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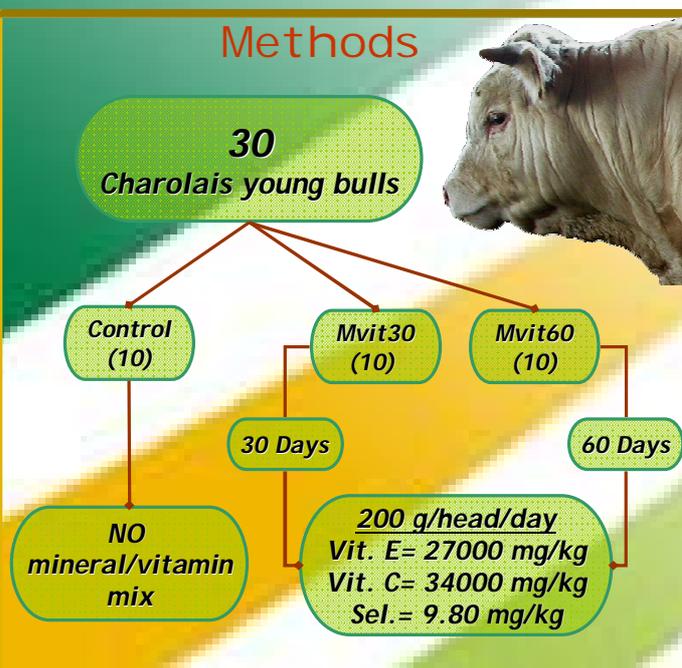
Objective

The object of this study was to evaluate the effects of a mineral/vitamin mix supplementation into the diets of finishing cattle on quality characteristics of beef.

Conclusions

Results point out that supplementation with mineral/vitamin mix increases **meat stability during retail display**, and would be an effective method for **improving water holding capacity** in fresh meat.

Methods



Meat quality

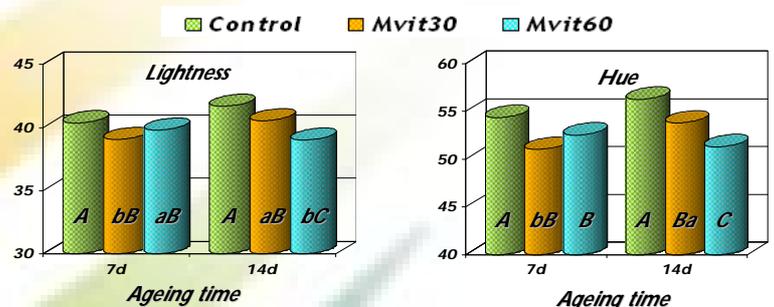
Water losses (Drip and cooking losses), pH, WBS on cooked (WBS_c) and raw (WBS_r) meat, colour parameters (L, a*, b*, Chrome, Hue) were performed on Longissimus thoracis (LT) muscle after 7 days (7d) and 14 days (14d) of ageing time.

STATISTICAL ANALYSIS

Was performed with SAS 9.1.3 (2003), using the General Linear model procedure nested with diet effect.

RESULTS

Colour parameters



a, b, c = P ≤ 0.05: differences ageing times within the same treatment.
A, B, C = P ≤ 0.05: differences among treatment within the same ageing time.

Data showed that different mineral/vitamin mix times supplementation had a significant influence on meat colour stability.

Meat quality parameters

	Ageing	Treatment			Mean	RMSE
		C	Mvit30	Mvit60		
pH		5.55 b	5.57 b	5.59 a	5.57	0.029
WBSFr	(kg)	11.34	12.04 a	12.35 a	11.91	2.283
WBSFc	(kg)	14.15 a	13.51 a	12.93	13.53	2.256
Drip loss	(%)	1.23 aA	1.16 aA	0.96 aB	1.15	0.199
Cooking loss	(%)	31.29 a	29.93 a	28.42 a	29.88	2.495
pH		5.62 aA	5.64 aA	5.54 bB	5.60	0.029
WBSFr	(kg)	10.54	9.71 b	10.24 b	10.16	2.283
WBSFc	(kg)	11.82 b	11.48 b	13.02	12.11	2.256
Drip loss	(%)	0.72 b	0.80 b	0.76 b	0.76	0.199
Cooking loss	(%)	27.66 bA	27.60 bA	25.42 bB	26.89	2.495

a, b, c = P ≤ 0.05: differences ageing times within the same treatment.
A, B, C = P ≤ 0.05: differences among treatment within the same ageing time.

pH data confirmed meat colour differences, in fact, after 14d of ageing time, LT muscle, obtained from animals belong to the Mvit60 group, showed a lower pH value than the others. Mineral/vitamin mix supplementation affected water losses, after 7d, LT muscle of Mvit60 animals showed a lowest drip loss and after 14 d, showed a lowest cooking loss.

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