Salt addition to reduce concentrate intake in young bulls

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Organic beef producers seek for additives that restrict intake of ad libitum fed concentrates to achieve 40:60 concentrate:forage ratio (EC Regulation 889/2008) without increasing labour consumption

Does **10% salt proportion** in the concentrate affect performance, intake and health status?

Material and Methods

Parda de Montaña young bulls (initial weight = 290 kg)
Experimental period: 42 days
Diet: ad libitum lucerne hay + concentrate with different salt (NaCl) content
- **0.5% salt: control** (n=11)
- **10% salt** (n=11)

- Weekly weights ⇒ weight gains
- Daily Intake:
  - concentrate: per animal
  - lucerne hay: per group
  - water: per group
- Blood samples at 0, 14, 28, 42 d to obtain serum for:
  - Electrolyte balance: sodium, potassium and chlorine
  - Renal function: urea and creatinine

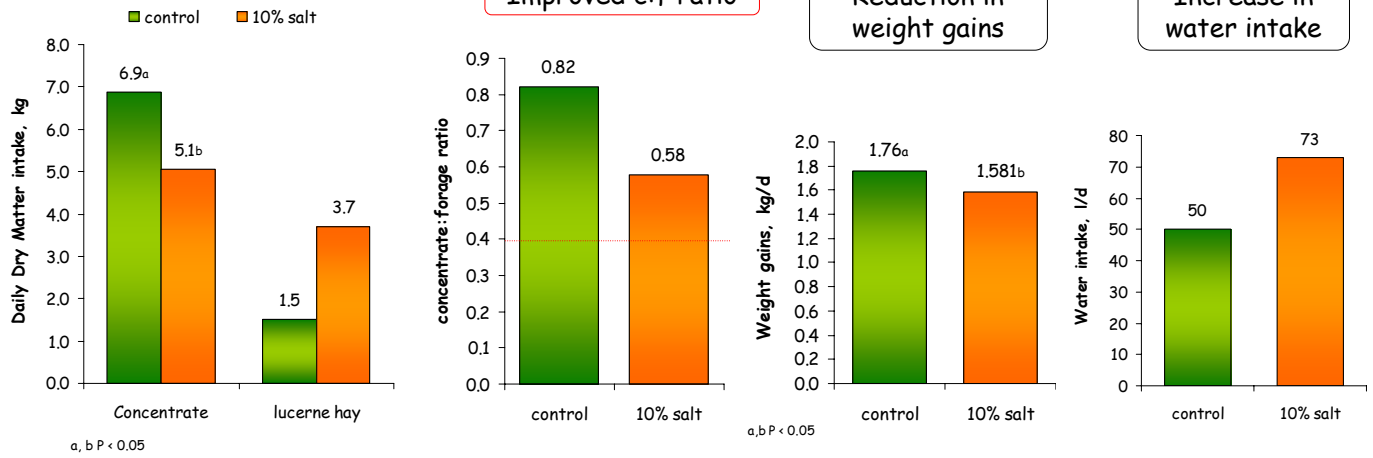
Results

Reduction in **concentrate** intake and **increase** in **forage** intake

Improved c:f ratio

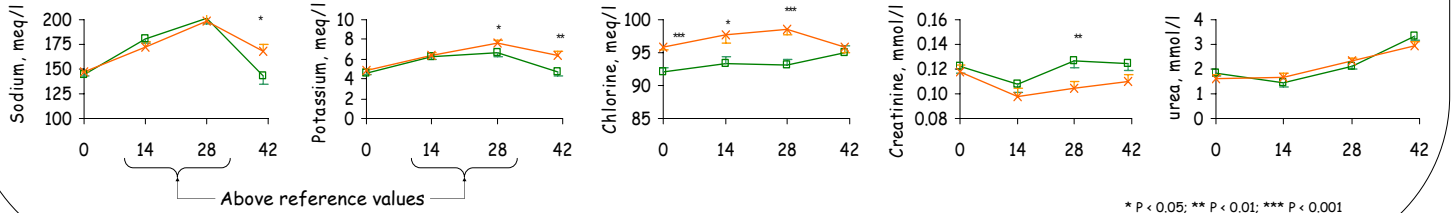
Reduction in weight gains

Increase in water intake



Affected slightly the electrolyte balance

No effects on renal function



* P < 0.05; ** P < 0.01; *** P < 0.001

Conclusions

- Addition of 10% salt reduced concentrate intake and weight gains without impairing the metabolic status
- Addition of 10% salt improved the c:f ratio but did not reach 40:60, compulsory in EU organic farming

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