

**Title** Improving the operation of a commercial mango dryer  
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### **Abstract**

Mangoes are an important commercial crop in many tropical countries. The drying of mangoes is an ideal value-added opportunity for processors in many developing world nations, because the processing requirements are relatively non-capital intensive. In addition, there is a ready market for the product both domestically and in the export trade. The regular export trade, dominated by a few countries in South East Asia, consists of mangoes dried with sulphites to stabilize colour and with sugar added to improve product texture. Processors in Burkina Faso have decided to focus their attentions on the organic market, since mangoes produced in this fashion can be sold at premium prices. The mangoes are usually dried near their points of origin, in forced-air cabinet-type dryers fuelled by bottled gas or heated by solar radiation. Sensory quality is particularly difficult to control in this product since, without chemical stabilization or added sugar, colour changes (due to both enzymic and non-enzymic browning) or texture defects can occur. Careful controls of temperature and humidity parameters, as well as drying chamber design are critical to achieving optimal product quality. Organically dried mango can be used as an illustrative example of the impact of technology transfer on the improvement of small-scale food processors in developing world nations. Operational problems that are typically encountered can prevent expansion and reduce profitability. Through technology transfer such problems can be overcome and economic viability achieved.