Title Characteristics of cacao bean prepared under different fermentation time and washing treatment

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Abstract

Cacao quality is very important to get a high cacao bean price in international market. The quality of Aceh cocoa bean is still considered low due to inappropriate handling technique and fermentation. One factor that has an important role in determining cacao bean quality is fermentation. Washing the bean after fermentation has also been practiced by some farmers to increase quality. The aim of this research is to optimize the length of fermentation and application of bean washing before drying. Lengths of fermentation investigated are 0, 2, 3, 4, and 5 days, combined with washed and unwashed bean after the fermentation, before drying. Cacao bean was obtained from cacao farmer group in Seureuke village, North Aceh. Bean was fermented in rattan containers, and covered by banana leaves. Fermented bean then treated with washing and unwashing with clean water. Result showed that, during fermentation, temperature of bean keep increasing until day 3 (43°C) then slightly decrease in day 4 (42Yc) and day 5 (40YC). Similarly, the pH of bean also decreased from 4,5 (in day 1) to 3,7 (in day 2) then become constant at 3,3 (in day 4 and day 5). Water content of washing bean was lower (5,16%) compared to that of unwashed bean (5,74%) after drying, though, this water content still meet standard requirement which is 7%. The length of fermentation process and washing treatment have no affected to lipid content of cocoa bean. Cut test shown that cocoa bean which was fermented for 5 days give a better result, with character of 94,5% full fermented, 0,8% slaty, 1,1 % partly purple and 3,3% full purple.