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AGRICULTURE & INNOVATION

Sustainable Beef Production Systems

How can grass-based beef production systems, based on agroecology principles, remain sustainable?

Innovative grass-based beef production systems can help address the challenges faced by the European beef sector as well as citizens' concerns about intensive production methods. Well-managed sustainable grass-based beef production systems transform non-edible resources into human food with a high nutritional value, while contributing to improving biodiversity, capturing carbon, sustaining the soil microbiome, structuring the landscape, preventing erosion and forest fires. Innovative approaches, arising from cooperation between farmers and other actors in the value chain, including researchers, advisers and consumers, can support the viability of the grass-based beef sector.

The 20 experts from the EIP-AGRI Focus Group on Sustainable beef production systems defined this type of production as based on the agroecological principles of environmental, economic and social sustainability, and for cattle which is predominantly grass-fed and grazed on pastures where possible.

The Focus Group identified five factors which enhance sustainable beef production:

- ▶ Enhancing farm performance, through cattle breeding, pasture and grazing management, ecosystem services and other means, taking a holistic approach
- ▶ Shorter food chain development, strengthening local food chains and developing partnerships
- ▶ Certification, labelling and branding, linked to quality assessment, ecosystem services and communication with consumers
- ▶ Knowledge exchange systems and innovative projects, strengthening national AKISs and specific grass-based beef knowledge exchange at different levels
- ▶ Communication with consumers

“It was an innovative and efficient way of dealing with different issues: through this network of passionate and expert farmers, researchers and advisers, we feel the EU can really listen to voices from the field. We are keeping in touch and continue planning together.”

- Jacopo Goracci, farmer & beef producer (Italy),
expert from the EIP-AGRI Focus Group on sustainable beef production systems -

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Ideas for Operational Groups

- ▶ Promote mixed systems to improve sustainability of beef production systems.
- ▶ Improve the resilience of grasslands by increasing the diversity of sward species while maintaining productivity.
- ▶ Develop new business models for animal slaughtering.
- ▶ Develop new ways to measure beef production sustainability.
- ▶ Develop and test a certification scheme to recognise and protect grass-based beef production both in markets and supply chains.
- ▶ Integrate and set up cooperation on management of semi-natural grasslands in forest certification schemes.

Research needs

- ▶ Virtual fencing: benefits vs potential negative effects on animal welfare and behaviour are not known. There is a need for independent research to understand opportunities and limitations of such systems involving veterinarians to manage any animal welfare implications.
- ▶ On-farm animal welfare assessment in grass-based systems: there is a research need for an alternative animal welfare evaluation system for non-intensive systems.
- ▶ Robustness and animal efficiency: there is a knowledge gap on robustness and efficiency in different production systems, breeds and environments.
- ▶ Impact of grass-based beef production systems on climate, biodiversity and animal welfare.
- ▶ Efficiency and safety of on-farm slaughtering techniques.

More ideas for Operational Groups and research needs are in the Focus final report

Other recommendations

- ▶ Increasing farm performance by knowledge exchange or training programmes requires peer-to-peer.
- ▶ Make use of farm-visits, interactive and innovative communication and brainstorming techniques and tools to improve and promote grass-based beef systems.
- ▶ Develop decision support systems and precision livestock tools, using various communication channels including social media, virtual libraries, and instant messaging opportunities.

More information on the EIP-AGRI website



Final report	Operational Groups related to sustainable beef production systems
Focus Group webpage	Inspirational ideas: <ul style="list-style-type: none">• Connecting beef farmers for sustainability of the sector• Improving welfare for cows...and farmers
EIP-AGRI brochure Sustainable livestock farming	

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