

KAJIAN PRODUKSI SUSU DAN PERFORMA BERAHI SAPI PERAH FRIESIAN HOLSTEIN (FH) YANG DIBERI *Indigofera sp.*

Abstrak

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Penelitian yang bertujuan untuk mengkaji pengaruh pemberian *Indigofera sp.* terhadap palatabilitas pakan, produksi susu dan performa berahi pada sapi perah Friesian Holstein (FH) telah dilaksanakan di Balai Besar Pembibitan Ternak Unggul dan Hijauan Pakan Ternak (BBPTUHPT) Baturraden, Banyumas pada tanggal 20 Oktober 2019 – 29 Februari 2020. Materi yang digunakan yaitu sapi perah FH pre partus masa laktasi ke-2 sampai ke-5 (umur 3-6 tahun) dengan bobot awal sekitar 550-650 kg, rumput raja, konsentrat pelet, dan tepung *Indigofera sp.* Peralatan yang digunakan yaitu peralatan perkandangan, mesin perah portabel, gelas ukur, ember susu, botol kaca steril ukuran 50 ml, Lactoscan, timbangan pakan, plastik ukuran 5 kg, karung, sarung tangan plastik, dan alat Ultra Sonografi/USG. Metode yang digunakan adalah eksperimental *in vivo* dengan Rancangan Acak Lengkap (RAL). Perlakuan yang diuji yaitu P₁= pakan 60% hijauan + 40% konsentrat, P₂= pakan 60% hijauan + 30% konsentrat + 10% tepung *Indigofera sp.*, P₃= pakan 60% hijauan + 20% konsentrat + 20% tepung *Indigofera sp.*, setiap perlakuan diulang 6 kali. Variabel palatabilitas dan produksi susu dianalisis menggunakan *Anova* dan dilanjutkan dengan uji *Ortogonal kontras*, sedangkan performa berahi yaitu intensitas berahi dan *post partum mating (PPM)* dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa penggunaan *Indigofera sp.* sebanyak 10% sebagai pengganti konsentrat dapat meningkatkan palatabilitas, produksi susu, kadar lemak, kadar laktosa dan kadar protein susu ($P < 0,05$). Penggunaan *Indigofera sp.* 10% sebagai pengganti konsentrat dapat meningkatkan performa berahi yang diukur dari intensitas berahi dan *post partum mating*, sedangkan pada penggunaan *Indigofera sp.* 20% sebagai pengganti konsentrat, sebanyak 83,33% tidak menunjukkan gejala berahi dan tidak layak dilakukan IB (Inseminasi Buatan). Kesimpulan dari hasil penelitian ini adalah penggunaan *Indigofera sp.* sebanyak 10% sebagai pengganti konsentrat dapat secara nyata meningkatkan palatabilitas pakan, produksi susu, kualitas susu dan performa berahi yang diukur dari intensitas berahi dan *post partum mating* pada sapi perah Friesian Holstein.

Kata kunci: *Indigofera sp.*, sapi Friesian Holstein, palatabilitas pakan, produksi susu, performa berahi

THE STUDY OF MILK PRODUCTION AND ESTRUS PERFORMANCE ON FRIESIAN HOLSTEIN (FH) DAIRY CATTLE GIVEN WITH *Indigofera sp.*

Abstract

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This research purpose to examine the effect of giving *Indigofera sp.* on feed palatability, milk production and heat performance in Friesian Holstein (FH) dairy cows has been carried out at the Center for Livestock Breeding and Livestock Feed Forage (BBPTUHPT) Baturraden, Banyumas on 20 October 2019 - 29 February 2020. The materials used were pre-partus FH dairy cattle whose lactation period of 2nd - 5th (3-6 years old) and initial weight of around 550-650 kg, king grass, pellet concentrate, and *Indigofera sp.* flour. The instruments used were housing equipment, portable dairy machines, measuring cups, milk buckets, sterile glass bottles of 50 ml size, Lactoscan, feed scales, 5 kg of plastic bags, sacks, plastic gloves, and Ultra Sonography/USG equipment. The method used was experimental in vivo with a completely randomized design (CRD). The treatments tested were P1 = 60% forage feed + 40% concentrate, P2 = 60% forage feed + 30% concentrate + 10% *Indigofera sp.* flour, P3 = 60% forage feed + 20% concentrate + 20% *Indigofera sp.* flour, each treatment was repeated 6 times. The variables of palatability and milk production were analyzed with Anova and continued with an Orthogonal contrast test. While estrus performance, i.e. estrus intensity and *post partum mating* (PPM), was analyzed descriptively. The results showed that the use of *Indigofera sp.* 10% as a concentrate substituti increased palatability, milk production, fat level, lactose level, and milk protein level ($P < 0.05$). The use of *Indigofera sp.* 10% as a concentrate substituti can improve estrus performance as measured by the intensity of estrus and post partum mating, while the use of *Indigofera sp.* 20% as a concentrate substituti, as much as 83.33% did not show estrus symptoms and did not deserve artificial insemination (IB). The conclusion from the results of this study is that giving *Indigofera sp.* 10% as a concentrate substituti can significantly increase palatability, milk production, milk quality, and estrus performance as measured by the intensity of estrus and post partum mating in FH dairy cattle.

Keywords: *Indigofera sp.*, Friesian Holstein cattle, feed palatability, milk production, estrus performance