

## CHEMICAL AND MICROBIOLOGICAL CHARACTERISTICS OF SILOMAIZE ENSILED WITH SOME LACTIC ACID BACTERIA STRAINS

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The object of the trial was to study the effect of some lactic acid bacteria strains on the chemical composition, energy- and metabolisable protein (MP) content, microbiological characteristics and in-silo weight and dry matter losses of whole plant maize silages.

The whole plant maize raw material was 32% DM, in soft cheddar stage of grain ripeness. It was ensiled in 4.2 litre capacity glass micro-size silos in 5 replicates /each treatment and stored on constant 25°C room temperature on day 95. The average packing density was 211 kg DM/m<sup>3</sup>

The applied treatments:

1. Untreated control
2. *Enterococcus faecium* 100.000 CFU/g FM
3. *Lactobacillus plantarum* 50.000 CFU/g + *Enterococcus faecium* 50.000 CFU/g
4. *Lactococcus lactis* 100.000 CFU/g
5. *Lactobacillus plantarum* 50.000 CFU/g + *Lactococcus lactis* 50.000 CFU/g
6. *Lactobacillus plantarum* 100.000 CFU/g FM

The main experiences are the following:

- Chemical composition and nutritive value (energy and MP content) of silages did not change significantly compare to different treatments.
- Number of yeast and mould CFU of control silage was significantly the highest among all kind of treated ones,
- Weight loss and DM loss were lower in all of the lactic acid bacteria treated silages in general than it was measured in the control silage. Least weight loss and one-third of DM loss was detected in *Lactobacillus plantarum* 100.000 CFU/g treated silage among all kind of silages.