



Seed Production Technology

Harshit Gupta*

Department of Seed Science and Technology, C. S. Azad University of Agriculture and Technology Kanpur, U. P., India

***Corresponding Author:** Harshit Gupta, Department of Seed Science and Technology, C. S. Azad University of Agriculture and Technology Kanpur, U. P., India.

Received: April 01, 2024

Published: April 05, 2024

© All rights are reserved by **Harshit Gupta.**

Seeds play a crucial role in boosting agricultural productivity as they set the upper limit for crop yields and determine the efficiency of all other agricultural inputs within the farming system. High-quality seeds, possessing strong genetic and physical purity, germination rates, vigor and viability, are essential for realizing the potential of crop production under suitable and favourable agro-climatic conditions. The purity of commercial seeds is contingent on the genetic purity of the parental lines within the nucleus, breeder and foundation seeds in the seed multiplication system. The standardization of seed production technology for new and existing hybrids, taking into account agro-ecology and the most suitable regions for seed production, as well as employing appropriate techniques in seed production, ensures better seed setting, profitable seed yields, and the availability of top-quality seeds in the seed trade. Challenges in hybrid seed production typically stem from difficulties in synchronizing the parental lines and the methods required to achieve this.

Farmers, serving as vital links in the seed production, distribution, and exchange networks, aim to achieve profitability from their seed production activities. However, due to challenges in seed production related to ecological, agronomic, and genetic constraints, seed setting, yield, and quality are also affected. Without the necessary technological knowledge, the sustained profitability and quality traits are at stake. Therefore, strategies to enhance seed production, quality, and supply should begin by strengthening the public agricultural research and development sector on a long-term, sustainable basis. It is especially important to develop the capacity to transition from generic seed recommendations to the development and dissemination of varieties tailored to specific agro-ecological zones and the requirements of different groups of farmers.

The Journal "AS Agriculture Journal" encompasses both practical and theoretical aspects of seed production, quality control, and

legal compliance. It offers in-depth insights into major issues and management aspects related to hybrid and varietal seed technology for sorghum and millets. This publication is intended to assist all stakeholders in producing higher quality seeds to ensure their availability and profitability. I extend my congratulations to all those involved in producing this highly valuable publication.