Over the last 30 years, much of Europe's grassland has been lost to urban development and the intensive production of annual crops like green maize. But environmental and food safety concerns, coupled with doubts about the sustainability of today's intensive farming systems, have seen grassland farming making a comeback. An EU-funded project has presented its findings on the value of grasslands for biodiversity and productivity.

The information should shape future political decisions on cultivating grassland – to the benefit of farmers and consumers.

Although less common than in the past, grassland still covers some 30 % of Europe's agricultural area and is the backbone of a strong livestock sector. Grassland is also rich in biodiversity, which boosts ecosystem productivity, while keeping the environment in balance and providing for essential ecosystem services such as water and soil protection, carbon sequestration and landscape.

One of the key challenges driving MultiSward was establishing the optimal acreage and use of European grassland. Another was to communicate the environmental benefits of grassland-based animal production to politicians, farmers and industry.

MultiSward [2] set out to develop grassland production systems suited to the diversity of Europe's farming, soil and climate. Through various studies and experiments, the researchers investigated the role and uses of grassland across Europe.

Working closely with farmers and industry, they looked at various economic and political scenarios including farm commodity prices and various Common Agricultural Policy (CAP) instruments such as milk quotas that could affect grassland areas. They then used their findings to propose grazing and animal management innovations for use by farmers.

"With demand for natural products from the land at an all-time high, there is a new opportunity for grassland to thrive," says MultiSward project coordinator Jean-Louis Peyraud from the Institut National de la Recherche Agronomique (INRA) in Paris, France. “Our findings can help governments to introduce new policies to reverse the decline of grassland areas. They can also be used by green farmers wanting to remain competitive.
Productive legumes and grasses

The project team carried out tests and experiments on various plots of land across the EU. Results showed that multi-species swards – or meadows – containing legumes and grasses are just as productive as highly fertilised grasses. These swards produce high quality feed for livestock, resulting in healthy and productive animals, while preserving the ecosystem.

MultiSward also proposed several innovations to manage grazing. For example, in Ireland scientists found that despite their initial fears over high rainfall and higher amounts of dung in paddocks during the rainy period, the length of the grazing season could be extended with little or no nitrates finding their way into drainage water – a process known as leaching. They also showed that the numbers of bumblebees and butterflies increased by removing cattle and sheep from the grassland during the summer flowering period. This increase in insects is vital for pollination and biodiversity.

As part of the project, a survey of some 2 000 farmers, politicians and industry representatives showed that grasslands are considered as more than just a valuable resource; they are essential for the economy and environment. “This feedback from key opinion leaders confirms the value of our work and that grassland is important for a healthy and green future,” maintains Peyraud.

To ensure these findings make their way to those making decisions on grasslands – farmers and the agricultural agency – the MultiSward team created an e-learning platform and a handbook: “Grasslands and herbivore production in Europe and effects of common policies”. The project's results have also been presented at meetings of national grassland societies, and to decision-makers in Brussels.

Peyraud hopes that the project's findings will help politicians take the decisions needed to make sustainable grassland systems a viable option for farmers.

MultiSward was recognised as one of the best scientific projects of 2014 by the French Ministry of research.

See also:
CORDIS [3]

Project:
Multi species swards and multi scale strategies for multifunctional grassland based ruminant production systems

Project Acronym:
MULTISWARD

Project website:


Links