

Seed Production System, Classes of Seeds and Certification System in India

Rajani Verma¹ and Ramesh Kumar²

¹Department of Plant Breeding and Genetics, SKNAU, Jobner, Rajasthan -303329 (India)

²Department of Genetics and Plant Breeding, Junagadh Agricultural University, Junagadh, Gujarat- 362001 (India)

System of seed Production

In India, seed production of foundation and certified class is the responsibility of National or State Seed Corporation. Whereas, maintenance breeding and Breeder seed production are of Agriculture Universities or ICAR institutes under the supervision of plant breeder.

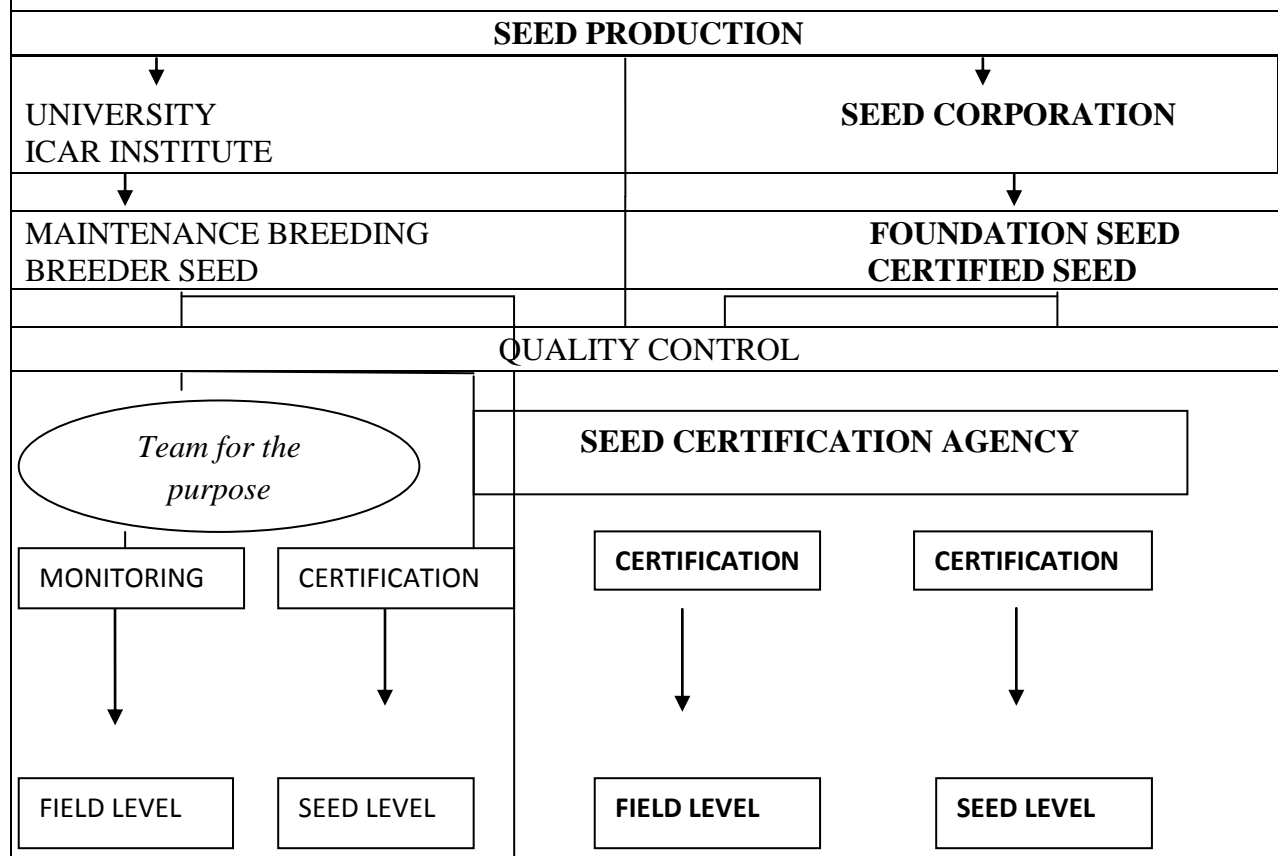


Fig. Seed production and quality control system in India

Seed Classes:

There are 4 generally recognized classes of seeds.

(a) Nucleus seed

This is the cent percent pure seed at genetic and physical levels produced by a plant breeder from basic nucleus seed stock. This seed is not certified by any agency.

(b) Breeder seed

This is the progeny of the Nucleus seed multiplied in large area under the supervision of plant breeder and monitored by a committee. It provides cent percent physical and genetic pure seed for production of foundation class. A golden yellow color certificate is issued for this category of seed by the producing agency.

(c) Foundation seed

Progeny of breeder seed is handled by recognized seed producing agencies in public and private sector under the supervision of seed certification agency in such a way that its quality is maintained according to the prescribed seed standard. A white color certificate is issued for the foundation seed by seed certification agencies.

(d) Certified seed

Progeny of foundation seed is produced by registered seed growers under the supervision of seed quality as per Indian Seed Certification Standards. A blue color certificate is issued by seed certification agency for this category of seed. Size of tag is 15cm length and 7.5 cm breadth.

Other categories of seed

Truthfully labeled seed (TL)

When a seed is sold based on the result of the laboratory established by the producer then the seed is considered as TL seed. e.g., seed produced and sold by many private agencies. The price of TL seed is always lower than the certified seed in government sector. Seed rejected due to genetic impurity or presence of objectionable disease, pest or weed is not labeled as truthful.

Registered seed

In United States mainly for autogamous crops the generation between Foundation and Certified seed is considered as Registered seed, which is not a commercial class. Registered seed

labeled by purple color tag. It is not a recognized class in seed multiplication chain in India.

Seed certification

- It is a process designed to maintain and make available to the general public continuous supply of high quality seeds and propagating materials of notified kinds and varieties of crops, so grown and distributed to ensure the physical identity and genetic purity.
- It is legally sanctioned system for quality control of seed multiplication and production

History of Seed Certification in India

- The field evaluation of the seed crop and its certification started with the establishment of National Seeds Corporation in 1963.
- A legal status was given to seed certification with the enactment of first Indian Seed Act in the year 1966 and formulation of Seed Rules in 1968. The Seed Act of 1966 provided the required impetus for the establishment of official Seed Certification Agencies by the States.
- Maharashtra was the first State to establish an official Seed Certification Agency during 1970 as a part of the Department of Agriculture, whereas Karnataka was the first State to establish the Seed Certification Agency as an autonomous body during 1974.
- At present 22 States in the country have their own Seed Certification Agencies established under the Seed Act, 1966.
- In India, seed certification is voluntary and labelling is compulsory.

Objective of Seed certification

- The systematic increase of superior varieties;
- The identification of new varieties and their rapid increase under appropriate and generally accepted names.
- Provision for continuous supply of comparable material by careful maintenance.

Certification agency

Certification shall be conducted by the Certification Agency notified under Section 8 of the Seeds Act, 1966.

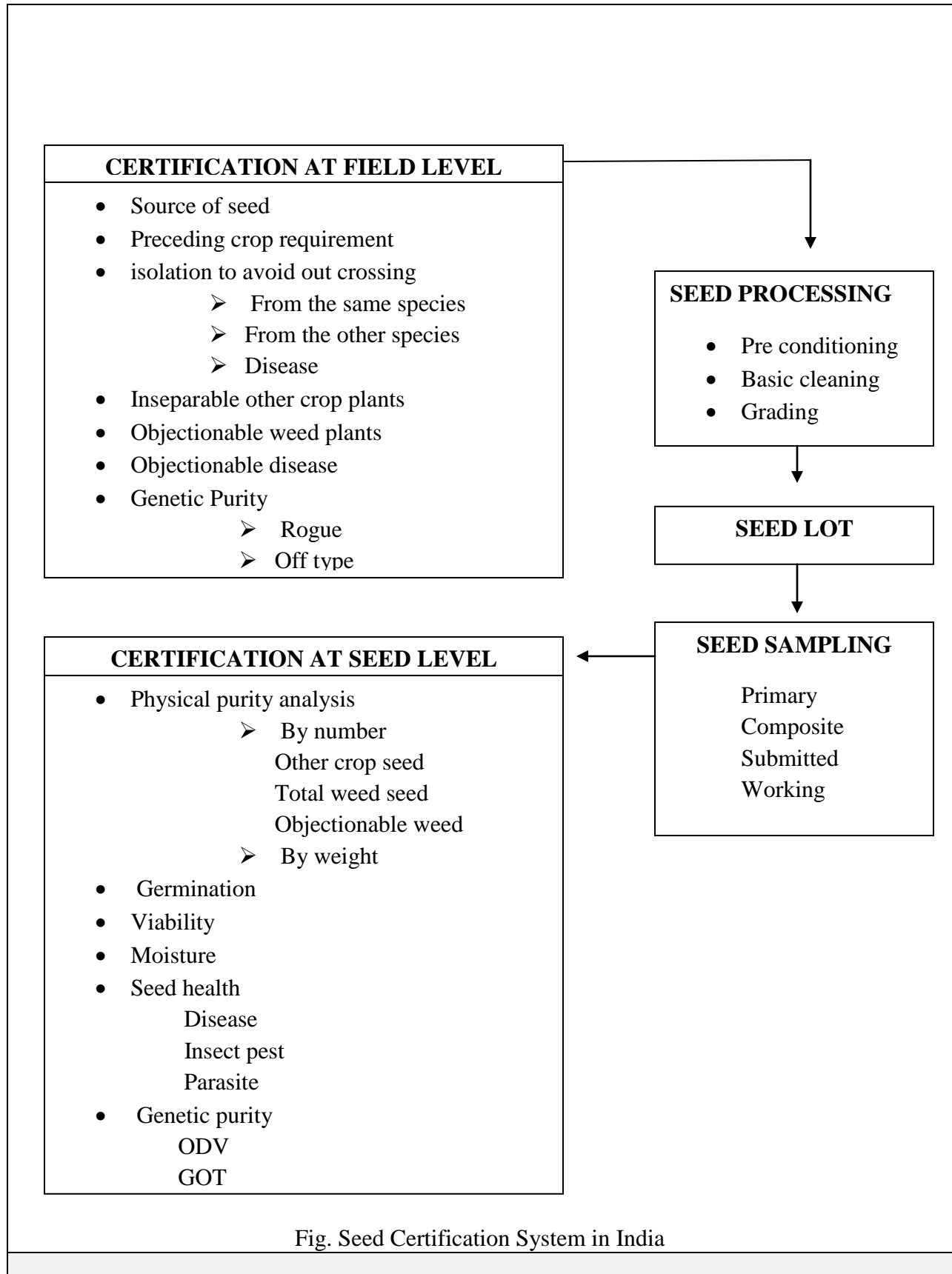


Fig. Seed Certification System in India

References (if any)

References : Book Dhirendra khare & M.S. Bhale, 2014. Seed Technology 2nd Revised & Enlargement Edition, page 52-58.

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