

ABSTRAK

WURI KURNIA SIWI. Pengaruh Penambahan Air, Santan dan Tepung Tapioka pada Susu Sapi Perah Terhadap Titik Didih dan Viskositas telah dilaksanakan pada tanggal 1 Juli sampai dengan 5 Agustus 2019 bertempat di Laboratorium Produksi Ternak Perah dan Teknologi Hasil Ternak, Fakultas Peternakan Universitas Jenderal Soedirman, Purwokerto. Penelitian ini bertujuan untuk mengetahui perbedaan titik didih dan viskositas susu sapi perah yang dipalsukan dengan air, santan dan tepung tapioka. Materi yang digunakan adalah susu sapi perah yang diambil dari *Experimental Farm* (Exfarm) Fakultas Peternakan Unsoed pada pemerahan pagi hari sebanyak 15200 ml, air 410 ml, santan 410 ml dan tepung tapioka 410 gr, serta seperangkat alat uji didih dan viskometer. Metode yang digunakan adalah metode eksperimental dengan rancangan acak lengkap. Adapun perlakuan yang digunakan yaitu P0 = susu tanpa penambahan (susu murni), P1 = susu diberi penambahan air 10%, P2 = susu diberi penambahan santan 10% dan P3 = susu diberi penambahan tepung tapioka 10%. Hasil penelitian menunjukkan bahwa penambahan air, santan dan tepung tapioka pada susu sapi perah berpengaruh nyata ($P < 0,05$) terhadap titik didih dan viskositas susu. Rataan nilai waktu titik didih P0, P1, P2, dan P3 masing-masing 40,55 detik; 36,29 detik; 40,72 detik dan 26,08 detik; rata-rata nilai suhu titik didih P0, P1, P2, dan P3 masing-masing 89,24 °C; 86,50 °C; 88,75 °C dan 58,58 °C; rata-rata nilai viskositas P0, P1, P2, dan P3 masing-masing 1,06 cP; 0,89 cP; 1,47 cP dan 1,55 cP. Kesimpulan yang diperoleh yaitu penambahan santan pada susu sapi perah menghasilkan waktu dan suhu titik didih yang lebih tinggi dibanding bahan lainnya, sedangkan penambahan santan pada susu sapi perah juga menghasilkan viskositas yang paling tinggi.

Kata Kunci : susu sapi perah, air, santan, tepung tapioka, titik didih, viskositas

ABSTRACT

WURI KURNIA SIWI. The Effect of Water, Coconut Milk and Tapioca Flour Addition on Dairy Cow Milk on Boiling Points and Viscosity was carried out on 1 July to 5 August 2019 at the Laboratory of Dairy Production and Animal Product Technology, Faculty of Animal Husbandry, Jenderal Soedirman University, Purwokerto. The aim of this study was to determine the boiling and viscosity differences of counterfeited dairy cows with water, coconut milk and tapioca flour. The material used is dairy cow milk taken from Experimental Farm (Exfarm) Faculty of Animal Husbandry Unsoed in the morning milking as much as 15200 ml, 410 ml water, 410 ml coconut milk and 410 gr tapioca flour, and a set of boiling test kits and viscometer. The method used is an experimental method with a completely randomized design. The treatment used is P0 = milk without additives (pure milk), P1 = milk is given 10% addition of water, P2 = milk is given 10% coconut milk addition and P3 = milk is given 10% tapioca flour. The results showed that the addition of water, coconut milk and tapioca flour to milk of dairy cows had a significant effect ($P < 0,05$) on the boiling point and milk viscosity. The average boiling point time P0, P1, P2, and P3 are 40,55 seconds each; 36,29 seconds; 40,72 seconds and 26,08 seconds; the average temperature of boiling point P0, P1, P2, and P3 are 89,24 °C; 86,50 °C; 88,75 °C and 58,58 °C; the average viscosity values of P0, P1, P2, and P3 are 1,06 cP respectively; 0,89 cP; 1,47 cP and 1,55 cP. The conclusion is that the addition of coconut milk to dairy cow milk produces time and temperature boiling points higher than other ingredients, while the addition of coconut milk to dairy cow milk also produces the highest viscosity.

Keywords: milk, water, coconut milk, tapioca flour, boiling point, viscosity