

PENGARUH PENAMBAHAN BAHAN SUMBER YEAST, BAKTERI ASAM LAKTAT, DAN BAKTERI ASAM ASETAT PADA FERMENTASI KAKAO (*Theobroma cacao* L.) TERHADAP MUTU BIJI KAKAO KERING

INTISARI

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Produk cokelat sekarang makin digemari masyarakat dan konsumsi cokelat dari tahun ke tahun cenderung meningkat. Kakao Indonesia, khususnya yang dihasilkan rakyat, di pasaran Internasional masih dihargai paling rendah karena kualitasnya kurang baik. Penelitian menggunakan bahan sumber inokulum yang mudah dijumpai untuk mempersingkat waktu fermentasi dengan tetap memenuhi parameter kualitas biji kakao kering perlu dilakukan. Cara fermentasi ini diharapkan nantinya mudah diterapkan ketika panen buah kakao sedang fluktuatif sehingga memungkinkan petani melakukan fermentasi skala kecil. Selain itu permasalahan tingginya keasaman biji kakao Indonesia dapat diatasi dan biaya yang diperlukan relatif murah.

Pada penelitian ini fermentasi dilakukan dengan menambahkan bahan untuk membantu proses fermentasi yaitu sumber yeast adalah ragi roti, bakteri asam laktat adalah sayur asin, dan bakteri asam asetat yaitu kulit pisang ditambah belimbing wuluh. Fermentasi dilakukan dengan 4 perlakuan yaitu kontrol tanpa penambahan apapun, perlakuan A dengan penambahan ragi, perlakuan B dengan penambahan ragi dan sayur asin, serta perlakuan C penambahan ragi, sayur asin, dan campuran kulit pisang belimbing wuluh. Biji kakao tiap perlakuan difermentasi dalam keranjang rotan kapasitas 5 kg selama 5 hari dan pengamatan suhu serta pengambilan sampel dilakukan setiap 24 jam.

Perlakuan fermentasi hingga hari kelima berpengaruh pada pH, warna, dan kadar kulit biji kakao kering yang berdampak pada jumlah biji/100 g. Fermentasi kakao dengan penambahan ragi 0,5 g/kg biji kakao basah dapat dilakukan dalam skala kecil dengan tetap memenuhi standar mutu biji kakao kering SNI 2323:2008 dan derajat fermentasi. Fermentasi perlakuan kontrol memenuhi derajat fermentasi dengan parameter indeks fermentasi dan pH pada hari keempat dapat terjadi karena pemeraman.

Kata kunci: Fermentasi, Biji kakao, Bahan Sumber Inokulum, Mutu

THE EFFECTS OF ADDING MATERIAL SOURCE OF YEAST, LACTIC ACID BACTERIA, AND ACETIC ACID BACTERIA IN CACAO (*Theobroma cacao* L.) FERMENTATION TO THE QUALITY OF CACAO DRIED BEANS

ABSTRACT

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Nowadays, chocolate-based products are getting more popular, besides the consumption rate of the chocolate itself that has increasingly been consumed as well, year by year. Indonesian cocoas, especially which is produced by the local farmers, is still at the lowest price, due to the production's quality is not as good as other products in the international market. A proper Research using inoculum source material, that is easy to be found to shorten the fermentation time while still be able to fulfill the quality parameters of dry beans, need to be done. This fermentation method is expected to be applied when the cocoa's harvest time is fluctuating, thus it allows farmers to minimize the fermentation scale. Moreover, the problems of high acidity of the cocoa beans in Indonesia can affordably be resolved by this research.

In this research, the fermentation is done by adding some materials to help the fermentation process such as the source of yeast (baker's yeast), lactic acid bacteria (*sayur asin*/salted vegetables), and acetic acid bacteria (mixture of banana peels and bilimbi). Fermentation is done with 4 kinds of treatments such as control or without any additions, treatment A with the addition of baker's yeast, treatment B with the addition of baker's yeast and *sayur asin*, and treatment C with baker's yeast, *sayur asin*, mixture of banana peels and bilimbi. Each treatment of cocoa beans is fermented in a rattan basket with a 5 kg capacity for 5 days. The temperature and samples are observed every 24 hours.

Treatment of fermentation in the fifth day affects the pH, color, and shell content of cocoa dry beans that have an impact to the number of beans/100 g. Cocoa fermentation with yeast addition 0,5 g/kg of wet cocoa beans can be done on a small scale, while the quality standards of dry beans SNI 2323: 2008 and the degree of fermentation is still able to be fulfilled. Fermentation control treatments fulfill the degree of fermentation with a fermentation index and pH parameters on the fourth day. It may occur due to pod storage before fermentation.

Keywords: Fermentation, Cocoa bean, Inoculum source material, Quality