

Title            A technique to enhance the quality and market value of rainy season sorghum grain  
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### **Abstract**

Heavy rains at the time of maturity cause severe damage to the sorghum grain (discolouration), which affects its market price. The deterioration is mainly due to infection caused by a complex of fungi, collectively known as “grain moulds”. The genetics of grain mould resistance is very complex, governed by major and minor genes showing significant G×E interactions and is hampering the progress in the breeding for grain mould resistance. Therefore, alternatives to breeding to improve the sorghum grain quality have been explored. Crops from the fields (one hectare each) of 18 farmers in each of the districts of Akola, Parbhani, Coimbatore and Mahabubnagar in India were selected for harvesting. One-half of the crop was harvested at physiological maturity and artificially dried (Treatment 1) to reduce the moisture content in order to prevent the mould infestation and grain deterioration; the other half was harvested at the normal maturity and sun-dried as per the normal farmers’ practice (Treatment 2). Market price was ascertained for the produce from both the treatments. Significant improvement in grain quality and also the market price of the produce were observed by the use of this technology, i.e., harvesting at physiological maturity and artificial drying. On an average over the four districts, 55% increase in market price of the grain harvested at physiological maturity and artificially dried was observed over that of the produce harvested at normal maturity. A minimum of 15 ha of sorghum crop area was necessary to cover the cost of the drier in a season. The advantage of the technology is that it not only gives remunerative price to the farmer for the better grain quality but also gives extra benefits by facilitating early arrival of the sorghum produce in the market and advancement of planting of second crop of the double crop in post rainy season (to have better utilisation of residual moisture).