



## Development of early maturing advanced breeding lines CNHO 09-7 and CNH 09-9

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In India, 60 % of the cotton area is under rainfed conditions comprising mostly central and southern states. Early maturing cottons are also of immense importance where sequence of other crops succeed cotton crop, thus fitting very well in cropping pattern of cotton followed by wheat crop for sustainable agriculture. Several relatively short duration varieties like LRA 5166, LRK 516, CNHO 12, CNH 36, AKH 081, G. Cot. 16, RS 875, H 777, LH 900, Bikaneri Narma, PRS 72, KC 2, C 1412, Narsimha, Krishna, Sharada, MCU 7, MCU 13, SVPR 3, Supriya etc. have been developed for specific situations. In view of climate change, the challenge for plant breeder is to augment the available gene pool for the short duration cottons of 120-125 days and various plant type traits contributing to the lowering in crop duration so as to develop short duration cottons of 125 to 145 days with high yield and desirable fibre properties.

In this direction, breeding programme was initiated to develop hirsutum variety with improved yield, quality and tolerance to jassid. Two advanced breeding lines CNH 09-7 and CNH 09-9 were identified for earliness (145-165 days) and tolerance to jassid. Lines, CNH 09-62, CNH 09-74, CNH 09-13, CNH 09-15, CNH 09-111, CNH 2-1 and CNH 2-2 are identified for higher seed cotton yield and fibre strength. Lines CNH 09-9 recorded seed cotton yield of 2631 kg/ha followed by CNH 09-7 (2025 kg/ha) with fibre bundle strength of 23.1 g/tex, and 25.7 g/tex, respectively. These advanced breeding lines were developed using pedigree selection and an early generation testing.

### Mean seed cotton yield and fibre properties of advanced breeding lines.

Trait	CNH 09-7	CNH 09-9
Boll weight (g)	4.4	4.1
Boll No.	16	24
2.5 % Staple length (mm)	28.9	28.1
Fibre bundle Strength (g/tex)	25.7	23.1
Micronaire	3.1	3.8
Maturity (days)	145-165	145-160
Ginning Outturn (%)	35	36
Seed Cotton Yield (kg/ha)	2025	2631



## ICAR-CICR Scientists Participates in ICAC meeting, Egypt

Dr. SM Palve, Dr. MV Venugopalan and Dr. Usha Rani, Principal Scientists, ICAR-Central Institute for Cotton Research, participated in the ICAC-13th Meeting of the Inter-Regional Cooperative Research Network on Cotton for the Mediterranean and Middle East Regions, held during February 02-06, 2018 in Luxor, Egypt and presented their research work during the meeting. Dr. Palve presented a paper entitled “Genetic Variation for Fibre Properties in Breeding Lines of Cotton (*G. hirsutum*)”. The title of Dr. Venugopalan’s presentation was “Climate Change and Cotton Production in India-Impact Analysis and Adaptation Strategies” and that of Dr. Usha Rani was “Past Experiences, Present Endeavors and



Future Exertions in Transfer of Cotton Technologies towards Science-led Sustainable Development in India”. Dr Venugopalan and Dr. Usha Rani also chaired the sessions on Abiotic Stress and Climate Change and Agricultural Practices, during the network meeting. The meeting was inaugurated by His Excellency, Mohamed Badr, Governor of Luxor. One hundred and twenty five participants from 15 countries including 43 overseas delegates registered for the meeting. Researchers, government officials and representatives from the trade and textile industry and farmers from Egypt, Sudan, Belgium, Greece, Spain, Turkey, Syria, France, Germany, New Zealand, China, India, Pakistan, Bangladesh, UK, participated. Officials from ICAC, UNIDO and UNICEF also took part in the meeting. Several contemporary issues related to the cotton production, fibre quality and traceability were deliberated during the meeting. The proceedings and recommendations of the network meeting are available at <https://www.icac.org/tech/overview>.

## Monitoring Team Visited North Zone and Central Zone under AICRP on cotton

The monitoring team comprising of Dr R. W.Bharud, (Plant Breeding), Dr N. V.S .Durga Prasad, Senior Scientist (Entomology), Dr K.B. Pawar , Junior Pathologist and Dr. D. C. Karpagam Senior Scientist (Agricultural Extension) visited ICAR-CICR Regional Station, Sirsa on 07.10.2017. The team visited the demonstrations on varieties, hybrids and the technologies generated by the center. The team monitored the individual trials conducted at ICAR-CICR Regional Station Sirsa and the hybrid seed production program also.

Also the monitoring team comprising of Dr. D. Monga (Head and PI Plant Pathology), Dr K. S. Baig (Plant Breeding), Dr Rishi Kumar Principal Scientist (Entomology), Dr Sudeep Malik (Agronomist), and Dr. A. R. Reddy Principal Scientist (Agricultural Economics) was constituted by Project Coordinator, AICRP on Cotton for 2017-18 cotton season. The team visited Agriculture Research Station, Indore (M.P.), Main Cotton Research Station, College of Agriculture Khandwa (M.P.), Agricultural Research Station Banswara, Rajasthan (MPUAT), Main Cotton Research Station Navasari Agricultural University Athwa Farm, Surat (Gujrat) and Cotton Research Station Junagarh Agricultural University Junagarh (Gujrat) from 30<sup>th</sup> October, 2017 to 6<sup>th</sup> Nov, 2017 and monitored the progress of trials laid out under AICRP on Cotton. At almost all the locations the trials were in good conditions and were laid out as per technical program. At Khandwa Station (M.P.), incidence of PBW was noticed in Bt cotton hybrid trial.



### Participation of ICAR-CICR, RS, Sirsa Scientists in Field day on Cotton at village Matdadu

A field day on cotton was organized by Rasi Seeds on 16.10.2017 in village Matdadu of Distt Sirsa. Dr. D. Monga ,Head, ICAR-CICR Regional Station, Sirsa and Dr Rishi Kumar, Principal Scientist (Entomology) attended this field day. Dr Rishi Kumar delivered a lecture on management of cotton pests. Dr Monga in his address advised the farmers regarding the diversification in cotton cultivation especially the cultivation of *arboreum* cotton and CSH 3075 non Bt genotype amenable to High Density Planting System released by the institute for farmers. He also advised the farmers to be aware regarding pests and disease from off-season onwards and follow the timely sowing schedule strictly as the late sown crop was affected more due to pests and disease this year. 100 farmers attended the field day.



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