

RINGKASAN

CICI SUCIANI. Total Bakteri dan Asam Tertitrasi (*Titration acidity*) Yoghurt pada berbagai Kombinasi Isolat Probiotik. Tujuan penelitian ini adalah mengkaji total bakteri dan besarnya asam tertitrasi (*titration acidity*) pada berbagai kombinasi isolat probiotik dalam yoghurt dan mengetahui kombinasi terbaik isolat probiotik pada yoghurt ditinjau dari total bakteri dan asam tertitrasi (*titration acidity*). Penelitian dilaksanakan pada tanggal 24 Desember 2015 sampai dengan 10 Januari 2016 di Laboratorium Teknologi Hasil Ternak Fakultas Peternakan Universitas Jenderal Soedirman, Purwokerto.

Materi penelitian yang digunakan adalah yoghurt yang terbuat dari susu sapi menggunakan kombinasi enam isolat probiotik yang berbeda yaitu R1(yoghurt dengan *Lactobacillus plantarum* dan *Lactobacillus rhamnosus*), R2(yoghurt dengan *Lactobacillus plantarum* dan *Lactobacillus acidophilus*), R3(yoghurt dengan *Lactobacillus rhamnosus* dan *Lactobacillus acidophilus*), R4(yoghurt dengan *Lactobacillus plantarum* dan *Bifidobacterium longum*), R5(yoghurt dengan *Lactobacillus rhamnosus* dan *Bifidobacterium longum*) dan R6(*Lactobacillus acidophilus* dan *Bifidobacterium longum*), starter yang ditambahkan sebanyak 10 %. Penelitian dilakukan secara eksperimental, dengan menggunakan Rancangan Acak Lengkap (RAL) dan diulang sebanyak 4 kali. Variabel yang diamati dalam penelitian ini adalah total bakteri (log cfu/ml) dan dan asam tertitrasi (*titration acidity*) (%).

Hasil penelitian menunjukkan bahwa kombinasi isolat probiotik pada yoghurt berpengaruh tidak nyata ($P>0,05$) terhadap total bakteri dan dan asam tertitrasi(*titration acidity*), dengan rata-rata total bakteri $10,249\pm0,176$ log cfu/ml dan rata-rata dan asam tertitrasi (*titration acidity*) $1,478\pm0,181$ %. Simpulan penelitian ini adalah kombinasi isolat probiotik yang berbeda menghasilkan total bakteri dan asam tertitrasi (*titration acidity*) yang sama.

SUMMARY

CICI SUCIANI. Total Bacteria and acid titration (titrable acidity) yoghurt with various combinations of probiotic Isolates. The purpose of this research was to study total bacteria and titration acid (titrable acidity) on various isolate combination of probiotics in yogurt and to know the best isolate combination of probiotics on yogurt that assessed from total bacteria and titration acid (titrable acidity). The research was conducted on December 24th, 2015 until January 10th, 2016 at Laboratory of Animal Science Product Technology in Animal Science Faculty, Jendral Sudirman University, Purwokerto.

The material research that was used is yogurt which is produced from cow's milk with six different isolates combinations of probiotics, there are R1 (yoghurt with *Lactobacillus plantarum* and *Lactobacillus rhamnosus*), R2 (yoghurt with *Lactobacillus plantarum* and *Lactobacillus acidophilus*), R3 (yoghurt with *Lactobacillus rhamnosus* and *Lactobacillus acidophilus*), R4 (yoghurt with *Lactobacillus plantarum* and *Bifidobacterium longum*), R5 (yoghurt with *Lactobacillus rhamnosus* and *Bifidobacterium longum*) and R6 (*Lactobacillus acidophilus* dan *Bifidobacterium longum*), the starter that was added as much as 10% (respectively starter as much as 5 ml). The study was carried out experimentally, used Completely Randomized Design (CRD) with 4 times replications. Variables were observed in this study were total of bacteria (log cfu / ml) and titration acid (titrable acidity) (%).

The results showed that the isolate combination of probiotic yoghurt was no effect ($P > 0.05$) of total bacteria and titrable acidity, with the average total bacteria 10.249 ± 0.176 log cfu / ml and average of titrable acidity $1.478 \pm 0.181\%$. It is concluded that total bacteria and titration acid (titrable acidity). produced by different isolates combinations of probiotic is same.