since 2017, more than doubling over the period.

The remainder of the area is utilised for beans, wheat and barley, all of which are consumed in Ireland. It is estimated that total organic oats production amounts to around 13,000 tonnes annually with the vast majority destined for breakfast cereals with the remainder utilised for drinks and animal feed. Organic oats has consistently delivered a price premium of around 70% over recent years, which has been a key driver of growth over the period. Production of other cereals/pulses estimated at 5,000 tonnes annually, the majority of which are utilised as animal feed or sold as cereals product on the domestic market.

On the Ground Snapshot*

- 12,500 organic cattle were slaughtered in 2022
- 22,000 organic sheep were slaughtered in 2022
- 50% of organic lamb production is exported while 65% of organic beef production is exported

23 million litres of organic milk was produced in 2022

- 3,522 hectares of organic cereals in 2022 up from 1,764 in 2017

*(*Industry Calculations)*

Latest Irish Organic Consumer Research

Bord Bia conducted a six month Irish consumer market research project on Irish organics from January to June 2023 with 2,500 shoppers. This results of this research was very promising for the future growth opportunities for organics in Ireland. Some of the key feedback included:

- 88% of all Irish shoppers buy into the organic food and drink in some format
- Eggs and vegetables are the largest categories for organic shoppers. However one in two of all shoppers buy organic dairy (milk, yogurts, cheese) and/or organic meat on a weekly basis
- Over the next 12 months, 95% of all Irish shoppers will look to maintain or increase their level of organic consumption. Of those 45% of all shoppers will look to increase their level of organic purchases

National Marketing Campaign for Irish Organic

In Ireland, to help build the awareness of Irish organics for Irish shoppers, Bord Bia will be launching its first national organic marketing campaign in November. The focus of this campaign will be to demonstrate the quality and value of Irish organic food and drink to Irish consumers. The campaign will include radio, billboards, print, digital, social media and organic brand ambassador activities. The second wave of this marketing campaign will be rolled out in March of 2024 with a three year plan to support the organic sector and increase the number of Irish shoppers buying Irish organic food on a regular basis.

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 the licensed certification bodies – details on last page.

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

Targeted Agricultural Modernisation Scheme Organic Capital Investment Scheme (OCIS)

A standard rate of aid of up to 60% on investments up to a ceiling of €90,000 (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:

Online applications only through *www.agfood.ie* facility.

Full details and T&C:

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

Queries:

DAFM Organic Unit, Johnstown Castle: organic@agriculture.gov.ie

Organic Processing Scheme

Grant aid of up to 40% on €1.75 million (i.e. can generate a grant of €700,000 for an investment of €1.75 million) in facilities for the processing, preparation, grading, packing and storage of organic products with minimum level of investment in excess of €3,000.

More Details:

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

Queries

DAFM Organic Unit, Johnstown Castle: organic@agriculture.gov.ie

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

ORGANIC FARMING

STEPS TO ORGANIC CONVERSION

Step 1: Consider:
- Could you farm without chemical fertilisers or pesticides?
- Can you modify your animal housing to incorporate a bedded lying area?
- Have you a source of farmyard manure/slurry/compost?

Step 2: Investigate
- Talk to existing organic farmers
- Consult your farm advisor
- Attend farm walks/open days
- Familiarize yourself with the organic farming standards

Step 3: Choose an OBC
- Choose an Organic Certificaion Body
- Irish Organic Association
- Organic Trust
- Complete a Conversion Plan
- Register as an organic operator

Step 4: OFS
- Organic Farming Scheme
- Scheme opens regularly
- Attractive premiums available
- Apply online via **Agfood**
- Change status of land parcels on BPS

Step 5: Training Course
- QQI Principals of Organic Farming
- 25 Hour course
- Blended course – online & farm visit
- Register at **www.teagasc.ie/rural-economy/organic/training**

Step 6: Conversion Period
- Normally 2 years – allows time for land to adjust
- Must adhere to organic standards
- Can sell produce as organic once coversion period completed

Licensing Bodies Ireland

ORGANIC TRUST CLG
Office A1,
Town Centre House,
Naas Town Centre,
Dublin Road,
Naas,
Co. Kildare,
Ireland W91 KVX8,
Tel: +353 45 882 377
info@organictrust.ie

IRISH ORGANIC ASSOCIATION
Unit 13 Inish Carraig,
Golden Island,
Athlone,
Co. Westmeath,
N37 NIW4,
Ireland,

Tel. 090 6433680
info@irishoa.ie

Notes

Notes

Notes

GROWING ORGANICS

Contact Us:

Teagasc, Head Office, Oak Park, Carlow

organics@teagasc.ie

www.teagasc.ie/organics

@teagascorganics

Supporting & Increasing Organic Production

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