RINGKASAN

ANDINI NURFITRI. Upaya Perbaikan Kualitas Susu Sapi Perah Melalui Pemberian *Feed Supplement* dalam Pakan Ditinjau dari Kadar Protein dan Viskositas. Penelitian ini bertujuan untuk mengkaji level terbaik pemberian *feed supplementHeit-Chrose*pada pakan sapi perah dalam meningkatkan kualitas susu ditinjau dari kadar protein dan viskositas. Penelitian dilaksanakan di Balai Pembibitan dan Budidaya Ternak Ruminansia Satker Pagerkukuh Wonosobo, sedangkan pengujian mutu susu dilaksanakan di Dinas Pertanian, Pangan, dan PerikananKabupaten Wonosobo dan Laboratorium Farmasetika Jurusan Farmasi Fakultas Ilmu-Ilmu Kesehatan Universitas Jenderal Soedirman. Penelitian ini dilaksanakan mulai tanggal 3 Februari 2017 sampai 23 Maret 2017.

Penelitian ini menggunakan metode eksperimental dengan materi penelitian sebanyak 21 ekor sapi perah pada periode laktasi ke-2 sampai ke-4. Sampel susu diambil pada pemerahan pagi hari sebanyak 50 ml untuk pengujian kadar protein susu dan 250 ml untuk pengujian nilai viskositas susu. Rancangan penelitian menggunakan Rancangan Tersarang (*NestedClassification*) dengan 3 perlakuan dan ulangan 4 kali (grup A) dan 3 kali (grup B). Perlakuan level feed supplement *Heit-Chrose* pada pakan sapi perah adalah R0 = 0% *Heit-Chrose,* R1 = 1% *Heit-Chrose*, R2 = 2% *Heit-Chrose*.

Rataan kadar protein susu grup A (laktasi 2) 2,527 $\pm$ 0,101 dan grup B (laktasi 4) 2,476 $\pm$ 0,164. Rataan nilai viskositas susu pada grup A (laktasi 2) yaitu 2,577 $\pm$ 0,116 dan grup B (laktasi 4) yaitu 2,503 $\pm$ 0,175. Hasil analisis variansi menunjukkan bahwa pemberian *feed supplementHeit-Chrose* yang di campurkan ke dalam konsentrat berpengaruh tidak nyata (P>0,05) terhadap kadar protein susu dan nilai viskositas susu.Berdasarkan hal tersebut dapat disimpulkan bahwa pemberian *feed supplement Heit-Chrose* sebanyak 1-2% dari total konsentrat belum mempengaruhi kadar protein dan viskositas susu.

Kata Kunci : Kadar Protein, Viskositas, Sapi Perah, *Feed Supplement*, *Heit-Chrose*

SUMMARY

ANDINI NURFITRI. Efforts to Improve the Quality of Dairy Cattle Milk Through Feeding Feed SupplementViewed from Protein Levels and Viscosity. This study aims to examine the best levels of feeding supplement Heit-Chrose on dairy cattle's feed in improving milk quality viewed from protein levels and viscosity. The experiment was conducted at Balai Pembibitan dan Budidaya Ternak Ruminansia Satker Pagerkukuh Wonosobo, whilst milk quality testing was conducted at Dinas Pertanian, Pangan, dan Perikanan Kabupaten Wonosobo and Pharmaceutical Laboratory Department of Pharmacy, Faculty of Health Sciences, Universitas Jenderal Soedirman.The study was conducted from February 3, 2017 to March 23, 2017.

This research applied experimental method with research material as much as 21 dairy cattle in lactation period 2 to 4. Milk samples were taken in morning milking as much as 50 ml for testing milk protein levels and 250 ml for testing of milk viscosity. The study design applied Nested Classification with 3 treatments and replicates 4 times (group A) and 3 times (group B). Treatment of Heit-Chrose feed supplement level in dairy feed is R0 = 0% Heit-Chrose, R1 = 1% Heit-Chrose, R2 = 2% Heit-Chrose.

The average protein levels of Group A (lactation 2) 2,527 + 0,101 and group B (lactation 4) 2,476 + 0,164. The average of milk viscosity in group A (lactation 2) was 2,577 + 0,116 and group B (lactation 4) was 2,503 + 0,175. The result of variance analysis showed that feeding of Heit-Chrose feed supplement mixed into concentrate had no significant effect (P> 0,05) on milk protein levels and milk viscosity. 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 protein levels and milk viscosity.

Keywords : The Level of Protein, Viscosity, Dairy Cattle, Feed Supplement, *Heit-Chrose*