



**FACULTY OF AGRICULTURAL SCIENCES
AND ALLIED INDUSTRIES**

**DR. SUHEL MEHANDI
ASSISTANT PROFESSOR
GENERTICS & PLANT BREEDING
SST 221, PRINCIPLES OF SEED TECHNOLOGY**

Testing, release and notification of varieties: CVRC SVRC. NSC APSSDC and APSSCA Variety:

Botanically a variety is a sub group of a species. According to seed act (1966, sub section 16 of section 2) it is a sub division of a kind identified by its growth, yield, plant fruit, seed or other characters. Whereas seed technology considers a group of plants uniform in their morphological, physiological, biochemical and other characters without any variation from generation to generation and can be differentiated from other groups of plants of the same species by some distinguishing characters as variety after its release and notification.

In India, the release of new crop varieties consists of four major steps viz.

1. Development of new strains
2. Evaluation of performance
3. Identification of superior strains and
4. Release and notification

1. Development of new strains

The new strains are developed by ICAR crop research institutes and state agricultural universities for specific purposes. Various breeding methods are used for development of new strains in self and cross pollinated species

2. Evaluation of performance

The performance of newly developed strains is evaluated in AICCIP, ICAR institutes, SAUs and private registered seed companies enter their improved strains / hybrids in the AICCIP of respective crop for multilocation testing. The new strains are tested at multilocations under the coordinated project for a minimum period of three years / seasons. The new variety is first tested

for yield under the initial varietal trials (IVT); the in the second year. The strains that give good performance in AVT for two years are selected.

3. Identification of superior strains

The strains which show good yield performance in AVT are identified as superior strains and are considered for release in the workshop meetings. The new agro and plant protection techniques required to obtain potential yield of new strains are also worked out by that time. The workshop after considering the new promoting varieties recommend them to replace existing varieties.

4. Release and notification

The proposal for release of new varieties is put up in a prescribed proforma to variety release committee. There are two types of variety release committees viz, state variety release committee (SVRR) and central variety release committee (CVRC). In case of state variety release committee, Director of Agriculture for field crops and Director of Horticulture for vegetable and horticulture crops is the chairman. In central variety release committee, Deputy Director General (Crop Science) of ICAR is the chairman. The release proposal of varieties recommended for All India release is put up before CVRC, while for those recommended for release in a particular state is placed before the SVRC of respective state these committees consist of scientists and representatives of seed producing organizations (NSC, SSC and SSCA) and other related govt. agencies After release, the variety is notified. Seed production can be taken up only after notification of new varieties. The notification is done by the govt. of India.

Seed production organizations

National Seeds Corporation

The national seeds corporation (NSC) was initiated under ICAR and registered on 7th March, 1963 as a limited company in the public sector. NSC handled foundation and certified seeds of many varieties of more than 20 crops. The present functions of NSC are as follows.

1. Production and supply of foundation seed.
2. Interstate marketing of all classes of seed
3. Export and Import of seed
4. Production of certified seed where required
5. Planning the production of breeder seed in consultation with ICAR
6. Providing technical assistance to seeds corporations and private agencies
7. Coordinating certified seed production of several state seed corporations
8. Conducting biennial surveys of seed demand
9. Coordinating market research and sales promotion efforts
10. Providing training facilities for the staff participating in seed industry development
11. Providing certification services to states lacking established and independent seed certification agencies.

APSSDC: The APSSDC was established in March 1976 as a result of Govt. of A.P. accepting the NSP in 1974. The APSSDC was formed by the growers but maintained by state Govt. officials and is involved in quality seed production and distribution. Each share of the grower is of Rs 500/-.

Govt. of A.P. holds: 36.29 %

NSC holds: 27.11%

Seed Growers hold: 36.60 %

The main objectives of APSSDC are

1. Breeder seed production in oilseeds
2. Foundation and certified seed production of different crops
3. Seed production of pre-released and non-notified varieties
4. Seed processing, packing, storage and seed marketing and distribution
5. Seed supply to problematic areas
6. Assists in breeder seeds production and acts as nodal agency for BSP and distribution.
7. Acts as nodal agency for maintaining buffer stock of seeds
8. Undertakes collaboration in seed technology research
9. Co-ordinates seed imports
10. Gives constancy services and conducts training to seed growers
11. Takes up extension programs to enlighten the farmers to use quality seeds.

APSSCA; It was registered under A.P. (Telangana area) public societies registration

act with a regd. No. 334/78 to carry out the functions of certification agency under seed act 1966 in A.P. w.e.f. 1.6.1979.

Functions of Seed Certification Agency are:

1. To certify seeds of any notified kind or variety
2. Outline the procedure for seed certification to ensure that the seed lot meets the prescribed field and seed standards
3. Verify the eligibility of the variety for certification and to verify the seed source
4. Maintains a list registered plant breeders
5. To conduct field inspection at different stages of crop growth to verify the field standards and genetic contamination
6. Draws samples from seed lots to confirm that the seed meets the prescribed seed standards.
7. Inspect seed processing plants to verify and avoid mechanical mixtures during seed processing.
8. To educate the farmers about the use of certified seed
9. Grant of certificate, labels and tags
10. Maintenance of such records as may be necessary during seed certification.

CENTRAL VARIETY RELEASE COMMITTEE

1. Deputy Director General (Crop Science) - Chairman
2. Production Commissioner, Govt. of India - Member

3. Project Director – Concerned Crop - Member
4. Principle Investigator - Member
5. Director of Agriculture of the State - Member
6. Director High Yielding Varieties - Member
7. Ministry of Agriculture - Govt. of India - Member
8. Deputy Secretary Seeds -Govt. of India – Member

STATE VARIETY RELEASING COMMITTEE

1. Director of Agriculture – Chairman
2. Director of State Seeds Development Corporation – Member
3. Director of State Seed Certification Agency - Member
4. Additional Director of Agriculture (Inputs) - Member
5. Joint Director of Agriculture- Member
6. Director of Research of State Agriculture University - Member

GENERAL PROCEDURE FOR VARIETY

