

About Seed Quality

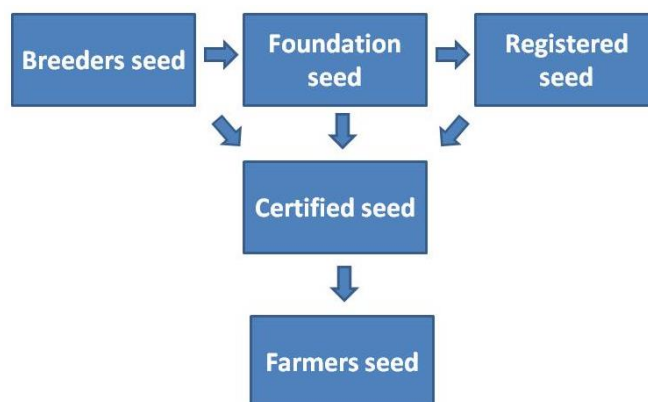
Good seed results in higher yields, so getting good quality seed in to the hands of farmers is a good way to improve productivity and yields. The figure (below) shows the flow of seed from the plant breeder to the farm and the characteristics of good seed.



Classes of Seed

Four (4) classes of seed are recognized in seed certification. Each class of seed has specific requirements in terms of genetic purity, seed size, varietal identity, germination and freedom from impurities and diseases, etc.. Seed should always be properly labeled.

- Breeder Seed** is the original source of seed that is produced and controlled by the plant breeders.
- Foundation Seed** is produced from Breeder seed. It may sometimes also be produced from Foundation seed that is produced under guidance of the original breeder or their institute.
- Registered Seed** comes from Breeder or Foundation seed and is produced to maintain genetic purity and clear identity as a specific variety.
- Certified seed can be produced** from Breeder, Foundation, or Registered seed. This is the class of seed usually provided to farmers for planting.



Classes of seed and seed flow

Example Seed standards for Wheat*

Factors	Foundation	Registered	Certified
Pure seed (minimum)	98%	98%	98%
Inert Matter (Maximum Permitted)	2.0%	2.0%	2.0%
Off types (Maximum Permitted)	None	2/lb	4/lb.
Germination (Minimum Permitted)	85%	85%	85%

* from <http://washingtoncrop.com/documents/SmallGrainStandards.pdf>

Note 1: "Farmers seed" is seed produced by the farmer and is the type of seed often used by farmers – especially in less developed countries. Such seed can be of variable quality, and so improving farmers seed may offer opportunities to increase yields and production.

There are some simple practices that farmers can follow to improve the quality of their seed. (See associated fact sheets on 1. Producing Good Seed, and 2. Seed harvesting and storage)

Note 2: Plant Variety Protection refers to the legal effort that gives plant breeders the right to protect their varieties. This protection ensures that breeders benefit from their plant breeding efforts and enables them to recover research costs while making new varieties of crops available.

Reference: The California Crop Improvement Association shows categories and requirements for a range of crop seeds as defined in California.