

DEVELOPMENT OF SOY YOGURT

HONG LEE MIN

2007

BACHELOR OF SCIENCE (HONS) IN
FOOD SCIENCE & NUTRITION
SCHOOL OF APPLIED SCIENCES
UNIVERSITY COLLEGE SEDAYA INTERNATIONAL

ABSTRACT

Different formulations of soy yogurt were prepared by the fermentation of soy milk using *Lactobacillus delbrueckii* subsp. *bulgaricus* (LB) and *Streptococcus salivaris* spp. *thermophilus* (ST) as the starter culture. Soy milk was fermented with the addition of sucrose (3 g/100g and 4 g/100 g), with or without the addition of pineapple and nata de coco cubes for 4 and 5 hours. The soy yogurt samples were evaluated in terms of sensory quality, pH, titratable acidity, total solid content and microbiological analysis. The drop in pH during fermentation was faster in plain samples, but the final pH values were similar. The fruit flavoured soy yogurt generally had higher total solid content than the other two fermented plain samples. The development of lactic acid increased as the fermentation time increased. However, the lactic acid production by the starter culture was higher in the plain samples. The addition of fruit mixture into the fruit flavoured samples affected the growth of the yogurt strains; it suppressed the growth of ST and stimulated the growth of LB. Approximately 0.21 log unit decrease in ST and 0.38 log unit increase in LB were observed when the fruits were added into the sample accordingly. The growth of yogurt strains decrease as the fermentation time increase in fruit flavoured treatments. In conclusion, a soy yogurt with the best sensory quality was obtained using soy milk with 3 g/100g sucrose, 25 g/100g of fruits mixture (pineapple and nata de coco with lychee syrup) and fermented for 4 hours.

Library Services
UCSI Education Sdn. Bhd. (18547910)
No. 1, Jalan Menara Gading, UCSI Heights
56000 Kuala Lumpur, Malaysia
Tel: 603-9101 3880 Fax: 603-9102 3800
Website : www.ucsi.edu.my