

**Farmers' Awareness Programme**

**On**

**“Gramin Krishi Mausam Sewa”**

**(28 March 2015)**

**Location: Keshpur, Paschim Medinipur**



**AMFU, KHARAGPUR (RED & LATERITIC ZONE)**

**Agricultural and Food Engineering Department  
Indian Institute of Technology Kharagpur  
Kharagpur-721302**

Agriculture is the backbone of our national economy and a major share of our country's population is dependent on agriculture. However, the uncertainties associated with the weather parameters pose major threat to crop production and livelihood of the farming community. Weather calamities like storm, drought, floods etc. greatly reduce agricultural production. Also, any abnormality in weather conditions may lead to delayed farm operations and increased pest and disease outbreaks. These uncertainties, to a certain extent, can be overcome by assisting the farmers in developing their adaptive capacity with improved planning and better management decisions. Recent techniques for advance prediction of climate/weather helps in better decision making to reduce these uncertainties and farmer's risk. Hence, to cope up the adverse weather parameters the farmers are to be updated with the latest agricultural technologies from time to time through awareness programmes.

In view of these, Agrometeorological Field Unit (AMFU), Kharagpur has organized a one day farmers' awareness program "**Gramin Krishi Mausam Sewa**" on 28 March, 2015 at Keshpur village of Paschim Medinipur district. The main objective of the programme was to bring awareness to farmers pertaining to weather forecasting services of AMFU, Kharagpur and to use the information for timely farm operations like field preparation, selection of sowing time, scheduling irrigation, fertilizer application, insect pest management and harvesting of the crop.

**Schedule of programme:** As per Annexure I

#### **Field visit**

During the first half of the day, a field visit was arranged to the participants. During this visit the participants along with the technical expert committee members closely monitored the standing crop of various cropping systems followed in the area and their performance. Rice is the predominant crop, grown widely in that area during kharif season (rainy season). After rice, farmers prefer potato, mustard, lentil, peanut and wheat, and some winter vegetables like cauliflower, brinjal, onion etc. during the post rainy season. It was observed that potato and mustard grown in the area are highly susceptible to weather abnormalities like increased pest and disease incidence leading to a partial yield loss or complete crop failure. Further, the participants were exposed to new cultivation techniques like growing pointed gourd on trellies and cucumber as ground creeper at the same time thus fetching more income to the growers. Further, in groundnut, raised bed sowing (2 row and 3 row) and furrow irrigation was adopted to save water. The participants also visited fields with various standing crops like cucumber, bottle gourd, ladies finger, brinjal, onion, muskmelon and leafy vegetables and interacted with local farmers regarding their cultivation practices and exchanged their experiences in the presence of technical expert committee members. It was also observed that the practice of growing sesamum in summer season is common in the area. The field visit was followed by guest lectures and interactive session with farmers.



Technical expert committee and farmers monitoring raised bed furrow system in groundnut



A good crop of muskmelon in farmers field



Double cropping of pointed gourd(trellies) and cucumber in farmers field



Ladies finger crop in farmers field



Programme leader evaluating the groundnut crop performance



Potato grown with advisory ready for harvest at farmers field

### **Suggestions given in farmer awareness program**

In the second half of the day, lectures on the specialized topics were given by the expert group. In the beginning, programme nodal officer (AMFU, Kharagpur) Dr. Dillip Kumar Swain briefly introduced about the project details and benefits of the programme to farmers. He appealed to farmers to go for weather forecast based decision for crop management like changing the sowing time, selection of suitable crops. Also, suggested farmers to take up field operations like spraying of pesticides, fertilizer application by following real time based agromet advisory bulletins that is regularly issued on Tuesday and Friday by AMFU, Kharagpur for the four districts (West Midnapur, Purulia, Birbhum and Bankura) so that input efficiency can be improved. Afterwards, Dr. S. Bandyopadhyay (Director, RMC, Kolkata) addressed the farmers and delivered a lecture on 'Weather forecasting and its usefulness for farmers in Eastern India'. During his lecture, he emphasized on contingency crop planning under unfavourable weather conditions. He also

explained about the different types of weather forecasting (long-term, medium-term and short-term) and their importance in agriculture and farm operations. He suggested farmers to apply irrigation to the field crops using short-term rainfall forecasting information which is also helpful in disease pest management in relevance with late blight in potato and sawfly/aphid incidence in mustard. Dr. Bondopadhyay also suggested to grow less water requiring crops like maize in place of highly water requiring rice crop during low rainfall expecting years. Therefore, weather based crop calendar before the season commences, especially with respect to the quantity of the rainfall, its commencement and ending is essentially required. Also, he urged farmers not to grow boro rice which is the main reason for fast decline of water table in this region. The dissemination of weather forecast through SMS, how to study the SMS information and how the SMS may be used for different agricultural operations was explained to the farmers. Prof. B C Ghosh, Department of Agricultural and Food Engineering, IIT Kharagpur addressed the farmers on how to minimize the negative impact of weather on crop production by following organic based farming and adopting greenhouse/polyhouse technologies. As crops under organic based production system have potential to survive under longer dry spell and more resistant to insect pests are often proved effective under less rainfall years. Meanwhile, through polyhouse techniques we can avoid the adverse weather. He stressed the need of establishing small scale vermicompost production unit in each farm house for ensuring the compost for organic crop management. Dr. Bhattacharya, Assistant Director of Agriculture, West Medinipur explained the farmers regarding how to get the help from crop insurance during a severe crop failure due to abbarant weather conditions. Farmers were encouraged to work through self-help group and get the advantages of government schemes of different agricultural inputs like advance irrigation systems, seeds of different crops etc. Dr. Roy, Deputy Director of Agriculture interacted with farmers regarding the importance of implementation of agro-advisory services in the context of climate change and emphasized the need of quality produce to get more income. Dr. P B S Bhadoria, Department of Agricultural and Food Engineering, IIT Kharagpur delivered a lecture on “Rural Technology for livelihood improvement” and informed the farmers about latest technologies in small scale production units to increase efficiency of human labour in general and woman labour in particular. At the end, the impact points of the interactive session was briefed by Dr. Bondopadhyay to the participants.



Active participation of farmers during farmers awareness programme



Expert team on the dias during farmers awareness programme



Interactive session



DDA addressing the farmers during the programme

### **Farmers response and feedback**

A good response among the farmers was observed about the agromet advisory services provided by the AMFU, Kharagpur. A NGO's organisation Shaid Kshudiram Seva Samity at Keshpur attended the programme and emphasized that there is every need of organizing such programmes from time to time so as to bring more awareness among farmers about the weather forecasting and weather based agro-advisory services. Farmers were interested and came forward to adopt organic farming, vermicopost production, mixed farming, drip irrigation, and crop diversification for sustainable production.

### **Contact:**

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## Indian Institute of Technology Kharagpur

### Farmer Awareness Programme on “Gramin Krishi Mausam Sewa”

**Location:** Field Demonstration Site at Keshpur

**Date and time:** 28 March 2015 from 9:30 to 15:30 Hours

#### Schedule:

	Time
<i>Registration</i>	9:30 to 10:30
<i>Field visit</i>	10:30 – 11:30
<i>Inaugural Meeting</i>	11:30 – 12:00
Welcome and introduction about the project (Nodal Officer, AMFU Kharagpur)	11:30 – 11:40
Address by Director, RMC, Kolkata	11:40– 11:50
Address by DDA, Paschim Mednipur	11:50– 12:00
<i>Farmers’ Interactive session</i>	12:10 – 14:30
Weather forecasting and its usefulness for farmers in E. India (Dr. S. Bandyopadhyay)	12:10– 12:30
Agromet-advisory dissemination and crop planning (Dr. D. K. Swain)	12:30– 12:50
Organic farming for sustainable production (Prof. B. C. Ghosh)	12:50– 13:10
Rural Technology for livelihood improvement (Prof. P.B.S. Bhadoria)	13:10– 13:30
Farmers awareness on advanced technologies and Agromet advisory : WB Govt official (Mr. Bhattacharya)	13:30– 13:50
Questions from Farmers and Responses	13:50– 14:10
Farmers’ Feed back	14:10– 14:30
Lunch	14:30– 15:30
Departure to campus	15:30