ABSTRACT

THE EFFECT OF ADDING MOLASSES, AMMONIUM SULPHATE AND DOLOMIT ON SUGARCANE TOP SILAGE ON NDF AND ADF

By

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This study aims to determine the effect of adding molasses, ammonium sulfate, and dolomite with different levels and to determine the best level of giving molasses and ammonium sulfate to sugarcane shoot silage on NDF and ADF. This research was held in May--August 2022 at PT. Gunung Madu Plantations, KM 90 Terbanggi Besar, Central Lampung Regency, Lampung Province. Analysis of NDF and ADF was carried out at the Chemical Services Laboratory, Indonesian Animal Research Institute, Bogor. This study used an experimental method with a completely randomized design (CRD) consisting of 5 treatments with 5 replications, so there were 25 experimental units. The treatments used were P1: sugarcane shoot silage (2.5% molasses + 1% ammonium sulfate), P2: sugarcane shoot silage (2.5% molasses + 2 % ammonium sulfate), P3: sugarcane shoot silage (5% molasses + ammonium sulfate 1%), P4 : sugarcane shoot silage (molasses 5% + ammonium sulfate 2%), P5: sugarcane shoot silage (molasses 5% + ammonium sulfate 2 + 2% dolomite). The data obtained were analyzed by analysis of variance (ANOVA) and continued with Duncan's Multiple Follow-Up Test. The results showed that the content of NDF (P1: 75.49%; P2: 73.77%; P3: 73.58%; P4: 71.46%; P5: 71.65%) had a very significant effect (P<0, 01) and ADF (P1: 43.23%; P2: 42.23%; P3: 41.95%; P4: 42.28%; P5: 44.62%) had a significant effect (P<0.05) . The P4 treatment with the addition of 5% molasses and 2% ammonium sulfate gave the best effect (P<0.05%) on NDF and ADF.

Keywords: ADF, Ammonium Sulfate, Dolomite, Molasses, NDF, Silage, Sugarcane Shoot.

ABSTRAK

PENGARUH PENAMBAHAN MOLASES, AMONIUM SULFAT DAN DOLOMIT PADA SILASE PUCUK TEBU TERHADAP KANDUNGAN NDF DAN ADF

Oleh

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Penelitian ini bertujuan untuk mengetahui pengaruh penambahan molases, amonium sulfat, dan dolomit dengan level berbeda dan mengetahui level terbaik pemberian molases dan amonium sulfat pada silase pucuk tebu terhadap kandungan NDF dan ADF. Penelitian ini dilaksanakan pada bulan Mei--Agustus 2022 bertempat di PT. Gunung Madu Plantations, KM 90 Terbanggi Besar, Kabupaten Lampung Tengah, Provinsi Lampung. Analisis kandungan NDF dan ADF dilaksanakan di Laboratorium Pelayanan Kimia, Balai Penelitian Ternak, Bogor. Penelitian ini menggunakan metode eksperimental dengan Rancangan Acak Lengkap (RAL) yang terdiri dari 5 perlakuan dengan 5 ulangan, sehingga terdapat 25 unit percobaan. Perlakuan yang digunakan yaitu P1 : silase pucuk tebu (molases 2,5% + amonium sulfat 1%), P2 : silase pucuk tebu (molases 2,5% + amonium sulfat 2%), P3 : silase pucuk tebu (molases 5% + amonium sulfat 1%), P4 : silase pucuk tebu (molases 5% + amonium sulfat 2%), P5 : silase pucuk tebu (molases 5% + amonium sulfat 2 + 2% dolomit). Data yang diperoleh dianalisis dengan analisis sidik ragam (ANOVA) dan dilanjutkan dengan Uji Lanjut Berganda Duncan. Hasil penelitian menunjukkan kandungan kandungan NDF (P1: 75,49%; P2: 73,77%; P3: 73,58%; P4: 71,46%; P5: 71,65%) berpengaruh sangat nyata ($P<0,01$) dan kandungan ADF (P1: 43,23%; P2: 42,23%; P3: 41,95%; P4: 42,28%; P5: 44,62%) berpengaruh nyata ($P<0,05$). Perlakuan P4 dengan penambahan molases 5% dan amonium sulfat 2% memberikan pengaruh terbaik ($P<0,05\%$) terhadap kandungan NDF dan ADF.

Kata Kunci: ADF, Amonium Sulfat, Dolomit, Molases, NDF, Silase, Pucuk Tebu.