

NICRA News

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NICRA
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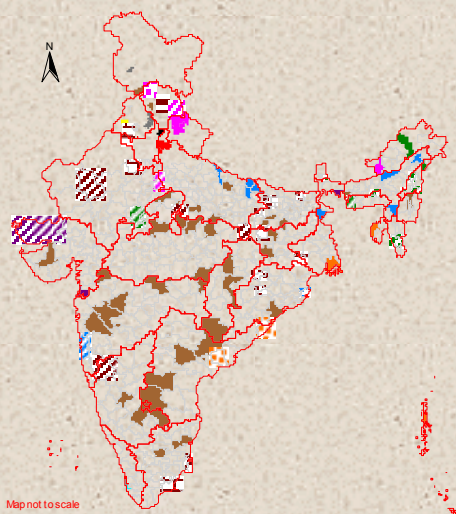
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From the Research Front



The first annual review workshop of National Initiative on Climate Resilient Agriculture (NICRA) was organized at CRIDA, Santoshnagar, Hyderabad between 12-14 June 2012. During these 3 days, a detailed account of the achievements made in the project for the past one year were discussed and plans of action for the year 2012-13 were finalized. Noted climate expert and Chairman, Expert Committee, Prof. Y.P. Abrol chaired the review workshop. Dr. A.K.Singh, Deputy Director General (Natural Resource Management) was present.

The Principal Investigators working on the basic and strategic aspects of climate resilient agriculture representing 24 leading research institutes across the country participated in the workshop. Besides, a number of other research organizations which have been operating projects under competitive grants presented initial outcomes of their projects. As one of the first steps of understanding the nature and extent of vulnerability of different regions to the climate change, a large exercise has been undertaken to delineate and map most vulnerable pockets of the country and their ability to cope with climate variability in the medium and long term. This will help the planners to initiate long-term programmes so that the communities living in these areas can develop capacity to cope with climate change.

B. Venkateswarlu
Director, CRIDA

From across the KVKs



The month of June which heralds monsoon was waited for with expectation and anticipation. Most KVKs reported inadequate rainfall and the overall rainfall across the KVKs was much below normal. This is a very crucial period for all the KVKs, as the technical program that was arrived at after much deliberation would be put in practice. While most part of the country has not received enough rainfall to take up sowing, Assam is battling with floods in most of its districts. Surprisingly, Purnoni-baghchong, the NICRA village in sonitpur district has not been affected in the current flood. A catastrophe in the form of earthquake has struck the Phek district of Nagaland just a couple of days back. When contacted, to our relief, Dr RK Singh, Programme Coordinator of KVK Phek informed that the NICRA village Thipizumi has not been affected with the earthquake.

The month of June was also important in terms of winding up all the activities that need to be completed before the onset of monsoon. Most NRM interventions aimed at building resilience needed to be grounded before rains began. Many KVKs were busy getting estimates and approvals for taking up de-silting tanks, digging farm ponds, percolation ponds, cleaning drainage channels etc. However, there is long delay in some KVKs to get approval from the competent authority to execute NRM interventions due to tedious procedural requirements. The success of this project depends on how quickly we respond to the challenges by implementing NRM interventions. This calls for reforms and simplification of procedures.

During this month, one more zone (ZPD-I) completed their review workshop while Zone-V conducted their annual workshop of all KVKs in KVKs, Babhaleshwar, Ahmednagar, which is implementing NICRA. It was an opportunity for other KVKs of the zone to know more about NICRA. Dr S Ayyappan, Secretary DARE & DG ICAR also participated in the workshop. During this, he also visited NICRA village and interacted with the farming community. He evinced keen interest in knowing the progress of NICRA interventions.

Before signing off, I want to emphasize the significance of the current situation of delayed monsoon from the project point of view. Though the delay of onset has caused widespread concern, it is nevertheless an opportunity to all of us to see how best what we believe can be put in practice. In other words, to what extent the available technologies can stand the test of the situation. What kind of alternate plans we will be able to ground will determine how best we make use of this challenging situation. All these aside, I am sure we will have plenty of lessons at the end of the season to look back and learn. For now, I wish the very best to all the Programme Coordinators of NICRA KVKs!

Sreenath Dixit
Coordinator
Technology Demonstration Component

Heat stress and adaptability of sheep

At Central Sheep and Wool Research Institute, Avikanagar, a study was conducted during peak summer session (May- June) on Malpura ewes to understand the impact of heat stress on growth, water requirement, physiological adaptability and blood biochemical parameters. The results indicate that Malpura ewes adapt to summer season by altering their feeding behavior and physiological responses. This is reflected on the low feed intake, high water intake and significant differences in the physiological responses in heat stressed ewes. Further, the study proved that heat stress during summer season is detrimental to reproductive performance, which is evident from the significant ($P < 0.05$) changes in the reproductive hormone levels in these ewes.

Ameliorative measures to combat environmental stress

The ameliorative affect of specific mineral supplementation against negative effects of heat stress and changes in physiological adaptability in Malpura ewes exposed to heat stress has been studied. Supplementation of mineral mixture (Zinc sulphate 164.0 mg, Cobalt sulphate 0.95 mg, Chromium aetate 1.2 g, Selenium chloride 0.1 mg, and Vitamin E 40.0 mg per kg feed) @ 20 gm/Kg body weight has significantly increased productive and reproductive efficiency in Malpura ewes and reduced impact of heat stress.

A study was conducted to assess the effective of indigenously devised bamboodome structure as cold protection device and to observe its effects on adaptive capability of one month old Malpura lambs during winter season. The structure was able to protect the lambs from cold stress which was evident from the significant reduction in level of stress hormone cortisol and significant lowering of metabolic hormones as compared to cold stress exposed lambs.

Ameliorative effect of concentrate mixture supplementation in sheep exposed to different kinds of stress (water, grazing resources and heat) has been studied at CRIDA, Hyderabad. Supplementation improved ($P < 0.01$) body weight gain and ADG in grazing sheep under stress.

CSWRI and CIRG



All KVKs of Zone-V, Meet at Ahmednagar

NICRA KVK of Ahmednagar formed the venue for the annual workshop of Zone V KVKs. The annual workshop was organized during 21-23 June 2012 and was attended by 73 KVKs of the Zone. This was an opportunity to showcase NICRA activities to other KVKs of the Zone.

On 23rd June, 2012 Dr. S. Ayyappan, Secretary, DARE & Director General, ICAR and Dr. K. D. Kokate, Deputy Director General (Agril. Extn.), ICAR visited the NICRA village, Nirmal Pimpri, Ahmednagar District and reviewed the activities undertaken by KVK Ahmednagar. The dignitaries also interacted with the farmers group on various interventions made by the KVK. After the visit to NICRA Village they visited KVK, Ahmednagar, reviewed progress of activities and also inaugurated the millet processing unit at KVK. Thereafter, they participated in an interaction meeting with the farmers at KVK and answered various queries raised by the farmers regarding remunerative price, validation of technologies developed by the innovative farmers etc.

In the interaction meeting with the Programme Coordinators of KVKs, the Secretary, DARE & Director General, ICAR emphasized on the need for updating of knowledge by the Programme Coordinators. He called upon the PCs to go beyond conducting routine programmes and plan for new initiatives and innovative programmes. He also appreciated the development of infrastructure and various activities undertaken by KVK, Ahmednagar. In his remarks the DDG (AE), ICAR, suggested for proper linkage development by the KVKs, Technological backstopping by the Directors of Extension to KVKs, development of modules by the KVKs for confidence building of farmers etc., and also indicated about the new initiatives of ICAR during XII Plan.



Tensiometer: More Crop per Drop

Tensiometers are being recommended by Punjab Agricultural University to rationalize water requirement in paddy fields. About 25 % water is saved by following need based water application. This technology was demonstrated to the farmers of Village Pindi Blochan, selected under NICRA project by KVK Faridkot (Punjab) during paddy season of last year (2011) on 10 ha. Soil scientist of KVK Faridkot is installing the tensiometer in the newly transplanted paddy field in the village on June 11, 2012. The target for this year is 15 hectares.



World Environment Day celebrated at KVK Ri Bhoi, Umiam

KVK Ri Bhoi celebrated World Environment Day on 5th June, 2012 at Kyrdem village near Umiam. The programme was chaired by the Dr S. V. Ngachan, Director, ICAR Research Complex and Dr. A. K. Gogoi Zonal Project Director Zone III as the guest of honour, besides other heads of divisions from the ICAR complex. More than 100 farmers gathered on the occasion and took a pledge for a greener environment.



Krishi Vigyan Kendra, Kathua organises Environment Day at NICRA village

On the occasion of Environment Day Krishi Vigyan Kendra, Kathua took the initiative to generate mass awareness in the area towards the changing climate, various factors responsible for this change and the options left with the mankind to mitigate the changing climate vis-a-vis enhancing resilience in agriculture.

Dr. Amrish Vaid, Programme Coordinator, KVK, Kathua welcomed participating farmers, farm women, rural youths, students and the officers from the agriculture and allied departments including Cooperatives and bankers viz., NABARD, J&K Bank Ltd. and gave an introductory note of the event. He also briefed about the various activities which has been accomplished and which are being undertaken by Krishi Vigyan Kendra, Kathua under NICRA project. He also emphasized upon the importance of various agro-technologies given by KVK, Kathua in combating the climate change.

Dr. A. P. Singh, Subject Matter Specialist (Agronomy), Dr. Vishal Mahajan, Subject Matter Specialist (Agroforestry), Dr. Brijesh Ajrawat, Subject Matter Specialist (Agril. Extension) and Sh. Vipin Sambyal, Chief Agriculture Officer are also present.

During the occasion a Kissan Gosthi was also organised in which the farmers raised various issues and problems being faced by them and the KVK scientists and officers of the line departments answered the queries.

On this occasion a farmers club was also launched by the NABARD in collaboration with the Krishi Vigyan Kendra, Kathua. Sh. Kalsutra, DDM, NABARD, Kathua also interacted with the farmers and explained about their credit lending schemes. Sh. Mishra, Manager, J&K, Bank was also interacted with farmers and shared his views about the various bottlenecks before banks in lending money among the masses.

The programme was attended by a more than 100 farmers including sarpanch, panches, ward members, farm women, rural youths, students and the officers from the agriculture and allied departments including Cooperatives and bankers viz., NABARD, J&K Bank Ltd.

The programme came to a close with the vote of thanks proposed by Dr. A. P. Singh.



VACCINATION PROGRAMMES ORGANISED UNDER NICRA PROJECT AT KYRDEM , RI BHOI DISTRICT, MEGHALAYA

A vaccination camp was organized by KVK, Ri Bhoi, ICAR Umiam against foot and mouth disease of swine at the Kyrdem village on 11th June 2012 under the project "National Initiative for Climate resilient Agriculture" (NICRA). A total number of 20 piglets were vaccinated to generate awareness about the need for prophylactic measures among the farmers. A training programme was also organized on "Low Cost Scientific Pig Farming" on this occasion.



Another camp was organized on 13th June 2012 for Newcastle disease in poultry birds, where about 800 chicks of Vanaraja breed were vaccinated. Both the programmes were conducted in collaboration with the Kyrdem State Veterinary Dispensary.

Recharge of Tube well in village Sitara Tehsil. Kumher District Bharatpur Rajasthan

Bhartpur district comes under Flood Prone Eastern plain Zone III b (AgroClimatic Zone) of Rajasthan. But in last ten years rainfall is very less and dry spell are more. . Over last 10 years farmers were unable to give even minimum quantity of water in Rabi crops. To solve problems recharging of tube well is the only way farmers identified. Twenty members, village-working committee is constituted to monitor this work. Three members are office bearer. The money received from farmers (25%) were deposited in Bank on name of the office holder for future maintenance work. KVK also organized training programme for farmers to learn to solve above problem and fully participate in project. Farmers were very happy as due to recharging they irrigate best quality water to *rabi* crops, learn crop water requirement, water table of village increases. This project created awareness of farmers about recharging of tube well, better use of rain water, enhances people participation in water conservation and started adopting various farm practices related to collection and storage of water, in-situ moisture conservation practices.



Field Day

A field day was organized on “**Tomato hybrids and production practices for summer cultivation**” on **21-06-2012** at **D. Hosahalli, Chikkaballapura District, Karnataka**. This trial was carried out under NICRA to evaluate heat tolerant tomato hybrids & lines using drip and black polythene mulch to improve the productivity of tomato during summer season.

A total of 140 farmers participated in the event. Three hybrids (Arka Samrat, Arka Rakshak & private seed company hybrid Basha) and two breeding lines from AVRDC, Taiwan (IIHR-2855 and IIHR-2856) were raised for field trial during summer 2012 . The tomato grower Mr. Chandrappa opined that Tomato hybrid **Arka Rakshak** developed at IIHR, performed better and is suitable for cultivation during summer with good fruit set. It has excellent fruit quality attributes such as square round firm fruits with good transportability. It has yield potential up to 35-40 t/acre. Drip irrigation coupled with fertigation & black polythene mulch has advantages such as judicious use of irrigation water & fertilizers and effective control of weeds there by reducing cost of production.



National Initiative on Climate Resilient Agriculture
Central Research Institute for Dryland Agriculture, Hyderabad-500 059
Tele fax: 040-24535336; e-mail: coord.nicra@gmail.com