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Production of mango leathers by cast-tape drying: Product characteristics and sensory evaluation

Raquel da Silva Simão, Jaqueline Oliveira de Moraes, Paula Gimenez de Souza, Bruno Augusto Mattar Carciofi, João Borges Laurindo



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1 **PRODUCTION OF MANGO LEATHERS BY CAST-TAPE DRYING: PRODUCT**
2 **CHARACTERISTICS AND SENSORY EVALUATION**

3
4 **Raquel da Silva Simão, Jaqueline Oliveira de Moraes, Paula Gimenez de Souza, Bruno**
5 **Augusto Mattar Carciofi, João Borges Laurindo***

6 *Department of Chemical and Food Engineering, Federal University of Santa Catarina,*
7 *EQA/CTC/UFSC, 88040-970, Florianópolis, SC, Brazil*

8 *Corresponding author: Tel.: +55 48 3721.6402; Fax: +55 48 3721.9687. E-mail:
9 jb.laurindo@ufsc.br (J. B. Laurindo).

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11 **ABSTRACT**

12 Cast-tape drying (CTD) is a suitable process for the dehydration of fruit pulps to obtain
13 leathers, flakes or powders. This study investigated the production of mango leathers by CTD,
14 as well as their physical characteristics and acceptability. Drying curves were evaluated for
15 mango pulp with and without starch addition (5 g dry starch/100 g dry mango pulp). Resulting
16 mango leathers were conditioned at different relative humidity (RH), and their textures were
17 assessed by mechanical-acoustic measurements and correlated to sensory analyses. Starch
18 addition did not influence the drying time (18 minutes). Mango leathers conditioned at 22.5%
19 RH were very crisp and preferred by consumers, independent of the starch addition. The
20 texture was the attribute that most influenced consumer's choice and was well correlated with
21 the number of force and sound peaks, as well as with sound pressure level. Therefore, CTD is
22 an adequate drying process to produce mango leathers at relatively short times.

23
24 **Keywords:** Drying; Fruit pulps; Leather; Texture, Acceptability.

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26 **1. Introduction**

27 Mango is a fruit appreciated worldwide due to its attractive color, flavor and
28 nutritional value, but is very perishable. Drying can increase fruits shelf life, resulting in new

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