KECERNAAN IN VITRO SILASE DENGAN KOMBINASI *Indigofera zollingeriana* DAN *Pennisetum purpureum* cv. Mott BERDASARKAN NILAI BAHAN KERING, BAHAN ORGANIK DAN *Total Digestible Nutrient*

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INTISARI*

Tujuan penelitian ini adalah untuk mempelajari kecernaan bahan kering, bahan organik dan nilai TDN silase kombinasi *Indigofera zollingeriana* dan *Pennisetum purpureum* cv. Mott secara in vitro. Pelaksanaan penelitian dilakukan pada tanggal 4 September – 27 Oktober 2022 di kandang percobaan Desa Mrunten dan Laboratorium Ilmu Nutrisi dan Pakan, Fakultas Peternakan dan Pertanian, Universitas Diponegoro, Jawa Tengah. Penelitian ini menggunakan Rancangan Acak Lengkap pola searah, dengan 3 perlakuan dan masing-masing perlakuan di ulang 5 kali. Rasio perlakuan penelitian ini adalah P1 (*Indigofera zollingeriana* dan *Pennisitum purpureum* cv. Mott 7 : 3), P2 (*Indigofera zollingeriana* dan *Pennisitum purpureum* cv. Mott 5 : 5) dan P3 (*Indigofera zollingeriana* dan *Pennisitum purpureum* cv. Mott 3 : 7). Peubah yang diamati adalah kecernaan bahan kering, kecernaan bahan organik dan nilai TDN serta dianalisis dengan uji ANOVA dan dilanjutkan uji DMRT. Hasil penelitian menunjukkan bahwa nilai kecernaan bahan kering silase kombinasi *Indigofera zollingeriana* dan *Pennisetum purpureum* cv. Mott pada P1 (44,40%) berbeda nyata ($P \leq 0,05$) dengan P3 (45,47%). Perlakuan P2 (45,45%) berbeda tidak nyata ($P \geq 0,05$) dengan P3. Kecernaan bahan organik pada P2 (42,96%) memiliki hasil berbeda nyata ($P < 0,05$) dengan P3 (43,70%), perlakuan P2 (42,70%) berbeda tidak nyata ($P \geq 0,05$) dengan P1. Nilai TDN P1 menunjukkan hasil berbeda nyata ($P < 0,05$) P1 (62,42%) dengan P2 (60,65%) dan P3 (60,56%), sedangkan P2 berbeda tidak nyata ($P \geq 0,05$) dengan P3. Berdasarkan hasil penelitian dapat disimpulkan bahwa silase kombinasi *Indigofera zollingeriana* dan *Pennisetum purpureum* cv. Mott 3 : 7 memiliki nilai KcBK dan KcBO terbaik, sedangkan nilai TDN terbaik pada kombinasi *Indigofera zollingeriana* dan *Pennisetum purpureum cv. Mott* 7 : 3.

Kata kunci : silase, kecernaan bahan kering, kecernaan bahan organik, *total digestible nutrient*

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IN VITRO DIGESTIBILITY OF SILAGE WITH COMBINATION OF *Indigofera zollingeriana* AND *Pennisetum purpureum cv. Mott* BASED ON DRY MATTER, ORGANIC MATTER AND *Total Digestible Nutrient*

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ABSTRACT*

The aim of this research was to study the digestibility of dry matter, organic matter and TDN value of combined silage *Indigofera zollingeriana* and *Pennisetum purpureum* cv. Mott on in vitro. The research was carried out on September 4 – October 27 2022 in the experimental stables in Mrunten Village and the Nutrition and Feed Science Laboratory, Faculty of Animal Husbandry and Agriculture, Diponegoro University, Central Java. This study used a one-way completely randomized design, with 3 treatments and each treatment was repeated 5 times. The treatment ratio of this study was P1 (*Indigofera zollingeriana* and *Pennisetum purpureum* cv. Mott *(*7 : 3), P2 (*Indigofera zollingeriana* and *Pennisetum purpureum* cv. Mott (5 : 5) within P3 *Indigofera zollingeriana* and *Pennisetum purpureum* cv. Mott (3 : 7). The observed variables were dry matter digestibility, organic matter digestibility and TDN values and were analyzed by ANOVA test and continued by DMRT test. The results of the value digestibility of dry matter combined silage *Indigofera zollingeriana* and *Pennisetum purpureum* cv. Mott at P1 (44.40%) significantly different ($P \leq 0.05$) from P3 (45.47%). Treatment P2 (45.45%) had no significant difference ($P \geq 0.05$) with P3. Organic matter digestibility at P1 (42.96%) had significantly different results ($P < 0.05$) with P3 (43.70%), P2 treatment (42.70%) was not significantly different ($P \geq 0.05$) with P1. The TDN value of P1 showed significantly different results ($P < 0.05$) for P1 (62.42%) with P2 (60.65%) and P3 (60.56%), while P2 was not significantly different ($P \leq 0.05$) with P3. The results of the study can be concluded that the combination silage *Indigofera zollingeriana* and *Pennisetum purpureum* cv. Mott 3 : 7 has the best KcBK and KcBO values, while the best TDN value is the combination *Indigofera zollingeriana* and *Pennisetum purpureum* cv. Mott 7 : 3.

Keyword : Silage, dry matter digestibility, organic matter digestibility, *total digestible nutrient*

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