

Abstract

Capacity Building of Seed Science and Technology

Yield stagnation of major commodity crops in Pakistan is a matter of high attention within Pakistan and also to its international partners, and the causes of this national problem have been attributed to a number of issues. Among those issues is availability of quality planting seed, with only about 1/3 of crop seeds planted coming through the formal seed sector. Advancements in plant breeding and increased utilization of quality planting seed from the formal seed sector are areas of influence that universities can make a positive impact on food security in Pakistan. The Institute of Plant Breeding and Biotechnology (IPBB) at MNS-UAM has an impressive seed science curriculum and is training students to bring to Pakistan's agricultural system improved varieties. There remains a large gap in the development of improved varieties and the pedigreed increase and planting of these varieties nationally. Furthermore, graduates at MNS-UAM have applied knowledge in seed science and technology and are a good hiring pool for progressive seed companies in Pakistan. The Punjab province in Pakistan shares similarities to California's Central Valley in its irrigated agriculture, moderately cool winters and hot summers, and overlap of crops (i.e. wheat, cotton, rice, forage legumes). The seed program for agronomic crops in California serves as a good example with both high adoption of new/improved varieties and high acceptance of Certified seed in the planting of those crops. Timothy Blank visited the local institution in March 2023. During this trip, all objectives assigned to this mission were met and even beyond. Some relationships were built and will serve to pursue the dynamic launch during the trip.