

Influences of EM on quality of grass/hay for milk-production

Introduction

Mr. Herbert Plangger and his family from Walchsee/Tyrol, Austria. Owner of a dairy, producing cheese trademarked as “Bergkase”, “Bio-Senner”, “Emmentaler” etc. by using only unpasteurized milk.

120 farmers deliver between 50,000 and 60,000 litres of milk each a year. 75% of these suppliers are organic farmers. In summertimes milk comes from cows living on alpine pastures up to 1,800 m above sea-level. Right there a variety of short grass and herbs is growing.

Some farmers have installed special hay-drying –machines. There, in a closed system, material is dried in a very carefully way. The effect: hay of extraordinary quality.

How EM is in Use

- 120 farmers strew a special stonemeal – treated with EM – on their meadows
- Some twenty farmers use EM in addition as feed additive for manure treatment and for cleaning
- EM is used for cleaning process in the dairy

Aim

Let's find out, whether it's possible to increase

- quantity and
 - quality
- of grass / hay by
- strewing stonemeal with EM
 - and drying hay carefully

Materials and Methods

An organic farmer, the Brunner family, living in Erl/Tyrol (800 m above sea level; 1,400 – 1,450 mm rainfall a year), is using now for two years:

- Stonemeal treated with EM
- EM-extended put to the manure
- some EM-extended as feed additive in winter; in summer livestock is on the alp
- hay-drying-machine with a drying-capacity of 21 of water/min.

Results

- 25% more hay, second and third cut of high quality
- approx. 1,000 liter / cow / year more milk
- Save of additional diet – only some cereals are needed
- Livestock is more vital and healthier
- very good quality of milk

Hay was examined by Prof. Dr. A. Haiger, University of Bodenkultur, Vienna, in spring 1999. These were the results:

| | | 1 kg fresh material | 1 kg dry mass |
|-------------|----|---------------------|---------------|
| Dry mass | g | 915 | 1,000 |
| Crude fibre | g | 200 | 218 |
| Raw protein | g | 148 | 160 |
| Energy | MJ | 5.60 NEL | 6.12 NEL |

Conclusions

- The result of the examined hay are much better than the European average
- “...compared with figures of average material it is an excellent hay, which is found only very seldom in this days”, the University confirmed
- It's difficult to measure what EM-extended is participating in this success
- It seems to be evident that treatment with EM and the careful drying method of roughage lead to very encouraging results

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in cooperation with Mr. Plangger and Mr. Brunner