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Research Paper :

Drying of lemon in M.P.U.A.T. solar tunnel dryer

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ABSTRACT

The experiment was conducted to dry lemon in solar tunnel dryer designed by M.P.U.A.T., Udaipur. The minimum temperature was 38.1^{0}C at 8:00 am while maximum temperature attended in STD was 72.9^{0}C at 2:30 pm. Solar radiations received were increased from 300 W/m^2 at 8:00 am to more than 700 W/m^2 at 12:00 pm. The initial moisture content of lemon taken for drying was 80.7 and which was reduced to 5.88 % (wb) in six days drying period, where as open sun drying required ten days. Cost analysis revealed that the cost of dried lemon was Rs.100/- per kg and break-even point was 27.67%. The profit of STD per year was found to be Rs. 382560/-.

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