

# ***DESIGN AND ANALYSIS OF KNIFE ON GOAT DROP REMOVAL MACHINE CAPACITY 50KG\HOUR***

*Student Name* : Salomo Maruli Tua Nainggolan

*Number* : 2204181162

*Supervisor* : Imran, S.Pd., MT

## ***ABSTRACT***

*Goat dung smoothing machine, the manufacture of this tool serves to facilitate farmers in smoothing goat dung, after observing the next stage is planning, namely covering. Planning drawings, calculations to determine the components that will be used. The final stage is the manufacturing or assembly process. With the goat dung smoothing tool for farmers which is designed with a capacity of 50 kg/hour, where this tool has 4 straight blades and the blade used is a steel bar chainsaw, then the blade hardness test is carried out using the Rockwell method with a ratio of raw material and header to determine the hardness value with length x width x thickness 450 x 50 x 4.5 mm. It is hoped that it will be able to smooth out goat dung quickly. And from the results of the tests carried out, the maximum results were obtained, namely at a speed of 2800 Rpm with a time of 27 minutes where the results were very satisfying, namely the form of smooth results.*

*Keywords: Goat dung, Blade blade, Smoothing goat dung,*