

**PENGENDALIAN KUALITAS BENIH SEMANGKA DENGAN METODE
SIX SIGMA PADA CV. SAMPOERNA JAYA DI KABUPATEN JEMBER**

(The Quality Control Of Watermelon Seed Through Six Sigma Method

In CV. Sampoerna Jaya Jember District)

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ABSTRACT

CV. Sampoerna Jaya is one of the local seed company with market that cover almost all Indonesia. This company produces vegetable and fruit seeds, one of them is a watermelon seed. Watermelon is a seasonal fruit that has a sweet taste and it contains a lot of water. This study aims to: First, analyzing the type of non-conformity products that occur in the process of watermelon seed production and either it is still under control or not. Second, determining the value of DPMO (Defect Per Million Opportunity) and sigma level of watermelon seed. Third, analyzing factors that caused non-conformity of product and the proposed to improve the quality of watermelon seed. The method used is six sigma method. It can be used to control the quality of product through improvement the level of non-conformity product with five stages of DMAIC. They are: define, measure, analyze, improve and control. The result of analysis with P control map in this study indicated that the type of non-conformity in the watermelon seed production process is stabilized and still under control. The DPMO (Defect Per Million Opportunities) value that obtained is 17125. It means in one million units/processes that produced by the company is likely as much as 17125 units of product/process that is failed. It is situated on 3.617 sigma level. Factors that is caused the non-conformity are materials factor, labors, equipments, and the environment. The main cause of the non-conformity watermelon seed products mostly from the seed that does not grow.

Keywords: *Watermelon seed, Six Sigma Method, Value DPMO (Defect Per Million Opportunity), Sigma Level, Fishbone Diagram.*