

The Role of the Hemp Cooperative.

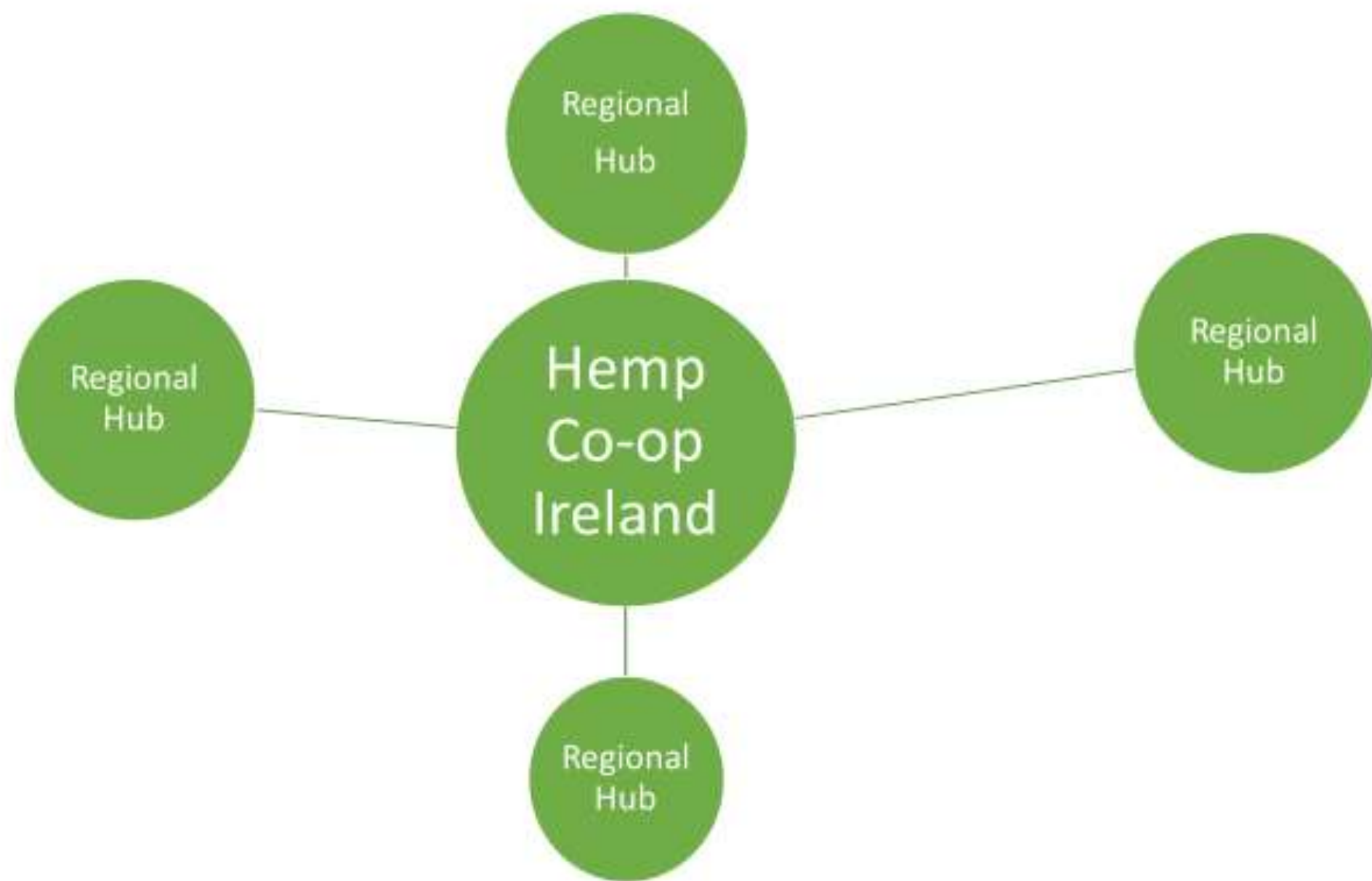
The Hemp Event April 2022.



HEMP COOPERATIVE
— I R E L A N D —
EST. 2018

Irish Hemp Co-operative Society Limited

- Farmers first met in autumn 2016.
- The Co-operative was registered May 2018.
- 250 + 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.



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

Two essential processing facilities.

- A decortication plant, this processes the stalk.
- A mobile biorefinery, this processes the leaf and flower, to separate the oils, proteins and whey fraction and leaves a pressed cake for silage addition.

LAROCHE

fiber processing lines

Decortication of Hemp Straw

New Double Straw Step Cleaner NB6T

2 x 6 Beater Rollers

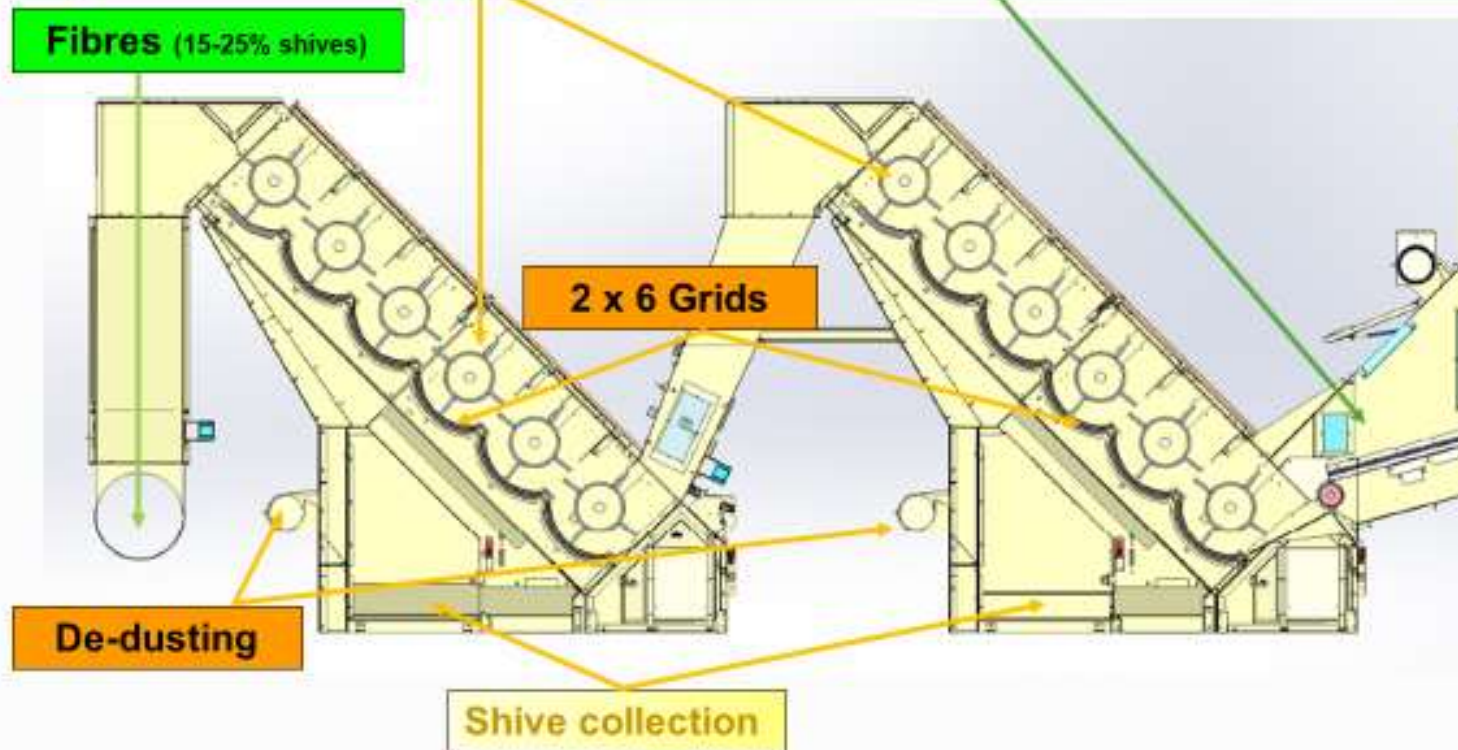
Pre-cleaned cut Straw (30% fibres, 55% shives, 15% dust)

Fibres (15-25% shives)

2 x 6 Grids

De-dusting

Shive collection



Biorefinery Glas

- This Irish project used grass in the mobile biorefinery.
- This unit can easily be adapted to use hemp leaf and flower.
- The versatility of this unit means that it can operate in all rural areas.



Hemp cooperative stakeholder role.

- As Ireland's leading hemp organisation we recently responded to the consultation request from DAFM on the development of an Irish hemp industry.
- Presented our policy to the Agricultural Committee in the Oireachtas.
- EU project engagement. COOPID, CERERE, AGRI4VALOR
- The Hemp Cooperative has a wide range of expertise available and we would welcome a role as a partner in any project.
- In 2019 we were appointed as the Irish Rural Innovation Ambassador under the LIASION project.

COOPID PROJECT- MOLLERUP CASE STUDY.

Bioeconomy | starts on the fields

COOPeration of bioeconomy clusters for bio-based knowledge transfer via Innovative Dissemination techniques in the primary production sector

<https://coopid.eu/>



Companies involved

- **Moellerup Estate** is the mother company
- **Farmers** cultivate the hemp for seeds
 - **Dava Foods** (a cooperative) will now increase the production
- **Moellerup Brands** handle seeds for food ingredients
 - Moellerup Brands innovates new hemp products together with numerous companies

Organic Plant Protein is one example creating meat replacement products with hemp protein flour

Convert is turning hemp fibers into insulation, furtinures etc

Advance Nonwoven Develops the prduction line for non-Woven productions



Hemp fiber utilization was the start

- Develop non-woven mats of hemp fiber for insulation, furnitures etc
 - Technology is now at industrial scale
 - Innovation goes on



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Collaboration through research and innovation

- While hemp is in the programme for government in Ireland, it is not in policy.
- Twice turned down for EIP-AGRI funding.
- Major divide in Europe in funding for hemp. Spain, Italy, Slovenia and Germany have funded projects.
- We need a major project for the Northern member states to mainstream hemp into traditional farming systems as a rotational crop.

Future Vision for the hemp industry.

- More inclusive collaboration through a level playing field within Europe.
- As a single market economy we should recognise geographical constraints and cater for them.
- Industrial hemp should be removed from the Misuse of Drugs Act.
- Every size of farm should have access to grow, harvest and process this crop in order to make it a mainstay of the bioeconomy.
- Carbon credits for farmers growing hemp.



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Thank you for listening!