

## FAI Activities

### Workshop on Balanced Use of Fertilizers and INM for Sustainable Agriculture

The Fertiliser Association of India-Western Region (FAI-WR) in collaboration with Anand Agricultural University (AAU), Anand organized a workshop on Balanced Use of Fertilizers and Integrated Nutrient Management (INM) for Sustainable Agriculture on 15<sup>th</sup> June, 2018. One hundred delegates from Fertilizer Industry, State Department of Agriculture (Government of Gujarat), AAU and other institutions attended the Workshop.

Mr. Sanjay Prasad, IAS, Additional Chief Secretary, Department of Agriculture and Cooperation, Government of Gujarat, Gandhinagar, was the Chief Guest at the inaugural session. Mr. B.M. Modi, Director of Agriculture, Government of Gujarat, Gandhinagar, was the Guest of Honour. Dr. N.C. Patel, Vice Chancellor, AAU, Anand, presided over the inaugural ceremony.

At the outset Mr. D.D. Khose, Regional Head, FAI-WR, Mumbai, welcomed the Chief Guest, Guest of Honour, Vice Chancellor of the University and other dignitaries from University, Fertilizer Industry and State Department of Agriculture. After formal words of welcome, Mr. Khose informed the audience that the FAI-WR has made attempt for the first time to organize this workshop with an objective of updating all the stakeholders on enhancing agricultural production through sustenance of soil health. He stated that balanced fertilization and INM offer twin benefits of enhancing crop production and improving soil health. He appealed to all the stakeholders to work together to propagate the balanced use of nutrients along-with organics including organic and green manures at the farmers' fields. Mr. Khose cited the nutrient consumption ratios across the states *vis-à-vis* country level to emphasize on the importance of



Mr. Sanjay Prasad lighting the lamp. Others seen in the picture are (L-R) : Dr. Arun Patel, Dr. Soumitra Das, Mr. D.D. Khose, Dr. N.C. Patel, Mr. B.M. Modi and Dr. K.B. Kathiria

balanced fertilization. He stated that currently at the national level N:P<sub>2</sub>O<sub>5</sub>:K<sub>2</sub>O consumption ratio is 6.7:2.7:1 compared to 63.6:21.7:1 in Rajasthan and 9.5:2.8:1 in Gujarat. For ensuring balanced fertilization, this ratio has to be brought closer to ideal 4:2:1. Mr. Khose mentioned that micronutrient deficiencies, which were unheard of during 1950s in the Indian soils, have assumed gigantic proportions with multi micronutrient deficiencies seriously constraining the farm productivity and pose a challenge to all the stakeholders in securing sustained soil health for posterity. He lauded the efforts made by the Government of Gujarat in propagating scientific farming among the farming community by way of organizing *krishi melas* well before the *kharif* season.

In his address as the Guest of Honour, Mr. B.M. Modi stated that the soil health is the heritage given by our earlier generations and it is our onerous responsibility to hand over the soils to future generations in the best state of health. He averred that India achieved self-sufficiency in food grain production through Green Revolution. Agricultural intensification however gave rise to second generation problems like progressive decline in the fertilizer

use efficiency of major nutrients and emergence of the deficiencies of secondary and micronutrients, etc. He reminded the audience that it is our responsibility to advise farmers on the scientific use of micronutrients, secondary nutrients and bio-fertilizers, etc. He exhorted fertilizer industry officials as well as dealers/retailers and other concerned to propagate the concept of balanced fertilization and INM for soil health and advise the farmers to apply fertilizers taking advantage of soil health cards. He expressed satisfaction that the water use efficiency had increased during last several years due to large scale adoption of drip and micro-irrigation system. Mr. Modi appealed to the officials to make only soil health-based recommendations of fertilizers.

While delivering his address as Chief Guest, Mr. Sanjay Prasad informed the audience that the Government of Gujarat has distributed 52 lakh soil health cards to the farmers and expressed confidence that the farmers would use organic fertilizers, vermicompost, cow dung slurry and other decomposed material for sustenance of soil health. Mr. Prasad appealed to the university officials to develop pamphlets for the farmers for increased and

efficient use of fertilizers and green manures and advised the dealers to guide the farmers on efficient INM. He suggested that all the four agricultural universities of the Gujarat State should come forward and revise the fertilizer recommendations for each and every crop grown in the State. He concluded his address by profusely thanking FAI for organizing the topical workshop for not only farmers but all for all the stakeholders with a clear message on how to keep soil health intact.

Delivering presidential address, Dr. N.C. Patel informed the audience that the crop response to fertilizer application is on declining trend. However, fertilizer use efficiency is more than 80 to 95% when 100 percent soluble fertilizers are applied with micro-irrigation system. He impressed upon all the companies to propagate the use of micro-irrigation in the days to come. He stated that the crop yields under micro-irrigation system are 2½ times more than the flood irrigation. Further deterioration of soil health is higher under flood irrigation. Dr. Patel congratulated the Gujarat

Green Revolution Company for doing an excellent job in increasing the area under micro-irrigation. He expressed happiness at the universities propagating the balanced fertilization and INM at farmers' fields. He made a fervent appeal to the authorities to make the bulletins and booklets published by Agricultural Universities reach the farmers as that will enable them to use the proper technologies to enhance the agricultural production of the State.

The topics covered in the workshop included Importance of Soil Testing in Optimum Use of Fertilizers by Dr. K.P. Patel, Principal & Dean, B.A. College of Agriculture, Anand; Industry Initiative for Promotion of Balanced Use of Fertilizers by Mr. N.S. Patel, SMM, IFFCO, Ahmedabad; Government Initiatives for Promotion of Balanced Fertilization by Mr. B.V. Vasoya, Joint Director of Agriculture (Extension), Government of Gujarat, Gandhinagar; Policy Initiatives to Promote application of Micro-nutrients for Sustainable Agriculture by Dr. Soumitra Das,

Director, South Asia, Zinc Nutrient Initiative, IZA, New Delhi; Integrated Nutrient Management to Improve Quality and Productivity of Crops by Dr. N.J. Jadav, Professor & Head, Department of Soil Science, B.A. College of Agriculture, Anand; Integrated Nutrient Management in Gujarat – Field Experience by Dr. M.V. Patel, Professor and Head Department of Agronomy, B.A. College of Agriculture, Anand and Enhancement of Farmer's Income –Ways & Means by Mr. Anil Patel, CEO, Gujarat Agro Industries Corporation, Gandhinagar.

During the concluding session, Mr. Nitin Shukla, Deputy Director of Agriculture (Fertilizers) and Mr. D.L. Patel, Deputy Director of Agriculture (Quality Control), Government of Gujarat, Gandhinagar addressed the participants and underlined the importance of promoting integrated nutrient management at farmers' level by all the stakeholders. Mr. A.N. Burujwale, Consultant, FAI-WR, Mumbai, proposed a vote of thanks.

### Balanced Use of Nutrients through Specialty Fertilizers

The Fertiliser Association of India-Southern Region (FAI-SR) organized a programme on Balanced Use of Nutrients through Specialty Fertilizers on 18<sup>th</sup> May 2018 at Krishi Vigyan Kendra, Gonikoppal in Kodagu district of Karnataka State. The programme was inaugurated by Mr. S. Narayanan, Chairman, FAI-Southern Region and Director (Marketing), Greenstar Fertilizers Limited, Chennai. Ninety three delegates comprising of fertilizer dealers, sales personnel of cooperative societies, progressive farmers, front line agricultural extension officers attended the programme.

In his inaugural address, Mr. S. Narayanan informed that the concept of balanced fertilization is very simple and is the key in enhancing nutrient use efficiency



Mr. S. Narayanan delivering the inaugural address. Others seen in the picture are (L-R) : Dr. K.A. Devaiah and Mr. Y.V.N. Murthy

of the applied plant nutrients for maintaining soil productivity. It ensures the application of fertilizers in optimum quantities and in right proportion through appropriate methods, which in

turn results in sustenance of soil fertility and crop productivity. Balanced fertilization leads to building up soil health, while imbalanced fertilization leads to soil mining and its sickness. It is

well documented that deficiency of any nutrient in crop plant results in low nutrient use efficiency and produces low and poor-quality yield. Therefore to obtain higher fertilizer use efficiency and better crop yield, a certain balance among the various nutrients is essential.

He informed that specialty fertilizers which include water soluble fertilizers, micro-nutrients, customized fertilizers, fertilizers fortified with micronutrients, bio-fertilizers, organic fertilizers and liquid formulations play a very important role in improving the quality and productivity of various crops. He further stated that loss of soil productivity is much more important than the loss of soil itself. Thus land degradation should be prevented before it arises, instead of attempting to cure it afterwards. The focus for Integrated Nutrient Management (INM) should be on sustaining the productive potential of the soil resources. Soil and plant nutrient management cannot be dealt in isolation but should be promoted as an integral part of productive farming system. With declining soil organic matter due to continuous cultivation without replenishing, the adoption of improved organic matter management practices are a prerequisite for restoring and maintaining soil productivity. The chemical, biological and physical properties of soils are improved and farmers get full benefits to enhance their farm income and sustain soil health with adoption of INM. He cautioned that buildup of surplus nutrients in excess of crop needs can lead to nutrient losses, representing not only a possible cause of economic inefficiency in nutrient use by farmers, but also a source of potential harm to the environment through water or air pollution.

In his address, Dr. K.A. Devaiah, Programme Coordinator I/c, KVK, Gonikoppal gave important tips to enhance nutrient use

efficiencies in traditional crops in general and plantation crops in particular. Integrated nutrient management is vital to improve nutrient use efficiency (NUE) and sustain soil health and minimize pest attack. Right type, right dose, right time and right method of application of fertilizers improve NUE. It needs to be advocated among the farmers by all concerned. He explained about the various activities of KVK for the over-all development of the farmers of the region. Enthused by the advice of Hon'ble Prime Minister of India that "Doubling of farm income is possible by buying every agricultural input at whole sale and selling every agricultural output at retail", the KVK helped in establishing Puthari Farmer's Producer Company (PFPC) Limited office within the premises of KVK. PFPC is technically advised by KVK scientists and helps the company in mobilizing the farmers in their business planning, etc. The main objective of PFPC is to engage the farmers in the activity of production, procurement, value addition and marketing and eliminate the middle man in the process. He informed that the farmers who are the members of the company are earning 20-25% more by selling their farm produce and save in purchase of inputs also. He thanked FAI for organizing the programme in KVK premises located in the interior area of Karnataka State for enlightening the dealers and farmers on various aspects of specialty fertilizers.

Earlier Mr. Y.V.N. Murthy, Regional Head, FAI-SR, Chennai welcomed the dignitaries and participants and explained in brief the objectives of the programme. He stated that this programme, being organized in collaboration with KVK, Gonikoppal under the administrative control of Indian Institute of Horticultural Research, will provide valuable inputs to the stake-holders of the plantation crops. He then underlined that production efficiencies are gained through the

INM practices as it promote combined use of mineral, organic and biological sources of plant nutrients in balanced proportion and ensure ecosystem sustainability against nutrient mining and degradation of soil and water resources. In plantation crops, use of fertilizer is often inadequate and imbalanced. Generally, occurrence of noxious weeds in plantation crops competes for the plant nutrients. Therefore, weed management is very important in horticultural crops. Monitoring and long-term vision of nutrient management especially in plantation crops like coffee is necessary. He informed that the specialty fertilizers play a greater role in nutrient management as these supply the nutrients in a scientific manner.

Mr. Murthy added that farmer's awareness about balanced and efficient use of fertilizers and level of adoption of farm technology needs to be updated by all concerned. Fertilizer dealers, sales personnel of cooperative societies, progressive farmers and front line agricultural extension/marketing officers are the important links in the process. They serve as an integral part of extension services. A well informed person having sound knowledge on improved farm practices and related aspects can easily win the confidence of his customers i.e. farmers and influence them greatly by providing advisory services.

The one-day workshop covered various important topics like Nutrient Management in Coffee by Dr. T.S. Adarsha, Deputy General Manager (R&D), MCF, Bangalore; Soil Fertility Status of Kodagu District by Dr. B. Prabhakar, Senior Scientist, KVK, Gonikoppal; Soil Health Rejuvenation by Mr. T.L. Raghu, Chief Area Manager, IFFCO, Mysore; Fertilizer Policy for Promoting Specialty Fertilizers by Mr. Y.V.N. Murthy; Customized Fertilizers by Mr. Krishna Kumar, Zonal Manager, NFCL, Bangalore; Nutrition Solutions for Plantation Crops by Fertilizer Companies by Mr. I.K. Rudrappa, Greenstar

Fertilizers Limited, Mr. Ramesh Kumar, Coromandel International Limited, Bangalore and Mr. A.H. Shedge and Mr. H.N.Kotresha, RCF Limited, Bangalore; Activities of

KVK for Overall Development of the Farmers of the Region by Dr.K.A.Devaiah; Activities of Puthari Farmer's Producers Company Limited by Mr. M.P.

Somaiah, Chairman, PFPC. The programme ended with a formal vote of thanks by Dr. B. Prabhakar, KVK, Gonikoppal.

## Fertilizer Orientation Course

The Fertiliser Association of India, Eastern Region (FAI-ER) organized a Fertilizer Orientation Course in collaboration with Bihar Agricultural University (BAU) and Indian Farmers Fertiliser Cooperative Limited (IFFCO) at the university campus, Sabour on 14<sup>th</sup> May, 2018. Two hundred four students participated in the course. Dr. A.K. Singh, Vice Chancellor, BAU, Sabour was the chief guest at the inaugural ceremony. Dr. R.K. Sohane, Director of Extension Education, BAU; Dr. Arun Kumar, Dean (Agriculture), BAU; and Mr. S.K. Choudhury, Joint Director (Agronomy), Bhagalpur, Government of Bihar were among the galaxy of dignitaries gracing the inaugural function. Dr. A.K. Singh inaugurated the course by lighting the lamp.

Dr. N. Chattopadhyay, Chairman, Department of Soil Science and Agricultural Chemistry, BAU, welcomed the dignitaries on the dais, representatives of the fertilizer industry, officials from the Government of Bihar and the FAI. Dr. Chattopadhyay described the collaborative programme organized by FAI as a glorious moment for the university and requested the participating students to listen to and interact with the speakers with due attention as that will help them in having better future professional development.

Dr. D.P. Patra, Regional Head, FAI-ER, Kolkata formally welcomed the dignitaries, faculty and students on behalf of the FAI. Dr. Patra gave the brief outline of the course being organized at the BAU campus, Sabour. He reiterated the importance of role played by fertilizer input in making India a food-grain surplus country. He touched briefly on fertilizer scenario prevailing in the country including production,



Dr. A.K. Singh giving the inaugural address. Others seen in the picture are (L-R): Dr. Arun Kumar, Dr. Sudarshan Dutta, Dr. D.P. Patra, Mr. S.K. Choudhury, Dr. R.K. Sohane and Mr. Divakar

consumption and import of fertilizers and crop response to NPK application. He emphasized on the importance of balanced fertilization in increasing food production on sustainable basis as that alone would be able to meet the food demands of the burgeoning population. He lauded the pro-active role played by the agricultural universities in making the country self-sufficient in food grain production.

Dr. Arun Kumar counted the initiatives undertaken by BAU in promoting the production and use of bio-fertilizers and compost and propagated their importance as components of integrated nutrient management (INM). He underlined the importance of micro-level planning for developing package of practices as per resource available with the farmer.

Dr. R.K. Sohane enumerated the background for holding the programme at BAU, Sabour. He highlighted the significant contributions made by high yielding varieties and fertilizers, two key inputs, in making Green Revolution a great success and the country self-reliant in food

production. He expressed concern that even after 55 years of Green Revolution, balanced fertilization still needed to be promoted and its benefits required to be articulated to convince the farmer. He shared with the trainees the initiatives undertaken by BAU to develop new package of practices for major crops grown in Bihar to raise farm productivity and income of the farmers.

In his inaugural address, Dr. A.K. Singh thanked FAI for holding the programme at the university and expressed his delight at the contents of the programme. He hoped that programme would help the students to know in detail about the state of country's agricultural situation in general and fertiliser industry in particular. Recalling the fertilizer consumption in the country and NPK use ratio in different states, Dr. Singh stated that West Bengal with NPK ratio of 2.5:1.3:1.0 is the most ideal one. He expressed happiness that Bihar with NPK ratio of 7.2:2.1:1.0 also moving steadily towards balanced fertilization. He touched upon the scientific use of fertilizer in overall agricultural development of the

country. Dr. Singh lauded the Government of India initiatives to double the farmers' income. He emphasized on the need for creation of additional infrastructure in all the states to achieve this feat. He stressed on the development of need-based technologies to serve more than 85% farmers belonging to small and marginal category endowed with fragmented land-holdings. He further added that the better utilisation of our limited resources should continue to be the prime agenda in every plan and programme.

Dr. Singh advised the students attending the programme to be with the farmers and work with them in taking agriculture of the country forward. In this connection, he mentioned about the programme ABHYAS of working with farmers through panchyat, being contemplated by ICAR. He

also touched upon the scheme of Government of India (GOI) in promoting organic corridor in Bihar, selection of 20,000 farmers in the state under the programme, support to be extended under the scheme by GOI, etc.

Mr. S.K. Choudhury dwelt on Fertilizer (Control) Order 1985 and its implications. He explained the essence of fertilizer in agriculture and need for bringing fertilizer under Essential Commodity Act. He spoke in detail on i) fertilizer dealers and minimum qualifications required to obtain authorisation letter for fertilizer business, ii) role of fertilizer inspectors and appellate authority, and iii) provisions as laid out under FCO to check sale of adulterated and sub-standard fertilizers.

Topics covered in the orientation course included i) Urea Manufacturing and its Process by

Mr. Dibakar Mishra, Joint General Manager, IFFCO, Phulpur; ii) Port Operation and Logistics by Mr. Soumen Sarkar, Regional Manager, TCL, Bhagalpur; iii) Farm Application of 4R Nutrient Stewardship by Dr. Sudarshan Dutta, Deputy Director, IPNI, Kolkata; iv) Fertilizer and Agriculture Scenario in Bihar and DBT in Fertilizer Sector by Mr. M.M. Mishra, Senior Marketing Manager, NFL, Patna; v) Activities Undertaken by IFFCO to Rejuvenate Soil for Maximisation of Crop Productivity by Mr. Dilip Kumar, IFFCO, Aurangabad and vi) Integrated Nutrient Management for Sustainable Agriculture by Dr. Anshuman Kohli, Professor, BAU.

Programme came to a close with vote of thanks by Mr. Rajendra Yadav, Chief Area Manager, IFFCO, Bhagalpur. ■

## U.S. AWASTHI IFFCO AWARDS 2018

*We have immense pleasure to announce the following U.S. Awasthi IFFCO Awards 2018 instituted by IFFCO, the largest Cooperative of Farmers in the world:*

- 1. "U.S. Awasthi IFFCO Award" for Life Time Achievement in the Field of Fertiliser Industry*
- 2. "U.S. Awasthi IFFCO Award" for Life Time Achievement in the Field of Agriculture Development and Agriculture Research*

*The value of each Award is INR 2.5 million Plus, a Gold Medallion and a Citation. The Awards will be given in FAI Annual Seminar on December 5, 2018 in New Delhi. Separate nominations are invited for the two Awards. The persons who have made extraordinary contributions in their chosen field of work in fertilisers and agriculture will be considered for these Awards. An outline of profile of potential candidates to be nominated would be required in a prescribed proforma. The proforma is available on FAI website: [www.faidelhi.org](http://www.faidelhi.org)*

***Nominations may be sent by September 30, 2018 to the following address:***

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