

Accepted Manuscript

Transcriptomic signature of Fusarium toxin in chickpea unveiling wilt pathogenicity pathways and marker discovery

Pooja Choudhary Taxak, Suruchi M. Khanna, C. Bharadwaj, Kishor Gaikwad, Sukhdeep Kaur, Meenu Chopra, Gitanjali Tandon, Sarika Jaiswal, Mir Asif Iquebal, Anil Rai, Dinesh Kumar, Srinivasan, Pradeep K. Jain

PII: S0885-5765(17)30234-5

DOI: [10.1016/j.pmpp.2017.09.006](https://doi.org/10.1016/j.pmpp.2017.09.006)

Reference: YPMPP 1285

To appear in: *Physiological and Molecular Plant Pathology*

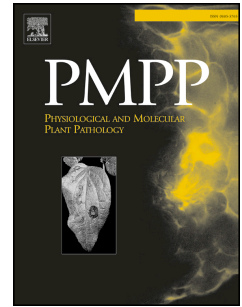
Received Date: 7 August 2017

Revised Date: 18 September 2017

Accepted Date: 22 September 2017

Please cite this article as: Taxak PC, Khanna SM, Bharadwaj C, Gaikwad K, Kaur S, Chopra M, Tandon G, Jaiswal S, Iquebal MA, Rai A, Kumar D, Srinivasan , Jain PK, Transcriptomic signature of Fusarium toxin in chickpea unveiling wilt pathogenicity pathways and marker discovery, *Physiological and Molecular Plant Pathology* (2017), doi: 10.1016/j.pmpp.2017.09.006.

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.



1 **Transcriptomic signature of fusarium toxin in chickpea unveiling wilt**
2 **pathogenicity pathways and marker discovery**

3 Pooja Choudhary Taxak¹, Suruchi M Khanna¹, C Bharadwaj², Kishor Gaikwad¹, Sukhdeep
4 Kaur³, Meenu Chopra³, Gitanjali Tandon³, Sarika Jaiswal³, Mir Asif Iquebal³, Anil Rai³, Dinesh
5 Kumar³, Srinivasan¹, Pradeep K Jain^{1*}

6
7 ¹National Research Centre on Plant Biotechnology, Lal Bahadur Shastri Building, PUSA
8 Campus, New Delhi-110012, INDIA

9 ²ICAR-IARI, Division of Genetics, PUSA Campus, New Delhi 110012

10 ³Centre for Agricultural Bioinformatics, ICAR-Indian Agricultural Statistics Research Institute,
11 Library Avenue, PUSA, New Delhi-110012, INDIA

12 *Corresponding Author: Email: jainpmb@gmail.com(PKJ)

13
14 **1. Introduction**

15 Chickpea is the second most important food legume in terms of gross production and acreage
16 and is grown in over fifty countries of the world representing all the continents [1]. It is a self-
17 pollinated, diploid ($2n=2x=16$), cool season pulse crop with a moderate genome size of 740 Mb.
18 It is not only an excellent source of nutritive dietary protein for mass of undernourished people
19 throughout the developing world, but also plays an important role in improving soil health,
20 fertility and sustainability of agro-ecosystems [2]. The global chickpea production is about 13.1
21 Mt from an area of 13.54 Mha with India being the largest producer contributing about 67.3% of
22 the total world production (FAOSTAT 2013) [3]. Chickpea yield is severely curtailed by several
23 abiotic (drought, heat, cold and salinity) and biotic (Ascochyta blight, fusarium wilt, dry root rot

Download English Version:

<https://daneshyari.com/en/article/5592581>

Download Persian Version:

<https://daneshyari.com/article/5592581>

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