RINGKASAN

EVAN KURNIAWAN. Kualitas Susu Sapi Perah ditinjau dari Berat Jenis Dan Kadar Lemak Melalui Pemberian *Feed supplement* dalam Ransum. Penelitian ini dilaksanakanmulai tanggal 3 Februari 2017 sampai 23 Maret 2017di Balai Pembibitan dan Budidaya Ternak Ruminansia Satker Pagerkukuh, Dinas Pertanian, Pangan, dan Perikanan Wonosobo, dan Fakultas Peternakan Universitas Jenderal Soedirman. Tujuan penelitian ini adalah menetapkan level terbaik pada pemberian *feed supplement Heit-Chrose* dalam meningkatkan kualitas susu ditinjau dari berat jenis dan kadar lemak susu.

Materi penelitian menggunakan pakan berupa rumput gajah, konsentrat, dan *feed supplement Heit-Chrose* dengan level 0%, 1% dan 2% dari total konsentrat. Penelitian inimenggunakan metode eksperimental dengan materi sebanyak 21 ekor sapi perah periode laktasi ke-2 sampai ke-4 pada fase akhir laktasi.Penelitian ini menggunakan Rancangan Pola Tersarang (*Nested* Classification) dengan 3 perlakuan dan ulangan 4 kali (grup A) dan 3 kali (grup B).Sampel susu diambil pada pemerahan pagi hari sebanyak 50 ml. Variabel yang diukur adalah berat jenis dan kadar lemak susu. Data yang terkumpul dianalisis menggunakan analisis variansi dan dilanjutkan dengan *orthogonal polynomial*.

Hasil penelitian menunjukan bahwa perlakuan tidak berpengaruh nyata (P>0.05) terhadap berat jenis, dan berpengaruh tidak nyata (P>0.05) terhadap kadar lemak susu.Rataan nilai berat jenis susu grup A (laktasi 2) 1,025$\pm$ 0,000924 dan grup B (laktasi 4) 1,024$\pm$ 0,00112. Rataan kadar lemak susu pada grup A (laktasi 2) yaitu 5,300 $\pm$ 0,12 dan grup B (laktasi 4) yaitu 4,607$\pm$ 0,36. Berdasarkan hal tersebut dapat disimpulkan bahwa pemberian *feed supplement Heit-Chrose* sebanyak 1-2% dari total konsentrat belum mempengaruhi berat jenis dan kadar lemak susu.

Kata Kunci : Berat jenis susu, kadar lemak susu, sapi perah, *feed supplement, Heit-Chrose*

SUMMARY

EVAN KURNIAWAN. Quality of Dairy Milk of Density and Levels of FatThrough Feed Supplement Addition. The research was held from February 3, 2017 to March 23, 2017in Dairy Cattle Breeding and Livestock in Pagerkukuh Wonosobo, Department of Agriculture, Food, and Fisheries Affairs in Wonosobo, and Animal Husbandri Faculty, Jenderal Soedirman University.The research aimed to determine best level additional of feed supplement *Heit-Chrose* of milk density and levels of milk fat.

The materials used in this study were king grass, concentrate, and feed supplement *Heit-Chrose* with level 0%, 1%, and 2% of total concentrate. This research applied experimental method with research material as much as 21 dairy cattle in lactation period 2 to 4 of late lactation. The study design applied Nested Classification with 3 treatments and replicates 4 times (group A) and 3 times (group B). Milk samples were taken in morning milking as much as 50 ml for testing milk. The variable measured were density and levels of milk fat. Data were analysed by analysis of variance and followed by Orthogonal Polynomial Test.

The result showed that treatments didn't affect significantly ($P>0.05$) of milk density and no significant affected ($P<0.05$) of levels of milk fat. The average protein levels of Group A (lactation 2) 1,025$\pm$ 0,000924and group B (lactation 4) 1,024$\pm$ 0,00112. The average of milk viscosity in group A (lactation 2) was 5,300 $\pm$ 0,12and group B (lactation 4) was 4,607$\pm$ 0,36. Based on the explanation above, it can be concluded that feeding supplement *Heit-Chrose* as much as 1-2% of total concentrate had not affected milk density and levels of milk fat.

Keywords : Milk density, levels of milk fat, dairy cattle, feed supplement, *Heit-Chrose*