Feeding system based on pasture sward grazing and high-quality hay obtained in special technology based on drying in barn

MILK

Juchowo Farm

1 Description of the innovation

The innovation of the farm is the feeding system of dairy cows based on high-quality hay production and grazing during the vegetation season. Hay production technology is divided into two steps. The first one is mowing and drying it to the water content of 40%; this step takes place in the field, to speed up the process mowers with conditioners and 1-2 tedding are used depending on the amount of sward yield. The second step takes place in specially prepared barns with chambers equipped with grate floor dryers, wherein an artificial way blew cold and warm air with a lot of tedding; hay is drying to the appropriate humidity; it's retaining more nutrient value. Warm air is obtained from special chambers of a double roof of the barn and/or wood-burning stoves.

Added value:
Grassland quality (species composition, feeding value)
Livestock production quality (taste, nutritive value, etc)
Animal health and welfare

Farmer's strategy

Feeding of dairy cows based only on high-quality hay and grazing the farm has been practicing since its inception. This feeding is related to the specificity of farming in the biodynamic system, which does not allow silage in feed base for dairy cows. In the beginning, the hay was produced in a traditional way and fully dried on the ground of meadows. Unfortunately, often the bad weather conditions did not allow to collect it in proper quantity and quality, which strongly affected the results of milk production. In 2009, the board of farm decided to solve this problem by building the first barn equipped with active drying system. The next one was built already in 2012. The creation of these investments significantly increased the quantity and quality of grassland hay, which led to the quick acquisition of 100% of the milk production in the biodynamic quality system. The second important part of the feeding system of dairy cows is pasture sward grazing. The pastures are regularly renovated with using of multi-species seed mixtures (with herbs) and irrigated.

2 Farm description

ENVIRONMENT

Soil types:

Sandy, Sandy-loam, Peat

Climate:

Warm-summer humid continental

Altitude:

149 m a.s.l.

Slope:

10%

GRASSLAND MANAGEMENT

Grazing 7 months per year in the rotational stocking system

The sward is conserved by hay making for feeding dairy cows during winter period and for supplementation of pasture sward.

STRUCTURE

Annual Work Unit: 50

Agricultural Area: 1700 ha UAA

Main forage area: 1050 ha

Arable land area: 1400 ha

Permanent grassland area: 300 ha

Other forage area (silage corn): 0 ha

Average stocking rates:

- agriculture area 0.3 LU/ha
- main forage area 0.5 LU/ha
- grassland area 0.5 LU/ha

ANIMAL PERFORMANCE

Dairy cows: 350

Beef cattle: 102

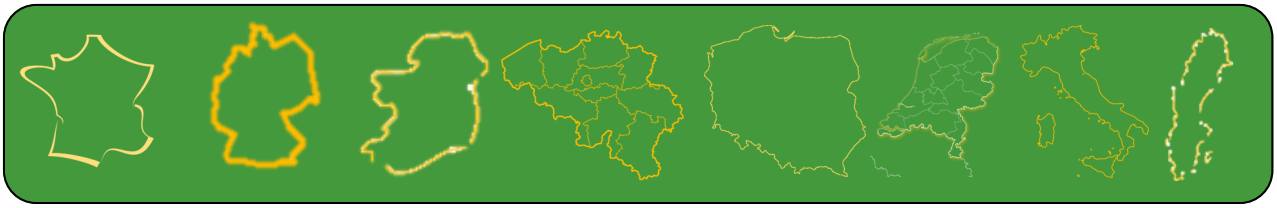
Total livestoock units: 526.85 LU

Milk production per head: 5500 (l/year)

WHY IT IS WORKING

Innovation (feeding system based on pasture sward grazing and high-quality hay obtained in special technology based on drying in barn) allows the farm to maintain stable milk production from 350 dairy cows in the biodynamic farm system. In the results the quality milk is produced (hay milk) for which a higher price is obtained. The welfare and animal health are improved. No problems with pregnancy occur. The number of cow lactations is increasing.

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