

**Proceedings of the Second INCANA Meeting**  
**held from 6-8 September, 2004 in Tashkent, Uzbekistan**

The Second Meeting of Inter-regional Cotton Network for Central Asia and North Africa (INCANA) was held in Tashkent, Uzbekistan from 6-8 September, 2004. The meeting was organized by PFU and ICARDA-CAC Regional Office under the umbrella of Central Asian and Caucasian Association of Agricultural Research Institutes (CACAARI). The meeting was co-sponsored by the Global Forum for Agricultural Research (GFAR), Association of Agricultural Research Institutes for Near East and North Africa (AARINENA), Asia-Pacific Association of Agricultural Research Institutes (APAARI) and CACAARI. In all, about 35 scientists participated in the meeting, including representatives from Iran, India, Egypt, Syria, Jordan, Greece, Kazakhstan, Tajikistan, Uzbekistan and Azerbaijan. The meeting was inaugurated by H.E. Mr. Ikramkhon Najmitdinov, Minister of Agriculture and Water Management of Uzbekistan. He extended a warm welcome to all the participants and thanked the organizers for having selected Tashkent to be a venue of the Second INCANA Meeting. He was pleased that an inter-regional network on crop like cotton, being so important in Central Asia, has been established. He also hoped that the meeting would provide excellent opportunities for strengthening linkages among cotton scientists of Central and West Asia and North Africa. During the Opening Session, chaired by Dr. Sherali Nurmatov, Chairman, CACAARI and Dr. Mahmud Ayed Duwayri, AARINENA, the participants were welcomed by Dr. Raj Paroda, Executive Secretary, APAARI and Regional Coordinator, ICARDA and thanked by Dr. Duwayri on behalf of AARINENA and by Dr. Ebadollah Baniani, INCANA Coordinator. While thanking the dignitaries, he explained about the achievements and future prospects of INCANA.

The meeting included three technical sessions on country presentations, new developments in cotton research and strengthening research collaboration as well as round table discussions. During the first technical session, representatives from Egypt, Iran, India, Greece, Syria, Kazakhstan, Tajikistan and Uzbekistan presented their country reports, highlighting the problems and promising results in cotton research and development.

During the second technical session, impressive presentations were made on Hybrid Cotton (Dr. C.D. Mayee, Agriculture Commissioner, India), IPM Program in Cotton (Dr. Naif Al-Salti, Syria), Biological control of cotton pests (Mr. Anil Kakkar, Excel Crop Care, India), Application of new biotechnologies to improve efficiency of cotton breeding (Acad. Abdusattar Abdukarimov, Uzbekistan), Bt cotton (Mr. Raju Barwale, MAHYCO, India) and INCANA website (Ms. Aisel Gharedaghli, Iran).

On 7 September, the participants of INCANA meeting attended the Opening Ceremony of the International Scientific-Practical Conference on "Problems of development of cotton growing and grain production", dedicated to the 75<sup>th</sup> Anniversary celebration of the Uzbek Cotton Growing Research Institute (UzCGRI). The conference was opened by H.E. Mr. I. Najmitdinov, Minister of Agriculture and

Water Management, Uzbekistan. He heartily congratulated the scientists of the UzCGRI and wished them all the success in their endeavors. Dr. Raj Paroda presented highlights of the achievements under the Collaborative Program on Sustainable Agricultural Development in Central Asia and the Caucasus, which was highly appreciated. Opportunities to congratulate the scientists of the UzCGRI were also provided to the participants of the INCANA meeting. All of them felt happy to attend the celebrations and hoped to strengthen further the collaboration between the Institute and cotton researchers in their countries.

During the afternoon session on 7<sup>th</sup> September, a Round Table discussion on current topics of interest for the growth of INCANA was organized. The discussions were chaired by Dr. E. Baniani (Iran) and co-chaired by Dr. C.D. Mayee (India). The topics chosen were: Information and Germplasm Exchange, INCANA Regional Varietal Trials, Collaborations amongst networking countries in areas of Hybrid Research, Integrated Pest Management (IPM), Bt Cotton and Cotton-wheat Rotation.

The participants generally agreed that the areas chosen for discussions are all vital issues for cotton production in their respective countries. Cotton group workers felt that the germplasm exchange has been of great utility in the past in improving the productivity and is certainly going to play a crucial role in future developments. Notwithstanding the current issues of IPR, quarantine restrictions. INCANA shall strive hard to evolve methods of germplasm exchange. It was also suggested that INCANA should play a facilitator's role in this area by first gathering and disseminating information on available germplasm. Material exchange can take place for specific research purposes based on Material Transfer Agreement (MTA). The legislative procedures of various countries can also be put on web. All the members agreed in principle to this suggestion and expressed keen desire to cooperate.

Regarding establishment of Regional Varietal Trials under INCANA, members expressed different views in the light of specific suitability of varieties under differing agro-ecological situation. Also the issue of funding for conduct of such trials is important to be considered and the quarantine aspects are also to be taken care off. It was recognized that the Network should work towards the goal of establishing specific regional varietal trials for particular objectives such as, early maturity cottons to fit into cotton-wheat rotation in Central Asia, testing for biotic stresses (pest and diseases) etc. or abiotic tolerance such as drought, salinity and also for fibre quality. INCANA should work in this direction taking into consideration specific regional needs and resources available. Mr. F. Talat, AREO (Iran) was proposed to help towards coordinating the work on regional varital trials.

Members from participating countries were unanimous in their acceptance of IPM in cotton with a major objective of reduction in the cost of cultivation and eco-friendliness of the technology. There are many Success Stories of IPM which can be compiled by INCANA. The Syrian experience narrated by Dr. Naif Al-Salti was found to be unique and hence was proposed to act as facilitator IPM Group in order to extend support for organizing trainings and traveling workshops for INCANA member

countries. Logistic support for such activities could also come from the private pesticide industries promoting IPM (ex: India, Pakistan and other countries), beside partial funding support by INCANA. One very important research issue in biological control of cotton pests highlighted was the development of high temperature resistance strains of parasites and parasitoids for effective control. Dr. Bayat Assadi (Iran) suggested that information can be made available on the prevalence of key pests and parasites in member countries on INCANA website. Dr. Bayat Assadi was requested to collate and disseminate all available information on this aspect on behalf of INCANA.

Hybrid cotton technology is well established in India and out of 8 m ha area under cotton presently, 50 percent is presently covered by hybrids. Hybrids have proved to be high yielding under diverse ecological situations. Similarly, Bt cotton has been commercialized in India for the last three years. The area covered under Bt cotton from initial 30,000 hectares in 2002-2003 is now around 0.5 million hectares during 2004-2005. It is, thus, considered a Success Story for the spread of Bt technology. APAARI has decided to publish a Success Story on Bt Cotton in India. The group felt that ICAR, India could take up the lead in organizing traveling workshops on hybrid cotton and Bt cotton for INCANA members particularly on seed production, processing and seed delivery system. MAHYCO, a leading private company in India, also agreed to provide needed logistic support for a traveling workshop on hybrid cotton and Bt cotton for the benefit of member countries.

The topic of cotton-wheat rotation was introduced by Dr. C.D. Mayee who circulated a detailed note on the current cotton-wheat rotation system in North India. The rotation has been successfully adopted for over more than three decades on 1.5 m ha in North India and on 1.0 m ha in Pakistan. Early maturing varieties, proper water management, sowing time and harvesting time, nutrient management and mechanization both for sowing and harvesting of wheat are important components of success of this rotation. However, it was considered necessary to generate and disseminate available information in each agro-ecological situations of INCANA member countries. Dr. Mayee will suggest a suitable author to describe the Success Story of cotton-wheat rotation. It was informed by Dr. Raj Paroda that a team of scientists from some Central Asian countries is visiting India in September, 2004 to also study cotton-wheat rotation. In future too, such visits for INCANA member countries can be organized for wider adoption of the system by the INCANA secretariat by seeking support from GFAR, FAO and other donor organizations.

On 8th September, 2004 (forenoon) the delegates visited the three institutes (Uzbek Cotton Growing Institute, Cotton Breeding Institute and Cotton Genetics Institute) in Tashkent. The delegates were taken around to see the on-going projects.

At UzCGRI, Dr. D.H. Akhmedov, Director General welcomed the delegates and led them to visit the field trials. The delegates were impressed about the wheat-legume and wheat-cotton rotation plots. The legume crops are having a good potential from the point of building up the soil fertility. The need for N fertilizer supplied to wheat was reduced by 33%. The major problem of growing cotton after

wheat appears to be the delay in planting of cotton. For successful cotton-wheat rotation developing early maturing varieties is an important research activity. In the Department of Physiology, special emphasis is on the effect of defoliant and their mechanism of operation. The other project in operation is to "Produce Ecologically Pure Cotton". In this trial, nutrition through mineral fertilizers and through organic source are being evaluated.

At Cotton Breeding Institute, all the delegates were briefed about the methodology of identifying varieties and hybrids by Dr. P. Ibragimov, Director Cotton Breeding Institute. Performance of three varieties already released (C-4724, C-6524, A-7276) were also shown in the field. The participants were shown the project on the "Producing zero gossypol cotton cultivars". Curxon-9 belonging to the G. barbadense was an impressive development by the Institute. This cultivar has a good boll weight (3.7 g), high fibre length (39-40mm), fibre strength (38-40 g/tex) and earliness.

In the Institute of Genetics, the participants were shown the collection of cotton germplasm. Dr. Acad. Abdullaev Abdumavlon gave an excellent presentation of the current status of the on-going research. The main emphasis is to find out useful genes and transferring it to develop cultivars with desirable characters (short duration, resistance to drought, and earliness). The participants were impressed about the collection of the germplasm and the seed bank. At present, about 6,000 accessions are being maintained including 40 wild species. The different wild species and derivatives maintained in the green house and field were also shown to the delegates. INCANA members expressed their satisfaction on the research programmes and thanked all the Institute scientists for showing their research activities on cotton.

Dr. Raj Paroda, Chaired the plenary session, whereas Dr. Mahmud Duwayri was the Co-Chair.

The draft proceedings of the meeting held on 7 and 8 September, 2004 were presented by Dr. C.D. Mayee.

Regarding the issue of germplasm exchange and regional varietal trial, all felt that in principle "We all believe in partnership and mutual exchange as well as sharing of germplasm". It is on this basis, that we shall expect need based exchanges for research purposes in future. The list of approved varieties also need to be provided by the country representatives alongwith their specific characteristics so that same are available on the website. Dr. Acad. A. Abdulkarimov felt that we need to understand also about the IPR legislations of each country. INCANA could generate this information and make available on the website.

Regarding IPM, the role of Dr. Al-Salti from Syria was appreciated and all agreed to request him to take the lead for IPM activities. On Hybrid and Bt cotton, the group felt that India should take the leadership role and help INCANA partners.

Regarding membership issue and resource generation, Dr. Raj Paroda sought opinion from the delegates.

Dr. Baniani felt that action needs to be made visible before we can seek funding. Also membership fees can be thought of. Dr. Paroda felt that it is too early to think about membership fees as we need all partners to first come closer and cooperate.

He suggested to propose a project proposal as a concept mode and request for funding from the Islamic Bank.

It was unanimously felt that the Government of Iran could be requested to provide more funding for INCANA Secretariat activities.

Final recommendations and future plan were spelt out as follows:

- Proceedings to be brought out as soon as possible
- Country reports should be submitted by the end of September
- Development of INCANA Website as soon as possible
- Preparing of a good Project proposal for donor support (IDB could be a potential donor)
- Bringing out INCANA Happenings every Quarter
- Printing of Success Stories on Bt Cotton in India and IPM in Syria
- For needed resources, GFAR, AARINENA, APAARI and ICARDA be again requested to provide similar support in future to INCANA. Also FAO be approved to support for this inter-regional initiative.
- The venue and time were debated. Syria and Egypt have come forward to hold the 3<sup>rd</sup> INCANA meeting in 2006. It was agreed that based on written request from the respective countries, INCANA Secretariat could take a final view for hosting at either of these countries.

In the concluding remarks, Dr. Duwayri stated that the meeting was a very successful one and congratulated Dr. Raj Paroda for his leadership and proactive role and also thanked the host country for all its support. Dr. Baniani felt highly satisfied with the outcome of the meeting. Dr. Nazarov, representing host Government, thanked Dr. Paroda and was happy that many important topics were discussed. Dr. Abdullaev, Institute of Cotton Genetics felt that it is our responsibility that the lives of the farming community and the future generation is improved. Finally, Dr. Paroda thanked all the participants, the host country and the secretariat staff of PFU-ICARDA as well as the translator for their cooperation and help. He also placed on record his appreciation to Dr. Duwayri for Co-chairing the session and to GFAR for sponsoring this meeting. All the participants expressed their thanks to Dr. Sherali Nurmatov, Chairman, CACAARI and to both AARINENA and APAARI and to Dr. Adel El-Beltagy, Director General, ICARDA for their excellent cooperation. It was also resolved to continue extending full support to INCANA in future activities.