RESEARCH PAPER | International Journal of Agricultural Engineering | Volume 13 | Issue 1 | April, 2020 | 74-79
ISSN–0974–2662 ■ Visit us : *www.researchjournal.co.in* ■ **DOI: 10.15740/HAS/IJAE/13.1/74-79**

Quality of solar tunnel dried amla segments

■ **U. Priyanka and A. Carolinrathinakumari**

Received : 10.12.2019; **Revised :** 20.02.2020; **Accepted :** 06.03.2020

See end of the Paper for authors' affiliation

Correspondence to :

U. Priyanka
University of Agricultural Sciences Bangalore, GKVK, **Bangalore (Karnataka) India**
Email: priyapreksha@gmail.com

■ **ABSTRACT :** In this study, Amla segments dried in different drying methods like sun drying and solar tunnel drying and with different pre-treatments like 2 per cent Sodium Chloride and 0.1 per cent Potassium metabisulphite solutions. The treated samples significantly showed variations in some quality parameter of amla segments. The samples dried in solar tunnel dryer gave lower moisture content compared with that of sun dried samples. The lowest water activity were found to be in 2 per cent Sodium Chloride pre-treated amla segments dried in solar tunnel drying. Solar drying of pre-treated amla segments in solar tunnel dryer resulted in 20-30 per cent reduction in drying time as compared to open-air sun drying. The highest rehydration ratio was found to be in 0.1 per cent Potassium metabisulphite treated amla samples. The quality of rehydrated amla segments dried in solar tunnel dryer was superior when compared to amla segments dried in open sun drying method. The highest vitamin C retention was found to be 125.68 (mg/100 g) in untreated amla samples dried in solar tunnel dryer. The quality of rehydrated amla segments dried in solar tunnel dryer was superior when compared to amla segments dried in open sun drying method. The problem of interruption by rain and cloudy period was solved. The samples dried in the solar tunnel dryer were completely protected from rain, insectsand contamination by dust and were of good quality dried product.

■ **KEY WORDS :** Solar tunnel dryer, Drying, Moisture content, Amla segments, Quality

■ **HOW TO CITE THIS PAPER :** Priyanka, U. and Carolinrathinakumari, A. (2020). Quality of solar tunnel dried amla segments. *Internat. J. Agric. Engg.*, **13**(1) : 74-79, **DOI: 10.15740/HAS/IJAE/13.1/74-79.**