



# The chemical analysis of fresh grass before cutting



## Alina Kaczala

### 1 Description of the innovation



The chemical analysis of protein and fiber content in fresh grass is carried out. In order to capture the best moment for cutting and harvesting plant material collected from grasslands.

SM (sucha)	189,00	g/kg prod
VEM (jedn.)	1064,00	/kg SM
VEM (prod.)	201,00	/kg prod.
BS (białko)	143,00	g/kg SM
BS (białko ogólne prod)		g/kg prod
CF (włókno)	167,00	g/kg SM
CF (włókno sur. produkt)		g/kg prod
ASH (popiół)	92,00	g/kg SM
ASH (popiół)	17,00	g/kg prod
VC-OC, IVC, RR, 10		%



Added value:

Increasing grassland quality (feeding value)

### The farmer's strategy

The cooperates with the private company, that invited her to participate free of charge in the GrassMap programme in 2016. She was interested in the subject, so she agreed. The programme included taking grass samples every week and testing in the laboratory shortly afterwards. The farmer had an on-line access to all results and their interpretation. Having knowledge about current protein and fiber content in the sward the farmer could more easily indicate the best time for cutting and harvesting. The first mowing took place around 12 May, which caused astonishment of local farmers who usually cut grasses for the first time at the end of May. In Poland, methods of chemical analysis of grass are known well by scientists. Laboratory analyses of fresh grass are mainly carried out by research centers, that cooperate with selected farmers. They are not widely used in agricultural practice.



## 2 Farm description

### ENVIRONMENT

Soil types :

Sandy, Sandy-loam

Climate:

Warm-summer humid continental

Altitude :

117 m a.s.l .

Slope :

0%

### GRASSLAND MANAGEMENT

All of the grasslands are exclusively mowed.

The sward is conserved by making haylage.

### STRUCTURE

**Annual Work Unit: 5**

**Agricultural Area:** 180 ha UAA

Main forage area: 95 ha

Arable land area: 155 ha

Permanent grassland area: 25 ha

Temporary grassland area: 10 ha

Other green forage area: 60 ha

**Average stocking rates:**

- agricultural area 1.5 LU/ha
- main forage area 2.9 LU/ha
- grassland area 8.3 LU/ha

### ANIMAL PERFORMANCE

Dairy cows: 175

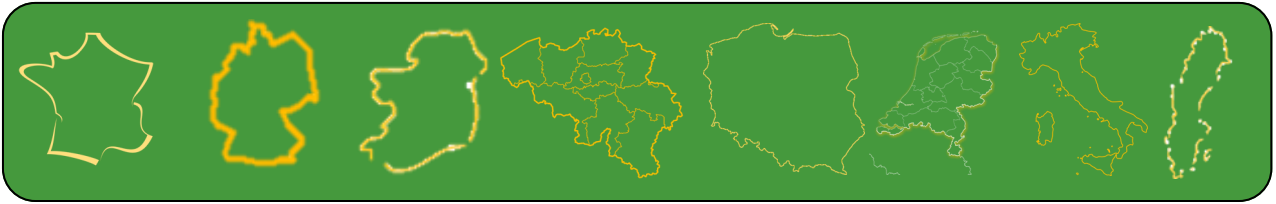
Total livestock units: 281.05 LU

Milk production per head: 11500 (l/year)

### WHY IT IS WORKING

The farmer cooperates with advisors employed by the private company. The owner of the farm had an on-line access to all results and their interpretation. Having knowledge about current protein and fiber content he could more easily indicate the best time for cutting and harvesting.

## Country shapes



## Domains of innovation



Machinery, tools



Animal type (breed)



Forage mixture



Product processing



Forage conservation technique



Marketing



Grazing management system



Farm system



Legume management



Landscape



Animal feeding management

## Main types of animal

