



Facultad de Veterinaria
Universidad de la República
Uruguay



Effects of Anavrin® on dry matter intake, ruminal environment, and methane emissions of finishing steers

Montini J. ¹, Santana A.¹, Fernández-Turren G. ¹, Bigot J. ¹, **Cajarville C.** ¹, Repetto J.L. ¹, Gere J²

¹IPAV, Facultad de Veterinaria, UdelaR, Uruguay; ²CONICET, Universidad Tecnológica Nacional FRBA, Argentina



ANAVRIN®: blend of essential oils, tannins, and bioflavonoids formulated to improve performance, and ruminal function, and reduce CH₄ emissions.

OBJECTIVES: We aimed to study CH₄ emissions of finishing steers in feedlot conditions by including ANAVRIN® in the diet.

METHODOLOGY: 12 finishing steers (16.8 mos, 362 kg BW),
Replicated 2×2 cross-over design (41-d periods)

Treatments:

- **CONTROL:** TMR (13% forage, 12%CP, 18%NDF)
- **ANAVRIN:** TMR + Anavrin® (0.35 g/100 kg BW)

Measurements: DMI as TMR offered – rejected, rumen environment using rumen catheters, **CH₄ emissions** by the **SF6 technique**

RESULTS:

No differences were observed in DMI (14 kg/d), pH (5.9), total VFA production (87.6 mM), proportions of acetate (50.5%), propionate (35.6%), and butyrate (13.9%).

ANAVRIN® reduced CH₄ emissions (table).



	CONTROL	ANAVRIN	P	CH ₄ decrease
g CH ₄ /d	189	156	0.040	17.5 %
g CH ₄ /kg DMI	13.5	11.4	0.043	15.6 %
g CH ₄ / kg BW ^{0.75}	1.77	1.47	0.035	17.0 %

Conclusions and implications

- Anavrin® reduced CH₄ emissions in terms of total yield per steer, per DMI, and per metabolic weight
- Our results suggest a higher energy use efficiency in animals receiving the additive