

# Effects of Drying Methods on the Quality of Rice Grain

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## Summary

A total of four methods including solar drying, Windrow drying, staged heating by cyclic rice dryer, and rapid heating can be used for rice grain drying. Significant differences in percentages of total milled and head rice and appearance of rice grain harvested at the first crop season were found among four drying methods. The total head rice was 67.04% and 20.60% for rice grain dried by windrow drying and rapid heating method, respectively. The 73.04% of total milled rice was the highest for rice dried by solar drying method. The lowest rate of 64.80% for total milled rice was found for rapid heating method.

For the second crop season, the rates of head rice for windrow drying and rapid heating methods were 70.40 % and 62.44 %, respectively. No significant differences in percentage of total milled rice were found among four drying methods. Also, the differences in percent of chalky rice including white center and white belly were not significant between planting seasons and among drying methods. However, rice grain dried by rapid heating method had the adverse effects on quality. From the economic points of view, the highest cost was found for the staged heating method while the lowest cost was found for solar drying method. However, solar drying method can be limited by labor and climate condition.