

Design and development of medium scale parboiling vessel for rural level producers to increase the parboiling capacity

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“Rice quality evaluation of a medium scale paddy Parboiling vessel” Proceedings of the International Symposium on Agriculture and environment “Research to meet Globule Challenges” .Faculty of Agriculture University of Ruhuna 2012 .11. 29 page 245

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Institute of Post Harvest Technology, Research and Development Centre, Jayanthi Mawatha, Anuradhapura.

A parboiling vessel was developed for medium scale Rice Processors to increase their capacity. Presently, the available IPHT parboiling barrel capacity is 35 kg. per batch and 25min. steaming time is required. The next available size of steaming vessel (“Goviya” Tank) capacity is 750kg. and the required steaming time is 45 min. Rice quality of this vessel is inferior and the investment cost is higher. Therefore, IPHT designed and developed a medium size vessel having a capacity of 200kg. This vessel was modified to increase the steam producing capacity, which passes through the paddy, designing the bottom of vessel in curved shape. Also, inverted “V” shape trough was fabricated in steaming chamber. The average steaming time of new vessel was 21 minutes. The milling qualities of parboiled rice were received as, total milling yield 73.16%, broken 8.28%, discoloured grain 2.68%, moisture 12.73%. The results were shown that IPHT medium scale parboiling vessel has good performance to produce parboiled rice.