

Teagasc Organic Farm Walk *on the farm of* Andrew & Leonie Workman, Dunany Flour Organic Farm, Dunany, Togher, Co Louth Wednesday 11th May 2022



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





Introduction

Andrew and Leonie Workman have been farming in Dunany since 1981.

For a number of years, they continued farming it as a tillage farm growing a wide range of crops. As the years went by with the increasing input costs of their farming system, the Workman's felt it was not sustainable and began to look at at other options to improve the overall financial position of the farm.

After careful consideration and visiting other organic farms, the Workman's decided to take the organic option. The farm entered organic conversion in 2004, with full organic status for the land and produce being achieved in 2006.

In the last thirteen years, there have been many changes made in relation to the crops being sown and the routes to market. Initially grain was grown and sold into the animal feed market. With fluctuating grain prices, they looked at other ways of selling grain. They decided to grow wheat and then rye and spelt for flour. This has now evolved into a family farm business where the Workman's are growing, milling, packing and distributing their organic wheat, rye and spelt from their farm. Oats is also grown for the organic porridge market.

Farm Details and Land Use

Outlined below in Table 1 are details of the land use and areas.

Land Use	Area (ha)
Red Clover	6.19
White Clover	3.7
Grass and Long Term Leys	28.42
Winter Rye	18.42
Winter Spelt	13.71
Spring Wheat	18.65
Spring Oats & White Clover	18.28
Forestry and Buildings	21.83
Wildlife Area	2.01

Table 1 – Land Use 2022

Organic Cereal Enterprise

There is a strong demand for organic cereals both for livestock and human consumption. The demand for organic cereals is expected to continue to increase for the foreseeable future.

Currently on the farm, there is 69 hectares of land devoted to cereals. Following are details of crop varieties, sowing dates and seeding rates for the cereal crops on the farm.

Сгор Туре	Variety	Sowing Date	Seeding Rate kg/ac
Winter Spelt	Zollernspelz	12-14/10/21	95
Winter Rye	Dukato	15/10/21	85
Spring Wheat	Mulika	4,6/4/22	65
Spring Oats	Isabel	14/4/22	85

Crop Varieties and Seeding Rates Sown

The rye and spelt seed was bought in from Germany. The oat, clover and wheat seed was purchased in Ireland.

In organic cereal production, output is lower than conventional units but costs tend to be lower and prices for grain higher.

	*Spring **Workman's			
	Oats	Organic Spring Oats		
MATERIALS	<u>331</u>	<u>73</u>		
Seed	41	73		
Fertilisers	220	0		
Manure		0		
Sprays	70	0		
HIRE MACHINERY	<u>187</u>	<u>135</u>		
Plough, one pass and rolling	83	83		
Spraying	38	0		
Fertiliser Spreading	13	0		
Manure Spreading		0		
Harvesting	52	52		
MISCELLANEOUS	<u>27</u>	<u>18</u>		
Interest (6%)	9	9		
Transport (€6/Tonne)	18	9		
TOTAL	<u>544</u>	<u>361</u>		
VARIABLE COSTS				
Break-even yield (grain only)	2.8	0.86		
Net Price (€/Tonne)	195	***420		
Straw (€/ac)	101	101		

Table 2: 2022 Cereal Crop Margins Variable Costs exc. VAT (€/ac)

*Source Teagasc Crops and Costs Returns 2022

** Source Workman's own costs

*** Price per tonne achieved in 2021

Clover on the Farm



Red Clover

Red clover is sown in a monoculture at the start of the rotation on the farm. It acts as a valuable break crop improving soil structure and fertility, limiting weed invasion and supplying organic matter. The Workman's mulch it 2-3 times during the growing season. The variety of red clover on the farm is Kyrinna.



White Clover

White clover is sown over with the spring oat crop; this will help improve soil fertility, soil structure and help

suppress weeds. This is ploughed back when the next crop is being sown.

The variety of white clover sown with this year's spring oats is Jura at a rate of 2 kg/ac.

Organic Crop Rotation

Crop rotation is a planned sequence of different crop types. Rotation is a key component of organic cereal production as it provides the principal mechanism to provide crop nutrients and is a major way to control pests/diseases along with maintaining and enhancing soil structure. Crop rotation also allows for spreading the fertility requirements and provides the capacity to build fertility.

The Workman's have implemented a rotation of a two-year fertility-building phase with red clover followed by a five year cycle of cereals. This planned rotation may vary depending on soil type, weed burden and fertility.

Figure 1: Planned Crop Rotation on Dunany Farm

Organic Regulation for Seed Usage

- Organic seed database with details of suppliers and available organic seed <u>www.organicxseeds.com</u>
- Must seek permission to use un-treated non-organic seed from your Organic Certification Body (OCB).
- This permission must be granted by the OCB before purchase if 0% un-treated non-organic seed or before sowing in case of 70%+ organic seed content.
- Conventional treated seed is not permitted to be used.

Soil P and K Level on the farm



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.

Available Nutrient Content & Guide Value (€) of Organic Manures (Source Teagasc, values April 2022)

Organic Fertiliser Type				
Value of farmyard manure based on 2014 Nitrates Values	N kg/t	P kg/t	K kg/t	Value €/ton
Farmyard Manure	1.35	1.2	6	19
Value of cattle slurry based	Units/	Units/	Units/	Value
on Teagasc Figures	1000 gals	1000 gals	1000 gals	€/1000 gals
Cattle Slurry (6% DM)	9	5	32	50
Value of organic layers	N kg/t	P kg/t	K kg/t	Value
manure 55% DM				€/ton
	11.5	5.5	12	78
Organic Layers Manure				

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The Story of Dunany Organic Flour



The Workman's looked at other ways of selling their grain and they realised that a way to do this, was to process it and value add themselves.

This is how it happened:

In the nearby town of Dunleer, there was Whiteriver Mill, a traditional stone water mill still in working order. With help of the mill owner, the Workman's started milling, producing nutty traditional extra course flour from their wheat. This was sold locally and within a year, demand outstripped what the mill could produce.

They also began to see an opening in the market for other organic flours from grains such as rye and spelt. For this, they would need a faster more efficient milling system. By chance on their way home from their son's wedding in Poland they happened to come across a French mill used by a German organic farmer. They bought it as it suited the volume of grain that they were producing on the farm.

Over time, they also have invested in grain cleaners, gravity separators and a de-huller, all of which were sourced second hand and are essential pieces of equipment required for producing clean weed free quality grain ready for milling.

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With the flour selling very well locally the Workman has looked to expand their market now that they had greater capacity with the mill. This was done very simply by loading the car with samples and cold calling to wholefood stores, artisan bakeries and restaurants. They began to get great feedback and better return on their grains and the business has developed from there. They also recognised an opening in the market for other organic flours from other grains such as spelt and rye, which they then started to grow and process.

Their range of grains and flours come in various pack sizes of 500g to 5kg depending on the market it is for. The flours vary depending on the grains from wholemeal fine course or extra course, stoneground, plain sifted stoneground and spelt berries.

Their flours and berries are sold as follows:

- In Dublin and the rest of Ireland through a distributor.
- Regionally in local shops and Super Valu stores.
- In Northern Ireland through a distributor.

The unique selling point of Dunany Flour is that the Workman family are able to see the grains through from sowing to harvesting, cleaning, milling, packaging and distribution.



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Dunany Flour – Processing Steps

Figure 2: Processing Steps







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Dunany Processing Equipment



Grain Dryer



Cleaner



Indent Cylinder



Electric Stoneground Mill



Pto Powered Stoneground Mill



Packaged Grains

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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:





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Targeted Agricultural Modernisation Scheme Organic Capital Investment Scheme (OCIS)

A standard rate of aid of 40% on investments up to a ceiling of $\in 80,000$ (i.e. can generate a grant of $\in 32,000$ from an investment of $\in 80,000$). 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 $\in 80,000$.

How to Apply:

Online applications only through www.agfood.ie facility.

Full details and T&C:

http://www.agriculture.gov.ie/farmingsectors/organicfarming/organicsschem e/organiccapitalinvestmentschemeocis/

Queries:

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

Organic Processing Scheme

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

More Details:

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

Queries:

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



Organic Farming Scheme 2022 PRESENTLY CLOSED

The DAFM Organic Farming scheme opened on February 9th 2022 for new applications and closed on April 22nd 2022.

Payment Rates for Tillage Holdings

Organic Status	Tillage Area up to 70Ha	Tillage Area >20 Ha up to 70Ha	Tillage Are>70Ha
In conversion	€260/Ha	€220/ha	€60/Ha
Full Organic Status	€170/Ha	€170/Ha	€30/Ha

Payment Rates for Livestock Holdings

Organic Status	Farmed Area of >3Ha up to 70Ha	Farmed Area >70Ha
In conversion	€220/Ha	€60/Ha
Full Organic Status	€170/Ha	€30/Ha

Further Information

https://www.gov.ie/en/service/d46aec-organic-farming-scheme/

https://www.teagasc.ie/rural-economy/organics/

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Organic Farm Walks 2022

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.

Wednesday, 1* June | 2pm John Hurley, Castle Hill House, Knockalaughta, Ballintubber, Castlerea, Co Roscommon Suckler to Weanling, Sheep

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Wednesday, 8° June | 2pm Fergal Byrne, Calverstown Little, Dunlavin, Co Kildare Sheep, Cereals, Beef Finishing

Wednesday, 15th June | 2pm Donal & Frederique Keane, Camelton Stud, Summerhill, Co Meath Suckler to Beef, Cereals

Wednesday, 22^{ed} June | 2pm Clive Bright, Ardsallagh, Ballymote, Co. Sligo Beef, Direct Selling

> Scan the QR code to book a ticket!

Wednesday, 29th June | 2pm

Mark & Grainne Duffy, Clogher, Ballybay, Co. Monaghan Poultry-eggs, Cereals, Beef Finising

> Wednesday, 6th July | 2pm Gavin Tully, Clonhenritte, Carnolin, Enniscorthy, Co Wexford Cereals

Wednesday, 13th July | 2pm Declan Houlihan, Corrigeen Organic Farm, Rathcabin, Birr, Co Offaly Cereals, Poultry-eggs

Tuesday, 19th July | 2pm Rose O Sullivan & Martin Fox, Spring Cottage Organic Farm, Parke, Kinnegad, Co Westmeath Fieldscale Vegetables, Protected Cropping, Cereals, Poultry-eggs, Direct Selling