

**EFEK PENGGUNAAN PELET DAUN MAHONI DAN NANGKA
SEBAGAI SUMBER TANIN DENGAN MASA SIMPAN
YANG BERBEDA TERHADAP KECERNAAN
NUTRIEN SECARA *IN VITRO***

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan pelet daun mahoni (*Swietenia mahagoni*) dan nangka (*Artocarpus heterophyllus*) sebagai sumber tanin dengan masa simpan yang berbeda terhadap pencernaan bahan kering (BK), bahan organik (BO), protein kasar (PK) serta serat kasar (SK) di rumen dan total. Analisis pencernaan menggunakan metode *Tilley and Terry* dua tahap. Rasio hijauan, konsentrat dan pelet yang digunakan yaitu 60:36:4. Parameter yang diamati adalah KcBK, KcBO, KcPK, dan KcSK di dalam rumen dan abomasum (total). Data yang diperoleh dianalisis dengan variansi pola faktorial 2x2 (*Two Way ANOVA*) sumber tanin dan masa simpan (0 dan 6 minggu) dilanjutkan dengan *Duncan's New Multiple Range Test (DMRT)*. Hasil penelitian ini menunjukkan bahwa lama penyimpanan pelet sumber tanin tidak berpengaruh ($P>0,05$) terhadap KcBK, KcBO dan KcSK di dalam rumen dan total. Penambahan pelet daun mahoni dapat menurunkan KcPK di dalam rumen ($P<0,05$) lebih efektif jika dibandingkan dengan pelet daun nangka. Pemberian pelet daun mahoni juga dapat meningkatkan KcPK total ($P<0,001$) lebih tinggi daripada pelet daun nangka. Penyimpanan pelet sumber tanin selama 6 minggu berpengaruh ($P<0,05$) terhadap peningkatan KcPK di dalam rumen serta penurunan KcPK total. Berdasarkan hasil penelitian dapat disimpulkan bahwa penyimpanan pelet sumber tanin selama 6 minggu tidak berpengaruh terhadap KcBK, KcBO, dan KcSK di dalam rumen maupun total, tetapi dapat berpengaruh terhadap peningkatan KcPK rumen dan penurunan KcPK total.

Kata kunci: penyimpanan pelet, nangka, mahoni, tanin, pencernaan nutrisi

**THE EFFECTS OF USING MAHOGANY AND JACKFRUIT LEAF
PELLETS AS A TANNIN SOURCES WITH DIFFERENT
STORAGE TIME ON *IN VITRO* NUTRIENT
DIGESTIBILITY**

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ABSTRACT

This research aimed to determind the effect of the addition of mahogany leaf pellets (*Swietenia mahagoni*) and jackfruit leaf pellets (*Artocarpus heterophyllus*) as a source of tannin with different storage time on the digestibility of dry matter, organic matter, crude protein, and crude fiber in the rumen and abomasum (total). Digestibility analysis was carried out *in vitro* using the two stages Tilley and Terry method. Forage, concentrate, and pellets were used in a 60:36:4 ratio. The parameters observed were digestibility of dry matter, organic matter, crude protein, and crude fiber in the rumen and abomasum (total). The data were analyzed with a 2x2 factorial design (Two-Way ANOVA) of tannin sources and storage time (0 and 6 weeks) and continued with Duncan's New Multiple Range Test (DMRT). The results showed that the storage time of tannin leaf pellets had no effect ($P < 0,05$) on the digestibility of dry matter, organic matter and crude fiber in the rumen and abomasum. The addition of mahogany leaf pellets can reduced the digestibility of crude protein in the rumen ($P < 0,05$) more effectively when compared to jackfruit leaf pellets. Also the addition of mahogany leaf pellets can increased the digestibility of crude protein in the abomasum ($P < 0.001$) higher than jackfruit leaf pellets. Storage of tannin source pellets for 6 weeks had an effect ($P < 0.05$) on increased digestibility crude protein in the rumen and decreasing crude protein total. Based on the results of the research, it can be concluded that the storage of tannin source pellets for 6 weeks had no effect on the digestibility of dry matter, organic matter, and crude fiber in the rumen or total, but it can affect to increased digestibility crude protein in the rumen and it can decreased digestibility total crude protein.

Keywords: pellet storage, jackfruit, mahogany, tannin, nutrient digestibility