

ABSTRACT

The water content in unhusked rice after been harvested is adequately high, therefore this water content must be dried. This drainage is aimed at obtaining unhusked rice which can be kept in the granary and lasts long as well as filling the quality of the unhusked rice demanding by the market. Though some of natural gas and some other fuels are used under the purpose of draining or preserving, but the drainage right under the sunlight is commonly used. In contrary, the unhusked rice drainage using sun collector gives some advantages compared with the drainage using the last method mentioned, for using the sun collector the energy could be used more efficiently. The solar energy would flow to the collector metal sheet and would heat the collector metal sheet. The warm weather would be circulated through the layer contained the material which is going to be dried (the unhusked rice) by a so called natural convection. Additional drafts of a chimney would be delivered, which is caused by the difference of the mass of the air inside and outside the drainer. Furthermore, the unhusked rice steam would be taken along throughout the chimney.

This mean of solar energy drainage is equipped by heat keeper unit, so that it would enable the draining process to be conducted though a very little amount of solar energy is available. For instance, in the night, if it is rain or cloudy, etc.