

MEAT QUALITY FROM FATTENING BULLS FED SILAGE MADE BY USING DIFFERENT SILAGE ADDITIVES

Vilma Vrotniakiene, Jonas Jatkauskas

*Lithuanian Institute of Animal Science, R. Žebenkos 12, LT-5125 Baisogala, Radviliškis distr., Lithuania,
e-mail: lgi_pts@siauliai.omnitel.net*

Summary. Second cut legume-grass was harvested and ensiled using baler and wrapped with 6 layers of stretch film. The inoculant 'Feedtech' (2 *Pediococcus acidilactici* and 2 *Lactobacillus plantarum* and *Cellulase*) and chemical additive AIV-2000 (52.3% formic acid, 26.1% ammonium tetraformiate, 5.4% propionic acid, 1.1% ethyl-benzoate) were applied using commercial pump.

Feeding trial (126 days) with fattening bulls was carried out. Fifteen bulls were assigned on the basis of age and initial weight into three groups (C-control, F-silage with inoculant 'Feedtech', A- silage with chemical additive AIV-2000) and fed silages *ad libitum*. Feed intake was increased, respectively, by 0.61 and 0.29 kg DM per animal and day when bulls were fed inoculated 'Feedtech' silage and AIV 2000 treated silage and resulting in higher weight gain of 94 and 86 g per animal and day compared to animals fed ordinary silage.

In F and A group, the pH-values of the long dorsal muscle was, respectively, by 0.41 ($P < 0.001$) and 0.31 ($P < 0.001$) unit lower, colour coefficient by 84.67 ($P < 0.001$) and 73.67 ($P < 0.001$) higher, water binding capacity by 0.05 and 0.13% higher, cooking losses by 0.73 and 0.1% lower and protein value index by 0.22 ($P < 0.025$) and 0.15 unit higher in comparison with the C group.

Silage made by applying inoculant and chemical additive did not affect the chemical composition of ground meat and long dorsal muscle.

Keywords: big bale, inoculant, chemical additive, live weight gain, meat.