

**DESIGN AND DEVELOP OF LIQUID STAINLESS SOILDER  
SOIL RAW MATERIALS FRUIT SERAI WANGI**

*Student* : M Zuber  
*NIM* : 2204161119  
*Advisor* : Alfansuri, ST., M, Sc

**ABSTRACT**

*The process of making liquid soap from citronella oil is an interesting thing to know. This study aims to design, create, test and analyze the time and rpm rotation of the most efficient liquid soap mixer machine. Soap is an alkaline local salt (usually a potassium salt) of fatty acids, mainly containing C16 salt (palmitic acid) and C18 (stearic acid) but can also contain several carboxylates with lower atomic weights (Fessenden, 1994 and Ketaren, 1986). Traditionally, lemongrass is used as a flavor generator in food, drinks and traditional medicine (Wijayakusumah, 2002). Fragrant lemongrass is also used as a flavor generator used in spicy sauce, fried chili sauce, chili paste and fish sauce (Oyen, 1999). Data collection observed were device capacity, yield. From the results of the study, the effective capacity of the equipment was 397.1 L / hr. The yield obtained was 98.9%. The cost of making liquid soap stirrer with the ingredients of citronella oil is Rp. 2,189,000. Maintenance costs Rp. 21,890. And the total cost is Rp. 2,210,890.*

**Keywords:** *liquid soap, citronella oil, effective capacity of the tool, yield, Overall cost*