

ABSTRAK

Penelitian dilakukan dengan tujuan mengetahui penggunaan pektin nabati dengan persentase yang berbeda terhadap nilai pH dan total asam tertitrasi yogurt susu sapi. Materi yang digunakan adalah susu sapi 10 liter, pektin nabati 40 gram, susu skim, *dried yoghurt starter yogourmet*, bufer pH 4, bufer pH 7, indikator pp 1%, larutan NaOH 0,1 N dan aquades. Metode penelitian eksperimen dengan Rancangan Acak Lengkap (RAL), dengan 5 perlakuan, 4 kali ulangan, sehingga terdapat 20 unit. Hasil menunjukkan bahwa penambahan pektin nabati sampai 0,8% tidak berpengaruh nyata ($P>0,05$) terhadap nilai pH dan total asam tertitrasi. Penambahan pektin nabati pada pembuatan yogurt memiliki rata-rata nilai pH yaitu P0 $4,69 \pm 0,304$; P1 $4,60 \pm 0,354$; P2 $4,51 \pm 0,356$; P3 $4,41 \pm 0,392$; P4 $4,31 \pm 0,431$, pada total asam tertitrasi memiliki rata-rata yaitu P0 $0,920\% \pm 0,0867$; P1 $0,949\% \pm 0,0948$; P2 $0,983\% \pm 0,1132$; P3 $1,005\% \pm 0,1176$; P4 $1,028\% \pm 0,1178$. Kesimpulan dari penelitian ini adalah penambahan pektin nabati sampai dengan 0,8% pada pembuatan yogurt menghasilkan nilai pH mempunyai kecenderungan penurunan sebesar 0,38 dan total asam tertitrasi mempunyai kecenderungan peningkatan sebesar 0,108 namun tidak berpengaruh nyata.

Kata kunci: yogurt, pektin nabati, nilai pH, total asam tertitrasi

ABSTRACT

The research aims to determine the addition of vegetable pectin to the production of yoghurt cow's milk on the potential Hydrogen (pH) and titrated total acid. The material used was 10 liters of cow's milk, 40 grams of vegetable pectin, skim milk, *dried yoghurt yogourmet starter*, pH 4 buffer, pH 7 buffer, 1% pp indicator, 0.1 N NaOH solution and distilled water. Experimental research method with Completely Randomized Design (CRD), with 5 treatments, 4 replications, so that there are 20 units. The results showed that the addition of vegetable pectin had no significant effect ($P>0,05$) on pH value and titrated total acid. The results of the research on the addition of vegetable pectin to the manufacture of yogurt have a pH value average of P0 $4,69 \pm 0,304$; P1 $4,60 \pm 0,354$; P2 $4,51 \pm 0,356$; P3 $4,41 \pm 0,392$; P4 $4,31 \pm 0,431$, in the total titrated acid has an average of P0 $0,920\% \pm 0,0867$; P1 $0,949\% \pm 0,0948$; P2 $0,983\% \pm 0,1132$; P3 $1,005\% \pm 0,1176$; P4 $1,028\% \pm 0,1178$. The addition of vegetable pectin up to 0,8% in the manufacture of yoghurt resulted in a pH value that had decreasing tendency of 0,38 and the titrated total acid had an increasing tendency of 0,108 but had no significant effect.

Key words: yoghurt, vegetable pectin, pH value, titrated total acid