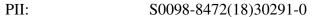
Accepted Manuscript

Title: Climatic seasonality influences the development of pollen grains and fruiting in *Annona squamosa*

Authors: Bruno Rafael Alves Rodrigues, Silvia Nietsche, Maria Olívia Mercadante-Simõ es, Marlon Cristian Toledo Pereira, Leonardo Monteiro Ribeiro



DOI: https://doi.org/10.1016/j.envexpbot.2018.03.025

Reference: EEB 3423

To appear in: Environmental and Experimental Botany

Received date: 26-2-2018 Revised date: 28-3-2018 Accepted date: 28-3-2018

Please cite this article as: Alves Rodrigues, Bruno Rafael, Nietsche, Silvia, Mercadante-Simõ es, Maria Olívia, Toledo Pereira, Marlon Cristian, Ribeiro, Leonardo Monteiro, Climatic seasonality influences the development of pollen grains and fruiting in Annona squamosa. Environmental and Experimental Botany https://doi.org/10.1016/j.envexpbot.2018.03.025

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.



ACCEPTED MANUSCRIPT

Climatic seasonality influences the development of pollen grains and fruiting in Annona squamosa

Bruno Rafael Alves Rodrigues¹, Silvia Nietsche^{2,*}, Maria Olívia Mercadante-Simões¹, Marlon Cristian Toledo Pereira¹, Leonardo Monteiro Ribeiro¹.

¹ State University of Montes Claros, CEP 39401-369. Montes Claros, MG, Brazil. E-mail: rafabrunoalves@hotmail.com.br, marlon.pereira@unimontes.br, omercadante@hotmail.com, leomrib@hotmail.com

² Federal University of Minas Gerais, Institute of Agricultural Sciences, Caixa Postal 135, CEP: 39 404-547. Montes Claros, MG, Brazil. E-mail: silvia.nietsche@gmail.com

* Corresponding author.

Highlights

- Dry season in Brazilian semi-arid led to the faster development of reproductive organs in A. squamosa.
- Pollen grains released during the rainy season had a greater mucilage content and was associated with larger nutrient reserves;
- The high temperature associated with high humidity during the rainy season increased pollen viability and pollen tube length;
- Rainy season in Brazilian semi-arid provided fruits with more seeds, greater fresh fruit mass, pulp mass and seed mass.

ABSTRACT

Artificial pollination is key in the commercial production of the sugar apple (*Annona squamosa*). The influence of the marked climatic seasonality typical of the semi-arid regions, characterized by two seasons (dry and rainy) where

Download English Version:

https://daneshyari.com/en/article/8887020

Download Persian Version:

https://daneshyari.com/article/8887020

<u>Daneshyari.com</u>