

PROFIL FERMENTASI SILASE BERBAHAN TEBON JAGUNG YANG DIBERI SIRUP AFKIR SEBAGAI SUMBER GLUKOSA

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INTISARI*

Penelitian ini bertujuan untuk mengetahui profil fermentasi silase berbahan tebon jagung yang diberi sirup afkir sebagai sumber glukosa. Pembuatan dan pemanenan silase dilakukan di Dusun VII, Desa Megang Sakti II, Kecamatan Megang Sakti, Kabupaten Musi Rawas, Provinsi Sumatera Selatan. Uji Potential Hydrogen (pH), Water Soluble Carbohydrate (WSC), amonia, dan total Volatil Fatty Acid (VFA). dilakukan di Laboratorium Ternak Perah, Fakultas Peternakan, IPB University. Penelitian ini dilakukan pada bulan Februari-Juni 2023. Metode penelitian ini adalah eksperimen menggunakan Rancangan Acak Lengkap pola searah dengan 5 perlakuan dan 5 ulangan. Perlakuan yang diberikan adalah P1: Tebon Jagung (kontrol), P2: Tebon Jagung + Sirup komersial 2,50%, P3: Tebon Jagung + Sirup komersial 5% , P4: Tebon Jagung + Sirup komersial 7,50%, dan P5: Tebon Jagung + Sirup komersial 10%. Data pH, kehilangan BK, WSC, amonia, dan total VFA dianalisa dengan ANOVA, apabila terdapat perbedaan maka dilakukan uji lanjut dengan Duncan's Multiple Range Test (DMRT). Hasil Anova menunjukkan perbedaan yang nyata ($P < 0,05$) terhadap profil fermentasi yang meliputi pH, kehilangan BK, WSC, amonia, dan total VFA. Disimpulkan bahwa pada pembuatan silase tebon jagung yang ditambah sirup komersial afkir 10% dapat menghasilkan silase berkualitas baik dengan nilai pH 3,48%, kehilangan BK 3,97%, WSC 7,55%, amonia 2,72 mM, dan total VFA silase tebon jagung 51,6 mM.

Kata kunci: Tebon jagung, sirup komersial afkir, silase

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FERMENTATION PROFILE OF CORN STRAW SILAGE SUPPLEMENTED WITH WASTE SYRUP AS GLUCOSE SOURCE

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ABSTRACT*

The aim of this study was to investigate the fermentation profile of corn straw silage supplemented with waste syrup as a glucose source. The silage production and harvesting were conducted in Dusun VII, Megang Sakti II, Megang Sakti, Musi Rawas, South Sumatra Province. Potential Hydrogen (pH), water-soluble carbohydrates (WSC), ammonia, and total volatile fatty acids (VFA) analyses were performed at the Dairy Cattle Laboratory, Faculty of Animal Science, IPB University. The study was conducted from February to June 2023. The research method employed an experimental design with a Completely Randomized Design in a one-way pattern, consisting of five treatments and five replications.. The treatments applied were as follows: P1: Corn straw (control), P2: Corn straw + 2.50% commercial waste syrup, P3: Corn straw + 5% commercial waste syrup, P4: Corn straw + 7.50% commercial waste syrup, and P5: Corn straw + 10% commercial waste syrup. pH, dry matter loss, WSC, ammonia, and total VFA data were analyzed using analysis of variance, and if there were significant differences, further analysis was conducted using Duncan's Multiple Range Test (DMRT). The ANOVA results showed significant differences ($P < 0.05$) in the fermentation profile, including pH, dry matter loss, WSC, ammonia, and total VFA. It can be concluded that the addition of 10% commercial waste syrup to corn straw silage resulted in good-quality silage with pH values 3.48, dry matter loss 3.97%, WSC 7.55%, ammonia 2.72 mM, and total VFA in corn straw silage 51.6 mM.

Keywords: Corn straw, waste syrup, silage

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