

CICR

News letter



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RESEARCH ADVISORY COMMITTEE MEETING AT CICR, NAGPUR



Dr. S.S. Baghel, Chairman, RAC addressing members of Research Advisory Committee

Dr. K.R. Kranthi, Director, CICR Nagpur with RAC members in IRM lab

Chairman and Members of RAC visiting Institute Library

The second meeting of Research Advisory Committee of the institute was held at CICR, Nagpur on May 19-20, 2010. Dr. S.S. Baghel, Ex. Vice Chancellor, Assam Agricultural University, Jorhat & Central Agricultural University, Imphal, Chairman of RAC presided over the meeting. Dr. K.C. Jain, ADG (CC), ICAR, Dr. S.K. Sharma, Ex. Project Director, Project Directorate of Cropping Systems Research, Modipuram, Dr. G.T. Gujar, Head, Division of Entomology, IARI, New Delhi and Dr. J. Kumar, Professor & Head, Deptt. of Plant Pathology, GB Pant University of Agriculture & Technology, Pant Nagar, Members of RAC; Dr. K.R. Kranthi, Director, CICR, Nagpur, Dr. P.R. Bharambe, Head, Crop Improvement Division, Dr. P.K. Chakrabarty, Head, Crop Improvement Division, Dr. M.K. Meshram, Member Secretary RAC & I/c Head Crop Protection Division, CICR, Nagpur, Dr. N. Gopalakrishnan, Project Coordinator (AICCIP) and Head, CICR RS Coimbatore and Dr. D. Monga, Head, CICR Regional Station Sirsa (Haryana) attended the meeting.

Dr. K.R. Kranthi, Director, CICR, Nagpur welcomed the chairman and members of RAC. In his introductory remarks, Dr. Baghel, Chairman, RAC advised that CICR should undertake commercialization of genetic stock with specific traits. Dr. K.C. Jain ADG (CC) emphasized that cotton

scientists must carry out focused research on specific objectives. Dr. S.K. Sharma advised that the technologies developed should have end use and stressed the need for development of good Bt varieties from the public sector. Dr. G.T. Gujar remarked that commercialization of technologies is easy and quick in the private companies as compared to public sector. Dr. J. Kumar informed the house that lately pesticide consumption in Bt cotton has again been showing upward trend and stressed the importance of studies on insecticide resistance development. The member secretary presented Action Taken Report on the recommendations of the previous RAC meeting. Heads of Crop Improvement, Crop Protection and Crop Production Divisions, CICR, Nagpur, Project Coordinator (AICCIP) & Head CICR Regional Station Coimbatore and Head CICR Regional Sirsa also presented salient achievements of the respective Divisions/ Regional Stations. The presentations were followed by lively discussions. The meeting concluded with a Vote of Thanks proposed by the Member Secretary.

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Dr. V. Nagrare explaining mealy bug rearing on potato tubers



Dr. P.K. Chakrabarty, Head, Crop Improvement Division with RAC members in Molecular Pathology Lab

ANNUAL REVIEW WORKSHOP OF TMC MM-I HELD

The Annual Review Workshop (2009-10) of Technology Mission on Cotton, Mini Mission-I was held at CICR, Nagpur on April 26, 2010. The session was chaired by Dr. K.R. Kranthi, Director, CICR and Member Secretary, TMC MM-I Project.



Director and Scientists presenting significant Research Achievements at TMC Annual Review Workshop

Dr. Kranthi welcomed all the participants and gave a brief introduction about the recommendations made in the eighth meeting of ICAR Standing Committee for TMC MM1 which was held on March 3, 2010 under the chairmanship of Dr. Ayyappan, DG, ICAR at ICAR, New Delhi. He also presented in brief the significant achievements of TMC MM I projects during this year. Results of the research work done in each project during the year was critically reviewed and the technical programme for the year 2010-11 was discussed and finalized in the meeting.

ANNUAL GROUP MEETING OF AICCIP ORGANIZED



Lighting of Lamp by Dr. K.C.Jain, ADG (CC) at AICCIP Group Meeting

The Annual Group meeting of All India Coordinated Cotton Improvement Project (AICCIP) was organized at MPUAT, Udaipur (Rajasthan) during April, 8-10, 2010. The dignitaries included Dr.S.S.Chahal, Hon'ble Vice Chancellor, MPUAT, Udaipur, Dr.K.C.Jain, Assistant Director General (Commercial Crops), ICAR, Dr.K.R.Kranthi, Director, CICR, Nagpur, Dr.S. Sreenivasan, Director, CIRCOT, Mumbai, Dr.Kolhatkar, Joint Director, DOCD, Mumbai and Heads of different institutions besides 300 delegates from the private sector and other stakeholders. Dr. N. Gopalakrishnan, Project Coordinator (Cotton) & Head, CICR, RS, Coimbatore and Dr. D.P.Saini, Senior Cotton Breeder, Bansawara centre of AICCIP in MPUAT, Udaipur acted as Convener and Organizing Secretary of the three day deliberations, respectively. Various issues pertaining to Cotton R&D were discussed and the Technical



Release of Publications at AICCIP Group Meeting at Udaipur

Programme for the year 2010-11 was also finalized. Besides, the Cotton Varietal Identification Committee Meeting was also held during the Annual Group Meeting of AICCIP under the Chairmanship of Dr. K. C.Jain, ADG (CC), ICAR, New Delhi.

INSTITUTE RESEARCH COMMITTEE MEETING

The Institute Research Committee (IRC) meeting of CICR, Nagpur and CICR RS Sirsa was held on April 28-30, and May 21, 2010 at CICR Nagpur under the Chairmanship of Dr. K. R. Kranthi, Director, CICR Nagpur. The Chairman in his opening remarks requested the scientists to focus on the flagship programmes on discovery of new genes, gene constructs, gene markers, alleles, RNAi and GM crops and enhanced yields through 'high density planting systems' (HDPS), etc. The Chairman desired that the number of projects should be trimmed based on priority. He further requested each scientist to come out with new original ideas to mitigate the present and emerging problems in cotton production.

All the Heads of the divisions/ research station- Shri M. K. Meshram, Dr P. R. Bharambe, Dr P. K. Chakrabarty and Dr D. Monga presented the significant research achievements of their respective division/station. They also presented decisions taken in the divisional/station IRC meetings in relation to the project continuation/ merger/ closer etc. based on the priority.

Dr. V. S. Nagrare, Secretary IRC presented action taken report of the last IRC-2009 meeting. Dr N. Gopalakrishnan PC and Head RS, Coimbatore discussed the recommendations and action taken report of last RAC 2009. Shri M. K. Meshram presented the salient recommendations of Research Advisory Committee (RAC) meeting held on 19-20 May 2010. Each research project was discussed thoroughly and decisions on project continuation, merger, termination and extending duration of existing projects and approval of new projects were taken by IRC. The meeting was attended by all the Scientists of Nagpur and Sirsa. Dr. A. K. Mukherjee, Mr K. Velmourougane and Dr V. N. Waghmare acted as Rapporteurs of the meeting.

Prior to the main IRC, each project was discussed at length in divisional pre-IRC meeting held in respective divisions viz., Crop Protection on April 19, 2010, Crop Production on April 23, 2010, Crop Improvement on April 24, 2010 and RS Sirsa on March 26-27, 2010. Dr V. S. Nagrare, Secretary IRC and Shri K. Velmourougane, Jt. Secretary coordinated the IRC meeting.



Director, CICR, Nagpur addressing Scientists at IRC meeting

COTTON SCENARIO IN NORTH ZONE IN 2010- AN OVERVIEW

The cotton season in north zone started in the second fortnight of April, 2010. The season remained dry during the sowing period of April and May with only 15.2 mm rainfall and very high temperature prevailed during this period (44.4-46.6°C) leading to high seedling burning. The farmers had to go for re-sowing twice or thrice. Another serious problem in the entire zone was either non-availability or delayed availability of canal water and shortage of electric power. All these things collectively have led to severe reduction of cotton area in north zone (Approximate area: Haryana-4.25, Punjab-4.75 and Rajasthan-2.50 lakh ha; total area of north zone- 11.5 lakh ha now as compared to 14.87 lakh ha in 2009). The month of July has remained wet with 158.6 mm rains and 12 rainy days.

Because of dry weather during April to June 2010, cotton season started with attack of thrips. The population of thrips ranged between 3-19.5/3 leaves in the different 50 Bt cotton hybrids till June 15, 2010. However, during the last week of June to July end the thrip population increased at a fast rate and 12 to 49 thrips/3 leaves have been recorded on different Bt cotton cultivars. Similarly a severe attack of thrips (11-39 thrips/3leaves) has been noticed in Sriganagar also.

The whitefly population remained low upto 30th May but from the first week of June onward its population has increased to such an extent that at some locations in Punjab 100 whitefly/3leave has been recorded and at majority of the locations in Faridkot the ETL has been crossed. In the different Bt-cultivars 6-19 whitefly/3leaves has been recorded at the CICR RS, Sirsa. In Rajasthan, both in Sriganagar and Hanumangarh area, the whitefly has crossed its ETL at majority of the locations. Overall the whitefly infestation is severe this year and farmers have already started applying mixture of various neonicotinoids for its management. The neem oil @1.0litre /acre along with 100 gram nirma powder is being advocated as initial application by the regional station.

The jassid population ranged between 0.6 to 5.0 / 3 leaves and remained controlled due to insecticides applied for the management of whitefly.

The appearance of the mealybug has been noticed particularly in

the locations which were infested with mealy bug during the last year. The data recorded under NAIP project revealed mealybug infestation ranging between 6-36 percent with 11-26.11 percent parasitization by the *Aenasius*. Among the weeds the congress grass in the previously infested locations was found severely infested (60-100 per cent infestation) with 16.40 to 28.60 percent parasitization due to *Aenasius*. So the population of the mealybug is kept well under control by the parasitoid.

The incidence of cotton leaf curl virus disease (CLCuD) was observed in farmer fields in June itself and the incidence has increased in July. Upto 80% incidence on RCH 134BG-II was observed in Fazilka (Punjab) while upto 40% incidence in Hisar district of Haryana on susceptible Bt hybrids was observed. In Rajasthan also enhanced disease incidence in and around Sriganagar has been recorded. Due to wet spell in July, root diseases like root rot in Bt hybrids and *arboeums* and cotton wilt in *arboeums* have also shown an increasing trend compared to last year. Symptoms of physiological wilting after rains are also noted in few farmer fields.

The overall strategies adopted for sucking pests management are:

1. Cultivation of sucking pest tolerant genotypes (Bt-cotton or non-Bt) to help in delaying the first spray, thereby conserving the initial build-up of natural enemies. The Bt cotton hybrids tolerant to sucking pests in north zone were promoted
2. Avoidance of foliar sprays of broad spectrum organophosphates such as Monocrotophos, Methyl demeton, Phosphomidon, etc. especially as early season sprays were avoided as these are extremely hazardous pesticides and also strongly disrupt the natural enemy populations.
3. Neem oil 2.5 lit/ha mixed with 0.1% Nirma washing soap powder was promoted for the management of jassids and whitefly especially during the earlier part of season.
4. *Verticillium lecanii* was tried at few locations for mealy bug control.
5. Spray of Imidacloprid 200SL(40 ml),Thiomethoxam 25WG (40ml) for the management of sucking pests .
6. Use of Endosulfan @ 500 ml/acre during July for jassids and during the later part of the season Triazophos 40Ec@ 600 ml and Ethion50EC @800 ml /acre can be applied for whitefly management.

KVK ROUNDUP

TRAINING ACHIEVEMENTS :

Fourteen on campus and off campus training courses were conducted in different disciplines for 198 practicing farmers, 122 rural youths and 80 extension functionaries. In all 400 participants benefited from the courses.

| Discipline | No. of courses | No of participant | | | Total |
|--------------------|----------------|-------------------|------------|-----------|------------|
| | | PF | RY | EF | |
| Crop Production | 2 | 29 | 24 | - | 53 |
| Horticulture | 3 | 42 | 26 | - | 68 |
| Plant Protection | 2 | 29 | 26 | - | 55 |
| Veterinary Science | 3 | 30 | 22 | 48 | 100 |
| Home Science | 2 | 36 | 24 | - | 60 |
| Extension | 2 | 32 | - | 32 | 64 |
| Total | 14 | 198 | 122 | 80 | 400 |

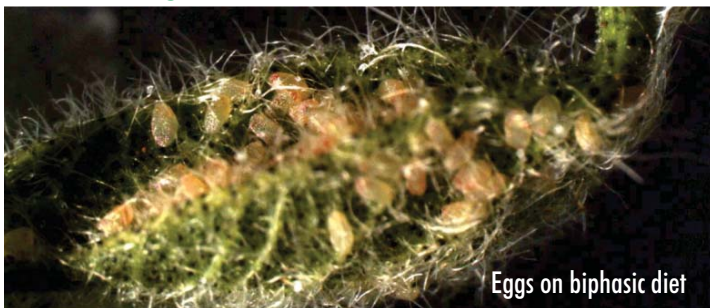
GROUP DISCUSSIONS ORGANIZED

KVK, CICR, Nagpur organized a Group Discussion on 'Use of mineral mixture in milch cows' on June 4, 2010 at Dongargaon village. Sixteen milk producing farmers of Dongargaon & nearby villages participated in this discussion. Dr. U.V.Galkate, SMS (Vet.Sci.) recommended supplementation of mineral mixture in the diet of milch cows.

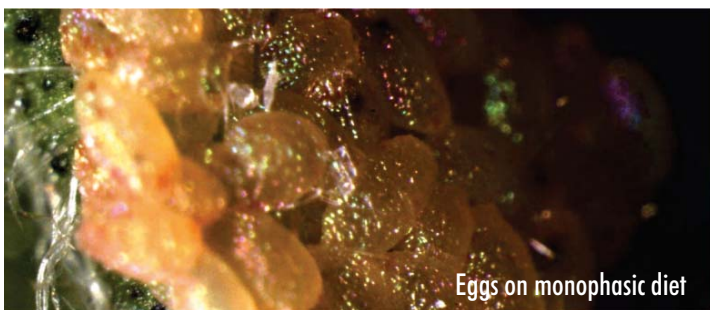
KVK, CICR, Nagpur organized a Group Discussion on 'Nutrient management in pigeon pea' on 22, 2010 at Ranmangli village. Thirty pigeon pea growers of Ranmangli & nearby villages participated in this discussion. Dr. R.R.Gupta, SMS (Plant Protection) discussed the INM practices in pigeon pea. Sh. M. K. Meshram, Programme Coordinator was also present on the occasion.

RESEARCH HIGHLIGHTS

Mass rearing of Pink bollworm in the lab.



Eggs on biphasic diet



Eggs on monophasic diet

The pink bollworm *Pectinophora gossypiella* (Saunders) (Lepidoptera: Gelechiidae) is one of the most important pests of cotton and is distributed throughout the world's cotton-growing areas. The bollworm lays its eggs on squares, flowers or green bolls. The destructive larvae of pink bollworm usually feeds on flower buds, bolls and seeds therein, which results in malformation, rotting, premature or partial boll opening, reduction in fibre length and overall reduced quality of the cotton crop due to staining of the lint. The larval stage is usually buried within the cotton fruiting bodies making them unreachable by insecticidal sprays owing to which its management is a difficult task for cotton growers.

A field culture of *P. gossypiella* was obtained from mature bolls collected from infested non Bt cotton fields from Raichur district of Karnataka. A colony was established in the laboratory from field collections and its developmental biology was compared on two test diets in the F₂ generation. A biphasic diet comprising of semi-synthetic diet and okra was developed and published by Monsanto which includes rearing of larvae on diet of cotton seed and chickpea flours for 10 days, initially, and subsequently on pieces of okra, till pupation. The monophasic diet was prepared using 100g of cotton seed flour of a pink bollworm susceptible genotype and larvae were reared from neonates till pupation on a single diet. The pink bollworm population was reared up to 3 generations on both diets and developmental parameters were compared. It

was observed that larval and pupal weight as well as adult emergence was numerically more on monophasic diet as compared to biphasic diet (Table1).

The biphasic diet posed the following problems - non- availability of mature Bhendi with seeds, fungal growth around the seed within 3 days, non- uniform use of the same Bhendi genotype across labs especially for bioassays, malformed late instar larvae that were not seen with the use of monophasic diets.

| Diet | Larval Weight (mg) (4th Instar) | Pupal weight (mg) | Adult emergence (%) |
|------------|------------------------------------|----------------------|------------------------|
| Monophasic | 27.8 ± 2.52 | 18.83 ± 0.6 | 100.00 |
| Biphasic | 25.4 ± 1.96 | 17.83 ± 1.33 | 98.00 |

V.Chinna Babu Naik, S. Bajaj, S. Kadu, S. Kranthi and K. R. Kranthi

Release of a new variety CNHO 12



A new variety CNHO 12 (Saraswati) developed at CICR, Nagpur was released in 2009 for the irrigated, timely sown condition in Central zone. The variety CNHO 12 was tested in 21 AICCIP trials during the last four years (2004-2007). It has recorded an overall mean seed cotton yield of 1501 kg/ha as against 1251 kg/ha of zonal check LRA 5166 and 1478 kg/ha of local checks. The increase in seed cotton yield of the new variety CNHO 12 over the zonal check LRA 5166 was of the order 19.98 percent. The strength/length ratio of the proposed variety is 0.85 which is higher than zonal check LRA5166 and local check. The variety recorded less damage by disease and pest as compared to check. The variety is characterized by its dwarf stature, early maturity (160-165 days), medium to high seed oil content (21.8 %) with synchronous boll bursting, attributes suitable for Central zone. In the wake of shortage of short staple and medium staple categories of cotton in the country, the new variety CNHO 12, spinnable to 20s counts was recommended for release for its suitability for manufacture of denim.

CNHO 12 was developed through Pedigree selection of conventional breeding method. It has been released by "Central Sub-Committee on Crop Standard, Notification and Release of variety of Agri-Horticultural Crops" during the year 2009-10. The Variety has been assigned with the National Identity Number IC 574486.

S. M. Palve, Nita Kate, D. K. Agarwal, T. R. Loknathan, V. V. Singh, V. N Waghmare and O. P. Tuteja

CCH 2623 - A Medium Staple *Gossypium hirsutum* culture with high yield potential

Culture CCH 2623, a medium staple *G. hirsutum* genotype, under test in the All India Coordinated Cotton Improvement Project, has recorded the highest yield in both Central and South Zones during the past two years. During 2008-09, in Central Zone, culture CCH 2623 recorded the highest mean seed cotton yield of 1995 kg/ha and repeated its high



Culture CCH 2623 Single Plant and Flower



Triazophos induced "Hopper Burn" in Cotton

population of jassid *Amrasca devastans* Dist. Cicadellidae, Homoptera. Imidacloprid, Acetamiprid, Thiomethoxam and Acephate 95 % SG were effective against jassid and brought out a reduction of 45.0, 42.1, 38.2 and 38.2% over control while, Dimethoate and Triazophos recorded 7.7 and 20.0 % higher population. The plants treated with Triazophos exhibited a clear distinct symptom of "hopper burns" on the leaves.

T. Surulivelu, T. Sonai Rajan and B. Dharajothi

Herbicide rotation – a smart approach of controlling late emerging weeds in cotton



Herbigation for Weed management in cotton

The cotton crop is very sensitive to weed competition due to its slow initial growth and wider spacing gives greater chance for high weed infestation. The initial 60 DAS are most critical for weed competition in cotton. The pre emergence herbicides can take care of weeds only up to 30 DAS and controlling the late emerging weeds is really a challenge for weed scientists. Rotating herbicides of same chemical family or mode of action may pave the way for the development of resistance in weeds and hence field experiment was conducted with different treatment combinations of integrated weed control using pre emergence weedicide pendimethalin 1.5 kg followed by hand weeding (30,60 DAS), herbicide mixture of pendimethalin 1.0 kg + metolachlor 1.0 kg (pre emergence) on third day followed by hand weeding at 30 and 60 DAS and herbicide rotation of pre emergence pendimethalin 1.0 kg on third day followed by one hand weeding at 30 DAS (to remove the few emerged weeds with minimum labour and spraying of metolachlor 1.0 kg (30 DAS to kill the late emerging weeds with residual herbicidal action) + hand weeding at 60 DAS. The above treatments were compared against manual weeding at 20,40,60 DAS and un weeded check. Herbicides were applied as conventional spraying as well as compared with herbigation (applying the herbicides through drip lines. The results revealed that to target the late emerging weeds, herbicide rotation and herbigation recorded up to 95.4 % weed control efficiency and also interestingly revealed that herbicide metolachlor can safely be used at 30 DAS to target the late emerging weeds with the weed control efficiency of 91.2 % on 60 DAS. Drip irrigated Cotton suffered lesser yield damage due to weeds than

yielding performance during 2009-10 also with the highest mean yield of 1932 kg/ha. The Zonal Check variety LRA 5166 recorded a mean seed cotton yield of 1226 kg/ha and 1360 kg/ha, respectively, during the corresponding years. The culture was tested at 5 locations during both the years.

The performance of CCH 2623 was also impressive in South Zone during the corresponding years. Culture CCH 2623 recorded the second highest yield of 1911 kg/ha in 2008-09 and 1834 kg/ha during 2009-10. The zonal check variety Surabhi recorded a mean seed cotton yield of 1537 kg/ha and 1338 kg/ha, respectively. The culture was tested at 7 locations during both the years.

Culture CCH 2623 recorded an overall increase in seed cotton yield of 52 per cent in Central Zone and 31 per cent in South Zone, over their respective zonal check varieties.

Culture CCH 2623 is characterized by a mean ginning out turn of 36 per cent. It is on par with the zonal checks in disease and pest reactions. With a mean fibre length of 25.6 mm and a fibre strength of 21.3 g/tex with adequate Micronaire, Culture CCH 2623 is ideally suited to meet the short/medium staple requirement of the Textile Industry.

The plant has a robust growth with medium bolls, which are predominantly round with a prominent boll tip. With yellow flowers and yellow anther, culture CCH 2623 could be easily distinguished from most of the cultivated varieties.

Further trials are under progress under the All India Coordinated Cotton Improvement Project

K.N. Gururajan, S. Manickam and K. Subashree

Triazophos induced "Hopper Burn" in Cotton

A field experiment was conducted to assess the effectiveness of a new formulation of Acephate 95 % SG along with standard Acephate 75 % SP and six standard insecticides used in cotton eco system (Imidacloprid, Acetamiprid, Thiomethoxam, Dimethoate, Triazophos and Fipronil) in a Randomized Block Design (RBD) with three replications. The hybrid RCH2 Bt was used in the experiment and all the recommended agronomic practices were followed. Three rounds of treatment sprays were given on 37, 51 & 65 DAS. Observations were taken on the nymphal

conventionally irrigated cotton. All the herbicidal treatments recorded reduction in population of Azospirillum, Phosphorus solubilizing bacteria and Actinomycetes on 30 days after herbicidal treatment but the microbial population started recovering as evident from the comparable population at all the herbicidal treatments with manual weed control on 90 days after treatment. The bioassay crop of green gram was not affected due to any of the herbicides /combination /rotation .

P.Nalayini, K. Sankaranarayanan and K.Velmourougane

LECTURES DELIVERED

Dr B. Dharajothi, Senior Scientist (Agricultural Entomology), CICR, RS, Coimbatore participated in the mealy bug awareness programme, and delivered a lecture to the Agricultural officers of Coimbatore District on "Insect Pests of Cotton with reference to IRM," organized by DOCD, Mumbai on April 29, 2010 at CICR, RS, Coimbatore and at Salem on April 30, 2010.

Scientists of CICR RS Coimbatore delivered lectures at Season Long training of Facilitators (ToF) under MM II Technology Mission on Cotton.

- Involvement of cotton farmers on creating cotton value chain- Dr. N. Gopalakrishnan, Project Coordinator (Cotton) and Head, CICR RS Coimbatore
- Soil Moisture Conservation by *in situ* method and yield management in multitier cropping system - Dr. K. Shankaranarayanan Sr. Scientist (Agronomy)
- Efficient techniques for quality seed production-Dr. K. Rathinavel, Pr. Scientist (Seed Tech.)
- Techniques to maximize the cotton yield- Dr.K.K Bandyopandhyay Sr. Scientist (Soil Sc.)
- Cotton hybrid (ELS) characteristics and yield potential- Dr. S. Manickam Sr. Scientist (Plant Breeding)
- Welfare schemes and Development programmes adopted for cotton growers in different districts- Dr. S. Usha Rani Scientist (Agrl. Extension).

TRAINING ORGANISED

Season Long training of Facilitators (ToF) under MM II Technology Mission on Cotton

Directorate of Extension Education, Tamil Nadu Agricultural University conducted a Season Long training of Facilitators (ToF) under MM II Technology Mission on Cotton to 28 Agricultural Officers. As a part of the training program, the trainees visited CICR, RS, Coimbatore from May 11 to 13, 2010 to learn about the cotton varieties and the various management practices developed by the institute. The programme was coordinated by Dr. N. Gopalakrishnan Project Coordinator (Cotton) and Head, CICR, RS, Coimbatore and Dr. (Mrs) S. Usha Rani, Scientist (Agrl. Extension), CICR, Regional Station, Coimbatore.

PUBLICATIONS

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(2010). Susceptibility of cotton mealy bug, *Paracoccus marginatus* to entomopathogenic fungi. *Annals of Plant protection sciences* 18(1) : 247-248.

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Sankaranarayanan, K. C. S. Praharaj, P. Nalayini, K. K. Bandyopadhyay and N. Gopalakrishnan. (2010). Legume as companion crop for cotton. *Journal of Cotton Research and Development*. 24 (1): 115-126.

Venugopalan, M.V., K. Sankaranarayanan, D. Blaise, P. Nalayini, C.S. Praharaj and B. Gangaiah (2009). Bt cotton (*Gossypium sp.*) in India and its agronomic requirements- A review. *Indian Journal of Agronomy* 54 (4): 343-360.

MEETINGS ATTENDED

Dr. K.R. Kranthi, Director, CICR participated in a meeting at A.S.R.B, New Delhi on Jan 4-5 and Feb 9, 2010, chaired meeting held at CIRCOT, Mumbai for finalising the event managers for the WRC-5 and participated in meeting convened by Hon'ble D.G. with Directors of Crop Science Division on Jan. 19-20, 2010.

Dr. N. Gopalakrishnan, Project Coordinator (Cotton) & Head, CICR, RS, Coimbatore participated in 55th Central Sub-Committee meeting on Crop Standards, Notification for agricultural crops held under the Chairmanship of Hon'ble DDG (CS), ICAR at Agartala, Tripura on 24 and 25th January, 2010.

Dr. K.R. Kranthi, Director, CICR, Nagpur and Dr. N. Gopalakrishnan, Project Coordinator (Cotton) & Head, CICR, RS, Coimbatore participated in Interface Meeting of Hon'ble Vice Chancellors/Directors with Hon'ble Director General, ICAR and Hon'ble DDGs at NASC, New Delhi during 16-17, February, 2010

Dr. K.R. Kranthi participated in Research Advisory Committee meeting of CIRCOT under the chairmanship of Dr. Anwar Alam, VC, Sher-E Kashmir University of Agricultural Science & Technology at CIRCOT, Mumbai on March 17-18, 2010.

Dr. K.R. Kranthi and Dr. Nandini Gokte-Narkhedkar, Principal Scientist attended 5th meeting of task force on RNAi Technology platform at DBT New Delhi on Jan 5, 2010 and presented project proposals.

Shri S.S.Patil (SMS Extn.) attended Monthly workshop of state Agriculture Department organized by Superintending Agriculture Officer at College of Agriculture, Nagpur on January 12, February 13 and March 12, 2010.

Dr. K.R.Kranthi, Director, CICR, Nagpur participated in the open forum discussion on Organic cotton – on the recent problems confronting organic cotton organized by Cotton Advisory Board at Mumbai on April 17 and participated in the interface meeting of Director/ PCs of crop Science and Horticulture Division at DSWR, Jabalpur on May 17- 18, 2010.

Dr. K.R.Kranthi participated in the fifth meeting of Standing committee to review Applications for commercial release of Bt cotton Hybrids expressing approved events at DBT, New Delhi on June 29 and participated in the Protection of Plant varieties and Farmers rights Act Task Force meeting at CIRCOT, Mumbai on June 30, 2010.

Shri S.S.Patil (SMS Extn.) attended Monthly workshop of State Agriculture Department organized by Superintending Agriculture Officer at College of Agriculture, Nagpur on April 12, May 14 and June 11, 2010 and Block Technology Team (BTT) meeting and Farmers Advisory Committee Meeting of ATMA at Taluka Agriculture Office Nagpur on April 17, 2010.

Shri.M.K.Meshram (KVK Programme Coordinator) and Shri S.S Patil (SMS Extn.) attended meeting of Extension Education Council at Dr. PDKV Akola on May 10, 2010 and ZREAC meeting at ARS Yavatmal on June 21, 2010.

Shri S.S.Patil (SMS Extn.), Dr. A.S.Tayde (SMS Agronomy) attended Review meeting cum workshop on FLD on IPM and INM in cotton at ZPD Hyderabad during May 19-20, 2010.

Dr V. S. Nagrare attended meeting of Steering Committee on "Crop surveillance and Advisory Project (CROPSAP) 2010-11 on June 19, 2010 at Pune and CIC and CMU meeting of NAIP DSS C- 2046 on June 26, 2010 at CRIDA, Hyderabad.

PERSONNEL



Shri M.S.Murthy, Administrative Officer speaking at function organized at his superannuation

Joined

Shri A. Sampath Kumar joined CICR, Nagpur on May 4, 2010 as Scientist (Plant Pathology).

Dr. (Mrs.) Annie Sheeba joined CICR, Nagpur on April 27, 2010 as Scientist (Plant Physiology).

Superannuation

Shri S.S.Sardar, SSS CICR, Nagpur on April 30, 2010.

Shri K.Maran, SSS CICR RS Coimbatore on May 31, 2010 Dr. K.Natarajan, Principal Scientist and Shri R. Murugesan T-2, CICR RS Coimbatore on June 30, 2010.



Shri S.S.Sardar, SSS being felicitated by Dr. Bhamambe Head Crop Production Division

Shri M.S.Murthy, Administrative Officer and Shri U.K.Raut SSS, CICR, Nagpur on June 30, 2010.

VISITS ABROAD

Visit of the Indian Delegation to Africa

A multi-disciplinary Cotton delegation was deputed to visit C-4 Countries (Mali, Benin, Burkina Faso and Chad), Nigeria and Uganda during May 3 to 13, 2010. The Indian delegation was led by Shri Ravi Bangar, Deputy Permanent Representative, WTO, and was represented by all sectors of cotton like Policy makers, research & technology generation, development, transfer of technology, marketing, export/import, post harvest management by product utilisation and setting up industrial cluster/textile parks. The team composed of Dr. K. R. Kranthi, Director, Central Institute for Cotton Research, Dr. S. Sreenivasan, Director Central Institute of Research on Cotton Technology, Dr. Anupam Barik, Director, Directorate of Cotton Development, Mr. P.K. Agarwal, General Manager, Cotton Corporation of India Limited and Dr. Milan Sharma, Head (Market Analysis & Research), IL&FS Cluster Development Initiative, a private sector infrastructure development company.

The Department of Commerce Ministry of Commerce & Industry had given the following mandate to the delegation for the visit: 1. Capacity Building. 2. To assess the actual requirement in the areas of capacity building, technology transfer, research & Development in C-4 countries, Nigeria & Uganda. 3. To share the expertise developed in India R&D Sectors with our partner from African countries inter-alia through training, higher correlation programme, and 4. To formulate an effective co-operation programme and to explore business and investment opportunities in C-4 Countries, Uganda & Nigeria.

During the visit extensive talks were held with all relevant stakeholders to seek inputs on capacity building, technology transfer, research and development, to share India's expertise in its R&D centres through training higher education programmes, to formulate an effective cooperation programme and to explore business and investment opportunities.

Some of the important areas of possible collaboration that have emerged are as follows:

- Development of high yielding drought resistant varieties with superior fibre quality. Quality assessment and upgradation for cotton.
- Explore possibilities of cultivation of BT Cotton.
- Exploring the possibilities of long staple cotton, organic cotton cultivation in selected area.
- Exploring the possibilities of varietal germplasm exchange.
- Develop collaborative research projects on post-harvest processing, maintenance and improving the harvested produce for export.
- Enhancing and preserving soil fertility. Collaborative projects to

enhance soil fertility and transfer of technology.

- Collaborative programme in the field of ground water harvesting and cotton processing unit.
- Establishing Modern ginning technology. Enhancing the capacity for ginning and processing within the countries. Exploratory trials on roller ginning and possible improvement in value and grade of cotton.
- Capacity building for all stake holders in the cotton value chain.
- Capacity building in research with special emphasis on improvement of fibre quality and categorization of cotton based on HVI and production and processing.
- Capacity building on research Training of Technicians and researchers on varietal improvement, disease resistance, integrated pest management, drought resistance, genetic and plant breeding, phytosanitary certification, soil testing, biotechnology, bio-safety assessment of GM cotton and development of regulatory guidelines and evaluation of seed purity.
- Training to processing personals, weavers. Refresher courses for researchers and training of technicians.
- Partnership between Research Stations for breeding of hybridization, Integrated Nutrient Management, Weed control, soil fertility management, Integrated Pest Management etc. improvement in seed production, plant waste use, phytosanitary protection and resistance to

pesticides etc.

- Setting up of cotton farming Observatory, data generation, updating periodic survey through remote sensing, estimation of crop production and monitoring of crop weather watch.
- Establishment of quality testing laboratories. Technology transfer to the cotton growers. Transfer of Technology through public private partnership.
- Development of small scale implements and equipment. Supply of agricultural equipment and laboratory facilities.
- Training on biosafety assessment of GM cotton and development of regulatory guidelines. Insecticide resistance management of bollworms and whiteflies.
- Formulating Value addition programmes in cotton. Joint Venture with Indian Textile Industries for developing cotton processing units (ginning, spinning & Value chain) including oil extraction.
- Setting up of textile industry/integrated textile clusters. Scientific processing of cotton seed oil. Use of Cotton Stalk as bricked and preparation of particle boards, composts etc.

During the visit, the delegation witnessed changes taking place in Africa from Bamako, fastest growing city in Africa to Kampala, the city of Seven Hills, all the places visited were full of activity, energy, liveliness and people working hard on farms and factories to improve their lives.



The Indian Delegation with dignitaries from C-4 Countries



Indian Delegation at Indian restaurant in Burkina Faso



A small scale garment processing Unit



Delegation at Source of river Nile In Uganda



Dr. K. R. Kranthi, Director, CICR, Nagpur in front of Mahatma Gandhi's Statue in Uganda



Dr. K.R.Kranthi at Uganda Textile Factory

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