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Design and Development of Wheel Operated Pesticide Sprayer

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Abstract: *Small, marginal, medium, and wealthy farmers make up the bulk of India's agricultural population. The manual lever-operated knapsack sprayer's adaptability, affordability, and design make it a popular choice for small-scale farmers. However, there are several drawbacks to this sprayer, such as its inability to sustain the proper pressure, which might result in back strain. Using a manual multi-nozzle pesticide sprayer pump, this study proposes a design for a device that can provide maximum spray output in the shortest amount of time. It is our goal to create a model that is both fuel-free and simple to use. A new mechanical system that addresses all of the aforementioned issues and provides assistance to farmers is something we are working to create.*

REFERENCES

[1]. "Design And Fabrication of Battery spraying machine" By S. T. Nangare In November 2014
[2]. "Development Of Double nozzle Multipurpose sprayer" ByGururaj P. Bhumannavar in February 2015.
[3]. "Design, Development And Analysis of pesticide sprayer" By Dr. H. ErdalOzkan in May 2015
[4]. "Development And Evaluation Of Automatic sprayer" By Silas0. N, kakini, And Abu Husseni in January 2015
[5]. "Development Of Double Wheel Multi Use Manually Operated sprayer" By Sridhar. H. S, November 2013.
[6]. "Design And Fabrication Of Manually Operated Sprayer With pesticides Sprayer" By M. G. Jadhav,Prof.. J. K. Sawale, December 2016
[7]. LaukikP. Raut ,Smit B. Jaiswal, Nitin Y. Mohite (2013):Design, development and fabrication of agricultural pesticides, International Journal of Applied Research and Studies (IJARS)
[8]. Monte P. Johnson, Entomology, and Larry D.Swetnam,(2012): Sprayer nozzles selection & calibration,(UniversityofKentuckycollegeofagriculture.
[9]. A research paper on "Fabrication of Portable Foot Operated Agricultural Fertilizers and Pesticides Spraying Pump" by S R Kulkarni, R V Nyamagoud, HareeshNaik, Mohan Futane
[10]. A research paper on "Design, development and fabrication of agricultural pesticides sprayer with weeder" by Laukik P. Raut, Smit B. Jaiswal, Nitin Y. Mohite
[11]. R. Joshua, V. Vasu and P. Vincent "Solar Sprayer – An Agriculture Implement", "International Journal of Sustainable Agriculture 2 (1): 16-19, 2010 ISSN 2079-2107"
[12]. R. D. Fox, R. C. Derksen, "Visual and image system measurement of spray deposits using water– sensitive paper" Applied Engineering in Agriculture Vol. 19(5): 549–552 2003 American Society of Agricultural Engineers ISSN0883–8542
[13]. A research paper on "Review of Solar Powered Pesticide Sprayer" by SarveshKulkarni, Karan Hasurkar, RamdasKumbhar, AmolGonde, RautA.S.
[14]. M. A. Miller, B. L. Steward, M. L. Westphalen "Effects of multi−mode four−wheel steering on sprayer machineperformance", American Society of Agricultural Engineers ISSN 0001−2351 A. Taiwo K. Oje, "Development and testing of a swirl chamber nozzle", Journal of Agricultural Engineering and Technology (JAET), Volume 16 (N0. 1) June,2008