EFFECT OF CALF FATNESS ON FURTHER GRAZING AND FEEDLOT PERFORMANCE

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OBJETIVE

To evaluate the effect of calf fatness after winter feedlot and type of pasture on further grazing and finishing feedlot performance

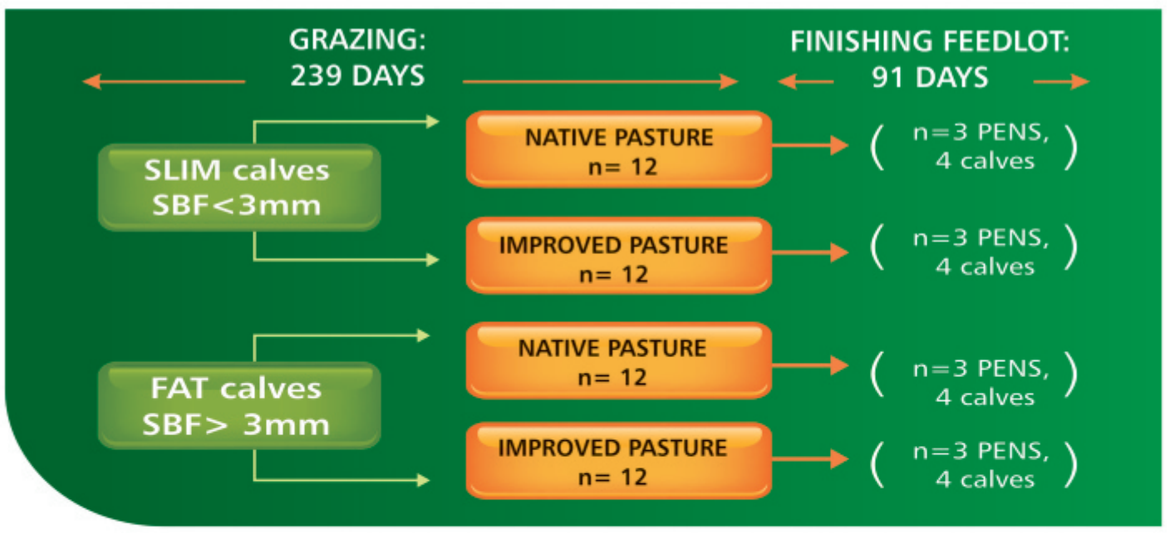
MATERIALS AND METHODS

Location and experimental period.
Uruguay (32º S, 58º W), (Oct 13, 2010 – Jun 9, 2012)
Grazing period, Jun 10 - Sept. 29, 2011 - Finishing feedlot.

Animals.
48 Hereford calves (238.8±33.5 kg; 11 months old) going out to pasture after winter feeding.

Treatments.
*Calves were divided in 2 groups according to subcutaneous backfat depth (SBFi<3mm or >3mm) and randomly allocated to a native pasture (NP) or an improved pasture (IP,) in a factorial arrangement 2x2.

*Cattle grazed from spring to fall, followed by a winter finishing feedlot period with a high grain diet, common to all treaments (91 days)



Improved pasture, Fescue, Birdfoot trefoil and White clover. Mean pasture DM biomass 2786±329 kg/ha. Sward height: 23 cm

Native pasture. Mean pasture DM biomass:1089±192 kg/ha. Sward height 13 cm

Measurements
*Liveweight (LW) every 28 days and LW gain (LWG) estimated by regression.

*Longisimus dorsi area (LDA), SBF by ultrasound by the end of grazing season.

* Feedlot. Feed: gain ratio (F:G) and carcass traits at slaughter

Statistical analysis
General model : $y_{ij} = \mu + Ti + b1(\text{Initial LW}) + eij$

RESULTS

· Calves grazing improved pastures were neavier after grazing season compared to native pasture (379 vs 398 kg., P=0,0263).

· The effect of SBF on grazing perfomance was independent of pasture type (P>0.05). Table 1

TABLE 1.
Effect calf fatness on performce during the grazing season (spring to end fall)

SUBCUTANEOUS FAT (SBF)	SLIM CALVES	FAT CALVES	SE	P-VALUE
Initial Liveweight, kg	219	260	10.7	0.001
Livweight gain during spring, kg/ day	0.880	0.779	0.053	0.0386
Liveweight gain during grazing season, kg/day	0.592	0.618	0.041	0.1512
Liveweight: end of grazing season, kg	373	404	11.6	0.0005
Subcutaneous fat : end of grazing season, mm	4.21	5.7	0.62	0.0018
L. dorsi area: end of grazing season, cm2	45.9	50.6	1.87	0.0012

· Neither pasture type nor SBF at the beggining of the grazing season affected further feedlot performance.

TABLE 2. Effect calf fatness on finishing feelot perfomance and carcass traits

SUBCUTANEOUS FAT (SBF)	SLIM CALVES	FAT CALVES	SE	P-VALUE
Mean liveweight gain, kg/d	2.0	2.23	0.20	0.1439
Feed: gain ratio	6.3	6.9	1.0	0.4703
Slaughter weight, kg	479.6	510.7	11.7	0.0072
Carcass weight, kg	259.8	279.4	4.7	0.0006
Subcutaneous backfat, mm	10.4	12.1	1.0	0.0484

CONCLUSION

Results suggest that differences in animal fat gain during early stages of growth (10 to 12 month old) do not affect further liveweight gain during the grazing seasons and finishing feedlot.