KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

KSCST

A Project Report

On

"DESIGN AND FABRICATION OF MULTI CROP HARVESTER CUM WEEDER"

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ABSTRACT

One of the critical points of the post harvest problems in crops like rice, ragi, sugar cane ,even grass cutter etc., is the price of harvester machines that meets the standard of low shrinkage and affordable by the consumer. For the purpose a multi crop cutter along with a weeder is used in a single machine. A multi crop harvester is used for a harvesting crops like rice, ragi sugarcane, even grass cutter etc., which reduce labour problems and harvest is done in less span of time , which is economical and easier. All the standard components were available in the market. This machine will be very much economical for our Indian farmers.

This project work involved the design and construction of mechanical harvester cum weeder, after discovering that tools such as cutlass and hoes require high drudgery, time consuming and high labour force. As a solution to these problems, mechanical weeder was designed and constructed. The mechanical weeder was made of two implements attachment i.e. the primary cutting edge which is in front to loose soil above and the secondary cutting edge which is behind to do cutting and lifting of weeds. The functional efficiency result of the manually operated weeder on loamy soil was 81.14%, clay soil was 93.75% and sandy soil was 94.29% on of these soils. The overall machine field efficiency was 98.67% .