

PENGARUH SUPLEMENTASI BUNGKIL KEDELAI TERPROTEKSI TERHADAP PRODUKSI DAN PROTEIN SUSU SAPI PERAH FRIESIAN HOLSTEIN *MID* LAKTASI

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh suplementasi bungkil kedelai terproteksi terhadap produksi dan protein susu sapi perah Friesian Holstein fase *mid* laktasi. Penelitian ini dilaksanakan di Balai Besar Pembibitan Ternak Unggul dan Hijauan Pakan Ternak (BBPTU-HPT) Baturraden, Banyumas, Jawa Tengah pada bulan Agustus sampai Desember 2018. Sepuluh ekor sapi Friesian Holstein dibagi menjadi dua kelompok, sehingga tiap kelompok terdiri dari 5 ekor ternak yaitu kelompok kontrol dan kelompok perlakuan, pada perlakuan diberikan bungkil kedelai terproteksi menggunakan 0,8 ml formaldehid setiap 100 g BK pakan. Kelompok kontrol mendapatkan konsentrat bahan kering (BK) 88,33%, protein kasar (PK) 20,55% dan *total digestible nutrien* (TDN) 71,85%. Kelompok perlakuan mendapatkan konsentrat dengan BK 88,65%, PK 20,06% dan TDN 69,69%, dengan suplementasi bungkil kedelai terproteksi 60 g/kg produksi susu. Variabel yang diamati meliputi analisis bahan pakan, konsumsi pakan, produksi susu dan protein susu. Data yang diperoleh dari kedua kelompok dianalisis dengan Uji *Independent Sample T-test*. Kelompok perlakuan menunjukkan konsumsi bahan kering (BK), konsumsi bahan organik (BO), konsumsi protein kasar (PK), konsumsi serat kasar (SK), konsumsi lemak kasar (LK), konsumsi *total digestible nutrien* (TDN), produksi susu, dan produksi susu 4% FCM yang lebih tinggi ($P < 0,05$) dari pada kelompok kontrol. Kesimpulan penelitian ini adalah suplementasi bungkil kedelai terproteksi pada sapi perah fase *mid* laktasi meningkatkan produksi susu dan produksi susu 4% FCM tetapi tidak meningkatkan kandungan protein dan lemak susu.

Kata kunci: bungkil kedelai terproteksi, Friesian Holstein, produksi dan protein susu, suplementasi.

EFFECT OF PROTECTED SOYBEAN MEAL SUPPLEMENTATION ON PRODUCTION AND MILK PROTEIN OF *MID* LACTATION FRIESIAN HOLSTEIN DAIRY COWS

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ABSTRACT

This study aims to determine the effect of protected soybean meal supplementation on the production and milk protein of Friesian Holstein dairy cattle in the *mid* lactation phase. This research was conducted at Balai Besar Pembibitan Ternak Unggul dan Hijauan Pakan Ternak (BBPTU-HPT) Baturraden, Banyumas, Central Java in August to December 2018. Ten Holstein Friesian cows were divided into two groups, this each group has 5 head cows, namely the control group and treatment group, the treatment was added soybean meal that protected by 0,8 ml formaldehid on 100 gr of DM feed. The control group got 88.33% dry matter (DM) concentrate, crude protein (CP) 20.55% and total digestible nutrients (TDN) 71.85%. The treatment group received concentrate with 88.65% DM, CP 20.06% and TDN 69.69%, with supplementation of soybean meal protected 60 g/kg milk production. Variables observed included analysis of feed ingredients, feed consumption, milk production and milk protein. Data obtained from both groups were analyzed by Independent Sample T-test. Nutrient consumption was significantly different ($P < 0.05$) in the control and treatment groups is DM consumption 15.41 ± 1.73 vs. 17.33 ± 0.99 kg/head/day, organic matter (OM) 13.43 ± 1.51 vs. 14.96 ± 0.86 kg DM/head/day, CP consumption 2.90 ± 0.30 vs. 3.29 ± 0.18 kg DM/head/day, consumption of crude fiber (CF) 3.36 ± 0.53 vs. 3.67 ± 0.36 kg DM/head/day, consumption of extract ether (EE) 0.51 ± 0.05 vs. 0.55 ± 0.03 kg DM/head/day, and TDN consumption of 9.42 ± 1.04 vs. 10.74 ± 0.62 kg DM/head/day. Control and treatment of milk production was 15.76 ± 2.48 vs. 18.48 ± 1.82 kg/head/day, milk production of 4% FCM in the control and treatment groups was 14.79 ± 2.19 vs. 17.59 ± 1.44 kg /head/day showed significant differences ($P < 0.05$) in the two groups. The conclusion of this study was supplementation of protected soybean meal in *mid* lactation dairy cows increased milk production and 4% FCM milk production but did not increase protein content and milk fat.

Key : Friesian Holstein, milk production and milk protein, soybean meal protected, supplementation.