

# "In vitro" dry matter digestibility, gas production and ph of silages of several maize cultivars

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#### Introduction

- > The use of silages is essential to guarantee quality feed ingredients during dry season;
- > Corn is the most suitable forage for the silage process;
- > Due to advances in genetic improvement, several hybrids are available on the market;
- > Analyzing the differences between materials is necessary to obtain a quality silage and adequate animal production.

### Objective

To determine in vitro dry matter digestibility (IVDMD), gas production and pH in silages of 10 maize cultivars in Iturama,



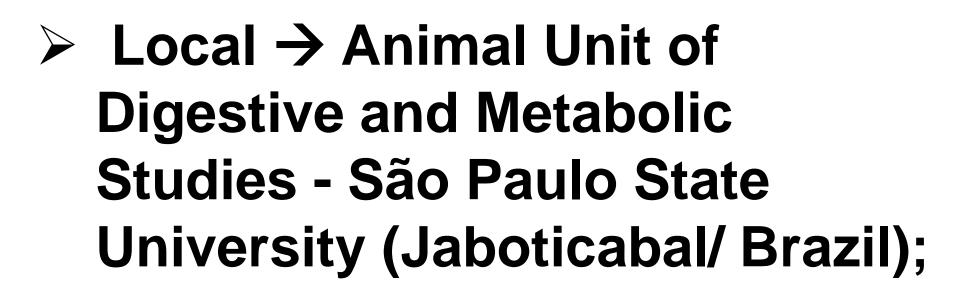




## Experimental procedures

- ➤ Variables → In vitro gas production, In vitro DM digestibility, pH
- > Treatments:

XB6012 BT, BM709 pro 2, BM815 pro 2, DKB363 pro 3, AG8740 pro 3, SYN555 vip 3, SX8555 vip 3, SX7005 vip 3, DKB390 pro 3 and R9789 vip 3;



- ➤ The maize was ensiled in experimental mini silos in a completely randomized design with 3 repetitions;
- ➤ IVDMD was estimated using Ankom Daisy II and F-57 bags (n = 44);







- > Gas production system:
  - > 200-mg sample,
  - > 10 mL rumen fluid,
  - > 20 mL McDougall`s buffer,
  - > 24 h at 39°C,
  - > 60-mL glass bottles
- ➤ Gas production → Pressure meter + Transducer;
- > Terminal pH was measured
- > Proc Mixed → SAS.





#### Results

Item	Treatments											P-value
	XB6012	BM709	BM815	DKB363	DKB390	AG8740	SYN555	SX8555	SX70005	R9789	SEM	TR
pH	6.62 b	6.65 a	6.62 b	6.60 c	6.65 a	6.61 bc	6.65 a	6.61 bc	6.61 bc	6.66 a	0.01	0.002
Gas, mL/g DM	205.7 abc	246.1 a	180.0 bc	179.6 bc	208.3 abc	243.2 a	167.7 c	240.1 a	224.4 ab	232.5 a	7.45	0.0005
IVDMD, %	73.9 ab	82.7 ab	72.7 ab	84.9 a	71.1 b	78.4 ab	78.2 ab	83.2 ab	78.3 ab	78.4 ab	2.58	0.02

#### Conclusion

The material DKB363 pro 3 presented the most interesting characteristics for the use as silage for beef cattle in Iturama, Brazil.

## Acknowledgements







