

# **Report of Training Workshop on Drone Spray and 3D Scanner in Agriculture**

The Department of Agricultural Engineering at MNS University of Agriculture Multan, in collaboration with the Agricultural Mechanization Research Institute (AMRI) Multan, organized a training workshop on Drone Spray and 3D Scanner. The event aimed to introduce modern hi-tech technologies in agriculture and demonstrate the applications and benefits of drone spray and 3D scanning. The workshop was held on May 30, 2023, and was attended by students, faculty members, and progressive growers.

The formal session commenced with reciting a few verses from the Holy Quran, a gesture to invoke blessings and set a positive tone for the event. The chief guest, Prof. Dr. Asif Ali, the Vice-Chancellor of MNSUAM, was then introduced and welcomed to the stage. In his address, Prof. Dr. Asif Ali emphasized the urgent need for integrating modern hi-tech technologies in agriculture to meet the challenges faced by the agricultural sector. He highlighted how technological advancements could significantly improve efficiency, sustainability, and productivity, benefiting farmers and the nation's economy. He also acknowledged the collaborative efforts between MNSUAM and AMRI in organizing this workshop, which provided a valuable opportunity for participants to learn about cutting-edge agricultural practices.

The Director of Agricultural Mechanization Research Institute (AMRI), Engr. Shahzad also addressed to participants. He appreciated the joint efforts between AMRI and MNSUAM to promote the adoption of modern agricultural technologies. Engr. Shahzad encouraged the participants to embrace technological advancements and contribute to transforming Pakistan's agricultural sector. He also assured to Vice-Chancellor that AMRI will keep close coordination with the university.



The resource persons for the workshop were a team of experts from the Agricultural Mechanization Research Institute (AMRI). Engr. Mehmood Riaz from AMRI took the stage and presented a detailed overview of the features, applications, and benefits of drone spray and 3D scanning in agriculture.

### ***Drone Spray:***

Engr. Mehmood Riaz highlighted the revolutionary applications of drone spray technology in modern agriculture. He explained how drones with spraying equipment could efficiently disperse pesticides, fertilizers, and other chemicals over large agricultural areas with precision and accuracy. The benefits of drone spray included reduced chemical usage, minimized environmental impact, and increased crop yields. The audience was impressed with the potential of this technology to transform traditional farming practices.



### ***3D Scanner:***

Next, Engr. Saeed introduced the audience to 3D scanning in agriculture. He explained how 3D scanners create detailed and accurate digital drawings of machine components. These models can be analyzed to assess the material's and suitable material's stress and identify potential problem areas. 3D scanning offers farmers valuable insights into their fields, enabling them to make data-driven decisions for better crop management and resource allocation.



### **Field Demonstration:**

The event concluded with a practical demonstration of drone spray and 3D scanner technologies. Participants had the opportunity to witness the drones in action and see firsthand how 3D scanning worked. The hands-on experience allowed them better to understand the equipment's functionalities and potential applications.

Overall, the training workshop shed light on the importance of integrating advanced technologies in agriculture to address modern challenges and increase agricultural productivity sustainably. The participation of students, faculty members, and progressive growers demonstrated enthusiasm and interest in adopting innovative practices to improve farming methods. The event was a significant step towards fostering a culture of technological innovation and progress in Pakistan's agricultural landscape.

