

RINGKASAN

ENI NUR'AENI. “Pengaruh Penambahan Sari Buah Naga Merah (*Hylocereus polyrhizus*) terhadap Kadar Air, Asam Laktat, dan Total Padatan Kefir”. Penelitian dilaksanakan mulai tanggal 30 Maret sampai 07 April 2016 bertempat di Laboratorium Teknologi Hasil Ternak dan Laboratorium Ilmu Nutrisi dan Makanan Ternak Fakultas Peternakan Universitas Jenderal Soedirman Purwokerto. Penelitian ini bertujuan untuk mengkaji pengaruh penambahan sari buah naga merah dengan konsentrasi yang berbeda terhadap kadar air, asam laktat, dan total padatan kefir, serta mengetahui konsentrasi terbaiknya. Metode penelitian yang digunakan yaitu metode eksperimen dengan menggunakan Rancangan Acak Lengkap (RAL). Terdapat empat perlakuan yaitu penambahan sari buah naga merah konsentrasi 0% (P0), 2,5% (P1), 5% (P2), 7,5% (P3) dan lima kali ulangan. Peubah yang diukur yaitu kadar air (%), asam laktat (%), dan total padatan (%). Data yang diperoleh dianalisis menggunakan analisis variansi dan uji lanjut *Orthogonal Polynomial*. Hasil penelitian menunjukkan bahwa penambahan sari buah naga merah dengan konsentrasi berbeda berpengaruh nyata ($P < 0,05$) terhadap kadar air dengan rata-rata kadar air secara berurutan 87,86%, 88,42%, 88,83%, 89,75%, berpengaruh nyata ($P < 0,05$) terhadap total padatan dengan rata-rata total padatan secara berurutan 12,14%, 11,58%, 11,17%, 10,23%, dan berpengaruh sangat nyata ($P < 0,01$) terhadap kadar asam laktat dengan rata-rata kadar asam laktat secara berurutan 0,77%, 0,87%, 0,90%, 0,98%. Semakin tinggi penambahan sari buah naga merah pada kefir, maka semakin meningkatkan kadar air dan asam laktat, namun menurunkan total padatan kefir. Kesimpulan dari penelitian ini adalah penambahan sari buah naga merah dapat meningkatkan kadar air dan asam laktat kefir, namun menurunkan total padatan kefir serta konsentrasi terbaik penambahan sari buah naga merah adalah 7,5%.

SUMMARY

ENI NUR'AENI. "The Effect of Addition of Red Dragon Fruit Juice (*Hylocereus polyrhizus*) on Moisture, Lactic Acid and Total Solids of Kefir". The research was conducted from March 30th until April 7th 2016 in Laboratory of Animal Product Technology and Laboratory of Nutrition and Feed Animal, Faculty of Animal Science, Jenderal Soedirman University, Purwokerto. This research aims to assess the effect of addition of the red dragon fruit juice with different concentrations on the moisture, lactic acid, and total solids of kefir, and to measure its best concentration. The method used is an experimental method by using a completely randomized design (CRD). There are four treatments, the addition of red dragon fruit juice 0% (P0), 2,5% (P1), 5% (P2), 7,5% (P3), each of which is repeated five times. The variables measured are moisture content (%), lactic acid (%), and total solids (%). Data are analyzed by using an analysis of variance and orthogonal polynomial test. The results showed that the addition of red dragon fruit juice with different concentrations significantly affects ($P < 0,05$) the moisture content with the average of moisture are 87,86%, 88,42%, 88,83%, 89,75%, respectively, significantly affects ($P < 0,05$) the total solids with the average of total solids are 12,14%, 11,58%, 11,17%, 10,23%, respectively, and highly significantly affects ($P < 0,01$) the lactic acid kefir with the average of lactic acid are 0,77%, 0,87%, 0,90%, 0,98%, respectively. The higher addition of red dragon fruit juice, the more increases moisture content and lactic acid, but decreases total solids of kefir. The conclusion of this research is that the addition of red dragon fruit juice can increases the levels of water content and lactic acid of kefir, but decreases the total solids of kefir and the best concentration of red dragon fruit juice is 7,5%.