

# Value added food production in the Kerry/Limerick Region.

Teagasc webinar February 2021.

Kate Carmody.



# The story of Beal Organic Cheese

I started making cheese commercially in 1987 and became fully organic on the 1<sup>st</sup> January 2000, for the new millennium.

My reason for going organic, was my growing concern with the on-going industrialisation of agriculture; both farming and food. The over reliance on chemicals, hormones, antibiotics and the newly introduced GMOs.


These are the same concerns voiced by the informed consumers of today.

“We cannot solve our problems with the same thinking we used when we created them”. Albert Einstein.


- 1984 Conventional dairy farm producing 50,000 gallons/44 cows.
- 1987 Start making farmhouse cheese commercially
- 1997 Converted the farm to organic production.
- 2000 Registered Beal Organic Cheese Ltd.
- 2007-14 Cheese distributed in national and international markets.
- 2010 Gained investors through Dragons' Den.
- 2014 scaled back business due to health reasons.







Necessity is  
the power  
of  
invention.

- 2016 in recognition of the need to diversify I decided to grow hemp.
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# What is Hemp?

- Industrial Hemp contains less than 0.2% THC.
- Cannabis Sativa.
- EU approved seed.
- Contains many bio-actives. CBD, CBG.





# The many uses of hemp – Ireland’s answer to climate change?

Whole stalk		Hemp seed		
Bast Fibre	Woody Core (Hurd)	Hemp Nut	Hemp Oil	Seed cake
<b>Textiles</b> <ul style="list-style-type: none"> <li>• Clothing</li> <li>• Bags</li> <li>• Shoes</li> <li>• Socks</li> </ul>	<b>Building products</b> <ul style="list-style-type: none"> <li>• Fibreboard</li> <li>• Insulation</li> <li>• Hempcrete</li> </ul>	<b>Foods</b> <ul style="list-style-type: none"> <li>• Bread</li> <li>• Granola</li> <li>• Ice cream</li> <li>• Milk</li> </ul>	<b>Foods</b> <ul style="list-style-type: none"> <li>• Salad oil</li> <li>• EFA Food Supplement</li> <li>• Margarine</li> </ul>	<i>(after pressing)</i> <ul style="list-style-type: none"> <li>• Animal feed</li> <li>• Protein rich flour</li> </ul>
<b>Technical textiles</b> <ul style="list-style-type: none"> <li>• Cordage</li> <li>• Netting</li> <li>• Canvas</li> <li>• Carpeting</li> </ul>	<b>Industrial products</b> <ul style="list-style-type: none"> <li>• Animal bedding</li> <li>• Boiler fuel</li> <li>• Mulch</li> <li>• Chemical absorbent</li> </ul>	<ul style="list-style-type: none"> <li>• Cereal</li> <li>• Protein powder</li> </ul>	<b>Bodycare</b> <ul style="list-style-type: none"> <li>• Soap</li> <li>• Shampoo</li> <li>• Hand Cream</li> <li>• Cosmetics</li> <li>• Lip Balm</li> </ul>	
<b>New products</b> <ul style="list-style-type: none"> <li>• Geotextiles</li> <li>• Biocomposites</li> <li>• Nonwovens</li> <li>• Pultrusions</li> <li>• Compression Moulding</li> </ul>	<b>Paper</b> <ul style="list-style-type: none"> <li>• Printing</li> <li>• Filters</li> <li>• Packaging</li> <li>• Newsprint</li> <li>• Cardboard</li> </ul>	<b>Whole stalk uses</b> <ul style="list-style-type: none"> <li>• Biofuels</li> <li>• Ethanol</li> <li>• Erosion control blankets</li> </ul>	<b>Technical products</b> <ul style="list-style-type: none"> <li>• Oil paints</li> <li>• Solvents</li> <li>• Varnish</li> <li>• Lubricants</li> <li>• Printing Ink</li> <li>• Diesel Fuel</li> <li>• Coating</li> </ul>	

# Hemp and Linseed/Flax potential.

- Maximising organic production through integrated cropping systems.
- Remediating land for organic use.
- Valuable side-streams for industry.
- Weed suppression. No need for MCPA (Endocrine disruptor).
- 120 day growing cycle lends itself into rotational systems for all farmers.
- Cash crop for farmers.

1. 1 tonne of hemp reduces CO<sub>2</sub> by 1.63 tonnes ( 8.5 Tonne CO<sub>2</sub>/acre)
2. 217,000 hectares of land would need to be used for hemp to reduce the CO<sub>2</sub> emissions from the agriculture sector by 20%. This excludes the weight of the stems and leaves left in or on the ground and moisture content but does use the average yield from the best performing hemp variety in the Teagasc study(Kompolti) 12.5 tonnes per hectare. However this assumes that all of the hemp yield is used as a carbon sink i.e. insulation.
3. Estimates for the fines for not reaching our 2020 target are between 148-445 million.

# Irish Hemp Co-operative Society Limited

- Farmers first met in autumn 2016.
- Various business models discussed 2017.
- The Co-operative was registered May 2018.
- 200 + members at present.
- Set up to address the many issues facing small farmers.
- Already working with companies in the bio-economy.
- Addressing legislative and logistical barriers.
- Kate Carmody, Organic farmer, Biochemist/Biomedical Scientist, Social Scientist, EU Expert in Agricultural Productivity & Sustainability.

# Local hub supplying agronomy knowledge.

- Shared equipment for setting and harvesting the crop.
- Local knowledge for appropriate value chains to suit area.
- Researching appropriate varieties.
- Securing markets for products.
- Initial products identified- Fibres, shives, Seeds, leaf and flower.
- Mobile refinery for producing high value bio-actives.

*If life in little places dies,  
greater places share the loss.*

Brendan Kennelly, Irish Poet and Novelist.