



# EXAMINATION OF FERMENTABILITY OF ROUGHAGES BY MODEL ENSILING AND DISCONTINUOUS TITRATION

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Due to climate change, temperature rises, longer dry periods and less rainfall are expected. The increasing of water shortages in non-irrigated conditions make the cultivation of water-intensive plants risky, such as the corn silage.

### Material and methods

In our experiment, we used the method of Kovátsist (1982) to compare a wheat (*Triticum aestivum*) silage and an alfalfa (*Medicago sativa*) silage. The samples were after the shredding direct (without wilting) ensiled. The compaction was performed in 700 ml bottles by hand. The chemical analysis was performed by discontinuous titration.



The organoleptic characteristics of the silages

	Class I.	Class II.
Wheat (n = 5)	2 samples	3 samples
Alfalfa (n = 5)	5 samples	0 samples

The chemical characteristics of the silages

	pH	Mh*
Wheat (n = 5)	4.24 ± 0.28	0.63 ± 0,13
Alfalfa (n = 5)	4.60 ± 0.20	0.40 ± 0.20

\*The quality quotient by Kovátsist (1982)

### Results and conclusion

Examined at the time of harvest, wheat gave in all respects better results, than the alfalfa:

- Rumen degradability of NDF
- Green crop (t/ha)
- Dry matter (t/ha)
- Crude protein kg/ha

Based on the chemical tests, good (Class II.) silage was made from wheat, and medium quality (Class III.) silage from alfalfa. Combining the two methods (model ensiling and discontinuous titration) promises to be a good option, if the samples can be compacted to a sufficient degree.