



ग्रामीण कृषि मौसम सेवा GKMS-News

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In this issue

- ◆ International Activities
- ◆ National Activities
- ◆ Workshop
- ◆ Awareness Programmes
- ◆ Lectures
- ◆ Training
- ◆ Visit of overseas scientists
- ◆ Publications
- ◆ Visitors
- ◆ Upcoming events

International Activities



- ◆ Dr. N. Chattopadhyay, Scientist F, Head, Agrimet Division attended the mini-workshop on “Consolidating learning about user engagement from Research and Practice: Towards the development of Hydro-climatic Services” organized by Watershed Organization Trust (WOTR) and the University of Leeds, UK on 16th May 2017 at WOTR Pune.
- ◆ Shri. R. Balasubramanian, Scientist D attended 9th International Training Workshop on “Climate variability & prediction” organized by National Oceanic and Atmospheric Administration (NOAA)/ CPC-USA during 13-21 April 2017 at IITM, Pashan, Pune.

National Activities

Workshops/ Seminars

- ◆ Dr. K. K. Singh, Scientist F and Head AASD and Shri K. Santosh, Scientist E, IMD, New Delhi participated in one day workshop on “Delivery of Agromet Advisory through SMS ” jointly organized by IMD and Govt of Karnataka at Vikas Soudha Bangalore on 29th May 2017. Workshop was inaugurated by Agriculture minister of Karnataka and Dr. K. J. Ramesh DG, IMD, New Delhi gave the keynote address.
- ◆ Dr. K. K. Singh, Scientist F and Head AASD attended “Brainstorming session on “Planning for *Kharif* agriculture in view of Monsoon 2017” organized by Uttar Pradesh Council for Agriculture Research (UPCAR) on 7th June 2017 at Lucknow. He gave a lead presentation on “Monsoon 2017 weather forecast and Agromet Advisories”.
- ◆ Dr. K. K. Singh, Scientist F and Head AASD, IMD, New Delhi attended workshop on “Emerging Applications of Space Technology in Agriculture and Allied Sectors” organized by Space Application Centre, ISRO and Ahmedabad during 28-29 June 2017 at SAC Ahmedabad. He delivered a presentation on “Value added agro-met product requirement from space for farmers’ advisory service in India”.
- ◆ Dr. N. Chattopadhyay, Scientist F and Head, Agrimet Division, Pune participated in “User’s workshop on weather forecasting services in Maharashtra and emerging sectors” organized by RMC Mumbai, in coordination with Government of Maharashtra at Council Hall, Divisional Commissioner’s Office, Pune on 25th May 2017.
- ◆ Dr. N. Chattopadhyay, Scientist F and Head, Agrimet Division, Pune attended workshop “Emerging Applications of Space Technology in Agriculture and Allied Sectors” organized by Space Application Centre, ISRO Ahmedabad during 28-29 June 2017 at SAC Ahmedabad and gave presentation on “Global Scenario and issues of operational Agromet Advisory Services.



- ◆ Dr. N. Chattopadhyay, Scientist F and Head, Agrimet Division, Pune participated in the National Conference on “Developing Climate Services: along weather forecast for Building climate smart farmers” organised by National Council for Climate Change, Sustainable development and public leadership (NCCSD), Ahmedabad in Co-operation of Govt. of Gujarat and Anand Agriculture University (AAU) on 30th June 2017 at AAU Anand.



- ◆ Shri Anand Sharma, Scientist F, IMD, New Delhi participated in “ 2nd User Conference” at Shimla on 15th June 2017 and made a presentation on "Agro Advisory Services for Western Himalayan Region". The conference was chaired by, Additional Chief Secretary, Himachal Government, Shri Tarun Sridhar.



- ◆ Shri Anand Sharma, Scientist F and Smt. Priyanka Singh Scientist B, IMD, New Delhi participated and Shri Sharma delivered a talk on "Gramin Krishi Mausam Seva: Current Status and Future Plans" at the Stakeholders meeting of Agriculture Officers of Bihar Government at Patna on 15th April, 2017.
- ◆ Shri Anand Sharma, Scientist F and Dr. Ranjit Singh Scientist F, IMD, New Delhi participated in the “National Conference on Agriculture for *Kharif* Campaign 2017” at Vigyan Bhavan, New Delhi during 25-26 April 2017 and were one of the panelists for the group discussion on Pradhan Mantri Fasal Bima Yojana.
- ◆ RMC Chennai, Tamil Nadu participated in one day workshop on “Delivery of Agro-meteorological Advisory Services through SMS” on 29th May 2017 at Bengaluru, Karnataka.
- ◆ Dr. Kailas K. Dakhore, Principal Nodal Officer, Parbhani, Maharashtra attended a workshop on “Emerging Applications of Space Technology in Agriculture and Allied sectors” SAC, ISRO, Ahmedabad during 28-29 June 2017.

Media interaction

- ◆ Shri Anand Sharma, Scientist F, IMD, New Dehli was interviewed on “ Weather based Agromet Advisories” by Lok Sabha TV on 6th June 2017 by DD Kisan TV on 12th June 2017 and by Doordarshan TV and AIR Shimla on 15th June 2017.



- ◆ Dr. S. D. Attri, Scientist F IMD, New Dehli participated in one-hour programme on “Monsoon and Agriculture” at Doordarshan, New Delhi on 1st June 2017.

- ◆ Farmers database of about 1.56 Crore, 18.9 Lakh, 27 lakh 50 thousand, 16 Lakh, 2.5 Lakh, 16880 farmers were arranged from the states Uttar Pradesh, Kerala, Karnataka, Madhya Pradesh, Telangana and Tripura respectively. Data has been collected by the active coordination between Regional Coordinators and State Agriculture Department. Database of farmer’s information will be used for sending Agromet advisories by SMS.
- ◆ **Important policy decision taken**
 - ⇒ RFP for “Dissemination Of Agromet Advisory Bulletins To 9.5 Crores Farmers Through SMS On Web Based Application Platform” was prepared and submitted on 25th April to CPU, IMD.
 - ⇒ Tender for SMS dissemination of Agromet Advisory was issued on 9th June, 2017 with closing date on 29th June, 2017.
 - ⇒ List of 100 new KVKs has been identified and finalized for District Agromet Field Unit establishment. Combining the earlier 100 KVKs, total 200 KVK has been identified for DAMU establishment till now.

Meetings attended by Officers of IMD

- ◆ **Dr. K. K. Singh, Scientist F and Head AASD and Dr. S. D. Attri, Scientist F, IMD, New Dehli** attended the meeting on “Implementation of GAMES for dissemination of weather forecast and crop advisory to farmers” organized on 13th June 2017 at Rajiv Bhawan, New Delhi.

◆ **Shri Anand Sharma, Scientist F, IMD, New Dehli .**

- ⇒ Brainstorming meeting on MoES project on “Modernization of Weather and Climate Services” on 13th April 2017.
- ⇒ Meeting with Shri B. M. Sahare, Additional Director of Agriculture, Madhya Pradesh Government in Delhi regarding “Strengthening of Gramin Krishi Mausam Seva” on 26th April 2017.
- ⇒ Meeting at Krishi Bhavan on 3rd May 2017 and made a presentation on Rainfall indices. The meeting was chaired by Shri S. K. Pattanaik, Secretary, Agriculture, Cooperation and Farmers Welfare Ministry of Agriculture.
- ⇒ GKMS meeting with Principal Secretary Dr. Raj Rajoura, Madhya Pradesh government at Bhopal Secretariat on 18th May 2017 and also delivered a talk on “GKMS activities” to senior officers of State agricultural Department at M.C. Bhopal.
- ⇒ Meeting at Krishi Bhavan on 24th May 2017 for Drought management/ Monitoring. The meeting was chaired by Shri Srinivas, Joint Secretary, Agriculture, Cooperation and Farmers Welfare Ministry of Agriculture.

◆ **Dr. S. D. Attri, Scientist F, IMD, New Delhi.**

- ⇒ Meeting of National Level Monitoring Committee for Insurance held under the Chairmanship of Secretary, Agriculture, and Govt. of India at Vigyan Bhavan on 17th April 2017.
- ⇒ Meeting on Aeroponics System held under the Chairmanship of Secretary, Agriculture, and Govt. of India at Vigyan Bhavan on 17th April 2017.
- ⇒ Meeting on Aeroponics System held under the Chairmanship of Honble Minister for Earth Sciences at MoES on 25th April 2017.
- ⇒ The discussion of DAC & FW’s proposed programme on Space Technology for Agriculture on 25th April 2017 at, Pusa campus, New Delhi.
- ⇒ Meeting at Krishi Bhavan on 7th June 2017 for Drought management / Monitoring chaired by, Addl. Secretary, Agriculture, Cooperation and Farmers Welfare Ministry of Agriculture.
- ⇒ Standing Advisory Committee of MoES on Exhibitions on 8th June 2017 at MoES New Delhi.

◆ **Dr. N. Chattopadhyay, Scientist F and Head, Agrimet Division, Pune.**

- ⇒ “Irrigation scheduling and mapping for real time implementation for preparation of Agromet Advisories under GKMS project” meeting on 11th April 2017 at IITM, Pashan, Pune.
- ⇒ “Climate Adaptation and Services for Water Food and Health Security” meeting organized by the Watershed Organization Trust (WOTR), Pune on 24th April 2017 at Four Points by Sheraton, Pune.
- ⇒ “State Level *Kharif* Season Reviewing meeting 2017” in Yashwantrao Chavan Pratishthan, near Mantralaya, Mumbai on 28th April 2017.
- ⇒ “Briefing on the Agrometeorological Weather Forecast” organised by Sakal press Pune on 5th May 2017.
- ⇒ “45th Joint Agricultural Research and Development Meeting (Joint-Agresco-2017)” at “Vasantrao Naik Marathwada Krishi Vidyapeeth” (VNMKV) Parbhani and presented the prospects of ensuing monsoon-2017 with particular reference to the performance of *Kharif* crops in Maharashtra on 29th May 2017.
- ⇒ “The Review meeting of Agromet Division of IMD” on 13th June 2017 at Prithiv Bhavan MoES New Delhi to review the progress of major activities of Agromet division.



- ◆ **Dr. Kamaljit Ray, Scientist F, IMD, New Delhi** attended a meeting on strengthening of outreach of district wise Agromet Advisory by dissemination of the message directly through SMS with Principal Secretary to Govt., Dept. Of Agriculture & Farmer's Empowerment, Govt. of Odisha on 15th April 2017 in his Office at Bhubaneswar.

- ◆ Dr Ranjit Singh, Scientist F, IMD, New Delhi participated in the GKMS meeting with Director Agriculture Dr. Gyan Singh, Uttar Pradesh government on 18th May, 2017.
- ◆ Shri K. Santosh, Scientist E, IMD, New Delhi attended a meeting under the chairmanship of Additional Chief Secretary, Govt. of Karnataka at Bangalore on 17th April 2017 regarding sharing of database of farmers to IMD and utilising meteorological data under Karnataka State network of observatories and rain gauge stations for issue of block level Agromet Advisories.
- ◆ All the officers of the Agromet Division, IMD attended review meeting taken by Secretary, MoES on 13th June 2017 in the Meghdoot Hall, Prithvi Bhavan, MoES. A brief presentation was made on the current status of Agromet observations, outreach to farmers, plans/roadmap for the procurement of new AWS for DAMU and generation of soil moisture at 0.25 deg resolutions using gridded rainfall data.
- ◆ Shri Manmohan Singh, Scientist-E and Head, MC Shimla attended meeting of “ State Level Co-ordination Committee on Crop Insurance (SLCCI) for *Kharif* 2017” on 29th April 2017 at Secretariat, Shimla, Himachal Pradesh.
- ◆ Shri Manmohan Singh, Scientist-E and Head, MC Shimla attended a meeting with Additional Chief Secretary, Agriculture Directorate, Govt. of Himachal Pradesh, regarding implementation of taluka level Agro Advisory Services along with Shri. Anand Sharma, Scientist F and Regional Coordinator of Agro Advisory Services.
- ◆ Shri S. S. Mairal, Met B., attended the Nowcasting meeting of Doordarshan Pune & Mumbai held at Mahatma Phule Krishi Vidyapeeth (Agricultural University), Rahuri, Ahmednagar, Maharashtra on 13th June 2017 and briefed about Agromet Advisory to be recorded and telecasted on DD channel.
- ◆ Dr. V. K. Mini, Scientist D attended a meeting on 10th April 2017 in the chamber of Agriculture Production Commissioner and Principal Secretary, Agriculture Development & Farmer’s Welfare Department, Govt. of Kerala to discuss the activities of “Agrometeorological Advisory Services under GKMS”.
- ◆ Shri N. T. Niyas, Scientist-C & Smt. Elizabeth Jacob, Met B attended a meeting of the Principal Agricultural Officers convened by the Director of Agriculture, Govt. of Kerala to discuss the strengthening of outreach of Agromet Advisory to the farming household on 12th June 2017.



Awareness Programme

Farmers’ Awareness Programme (FAP)



AMFU, Lembucherra, Tripura conducted Farmers’ training on “*Kharif* Rice Production under Variable Climate” on 28th June 2017 jointly organised with newly established KVK at West Tripura district. Training program was organised to address the monsoon anomalies and trained the farmers to adopt appropriate techniques to minimize the losses at Champaknagar under West Tripura District on 28th June, 2017. About 70 farmers (mostly female) were present in the program. Dr. K. K. Barman, Principal Scientist (Soil), Dr (Mrs) M. Chakraborty, SMS, KVK, West Tripura and Shri D. Daschadhuri, Technical Officer of GKMS Unit participate in the discussion.



AMFU, Jharnapani, Nagaland organized awareness cum farmer-Scientist interaction programme on “Role of weather based Agromet Advisory Services for the development of agriculture & allied sectors in Nagaland ” at Jotsoma village, Kohima district on 6th April 2017 to empower the farming community to adapt efficiently to climate change and enhance their farm productivity. Shri Romen Sharma, Technical Officer of GKMS Unit and other scientist informed farmers about the challenges in agriculture and allied sectors in the changing climatic scenario and role of Agromet Advisory Services under GKMS project in improving the agriculture. They also apprised the gathering on challenges faced by the fisheries farmers in the changing climate scenario and options for managing livestock production systems in the changing climate scenario.



AMFU, Sonitpur, Assam and Indo-Global Social Service Society (IGSSS) jointly organized FAP on 25th May 2017 on “Weather related information and importance of

Agromet Advisory Services” at Teokia village under the block Naoboicha of Lakhimpur district to make farmers aware of weather related information and Agromet Advisory Services based on which they can reduce crop loss and damage due to weather damage and take the advantage of congenial weather. Dr. Prasanta Neog, Nodal Officer of GKMS Unit delivered presentation on “Importance of Agromet Advisory Services in improving agricultural production both in terms of quality and quantity”. He explained about of functioning of GKMS and discussed some of the success stories of GKMS, Sonitpur.

15 white boards were distributed among the contact persons of IGSS S so as to facilitate the dissemination of Agromet Advisory in their villages of flood affected area covering 25 villages of Nowboicha and Telahi block of Lakhimpur district. During the programme



AMFU, Port Blair, Andaman & Nicobar Islands organized FAP on “Weather dependent organic input application and pest management” on 5th April 2017 at Neil Island in

collaboration with NABARD, R.O. Port Blair and agricultural department. Organic farming advocates growing of crops/ animals and using production strategies. Dr. A. Velmurugan, Nodal Officer of GKMS Unit displayed more than 10 organic inputs and briefed the gathering about GKMS services. He highlighted the usefulness of weather based agricultural operation to minimize the input cost and improve the input use efficiency. Shri Tapan K. Biswas, Technical Officer of GKMS Unit briefed about other social media to get the weather information.

Dr. S. Dam Roy, Director, ICAR-CIARI highlighted the importance of protecting the natural resources of the island and urged the farmers to be aware of weather. Shri Hemant B. Songadkar, General Manager, NABARD stressed the need for bringing positive synergy to develop Neil as organic model island.



AMFU, Rajouri, Jammu & Kashmir organized one day FAP on “Weather, Climate and Farmers” on 13th April 2017 at Mantlai district of Udhampur- to help farmer’s to manage weather related

uncertainties in day to day agricultural activities. Dr. Rohit Sharma, Technical Officer of GKMS Unit motivated the farmers to take maximum benefit from this programmes well as the services provided by AMFU and gave a detailed information on role of medium range weather forecast in agricultural crops under hilly conditions of Jammu & Kashmir. Dr. Mahender Singh, Head and Nodal Officer of GKMS Unit highlighted the role of Agro Advisory Services and different types of weather forecasting and explained effective irrigation practices in various crops based on available soil moisture. Also other subject experts delivered lectures on related subject.



AMFU, Pantnagar, Uttarakhand organised FAP on “Climate Change” on 10th June 2017 at Kopa Kripali, Gular Bhoj village, Gadar Pur block, Udham Singh Nagar.

Dr. R. K. Singh, Professor, Agrometeorology & Nodal Officer of GKMS Unit explained GKMS activities and objectives of organizing the FAP to farmers. Other subject experts also discussed about the changes in disease scenario of major crops affected by climate change of the region occurring since last 8-10 years and the changing scenario of plant diseases over a period of time and suggested the Integrated Approach for Biotic and Abiotic Stress management in Rice. They also apprised the farmers of the region about livestock farming and discussed about “How to make dairy farming profitable”. A field visit was also made to discuss with the farmers on the main crops that are grown viz. wheat, rice, vegetables and sugar cane.



AMFU, Nauni-Solan, Himachal Pradesh organised awareness camp on “Weather forecast based crop management practices” on 6th April 2017. Officers of GKMS Unit provided information

on weather parameter especially rainfall, maximum and minimum temperature and their roll in crop development. Registration of farmers under SMS services carried out for weather based advisories.



AMFU, Majihan, West Bengal participated in the Farmers Training Programme at DD KVK on "Importance of Weather forecasting & its implication on Aquaculture" on 23rd June 2017

and training cum farmer's awareness programme at Dakshin Dinajpur KVK on 26th June 2017 on "Weather forecasting and its implication in Horticultural crops". Officers of GKMS Unit informed about ideal climate and its effects on germination of horticultural seeds.

Field Visit



AMFU, Karaikal, Puducherry organized two field visits; one on 12th May 2017 under the guidance of Dr. A. L. Narayanan, Nodal Officer of GKMS Unit, and Dr. J. Gokila, Technical Officer and Smt

Indumathi, Agricultural Officer inspected the cotton fields at Neravy to disseminate the ill effects of flower drop due to weather aberrations.

Second field was made to inspect cotton field at Vadamattam village for the outbreak of disease in cotton especially wilt and recommended management practices to the farming community 21st June 2017.



Dr. A. L. Narayanan, Nodal Officer of GKMS Unit, AMFU, Karaikal, Puducherry participated in the Agricultural Technology Management Agency (ATMA) programme on weather

forecasting awareness among ATMA farmers at Athipadugai village along with Shri K. Madhialagan, Additional Director of Agriculture and Smt. Rajalakshmi and Smt. Malathy, Agricultural Officers on 20th June 2017.

AMFU, Kharagpur, West Bengal made two field visits : first on 15th April 2017 at Paparara village and second on 20th May 2017 at Jakpur village to inform farmers about weather services and weather based crop planning and management.



AMFU, Kalimpong, West Bengal made field visit on 20th April 2017 and 13th May 2017 for monitoring present crop status.

Officers of GKMS Unit informed about GKMS project and Weather based Agromet Advisory bulletin. Mobile numbers were collected for registration to get SMS.

AMFU, Nauni-Solan, Himachal Pradesh made diagnostic visit to different farms at Sproon valley, Kailer, Ghatti and Berti Villages on 27th April, 2017.

SAMC, Kolkata, West Bengal participated in "EIGHTH KRISHI FAIR-2017 " during 15th- 20th May 2017.

Lectures

- ◆ Shri Anand Sharma, Scientist F delivered invited talk on Rainfall indices and Meteorological parameters at the National workshop organised by National Institute of Disaster management during 1-2 May, 2017 respectively.
- ◆ Shri P. S. Rolling Anal, Technical Officer of GKMS Unit, AMFU, Barapani, Meghalaya delivered lecture on "Awareness Programme on Mobile based Agro Advisory System" organized by District Horticulture Office, West Garo Hills on 12th May 2017 at Tura.
- ◆ Shri Pandhurang Bobade, Research Associate, Agrometeorology Section, RMD CARS, AMFU, Ambikapur, Chhattisgarh delivered lecture in the DAESI Course on "Moisture stress" which organized by Department of Agriculture at KVK, Ambikapur, Surguja district on dated 18th June 2017.

- ◆ Dr. Mahinder Singh, Nodal Officer, AMFU, Chatha, Jammu & Kashmir delivered lecture on “Protective structure in lieu of climatic condition in Jammu region” in two days programme on “Protective cultivation for high tech nursery raising” for officers from Agriculture, Horticulture & Floriculture of state department (J&K) organized by SAMETI, SKUAST-J during 28-29 June, 2017.

Training programme

- ◆ Dr. P. Neog, Nodal Officer, AMFU, Sonitpur, Assam participated as a resource person in a skill development training programme on “Weather Forecast Analysis and Crop Planning” on 25th April at Panigaon, Lakhimpur organized by Indo-Global Social Service Society (IGSSS) Lakhimpur.

Visit of overseas scientists



Shri. Mossammat Ayesha Khatun, Deputy Director, Ministry of Defense, Bangladesh Meteorological Department (BMD), Shri. Kazi Mizanur Rahman, Project Manager, DRR & CCA, Shri. K. R. Viswanathan, International Climate Change Specialist, United Kingdom and two other scientists from the Government of Bangladesh along with Dr. T. N. Balasubramanian, Technical Consultant in Agronomy and Climatology visited GKMS project at Chennai center functioning in the department of Livestock Production and Management, Madras Veterinary College, Chennai-7 on 8th June 2017. Dr. A. Thennarasu, Technical Officer of GKMS Unit discussed with the scientists about the implementation and the importance of weather forecast and weather based advisories for Agricultural and Livestock in Tamil Nadu.

Publications

- ◆ Paper entitled “Validation of soil moisture derived from water balance method and satellite observation” by N. Chattopadhyay, S. S. Vyas, B. K. Bhattacharya, N. S. Tidke, and N. G. Dhangar was published in *Mausam*, Vol.68, No.2 (April 2017), Page No. 279-286.
- ◆ Attri, S.D., 2017, Global and Regional Climate Change Perspective, In: “Climate Change, Resource Conservation and Sustainability Strategies”, A. Kaushik et al (eds.), DBH Publishers and Distributors, New Delhi, ISBN: 9789384871086, 1-9.
- ◆ Spatial analysis of rainfall variability and rainfed rice crop using GIS Technique in West Bengal (India)” by P. K. Singh, L. S. Rathore, D. V. Bhaskar Rao, K. K. Singh, A. K. Baxla, S. C. Bhan, Akhiesh Gupta and Sompal Singh in *MAUSAM*, 68, 2 (April 2017), 287-298.
- ◆ MC, Bhopal, Madhya Pradesh : Presented article entitled ‘कृषि में मौसम निगरानी की जरूरत’ in Sangoshthi, Trivandrum, June, 2017.
- ◆ MC, Bhopal, Madhya Pradesh : Presented paper entitled ‘Thunderstorms in major cities of Madhya Pradesh – Acid test to forecast/ warning during SimhasthaMahakumbh’ by A. Kashyapi, IMS Kolkata Symposium, 29th April 2017.
- ◆ Shri Pandhurang Bobade, Research Associate, AMFU, Ambikapur, Chhattisgarh : Pandhurang Bobade, R. S. Sidar and C.R. Gupta published one leaflet on “बदलते मौसम के परिवेश में ग्रामीण कृषि मौसम सेवा की उपयोगिता” no. agromet sec./2016-17/ leaflet/01.
- ◆ AMFU, Srinagar, Jammu & Kashmir : Kanth, R.H, Nodal Officer and Ahmad, Latief, Technical Officer
 - ⇒ **Ahmad, Latief**; Kanth, R.H, Parvaze, Sabah (2017) Crop water requirement of major crops of Srinagar Kashmir. *Journal of Experimental Agriculture International* **15(2)**, 1-9.
 - ⇒ **Ahmad, Latief**; Kanth, R.H, Parvaze, Sabah (2017) Analysis of historical rainfall data for drought investigation by using SPI under temperate conditions of Srinagar Kashmir. *Pakistan Journal of Meteorology* Vol.13 (25) 42-51.
 - ⇒ Saqib Parvaze, **Latief Ahmad**, Sabah Parvaze and **Raihana Habib Kanth** (2017) Climate Change Projection in Kashmir Valley (J and K) *Current World Environment* Vol.12 (1) 99-107.

- ⇒ Kanth, R.H ;**Ahmad, Latief** and Parvaze, Sabah (2017) Problems and prospects of secondary and micronutrient management in India *SKUAST Journal of Research* 19(1): 29-52; (2017).
- ⇒ **Ahmad, Latief**; Kanth, R.H, Parvaze, Sabah &Parvaze, Saqib (2017) Reference evapotranspiration and crop water requirement of Apple (*Malus Pulmila*) in Kashmir valley (J&K) of India. *Journal of Agrometeorology*, 19(3), 67-77.
- ⇒ **Ahmad, Latief**; Kanth, R.H, Parvaze, Sabah &Parvaze, Saqib (2017) Parametric and Non-Parametric Time Series Trend Analysis of temperature and rainfall in Srinagar Kashmir. Accepted in *Ecscan Journal*.

◆ **News paper publication.** AMFU, Jharnapani, Nagaland.

- ⇒ Imtisenla Walling and Ph. Romen Sharma, Kisan Mobile Advisory Service – a service for the farmers. Published in Morung Express newspaper dated 5th May 2017.
- ⇒ Imtisenla walling, Maize cultivation and role of weather. Published in Morung Express newspaper dated 2nd June 2017.

Visitors

Meteorological observer, AMFU, Jharnapani, Nagaland apprised the farmers from different region of the state about the importance on different meteorological instruments on 8th June 2017 during the field day cum farmer-scientist interaction programme on pulse cultivation and promotion in Nagaland at its campus.



Upcoming events

Workshop on Developing a Drought Monitoring, Early Warning and Mitigation System for South America, Buenos Aires, Argentina on 8-10 August 2017 (more information : <http://www.wmo.int/pages/prog/wcp/agm/upcomingmeetings.php>)

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