LowInputBreeds – "Development of integrated livestock breeding and management strategies to improve animal health, product quality and performance in European organic and 'low input' milk, meat and egg production" is a 5-year EU Collaborative Project, funded under the Seventh Framework Programme of the European Community for Research, Technological Development and Demonstration Activities.

The project focuses on four livestock species and six major livestock production systems. At the final symposium, project results covering the four species are presented as well as ethical, environmental and economic implications of the results.

Further details about the project: www.lowInputbreeds.org Symposium website: www.lowinputbreeds.org/lib-symposium-2014.html

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SYMPOSIUM



Final LowInputBreeds Symposium and Project Meeting

Reporting from the 5-year research project LowInputBreeds

15th & 16th April 2014 Newcastle University, UK

www.lowinputbreeds.org/lib-symposium-2014.html

The LowInputBreeds Project is funded under the Seventh Framework Programme of the European Community for Research, Technological Development and Demonstration under grant agreement 222623.







Dairy cows and beef cattle

Variation/selection within Brown Swiss dairy cattle

- **>** Estimation of genomic breeding values for high & low heritability traits
- phenotype and genotype records for 1300 organic cows, including milk fatty acid profiles

Cross breeding for robust cows

Multi-criteria trade-offs; identifying conflicts in selection traits eg yield vs fertility



Dairy and and meat sheep

Variation/selection within Skafia sheep for

- > Resistance to biotic (parasites, mastitis) & abiotic (heat) stress
- > Genetic markers; heat/cold, parasite and footrot resistance
- > Milk quality

Endoparasite control based on integrating the use of tanniniferous forages, strategic use of clean pastures and parasite tolerant breeds. Lamb meat quality in different breeds under different feeding regimes



Pigs

Farmer participatory pig breeding programme

- > Selection for survival & robustness
- > Records from multiple small farms

Gilt rearing: subsequent mothering ability and piglet loss

G X E interaction, comparing traditional, improved and standard hybrid pig genotypes and feeding regimes on carcass, meat and fat quality



Laying hens

Farmer participatory layer breeding programme:

- > Productivity
- > Health and welfare
- > Egg quality
- **>** Behaviour in free range and organic egg production systems Prolonging laying periods Impact of genotype and nutrition on egg quality