



# PSN NEWS LETTER

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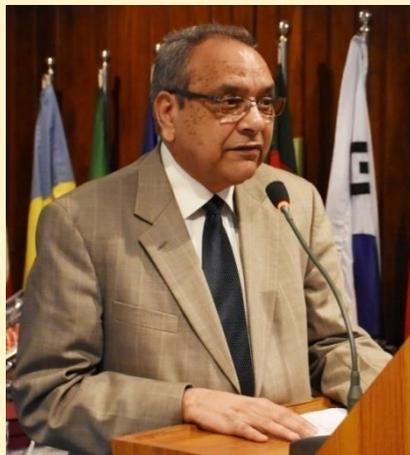
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## **Prof. Dr. Muhammad Ajmal Khan**

**(July 01, 1952 - May 04, 2019)**

The Officers of Pakistan Society of Nematologists (PSN) and Staff of the National Nematological Research Centre (NNRC), University of Karachi share the deep sorrow of all colleagues and research students of NNRC for the sudden death of Prof. Dr. Muhammad Ajmal Khan, the Vice Chancellor of University of Karachi. We are deeply saddened by the loss of a world renowned Botanists and a Visionary human being. We pray to Allah Almighty; the departed soul may rest in eternal peace in heaven, Aameen!

Prof. Dr. Muhammad Ajmal Khan, one of the prominent Botanists, Distinguished National Professor, a revered scholar, high caliber scientist and internationally recognized authority in Halophytes, passed away early morning on Saturday, 04 May 2019 due to cardiac arrest; he was 66 years old. His death is a great loss for the country especially the academic community.

Dr. Khan was the 17<sup>th</sup> VC of KU from January 23, 2017 to May 3, 2019. He was also the founding director of the University's Institute of Sustainable Halophyte Utilization. His research interest had been the salt tolerant plants (halophytes), their physiology, biochemistry and ecophysiology and he had developed cash-crop halophytes. Sustainable Halophyte Utilization. His research interest had been the Salt tolerant plants (halophytes), their physiology, biochemistry and ecophysiology and he had developed cash-crop halophytes.

Dr. Khan's teaching and research career spread over 44 years. For his outstanding services in plant sciences he had received numerous prestigious local and international awards, including Presidential Award of Sitara-e-Imtiaz, 2008, title of *Distinguished Scientists of the year 2008 in Botany*. He had also received fellowship of Fulbright Academy of Sciences and The World Innovation Foundation, Switzerland, in 2006, HEC-Distinguished National Professor and Honourable Professor, Shijiazhuang Institute for Agriculture Modernization, China in 2005, fellowship of *Islamic World Academy of Sciences*, fellowship of Third World Academy of Science (TWAS) in 2003, fellowship of Pakistan Academy of Science and Presidential award of Pride of Performance in August 2001. He also served as *Distinguished Visiting Professor* in King Saud University, Kingdom of Saudi Arabia and Qatar Shell Professorial Chair in Sustainable Development, Qatar University. He was awarded D. Sc. in Botany by the KU in 2010, earned Ph. D in Physiological Ecology from Ohio University in 1985, did B. Sc. (Hons) and M. Sc. in Plant Physiology from the KU in 1973 and 1974, respectively.

Prof. Ajmal Khan will always be remembered in the entire research community for inspiring us with his engaging personality, teaching abilities, scientific expertise, and dedication to improve the standard of the University of Karachi. He was energetic and enthusiastic about science and Karachi University and had been struggling to make KU one of the best universities.

Prof. Dr. Ajmal Khan visited NNRC on many occasions:



**Prof. Dr. Ajmal Khan as a Chief Guest at “5<sup>th</sup> International Workshop for Capacity Building in Nematology”**



**Prof. Dr. Ajmal Khan as a Chief Guest at ISO Certificate Award ceremony**



**The Board of Governors meeting at NNRC**

The 1<sup>st</sup> Meeting of the Board of Governors (BoG) of the National Nematological Research Centre (NNRC), University of Karachi was held on July 31, 2018 and chaired by the Vice Chancellor of the University of Karachi, Prof. Dr. Muhammad Ajmal Khan as Chairman of the Board. Vice Chancellor congratulated the NNRC for holding the first meeting of its Board of Governors after the approval of NNRC Statutes and mentioned it as a memorable moment in the history of NNRC. He assured to resolve the issues of NNRC on priority basis.

## **Glowing Tributes to Prof. Dr. Shahina Fayyaz on Memorable Retirement after 37 years of active service to NNRC**

It is hard to believe this day has finally come. It's a very emotional moment as we have gathered today to bid farewell to our respected Director, commented one of the employees of the Centre.

Prof. Dr. Shahina Fayyaz retired on 3<sup>rd</sup> April, 2019 from National Nematological Research Centre, University of Karachi as a Director of the Centre. A memorable gathering was arranged on 5<sup>th</sup> April, 2019 at NNRC, University of Karachi. The program began with the name of Almighty Allah and Naat Rasool-e-Maqbool (SWA).



Then luminous tributes were paid by staff members, colleagues, students and other distinguished guests present on this occasion. In a farewell speech some of the major accomplishments of her professional carrier were highlighted:

Meritorious Prof. Dr. Shahina Fayyaz had a long and brilliant service of 37 years to the University of Karachi. She served the NNRC for 37 long years with utmost dedication and perseverance. Dr. Fayyaz is a distinguished, enthusiastic and dedicated Nematologist who has been associated with the Centre for the last 4 decades. Under her able guidance the NNRC has set new standards in the field of Nematology. We are highly grateful to her for all valuable skills, knowledge and all the positive qualities that she has instilled on everyone here in shaping our professional skills.

Prof Dr. Shahina Fayyaz has been honored from time to time with different awards like, Appreciation shields, Certificates, Marie-curie fellowship, Productively Allowances, and Gold Medal for her remarkable research accomplishments. Under her Directorship NNRC became ISO Certified Centre for the compliance of its Diagnostic Services and Educational Program. During her tenure the first Board of Governors meeting of NNRC was held in July, 2018 by her dedicated ad sincere efforts.

Biopesticides in the form of Entomopathogenic nematodes and plant products have been developed as alternate to chemical pesticides. In this regard, PAK NEMA and NNRC products are being used as biological control agents against insects and nematode pests of vegetables and fruits. These endeavors resulted in the achievement of one International and Ten National Industrial Patents and over 200 accessions for molecular characterization of EPN and root-knot nematodes, besides a new genus, new subfamily, several new species for the science and new records from Pakistan have been reported. A part from this, 14 International and National Nematological events have been organized by her. 40 Research projects have been successfully completed, funded by several National and International agencies. 15 PhDs and 6 M. Phils, as well as numerous MS and BS project theses have been produced; while many post graduate students are doing research for their Ph. D degrees.



It is painful to say goodbye to a leader of her caliber. However, we all need to express our sincerest gratitude to her for her extraordinary contributions not only to this Centre but for every staff members. The NNRC staff wishes her good luck, happy and long life and success in future endeavors.

Besides saying goodbye to the former Director, the NNRC staff also welcomed the newly appointed Director of NNRC, Prof. Dr. Shahnaz Dawar. She also spoke on the occasion. At the end a shield of appreciation was presented to Prof. Dr. Shahina Fayyaz on the behalf of NNRC team by the President of Pakistan Society of Nematologists, President of ECO Science Foundation, Prof. Dr. Manzoor Hussain Soomro and Prof. Dr. Shahnaz Dawar.

Another shield was given on the behalf of the Ph. D. students of Dr. Fayyaz by Dr. Syed Asim Rehan Kazmi. Afterwards all the colleagues, staff members and students showed their affection by giving their gifts and presents to Dr. Shahina Fayyaz. The graceful occasion came to an end with a wonderful lunch party.

### **Newly appointed Director, Prof. Dr. Shahnaz Dawar**

Prof. Dr. Shahnaz Dawar, passionate and enthusiastic Botanist has been assigned the responsibility of Directorship of National Nematological Research Centre (NNRC), University of Karachi, on 05May, 2019. She is a Professor in Department of Botany, University of Karachi. Besides she is also Incharge Evening program, Department of Botany, University of Karachi since May 2018. Dr. Dawar has published more than 120 research papers in internationally reputed journals, besides written a chapter in a book entitled “Textbook of Applied Forestry”. She has so far supervised 06 Ph. D. scholars.



## Congress of Zoology, 2019

Zoological Society of Pakistan (ZSP) arranged 39<sup>th</sup> Pakistan Congress of Zoology at Islamia College University of Peshawar on March 4-6, 2019. Two M. Phil students Mr. Ashraf Ali and Mr. Samiullah Khan from National Nematological Research Centre (NNRC), University of Karachi participated in the poster presentation. Ashraf Ali won the poster competition and stood **Second** in order of merit for presenting outstanding poster entitled “Distribution of entomopathogenic nematodes in Karachi: its storage and efficacy against some insect pests” by Ashraf Ali, Salma Javed and Tabassum Ara Khanum.



## 5<sup>th</sup> Science and Technology Exchange Program (step-5) International Conference on “Health Challenges of Communicable- and Non-Communicable Diseases”

The Fifth Science and Technology Exchange Program (STEP-5) International Conference on “Health Challenges of Communicable- and Non-Communicable Diseases” was held on Wednesday, Friday 27 March, 2019 at Prof. Dr. Salimuzzaman Siddiqui Auditorium, International Centre for Chemical and Biological Sciences (ICCBS), University of Karachi.

National and international scientists delivered lectures on respective topics and posters were displayed on relevant important themes.

Prof. Dr. Shahina Fayyaz, Director, NNRC, chaired the session entitled “Latest Achievements in tackling the Islamic World health related challenges Prevention, Diagnosis and Treatment” on second day of the conference. She also delivered the lecture on “Latest Achievements in Medicinal Chemistry”. She along with her team Dr. Erum Iqbal, and two Ph.D. students Mr. Sagir Hussain and Ms. Sonum Khatri also participated in the poster session and presented the poster entitled “Human and Environment Friendly Natural Products”. They highlighted the effectiveness of their botanical product (NNRC-82) against agricultural pest. Researchers from Iran took keen interest and are willing to work in collaboration in future on certain perspective.



## Director NNRC visited University of Sindh, Jamshoro

Prof. Dr. Shahina Fayyaz visited University of Sindh, Jamshoro in March, 2019 for viva voce of a Ph. D student. Prof. Dr. Shahina Fayyaz appreciated the research work of the successful candidate in the field of biological sciences. She was invited by the Vice Chancellor, Prof. Dr. Fateh Muhammad Burfat to discuss the matters of mutual interest and bilateral cooperation in research. The meeting was held at VC house and was also attended by Prof. Dr. Naeem Tariq and Prof. Dr. Azra Anjum, the supervisor and co-supervisor, respectively of the Ph. D. student.



## SURVEY

### Survey of cotton fields of Sindh

Pakistan is the fifth largest producer of cotton in the world, the third largest exporter of raw cotton, the fourth largest consumer of cotton, and the largest exporter of cotton yarn. 1.3 million Farmers (out of a total of 5 million) cultivate cotton over 3 million hectares, covering 15 per cent of the cultivable area in the country. Cotton and cotton products contribute about 10 per cent to GDP and 55 per cent to the foreign exchange earnings of the country. Taken as a whole, between 30 and 40 per cent of the cotton ends up as domestic consumption of final products. The remaining is exported as raw cotton, yarn, cloth, and garments National Nematological Research Center University of Karachi arranged survey time to time different fields of agricultural crops all over the country to collect the soil and root samples to identified plant parasitic nematodes and their management. A team of NNRC visited 13<sup>th</sup> to 15<sup>th</sup> October 2018 to different cotton growing areas of Sindh viz. District Mathyari, District Mirpur Khas, Distric Sangard Distric Tandoalayar and Distric Umercot. More than 100 soil and roots samples cotton were sampled.



Random pictures of cotton fields crops

## Survey of Chikoo Plantations

Survey was conducted by the survey team of NNRC along with Prof. Dr. Shahina Fayyaz, Director National Nematological Research Center (NNRC), University of Karachi, on October 23, 2018 of the farm house of Mr. Sherwani at Hub, Balochistan. 25 soil and root samples were taken from diseased and infected chikoo plants for the prevalence of plant parasitic nematodes from 8 locations. In another trip made on October 31, 2018, fifteen soil and root samples were taken from chikoo plantations of Gadap, Sindh.



**Soil sample collection from chikoo plantations at Hub, Balochistan.**

## Survey of Banana Orchards of Sindh

A survey team of NNRC with Prof. Dr. Shahina Fayyaz, visited the field of banana at Ghorabari, Thatta, Sindh and took roots and soil samples from diseased and infected banana plants for the prevalence of plant parasitic nematodes. Prof. Dr. Shahina Fayyaz briefed the field assistants and farmers about the nematode disease symptoms. Urdu language books on banana were distributed among them to create awareness of this pest. Later on one of the field assistants, visited NNRC for internship to learn the basic techniques about identification and management of plant parasitic nematodes. Further work is in progress.



**Soil sample collection from banana orchards at Ghorabari, Thatta, Sindh**

## INTERNSHIP PROGRAM

National Nematological Research Centre, University of Karachi provided the facilities of internship program for the biological students of Karachi University and other universities and institutions of Pakistan from time to time.

- Mr. Balach Dad student of B. Sc. (Hons) Agriculture (Plant Pathology) at Balochistan Agriculture College Quetta get the training on “Studies of plant parasitic nematodes of experimental field from National Nematological Research Centre, University of Karachi”. He completed his BS thesis work under the supervision of Prof. Dr. Shahina Fayyaz during 10 Dec, 2018 – 21 Jan, 2019.
- Two BS final year students Department of Biotechnology, University of Karachi, Ms. Afifa Suhail and Ms. Sadaf Azman completed their BS thesis on different topics. Afifa Suhail did the research on “Isolation and identification of plant parasitic nematodes associated with five plant hosts viz., Christ plant, Copper leaf, Jungle flame, Rose and Ulta ashok” while Ms. Sadaf Azman worked on “Isolation and identification of plant parasitic nematodes in Champa plant, China rose, Good Luck tree, Jasmine and Marigold” during 12<sup>th</sup> September, 2018 – 15<sup>th</sup> March, 2019 under the supervision of Prof. Dr. Shahina Fayyaz and Dr. Saifullah Department of Biotechnology, University of Karachi as Co-supervisor .
- Mr. Bashir Hussain from Poonch University, Rawalakot came to NNRC for internship training during 23 January – 11 February, 2019 on morphology, identification of plant parasitic nematodes.

## PSF Project Evaluation Team Visited NNRC

PSF Project Evaluation Team comprised of Dr. Mirza Habib Ali, Director (Research Support), NSLP, Mr. Nasir Khokhar, Senior Scientific Officer, NSLP and Mr. Tafakhar Ali Asadi, Member Finance visited National Nematological Research Centre, University of Karachi to evaluate the on going PSF project at NNRC. Prof. Dr. Shahina Fayyaz briefed them about the progress of the project. They also visited all the labs of NNRC and were satisfied with the research work of the project.



## **M. Phil Degree Awarded**

- Ms. Uzma Ishaque: M. Phil degree in Nematology has been awarded to Ms. Uzma Ishaq. Her research work was based on "Review of the genus *Helicotylenchus* Steiner, 1945 (Nematoda: Hoplolaimidae) with updated diagnostic compendium" under supervision of Prof. Dr. Shahina Fayyaz.
- Ms. Samina Sultan: M. Phil degree in Nematology has been awarded to Ms. Samina Sultan. Her research studies on "Biodiversity of plant parasitic nematode fauna of Parachinar, Kurram Agency, Khyber Pakhtunkhwa, Pakistan" was completed under the supervision of Prof. Dr. Shahina Fayyaz.

## **Future Events**

### **7-10<sup>th</sup> July, 2019**

**58<sup>th</sup> Annual meeting of the Society of Nematologists (SON)** to be held at Raleigh, North Carolina, USA, **on July 7-10, 2019** ([www.visitraleigh.com](http://www.visitraleigh.com)).

### **21-25<sup>th</sup> July, 2019**

51<sup>st</sup> Annual meeting of Organization of Nematologists of Tropical America (ONTA) to be held in San José, Costa Rica from 21 to 25 July of 2019. Send abstracts to [info1@onta2019.com](mailto:info1@onta2019.com)

### **29 – 30<sup>th</sup> July, 2019**

6<sup>th</sup> International Conference on Parasitology & Microbiology during July 29-30, 2019 to be held at Amsterdam, Netherlands. The Theme of the conference: Addressing New Challenges and Emerging Issues in Parasitology.

### **28 July-1<sup>st</sup> August, 2019**

Society for Invertebrate Pathology (SIP) **Annual Conference, 2019** at VALENCIA, SPAIN **Main Contact:** Juan Ferre: [sip@sipweb.org](mailto:sip@sipweb.org)

### **29 July- 4<sup>th</sup> August, 2019**

13<sup>th</sup> International Symposium of the Russian Society of Nematologists on "Nematodes and other Ecdysozoa under changing environments", which will take place at the Karelian Research Centre of the Russian Academy of Sciences (Petrozavodsk, Republic of Karelia, Russia).