

**ICAR - INDIAN INSTITUTE OF PULSES RESEARCH  
KANPUR 208 024**

**A Brief report on Farmers' awareness campaign on "Balanced Use of Fertilizers" on 18.06.2021**

A farmers' awareness campaign on "**Balanced Use of Fertilizers**" was organized by Division of Crop Production, ICAR-IIPR, Kanpur on 18.06.2021 (2.30 to 5.00 p.m.) by ICAR-IIPR, Kanpur through Virtual Mode. Dr N.P. Singh, Director of the Institute was the chairman of this awareness Campaign while Dr SS Singh, Director Extension, RLBCAU Jhansi was the Chief Guest on the occasion. The details of usefulness of "**Balanced Use of Fertilizers**" were highlighted by five other speakers on this occasion. Besides a good number of farmers, the whole IIPR staffs including the personnel from its 4 regional stations participated (145 total) in this campaign. The programme was coordinated by Dr. C.S. Praharaj, Head, Crop Production Division, while Dr. C.P. Nath, Scientist, Agronomy acted as the Convenor.

At the outset, Dr. C.S. Praharaj, Head (Crop Production Division) welcomed the delegates and highlighted the importance of **Farmers' Awareness Campaign on 'Balanced Use of Fertilizers'**. He also highlighted the "Role soil testing in balanced fertilization" through a video prepared for the purpose. This was followed by address by the **Chief Guest, Dr. S.S. Singh (Director Extension; RLBCAU, Jhansi)**. He elaborately discussed and sensitized farmers on "*Role of balanced fertilizers in field crops including pulses*". Dr. Singh stressed on the need of '*Soil Health Card*' in minimizing chemical fertilizers and enhancing income. He also mentioned the concept of '*4R Nutrient stewardship*' (Right source, Right dose, Right time and Right place) for enhancing nutrient use efficiency and crop productivity. Dr. Singh urged farmers to adopt crop rotations involving pulses and to minimize excess use of fertilizers. He also mentioned about the usefulness of the organic farming and use of multiple sources of amendments (organics, biofertilizers, and micronutrients). He also emphasized the role of balanced fertilization on soil physical, chemical and biological health of soil.

**Dr. N.P. Singh, Chairman of the Awareness Campaign & Director, ICAR-IIPR, Kanpur** mentioned that ICAR-IIPR is working on holistic development for doubling farmer's income through several strategies including balanced fertilization and Improved varieties/technologies. He urged for insertion of key consideration, like inclusion of Pulses for cropping intensification, income and employment generation and nutrition. The chairman also suggested to farmers for active participation in many Govt. aided flagship programmes under NFSM such as NMSA, PMFBY, PMKSY, PKVY, Micro-irrigation, E-NAM, KCC, Soil health Card, PMKSNY, and PM-KUSUM (renewable energy-use). He also suggested for a mass awareness campaign (*Jana Andolan*) for balanced use of fertilizers coupled with improved technologies for a sustainable agriculture as it would lead to *self-sufficiency in food grain production* in time to come.

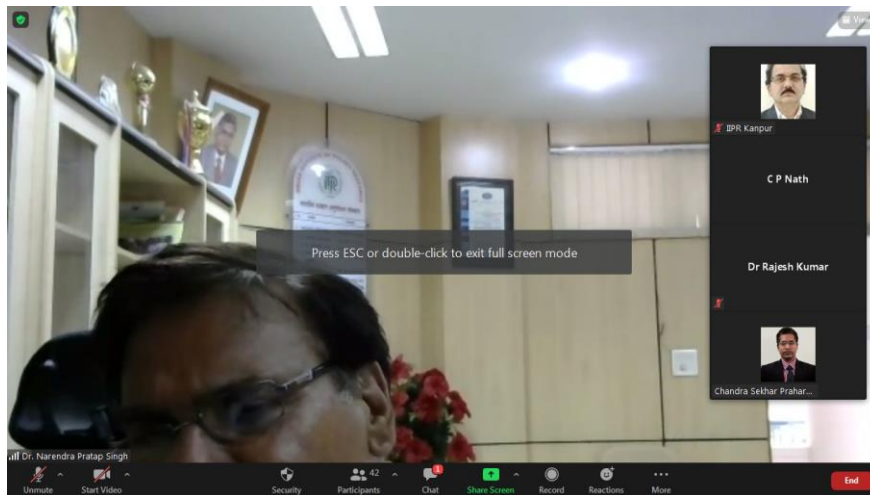
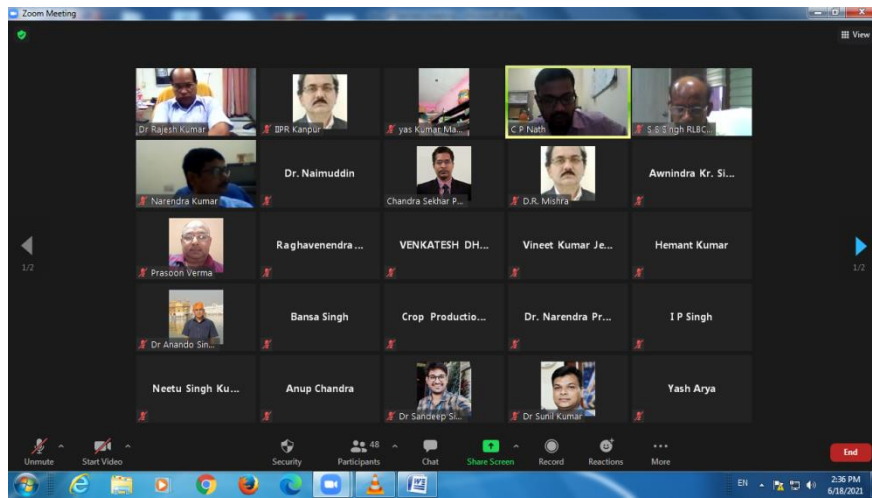
Scientists in the Crop Production Division also expressed their views and sensitized the farmers about Balanced Use of Fertilizers for sustaining crop production and soil health through their research-aided recommendations. In this context, the details pertaining to *Crop residue management in scaling input-use efficiency* (by Dr. Narendra Kumar, PS), *Use of organics in balanced fertilization* (by Dr. Raghavendra Singh, PS), *Application of bio-fertilizers and microbial formulation in crops/cropping system* (by Dr. Krishnashis Das, Scientist), and our successful experience on "*Farmer FIRST programme*" in the use of balanced fertilization in cropping/farming system (by Dr. Rajesh Kumar, PS) are presented/shared to the farmers by IIPR scientists. It is emphasized that the farmers can produce their own quality food (includes both crop and livestock) without depending on others to eliminate malnutrition and hunger (food and nutritional security through livelihood security).

The meeting was attended by 145 persons out of whom 57 were farmers. The Campaign was ended with vote of thanks to the Chair by Dr CS Praharaj, PS and Head, Crop Production Division.

ICAR-IIPR, Kanpur

# Farmers' Awareness Campaign on "Balanced use of Fertilizers"

Date:18-06-2021





त्रिलोचन महापात्र, पीएच.डी.

सचिव, एवं महानिदेशक

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## संदेश

धरती पर स्वस्थ जीवन बनाए रखने के लिए मिट्टी की देखभाल करना बेहद जरूरी है। वेदों के अनुसार 'इस मुट्ठी भर मिट्टी पर हमारा अस्तित्व इसकी देखभाल पर निर्भर करता है, और यह आपके भोजन की देखभाल करेगी, आपके ईंधन की आवश्यकताओं की पूर्ति करेगी, वह आपको आश्रय देगी और आपको सुंदरता से घेर लेगी। इसका दुरुपयोग करने पर यह अस्वस्थ और मृतप्रायः हो जायेगी। भारतीय मिट्टी सामान्य रूप से जैविक कार्बन में कम है। मिट्टी से पोषक तत्वों का निरंतर खनन 34 मिलियन टन प्रति वर्ष की दर से हो रहा है तथा इसके मुकाबले केवल 26 मिलियन टन ही मिट्टी में वापस मिलाया जाता है। प्राथमिक, द्वितीयक और सूक्ष्म पोषक तत्वों की कमी के परिणामस्वरूप देश के कई क्षेत्रों में बहु-पोषक तत्वों की कमतरता हुई है। देश में पोषक तत्वों की कमी क्रमशः 95, 94, 48, 25, 41, 20, 14, 8 और 6 प्रतिशत N, P, K, S, Zn, B, Fe, Mn और Cu के क्रम में है। सीमित पोषक तत्व अन्य पोषक तत्वों की पूर्ण अभिव्यक्ति की अनुमति नहीं देते और उर्वरक प्रतिक्रिया और फसल उत्पादकता को कम करते हैं।

पौधों को संतुलित पोषण सुनिश्चित करने के लिए उपयोग किए जाने वाले पोषक तत्वों की मात्रा निर्धारित करने के लिए मृदा परीक्षण एक बुनियादी आवश्यकता है। मृदा परीक्षण मिट्टी के स्वास्थ्य का निदान करने और मिट्टी विशिष्ट और फसल विशिष्ट समाधान विकसित करने में मदद करता है। विश्लेषण के आधार पर, किसानों को कृषि को अधिक उत्पादक और टिकाऊ बनाने के लिए खाद, उर्वरकों और संशोधनों के तर्कसंगत उपयोग के माध्यम से मिट्टी की उर्वरता प्रबंधन पर सलाह दी जाती है। इसलिए मृदा परीक्षण आधारित उर्वरक प्रबंधन, राष्ट्रीय खाद्य सुरक्षा, पोषण सुरक्षा, मृदा स्वास्थ्य के रखरखाव, मिट्टी की उर्वरता में वृद्धि और आने वाली पीढ़ियों के लिए एक अच्छी विरासत को सुनिश्चित करने के लिए अनिवार्य हो जाता है।

मुझे यह जानकर खुशी हो रही है कि भारतीय स्वतंत्रता के 75 वर्ष पूरे होने के उपलक्ष्य में भारतीय कृषि अनुसंधान परिषद के संस्थान और कृषि विज्ञान केंद्र 18 जून 2021 को 'उर्वरक के संतुलित उपयोग' पर किसान जागरूकता अभियान का आयोजन कर रहे हैं। मुझे आशा है कि संतुलित उर्वरक के विभिन्न पहलुओं पर किसानों को शिक्षित करने के उद्देश्य पूरे होंगे। मैं इस अभियान की शानदार सफलता की कामना करता हूँ।

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## MESSAGE

Caring soil is extremely important for sustaining healthy life on earth. According to Vedas 'upon this handful of soil our survival depends care for it, and it will care for your food, the fuel that you need, that will shelter you and surround you with beauty. Abuse it and the soil will collapse and die, taking us all with it.' Indian soils are in general, low in organic C. The continuous mining of nutrients from soil @ of 34 million tons per annum against the external supplement of only 26 million tons coupled with low addition of organic manures, secondary and micronutrients resulted in emergence of multi-nutrient deficiencies in several areas in the country. The Nutrient deficiency in the country is in the order of: 95, 94, 48, 25, 41, 20, 14, 8 and 6% for N, P, K, S, Zn, B, Fe, Mn and Cu respectively. The limiting nutrients do not allow the full expression of other nutrients, lower the fertilizer response and crop productivity. Soil testing is a necessity to determine the quantities of nutrients to be applied to ensure balanced nutrition to plants. Soil testing helps diagnose soil health and evolve soil specific and crop specific solutions. Based on the analysis, farmers are advised on soil fertility management through rational use of manure, fertilizers and amendments to make agriculture more productive and sustainable. Soil test-based fertilizer management, therefore, becomes indispensable to assure national food and nutritional security, maintenance of soil health, enhancement of soil fertility and to leave a good heritage for the future generations.

I am happy to note that ICAR Institutes and KVKs are organizing Farmers' Awareness Campaign on 'Balanced Use of Fertilizers' on 18.06.2021 in commemoration with 75 years of Indian Independence. I wish the Campaign a grand success.

  
(T. Mohapatra)