



Animal Production, the Key in a European Sustainable Circular Bioeconomy

Keeping Food Losses in the Food Chain

Paul Featherstone - EFFPA President





EFFPA - General Info

- Founded in January 2014
- Close ties to FEFAC (European Feed Manufacturers Association)
 - EFFPA associate member to FEFAC
- Sector estimate: 3½ million tonnes former foodstuffs processed into feed in the EU
- Potential of 5-6 million tonnes taking into account future innovation and expansion





EFFPA Members & Estimated Tonnage

	National Associations	Companies	Estimated tonnage in respective country
	VIDO (NL)		200.000
	VALORIA (FR)		445.000
	UK-FFPA (UK)		650.000
	BFAN (DE)		800.000
		TROTEC (BE)	125.000
		DALMA (IT)	200.000
		PROMIC (ES)	300.000
		NUEVO (GR - Observer)	2.500
1		SPB Solutions (CA – Associate)	340.000





What are former foodstuffs?

Catalogue of Feed Materials - (REG 68/2013)

'Former foodstuffs' means foodstuffs, other than catering reflux, which were manufactured for human consumption in full compliance with the EU food law but which are no longer intended for human consumption for practical or logistical reasons or due to problems of manufacturing or packaging defects or other defects and which do not present any health risks when used as feed.





Characteristics Former Foodstuffs

- Unintentional/unavoidable food losses
 - Intermediate or incorrectly packed/shaped/flavoured/labelled products
 - Seasonal products (sports events, Easter, Christmas, Halloween)
 - Removed from the human consumption market for commercial reasons
- Not "rubbish" high value feed ingredient
- All about high energy content (sugar, fats/oils, starch)
 - Bread, biscuits, chocolate bars, cakes, pasta, confectionary, cereals, crisps, crackers, snacks...





Former foodstuffs: Food industry byproducts













What aren't former foodstuffs?







Animal By-Products (EU Regulation 1069/2009): Former foodstuffs with animal protein are not allowed in feed for food-producing animals, with the exception of milk, eggs, honey and porcine gelatine





Production process







Nutritional Value Processed Former Foodstuffs

		rocessed former podstuffs	Barley	Wheat
Dry matter		88.0%	88.0%	88.0%
Crude prot	ein	10.9%	11.0%	12.4%
Lysine		0.26%	0.38%	0.34%
Crude fat		9.8%	2.8%	2.1%
Crude fibe	r	2.2%	5.5%	2.7%
Starch		41.9%	51.6%	59.2%
Sugar		14.0%	2.2%	2.4%
Metabolisa energy pig		15.48 MJ/kg	12.95 MJ/kg	14.43 MJ/kg



Main target: young animals (e.g. piglets)
Source: NRG, VDLUFA, INRA



Nutritional Value Processed Former Foodstuffs

	Processed former foodstuffs	Barley	Wheat
Metabolisable energy pig (ME)	15.48 MJ/kg	12.95 MJ/kg	14.43 MJ/kg
Product Equivalent:	3.5m tonnes	4.19m tonnes	3.75m tonnes
	6.0m tonnes	7.17m tonnes	6.44m tonnes
Land Saving *		Circa 1,185,000ha	Circa 800,000ha

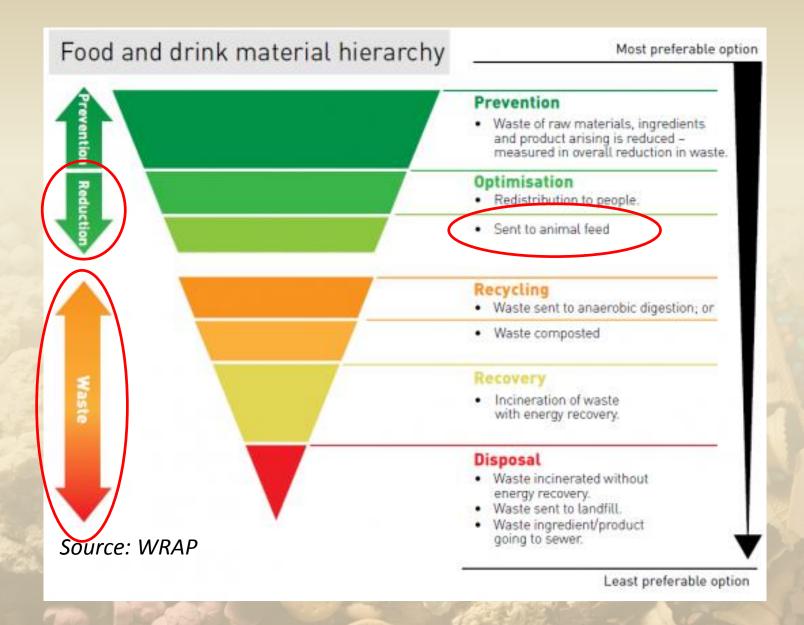


^{*} Based on UK cropping averages of 8.0t/ha wheat & 6t/ha Barley





Food Waste - Circular BioEconomy







In the heart of the Food Chain Circular Economy

- Former foodstuff processors provide
 - food producers with a consistent & sustainable outlet for their losses (reducing their food waste and increasing revenues)
 - feed producers with an alternative energy-rich ingredient to grains (reducing the need for landrequiring raw materials)
- Limitations to former foodstuff processing:
 Environmental gains should never be made at the cost of feed safety and traceability





Research Agenda Need for more scientific research

- Packaging residues
 - Physical risk (incl particle size)
 - Chemical risk (incl contact materials & inks)
- Animal nutrition
 - Former foodstuffs still an unconventional feed in many EU Member States
- Environmental footprinting (LCA comparisons)
 - Highlight sustainability aspect







Thank you for your attention www.effpa.eu

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