



NEWS LETTER

Central Research Institute for Dryland Agriculture

July - December, 2009

CRIDA welcomes Dr. S. Ayyappan, DG, ICAR

Director and staff of CRIDA heartily welcome our new Director General **Dr. S. Ayyappan**, an eminent scientist and research administrator who has contributed immensely for the growth of ICAR. We all wish that under his dynamic leadership, ICAR will reach new heights, achieve fame and glory.



From the Director's Desk....

The kharif season, 2009 posed major challenge to the agriculture sector of the country in the form of deficit monsoon. Both irrigated and rainfed crops were affected in terms of delayed planting, mid season dry spells and lower yields. The NARS has played its role in providing timely technical information in the form of contingency crop planning which helped the farmers to some extent to face the drought conditions. Our partners in All India Coordinated Research Project for Agrometeorology and All India Coordinated Research Project for Dryland Agriculture have actively participated at the state level weekly review meetings on crop-weather situation and helped in formulating region wise and crop wise contingency plans in each state. Implementation of the contingency plans at the field level, however remains a challenging task for administrators in terms of mobilizing inputs, manpower and dissemination of technical information to farmers. Together with central, state governments and agricultural universities, CRIDA will try to bring out such comprehensive contingency plans for droughts in the country in due course.

B. VENKATESWARLU
Director, CRIDA

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NEW INNOVATIONS

Use of ICTs in reaching farmers

Access to need based information and knowledge about demand driven technological interventions at farmer's doorstep is a prerequisite for its successful adoption. In this backdrop, CRIDA has standardized a process of information sharing through "Knowledge Share Centers" (KSCs) under NAIP SRL3. This effort enables access to value added information services on latest tools and technologies in agriculture to rural people.

Information through **touch screen kiosks**, queries addressal system through **IVRS**, and **display announcement system** are the essential features of the KSC. **Touch screen kiosk** allows users to navigate for information on crop cultivation practices, plant protection measures and market information etc, with a finger touch facilitating user friendly interaction like ATMs. **Display announcement system** is a communication media in the KSC

through which knowledge is disseminated by screening films and CDs which can serve the needs of illiterate farmers through creation of awareness of the improved technologies. IVRS is installed for answering to the farmers' queries. Pre recorded voice files with different options on various information services in IVRS, guide the caller to avail the requisite information.

In the present era of knowledge revolution, the role of KSC as information and knowledge delivery systems has become crucial in generating, disseminating and utilization of value added information for farm related activities. Two years experience from the NAIP project at CRIDA revealed that this innovative technology transfer through KSCs is quite successful with gradually increasing foot falls in all the eight pilot villages introduced. Farmers are accessing information on plant protection measures, improved varieties, market information followed by news of government schemes in that order.



Farmers using the services of KSC in villages

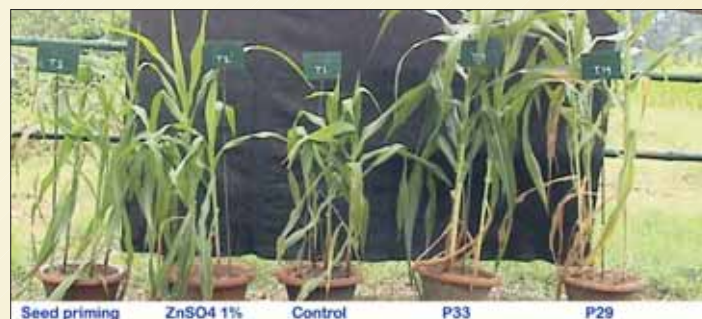
K. Nagasree

RESEARCH HIGHLIGHTS

Microorganisms for alleviating Zn deficiency

Zinc deficiency in soils is one of the important abiotic factors affecting the productivity of major crops in India. Zn deficiency not only reduces crop productivity but also leads to malnutrition of the poor. Application of Zn either through soil or foliar spray can minimize the impacts of Zn deficiency. However several farmers are unable to apply Zinc due to poor awareness. An effort was made to find an alternative which is cost effective, easy to adopt and environmentally friendly.

Under AMAAS Project, CRIDA has isolated large number Zinc solubilizing bacteria from deficient soils. After laboratory evaluation and complete characterization few strains of *Pseudomonas* were found most promising. A pot culture experiment was set during 2009 at 4 locations i.e. Hyderabad, Arija (South Rajasthan), Ballawal Saunkari (Hoshiarpur) and Rakh Dhansar (Jammu) using deficient soils. The soil used at Hyderabad centre belonged to Vertisols collected from Zinc deficient regions of Karimnagar, whereas in other centres, the soil used was Inceptisols. Treatments tried were



Response of maize (45 DAS) to inoculation with *Pseudomonas* at Arija (left) and Rakh Dhansar (right)

S.Desai & SSBalloli

bacterial strains (P29 and P33), seed priming with 1% zinc sulphate solution and control. Results on growth of maize up to 45 days revealed that the two strains of *Pseudomonas* (P 33 and P 29) and seed priming with 1% Zinc sulphate solutions were found promising as the drymatter yield of maize in these treatments were

comparable with that of 25 kg/ha Zinc sulphate application. It is proposed to test these promising organisms in field conditions in Zn deficient areas and develop a bio-zinc formulation for maize growers.

In-situ water harvesting for increasing crop productivity

Drylands often experience intermittent dryspells during cropping season causing moisture stress, particularly in low and medium rainfall areas. One way of overcoming this problem is to conserve as much rainfall *in-situ*. Several technologies were evolved in the past to address this problem such as mulching, land configurations, application of tank silt, etc. However, the adoption of such practices is not satisfactory as farmers face constraints like higher cost of cultivation, weed problem, lack of suitable equipment, non availability of mulch material and most importantly, additional labour requirement.

One common in situ conservation practice recommended for Alfisols in Telangana region is conservation furrow. It is made after first weeding i.e 30-45 DAS (days after sowing) so as to combine two field operations of weeding and making furrows. Though this conserves the moisture thereafter, the run off causing rains received

during first 30-45 DAS are not stored in profile and utilised for crop growth. This called for a technology which can merge well with existing farmers practice with out additional expenditure. This should also use entire seasonal rainfall for moisture conservation.

Thus a new technology of making of conservation furrows, seeding, fertilizer application all at planting time was tested during kharif 2009. This involves paired row planting with ridge planter. It consists of a 25cm deep of furrow with width of 60cm at 120cm interval and seeding with a seed drill on either side of furrows with required spacing. It was tested on pigeonpea, castor and cotton. With this practice, 250m³ harvesting capacity is created *in-situ* for conservation of rainfall thus alleviating the need for measures to overcome a 15 days dryspell. A ridger was developed which can be attached to conventional seed cum fertilizer drill for making conservation furrows. This system also has the potential to overcome transient water logging in vertisols in high rainfall areas.



Pigeon Pea- Paired Row (right) versus Conventional (left) Planting

K.V. Rao

Impact of thermal regime on wheat productivity

Wheat, the 2nd most important food crop of India, is very sensitive to high temperature at reproductive stage. It produces better yield when cooler thermal regime prevails during late vegetative and reproductive stages. But in recent times, frequent and prolonged hot spells are occurring during these stages causing yield losses due to reduced grain filling duration. The North West Plain Zone (NWPZ) is the most productive wheat growing area of India, but lot of yield variability is observed across the sub-zones. Among the crucial factors governing yield variability, temperature is the foremost as NWPZ has more or less assured irrigation. An analysis was made to evaluate the combined effect of high temperature (above the normal range) and continuous duration of exposure to such temperature stress (daily positive departure by 2°C over normal for minimum

continuous 5 days duration) that causes significant amount of yield loss at Ludhiana; one of the most favorable environment for wheat. The relationships have then been extended to other major growing areas, viz. Hisar, Karnal and Kanpur, to estimate the impact on yield through introduction of a response factor. The results revealed yield reduction due to high temperature is more at cooler environments than traditionally warmer one. Rising trend of maximum temperature in 'heading to anthesis' and 'milking to dough' stages is of major concern due to sensitivity of these stages to high temperature and consequent negative impact on yield. During the reproductive stage, a 10% reduction from the average yield is expected with 11 days of stress at Ludhiana, 10 days at Hisar, 13 days at Karnal and 15 days at Kanpur, if exposed to average stress temperature departure of 3.24, 4.20, 3.63 and 3.54 °C, respectively.

U.S. Saikia

SCIENTIFIC ACTIVITIES

Annual Workshop of Network Project on Climate Change (NPCC) and NATCOM Workshop

To review the research progress of the NPCC, the annual meeting was held during 3-4 July 2009, at CRIDA along with the second NATCOM workshop. The results of 2008-09 were reviewed and the technical program for all centers was finalized for the coming years. A book on "Farmers Awareness Program on Climate Change" was released by Dr. A.K. Singh, DDG (NRM). The NATCOM workshop was mainly focused on using a user-friendly software tool to extract *Had CM3* model scenarios for selected grids. Around 50 participants from different universities and institutions attended these workshops.



Book release by Dr. A.K. Singh DDG, during workshop

Press Conference on Drought Situation-2009

A Press conference was conducted on 22nd July 2009 under the chairmanship of the Director, CRIDA to create awareness among the people through media about the drought situation of the country and the role played by ICAR and CRIDA in monitoring drought and preparing crop contingency plans in the country.

CRIDA disseminates contingency plans during 2009 drought

Scientists of CRIDA and co-operating centres under AICRPAM and AICRPDA have actively participated in several state and central level meetings to finalise contingency plans and evolve drought mitigation measures during 2009. Due to unprecedented delay in monsoon during kharif, sowings were badly affected in major parts of the country. Monitoring of daily rainfall and crop situation weekly

contingency plans were issued. The plans were disseminated through ICAR, CRIDA and SAUs Websites in english, hindi and regional languages.

National Seminar on Hindi Technical Terminology

This Seminar was held at CRIDA from July 21-22, 2009 by Commission for Scientific and Technical Terminology (CSTT). Officers of various Central Government departments all over the country have participated. Dr. Dharmendra Kumar from CSTT, New Delhi stated that the seminar is meant to create awareness on standard technical Hindi terminology for effective day-to-day work in scientific institutions.

CRIDA-FORWARD joint workshop on watershed projects

A joint workshop by FORWARD, a leading NGO specialized in watershed impact assessment and CRIDA was organized on July 24, 2009. About 75 participants from leading NGOs in the country participated. The workshop captured the lessons learnt from watershed projects in Karnataka, MP and Maharashtra, issues related to sustainability and institutional innovations. Dr. K.J. Joy convened the workshop from FORWARD. Several recommendations were made which are useful for implementation of the IWMP under common guidelines.

Meeting of Network Project on Bio-fertilizers

The Planning meeting of the ICAR Network Project on Biofertilizers was held at CRIDA on 25-26th July, 2009. Fifteen project partners including Drs. D.L.N. Rao, Network Coordinator, T.K. Adhya, Director, CRRRI, and RupLal, from Delhi University participated in the meeting. In addition to theme lectures by Dr. Rao, Dr. Adhya and Dr. B. Venkateswarlu, Director CRIDA, the technical programmes under the themes 'Exploring Soil Biodiversity for Biofertilizers', 'Genetic Diversity of Rhizobia' and 'Soil genomics for Health Assessment' were finalized for XI Plan.

Scientific Advisory Committee (SAC) meeting

Scientific Advisory Committee (SAC) meeting of CRIDA, KVK was held on 04.08.2009 at Hayathnagar Research Farm. Chaired by Director, it was attended by scientists from ANGRAU, progressive farmers and officials from line departments. The progress of Rabi 2008-09, and action plan for kharif 2009 were reviewed and finalized.

IMC Meeting

The 39th Management Committee Meeting of CRIDA was held on 11th August, 2009 under the Chairmanship of Director, CRIDA. The meeting was attended by IMC members and special invitees from CRIDA. Besides regular agenda items, the major highlight of the meeting was sharing of experience by Mr. Popatrao Pawar, Sarpanch, Hiware Bazar on the success of watershed programme in his village which was appreciated by all members.



IMC meeting in progress

National Conference on Agricultural Marketing

The 23rd National Conference on Agricultural Marketing was organized at CRIDA during November 12-14, 2009 jointly by CRIDA and Indian Society of Agricultural Marketing. The conference was inaugurated by Prof. Abhijit Sen, Member, Planning Commission and presided by Prof. S.R. Hashim, Former Member, Planning Commission & Former Chairman, UPSC. Prof. R. Radhakrishna, President of the Society chaired the inaugural session. Over 125 delegates from different universities and autonomous institutes

presented papers under three themes, viz., impact of global markets on Indian agro-markets, developmental role of marketing incentives for agricultural produce and marketing issues in rainfed agriculture. A panel discussion was held on 'Innovations in Market Linkages for Promoting Sustainable Rural Livelihoods'. The conference made specific recommendations on supply chain integration, brand building and marketing requirements of small and marginal farmers.



Prof. Abhijit Sen, addressing the participants



Delegates in workshop



Visit to Museum

CRIDA-NRSC joint meeting for research collaboration

CRIDA-NRSC joint meeting was held on December 9, 2009 at NRSC for identifying areas of research collaboration, particularly in

the area of drought assessment, drought monitoring and contingency planning. Joint projects will be taken by scientists from both institutes in identified areas.

NATIONAL AGRICULTURAL INNOVATION PROJECT

Brainstorming on Institutional Innovations

A brainstorming was organized on 29th July, 2009 on institutional innovations by inviting experts from different organizations to share successful institutional innovations from CRIDA livelihood project and to invite their ideas/suggestions. Dr. Sreenath Dixit, CPI, NAIP, Dr.B.Venkateswarlu, Director, CRIDA opened the discussion by pointing at different institutional issues faced by the project and how the partners are trying to innovate. The discussions focused around four major issues like convergence between Panchayat Raj and new institutions, entrepreneurship and institutions, and sustaining institutions beyond project period.



Brainstorming session in progress

Group meeting of NAIP Agro Web Project

A group meeting was held on September 18, 2009 with Dr.R.C.Agrawal, CPI, NBPGR, New Delhi and representatives DRR, PDP, NRCS to discuss the implementation of common guidelines for websites as per ICAR policy and the content management system for websites. It was agreed that websites of ICAR institutes would be converted with Joomla system within 6-9 months.

Fifth CAC Meeting

The Fifth Consortium Advisory Committee (CAC) meeting was held on 24th October, 2009 under the Chairmanship of Padmasri Dr. I.V. Subba Rao. Selected cluster anchors made presentations on institutional innovations tried in respective clusters. The Chairman and the National Coordinator released the NAIP publications during the meeting and urged that process innovations should be carefully documented.

Farmers training on Zero Tillage Technology

One day training was organized on Zero tillage technology in Maize on 10th November, 2009 at Jaffergudem cluster, Warangal. Forty five farmers from Jamistapur, Mahabubnagar and Dupahad clusters participated in the training and exhibited keen interest on the technology. The training focused on precautions to be taken while herbicide spray and irrigation management in zero tillage maize

Community bio energy system inaugurated

A community vermi-biogas unit was opened on 24 November, 2009 by Dr. HP. Singh, Former Director, CRIDA in Dupahad village cluster of Nalgonda district. This was a unique intervention where, households contribute dung to the community plant and get in return

manure and cooking gas proportionately. The system is being run by farmers themselves.



Opening of community biogas plant

Training on Azolla cultivation

One day training was organized on Azolla mother culture maintenance on 26, November 2009, at Jaffergudem cluster. Dr Kamalasanan Pillai the resource person from Vivekananda Kendra, Kanyakumari provided hands on experience on long term maintenance of Azolla under farmers condition.



Training on Azolla cultivation

Inauguration of ICT Kiosks

Sri. R. Kanata Rao, MLA, inaugurated KSC & community godown at Tummalacheruvu cluster, Khammam district on July10, 2009. He urged the villagers to make use of different ICT components



Inauguration of community welfare initiatives at Khammam & Rangareddy clusters

IMPORTANT EVENTS

Field SRC

A field SRC was conducted at GRF on 15th Sept, 2009. Director reviewed the progress of all field experiments. Experiments on



Director CRIDA reviewing the research experiments at GRF during field SRC

water productivity, rain water harvesting, micro-nutrients use, organic farming were reviewed. The main highlight was taking stock of how the treatments have performed during 2009 drought.



Technology Week & Field Day

CRIDA KVK conducted Technology Week and Field Day, at Hayathnagar Research Farm during October 1-5, 2009 with an aim of dissemination of information on latest technologies through field day, demonstration and question answer sessions. During the five days, 1000 farmers from four districts visited the Farm. Shri Pankaj Dwivedi, IAS, Principal Secretary, (Agriculture), Govt. of A.P., was the chief guest who addressed the farmers on the field day and visited all experimental fields.



Visit of Shri Pankaj Dwivedi, IAS to HRF and interaction with farmers

A Field day was organized on 03.10.2009 at Hayathnagar Research Farm. Principal Secretary, Agriculture, Govt. of Andhra Pradesh, Mr. Pankaj Dwivedi visited HRF and appreciated crop situation in different experiments even during a drought year. He addressed the farmers on the occasion. He particularly stressed the importance of bio-fertilizers and farm mechanization.



HUMAN RESOURCE DEVELOPMENT

Training program on “agro-climatic analysis”

A training program on agro-climatic analysis, crop weather modeling and agro web management was held during 29th June to 5th July 2009 at CRIDA, Hyderabad for scientists of AICRPAM. The program covered agroclimatic analysis with user friendly software developed by AICRPAM, and crop simulations using DSSAT.

Capacity Building Programmes on “Common Watershed Guidelines 2008”

A series of Capacity Building Training Programmes on “Common Guidelines 2008 for Watershed Development Projects” sponsored by MoRD, were held at CRIDA during August 4-10, September 1-7, November 24-30 and December 1-7, 2009. The participants were familiarized with common guidelines 2008, implementation issues, DPR preparation, institutional mechanisms and participatory

methods. They were also exposed to field visits to ongoing project sites.

Workshops on “Emerging Paradigms in Watershed Management”

Two Capacity Building Training cum Workshops for Sensitization of Senior officers from Karnataka on “Emerging Paradigms in Watershed Management” sponsored by National Rainfed Area Authority were held at CRIDA during September 22-24 and October 21-23, 2009. The senior officers were exposed to emerging concepts in watershed management. Detailed topics on new guidelines, 2008, criteria of selection of watershed projects, DPR preparation, institutional mechanisms, project management and sustainability aspects were covered besides field visit to watershed sites and interaction with farmers.

Trainings under “Scaling up of Water Productivity Scheme”

A Training course on “Effect of Climate Change on Water Productivity: Coping Strategies and Management” was organized under the ICAR scheme “Scaling up of Water Productivity, Training of Trainers and Farmers” during August 18-31, 2009. Twenty participants from Andhra Pradesh attended the course. The participants were exposed to various aspects of climate change, its impacts on agriculture and adaptation and mitigation strategies such as efficient use of water resources, conservation agriculture, carbon sequestration and soil fertility management.

Training on “Organic farming”

A training course on “Organic Farming in Rainfed Agriculture”

sponsored by ICAR, was held at CRIDA from October 3-16, 2009. Eighteen participants attended the training. The training covered important topics such as concept of organic farming, Bio-Intensive Pest Management; Bio-fertilizers, Bio-Pesticides and Bio-Fungicides; Organic Cultivation of medicinal & aromatic plants; Quality standards for organic inputs; NPM experiences in Andhra Pradesh, use of customized fertilizers in dryland crops; organic farming impact on soil fertility build up; organic farming in tribal areas; and organic dairy farming.



Participants of the DST sponsored Program on 'Advances in Plant-Atmospheric Interactions'

Training on "Advances in Plant-Atmospheric Interactions"

DST sponsored Training Program on 'Advances in Plant-Atmospheric Interactions' was held during 22 October to 11 November 2009 at CRIDA, Hyderabad.

Twenty five participants from 13 states have participated. The training covered micro meteorology, climate change, crop weather relationships, weather and pest disease interactions etc.

NEWS FROM AICRPs

AICRPDA Workshop

The 22nd biennial workshop was held at SDAU, SK Nagar (Gujarat) during 6-9 October 2009. The inaugural session was chaired by Dr. R.C. Maheswari, Vice Chancellor, SDAU and Dr.B. Venkateswarlu, Director, CRIDA was the Chief Guest. Dr.P.K. Mishra, Project Coordinator (Dryland Research), AICRPDA gave a brief account of objectives. Dr. Maheswari emphasized more accountability and focus in rainfed agriculture research, to develop agro climatic zone specific technologies, contingency plans and convergence of the

on-going state and central schemes for upscaling the technologies. Director, CRIDA appreciated the progress of research across the centers and stressed for more focus on conservation agriculture and rain water harvesting through farm ponds. Earlier, Dr. SBS Tikka, Director of Research, SDAU welcomed the gathering, Dr.A.M. Patel, Chief Scientist of AICRPDA Center, SK Nagar proposed vote of thanks. The Workshop was well attended by the scientists of AICRPDA network centers (22 main/sub-centers, 8 ORPs), CRIDA and other scientists of NARS at SDAU.



Various events of workshop in progress

Award for Technology Park

A State level Kisan Mela was organized at UAS, Bangalore during 19-22 November, 2009. During this event, about 5 lakh farmers from entire Karnataka visited the fair. The AICRPDA Centre

demonstrated all dryland technologies in one compact plot as Technology Park. The Center received **Best Plot Demonstration Award**.



AICRPDA Bangalore center receiving Award for Best Plot Demonstration

Working Group Meeting

The Working Group Meeting of All India Coordinated Research Project on Agrometeorology was held during 21-22 December, 2009 at Kerala Agricultural University, Thrissur. The workshop reviewed the progress of the research and finalized the technical program of AICRPAM for 2010-11.

Some important decisions came out of the meeting are; to conduct regular training program on analysis and methodology of crop-weather relationships, collection of micro level weather data for the respective regions of the university which should be completed by the end of 2010 besides compilation of extreme weather events and analysis of automatic rain gauge charts.



Working Group Meeting in progress

PARTICIPATION IN MEETINGS/SEMINARS/SYMPOSIA

Dr. G.R. Korwar, Principal Scientist participated in ZREAC meeting of ANGRAU for North Telangana zone at Mancherla during August 26-27, 2009 and South Telangana Zone at Rajendranagar during August 28-29, 2009.

Dr. G.R. Korwar, Principal Scientist participated in Seminar on "Advancing Rainfed Farming Development for achieving MDG's at Dhan Foundation, Madurai on 18.9.2009.

Dr. A.V.M. Subba Rao, Scientist (Sr.Scale) participated and delivered a lecture on "Climate Change Impacts of Sustainable Agriculture" in Workshop on 'Climate Change and Sustainable Agriculture' organized by the RDT Accion Fraterna Ecology Centre, Anantapur during September 25-26, 2009

Dr. M. Prabhakar, Senior Scientist participated in an International Symposium on Bio-safety and Environmental Impact of GMO and Conventional Technologies for Pest Management at ICRISAT

during November 20-21, 2009.

Dr. V.U.M. Rao, Principal Scientist participated and delivered lead lecture at National Seminar on "Agro-Meteorology Needs Approaches and Linkages for Rural Development" held at CCSHAU, Hissar during November 26-27, 2009.

Drs. B. Venkateswarlu, P.K. Mishra, Md. Osman, K.S. Reddy and K.V. Rao participated in a series of steering committee meetings of IWMP held at Department of Land Resources, New Delhi convened during September to December, 2009 for finalization of annual plans of different states of under Integrated Watershed Management Programme, Ministry of Rural Development, New Delhi.

Dr. K.V. Rao, Senior Scientist participated in the 6th executive committee meeting of the National Rainfed Area Authority (NRAA) at NASC complex, New Delhi on 3rd November, 2009.

GUEST LECTURE

Dr. Shaikh Abdul Hakeem, Senior Meteorologist from Bureau of Meteorology, Australia delivered a guest lecture on "Climate and Climate Change" on 13.7.2009.

IMPORTANT VISITORS

Dr. J.S. Samra, Chief Executive Officer, National Rainfed Area Authority, New Delhi, visited NAIP project sites in Jamisthanpur and Jafferghudem village clusters on August 1-2, 2009 to assess how they are helpful in tackling severe drought in 2009. Dr. Samra



Dr. Samra interacting with farmers in Jamisthanpur

interacted with farmers on how they are coping with drought and made several suggestions for the project staff on specific interventions for drought mitigation.

ICAR media unit consisting of **Dr. Jagdeep Saxena**, Editor, DIPA and **shri Sandip Das**, Special Correspondent, Financial Express visited CRIDA on 18 to 19 August, 2009 to have an on the spot assessment of the drought coping technologies developed by the institute and their adoption. Director, CRIDA, briefed the journalists on key technologies for drought management and visit to Hayathnagar Farm was organized to see the field experiments on drought. On day two the journalists visited KVK adopted villages to interact with farmers on the usefulness of dry farming technologies in coping with drought.

Dr. T.P. Trivedi, Director DIPA visited CRIDA on 26.08.2009 to discuss the problems of Internet connectivity, Website development and other ICT related issues.

Dr. Catherine Chesnutt, USDA Borlaug Fellowship Coordinator for Asia visited CRIDA on 10.09.2009 to interact with the Borlaug Fellows from the institute for feedback on the programme.

Ms. Hannah Janetschek, from HUMBOLDT-UNIVERSITAT ZU BERLIN visited on 27.11.2009. to know the research work under NAIP.

AWARDS AND RECOGNITION

Dr. B. Venkateswarlu, Director, CRIDA was conferred the fellowship of the National Academy of Agriculture Science (NAAS) w.e.f. January 1, 2010. He was recognized for his contributions in rainfed agriculture, particularly for studying the impact of water stress on biological nitrogen fixation and role of soil micro-organisms for abiotic stress tolerance in crop plants.



CRIDA received Rajrishi Tandon Rajbhasha Award for the year 2008 as a first prize amongst ICAR Institutes in Region 'C' for good performance in usage of Hindi.

Dr. K.L. Sharma, Principal Scientist was conferred the fellow of the Indian Society of Soil Science w.e.f Dec. 2009 based on his significant contribution in the field of Soil Fertility and Plant Nutrition in Rainfed Agriculture in general, and Advancement of the theme of Soil Quality Assessment and Improvement.



Dr. M. Prabhakar, Sr. scientist became the Fellow of Entomological Society of India.

Dr. Uttam Kumar Mandal, Sr. Scientist has been awarded the Golden Jubilee Indian Society of Soil Science Young Scientist Award.

NEW PUBLICATIONS

CRIDA brought out 13 new publications during this period including 4 books, 1 policy paper, 1 policy brief and 9 bulletins. The most important is a compendium on rainfed technologies which describes

on technologies for all major agri-ecological region of the country. All these publications can be accessed from our web site and downloaded free at www.crida.ernet.in/pubs/index.html

VISITS ABROAD

Dr. G. Nirmala, Senior Scientist (Agril.Extn.) has been deputed to Cornell University, New York for one year from July 2009-June 2010 under Hubert H. Humphrey Fellowship.

Dr JVNS Prasad Sr. Scientist visited World Agro forestry centre (ICRAF) Nairobi, Kenya from August 31 to September 2, 2009 to attend centre wide science meeting and technical programme finalization.

Dr. B. Venkateswarlu, Director visited Argentina to participate in UNCCD conference during September 22-24, 2009.

Drs. GGSN. Rao and VUM. Rao visited Bangkok, Thailand to participate in the Annual Planning and Review Meeting of Climate Change project during 30 September-01 October, 2009 and to conduct Training Workshop on Agro-climatic Analysis to participants from different Asian countries.

Drs. GGSN. Rao and S. Desai visited Cambodia from November 14-24, 2009 to participate in the International Workshop on Climate and Agricultural Risk Management during November 15-18, 2009 and International seminar on Climate Risk Management in Rural Communities in developing countries of the Asia Pacific.

FORTH COMING EVENTS

Title of the event	Dates
National Symposium on Climate Change and Rainfed Agriculture organized by ISDA & CRIDA	18-20 February, 2010
Capacity Building Training cum Workshop for Sensitization of Senior officers from AP on "Emerging Paradigms in Watershed Management" sponsored by National Rainfed Area Authority	February 23-25, 2010 (tentative)
Training Programme under Water Productivity Scheme	March I fortnight (tentative)
National Science Day	February 28, 2010
International Womens Day	March 8, 2010
CRIDA foundation day	April 12, 2010
IRC meeting	May, 2010

PERSONNEL INFORMATION

New Entrants

The following Staff joined CRIDA during July-December, 2009.

Name	Discipline	Date of joining
Dr. Manoranjan Kumar	Sr. Scientist (SW&CE)	01-07-2009
Smt. G.M. Sashi Rekha	Jr. Stenographer (KVK)	23-07-2009
Dr. D. Sudheer	SMS-Veterinary Sci. (T-6)	31-07-2009
Shri. V. Sanu	Personnel Assistant	03-08-2009
Dr. P. Vijay Kumar	Sr. Scientist (Agril.Met.)	05-09-2009

Promotions / Selections

Dr. M. Maheswari, Principal Scientist (Plant Physiology) was selected as Head, Division of Crop Sciences by ASRB and joined the post w.e.f. 20.08.2009.



CRIDA wish them success in their endeavours

Retirements

Name	Designation	Date of Superannuation
Dr. S. Venkateswarlu	Sr. Scientist (Agronomy)	30.09.2009
Smt. V.R. Vimalamma	SSG-IV	31.12.2009

CRIDA family wishes them a happy and peaceful retired life

Obituary

Shri P. Mathad	T-8	27.11.2009
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CRIDA staff expresses their deep condolences to bereaved family members

CULTURAL AND WELFARE ACTIVITIES

Independence Day Celebration

The Independence Day was celebrated on August 15, 2009 with enthusiasm and gaiety. The director hoisted the flag and addressed the staff of CRIDA. He motivated the staff to work with commitment so as to face the new challenges faced by rainfed farming particularly during drought year of 2009.

Vanamahotsavam

CRIDA Cultural and Recreation Club (CCRC) organized a "Vana Mahostavam" at Hayathnagar Research Farm of the Institute on 31st October, 2009. All the CRIDA staff members participated in the cultural activities actively which was followed by *Vanabhojanam*. The event generated great enthusiasm and oneness among the staff.

CRIDA Donation to A.P. Chief Minister's Relief Fund

CRIDA donated Rs. 1,91,770/- (Rupees one lakh ninety one thousand seven hundred seventy rupees only) towards A.P. Relief Chief Minister's Relief Fund collected through contributions from all staff. The Chief Minister Officer appreciated the contribution to help the needy people in time of distress.

Published by:
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