

3rd International Conference on Agriculture & Horticulture

October 27-29, 2014 Hyderabad International Convention Centre, India

Design, development and performance evaluation of grader for kagzi-lime

Pawar Savita Gangadharrao^{1,2} and S U Khodke²

¹Dr. Panjabrao Deshmukh Krishi Vidhyapith, India

²Vasantrao Naik Marathwada Agriculture University, India

Department of Agricultural Process Engineering, M.A.U., Parbhani was designed and developed grader, which work on principle of size of fruit. The power operated grader mainly consists of feeding trough, grading unit, collection unit, power transmission assembly with motor. In handle operated grader handle was adjusted to the main shaft of grading unit. The evaluation of grader was conducted by varying speed of cylinder and feed trough angle. The grader had provision to separate fruits into three grades. The maximum overall grading efficiency was found at 14 rpm speed of grading unit and 7 degree feed trough angle. Overall grading efficiency was 95 per cent with 354.45 kg/h actual capacity for power operated grader and 86 percent with 267 kg/hr, respectively for manually operated grader. In both graders, damage like brushing or any mechanical injury to the fruit was not observed during grading.

Biography

Pawar Savita Gangadharrao has completed her MTech at the age of 24 years from Vasantrao Naik Marathwada Agricultural University. She served as Assistant Professor in College of Food Technology, Naigaon (Bz), Nanded (MS) during 2010 to 2012. She is now PhD scholar in the Department of Agricultural Process Engineering, Dr. Panjabrao Deshmukh Krishi Vidhyapith, Akola.

savitapawar100@gmail.com