



# The measurement of dry matter of wilted grass in a microwave



## Adam Warnke

### 1 Description of the innovation



**The analysis of dry matter of cut and wilted grass sward in a microwave.**

**Description of the method.**

**Put 100 g sample of grass into the microwave together with the glass of water for three minutes**

**Weigh the sample and record the score**

**Put the sample of grass into the microwave together with the glass of water for two minutes.**

**Weigh the sample and record the score.**

**Put the sample of grass into the microwave together with the glass of water for one minute.**

**Weigh the sample and record the score.**

**Repeat the one-minute procedure until the mass stops changing.**



**Added value:**

**Increased quality of conserved grass**

### The farmer's strategy

The farmer is interested in the subject. The moisture of wilted grass is usually guesstimated by Polish farmers. With this approach, farmers cannot be sure that they produce forage of the best possible quality. The weighting dryers available on the market are expensive for an average farmer. In Poland, some private companies started promoting more accurate measurement of raw material, because insufficient attention is paid to a very early stage of fodder production from grasslands. At present, the laboratory analysis of the grass silage or haylage is commonly outsourced shortly before setting a feed ration for cows.

## 2 Farm description

### ENVIRONMENT

Soil types:

Peat, Sandy, Sandy-loam

Climate:

Warm-summer humid continental

Altitude:

50 m a.s.l.

Slope :

0%

### GRASSLAND MANAGEMENT

85.5% of grasslands are exclusively mowed.

Heifers are grazed and kept outside throughout the year: continuous stocking

The sward is conserved by making haylage and hay.

### STRUCTURE

**Annual Work Unit: 4**

**Agricultural Area: 74ha UAA**

Main forage area: 74 ha

Arable land area: 24 ha

Permanent grassland area: 50 ha

Temporary grassland area: 5 ha

Other green forage area: 19 ha

**Average stocking rates:**

- agriculture area 1.3 LU/ha
- main forage area 1.3 LU/ha
- grassland area 1.8 LU/ha

### ANIMAL PERFORMANCE

Dairy cows: 70

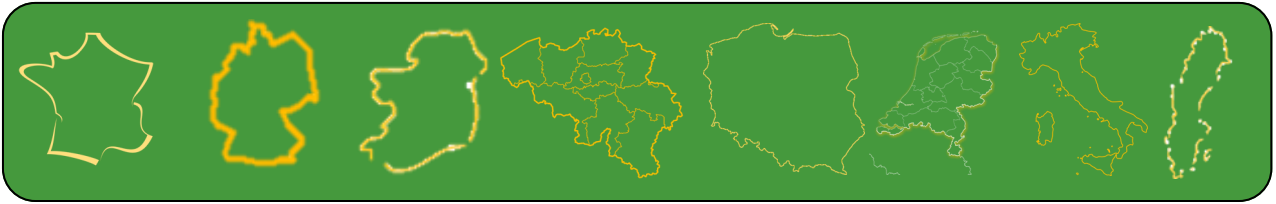
Total livestock units: 97.85 LU

Milk production per head: 9700 (l/year)

### WHY IT IS WORKING

**The method is very cheap, easy and safe. It does not take a lot of time (usually, not more than 15 minutes is needed).**

## 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

