

Green Manuring for Healthy Soils: ICAR-MGIFRI Engages Panchayat Leaders under Khet Bachao Abhiyan in Bihar

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As part of the nationwide Khet Bachao Abhiyan-2026, ICAR-Mahatma Gandhi Integrated Farming Research Institute (MGIFRI), Motihari organized a “**Mukhiya Sammelan**” and awareness-cum-training programme on green manuring, soil health management, and balanced fertilizer use for Panchayat representatives and farmers from different blocks of West Champaran district, Bihar.



The central message of the programme was “**Healthy Soil, Prosperous Farmers: Green Manuring for Sustainable Agriculture**”, emphasizing the importance of soil health restoration through green manuring, crop diversification, legume integration, balanced fertilizer use, residue recycling, and soil-test-based nutrient management.

Welcoming the participants, Dr. S. K. Singh highlighted the importance of community participation in promoting sustainable agricultural practices. The programme brought together Panchayat leaders (Mukhiyas), farmers, and scientists to discuss practical solutions for improving soil health and reducing excessive dependence on chemical fertilizers.



During the technical session, Dr. Vijay Singh Meena, Senior Scientist (Soil Science), delivered a detailed presentation on the role of green manuring, legumes, and crop

diversification in restoring soil fertility and sustaining crop productivity. He emphasized that soil-test-based nutrient management can improve nutrient-use efficiency, reduce input costs, and enhance long-term soil health.

Dr. Meena highlighted the potential of Sesbania (Dhaincha) as a green manure crop for rice-based systems of Bihar. He explained that a well-grown Dhaincha crop can contribute approximately 50–60 kg nitrogen ha⁻¹, equivalent to about 110–130 kg urea ha⁻¹ (nearly 2.5–3 bags of urea), while simultaneously improving soil organic matter, microbial activity, and soil structure. Farmers and Panchayat representatives were encouraged to promote Dhaincha cultivation during the summer season before rice establishment. A live field demonstration on green manuring was conducted, showcasing Sesbania plants, root nodules, and their biological nitrogen-fixing capacity. Participants also observed demonstrations on earthworm activity and soil biological health, highlighting the importance of living soils in sustainable agriculture.

Chairing the session, Dr. S. K. Purbey, Principal Scientist, stressed the need for judicious fertilizer use and called upon Panchayat representatives to play an active role in creating awareness about soil testing, balanced fertilization, crop residue management, and sustainable farming practices. He emphasized that public participation is essential for achieving the objectives of the Khet Bachao Abhiyan.

He highlighted the role of biofertilizers and eco-friendly nutrient management practices in reducing dependence on chemical fertilizers and improving soil biological health. Scientists also sensitized participants about the harmful effects of crop residue burning and demonstrated sustainable residue management options aligned with the principles of natural farming.



The programme promoted integrated nutrient management practices involving chemical fertilizers, biofertilizers, organic manures, green manuring, crop residue

recycling, and legumes for improving soil fertility and nutrient-use efficiency. Participants were made aware of the long-term consequences of excessive fertilizer use, including nutrient imbalances, declining soil quality, and rising cultivation costs.

The Mukhiya Sammelan concluded with a collective commitment from Panchayat representatives and farmers to promote soil testing, green manuring, balanced fertilizer use, and sustainable farming practices in their respective villages under the ongoing Khet Bachao Abhiyan 2026.



A total of 37 participants attended the programme, actively interacting with scientists and sharing village-level strategies for strengthening soil health awareness across West Champaran district.