

Accepted Manuscript

Title: Effect of growth period on the multi-scale structure and physicochemical properties of cassava starch

Authors: Xiaoyan Tan, Bi Gu, Xiaoxi Li, Caifeng Xie, Ling Chen, Binjia Zhang



PII: S0141-8130(17)30196-4
DOI: <http://dx.doi.org/doi:10.1016/j.ijbiomac.2017.03.031>
Reference: BIOMAC 7197

To appear in: *International Journal of Biological Macromolecules*

Received date: 17-1-2017
Revised date: 18-2-2017
Accepted date: 6-3-2017

Please cite this article as: Xiaoyan Tan, Bi Gu, Xiaoxi Li, Caifeng Xie, Ling Chen, Binjia Zhang, Effect of growth period on the multi-scale structure and physicochemical properties of cassava starch, *International Journal of Biological Macromolecules* <http://dx.doi.org/10.1016/j.ijbiomac.2017.03.031>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Effect of growth period on the multi-scale structure and physicochemical properties of cassava starch

Xiaoyan Tan^a, Bi Gu^b, Xiaoxi Li^a, Caifeng Xie^b, Ling Chen^{a,*}, Binjia Zhang^{c,**}

^a Ministry of Education Engineering Research Center of Starch & Protein Processing, Guangdong Province Key Laboratory for Green Processing of Natural Products and Product Safety, School of Food Science and Engineering, South China University of Technology, Guangzhou, Guangdong 510640, China

^b College of Light Industrial and Food Engineering, Guangxi University, Nanning 530004, China

^c Laboratory of Environment Correlative Dietology (Ministry of Education), College of Food Science and Technology, Huazhong Agricultural University, Wuhan 430070, China

* Corresponding author. *Email:* felchen@scut.edu.cn (L. Chen)

** Corresponding author. *Email:* zhangbj@mail.hzau.edu.cn (B. Zhang)

Highlights

- South China 5 (SC5) cassava starches with various growth periods were evaluated
- Growth time led to slight changes in lamellar and crystalline structures
- Pasting behaviors of SC5 starches were apparently altered by growth time
- 9 months growth time was the turning point for cassava starch properties

Download English Version:

<https://daneshyari.com/en/article/5511925>

Download Persian Version:

<https://daneshyari.com/article/5511925>

[Daneshyari.com](https://daneshyari.com)