

Rural Economy
& Development
Programme



Teagasc Organic Dairy Farm Walk
on the farm of
Peter and Jenny Young,
Castlefarm, Narraghmore,
Athy, Co Kildare
Wednesday 20th February 2019





Introduction

Welcome to the farm of Peter and Jenny Young in Castlefarm, Narraghmore Co Kildare.

Peter and Jenny are the fourth generation of Youngs farming at Castlefarm. In 2004 with a dairy herd of 65 cows farming 71.6 hectares of land which included 12 hectares of tillage, the Youngs began to look at options for the future direction of their farm. Around this time they were “once a day milking” and had 12 hectares of tillage. Having looked at other options they decided to convert the farm to an organic dairy system. This was an informed decision based on visiting other organic farms and looking at potential profit.

The farm entered conversion to organics in October 2006 with full organic status being achieved in 2008.

There have been a number of substantial developments made to the farming system during the last twelve years. The total farmed area has increased to 107.5 hectares. The Youngs have just started calving their spring calving herd of 170 cows and heifers. They also have diversified with the addition of a farm shop. Oats are also grown for the organic porridge mark



Farm Details and Land Use

Table 1 - Land Farmed 2019

| Land Status | Area |
|-----------------------|-----------------------------|
| Owned | 54.2 ha (134 acres) |
| Leased | 16.9ha (42 acres) |
| In Partnership | 36.4 ha (90 acres) |
| Total | 107.5 ha (266 acres) |

Table 2 – Planned Land Use 2019

| | Area |
|---|-----------------|
| Red Clover/Grass-<i>for silage//soil fertility building</i> | 4.4 ha |
| Oats | 6.5 ha |
| Reseed: white clover/grass mixture with arable silage (oats) over-sown | 12.1 ha |
| Grass | 82.5ha |
| Forestry | 2 ha |
| Total | 107.5 ha |



The Dairy Herd

The dairy herd is made up of Friesian and Jersey crosses crossed with high Economic Breeding Index (EBI) valued dairy sires. The average herd EBI is €157 vs the national average of €97.

Milk Production Details 2018

Table 3– Milk Recording Summary November 2018

| Spring Calving | |
|-------------------------------|--|
| No. of cows recorded | 140 |
| Av. Days in milk | 253 |
| Milk yield per cow/day | 11.5 kg (3,600 Litre/cow/yr. O.A.D.; <i>expected 4,200-4,500 twice a day milking 2019</i>) |
| Average Butterfat | 5.35% |
| Average Protein | 4.63% |

Source www.icbf.com



Table 4 - Young's Pricing System 2018

Average milk price 40.5 cent/litre

Dairy Calving Statistics

Table 5 - HerdPlus – Young's Dairy Calving Statistic (01/07/17-30/06/18)

| | 1/07/17-30/6/18 | National Average |
|--|------------------------|-------------------------|
| Calving Interval (days) | 376 | 387 |
| Spring 6 week calving rate (%) | 89 | 64 |
| Calves per cow per year | 0.97 | 0.9 |
| Cows not calved in period (%) | 0 | 8 |
| Current replacement rate (%) | 36 | 21 |
| % of heifers calved @ 22-26 months of age | 100 | 70 |

Source www.icbf.com



Grazing and Silage Regime

Grazing Platform

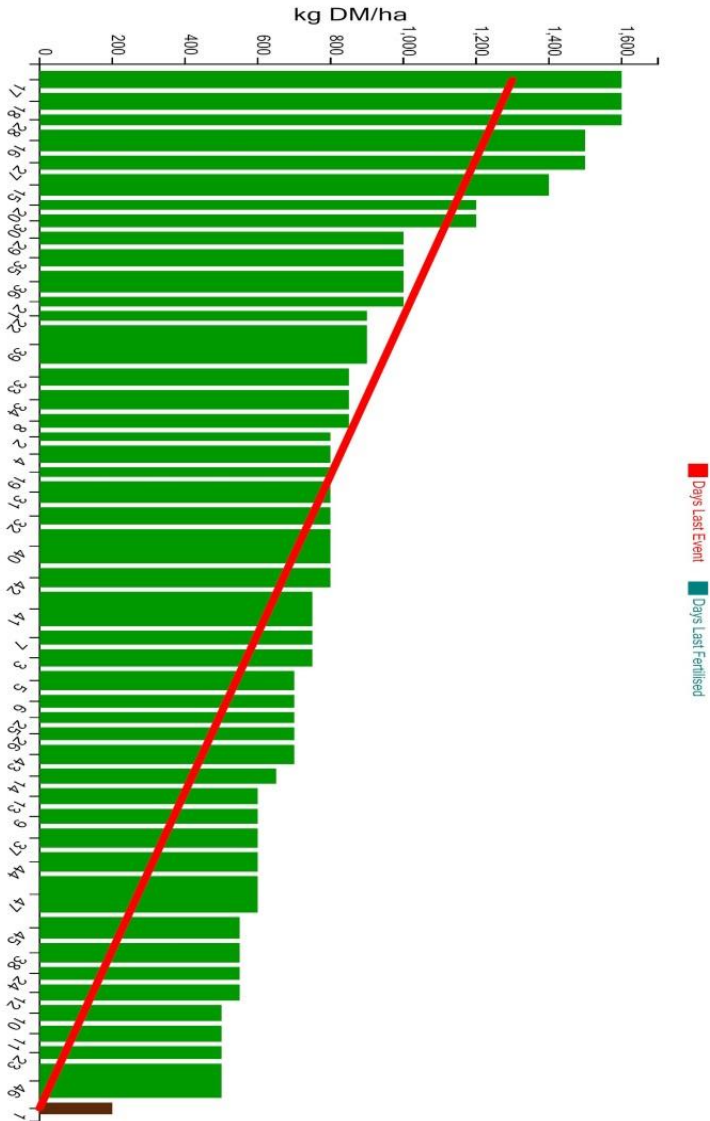
- The farm has a grazing platform of 100ha (2019).
- The spring rotation planner tool is used for the planning of the first grazing rotation.
- Cows are generally grazed outdoors as they calve from February.
- The first round of grazing finished by the 10th of April.
- Paddock size 1.6 – 3 hectares

Growing Grass on an Organic Dairy Farm

- The aim is to maximise the amount of quality grass-clover swards fed and to minimise the amount of concentrates purchased.
 - It is planned to reseed 12.1 hectares in 2019 with white clover/grass sward over-sown with arable silage.
 - A relatively low amount of concentrates (30 tonnes) was purchased and fed to dairy cows in 2018. This equated to 200 kg concentrates/cow/year.
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Grass Wedge showing grazing covers in mid February 2018





Grass Wedge details


| | |
|-----------------------------|----------|
| Farm Cover (kg DM/ha): | 824 |
| Cover / LU (kg DM/LU): | 427 |
| Demand / ha (kg DM/ha/day): | 29.00 |
| Demand / day (kg DM/day): | 2295 |
| Days ahead: | 28.00 |
| Total LU: | 150.50 |
| LU / ha: | 1.93 |
| Grazing Area: | 77.80 ha |

Silage Production

Silage is mostly cut from the grazing platform from paddocks which get to strong and are left out of the rotation. Red clover silage which is grown on for 3 years (followed by 3 years of oats) is also pitted and targeted more at early/late lactation cows.

Red Clover on Organic Farms

Red clover silage swards help can meet the forage requirements of an organic farm whilst improving the protein content and overall feeding value of the winter forage. Red clover is better suited to silage production



than white clover because of its much more erect growth habit and its significantly higher forage yields.


There presently is a red clover/grass sward (of 4.45hectares) on the farm. Table 6 outlines the silage analysis for this grass/red clover sward second cut taken in late August 2018.

Table 6 – 2018 Red Clover Silage Results Source: FBA laboratories)

| | Young's Result | Desirable Values |
|--------------------------|----------------|------------------|
| Dry matter % | 33.2 | 20-30 |
| pH | 5.0 | 4-4.7 |
| Ammonia % total N | 19.3 | < 10 |
| Ash % | 9.7 | < 8.6 |
| NDF % | 44 | < 45 |
| DMD % | 73.6 | > 68.9 |
| ME MJ/Kg | 10.6 | > 9.8 |
| Protein % | 17.8 | 13.5-17 |

Livestock Diets and concentrate feed

- Under organic regulations: At least 60% of the dry matter in daily rations of herbivores shall consist of roughage, fresh or dried fodder or silage. A reduction to 50% for animals in dairy production for a maximum period three months in early lactation is allowed.
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- A relatively low amount of concentrates (30 tonnes) was purchased and fed to dairy cows in 2018. This equated to 200 kg concentrates/cow/year.

Organic Regulation for Seed Usage

- Must seek permission to use un-treated non-organic seed from your Organic Certification Body (OCB).
- A derogation must be obtained from the OCB for use of any untreated non organic seed prior to sowing.
- Organic seed database with details of suppliers and available organic seed www.organicxseeds.com
- Conventional treated seed is not permitted to be used.

Soil Nutrients and Manure Management

- The aim of organic farming is to maintain soil fertility levels by efficient recycling of farmyard manure, slurry and or compost that is normally generated on the farm.
 - 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
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have the nutrient content of manures checked through laboratory analysis.

Sources of Nutrients Used on the Farm

- Farm yard manure (FYM) from the straw bedding used over-wintering animals.
- Dairy processing sludge.


Sources of Organic Manures that are permitted to be imported onto Organic Farms

- Imported farmyard manure or slurry must come from stock that have been outside during the year, not from intensive pig and poultry units where animals are inside all the time or from zero grazing farming systems. Farmyard manure must be composted for at least 3 months before it can be land spread.
- Dairy processing sludge is available from some dairy processors who have sludge registered with an Organic Certification Body.

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.
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- 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.

Mutilations

Prior approval is required from your Certification Body before any mutilations are undertaken.

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 Table 7 below for space requirements.

Table 7: 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; | Up to 100kg | 1.5 |
| | Up to 200kg | 2.5 |
| | Up to 350kg | 4.0 |
| | Up to 500kg | 5.0 |
| Suckler Cows | | 6.0 |
| Dairy Cows | Up to 600kg | 6.0 min. |
| | Over 600kg | 1m ² /100kg |
| Breeding Bulls | | 10m ² |
| Sheep | | 1.5m ² per ewe |
| | | 0.35m ² per lamb |



New Milking Parlour features

- 24 units (stallwork for 35) with zig-zag rump rail and stainless steel trough with anti-jump head rail.
- Batch feeding system (air operated)

Milking Machine Features

ATL fitted by Peake Dairy Services

CR 35 automatic cluster removers

Lightweight clusters 400cc capacity 2x2 pulsation

Stainless steel swing over arms – lift to start

Folding low line wash system

Variable speed dry vacuum pump

Variable speed milk pump

Other features of new milking parlour

15 tonne meal bin

Alfco auto drafting system

Fixed foot bath

21,500 litres Packo bulk milk tank

Collecting yard designed for 300 cows 375m² (but reduced to 300 m² to provide extra feed space for buffer feeding)



Continuous fall from front of parlour to collecting yard tank to avoid need for sump pump

Overall cost €280,000 (€230,000 net of grant and trade in)

Excellent workmanship.

Farm Profitability

The Teagasc E-Profit Monitor tool allows farmers to assess the financial performance of their farm whilst comparing their performance with targets on other farms. The figures in the table below show the financial performance of the dairy herd on a cents per litre basis vs targets and the national average. When comparing organic dairy farms to conventional systems, profit per cow and per litre is often much higher on organic farms, but on a per ha basis, is average or h lower.

Comment on Epm: The profitability of this farm compares very favourably to conventional on a return per litre basis. Stocking rate is relatively high for an organic dairy herd but lower than average vs conventional. This farm is pushing close to the limit in terms of stocking rate. Over the last number of years the size of the grazing platform has doubled allowing the herd to increase. This farm could easily carry 250 cows in a conventional system, with a nitrates derogation. Needless to say, this a useful debate all dairy farmers should have.

Peter and Jenny Young Teagasc eProfit Monitor 2018



Year 2018

Dairy Short Report

December 2018

eProfit Monitor

Farmer J & P Young

EPM average
2018

| Production Type | 2. Creamery Calving start after Jan 30 | YOURS | TARGET | |
|--|---|------------------|------------------|-------|
| FARM | | | | |
| Dairy Cows | | 141 | | 137 |
| Stocking Rate (LU/ha) | | 1.73 | | |
| Litres Milk Produced / Cow | | 3,979 | | 5732 |
| Litres Sold / Cow | | 3,801 | | |
| Co-Op Price (c/Litre) | | 40.05 | | |
| GROSS OUTPUT | | | | |
| | | c / Litre | c / Litre | |
| Milk Sales | | 38.26 | 34.52 | 36.44 |
| Plus | Cow & Calf Sales & Calf Transfers | 6.46 | 7.80 | |
| Minus | Cow & Repl. Purchases & Repl. Transfers | 3.62 | 5.50 | |
| +/- | Inventory | 4.37 | 0.00 | |
| Gross Output | | 45.48 | 36.82 | 36.85 |
| VARIABLE COSTS | | | | |
| | | c / Litre | c / Litre | |
| | Feed | 5.31 | 6.50 | 7.18 |
| | Fertiliser | 1.04 | 2.40 | 2.47 |
| | Veterinary | 1.89 | 1.00 | 1.09 |
| | AI / Breeding | 0.84 | 0.70 | 0.54 |
| | Contractor | 1.97 | 1.50 | 1.91 |
| | Other Variable Costs | 4.04 | 1.60 | 1.88 |
| | Total Variable Costs | 15.08 | 13.70 | 15.07 |
| Gross Margin | | 30.39 | 23.12 | 21.78 |
| FIXED COSTS | | | | |
| | | c / Litre | c / Litre | |
| | Machinery | 3.35 | 1.30 | 1.34 |
| | Car / ESB / Phone | 1.51 | 1.15 | 1.21 |
| | Depreciation | 1.71 | 1.60 | 1.94 |
| | Other Fixed Costs | 4.88 | 1.60 | 1.93 |
| Common Cost | | 26.53 | 19.35 | 21.49 |
| Common Profit | | 18.95 | 17.47 | 15.36 |
| Common Costs as % of Gross Output | | 58% | 1% | |



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Department of Agriculture,
Food and the Marine

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:

IOA (Irish Organic Association)

13 Inish Carraig, Golden Island, Athlone.

Tel: (090) 64 33680 www.irishorganicasssociation.ie

Organic Trust

2 Vernon Avenue, Clontarf, Dublin 3.

Tel: (01) 853 0271 www.organictrust.ie

Global Trust Certificate Ltd.

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

Tel: (042) 93 20912 www.GTcert.com

BDA Certification- (Demeter)

Painswick Inn Project, Gloucester, Gloucestershire, GLS 1QG, United Kingdom.

Tel: (0044) 145 376 6296 www.biodynamic.org.uk



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Department of Agriculture,
Food and the Marine

Targeted Agricultural Modernisation Scheme Organic Capital Investment Scheme (OCIS)

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 facility.

Full details and T&C:

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

Queries:

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

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.

More Details:

<https://www.agriculture.gov.ie/farmingsectors/organicfarming/organicsscheme/schemeofgrantaidforthedevelopmentoftheorganicprocessingindustry-offfarm/>

Queries:

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



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Department of Agriculture,
Food and the Marine



Organic Farm Walks 2019

Teagasc, Department of Agriculture, Food & the Marine and organic organisations invite all farmers and members of the public to see organic farming in practice and to meet and speak with the producers and sector's experts.

Wed, 16th January | 12pm

Timothy O'Donoghue,
Farranaccliffe, Tipperary
Suckler to Weaning

Wed, 20th February | 12pm

Peter & Jenny Young, Castlefarm,
Narraghmore, Athy, Co. Kildare
Dairy

Wed, 17th April | 12pm

Donal Keane, Camelton Stud,
Summerhill, Co. Meath
Suckler to Beef, Cereals

Wed, 24th April | 12pm

Stuart & Jean Kingston, Upper
Forrest Farm, Farnanes, Co. Cork
Beef Finishing, Cereals

Wed, 8th May | 12pm

Ross & Amy Jackson, Woodview
House, Lacka, Carrig, Birr, Co. Offaly
Cereals, Sheep, Beef Finishing

Wed, 22nd May | 2pm

Andrew & Leonie Workman,
Dunany Flour Organic, Togher,
Drogheda, Co. Louth
Cereals, Milling Flour

Wed, 29th May | 2pm

Tom & Gemma Dunne, Seefeld,
Ballinaslee, Durrrow, Co. Laois
Cereals, Beef Finishing

Wed, 5th June | 2pm

Sean Condon, Fanningstown,
Crecora, Co. Limerick
Dairy

Wed, 12th June | 2pm

Jason Stanley, Castlefleming,
Errill, Co. Laois
Sheep, Cereals

Wed, 19th June | 2pm

Nurney Farm Organics,
Carbury, Co. Kildare
Fieldscale Veg, Protected Crops,
Poultry eggs, Direct Selling

Wed, 26th June | 2pm

White Oaks Acorn Project,
Leanamore Rd, Derryvane,
Muff, Co. Donegal
Fieldscale Veg, Protected Crops,
Direct Selling

Wed, 3rd July | 2pm

Paul Kelly, Castledargan,
Ballygawley, Co. Sligo
Suckler to Weaning & Store

For more information please visit www.teagasc.ie/organics

