



# WCRC - 7

## Book of Abstracts

WORLD COTTON  
RESEARCH CONFERENCE-7



INTERNATIONAL  
COTTON  
ADVISORY  
COMMITTEE



4-7 October 2022, Cairo, Egypt

# **WORLD COTTON RESEARCH CONFERENCE-7**

## **BOOK OF ABSTRACTS**

**4-7 OCTOBER 2022**

**CAIRO, EGYPT**

**THEME: SUSTAINABLE COTTON**



**INTERNATIONAL  
COTTON  
ADVISORY  
COMMITTEE**



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## PREFACE

*The World Cotton Research Conference is held once every four years in different cotton-growing countries. Cairo is hosting the seventh edition. Previous conferences were held in Australia (1994), Greece (1998), South Africa (2003), the USA (2007), India (2011), and Brazil (2016). With my presence at this conference, I can proudly declare that I am fortunate to have attended all seven WCRCs. Each of the previous conferences exuded its own charm. I enjoyed all of them. They not only provided a platform for the global cotton fraternity to meet but enabled cotton researchers across the world to develop friendships and professional linkages. I am personally aware of several international collaborative research projects that were conceptualized at the conferences and eventually reached fruition to benefit the cotton world.*

*Einstein once said ‘most people say that it is the intellect which makes a great scientist. They are wrong. It is character.’ Conferences such as these help us to meet these characters with character. We publish our research as scientific papers. We read papers. We may know the names but not the characters behind the names. It is research conferences which allow us to meet fellow scientists, interact and learn their insights, their passion, their curiosity, and their wisdom. This conference, the WCRC brings us together so that we can present our work, meet our fellow cotton scientists in person and discuss with them to develop professional bonds.*

*WCRC was the brainchild of Dr. Rafiq Chaudhry, former Head technical information section of the ICAC. He initiated the WCRC and spearheaded six conferences successfully over 22 years. Dr. Rafiq also created the International Cotton Researchers Association (ICRA) as a body of scientists who could conduct the WCRC. The first six WCRCs were conducted by the ICAC. This seventh edition is a joint effort of the ICAC and ICRA. Four leaders, Dr. Michel Fok, former Chair of ICRA, Dr. Mohamed Negm, the current Chair of ICRA, Dr. Eric Hequet, Vice-Chair and Dr. Khalid Abdullah, President of ICRA Secretariat, Pakistan, deserve accolades for coordinating all the conference activities on the ground. The International organizing committee, chaired by Mr. Kai Hughes, Executive Director, ICAC supported the conference well. My colleagues Mr. Mike McCue, Ms. Caroline Taco, Ms. Lorena Ruiz, and members of the ICRA Executive committee chipped in many times to ensure the success of the conference.*

*We are grateful to Dr. Kater Hake, Vice President, Cotton Incorporated for the tremendous technical support and for helping with platinum sponsorship from Cotton Incorporated and Cotton leads. The ICAC and ICRA are grateful to the Ministry of Trade and Industry, H.E. Ahmed Samir, and Mr. Mohamed Khedyr, Chairman of CATGO, for hosting the conference. We thank Dr. Khalid Schuman, Executive Director, Egypt Cotton Association, and Wael Olma, Chairman Egypt Cotton Association for sponsoring World Cotton Day. We thank all the sponsors for their generosity.*

*Publishing this ‘Book of Papers’ wasn’t an easy task. Dr. Michel Fok, Dr. Khalid Abdullah, Dr. Mohamed Negm and Dr. MV Venugopalan did a stupendous job as Chief Editors. The subject matter Editors worked hard to maintain quality and conformity to the WCRC standards. Editors of Plant breeding and genetics, Agronomy, Crop Protection, and Molecular Biology had to work more than other Editors, because of the large volume of papers in these disciplines. I am personally gratified to acknowledge Dr. Sabesh, Editor, Information Technology and Socio-economics, for rendering extraordinary help in not only editing articles but also personally type-set and creating this volume.*

*As organizers, we braved through COVID-19 and through several anxious times to reach where we are today with the conference. Dr. Mohamed Negm and his team deserve a standing ovation for retaining their cheer irrespective of all the turbulences. I congratulate them and would like to thank all the participants of the WCRC-7 for making it a grand success.*

**-Keshav Kranthi**

Chief Scientist, ICAC

Secretary General, ICRA

# WCRC-7 – BOOK OF Abstracts

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## Development of Reference Materials for Checking the Micro-Ginning Machines for their Fiber Quality Preservation Performance.

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Monitoring the fiber quality preservation in industrial ginning plants avoids the losses that may arise due to improper settings along with wear and tear of machineries. For this purpose, fibre quality parameters obtained from the ginning plants can be compared with that of micro-gins by processing same cotton lot. However, users and stakeholders remain in state of dilemma with respect to performance of micro-gins to preserve the fiber quality due to the lack of reference material. Hence, there is a need to develop standard seed cotton reference material with known fiber characteristics in order to perform periodical checks of the micro-gins. In this work, a reference material was developed and measured for its homogeneity. Study displayed that that reference material is suitable for the micro gins employed to monitor the fiber quality preservation performance of industrial plants.

### Keywords:

Reference materials, Micro-ginning machines, Fiber quality, Preservation performance, Fiber characteristics