FABRICATION OF SOLAR PESTICIDE SPRAYER

Project Report

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY
In
MECHANICAL ENGINEERING

Submitted by

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CERTIFICATE

This is to certify that the project report entitled "Fabrication Of Remote Controlled Lawn Mower" is a Bona fide record of project work carried out under my supervision by **U.GUNA SUBRAMANYAM (16811A0385), P.VISHNUVARHAL NAIDU (16811A0367), P.TEJASWARARAO (16811A0361),** and **G JHON (16811A0323),** during the academic year 2019-2020, in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Mechanical Engineering of Jawaharlal Nehru Technological University, Kakinada. The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

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ABSTRACT

Day by Day the population of India is increasing and to fulfill the need of food modernization of agricultural sectors are important. Due to chemical fertilizers the fertility of soil is decreasing. Hence farmers are attracted towards organic farming. By mechanization in spraying devices fertilizers and pesticides are distributed equally on the farm and reduce the quantity of waste, which results in prevention of losses and wastage of input applied to farm. It will reduce the cost of production. Mechanization gives higher productivity in minimum input Farmers are using same traditional methods for spraying fertilizer sand pesticides. Equipment is also the same for ages. In India there is a large development in industrial sectors compared to agricultural sectors. Conventionally the spraying is done by labors carrying backpack sprayer and fertilizers are sprayed manually. The efforts required are more and beneficial by farmers having small farming land. We know that today's world faces a huge "energy crisis" problem. To meet the future "energy demands", the use of non- conventional energy as an alternate solution is inescapable. A Solar Operated Pesticide Sprayer is a pump running on electricity generated by photovoltaic panels or the thermal energy available from collected sunlight as opposed to grid electricity or diesel run water pumps. The operation of solar powered pumps is more economical mainly due to the lower operation and maintenance costs and has less environmental impact than pumps powered by an internal combustion engine (ICE). Solar pumps are useful where grid electricity is unavailable and alternative sources. The solar sprayer has many advantages. Besides reducing the cost of spraying, there is a saving on fuel/petrol. Also, the transportation cost for buying petrol is saved. The solar sprayer maintenance is simple. There is less vibrations compared tothe petrol sprayer. The farmer can do the spraying operation by himself without engaging labor, thus increasing spraying efficiency.