



# *In vitro* methane production of chicory and plantain collected at grazing heights.

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## Introduction

- ✓ In summer chicory and plantain appear as alternative forages with good drought tolerance and productivity.
- ✓ Screening methanogenic potential of forages may contribute to define strategies to abate ruminal methanogenesis in grazing systems.

## Objective

To investigate the CH<sub>4</sub> generating potential of *Cichorium intybus* cv. INIA LE Lacerta and *Plantago lanceolata* cv. Ceres Tonic collected at three grazing heights.

## Materials and Methods

- ✓ Forages : seeded in September 1; harvested in December 15
- ✓ Plants height : 15, 20 and 25 cm
- ✓ *In vitro* gas production system
- ✓ Methane: measured in cumulated gas at 8, 8 to 24 and 24 to 48h by gas chromatography.
- ✓ Analysis: Split-plot design with main plots in randomized blocks (3 blocks; 2 plots/block).

## Results

Specie	Height cm	NFDom	ADFom %, DM	Ligsa	CH <sub>4</sub> ml. g inc MO <sup>-1</sup>			
					0 a 48 h	0 a 8 h	8 a 24 h	24 a 48 h
Chicory	15	35 b	26	13	41 x	12 B	20 A	10 B
	20	38 a	26	14	40	11 B	19 A	9 B
	25	37 a	25	12	38	11 B	18 A	9 B
Plantain	15	33 b	22 b	11	20 by	3 B	13 A	9 B
	20	36 a	27 a	13	36 a	10 B	18 A	8 B
	25	35 a	26 a	12	34 a	7 B	18 A	9 B
SEM		0.8	1.4	1.38	5.7	2.1	2.1	2.1

a,b: in specie P ≤ 0.05 ; x,y: in height P ≤ 0.05 ; A,B : in line P ≤ 0.05

## Conclusion

**Plants height may influence total CH<sub>4</sub> production but not CH<sub>4</sub> profile.**