

Design and Fabrication of Pneumatic Sugarcane Bud Chipping Machine

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Abstract: India is an agriculture based country whose 52% population is involved in agriculture. Sugarcane is the raw material for the production of white sugar, jaggery (gur) and khandsari. It is also used chewing and extraction of juice for beverage purpose. About 7.5 percent of the rural population, covering about 45 million sugarcane farmers. In the traditional methods like manual bud cutting with hand knife and bud cutting machine the main limitation is wastage of sugarcane. In this process labour requirement is high and productivity is low. The risk of injury is more. The conventional processes are quite uncomfortable. In pneumatic sugarcane bud chipping machine wastage of sugarcane is avoided by just taking out chips from sugarcane for chipping purposes only one operator is required at a time. In this modern technology productivity is high and more safety is available. Ergonomics is also present so that operator can work for more hour.

Keywords: Pneumatics, Ergonomics

REFERENCES

- [1]. Sanjay Patil Sir. Nikhil Nangare. Aditya Waghmare. MayurZope. Meet Thakker. "Design And Modification Of Sugarcane Bud Scooping Machine" IRJET: International Research Journal of Engineering and Technology e-ISSN: 2395 -0056 Volume: 03 Issue: 04 | April-2016 www.irjet.netpISSN: 2395-0072.
- [2]. [2].KiranBhange. AjitBhong. AkashChattar. "AUTOMATED SUGARCANE NODE CUTTING MACHINE VIA IMAGE PROCESSING" IJARSE: International journal of advanced research in science and Engineering volume No 5 issue No 12 2016 ISSN (O) 2319-8354.
- [4]. Ningappa H Kuri. Prof.ReddyNaik.J. "Design and Development of Sugar Cane Bud Chipping Machine" IJRAME: INTERNATIONAL JOURNAL OF RESEARCH IN AERONAUTICAL AND MECHANICAL ENGINEERING Vol.3 Issue 12, December 2015 Pgs: 97-110.
- [5]. Abel Roy J. Gat Vaibhav D. PatilHarshavardhan S. UpadhyeDhiraj. "Design and Fabrication of Semi-automated Sugarcane Bud Chipper" ISRASE: Institute for Studies on Recent Advances in Science & Engineering in FIESTA – 2016.
- [6]. Suraj s mugdam. Shubham c parwar. Pankaj b gaval. "Sugarcane bud cutting machine". 2nd International Conference On "Latest Innovation in Science, Engineering and Management" ISBN:978-93-86171-09-1. www. Conference world.in
- [7]. A.S. putteswar, ketanbanayar "Human Powered Sugarcane Bud Cutting Machine" IJARIEE-ISSN(O)-2395-4396.
- [8]. Roshanlal Vishwakarma, "Sugarcane bud chipper and other equipments" fifth national grassroots innovation. P.n.8790.