Pasture-based farming & sheep breed & new cheese types

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1. **Description of the innovation**

The farm ‘Sa Mura Bianca’ is located in North Sardinia (Italy). The main adopted innovations are:

1. Exclusive use of natural permanent pastures
   
The farmer decided to abandon the cultivation of annual crops, that were traditionally sown by his father. He restored semi-natural pastures with wild species where once annual forage crops and cereals were cultivated. No fertilisation is applied to soils. Sheep graze also on wooded pastures where holm oak is present and eat acorns. Sheep graze in plots for 4-5 days, then they are moved to the nearby plots. The use of natural pastures improved milk and cheese quality, lowering labour intensity and production costs.

2. Sheep breed. The farmer is interbreeding the Sarda breed with a Sardinian breed (‘Pecora Nera di Arbus’) to increase the adaptability and rusticity of Sarda sheep.

3. Development of new cheese types. Sheep milk is entirely processed into cheese in the farm. The farmer introduced new techniques in cheese processing: use of microbial rennet, cheese maturation under straw, production of pecorino cheese flavoured with Sardinian truffles. The farmer also produces the traditional Sardinian yogurt (‘Gioddu’), fresh ricotta, salty and roasted ricotta, and a special type of cheese that resembles ricotta (‘cacioricotta’). All cheese is produced from raw milk.

**Reason for the innovation**

- Reduction of milk cost production
- Reduction of labour intensity
- Increase farmer income
- Offer high quality and healthy products to consumers
ENVIRONMENT
Soil types: clay soils, acidic pH
Climate: Mediterranean climate
Altitude: 450-500 m a.s.l.
Slope: 10-35%

GRASSLAND MANAGEMENT
Grazing: Yes
Grazing management type: rotational grazing
Length of the grazing season: 12 months
Forage conservation type: Hay
Fertilisation rate: 0

FARM STRUCTURE
Annual Work Unit: 1 worker
Agricultural Area: 120 ha. All the farm area is covered by natural and semi-natural rainfed permanent pastures, and partly, with cork oak scattered trees:
- 36 ha, wooded pastures
- 84 ha, semi-natural pastures
Activity: dairy sheep raising (Sarda breed crossbred with Pecora nera di Arbus breed)
Number of heads (LSU): 40
Stocking rate referred to total farm area: 0.23 LSU per hectare

ANIMAL PERFORMANCE
Milk production: 240 l per head per year
Meat production: 250 milk lambs per year, slaughtered 28 days after birth (carcass weight: 6-7 kg)

WHY IT IS WORKING
The farmer is very motivated in producing milk and cheese in a natural way
He is proud to produce innovative high quality products and he is very respectful of his customers
The farmer is determined to innovate products to find new consumers and markets to maximize the added value of cheese
The farmer has loyal customers in a farm-to-fork market (Coldiretti Campagna Amica)
Country shapes

Domains of innovation

- Machinery, tools
- Forage mixture
- Forage conservation technique
- Grazing management system
- Legume management
- Animal feeding management
- Animal type (breed)
- Product processing
- Marketing
- Farm system
- Landscape

Main types of animal

- BEEF
- MILK
- SHEEP
- MILK
- MILK