ABSTRACT

In Indonesia, the eradication of weeds is still much that is done by manual weeding grass (weeds) by means of claw-shaped porcupine. Weeding grass is traditionally considered less than optimal and economical for the farmers. In addition to its use are relatively inefficient and far from expectations. For that we need a tool supporting mechanism that provides a solution to handling the weeds. Grass rake tool is one alternative.

The design begins with determining the specification tool based on information obtain, selection of concepts, calculation, analysis, construction power tools, and operational cost analysis. Grass rake tool is designed to have three important parts, frame construction, propulsion and blade scratcher. Kneading blade mechanism is run by personnel who assisted with the engine pulley transmission system that connects with the engine speed rotations scratcher.

The end result of this design is the development of a grass rake agricultural tool that is easy to operate, and has economic value for farmers. With dimensions of tools designed to have overall tool length 920 mm, a width of 650 mm and 1260 mm high. Also get the estimation of construction equipment required scratcher this grass on land area measuring 3x9 m = 27 m² only takes 10 minutes.

Keywords : Claw knife, gasoline engines, and mechanical transmission pulley