

AN EFFECT OF GIVING HAY THAT AMMONIATED AND FERMENTED BY CELLULOLITIC BACTERIA TO THE DRY MATTER CONSUMPTION AND WEIGHT GAIN OF SHEEP

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ABSTRACT

The aim of this research was to know the effect of hay that was ammoniated and fermented by cellulolytic bacteria in order to get the dry matter consumption and weight gain of the sheep.

Twelve male sheep 1 year old with average weight 12 kg was used. Research design that used was Fully Randomized Design (FRD = RAL) with three treatment and four replicates. The data was analyzed by Analysis of Variance (ANOVA) and Duncan 5%. All of the sheep was given with hay + urea + molasses ; P1 was added with isolate of cellulolytic bacteria *Acetobacter liquefaciens* 10^8 /cc, and P2 was added with four cellulolytic bacteria *Acidophilium facilis* 10^8 /cc, *Acetobacter liquefaciens* 10^8 /cc, *Cellulomonas sp* 10^8 /cc, *Acetobacter sp* 10^8 /cc.

The result of ANOVA one way test show that dry matter consumption was not significant different ($P > 0,05$). The weight gain of sheep had significant different ($P < 0,05$) and the result of Duncan test showed P1 had significant different with P0 and P2 ($P < 0,05$).

Key words : Ammoniation, Fermentation, *Acetobacter liquefaciens*