



NRCB NEWS

National Research Centre for Banana
Tiruchirappalli - 620 102, Tamil Nadu



Vol. XIV No. 2

Oct. '09- March '10

Dr. S. AYYAPPAN ASSUMED AS SECRETARY-DARE & DIRECTOR GENERAL - ICAR



Dr. S. Ayyappan was born at Alakere in the state of Karnataka, India on 10th December, 1955. He completed his school education from National High School, Bangalore in 1970 and National College, Bangalore in 1971. He studied at College of Fisheries, Mangalore for his B.F.Sc. (1975) and M.F.Sc. (1977) degree and obtained Ph.D. degree from Bangalore University in 1988. His specific areas of research are Fisheries, Freshwater Aquaculture and Aquatic Microbiology.

Prior to his present assignment as the Secretary, DARE & DG, ICAR, he has served as the Deputy Director General (Fisheries) during 2002-09; Director, CIFE, Mumbai (Deemed University) during 2000-2002; Director, CIFA, Bhubaneswar during 1996-2000; Scientist, Central Inland Fisheries Research Institute, Barrackpore, 1978-84; Senior Scientist and Principal Scientist, 1984-95, in the ICAR system.

He has made significant contributions to administration and research management of the National Agricultural Research System since 1996. Under his leadership CIFA received the 'Best ICAR Institution Award' in 1996. He has the unique distinction of being the 'Founder Chief Executive' of the National Fisheries Development Board, DAHD&F, Hyderabad (2006-2008), establishing the Board with regard to infrastructure and programmes.

Dr. Ayyappan has represented the country in several important international fora. He has been invited to serve as Member/ Chairman on the Boards of several international institutions/ organizations such as a Network of Aquaculture Centres in Asia-Pacific (NACA), Bangkok, Thailand; World Fish Center (ICLARM) of the CGIAR, Penang, Malaysia (2002-2008) and Chairman of the Programme Committee (2006-07) and Board Awards to Staff (2005-08).

Dr. Ayyappan has over 200 publications in reputed journals/ proceedings and books. He also has two patents and one design in his name. He has received number of prestigious awards and honours such as Zahoor Qasim Gold Medal, 1996-97; ICAR Award for Team Research for 1997-98 and V.G. Jhingran Gold Medal, 2002. He is Fellow and Vice-President of National Academy of Agricultural Sciences, India; Asian Fisheries Society, Manila, Philippines, 2004-2010; and Vice President, Indian Society of Coastal Agricultural Research, 2008-2011.

Dr. Ayyappan has served in different capacities on important Committees viz, Chairman of High level Expert Committee for development of Freshwater Aquaculture in the country, Govt. of India; Chairman of the Working Group on Fisheries for Eleventh Plan, Planning Commission; Chairman of the Task Force on Aquaculture and Marine Biotechnology; Department of Biotechnology, 2006-2009; Member of the Project Steering Committee on 'More Crop and Income per Drop of Water', Ministry of Water Resources, Govt. of India, 2006-2007; Member of the Mid-Term Review (MTR) Committee on Agriculture and Allied Sectors for the XIth Plan (2007-2012), Planning Commission, Govt. of India, 2009.

The Director and Staff of NRC Banana Congratulate Dr. S. Ayyappan on becoming DG, ICAR and Secretary, DARE

CONTENTS

National Conference	2
IMC, IRC and RAC Meetings	3
Training Organized	5
Seminar / Meetings Attended	6
Exhibitions	7
Visitors	8
Staff News	8

FROM THE DIRECTOR'S DESK



India is the largest producer of banana and requires about 500 million planting material every year for its cultivation. In India, 95% of the planting material are mostly suckers and hardly 5% of the

planting material is as tissue culture plants. The conventional planting material are collected from the existing banana plantations which are supplied by the unscrupulous brokers who are not bothered about the quality of the planting material. Because of planting of unhealthy diseased material, there is a possibility of spreading many fungal, bacterial and viral diseases to new banana planting areas which are not having the diseases earlier. Due to the paucity of the healthy planting material availability, there is a need for educating the farmers about the need of planting of healthy, disease-free planting material for the production of quality banana. In this endeavour, NRC Banana in collaboration with the Association for the Improvement in Production and Utilization of Banana (AIPUB) has organized a National Conference on Production of Healthy Planting in Banana at Jain Hills, Jalgaon. This conference has brought awareness about the use and need of quality, disease-free planting of either sucker or tissue culture plants for the production of quality banana.

NATIONAL CONFERENCE ON BANANA

A National Conference on 'Production of Healthy Planting Material in Banana' was organized by the Association for the Improvement in Production and Utilization of Banana (AIPUB) and National Research Centre for Banana (NRCB), Tiruchirapalli. The conference was hosted by M/s Jain Irrigation Systems Ltd. (JISL), Jalgaon, Maharashtra. The conference was organized at Jain Hills, Jalgaon during 3-6 October, 2009. The conference was participated by more than 450 delegates representing research scientists, entrepreneurs, extension workers, farmers and government officials from 10 banana growing states in the country. Large number of representatives from tissue culture companies participated in this conference.

The conference was started on 3rd morning with welcome address to the guests and dignitaries by Shri Atul Jain, Director, JSIL. The Organizing Committee Chairman, Dr. M.M. Mustafa explained about the activities of the AIPUB and also the objective of this conference. Prof. Rony Swennen, KUL, Leuven, Belgium, who was the guest of honour of the inaugural

function spoke about the importance of germplasm and its need for conservation and storage for posterity. He also emphasized the importance pests and diseases affecting banana and more than Rs. 8000 million are lost, due to the pests and disease problems. Hence, there is a need to develop resistant varieties against viral diseases and progress has been made through transgenic to develop resistant varieties.

The Inaugural address was given by Dr. H.P.Singh, DDG (Hort.), ICAR, the Chief Guest of the function. In his address, he informed that India produces the maximum production but the quality of the banana is poor and is not



Dr. M.M. Mustafa, Director, NRCB and Organizing Committee Chairman

suitable for export market. In addition, due to improper post harvest handling, the export is very negligible (0.01%). But smaller countries like Philippines are exporting to the tune of 26%. In China and Philippines infrastructure facilities like conveyor belts, motorized cable, crates packing, trolley and refrigerated vans have been developed for proper handling and storage of banana. Storage of banana at 13°C, enhances the shelf life and also suitable for export. Even though, there is a great potential for value addition, not much progress has been made in this aspect. The NRC Banana has developed more than 15 value added products but the adoption of value addition is very low in Maharashtra, in spite of four universities are located in Maharashtra. There is a great scope for banana wafer (chips) to the tune of Rs. 500 crores and also for banana wine making. He also emphasized the importance of global warming in banana production and drew the attention of the farmers about the wide spread occurrence of Sigatoka leaf spot disease incidence in Jalgaon during 2008, which was not observed five years back. Because of the global warming the banana producing area may shift to subtropical region, which is at present not suitable for banana cultivation.

The Chief Guest of the function, Dr.H.P.Singh released two publications viz., Souvenir of the 2nd National Conference and Abstract booklet. Dr. Singh conferred the 'Kadali Puraskar' Award for 2009 to Prof. Rony Swennen, KUL, Leuven, Belgium for his contributions in banana germplasm conservation and cryo-preservation. Dr.D.P.Ray, VC-OUAT was also awarded the 'Kadali



Dr. H.P. Singh giving away "Kadali Puraskar" award to Prof. Rony Swennen

*Puraskar*¹ Award for his outstanding contributions for the development of horticulture and particularly for banana in Orissa state.



Dr. Karianna receiving "Nalla Vazhai award"



Shri A.P. Karuppaiah receiving "Nalla Vazhai award"

adoption of improved production and post harvest technologies. A special Appreciation prize was given to Mr. Nathar Meeran, Uthmapalayam, Theni Dist. for his significant contribution in banana production by adopting hi-tech production technologies.



Dr. M.S. Saraswathi receiving "Best Dissertation award"

The Best Dissertation Award was conferred to Dr. M.S. Saraswathi for her Ph.D. thesis work on 'Morpho-molecular characterization and Marker based screening for BSV integrants in B-germplasm'. On this occasion, the AIPUB conferred 'Fellow of AIPUB 2009' to Dr. Agustin B. Molina, Regional Coordinator, BAPNET, Philippines in-absentia for his life time contribution made in banana research and development.



Dr. H.P. Singh conferring "Life Time Achievement" Award to Shri. B.H. Jain

The "Life Time Achievement Award" was conferred upon Shri Bhawarlal H. Jain, Chairman, Jain Group of Companies, Jalgaon for his outstanding contribution and visionary leadership to agriculture in general and banana cultivation in particular. The second "Life Time Achievement Award" was conferred upon to Dr. C.D. Mayee,

Chairman, Agricultural Scientist Recruitment Board, New Delhi for his outstanding contribution to agriculture and education.



Dr. H.P. Singh, receiving "Achievers Award"

Dr. H.P. Singh was conferred "Achievers Award" by the Banana Growing Association of India for his outstanding contribution to the horticulture especially banana, which has

improved the livelihood of millions of people and has set a tone for golden revolution in India.

In the Presidential address Shri. Bhawarlal Jain spoke about the role of Jain Irrigation in banana production and the measures taken by the company in the production of tissue culture plants which has revolutionized the production scenario of banana in India, particularly in Maharashtra state.

At the end, Dr. P. Sundararaju, organizing Secretary proposed a vote of thanks to the dignitaries, participating farmers, delegates and all participants.



Dr. P. Sundararaju, Organizing Secretary

The Second National Conference on Banana was concluded in the afternoon of 5th October, 2009 with plenary session. The Session was chaired by Dr. Mathura Rai, Director, IIVR, Varanasi. Dr. M.M. Mustafa, Director-NRCB acted as the co chairman. Dr. P. Sundararaju, acted as convener. The chairman's of various committees presented the recommendations of various sessions.

RAC, IMC and IRC MEETINGS

RAC Meeting

The newly constituted Research Advisory Committee under the chairmanship of the Dr. P. Rethinam has held the RAC meeting on 7th and 8th December 2009 (Table). The 11th Research Advisory Committee meeting commenced with the field visit to Research Farm in the morning of 7th December, 2009. The Chairman and members reviewed the ongoing experiments in the field. The Director and Scientists explained various ongoing research activities in the farm. All the experiments under various projects were explained to the RAC Chairman and members by the concerned scientists. The Chairman and members of the RAC appreciated about the well maintenance of research farm and the research work under different programmes. After the field visit, the RAC visited all the research laboratories to see the infrastructure facilities available and were explained on the research activities by the respective scientists.

Dr. M.M. Mustafa, Director, National Research Centre for Banana, Trichy after welcoming the Chairman and members of RAC, gave a brief account on the salient research achievements made by the NRCB during the last one year. The Action Taken Report on the recommendations of 10th RAC was presented by Dr. B. Padmanaban, Member Secretary-I/c. The Chairman and the members were satisfied with the action taken on the recommendations of previous RAC meeting and approved the minutes of 10th RAC. This was followed by presentations by Head of Sections on the various research activities on banana.



Dr.P. Rethinam chairing the RAC meeting

Members

S.No.	Name and Address	Position
1.	Dr.P. Rethinam Former - ADG, ICAR, "BHAGIRETH" 18, Srilakshmi Nagar, S.N.Palayam, SBI Post, Coimbatore-641 007.	Chairman
2.	Dr. Y.N. Reddy 'Keerthi Residency', Flat No. 203, Balaji Nagar, Kukat Palli, Hyderabad - 500 072.	Member
3.	Dr. B.M.C. Reddy Former Director - CISH Indian Instt. Of Horticultural Research, Hesseraghatta Lake Post, Bangalore - 560 089	Member
4.	Dr. R.. Palaniappan No. 1221, Saravanan Nilayam, 4th Cross, Dr. Ambedkar Nagar, Kavalbairasandra, R.T.Nagar, Bangalore - 560 032.	Member
5.	Dr. K.V. Ramana Former ADG (Hort.), Door No. 86-34/1, Sirdi Sai Marg, Jawaharlal Nehru Road, Rajamundhry - 533 103	Member
6.	Dr. Rema Menon Professor of Horticulture, Banana Research Station, Kerala Agril. University, Kannara. Thrissur	Member
7.	Dr. M.M. Mustafa Director, National Research Centre for Banana, Thogamalai Road, Thayanur Post, Trichy - 620 102.	Member
8.	Prof. B. Sivarama Krishnan Chairman, Shankara Group of Institution, Trichy - 620 001	IMC Member (8.6.2011)
9.	Dr.B. Padmanaban Principal Scientist, National Research Centre for Banana, Thogamalai Road, Thayanur Post, Trichy - 620 102.	Member Secretary(I/c.)

IMC Meeting

The twelfth meeting of the Institute Management Committee was held on 9.12.09 under the chairmanship of Dr.M. M. Mustafa, Director. In the meeting, the following policy decisions were discussed and recommended for approval by the Council. Annual Plan Budget: 2009 - 2010; Recognition of Authorized Medical Attendants for the benefit of staff and family members; Post-facto approval for dropping of some equipments.



Dr. M. M. Mustafa, Director, NRCB
Chairing the 12th IMC Meeting

Members

S.No.	Name & Address	Position
1.	Dr.M.M. Mustafa, Director, NRCB, Trichy	Chairman
2.	Dr.N. Kumar, Dean (Hort), TNAU, Coimbatore	Member
3.	Shri. S. Robert Vincent, DDH, Trichy	Member
4.	Dr.C.K. Narayana, Head-PHT, IIHR, Bangalore	Member
5.	Dr. Sukhada Mohandos, Principal Scientist, IIHR, Bangalore	Member
6.	Dr.S. Uma, Principle Scientist, NRCB, Trichy	Member
7.	Dr.V. Pandey, Principal Scientist, NRCB, Trichy	Member
8.	Shri. K.K. Hamza, F & AO, SBI, Coimbatore	Member
9.	Prof. S. Sivarama Krishnan, M/s. Shankara Group, Trichy	Non- Official Member
10.	Dr. S. Backiyarani, I/c.- AFAO, NRCB, Trichy	Special Invitee
11.	Shri.B.Vijayakumar, AAO, NRCB, Trichy	Member Secretary

IRC Meeting

The Fourteenth Institute Research Council Meeting, was held on 4th and 5th March, 2010. The salient research achievements of previous year and technical programmes for the next year were presented by respective project leaders of institute and externally funded projects. The Director and Chairman of IRC reviewed the research achievements made under each project and gave critical inputs for refinement of the research programmes.

SEMINARS/ MEETINGS/ WORKSHOPS/ CONFERENCES/ SUMMER INSTITUTES AND FARMERS TRAINING ORGANIZED AT THE CENTRE

A National Consultative Meeting on Disease Diagnostics for Horticulture Crops

A National consultative meeting on Disease Diagnostics for Horticulture Crops, was held at National Research Centre for Banana, Tiruchirapalli, Tamil Nadu, India from January 22-24, 2010. The conference was organized jointly by National Research Centre for Banana, Tiruchirapalli, Tamil Nadu and Indian Institute of Spice Research, Calicut, Kerala. Dr. H. P. Singh, Deputy Director-General (Horticulture) of the Indian Council of Agricultural Research inaugurated the event and released four Banana virus diseases fact sheet and a book of technical papers. The meeting was presided by Dr. M. M. Mustafa, Director, NRCB, Tiruchirapalli and Dr. M. Anandaraj, Project Coordinator, Spices and Dr. B.P. Singh, Joint Director, CPRI, Modipuram spoke in the inaugural session.

The meeting was aimed at to take the stock of molecular diagnostics research activities in different horticultural crops under NAR system and to identify the future



Dr.M.M. Mustafa, Director, NRCB
chairing the 14th IRC Meeting

research needs on diagnostics for major diseases of important horticultural crops. About 35 leading scientists from various ICAR institutes and SAU's of NARS participated in the meeting. The three day meeting had three major sessions tackling various issues viz., 1) Current status, initiatives and uses of diagnostics, 2) Review of the work in the ongoing projects on disease diagnostics and 3) Future needs. Twenty three lead papers were presented by invited speakers working on disease diagnostics in various horticultural crops. Diagnostic techniques developed by NRCB for four major banana viruses have widely been utilized for certification

of TC plants under National Certification System for Tissue Culture raised plants. This programme has been implemented as state of art model in India. Many such diagnostic techniques have also been developed for citrus, potato, tuber crops, spice, vegetables and ornamental crops. Road maps have also been developed for different virus diagnostics and it was decided to augment the production of diagnostic kits so that the technique would be cost effective. These technologies would be commercialized for adoption widely in the tissue culture and seed industries for the production of quality planting material in many horticultural crops.

Sl.No.	Title of the training	Date	Participated
1.	Short course on in-vitro techniques and applications of molecular markers in banana and plantains	21st-30th Nov' 09	All States
2.	Improved production technology including post harvest management and value addition in banana	29th-30th Nov'09	Assam
3.	A short course on productions of Value added products from banana	4th -11th Jan.,10	Tamil Nadu
4.	Improved production technology including post harvest management and value addition in banana	8-11th Feb'10	Madya Pradesh



A short course on preparation of value added products from banana at PHT lab



Participants of Improved production technology including postharvest management and value addition in banana

TRAINING/ REFRESHER COURSE/ SUMMER/ WINTER INSTITUTES/ SEMINARS/ CONFERENCE/ SYMPOSIA/ WORKSHOP ATTENDED BY THE DIRECTOR

S.No.	Name of the Programme / Meeting	Period
1.	Second National Conference on Banana - Jalgaon Maharashtra	3-6 October, 2009
2.	Scientific Advisory Committee Meeting / Farmers Meet - Saraswathi KVK, Karur	13 th October, 2009
3.	Scientific Advisory Committee Meeting, KVK, Perambalur	14 th October, 2009
4.	National Conference on Natural Fibres - ANGRAU, Hyderabad	26-27 October, 2009
5.	National Seminar on Horticulture Biotechnology, IIHR, Bangalore	28-29 October, 2009
6.	Review Meeting - Mega Project on Natural Fibre, ICAR, New Delhi	31 st October, 2009
7.	Bioversity - SANPGR Meeting, NASC , New Delhi	3-4 November, 2009
8.	National Conference on KVK-2009, TNAU, Coimbatore	6-7 November, 2009

9.	Biennial Group Discussion - AICRP on Tropical Fruits, KAU, Thrissur	16-18 November, 2009
10.	Departmental Promotion Committee for Scientific Personnel - DDG's Nominee, IIHR, Bangalore	21 st December, 2009
11.	XV Group Workshop on AICRP on Arid Zone Fruits - HCRI, Periyakulam	28-29 January, 2010
12.	Horticulture Division Directors Meet, DG-ICAR, New Delhi	2-4 February, 2010
13.	ICAR Institutes Directors Conference - ICAR, New Delhi	15-17 February, 2010
14.	Project Finalization Meeting on Natural Fibre Mega Project, DDG-Engg., ICAR, New Delhi	26 th February, 2010
15.	National Conference on Quality Seeds and Planting Material - Health Management in Horticultural Crops, NAAS, New Delhi	11-14 March, 2010
16.	National Seminar on "Banana Processing and Value Addition" - Sri Sankara Educational and Charitable Trust, Trichy	27-28 March, 2010



Field visit by Dr. M.M. Mustafa and Dr. V. Pandey during off- campus training at Tripura



Dr. M.M. Mustafa, Director, NRCB delivering a key-note address at Agri Expo 2010 at Tiruchirapalli, Tamil Nadu

EXHIBITIONS

Sl. No.	Name of the Events	Organized by/ venue	Date(s)
1.	Second National Conference on Production of Healthy Planting Material in Banana	AIPUB, NRCB and Jain Irrigation system Pvt Ltd, Jain Hills, Jalgaon, Maharashtra	3- 6 October, 2009
2.	Technology Week	KVK, TNAU Sirugamani, Trichy, TN.	10 th October, 2009
3.	Technology Week	Saraswathi KVK, Puluthery, Karur, TN.	10 th October 2009
4.	Recent advances in production and post harvest technology on banana	NRCB & Govt. of Tiripura	21 - 24 October, 2009
5.	Seminar cum Exhibition on Banana cultivation Bangalore, Karnataka	IIHR & Hithkary Nursery,	28 th October 2009
6.	Agri Expo	Dinamalar and TNAU, Trichy, Tamil Nadu	20 - 24 January, 2010
7.	National Kisan Mela- 2010	IIVR, Varanasi, UP.	30 - 31 January, 2010
8.	Rastriya Kisan Mela- 2010	NRC for Citrus, Nagpur, Maharashtra	21 - 22 February, 2010
9.	National Conference on Production of Seed and Healthy Planting Material Management in Horticultural Crops	Govt. of India and ICAR, NASC, New Delhi	11 - 14 March, 2010
10.	National Seminar on Banana Processing & Value Addition	Sri Sankara Educational Trust and NRCB, Trichy, Tamil Nadu	27 - 28 March, 2010

