

**Salt addition to reduce concentrate intake in young bulls**

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Organic beef producers seek for fattening diets that comply with the 40:60 concentrate:forage (c:f) ratio imposed by EC Regulation 889/2008 without increasing labour consumption. Adding salt to concentrate may be interesting to reduce its intake provided it does not impair animal health. Twenty-two young bulls (290 kg) were assigned to one of two feeding treatments during 42 days (d). Both groups received on ad libitum basis a concentrate (11.8 MJ ME/kg DM, 16.4% CP) that differed in sodium chloride content, 0.5% (Control) and 10% (Supplemented). Animals received lucerne hay (10.2 MJ ME/kg DM, 15.8% CP) and water on ad libitum basis. Concentrate intake and weight were controlled individually and water and hay intake on a group basis. Air temperature was recorded daily. Animals were bled biweekly to study the electrolyte balance (Na, K and Cl concentrations) and renal function (urea and creatinine concentrations). Salt addition reduced weight gains (1.58 vs. 1.76 kg/d for Supplemented and Control animals respectively,  $P < 0.05$ ) and concentrate intake (5.1 vs. 6.9 kg/d,  $P < 0.001$ ) while hay (3.7 vs. 1.5 kg/d) and water intake (73 vs. 50 l/d) increased. Concentrate:forage ratio was 58:42 and 82:18 for Supplemented and Control animals, respectively. Blood parameters remained within the normal reference ranges, except for Na and K in both groups on d 14 and 28. Salt addition increased plasma Cl concentration on d 0, 14 and 28, and K concentration on d 28 and 42, and it decreased creatinine at d 28. However, as water was freely available salt poisoning did not occur. Air temperature increased on d 28 above 25°C, causing an increase in plasma Na concentration and, concomitantly, water intake. However, plasma Na concentration was not affected by salt addition. Inclusion of 10% salt in the concentrate reduced its intake without impairing the metabolic homeostasis, and c:f ratio was reduced although the compulsory ratio was not achieved.