



# NICRA News

## Monthly e-Newsletter

on

## Climate Resilient Agriculture

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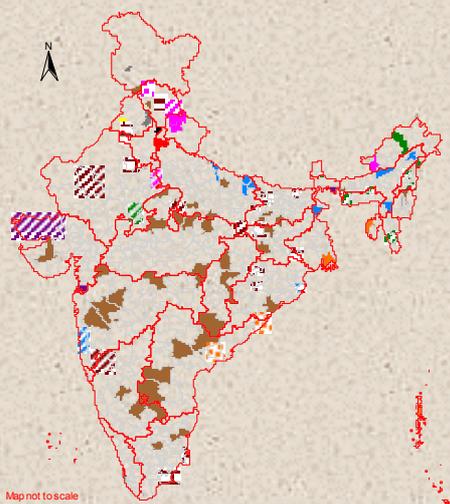
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### From the Research Front



The last two months have been witnessing hectic activities relating to procurement and establishment of facilities required for conducting research. Also several trainings and workshops were held during this period. Phenomics facility has been established at CRIDA campus and trials are being carried out. Pre-installation work for CO<sub>2</sub> growth chamber is also going on at a fast pace. One day workshop on “Climate Change: Sharing Experiences, Scientific Aspects & Way Ahead” was jointly organized by National Research Centre for Agro-forestry and Development Alternatives (NGO) on 26<sup>th</sup> March, 2012. Training and workshop on real time pest surveillance was held on 15 & 16 March, 2012 at National Center for Integrated Pest Management, New Delhi. Two Short Courses on “Database Analysis and Management in Climate Variability and Rainfed Agriculture” under National Initiative on Climate Resilient Agriculture (NICRA) were organized during 21- 25 February, 2012 and 27<sup>th</sup> February to 2<sup>nd</sup> March, 2012 by Project Coordination Unit, AICRPDA at CRIDA, Hyderabad. These training and capacity building efforts will go a long way in preparing project partners for implementing the project successfully.

**B. Venkateswarlu**  
Director, CRIDA

## From across the KVKs



As the time has passed, the understanding of the project has improved across the KVKs as a result of several interactions at the zonal level and field visits. NICRA activities have drawn the attention of many at the village, block and district levels. During the last two months, several dignitaries have visited NICRA project sites in different parts of the country. Dr.S.Ayyappan, Secretary, DARE and DG, ICAR visited NICRA project sites in Tumkur and Davangere districts of Karnataka. He interacted with the farming community and appreciated their enthusiastic participation in the project. Many KVKs have been reporting from across the zones their experiences in implementing the interventions with a positive note. They are able to appreciate the unique features of the project, particularly the NRM and the institutional interventions. Further establishment of village weather stations are helping farmers to develop sensitivity towards weather factors and they are showing keenness to understand their influence. This project has rekindled community spirit among the people of the villages and are willing taking part in large scale desilting of village tanks and irrigation channels, building sand bag check dams and taking up planting activities in wastelands. The past two months, I visited several NICRA villages to review the progress of the project. The community participation in the activities is very encouraging in the places where I was able to visit (East Sikkim, South 24 Parganas, Davangere, Ramanathapuram and Tumkur). These face unique climate variability challenges and there is great scope to help the communities to cope with these, as there is inherent desire among the community to do something about their situation. This edition of newsletter reports a few experiences of a few more KVKs in coping with climate variability.

## Project Launch Event/Review Meetings

A Zonal Workshop for review of the progress under NICRA was held on 2nd February, 2012 at KVK , Ramanathapuram, Tamil Nadu. The agenda of the review meeting was as follows:

- Progress of technical interventions
- reorienting the interventions to climate variability challenges wherever necessary,
- discussion of issues faced by KVKs in implementation process,
- issues related to constitution of Village Climate Risk Management Committees,
- working of custom hiring service centre,
- Recruitment of SRFs,
- fund release and expenditure status of KVKs of Zone-VIII

The meeting was Chaired by Dr. P.Murugesu Boopathi, Vice-Chancellor, Tamil Nadu Agricultural University, Coimbatore and attended by Dr S. Prabhukumar, ZPD, Zone-VIII, Bangalore, Dr Sreenath Dixit, Principal Scientist and Coordinator, TDC-NICRA, CRIDA, Hyderabad, Dr P. Kalaiselvan, DE, TNAU, Coimbatore and all the PCs of 9 KVKs implementing NICRA.



District collector launching the workshop & inaugurating vermi unit



## ***In-situ* moisture conservation to cope with water stress, Baramati, Pune, Maharashtra**

Jalgaon (K.P.), Baramati taluk, Pune district, Maharashtra, is one of NICRA villages. It falls under post monsoon area of Maharashtra and experiences water stress during late *rabi* season and due to which crop yields are low. KVK under the NICRA project is promoting *in-situ* moisture conservation technique by encouraging farmers to adopt planting on flat beds with ridges of 20 x 12 m across the slope. Mr. Dhansing Vinayak Jagtap one of the farmers who adopted this technique harvested excellent crop of rabi sorghum despite receiving only 411 mm rainfall during 2011-12. Jowar variety Phulae vasudha was sown during 2<sup>nd</sup> week of October utilizing conserved soil moisture. In contrast, the farmers who did not adopt *In-situ* moisture conservation technique suffered losses up to 80% in grain yield due to crop failure. Mr.Jagtap obtained 13.5 q/ha of jowar whereas other farmers could only harvest a meager 6.0 q/ha. Thus, broad bed and furrow technique has proved as a good drought management technology which helped bring resilience to rabi sorghum production system.



**Dr.K.D.Kokate (DDG Ext. ICAR ), Dr.H.K. Patil (DE, KVKV,Dapoli),  
KVK, Baramati Staff and Mr.Dhan sing Jagtap, Farmer**

## **Training program on climate change, impact and mitigation**

A training programme on Climate Change was conducted on 14<sup>th</sup> February 2012 at Badhru thanda, Enkoor mandal, Khammam. Dr. M. Satyanarayana explained about climate change and its impact on crops particularly on the Maize and Chilli. Dr. M. Srinivasa Rao briefed about shrinking rainy season, high intensity with prolonged dry spells, drought mitigation techniques including drought tolerant varieties. Mr Anand Kumar gave information on the effect of climate change on leaf blight, banded leaf and sheath blight diseases and their control in Maize. Dr. A. Chandrasekhara Rao talked about scarcity of fodder during summer months and methods to overcome the same.



**Dr. M. Srinivasa Rao explaining about drought mitigation techniques**

## Technology Demonstration by AICRPDA Centre

### Coping with drought, Lakhimpur, Assam

Paddy is the major conventional *sali* crop at NICRA village Chamua, Lakhimpur district, Assam. Farmers in the district normally grow long duration local varieties (130-140 days) which regularly experience moisture stress during various stages of growth. To develop climate resilient crop management systems, Biswanath Chariali, Assam Agricultural University centre of AICRPDA adopted short duration (90-100 days) *sali* rice varieties like Dishang, Kapilee, Kolong and Luit. There was a dry spell during Mid August, September and October 2011. Short duration varieties escaped mid season and terminal drought while long duration varieties got affected. The yield data is given below:

Name of the variety	Yield (t/ha)	Yield advantage over local varieties (t/ha)
Dishang	4.28	2.28
Kapilee	2.65	0.65
Kolong	3.99	1.99
Luit	3.25	1.25



Sort duration Paddy varieties Luit and Kapilee (90-100 days)



Local long duration varieties (130-140 days)

## Backyard poultry in hills: Improved housing increased productivity

Mrs. Pabitra a small farmer from Nondok village in East Sikkim has made her own innovation in providing better housing for brooding backyard poultry chicks for preventing loss due to low temperature. She took up brooding of Gramapriya and Vanaraja (60 chicks) in a specially designed a brooder house made up of locally available materials such as bamboo and wood to maintain required body temperature to curb the chick mortality due to cold stress and predators. To maintain the temperature in brooder, she used 100 watt bulbs. The movement of the chicks was restricted nearer the heat source with the help of chicks guard made with card board. She fed the chicks with standard broiler starter ration initially. In the second phase, she fed the growing birds with vegetable wastes, grass and other kinds of locally available grains like maize and rice bran besides the feed material available from free range. She made available fresh and clean water at all times in bamboo made watering and feeding trough. On the advice of the KVK she also supplemented the birds with multivitamin (Ambiplex @ 1ml /lt of water). After attaining maturity (3-4 months) she sold the male birds @ Rs. 220/ kg live weight and egg @ Rs. 10/ egg at local market.



### Following are the highlights of the enterprise.

Parameters	Performance
Mortality to 10 wk	<5%
Mortality to 20 wks	<10%
Mortality during laying stage	<15%
Average age at first lay (days)	145
Average body weight at first lay (kg)	2.18
Average annual egg production (nos. estimated)	178

### Economics of backyard poultry

Stock per batch	Expenditure (Rs.)	Income (Rs.)	Profit (Rs.)	B:C ratio
60	14,446/-	25,720/-	11,274	1.78

## Awareness on NICRA

A Training-cum-demonstration on “scaling up of water productivity in agriculture” was organized by KVK, Saran during March 20-26, 2012 as part of the capacity building programme under NICRA. During this period a series of activities was conducted to raise the awareness of farmers about climate resilient agriculture. These



included trainings, workshop on poultry farming, dairying, Nutrition, Tie and Dye, Mushroom cultivation, Fruit and vegetable preservation, etc. Animal Health camp was also conducted in the NICRA village (Darihara & Affaur) in collaboration with the department of Animal husbandry, Govt. of Bihar.

## Review Workshops

Progress of NICRA activities was reviewed in Zone I & Zone III during February & March, respectively. These workshops were meant to address issues faced by KVKs in project implementation. During the workshop, KVKs presented progress in implementation of interventions and expenditure. Based on the issues raised by KVKs during zonal workshops, the Coordination Unit has come out with a compilation of frequently asked questions (FAQs). The FAQs have now been posted on the NICRA website and can be accessed at <http://nicra-icar.in/nicrarevised/index.php/en/techn-dem/faq>

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