





A Report on

Participation in the "World Cotton Research Conference-7" (WCRC-7), Cairo, Egypt My Experience of Egypt

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Egypt has one of the longest histories of any country, tracing its heritage back to the 6th-4th millennia BCE. Considered a <u>cradle of civilization</u>, <u>Ancient Egypt</u> saw some of the earliest developments of writing, agriculture, urbanization, organized religion and central government.





Egypt, Country of Linen, the Egyptian cotton appeared in 1821

Egypt, Country of Justify and measurements



- The world-wide distinguished "Egyptian Cotton" is, undoubtedly, a peculiar crop, that has played a prominent role in Egypt's economic, social, as well as political history for more than two hundred years. Its emergence during the reign of Mohamed Ali 1821, the founder of modern Egypt, coincided with Egypt's renaissance after centuries of stagnation.
- Unlike many other cotton-producing countries, Egypt exclusively produces *Gossypium barbadense*, a type of extra fine cotton that generally has a longer and finer staple.

> FACTS

- Gossypium Barbadense i.e., Egyptian cotton
- Egyptian Cotton is Hand Picked
- Egyptian Cotton is Non GMO
- Egyptian Cotton Spinnability up to 350 Ne
- Few varieties grown every year "7-8 varieties"

Cotton in Egypt

Egypt's unique climate and the fertile soil of the River Nile has always been ideal for growing cotton, creating an opulent material that is both durable and gloriously soft. Thanks to the Suez Canal, Egyptian Cotton™ has quickly become a global name that is synonymous with luxury and quality. Egyptian Cotton™ is only grown within the Nile Delta. The area around the famous River Nile is well-known for its extremely rich and fertile soils. In addition to its wonderfully fertile soil, Egypt's moderate climate is ideal for the growth of extra-long staple cotton. To produce the highest quality cotton possible, a farmer needs stable weather consisting of high sun, humidity and rainfall. Fortunately, Egypt has consistently warm weather during July and August, allowing the cotton to mature before being harvested in September and October.

Egypt's cotton production has been growing for the past few decades and is ranked as one of the best cotton products in the world because of its long fibers, which make it strong and soft. Egyptian cotton is more breathable, moisture-wicking and absorbent than normal cotton, which helps to regulate human body temperature making it ideal for balmy summer nights, and all year round comfortable sleeping. This works by drawing away moisture from your skin when you are hot, allowing you to cool down. The average annual cotton crop amounts to about 1,500,000 bales of 478

pounds net, which ranks Egypt as one of the leading cotton-producing countries of the world. Egypt Exports of cotton remained US\$ 521.72 Million during 2021, according to the United Nations COMTRADE database on international trade.

In Alexandria, the main cotton-growing belt, the average annual temperature is 20.8 °C (15 to 28.7°C) with av. 65% RH (very ideal for cotton cultivation). Alexandria has a desert climate and there is virtually no rainfall all year long. About 181 mm of precipitation falls annually. Only eight approved varieties of Extra-long, long and medium staple are approved and sown in the area. Each variety has a specified zone allocated for cultivation and there is strict ban on the movement of seed, seed cotton and cultivation across the specified zone of each variety.

The current popular varieties are Giza 86 (63%), Giza 94 (17%), Giza 90 (10%), Giza 95 (5%) and Giza 87 (3%). Giza 45, which is grown in a small area, also under organic farming is known for its extra-long extra fine cotton with 36.0 mm length, 45.5 g/tex strength and $3.0\mu g/inch$ micronaire value. GIZA 87, 88, 92 and 93 are extra long staple varieties, whereas Giza 86 and 94 which are grown in the Delta are long staple varieties. Giza 90 and 95, which are cultivated in the southern regions of Egypt are considered as medium and short staple cottons. The new variety Giza 96 is reported to be promising in quality and yields.

The Conference (WCRC-7)

The World Cotton Research Conference is held once every four years in different cotton-growing countries of the World. Cairo, Egypt was honored to host 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 the last two WCRCs in Brazil (2016) and now (2022) in Egypt. The previous conference exuded its own charm. It not only provided a platform for the global cotton fraternity to meet but also enabled cotton researchers across the world to develop friendships and professional linkages. I am personally witness of several international collaborative research projects that were conceptualized at the conference 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.

The first six WCRCs were conducted by the ICAC. This seventh edition was 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 Ministry of Trade and Industry, Egypt and CATGO co-hosted the conference. *Cotton Incorporated* and *Cotton leads* provided a tremendous technical support and were the platinum sponsors of the Conference. The *Cotton Connect* hosted reception cocktail evening dinner on 4 October. Egyptian Cotton Association sponsored the World Cotton Day on 7 October. The participants thank all the sponsors for their generosity.

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. Dr. Mohamed Negm, the current Chair of ICRA, and his team deserve a standing ovation for retaining their cheer irrespective of all the turbulences.

The World Cotton Research Conference was scheduled and held from 4 to 7 October at Steigenberger Hotel, Downtown Cairo. I arrived at Cairo on 5th of October, the 2nd day afternoon of Conference due to delay in visa. Transport organized by the Committee picked us from the airport for the venue of conference. Dr. M. Negm, Head of Organizing Committee and Dr. Keshave Karanthi, Chief Scientist ICAC welcomed us with smiling face. My talk was scheduled for that day but due to late arrival, the program was rescheduled and I presented my research work on 6th of October in the

Concurrent session 7a: Main Hall. Due to Covid-19 pandemic, many renowned cotton scientists from China, Australia and some other countries were unable to attend the event.

A total 107 research findings were presented by speakers representing about 25 cotton growing countries of the world. The largest delegate was from India (35 Peoples) whereas, conversely only seven scientists from Pakistan were there and interestingly none of Pakistani Scientists have been funded by our Government.

Presenters covered almost all aspects of cotton value chain from sowing to value addition. The main themes of presentations were as under.

- 1. Plant Breeding and Genetics
- 2. Molecular Biology, Biotechnology, Genomics
- 3. Agronomy, Soil Science, Biochemistry, Physiology, Sustainability
- 4. Agrometeorology, Climate Change, Crop Modelling
- 5. Crop Protection, Entomology, Pathology, Nematology
- 6. Economics, Social Sciences, Technology Transfer
- 7. Agricultural Engineering, Robotics, Artificial Intelligence and
- 8. Processing of Fiber, Textile & Cotton By-Products

Meeting of ICRA's General body

On 6th of October, meeting of General body assembly of ICAC's International Cotton Researchers Association (ICRA) was held in the Diamond ballroom of Steigenberger Hotel (Al-Tahrrir Square), Cairo. A total number of 220 ICRA members participated in the meeting chaired by Dr M. Negm, Chairman ICRA; Dr Eric Hequet, Vice-Chair ICRA; Dr. Khalid Abdullah, President ICRA Secretariat and Dr Keshav Kranthi, Executive Director ICRA. The members of the general body discussed the different issues faced by the cotton growing countries, especially the adverse impacts of climate changes on the World cotton production and the challenges to be addressed by the cotton researchers during the current scenario.

Election of ICRA Executive Committee Members

The Nominating Committee received 35 applications for election as Executive Committee Members of the ICRA. Seventeen of the 35 candidates attended the WCRC-7 and participated in the elections. Dr. Mohamed Negm and Dr. Eric Hequet were elected as the Chairman and Vice-Chairman, respectively by the ICRA-EC in 2021 and were therefore considered as EC members-designate until the next World Cotton Research Conference.

Voting was held by the General Body Assembly to elect 15 Executive Committee Members of the ICRA. The candidates presented their vision regarding proposed plans of ICRA before the General Body Assembly. Voting was by show of hands and assessment of majority votes for election.

The following candidates were elected by the General Body Assembly

S. #	Name	Country	Subject-matter disciplines
1	Dr. Akhteruzzaman	Bangladesh	Agronomy & Crop Physiology
2	Dr. Alex Mungai	Kenya	Value Addition & Social Sciences
3	Dr. Bruno Bachelier	France	Plant Breeding and Molecular Genetics
4	Dr. Felix Sawadogo	Burkina Faso	Pest Management
5	Dr. Ghorban Roshani	Iran	Crop Physiology and Soil Science
6	Dr. Ghulam Sarwar	Pakistan	Plant Breeding and Genetics
7	Dr. Jodi Scheffler	USA	Plant Breeding and Molecular Genetics
8	Dr. Marcelo Paytas	Argentina	Agronomy and Crop Physiology
9	Dr. Martin Simasiku	Zambia	Plant Breeding and Genetics
10	Dr. Nazife Ozkan	Turkiye	Plant Breeding and Genetics
11	Dr. Sandhya Kranthi	India	Entomology and Crop Protection
12	Dr. Souzan Sanad	Egypt	Spinning & Fibre Technologies
13	Dr. Tahani Yousif Elagib	Sudan	Agricultural Biotechnology
14	Dr. Venugopalan MV	India	Agronomy & Soil Science

Prof. Ibrokhim Abdurakhmonov, Hon'ble Minister of Innovations, Uzbekistan was nominated and unanimously approved as the ICRA Advisor by the General Body Assembly.

Afterwards, the newly elected Executive Committee members took oath and showed their commitment to make the Association more effective and influential, facilitation to cotton



researchers and to organize cotton events more frequently and effectually.

Terms of Reference for EC Members

- ICRA will convene a meeting of the newly elected ICRA-EC at the earliest possible convenience to discuss the future plans for ICRA.
- The newly elected Executive Committee shall co-opt new EC members for Geographical and subject matter representation in the next immediate ICRA-EC meeting.
- Each subject group will develop communication channels and social media networks to connect researchers of their subject area and to explore research collaborations.
- Each of the ICRA-EC subject-groups team will coordinate all activities related to research collaboration, conducting training programs, certificate programs, conferences, meetings, seminars, workshops, institution visits, review papers, reports and technical publications in their subject area.
- The EC members and ICRA experts will receive a certificate signed by the ICAC as and when required for their CV.

A luxury conference dinner was organized in the "Al-Saraya boat restaurant" inside the Nile River in the evening of 6th October. After dinner, Cake cutting ceremony of "The World Cotton Day" was held and a huge cake was served to the participants. After that, there were cultural and musical shows which fully reflected Egyptian culture & history.

The 7th of October was celebrated as "The World Cotton Day" in The St. Regis Hotel, Cairo. There was a lot of fun all the day *i.e.* cotton quiz, cotton sculpture making competition, parody of different characters etc. the winners were awarded cash prizes individually as well as a team. After lunch in the afternoon, there was dispersal.

After the session, in the evening we on our own visited the historical and famous Al-Azhar University, Cairo and performed 'Isha Prayer" there. The University and the attached mosque has a very vast and enormous courtyard and a big hall. It is really a monument and seat of Islamic religion and culture. Across the road to Jamia-Al-Ahar, marvelous 'Hazrat Imaam Hussain Mosque' has been constructed which is connected with the University through an underpass. This mosque has profound religious affiliations for the Muslims, as it is revealed that the Holy Head of Hazrat Imaam Hussain A.S. rests in the shrine attached with the mosque. It is accepted that some army commander or Governor of a Muslim dynasty carried the Holy Head to Cairo. I, on the spot, for the first time came to know this astounding revelation and was very much excited to be there. We also have look at the historical wall and the place where the Holy Head was reinvigorated just after its arrival and before its funeral. Inside the shrine, peoples were rushed many more than the capacity. They were crying, mourning, praying and showing their devotions for the Holy Imaam.

In front of the mosque, there is situated a very mobbed but large and reflecting Egyptian culture, Al-Khaleeli market. The market is full of domestic use products and decoration pieces with intensive embroidery and carvings representing ancient Egyptian history and culture. We spent a lot of time there and have some shopping also.

Next day, on 8 October, we have organized a private tour of city side with the help of a private tour organizer. We departure at about 10.00am and our first destination was the Great Pyramids. The Pyramids of Giza are one of the Seven Wonders of the World, and the only surviving wonder of the ancient world. The Egyptian pyramids are ancient masonry structures located in Giza area adjoining to Cairo main city. Nine pyramids are found in Giza which were built as tombs for the country's pharaohs and their consorts during the Old and Middle Kingdom periods. The Giza Plateau is the location of the Pyramid of Khufu (also known as the "Great Pyramid" and the "Pyramid of Cheops"), the somewhat

smaller Pyramid of Khafre (or Chephren), the relatively modest-sized Pyramid of Menkaure (or Mykerinus), along with a number of smaller satellite edifices known as "Queen's pyramids", and the Great Sphinx of Giza. Of the three, only Khafre's pyramid retains part of its original polished limestone casing, near its apex. This pyramid appears larger than the adjacent Khufu pyramid by virtue of its more elevated location, and the steeper angle of inclination of its construction. It is, in fact, smaller in both height and volume. The pharaoh's final resting place was usually within a subterranean burial chamber underneath the pyramid, a horrifying place to have a look at. Although the Great Pyramid has subterranean chambers, they were never completed, and Khufu's sarcophagus rests in the King's Chamber, where Napoleon is said to have sojourned, deep inside the Great Pyramid. The Great Pyramid features three burial chambers inside, which can be and we accessed it by entering through the "Robbers' Tunnel", a sloping passageway.

The modern Cairo city actually comprises of three parts i.e. the old city, the new city and the Giza. Sultan Salahuddin Ayyubi conquered the old city and the fort constructed by him is still present there along with many old but enormous tombs, a symbol of typical Islamic Architecture.

Our next visit was scheduled to the "3 pyramids papyrus Institute. Papyrus was very important to the ancient Egyptians as it helped transform Egyptian society in many ways. Once the technology of papyrus making was developed, its method of production was a closely guarded secret allowing the Egyptians to have a monopoly on it, as it became the lifeblood for ancient Egypt. It was even exported to many locations in the ancient world. The raw material of papyrus paper comes from the plant Cyprus papyrus, a long stemmed plant that grows in damp regions of the Nile Delta in Egypt.

Despite the fact that the plant was mainly used in the production of paper, it was also a major component in the manufacturing of boats, rope and baskets. The roots of the plant were also burned for fuel, and from dried papyrus mats were made, mattresses, boxes, tables and sandals. On the other hand, the papyrus sheets were the preferred writing materials of the ancient world because they were light, strong, thin, durable, and easy to carry.

It was 4 O'clock the local time and we were getting late to have an entry into the National Museum of Egyptian Civilization. It is a titan museum in the ancient city of Fustat, now part of Cairo. This futuristic house of culture and entertainment sits on an area of 33 acres "960, 0000 Square Meters" consists of three levels that were designed by an Egyptian architect El Ghazzali Kosseiba and the exhibition spaces are being designed by a Japanese architect Arata Isozaki.It displays 50,000 artifacts presenting Egyptian Civilization from prehistoric times to the present day. The collection is divided into two separate regions, one chronological with archaic, pharaonic, Greco-roman, Coptic, medieval, Islamic, modern, and contemporary.

The crown jewel of the museum, the Royal Mummies's Hall is specially designed to display the mummies of the ancient Kings and Queens of Egypt. The design of the Hall aims to give the visitor the feeling of strolling down the Valley of The Kings, ehere most of these mummies were originally resting. The Hall includes 20 Royal mummies, 18 kings, and 2 Queens, from the 17th until 20th dynasty. The most famous mummies are Hatshepust (Maatkare), Thutmose III (Menkheperre), Seqqenenre Taa II.

In the outer hall, you can discover some of Egypt's most precious historical treasures in the themed main exhibition halls covering topics such as the dawn of Egyptian civilization, writing systems, and the importance of the Nile. The hall is full with amazing wonders of the Egyptian civilization and art pieces across the chronological areas such as modern & contemporary Pharaonic, Archaic, Greco-Roman, Medieval, Coptic, and Islamic plus thematic galleries that follow state and society, writing, the Nile, six thematic galleries covering the dawn of civilization, beliefs & thinking material culture, and the Royal Mummies gallery.

It was 6.00 pm local time and the end of our private day tour as well that of Egypt also. The 9 October was the day we returned to the homeland with sweet memories and also a changed view about Egypt's weather and the Egyptian civilization and peoples as well.

Messenger of Allah (*) said: "Whoever takes a path upon which to obtain knowledge, Allah makes the path to Paradise easy for him."

Dr. Ghulam Sarwar, Principal Scientist