



# **66th Plenary Meeting of the INTERNATIONAL COTTON ADVISORY COMMITTEE**

## **Report of the Chair of the Committee on Cotton Production Research (FIFTH OPEN SESSION/TECHNICAL SEMINAR)**

**8:30 hr. Thursday October 25, 2007**

**Dr. Oktay Gencer**

It is my pleasure to present to you the report of the Committee on Cotton Production Research of the ICAC. The Committee organized a Technical Seminar on the topic “The Vision for Technology in 2025,” received a report on the World Cotton Research Conference-4 and decided the topic for the 2008 Technical Seminar.

Cotton production in 2025 will face problems related to climate change, high production costs, production technologies and political issues. The two major climatic changes that will affect cotton are a rise in temperature and higher levels of CO<sub>2</sub> concentration. The rise in temperature will encourage early planting, increase in pest population and pest species, insects will spread to newer areas, micro organism activities will increase resulting in higher pressure due to diseases; and poor fruit setting. Drought stress will increase. Salt concentration in soils will increase, resulting in lower uptake of micronutrients and higher emphasis for major nutrients. Rising production costs will demand higher financial resources converting cotton production into a more risky business for growers.

Environmental standards under pressure from the political sector, civil societies and consumers will become stricter by 2025. Cotton growers will be confronted with making very critical and strategic decisions. Growers will have to accommodate rational competitive approaches for balancing productivity and fiber quality. Cotton production in 2025 will have to accommodate and encourage coexistence of different forms of production systems like organic cotton, biotech cotton and fair trade cotton in addition to conventional cotton.

Breeding for new varieties could provide solutions to many problems including high costs. But, breeders must plan today for meeting the needs of spinners in 2025. It was suggested to use commercial cotton hybrids having many advantages including quick development of hybrids, vigorous seedlings, water use efficiency and higher tolerance to various types of stresses.

The current trend in the development of new technologies requires interconnectedness of various disciplines. A higher level of multidisciplinary approaches will demand better management and interpersonal skills for successful results. Public sector institutions should adjust to the changing atmosphere and revise their priorities and incentives.

Biotechnology will become an important tool for meeting the challenges in 2025 and beyond. Current research could develop varieties capable of producing more fiber, add value to cottonseed, improve tolerance to various kinds of stresses and require fewer fertilizer and insecticide applications. However, the success depends on the investment in technology and viable regulatory systems around the world.

In the next 18 years, fiber quality testing will change from stand-alone instruments to integrated units. Most cotton will be tested on rapid testing instruments and more fiber parameters like elongation, contamination, moisture, etc., will be tested. Fiber quality testing will move to earlier stages for on-line testing at gins.

The World Cotton Research Conference-4 was held in Lubbock, Texas, USA from September 10-14, 2007. 590 researchers from 37 countries attended the conference. In total, 340 papers were presented in plenary, breakout and poster sessions. The World Cotton Research Conference-5 will be held in New Delhi, India in September/October 2011.

The Committee on Cotton Production Research of the ICAC recommended that private and public sector research institutions in the Northern Hemisphere should be encouraged to make arrangements with research institutes in the Southern Hemisphere; and vice versa, for mutual testing of each others' testing materials. Such arrangements would allow two crops a year and cut short the breeding process significantly.

The Committee decided to hold the 2008 Technical Seminar on the topic 'Improving Sustainability of Cotton Production in Africa.' Papers on integrated pest management and use of cotton seed after ginning will be included in the program.