

**PENGARUH PENAMBAHAN INOKULUM *Lactobacillus plantarum* HL-15
TERHADAP PERTUMBUHAN JAMUR SELAMA FERMENTASI BIJI
KAKAO (*Theobroma cacao* Linn) DI UNIT PENGOLAHAN HASIL TANI
NGUDI RAHARJO II GUNUNGGKIDUL**

INTISARI

Oleh:

FLORENCIA IRENA KURNIAWAN

14/365799/TP/11020

Proses fermentasi merupakan tahapan penting pada proses pengolahan kakao. Namun kontaminan jamur pada fermentasi kakao di Indonesia belum bisa dikendalikan. Kontaminan jamur pada biji kakao dapat memproduksi mikotoksin yang berbahaya bagi kesehatan manusia. Bakteri *Lactobacillus plantarum* diketahui memiliki kemampuan untuk menghambat pertumbuhan jamur. Tujuan dari penelitian ini adalah untuk mengetahui kemampuan penghambatan pertumbuhan jamur pada proses fermentasi biji kakao di UPH Ngudi Raharjo II Gunungkidul. Bahan yang digunakan dalam penelitian ini adalah buah kakao jenis *Lindak* yang dipanen dari Gunung Kidul Yogyakarta dan inokulum *Lactobacillus plantarum* HL-15. Biji kakao difermentasi dengan selama 5 hari pada suhu ruang dengan 4 perlakuan yaitu: (1) kotak lama tanpa penambahan inokulum, (2) kotak baru tanpa penambahan inokulum, (3) kotak lama dengan penambahan inokulum, dan (4) kotak baru dengan penambahan inokulum. Penambahan inokulum *Lactobacillus plantarum* HL-15 pada proses fermentasi biji kakao mampu menghambat pertumbuhan jamur selama fermentasi.

Kata kunci: fermentasi biji kakao, aktivitas anti-jamur, bakteri asam laktat, *Lactobacillus plantarum* HL-15

**EFFECTS OF *Lactobacillus plantarum* HL-15 INOCULUM ADDITION TO
MOLD GROWTH DURING FERMENTATION OF COCOA BEANS
(*Theobroma cacao* Linn) IN THE POST-HARVEST PROCESSING UNIT
NGUDI RAHARJO II GUNUNGGKIDUL**

ABSTRACT

By:

FLORENCIA IRENA KURNIAWAN

14/365799/TP/11020

The cocoa fermentation process is an important stage in the processing of cocoa. However, the mold contaminants in the fermentation of cocoa in Indonesia can not be controlled. Mold contaminants in cocoa beans can produce mycotoxins that are harmful to human health. *Lactobacillus plantarum* HL-15 is known to have the ability to inhibit mold growth. The purpose of this research is to know the ability of inhibition of mold growth in fermentation process of cocoa beans in UPH Ngudi Raharjo II Gunungkidul. The material used in this research is Lindak cacao beans that is harvested from Gunung Kidul Yogyakarta, inoculum *Lactobacillus plantarum* HL-15. Cocoa beans are fermented for 5 days at room temperature with 4 treatments: (1) old box without addition of inoculum, (2) new box without addition of inoculum, (3) old box with addition of inoculum, (4) new box with addition of inoculum . The addition of *Lactobacillus plantarum* HL-15 inoculum in the fermentation process of cocoa beans is able to inhibit the growth of mold during fermentation.

Keyword : Cocoa beans fermentation, anti-fungal growth, lactic acid bacteria, *Lactobacillus plantarum* HL-15