

~~Manual or mechanical removal of~~ ~~The removal of part of~~ the mucilage surrounding the cocoa beans ~~can be done manually or mechanically~~ is possible. ~~The m,~~ but the mechanical process, ~~however,~~ requires special machinery that may be not be affordable ~~too expensive~~ for traditional cocoa farmers in third world countries. Conversely, ~~On the other hand,~~ the mucilaginous pulp of cocoa bean contains sugary compounds such as glucose, fructose, sucrose, and pentose, which could be good substrates for microbial growth. ~~Indeed,~~ during ~~the cocoa bean~~ fermentation ~~process of the cocoa bean,~~ a number of particular microorganisms secrete pectinolytic enzymes that ~~break~~ cleave the chemical structure of ~~the~~ mucilage, resulting in ~~the~~ chemical removal of the pulp or draining of the mucilage. Reportedly, ~~yeast plays~~ Yeasts have been reported to play a significant role in the pulp degradation process. In fact, ~~Cocoa pulp can be readily fermented by~~ yeasts such as *Saccharomyces cerevisiae*; readily ferment cocoa pulp and produce ~~producing~~ an alcoholic beverage. In particular, *S. cerevisiae* var. Chevalieri ~~in particular,~~ has ~~been reported to have~~ the pectinolytic activity. Yeast ~~is also suggested~~ may also ~~to~~ decrease pulp and bean acidity ~~through the utilization of~~ by utilizing citric acid. The secondary products of yeast metabolism (e.g., -organic acid, aldehydes, ketones, higher alcohols, and esters) and glycosidase production ~~are likely to~~ may be significant and ~~should impact~~ affect the quality of the beans and chocolate. However, this potential impact remains understudied ~~these potentially important influences previously have been overlooked in the literature~~ and requires further investigation. The addition of a microbial starter to cocoa bean fermentation ~~in order to~~ for improvinge the quality of the fermentation process has been ~~researched~~ studied ~~elsewhere~~ previously. Kustyawat studied the use ~~addition~~ of mixed starter cultures, including a ~~mixed~~ *S. cerevisiae*, *Lactobacillus lactis*, and *Acetobacter acet*i ~~-starter cultures~~. Away studied the effect of addition of starter cultures of *Saccharomyces*, *Acetobacter*, *Lactobacillus*, and *Streptococcus* ~~startereu~~.

Comment [A1]: Two sentences have been joined together here to present the intended information in a more concise manner.

Comment [A2]: More than one substrate is being referred to in the former part of the sentence. Therefore, the plural form (*substrates*) is appropriate here.

Comment [A3]: In American English, a comma is used after the abbreviations *i.e.* and *e.g.*