

**6TH NATIONAL NEMATOLOGICAL CONFERENCE IN PAKISTAN
& WORKSHOP ON
INTEGRATED NEMATODE DISEASE MANAGEMENT (INDM) IN SOME CEREALS,
FRUIT AND VEGETABLES OF PAKISTAN
(25 – 27 APRIL, 2006)**

**Welcome address in the Inaugural Session on 25th April, 2006
Dr. Shahina Fayyaz, General Secretary, PSN
NEMATOLOGICAL RESEARCH AND DEVELOPMENT IN PAKISTAN**

Honorable Vice Chancellor, Prof. Dr. Prizada Qasim Raza Siddiqui, respectable Dean Faculty of Science, Dr. Mohammad Qaiser, President, Pakistan Society of Nematologists, Dr. Manzoor Hussain Soomro, Distinguished Delegates from Egypt (Dr. Ismail, Dr. Hejazi and Dr. Sami) and from all over Pakistan, Ladies, Gentlemen and Dear Students.

Assalam-o-Alaikum,

On behalf of Pakistan Society of Nematologists, and the host Institution University of Karachi I welcome you all to the 6th National Nematological Conference and Workshop on Integrated Nematode Disease Management in some cereals, fruit and vegetables of Pakistan. I am especially thankful to Prof. Dr. Pirzada Qasim Raza Siddiqui for sparing his precious time for the inauguration of the conference. I am also thankful to all of you for the trouble you have taken to come from far flung areas to participate in this conference. This conference has been sponsored by Pakistan Science Foundation, ALP-PARC and Karachi University, for which we are very grateful.

As we all know, agriculture is the mainstay of Pakistan's economy but the pressure of population is on to enhance food production. Effective improvement in the agricultural productivity among other factors depends on appropriate crop protection from pests and diseases. Among these the nematode problem is of significant importance as these tiny pests cause enormous losses to the agricultural production and because of being in soil, are too difficult to manage.

Nematodes are the most abundant and diversified group in the animal kingdom and inhabit virtually every environment. Four out of every five metazoan on earth is a nematode, but they are often overlooked because most of them are microscopic in size though they are parasites of plants, animals and man. The first plant-parasitic nematode ever observed was the wheat gall nematode, *Anguina tritici*, which produces gall like structures in place of normal grains in wheat. The first record of plant parasitic nematode was reported in 1743 by Needham from England. The studies on plant nematodes in Pakistan were initiated in the early 1950s by Sattar & Hafeez, who reported *Anguina tritici* from Punjab areas.

However, Nematological research in an organized manner in Pakistan began only after the realization of the presence of economic importance of a number of nematode pests very often associated with the poorly growing agricultural, horticultural and plantation crops. Investigations were undertaken individually at a number of Research Institutions and Agricultural Universities of the country. An urgent need was felt of a concerted and coordinated national effort to study the distribution of important

nematode pests, assess crop losses and to develop methods to control them. Therefore, the systematic research on nematodes began in 1974 at the University of Karachi under PL-480 Programme, which led to establishment of National Nematological Research Centre in 1987 with the collaboration of PARC.

During 1974-1987 the centre was financially supported through different research projects from various funding agencies of the country and abroad which include NDVP, PARC, PSF, UGC, PAEC and USDA. In 1987, the National Nematological Research Centre under a Statute became a part of the University of Karachi. The objective has been to develop a central place with adequate research facilities to carry out research on various aspects of Nematological problems of the country and to produce trained manpower in this important field of agriculture.

The National Nematological Research Centre, University of Karachi, is by far the largest, the most developed, best equipped and internationally recognized research centre of nematology in Pakistan devoted to both basic and applied research. It has made significant contributions in research pertaining to the study of biodiversity of plant, soil and marine nematodes of Pakistan and has produced over 600 publications including some 400 research papers and trained several persons from short trainings to Ph. D. level. Since its establishment, the centre has contributed a great deal of research information towards management of national nematode problems in agriculture and to the science at Global level.

The centre imparts teaching and research training leading to M. Phil. And Ph. D. degrees, through which, extensive surveys and taxonomical research has been done. Thus the total nematode fauna of Pakistan identified so far consists of 582 species pertaining to plant, soil, entomopathogenic and free-living marine nematodes. Out of which 160 species are new to science.

Presently 8 permanent staff members, 10 project staff with 10 Ph. D. students are involved in teaching and research, and are trying to keep the Nematology ball rolling in Pakistan. The centre has four well-equipped laboratories with modern facilities. Recently "Molecular Laboratory" and "Insect-rearing Laboratory" have been set up at National Nematological Research Centre. The centre also has an excellent collection of about 600 books, an up to date collection of international journals and other relevant literature on nematology. The NNRC has over 15,000 permanent identified slides consisting of nematode specimens, collected from different parts of the country.

Some of the other significant achievements of NNRC are:

- Pioneering in developing entomopathogenic nematodes (EPN) as bio-pesticides in Pakistan.
- First in the country to initiate taxonomic and systematic studies on free-living marine nematodes.
- Generation of highly trained manpower through M. Phil / Ph. D., short/long term training courses. We are also planning to initiate regular courses for M. Phil / Ph. D. in nematology at the NNRC.
- Organization of 7 national and international training courses, seminars and workshops on Nematology during 1977-2004.
- Nematode Identification Services to various research institutions, universities and farmers.
- Successful completion of 26 research projects awarded by various national

and international agencies.

Today there is an urgent need in the country for an expanded knowledge base and additional Nematological research. Effective methods must be developed for preventing the harmful effects of parasitic nematodes without heavy reliance on pesticides besides understanding and effective promotion of the beneficial aspects of agriculturally advantageous nematodes. An adequate supply of annual competitive funding is crucially needed for promoting Nematological research and education. Strengthening of all existing facilities and staff needs to be done.

The National Nematological Research Centre has close linkages with more than 20 National and International Organizations, Universities and Research Institutions. In 1992, this centre was designated by FAO-UN as "*Centre of Excellence*" in Nematode Taxonomy to provide relevant taxonomic support to Nematologists of the near East Region. Here I would like to emphasize that the NNRC and Pakistan Society of Nematologists have been hand-in-hand in every endeavor. And on behalf of the Centre, I am grateful to all the Members of the Society especially the President Dr. Manzoor Soomro for his consistent support, Encouragement and guidance.

I take this opportunity to appreciate my team at NNRC for their hard work and long days at the Centre while preparing for the conference. I also thank colleagues and Teachers at Department of Botany of the University and PARC-CDRI particularly Dr. Aly Khan for their all out support. The Administration of University, the KIBGE and the Dean office have all been very kind to us and I thank you all.

Sir in the end, I would like to inform that we have received 50 abstracts for presentation in this conference and some posters will also be displayed. A full session on IPM through Farmer Field School will also be organized in the conference. I hope that the conference would provide an opportunity to research workers in the field of nematology and to formulate plans for effective management of nematode pests in our agricultural crops as well as for exploiting of marine and soil nematodes for the benefit of the mankind.

I once again extend a warm welcome to all the delegates from abroad and Pakistan.
Thank You.