



Sustainable Organic and Low Input Dairying (SOLID)

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SOLID

- Total budget ~ 6 million euros
- 5 years (April 2011 to March 2016)
- 24 partners, 9 SMEs
- 10 countries



Context

- Knowledge based, competitive, profitable, environmentally sustainable and energy efficient farming systems (SCAR, 2008)
- Multi-functional potential of farm systems important
- Productivity, environmental, animal welfare, nutritional and profitability functions of low-input and organic farming increasingly recognised
- Constraints of these systems which limit potential



Known constraints

- **Farm**

- availability and use of appropriate adapted breeds
- availability and use of appropriate feeds (health and milk quality/quantity)
- health and welfare challenges
- financial and environmental efficiency

- **Sector**

- volatile markets/price differentials
- poor supply chain relationships/fragmentation
- lack of appropriate decision support tools

- **Policy**

- uncertain future policy support
- methodologies for recognising multifunctionality potential of systems



SOLID

- To support developments and innovations in organic and low input dairy systems to optimise competitiveness while:
 - Maximising potential of these systems to deliver environmental goods and biodiversity
 - Optimising economic, agronomic and nutritional advantages for the development of innovative and sustainable organic and low input dairy systems and supply chains

Role of SOLID

- **Actively involve stakeholders** (organic and low input dairy farmers, farmer groups, advisors, processors) in a co-ordinated approach – a participatory approach
- **Quantify advantages of genotypes** “adapted to organic and low input dairy production systems”
- **Novel and sustainable feed resources and decision support model** to optimise management of on-farm feed
- **A knowledge platform to access environmental sustainability**



Role of SOLID

- **Identify** the broad range of **expectations** of low-input and organic dairy farming and food systems
- **Evaluate** the **competitiveness** of existing organic and low input dairy farms and novel strategies developed
- **Disseminate knowledge to key stakeholders** through a participatory framework



Structure

- **WP1** – Innovation through stakeholder engagement and participatory research (Susanne Padel)
- **WP2** – Adapted breeds (Werner Zollitsch)
- **WP3** – Novel feeds and decision support models (Marketta Rinne)
- **WP4** – Environmental assessment (John Hermansen)
- **WP5** – Supply chain and consumer analysis (Raffale Zanolli)
- **WP6** – Socio-economic evaluation (Ludwig Lauwers)
- **WP7** – Knowledge exchange, training and innovation (Niels Halberg and Cled Thomas)



Participatory projects – for example biodiversity in Austria



Typical landscape of farm location



Dr. Walter Dietl, Farmers' field lab- plant biodiversity



Economic impact

- Organic is clearly defined, low-input not
 - This makes comparative analysis more difficult
- Organic and low-input dairy farming across the EU is very diverse
- Such farms appear more resilient to input price increases and volatile market prices



Environmental impacts of milk ?

Global warming



Nutrient enrichment



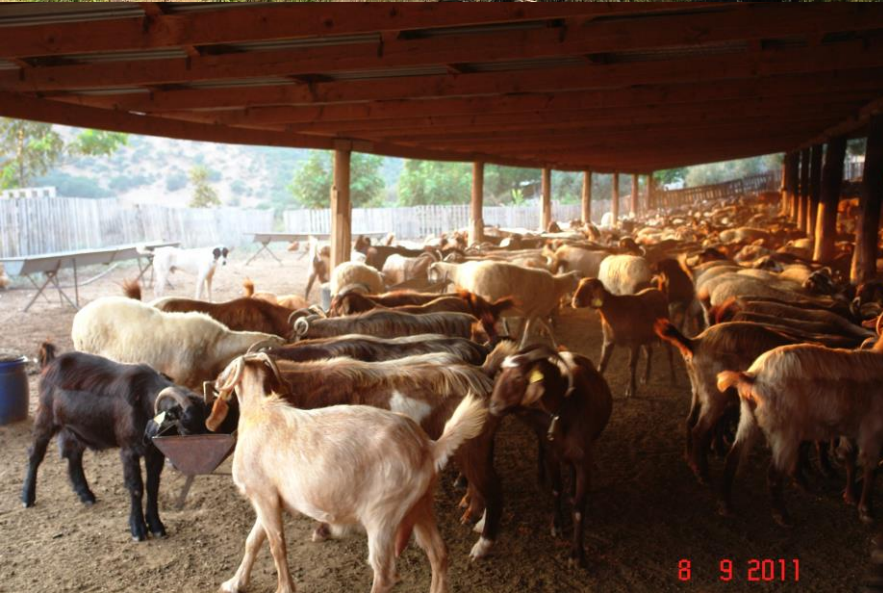
Carbon sequestration /
soil fertility

Biodiversity





Super-low input dairy goat production



Phenotypic and Genetic characterisation of 3 goat breeds (Skopelos, Eghoria, Damascus) in 7 flocks

A large Database has been created:

- 8,057 observations regarding welfare assessment traits\
- 7,985 measurements of milk yield
- 7,734 recordings of milk quality traits (fat, protein and lactose concentration)

- 7,456 measurements of Total Viable Counts
- 6,815 measurements of Somatic Cell counts
- 1,203 milk samples were analyzed for microbiological profile
- 2,000 parasitological examinations (from individual goats)



SOLID e-learning

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Life Cycle Assessment of dairy products

Important differences between organic and conventional production

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SOLID Workshop: “Organic and low-input dairying”

Posted on [24. November 2015](#) by [SOLID](#)



The SOLID Workshop “Organic and low-input dairying” – an option to Northern European Dairy Sector?” was held in Helsinki, Finland on 27-28 October 2015.

Majority of the participants represented various Finnish stakeholder groups with delegates from other Nordic countries and the Baltic countries as well.

The presentations covered findings from all work packages of the project. Additional

ABOUT SOLID

SOLID is a European project on Sustainable Organic and Low Input Dairying financed by the European Union. The project runs from 2011-2016. 25 partners from 10 European countries participate in the project.

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