

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
Belgaum-590 010



PROJECT REPORT
ON
“DESIGN AND FABRICATION OF WHEEL DRIVEN SPRAYER”
(SPONSORED BY K.S.C.S.T)

Submitted in partial fulfillment of the requirement for the award of the
BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING

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SYNOPSIS

Pesticide spraying is very tedious task in agriculture fields by using conventional hand pump spraying. A hand pump sprayer is used to spray limited areas, labor intensive and time consuming. Hence in our project, an attempt is made to design and fabricate a wheel driven sprayer by cranking mechanism. The forward motion of the wheel drives the reciprocating pump to pump the air into the storage tank, which maintains the pressure for the spraying of pesticides.

A pesticide sprayer designed and fabricated is portable in nature, with an increased tank capacity. Light weight makes it maneuverable for any aged people and also for women. The self pumping ability of equipment by moving the wheels in the agricultural fields which in turn builds up pressure inside the cylinder and it enables to spray pesticides through the nozzles mounted over cross rod . Thus the pesticide sprayer so designed and fabricated function more efficiently by spraying two parallel rows simultaneously, there by reducing operation cost and time by 50% of conventional sprayer Pesticide spraying area is increased compared to conventional hand pump spray and also less time consuming. Most significant feature of this sprayer is it can be operated without the supply of electrical energy.