



Comprehensive Report on the Kisan Gosthi Held on 12th April 2025 at Achramau Village under the Theme “Scientific Management of Crops in Changing Environment”

On the 12th of April 2025, a Kisan Gosthi was successfully organized at Achramau village with the thematic focus on “Scientific Management of Crops in Changing Environment.” The event was designed as a knowledge-sharing platform aimed at equipping the rural farming community and young agricultural learners with scientific techniques and sustainable practices necessary to cope with the increasing challenges brought by climate variability and environmental stress. With the active participation of around 50 individuals—including local farmers, agricultural students, extension workers, and community leaders—the Gosthi became a significant learning opportunity and a platform for interaction between scientists and grassroots cultivators.

The program commenced with a warm welcome extended to all dignitaries, resource persons, and participants. An introductory note highlighted the pressing need to reorient farming systems toward climate-resilient and resource-efficient practices. The theme was introduced with emphasis on how agriculture today is deeply influenced by factors such as rising temperatures, erratic rainfall, declining soil fertility, and increasing pest outbreaks. The gathering was formally inaugurated with a ceremonial lamp lighting, followed by brief remarks from the organizing committee stressing the importance of collaborative learning and the role of science in modern farming.

The first expert speaker of the day was **Er. Asfaq**, an experienced agricultural engineer, who delivered an in-depth presentation on farm implements and their practical application in modern agriculture. His session focused on how mechanization can help farmers improve productivity, reduce dependence on manual labor, and ensure timely agricultural operations. He elaborated on various categories of tools and machines ranging from tillage implements to sowing and intercultural equipment, including seed drills, weeders, power tillers, and sprayers. He further emphasized the use of farm machinery to minimize drudgery and maximize returns. The speaker highlighted government schemes available for the promotion of mechanization, such as custom

hiring centers (CHCs) and subsidy programs under the agricultural mechanization mission. Demonstrations and visuals helped simplify complex mechanisms for the farmers. Several participants showed interest in renting such machinery for their farms, and Er. Asfaq offered suggestions on collective ownership models and cooperative usage strategies to make such tools accessible and affordable.

Following this, **Dr. Ayush Bhushan**, a specialist in climate science and sustainable agriculture, engaged the audience with a highly informative lecture on the implications of climate change on agricultural productivity and how adaptive crop management can serve as a viable solution. Dr. Bhushan described the observable and projected impacts of climate change including unseasonal rains, heatwaves, prolonged dry spells, and increased pest activity. He emphasized that these shifts are already affecting sowing and harvesting schedules, crop yields, and soil quality. He proposed several adaptation measures such as the adoption of short-duration and stress-tolerant crop varieties, shifting sowing windows based on weather forecasts, and employing water-saving irrigation methods. Furthermore, he introduced farmers to the concept of climate-smart agriculture (CSA) and highlighted the benefits of digital advisory services, weather forecasting tools, and decision-support systems. He also stressed the importance of crop diversification, integrated farming systems, and conservation techniques such as cover cropping, mulching, and zero tillage to protect the soil and retain moisture. His presentation served as a wake-up call for many attendees who acknowledged facing similar climate-related challenges in their recent farming seasons.

The third speaker, **Dr. Abdul Mazeed**, an agronomist with extensive field experience, delivered a compelling session on how agronomic practices can influence and stabilize crop productivity in the face of changing environmental conditions. He began by stressing the role of precise agronomy in ensuring that the potential of genetic, climatic, and technological inputs is fully realized. Dr. Mazeed spoke about the significance of crop rotation, intercropping, and mixed cropping systems to maintain soil fertility and reduce the risks associated with monoculture. He elaborated on integrated nutrient management (INM) approaches which involve the judicious use of organic manures, biofertilizers, and chemical fertilizers based on soil test results. He also underlined the importance of integrated pest and disease management (IPM), especially under conditions where climate stress makes crops more vulnerable. Efficient irrigation scheduling through techniques like drip and sprinkler systems was also covered, along with methods to reduce water wastage and ensure timely application of nutrients and pesticides. His advice on

weed management and crop spacing was tailored to local crop patterns and farmer capabilities, making it extremely relevant and actionable. Farmers were also advised to make use of agro-advisory services, mobile apps, and government extension schemes to stay updated with best practices.

The interaction session that followed these lectures was lively and well-received. Farmers expressed both appreciation and curiosity as they shared their experiences and challenges, including delayed monsoons, pest outbreaks, increased irrigation costs, and declining productivity. The experts patiently responded to their queries, offering localized solutions, relevant scientific insights, and further contacts for follow-up assistance. Agricultural students present at the Gosthi also participated actively, asking questions about the scientific basis of agronomic measures and how they could help farmers implement them at the grassroots level.

The Kisan Gosthi concluded with a formal vote of thanks to all speakers, participants, and support staff who contributed to the successful execution of the event. A key takeaway from the gathering was the realization that the success of Indian agriculture in the face of environmental uncertainty lies in the effective integration of traditional wisdom with modern scientific techniques. The need to enhance the farmer-scientist-extension linkage was clearly identified and appreciated by all.

In conclusion, the Kisan Gosthi held at Achramau village proved to be a highly impactful and enlightening program. It not only provided the farmers with practical knowledge on handling climate-related farming issues but also created a space for dialogue and exchange. Such initiatives are crucial in enabling farmers to build resilience against climatic risks, ensure food and livelihood security, and contribute to the sustainable development of rural India. It is strongly recommended that similar events be organized at regular intervals in different villages, so that a larger number of farmers can benefit from expert insights, policy information, and emerging technological solutions.

Glimpses of Kisan Goshthi



