



Deliverable Factsheet

Date: 11 April 2012

Deliverable No.	3.1
Working Package	3
Partner responsible	MTT (originally ABER but changed at 2 nd GC meeting)
Other partners participating	ABER, INCBNA, CSIC, ORC
Nature	[R=Report]
Dissemination level	[PU=Public]
Delivery date according to DoW	31 March 2012
Actual delivery date	24 April 2012
Finalization date	
Relevant Task(s):	T3.1

Brief description of the Deliverable

D3.1 is a desktop review, where information from previously published scientific reports is collected and interpreted.

Target audience(s)

Farmers and farm advisory services, Industries producing by-products suitable as feeds (e.g. food industry, bioenergy industry), Feed industry

Executive Summary

This literature review evaluates the potential of by-products from the agricultural, forestry, food processing and bioenergy sectors and agro-forestry systems as feed components in organic and conventional low input dairy systems. Feeds reviewed included e.g. oilseed meals (Camelina, Crambe, Safflower, rapeseed), reduced fat and high protein distillers grains, by-products from pulse and forestry industry, olive oil and greenhouse tomato production as well as silvo-pastoral tree fodder. There is a wide variation in the potential novel and underutilized feed resources to be used in organic and low input dairy systems. The variation is caused by the diversity of the raw materials and variability in raw material composition, which are further diversified by the processing technologies applied. General assessments of nutritional or economic value are not possible as they vary from product to product.

The amount and quality of feeds offered to animals have significant effects on feed intake and milk production, which largely dictates the economics of production, but they may also influence milk quality and health of the animals. The key issue in controlling the potential positive or negative effects on productivity, product quality and animal health is to know the chemical composition and concentrations of bioactive compounds in the particular feed material used. The producer of the feed material is responsible for the safety of the product.

Legislation and public opinion set rather strict restrictions to feeds acceptable particularly in organic but also in low input conventional dairy systems. Highly processed or globally traded feed materials are likely to be considered undesirable even if they would be nutritionally and economically feasible. Increasing demand of processed organic foods for human consumption gives rise to the availability of organically labelled by-products as well. This may be very welcome to broaden the feed supply of organic livestock and may in some cases allow for an increase in the supply of organic milk into the market. The possibility to use the by-products as organic feed materials should also add to their economic value compared to alternative uses such as consumption as conventional feedstuffs or in bioenergy production.

This desk-top review demonstrated a wide variability in potential novel and underutilized feed materials to be used in organic and low input dairy systems. There is need for additional information concerning certain by-product feeds, and agro-forestry systems. These topics will be covered in further work of SOLID WP3 and this desktop review accompanied by the farmer and stakeholder interactions will guide the further research.

Potential Stakeholder impact(s)

Interactions with other WPs Deliverables / joint outputs			
WP no.	Relevant tasks	Partner(s) involved	Context of interaction
1	1.3, 1.4	ORC, AU, DAPVET, BOKU, CSIC, INCDBNA, MTT, UNIVPM, EV-ILVO, ICEA, OMSCO, CABRA, THISE	D3.1 provides information of the potential use of novel feeds to be discussed in the farmer and stakeholder workshops, and provides potential topics to be included in the on-farm participatory research
3	3.2	ORC	D3.1 provides background information of the agro-forestry systems
4	4.2	MTT, AU, ORC, EV-ILVO	D3.1 provides information of the potential use of novel feeds to be taken into account in the LCA assessments
5	5.2	UNIVPM, ABER, MTT, ORC, UGENT	D3.1 provides information of the potential novel feeds with reference of their acceptability by the supply chain members and consumers
6	6.4	JRC, UGENT, MTT	D3.1 provides information of the potential of the use of novel feeds in order to assess the economic impact of their use
7		ICROFS	D3.1 provides information of novel feeds to be used in dissemination on the website, in the workshops and conferences, in popular articles etc.