

Developing livestock production chains based on species rich grasslands to overcome meat and dairy sector difficulties and improve sustainability of livestock breeding

Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

FILIERBA

Tematica

Gestione aziendale

Information

Time frame

2020 - 2023

Durata

36 months

Partners (no.)

13

Regione

Piemonte

Comparto

Zootecnia - bovini/bufalini

Localizzazione

ITC11 - Torino

ITC13 - Biella

ITC16 - Cuneo

Costo totale

€851.635,79

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP009: Italy - Rural Development

Programme (Regional) - Piemonte

Parole chiave

Animal husbandry and welfare

Farming/forestry competitiveness and diversification

Supply chain, marketing and consumption

Biodiversity and nature management

Food quality / processing and nutrition

Agricultural production system



Objectives

To improve from a technical and economic point of view beef and the milk production chains based on feeding systems using mainly species rich grasslands (fresh herbage and hay), develop productions (edible plants) integrating the livestock ones (multipurpose use of grasslands), promote the adoption of innovative solutions for farm management, in order to improve the business organization of primary producers and strengthen the link between products and territory

Activities

The project consists of 7 WPs and 32 activities aimed at:

- Studying the status and potential of milk and meat supply chains based on species rich grasslands
- Improving the organization and efficiency of supply chains based on mixed meadows to implement innovative solutions in farms
- Developing an innovative supply chain of edible plants for humans, using the same resources used for obtaining milk and meat
- Analysing the demand for products from mixed meadows by intermediate and final consumers
- Identifying strategies for the improvement of the offer, promotion and protection of products obtained from species rich grasslands.

Context

In the last 10 years, in Piedmont, a progressive reduction of the competitiveness and production capacity of the dairy and meat farms has been observed, also due to a rapidly changing social-economic context

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Sito web
<http://www.filierba.it>

Project status
completed

(change in consumer food habits, economic crisis, instability in the offer, etc.).

These difficulties can be overcome only through actions on the organization of the farms and on the structure of supply chains, by:

1. reducing production costs, specifically feeding and processing costs;
2. differentiating and promoting productions, improving their nutritional and health features and creating the conditions to obtain higher sales prices, also in order to improve the economic competitiveness of the farms;
3. reducing the impacts of livestock farming systems on the environment and on animal welfare, and reducing the negative effects of livestock products on human health, also gaining market recognition of the generated positive externalities;
4. simplifying the organization of the supply chains, promoting the short ones and giving value to the products at local level;
5. changing the distribution of revenues among the various actors in the production chains.

The project aims to set up a group of stakeholders in the milk and meat sectors in Piemonte, mainly primary producers, willing to increase the differentiation and valorisation of the various products and to reduce production costs through the adoption of bovine feeding systems based on species rich grasslands.

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Università degli Studi di Torino - Dipartimento di Scienze Agrarie, Forestali e Alimentari (DiSAFA)	Via Largo Braccini,2 10095 Grugliasco TO Italy	011 6708791	michele.lonati@unito.it
Partner	Università degli studi di Torino - Dipartimento di Management	Corso Unione Sovietica, 218 bis 10134 Torino TO Italy	011 670 5710	ricerca.economiamanagement@unito.it
Partner	CLUB AMICI VALCHIUSELLA	Piazza Martiri 1944, 1 10080 Traversella TO Italy	348 0662697	info@erbedivalchiusella.it

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Role	Azienda	Address	Telephone	E-mail
Partner	Caseificio Valle Elvo Società Agricola Cooperativa	Via Opifici, 22 13898 Occhieppo Superiore BI Italy	335 1948618	caseificio@cmve.it
Partner	Consorzio Regionale per il Consolidamento e lo Sviluppo della Cooperazione Agricola	Corso Francia, 329 10142 Torino TO Italy	011 4405441	forestale@gestcooper.it
Partner	EFFE MARKET S.R.L.	Via Circonvallazione, 190 10026 Santena TO Italy	011 9491334	effe.market@gmail.com
Partner	KULTA SRL	via Carducci, 32 20123 Milano MI Italy	348 9501882	info@kulta.it
Partner	Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna "B. Ubertini"	Via Antonio Bianchi 7/9 25124 Brescia BS Italy	030 2290358	direzionegenerale@izsler.it
Partner	Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta	Via Bologna, 148 10154 Torino TO Italy	0183 660185	andrea.loria@izsto.it
Partner	La Granda Quality Food	via G. Matteotti, 52 12045 Fossano CN Italy	0172 636385	direzione@lagranda.it
Partner	La Granda Trasformazione S.R.L.	via Garetta, 8A 12040 Genola CN Italy	0172 726178	direzione@lagranda.it

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Role	Azienda	Address	Telephone	E-mail
Partner	Masera Claudia d.i.	via Poirino, 1 10029 Villastellone TO Italy	340 2442030	info.roseleto@gmail.com
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Pratiche abstract

Description

Different tools have been used for the management of forage resources (e.g. Pastoral Plans, PP), which, even though available to farmers since a long time, are little known by them. Indeed, PP have been applied mostly in farms that exploit mountain summer pasture. In its original formulation, the PP defines the criteria and the technical path to be followed for the proper management of pasturelands, identifying the optimal time for grazing and the movements of the herds. The innovation promoted by FILIERBA consists in the transfer of this tool to contexts different from those for which it was conceived, such as the lowlands, where temporary forage crops occur and the exploitation is not often by grazing, or in permanent mountain farms. For the adaptation of the PP, we will proceed: i) by adapting the survey methodologies used for the assessment of forage availability, for instance in order to evaluate the changes in the botanical composition over the year, or to accurately measure the production of herbage mass; ii) by adding the "mowing management" in the PP, which were previously conceived only for the grazing management; iii) by integrating the fertilization plan and manure management; iv) by integrating crop, which are always present as rotation with temporary grasslands, and v) by adapting the PP to a medium-long term management (up to 10 years).

Description

Under-roof machine hay drying will be introduced in a farm of the OG to limit the inter-annual variability of forage production, to minimize the use of off-farm forage whose quality is often uncertain, to reduce the risk of unforeseen expenses for the purchase of forage, to raise the minimum level of the ration quality for the animals (thus reducing the use of concentrate feeds) and to stabilize the quality of the production among the different cuts. The equipment and technologies that will be used have been already widely tested in other European regions (e.g. Switzerland, Austria, Germany) and in north-eastern Italy. However, up to now this practice has not been yet implemented in Piedmont, where the climatic context and the organization of the farm are different. Under-roof hay drying limits the time spent in the field to 24-36 hours, significantly reducing the exposure to weather events that can have devastating effects on the quality of the hay and that, with climate change, are more and more unpredictable. With this practice the mown grass is transferred from the field to the barn with a humidity that can be even higher than 50% and the residual moisture is removed by insufflating air at a temperature 5-10°C higher than the environmental one. If funds will allow, on the same farm, under-roof hay drying will be combined with precision irrigation of grasslands.

Description

During the project, we will introduce innovations in the production processes of the following foods: i) meat from dairy breeds calves, ii) dairy products and meat from species rich forages and iii) wild edible plants from meadows and pastures.

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Concerning the first point, the innovation will consist in introducing the "grass-hay" feeding to give value to dairy breeds that normally are not used for farm replacement (e.g. male calves), analysing the repercussions on the qualitative properties of the meat, both chemical and physical. With regard to the second point, the innovation will consist in the characterization from the physical, chemical, nutritional, nutraceutical and organoleptic point of view of three cheeses and a drinking milk produced from species rich forages, to identify and promote the differences compared to conventional products on the market. These products will be introduced into the commercial network and consumer feedbacks will be collected. The innovation of the third point will consist in a selection of wild edible plants, which will be characterized from a nutritional and nutraceutical point of view. A regulation of the harvesting and daily harvesting quantities will be proposed. In addition, for a selection of species, appropriate harvesting, post-harvest, processing and packaging techniques will be identified.

Description

A monitoring network of environmental variables will be designed and implemented on a farm of the OG to control the growth of meadows and pastures and, consequently, to provide indications to the farmers on when to carry out their activities (e.g. haymaking, fertilization, reseeding). Agrometeorological monitoring networks are already relatively widespread, but they are limited to the control of climatic parameters. Environmental monitoring networks already exist in other sectors, but they have never been structured for a use in agriculture. In its system configuration, the network will be adapted to monitor the different environmental variables characterizing the field conditions in which farmers operate, e.g. some climatic variables such as air and soil temperature, air and soil humidity, precipitation, but also agronomic variables such as the grass growth and the phenology of plant species. To support decisions, the farmer will be able to access the data collected, both current and historical data series, in a concise and understandable way through a dashboard accessible through tablets, smartphones and PCs, thanks to specially designed software (e.g. APP for smartphones).

Description

The project aims at developing tools to protect and certify the production from species rich forages (grass and hay). Some tools to protect products already exist in Europe for specific products (e.g. production specifications of hay milk TSG), but there is no system solution (e.g. a trademark for the whole production chain) that allows both to ensure the authenticity of the products and to uniquely identify the productions obtained from animals fed species rich forages. The following actions will be implemented: (i) drawing of a European collective supply chain brand "grass & hay of Piedmont"; (ii) drafting a procedural guideline for the protection of species rich forages productions; (iii) drafting of a protocol for the certification of the producible quantities to guarantee the authenticity, quality and traceability of the products, based on the principles of the forage-pasture production register, which was developed in the past by the OG leader; iv) drafting of a protocol for the certification of the sustainability of the milk, meat and their derivatives supply chains; v) identification of a ranking system of supply chain operators according to the environmental sustainability of production processes, distribution and marketing, based on the ISO 9001 and 14001 certification standards, which will allow the consumer to immediately understand if and how much a given product is 'eco-friendly'.

Link utili

Titolo/Descrizione	Url	Tipologia
Sito web del progetto	http://www.filierba.it	Sito web

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