

## **PENGARUH PERSENTASE STARTER KEFIR TERHADAP KADAR ASAM LAKTAT, LAKTOSA, DAN ALKOHOL KEFIR**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh persentase starter terhadap kadar asam laktat, laktosa, dan alkohol kefir. Pembuatan kefir menggunakan susu sapi PFH Fakultas Peternakan Universitas Gadjah Mada Yogyakarta hasil pemerahan pagi hari. Starter kefir yang dipergunakan diperoleh dari Balai Penelitian Temak Bogor. Sejumlah susu dipasteurisasi pada suhu  $85^{\circ}\text{C}$  selama 50 menit dan susu dituangkan sambil terus diaduk sampai dingin ( $22^{\circ}\text{C}$ ). Susu dibagi menjadi 16 gelas masing-masing 100 gram. Kemudian ditambah starter kefir sebanyak 1, 2, 3, 4% masing-masing empat gelas. Diinkubasikan pada suhu kamar selama 48 jam. Hasil inkubasi disaring dan hasil saringannya diuji kadar asam laktat, laktosa, dan alkoholnya. Data yang diperoleh dianalisis dengan menggunakan metode Rancangan Acak Lengkap atau *Completely Randomized Design (CRD)* dan bila terjadi perbedaan dilanjutkan dengan uji *Duncan's Multiple Range Test (DMRT)*. Hasil analisis kadar asam laktat menunjukkan peningkatan starter kefir 1, 2, 3, 4% akan meningkatkan kadar asam laktat berturut-turut 1,197, 1,240, 1,285, 1,468% dan menunjukkan perbedaan ( $P < 0,05$ ). Analisis kadar laktosa hasilnya adalah 3,997, 3,781, 3,662, 3,412% dan menunjukkan perbedaan ( $P < 0,05$ ). Hasil analisis kadar alkohol tidak menunjukkan perbedaan dengan hasil 1,868, 2,315, 2,745, 3,098%. Peningkatan starter kefir dari 1, 2, 3, 4% akan meningkatkan kadar asam laktat dan kadar alkohol tetapi menurunkan kadar laktosa kefir.

(Kata kunci: Starter kefir, Kadar asam laktat, Kadar laktosa, Kadar alkohol, pasteurisasi, Inkubasi).

## THE EFFECT OF KEFIR STARTER PERCENTAGE ON LACTIC ACID, LACTOSE, AND ALCOHOL CONTENT

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### ABSTRACT

The study was done to investigate the effect of kefir starter percentage on lactic acid, lactose, and kefir alcohol content. The kefir was made from Frisien Holstein grade dairy cattle milk of Faculty of Animal Husbandry, from morning milking; while the kefir starter was obtained from the Animal Research Center of Bogor. Hie milk was pasteurized at 85°C temperature, for 30 minutes and the temperature was decreased by agitating up to 22°C. The milk was devided into 16 glasses of 100 g, and was added with 1, 2, 3, 4% kefir starter of four glasses, respectively. Hie incubation was done for 48 hours, followed by filtering The filtrate was tested on lactic acid content, lactose, and alcohol content The data collected were analysed by variance analyses, while the sidnificant means were tested by Duncan's Multiple Range Test . The result indicated that the lactic acid increased ( $P<0.05$ ) as the kefir starter increased from 1, 2, 3, 4%. The value was 1.197, 1.240, 1.285, and 1.468%, respectively. Hie content was different ( $P<0.05$ ) due starter increase; the values were 3.997, 3.781, 3.662, and 3.412%. On the contrary, no significant, the values were 1.868, 2.315, 2.745, and 3.098%. In conclusion, the increase of starter from 1, 2, 3, 4% increased lactic acid and alcohol content; and decreased the lactose formation.

(Key Words: Kefir Starter, Lactic Acid, Lactose Content, Alcohol, Pasteurization, Incubation).