Territorial collaboration among crop and livestock farmers

Geographical scope: Ariège, Southwest France

Organisation name: INRAE, advisers of the Chamber of Agriculture of Ariège

Number of participating farmer: 13 farmers (initially) + 5 new farmers, 2 advisers

Total budget: MIXED + FAAB companion project
Funding: Horizon 2020

A bit more about the Case Study

The case study focuses on enhancing local feed self-sufficiency by fostering partnerships between crop and livestock farmers. The project addresses feed input relocation, logistical barriers, and infrastructure challenges by promoting the use of locally grown grains, protein crops, and fodder in livestock diets

Through on-farm experiments and participatory research, farmers co-designed feed production and exchange scenarios using the Dynamix serious game. Trials on winter cereal grazing and alternative feed formulations assessed impacts on livestock performance and soil health, while local cooperatives were engaged to support logistics and upscaling efforts

Highlights

- Crop-livestock integration beyond farm level is allowing to improve collective N balance without decreasing margins but complexifies organization
- Up-scaling local manufactured feedstuff to non-equiped farmers would require the involvement of third-parties such as local cooperatives
- Dynamix co-design process can be easily out-scaled to other countries but local human dimension has to be considered

Website and project information

https://projects.au.dk/mixed/news/nyhed/artikel/meeting-mixed-livestock-crops-agroforestry-farmers-in-ariege-in-france

https://projects.au.dk/mixed/

Key outcomes and insights

Environmental and socio-economic benefits

The project introduced a territorial collaboration model, enabling farmers to co-design local feed production and exchange systems using the Dynamix serious game. By integrating on-farm feed experiments and involving local cooperatives, the initiative provided a structured approach to reducing reliance on imported feed and enhancing crop-livestock synergies beyond individual farms

Innovative features

The integration of locally produced grains, protein crops, and fodder reduced the need for imported feed, lowering the carbon footprint of livestock production. Economically, it increased farm resilience, reduced input costs for farmers, and strengthened local food systems by creating new market opportunities and fostering cooperative supply chains

Good practices & Lessons learned

Problem 1. Lack of local feed infrastructure
Livestock farmers lacked the infrastructure to store, transport, and process locally sourced feed, making them reliant on industrial feed providers

Solution 1. Establish collective feed management systems and collaborate with cooperatives to improve feed processing, storage, and distribution. Using digital tools and participatory planning can help optimize feed logistics and ensure efficient resource use

Problem 2. Knowledge gaps in local feed production
Many farmers are unfamiliar with balancing locally grown cereals and protein crops for livestock diets

Solution 2. Conduct feed trials using locally grown grains, peas, and fababeans to evaluate their nutritional value, participate in training sessions and collaborate with research institutions to refine feed formulations for different livestock needs

Problem 3. Logistical barriers in scaling up local feed production
Organizing contracts, transport, and storage for local feed is challenging, particularly for small-scale farmers

Solution 3. Partner with local cooperatives and third-party processors to streamline feed collection and processing. Developing territorial agreements and using shared transport solutions can help reduce costs and increase efficiency

Problem 4. Legal and regulatory challenges
Selling and exchanging local feed is restricted by regulations requiring cooperative involvement

Solution 4. Advocate for policy adjustments that recognize and support local feed exchanges, work with legal experts and cooperatives to develop compliant contractual agreements that facilitate feed trading while ensuring quality and traceability

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