

Table S1. Experimental design indicating the distribution of observations (n) by breed type, implant protocol, and supplementation treatment for the sample of grazing bulls (Experiment I).

Breed type	ZER-ZER ^a		TBA/E2-ZER ^b		Total
	SS ^c	MS ^d	SS ^c	MS ^d	
Brahman	3	3	3	3	12
F1-Angus	3	4	3	6	16
F1-Romosinuano	3	5	3	5	16
F1-Senepol	4	5	2	5	16
F1-Simmental	4	5	3	5	17
Brahman cross	2	3	4	3	12
$\frac{3}{4}$ <i>Bos taurus</i>	3	3	2	2	10
Total	22	28	20	29	99

Source: Huerta-Leidenz *et al.* [35].

^a ZER-ZER: corresponds to a dose of (72 mg) zeranol at day 0 followed by a second dose of 72 mg of zeranol at d-90;

^b TBA/E2-ZER: corresponds to a first dose containing 140 mg trenbolone acetate + 20 mg estradiol 17 β at d-0, followed by a second dose of (72 mg) of zeranol at d-90.

^c Supplementation treatment: SS: strategic supplementation (SS); ^d MS: mineral supplementation as a control treatment.

Table S2. Composition of the forage supplements used in Experiment I.

Composition	Supplement (SS) ¹		
	Strategic-Phase 1	Strategic-Phase 2	Mineral
Ingredient, % DM basis			
Feather meal	10.0	10.0	-
Whole cottonseed	0.00	49.9	
Rice polish	77.0	27.1	
Cane molasses	5.0	5.0	
Mineral premix	7.0	7.0	
Ionophore ²	1.0	1.0	
Nutrient			
ME, kcal/kg	2.514	2.809	
CP, %	17.78	25.82	
P, %	1.07	0.79	12.0
Ca, %	0.12	0.17	24.0
Mg, %			1.5
S, %			1.0
Mn, %			0.50
Zn, %			0.75
Fe, %			0.50
Cu, %			0.20
Co, %			0.004
I, %			0.02
Se, %			0.004

Source: Huerta-Leidenz *et al.* [35]

¹Strategic supplement-Phase 1 was supplied in the first 60 days of the trial; Strategic supplement-Phase 2 was administered manually from day 60 to day 182 (122 days in total) at a rate of 1 kg/animal/day. The mineral supplement was offered to the control (MS) group throughout the test with free access (80 g/animal/day). ²Salocin® was used as the ionophore.