

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 14, May 2023

## **Design and Development of Variable Flow of Pesticide Sprayer for Agriculture Purpose**

Prof. C. V. Patil, Ritesh Hinge, Hrishikesh Hulke, Varad Sovale, Gaurav Jadhao, Angad Salokar

Department of Mechanical Engineering

Shri Sant Gajanan Maharaj College of Engineering, (SSGMCE), Shegaon, India

Abstract: Agriculture is India's economic engine. In order to protect crops from becoming rotten and contaminated by harmful organisms including fungi, bacteria, parasites, and insects, pesticides must be sprayed on the crops. At the moment, pesticide spraying is a manual process that uniformly covers a variety of crops with varying sizes and forms. Our farmers continue to spread the chemicals using an antiquated technique that damages their skin, requires a lot of time and effort, and involves carrying the chemicals on their backs and using their hands. So, our goal is to make the pesticide application process simpler. Considering that herbicides are sprayed, installing a removable farmer will only need to drive the cart with simple operation and spray a variable amount of pesticide based on the form and size of crops as a result of the introduction of a detachable setup for pesticide spraying.

Keywords: Nozzle, Sensors, Arduin, Battery, Pump, Tank

## REFERANCES

[1] Lakshminara Simha N "Design and Development of Trolley type Agrochemical Sprayer" Researchgate 326156341,pp 2465-3289

[2] Hongbin Dou, Chengliang Zhang a , Lei Li, Guangfa Hao, Bofeng Ding , Weike Gong, Panlin "Application of variable spray technology in agriculture" doi:10.1088/17551315/186/5/012007

[3] Mansoor Alam, Muhammad Tahir Khan ,Muhammad Roman, Muhammad Tufail, Muhammad Umer Khan "Real Time Machine Learning Based Crop/ Weed Detection and Classification For Variable Rate Spraying In Precision Agriculture" 978-1-7281-6788,2020,IEEE, pp 273-280

[4] Aishwarya.B.V,Archana.G, C.Umayal "Agriculture Robotic Vehicle Based Pesticide Sprayer With Efficiency Optimization" 978-1-4799-7758-1,IEEE,2015,pp 59-65

[5] Bhavani Shankar Y,Cariappa A.B, "Design of Sprinkler for Agciculture Purpose"DOI 10.17148/IARJSET.2021.8698,pp 565-567

