



# Barn Drying



## Birkenhof / Lentz Rainer

### 1 Description of the innovation



Aim of the barn hay drying is to produce the same amount of milk with 50% less concentrates (500kg instead of 1,000kg/cow). In addition to that, it is also intended to get 7 cents more per liter milk from cheese production factories. The barn hay drying enables to loose less matter on the field and to produce an enhanced hay quality in opposition to hay dried on the field.



This installation is working with a condenser which aim is to dry the air. This is done by cooling it down under the condensation point and warming it up again afterwards.

The barn that was built is 60 m long, 22 m wide and is divided in 4 different compartments, each one 1400 m<sup>3</sup> big.



**Better health of the cattle and better milk quality**

To implement this type of innovation it is needed to build the infrastructure and to get it running properly. Secondly you have to learn the necessary know-how to get a perfect end product. These 2 points are the most difficult regarding the implementation of the innovation.

## 2 Farm description

### ENVIRONMENT

Haute Ardenne region in Belgium

Clayey-loam soil types

Temperate oceanic climate

Altitude : 520 m

Slope: 7 %

### GRASSLAND MANAGEMENT

**Grazing** : Yes

Grazing management type: short grass grazing

### STRUCTURE

- Annual Work Unit: 2.4
- Specialist organic milk production with 132 milking cows
- Fleckvieh breed
- Agricultural Area : 116 ha UAA
- 100 % Grassland

### ANIMAL PERFORMANCE

- Average of 6,200L/cow x year
- Average lifetime of the cows: 6.5 years
- Average calving/cow: 4

### WHY IS IT WORKING

The project just started 6 month ago. So, at this time we cannot state why it is working. But we can argue on why it will be working. The farm is big enough to carry such an investment. The fact that the farm is organic and that they are buying less concentrates because of the Hay Barn is another argument. Finally, by producing milk for the cheese production, it allows them to get a higher price for their milk.