

RINGKASAN

DESI ANGUNSARI. “pH, *Whey* Bebas, dan Indeks Sineresis *Concentrated Yoghurt* Susu Lemak Rendah dengan Penambahan Inulin atau Pati Ubi Jalar”. Penelitian dilaksanakan mulai tanggal 07 sampai 17 Desember 2015 bertempat di Laboratorium Teknologi Hasil Ternak Fakultas Peternakan Universitas Jenderal Soedirman Purwokerto. Penelitian ini bertujuan untuk mengkaji pengaruh perbedaan penambahan inulin atau pati ubi jalar pada *concentrated yoghurt* susu lemak penuh, susu lemak rendah, susu lemak rendah terhadap pH, *whey* bebas dan indeks sineresis. Metode penelitian yang digunakan yaitu metode eksperimen dengan menggunakan Rancangan Acak Lengkap (RAL). Terdapat empat perlakuan dan lima kali ulangan. Peubah yang diukur yaitu pH, *whey* bebas dan indeks sineresis. Data yang diperoleh dianalisis menggunakan analisis variansi dan uji *contras orthogonal*. Hasil penelitian menunjukkan bahwa *concentrated yoghurt* yang dibuat dari susu lemak penuh, susu lemak rendah, susu lemak rendah dengan penambahan inulin sebanyak 2%, susu lemak rendah dengan penambahan pati ubi jalar 2% memberikan pengaruh nyata terhadap pH dan indeks sineresis, namun tidak memberikan pengaruh nyata terhadap *whey* bebas. Rataan pH dan indeks sineresis berasal dari *concentrated yoghurt* yang dibuat dari susu lemak penuh, susu lemak rendah, susu lemak rendah dengan penambahan inulin 2% dan susu lemak rendah dengan penambahan pati ubi jalar 2%, secara berurutan yaitu 3,83; 3,81; 3,75; 3,78 dan 15,38%; 23,98%; 28,17%; 34,17%, sedangkan nilai rata-rata dari *whey* bebas yaitu 961 ml; 1074,4 ml; 1068 ml; 1039,6 ml. Kesimpulan dari penelitian penambahan bahan inulin atau pati ubi jalar meningkatkan indeks sineresis pada *concentrated yoghurt* susu lemak rendah tetapi tidak dapat menurunkan pH dan menurunkan *whey* bebas.

SUMMARY

DESI ANGUNSARI. "pH, free whey, and syneresis index of Concentrated Yoghurt from Low Fat Milk with the Addition of inulin or Sweet Potato flour". The experiment was conducted from December 7th until 17th 2015 in the Laboratory of Animal Product Technology, Faculty of Animal Science, Jenderal Soedirman University Purwokerto. This study aimed to study the effects of addition of 2% inulin or sweet potato flour to concentrated yoghurt from low fat milk on pH, free-whey, and index syneresis. Treatments were arranged in a completely randomized design (CRD), and each treatment has 5 replicates. Variabels measured were pH, free-whey, and syneresis index of concentrated yogurt. Data were analyzed using analysis of variance and orthogonal contrast. Results showed that concentrated yogurt made from full fat milk, low fat milk, low fat milk + inulin, low fat milk + sweet potato flour showed significantly different pH and index sineresis, but similar free whey. On average, pH and syneresis index of concentrated yogurt made from full fat milk, low fat milk, low fat milk + inulin, low fat milk + sweet potato flour were 3.83; 3.81; 3.75; 3.78, respectively, syneresis index were 15.38%; 23.98%; 28.17%; 34.17%, respectively, while free whey were 961 ml; 1074.4 ml; 1068 ml; 1039.6 ml, respectively. In conclusion, the addition of inulin or sweet potato starch improves syneresis index of concentrated yoghurt made from low fat milk, but barely has effects on pH and free-whey.