

XVII. THE PLACE OF RESEARCH IN SEED TESTING

Seed testing is comparatively a recent development in Indian agricultural technology. Many unsolved problems exist and new problems continue to come from time to time. With a laboratory in each of the states an opportunity exists for the coordination of some research activities among the different laboratories. The Central Seed Testing Laboratory, IARI can play a leading role in this respect. Each laboratory will also have problems peculiar to seed being tested there ; so it is desirable to have the research work closely associated with solving problems faced in the laboratory.

Research also has to be broad based to cover the entire field of seed technology. Examples of such items are mentioned below :

1. Seed testing methodology
 - (a) Selection of testing materials
 - (b) Evaluating existing procedures
 - (c) Evolving suitable procedures.
2. Developing and modifying standards based on research findings
3. Seed processing problems
 - (a) Harvesting methods and moisture content
 - (b) Drying methods and temperature
 - (c) Grading in relation to different sizes of seeds and the most effective method to facilitate meeting quality standards.
4. Classification of weed seeds
5. Seed storage—optimum conditions for each kind of seed
 - (a) Moisture content
 - (b) Temperature
 - (c) Humidity
6. Seed packaging material

The most pressing need is for applied research to be integrated closely with current problems.

Standardization and improvement of the existing seed testing methods is one of the important and immediate requirements for seed testing. Although rules and regulations for seed testing have been written up, many things are still left to the discretion of the seed analyst. Variation in moisture levels can be a source of test variability. Similar difficulties are encountered in the interpretation of abnormal and normal seedlings.

Much testing variability is attributable to faulty sampling rather than to analysis procedures. Work to further improve and standardize methods of sampling seed is necessary. Techniques for improved bulking and blending of samples need to be improved to reduce variability.

A need does exist for research that is especially relevant to tropical crops in countries in South East Asia. However, the laboratories should not lose sight of work that has been done in other parts of the world that does have immediate local applications. It is very important that work which is undertaken be creative and apply to India's need today.

Research should definitely remain in a subordinate role to the primary function of testing seeds to assure cultivator's of good quality planting seeds.