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Development of simple polishing sorghum machine abrasive type support for diversification of food in Lamongan

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A common problem encountered in the use of grain sorghum is the milling process before the seeds can be used as food, feed or other. Milling aims to remove layers of sorghum pericarp and test a layer contains tannin from the endosperm. The layer can reduce protein digestibility in the stomach and the feeling of constipation. Institute for Agricultural Technology (BPTP East Java in cooperation with Mektan BBP) have developed a simple sorghum polishing machine with the diesel engine and abrasive stones type with a working capacity of 50-100 kg/hour. The purpose of this activity is to perform the modification and development of a prototype machine polishing grain sorghum with the main objectives, namely: (i) Develop a milling system with a stone abrasive; (ii) produce sorghum with the appearance of an intact form and bright colors. The development and modification of sorghum polishing machine are done with the method and stage activities are divided into the preparation stage, the stage of modification and fabrication, testing, and reporting stage. The test results showed that the optimum milling capacity (2x milling) is 100 kg/h with tannin content of 0.09% and 3-5% broken grains and whiteness reached 44.66% (whole bean and bright appearance).

Biography

Ana Nurhasanah is working at Center for Agricultural Engineering Development, IAARD, Serpong since 1993 as an Engineer under the Energy Engineering and Biorefinery Group. He obtained his Bachelor degree in Agricultural Industrial Technology in 1989 at Bogor Agricultural Institute. In 2003, he obtained a study permit from the Indonesian Agency for Agricultural Research and Development to continue his Master's degree in IPB, Bogor, and completed in 2005.

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