

**Proceedings of RuTAG Regional Workshop Rajasthan held on December 26-27, 2011 at Maharana Pratap University of Agriculture & Technology, Udaipur.**

The RuTAG Regional Workshop Rajasthan was held on December 26 - 27, 2011 at Centre for Technology & Engineering (CTAE) Maharana Pratap University of Agriculture & Technology (MPUAT), Udaipur under the Chairmanship of Prof. R.R.Gaur, Chairman, Core Group, RuTAG-IIT Delhi and Dr. N. S. Rathore, Dean, CTAE, MPUAT, Udaipur as the Chief Guest. The list of participants is at Annexure.

Dr. N K Jain, Associate Professor, Department of Processing & Food Engineering, CTAE, MPUAT, Udaipur apprised about the background of the Workshop.

Dr. V.D. Mudgal, Head, Department of Processing & Food Engineering, CTAE, MPUAT, Udaipur delivered welcome address. He told about various technologies and machines developed in the Department.

Prof. Rajendra Prasad, Co-ordinator, RuTAG-IIT Delhi presented the background of RuTAG. He apprised about the Principal Scientific Advisor to the govt. of India's concerns regarding Science & Technology support to rural masses. He informed that RuTAG activities are going on in six IITs including IIT Delhi. He emphasized that any technology related demand driven problems in rural areas may be identified under RuTAG. The existing technology available concerning the solution to the problems and available R&D institutions which are working on the related problems will be identified to address the problems and find out solutions. He also mentioned about the various activities undertaken under RuTAG-IIT Delhi, CRDT and MGIRI, Wardha in the various fields like energy particularly use of animals, especially Bullocks power in agriculture and Food processing related technologies.

Dr. N. S. Rathore, Dean, CTAE, MPUAT, Udaipur, who was Chief Guest of the inaugural session welcomed and addressed the participants. He expressed gratitude towards the RuTAG-IIT Delhi for conducting the Workshop at CTAE, MPUAT, Udaipur. He assured full cooperation from CTAE, MPUAT for furthering the objectives and activities of RuTAG-IIT Delhi.

Prof. R.R. Gaur, Chairman Core Group, IIT Delhi and Chairman of the Inauguration Session addressed the participants. He emphasized on eco-friendly and sustainable technologies for rural masses. He also mentioned about experiences related to various activities undertaken under KVIC interface and MGIRI, Wardha. He stressed on value addition in agriculture. He indicated for networking of some institutions for extending the technology to the target groups in rural areas.

Prof. Rajendra Prasad, Co-ordinator, RuTAG -IIT Delhi informed the participants regarding the various sessions of the Workshop.

Dr. Jagpal Singh extended vote of thanks to the dignitaries and participants.

Dr. N. S. Rathore, Dean, CTAE, MPUAT, Udaipur made a detailed power point presentation on Solar drying technology. Various type and size of Solar Tunnel Dryers for different agricultural products were deliberated upon.

Prof. A K Kurchania, Deptt. of Renewable Energy, CTAE, MPUAT, Udaipur made a presentation on Biogas Technology.

Dr. V.D. Mudgal, Head and Dr. N K Jain, Associate Professor, Deptt. of Processing & Food Engg., CTAE, MPUAT, Udaipur deliberated on Garlic processing and other food processing technologies and machineries developed at Department of Processing & Food Engineering, CTAE, MPUAT, Udaipur.

After that the participants visited the Garlic processing unit where Garlic Processing machines such as Garlic Grader, Garlic Bulb Breaker, Garlic Clove Flaker, Dry Garlic De-skinner, Fresh Garlic Clove peeler and other food processing machines were demonstrated. Later, the participants visited the Renewable energy centre where various types of Biogas models, Smokeless Chulhas, Pyrolysers and Brequetting machines were demonstrated.

In the evening an open discussion regarding the technology related problems/needs identified by the NGOs who participated in the workshop was arranged. The representatives of different NGOs raised following problems, The solutions of these problems were also discussed in the workshop, the brief of which is given below:

Sl. No.	Name/ NGO	Problem	Action
1	Shri Hanuman Sharma KIGS, Jaipur	Groundnut digging and Groundnut Threshing machine	Contact Dr. G.S. Tiwari, Farm Machinery, CTAE
2	Sri Ashok Kr. Sharma Shivaji Sansthan Tonk	Fluoride in drinking water	Contact Prof.A.B.Gupta MNIT, Jaipur
3	Shri Mota Ram SARA, Sikar	Fluoride in drinking water	Contact Prof. A.B. Gupta, Civil Engg. Deptt. MNIT, Jaipur
4	Shri Hanuman Sharma KIGS, Jaipur	Training to masons in Biogas construction and repairing	Contact Dr. Kurchania for training and advice. Send a letter to Dean,

			CTAE about the problem
5	Ms. Mamta Singh Chouhan SCOPE, Pilani, Jhunjhunu	Processing of Lac	Contact Dr. B K Dwivedi.
6	Shri Sanjeev, SRK Jhunjhunu	Using Biogas for multifarious activities/ Commercial use of Biogas	RuTAG-IITD can help
7	Shri Bhupendra Paliwal, Dalmia Seva Sansthan, Chirawa	Alarm at overflow and below 10% of water in the Water storage tank	Shortlisted to be addressed by RuTAG-IITD
8	Shri Laxman Singh, GVNML Lapodia, Dudu, Jaipur	Harvesting Machine for Gram Crop	Contact Dr. Y C Bhatt, CTAE
9	-do-	Rainwater harvesting tanks are available, needs water lifting device	Shortlisted to be addressed by RuTAG-IITD- ADWP/ Treadle Pump
10	Shri Ganesh Purohit JJVS, Udaipur	Technology for sustainable harvesting of medicinal herbs, Processing of Ayurvedic medicines, Technology for production of milk products- Curd, Whey, Ghee. Value addition and marketing of Pumpkin, Decorticator for Karanj and Castor.	CTAE, RuTAG-IITD & JJVS Can collaborate to find technological solutions

On 27<sup>th</sup> December, 2011, the problems/needs emerged during the open discussions held on previous day were reviewed and following decisions were taken in the presence of Dean and HODs of CTAE, MPUAT; RUTAG-IIT Delhi Offices and the representatives of the NGOs:

1. The representatives of the NGOs who have raised such problems/needs, the solutions of which are available with CTAE will contact concerned person at CTAE.
2. Regarding problem of Fluoride in drinking water, the concerned NGOs will contact Prof. A.B. Gupta at MNIT, Jaipur.
3. For processing of Lac SCOPE may contact Dr. B K Dwivedi, Bioved Foundation at Allahabad.
4. RuTAG-IITD can help for using Biogas for multifarious activities/ Commercial use of Biogas and Alarm at overflow and below 10% of water in the Water storage tank.

5. RuTAG-IIT Delhi can help for lifting water from the tank by Animal Drawn Water Pump/ Treadle pump.

6. Gramin Vikas Avam Takniki Anusandhan Sansthan Chhipabarod may consider to depute the interested SHG/target group/to KVK, Antah with raw material (Garlic) for training cum processing of garlic at KVK and arrange the marketing of processed products themselves. The CTAE will direct the KVK to allow the deputed SHG group to use the machines available with KVK.

7. CTAE, RuTAG-IITD & Jagran Jan Vikas Samiti, Udaipur can collaborate in technological solutions for:

- I. Technology for sustainable harvesting of medicinal herbs,
- II. Processing of Ayurvedic medicines,
- III. Technology for production of milk products- Curd, Whey, Ghee.
- IV. Value addition and marketing of Pumpkin,
- V. Decorticator for Karanj and Castor.

The Chairman concluded the workshop with thanks to the representatives of the NGOs for their active participation, the Dean and all the Heads of the Departments and the Staff of CTAE, MPUAT, Udaipur for their cooperation, support, facilities provided and active participation to make the Workshop success.

The participants visited the Agriculture Machinery Unit at CTAE. Dr. Y. C. Bhatt and Dr. G.S. Tiwari, Farm Machinery, CTAE told about the functioning of various machines to the participants.

The meeting ended with a vote of thanks to the Chair.

(Prof. Rajendra Prasad)  
Coordinator/PI, RuTAG-IITD

(Prof.R.R. Gaur)  
Chairman, Core Group, RuTAG-IITD.