



ABSTRACT

This report addresses the development and performance of a Human Powered Portable agri cutter. This set-up is used to cut crop residues like maize stovers, sorghum stovers in dry condition. This cut stovers can be fed to cattle directly. The current practice by small livestock farmers is to cut stover manually by axe or machetes. The mechanized cutters also available which are hand operated as well as electric motor driven. But today there is severe power shortage in country like India, particularly in rural and remote area. It is convergent to the fact that the hand muscles are weaker than leg muscles. The concept of human powered flywheel motor is used to develop the pedal operated portable agri cutter. The test performance of developed cutter shows the remarkable improvements over hand operated agri cutter.

In this machine one can cut the pipe of 0 to 200 mm length. This machine is designed for cutting of PVC pipes.

This project report includes the information about:-

1. Design of cutter and cutting force.
2. Design of pneumatic cylinder and shaft.
3. Cost estimation of machine.
4. Future development in machine.