

## **PENGARUH BUNGKIL KEDELAI TERPROTEKSI BERBENTUK PELET TERHADAP PRODUKSI DAN KOMPOSISI SUSU SAPI PERAH DI KELOMPOK TERNAK NGUDI MAKMUR II**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian bungkil kedelai terproteksi berbentuk pelet terhadap produksi dan komposisi susu sapi perah di Kelompok Ternak Ngudi Makmur II. Pelet bungkil kedelai terproteksi merupakan teknologi melindungi protein dari degradasi rumen sehingga langsung diserap di intestinum. Penelitian ini menggunakan 10 sapi Peranakan Friesian Holstein (PFH) periode laktasi ke-1 sampai ke-2. Rata-rata bobot badan sapi PFH yang digunakan adalah  $457,2 \pm 50,2$  kg dengan nilai *body condition score* (BCS) berkisar 2,75 sampai 3,00. Sapi dibagi menjadi 2 kelompok, yaitu kelompok kontrol (ransum tanpa pemberian bungkil kedelai terproteksi berbentuk pelet) sebagai P0 dan kelompok perlakuan (ransum dengan pemberian bungkil kedelai terproteksi berbentuk pelet sebanyak 40 gram UDP/liter produksi susu) sebagai P1. Bahan pakan yang digunakan adalah rumput *Brachiaria decumbens*, *Panicum maximum*, *Pennisetum purpureum*, tebon jagung, *pollard* dan konsentrat komersial. *Sampling* sisa pakan dan susu diambil setiap hari, sedangkan komposisi susu dilakukan 2 kali selama penelitian. Variabel yang diamati antara lain komposisi kimia bahan pakan, konsumsi nutrien, produksi dan komposisi susu (kadar lemak, protein dan laktosa). Data yang telah diperoleh dari kedua kelompok ini akan dibandingkan menggunakan uji *Independent Sample T-test*. Hasil penelitian menunjukkan bahwa perbandingan kelompok P0 dengan kelompok P1 pada konsumsi bahan kering (BK), bahan organik (BK), protein kasar (PK), serat kasar (SK), lemak kasar (LK) dan *total digestible nutrient* (TDN), serta produksi dan komposisi susu (kadar lemak, protein dan laktosa) menunjukkan hasil tidak berbeda nyata ( $P > 0,05$ ). Hasil penelitian ini dapat disimpulkan bahwa penambahan bungkil kedelai terproteksi berbentuk pelet sebanyak 40 gram UDP/liter produksi susu tidak mempengaruhi produksi dan komposisi susu sapi perah.

Keywords: Komposisi susu, Konsumsi pakan, Pelet, Produksi susu, Sapi perah laktasi

## EFFECTS OF PELLETTED PROTECTED SOYBEAN MEAL ON MILK PRODUCTION AND COMPOSITION OF DAIRY COWS IN NGUDI MAKMUR II LIVESTOCK GROUP

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### ABSTRACT

This research aims to determine the effect of feeding protected soybean meal in the form of pellets on milk production and composition of dairy cows in Ngudi Makmur II Livestock Group. Protected soybean meal pellets are a technology that protects protein from rumen degradation so that it is directly absorbed in the intestine. This study used 10 Peranakan Friesian Holstein (PFH) cows of 1st to 2nd lactation period. The average body weight of PFH cows used was  $457.2 \pm 50.2$  kg with body condition score (BCS) values ranging from 2.75 to 3.00. Cows were divided into 2 groups, the control group (ration without pelleted protected soybean meal) as P0 and the treatment group (ration with pelleted protected soybean meal at 40 grams UDP/liter of milk production) as P1. The feed ingredients used were *Brachiaria decumbens* grass, *Panicum maximum*, *Pennisetum purpureum*, corn stover, pollard and commercial concentrate. Sampling of feed and milk residues was taken daily, while milk composition was done twice during the study. Variables observed included chemical composition of feed ingredients, nutrient consumption, milk production and composition (fat, protein and lactose content). Data obtained from the two groups will be compared using the Independent Sample T-test. The results showed that the comparison of group P0 with group P1 on the consumption of dry matter (BK), organic matter (BK), crude protein (PK), crude fiber (SK), crude fat (LK) and total digestible nutrient (TDN), as well as the production and composition of milk (fat, protein and lactose content) showed no significant difference ( $P > 0.05$ ). The results of this study can be concluded that the addition of protected soybean meal in the form of pellets as much as 40 grams of UDP/liter of milk production does not effected milk production and composition of dairy cows.

Keywords: Feed consumption, Lactating dairy cows, Milk composition, Milk production, Pellets.