

Seed Village Concept- A Novel Approach of Seed Distribution

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SUMMARY

Seed is the starting point for Agriculture and Horticulture. It dictates ultimate productivity of other inputs. Good quality seed alone increases the yield by 15-20 per cent. To meet the potential challenge of catering to the food need of 1.4 billion people of our country by 2025, a quantum increase in agricultural productivity is very much essential. Production and distribution of high quality seeds of improved varieties/hybrids to the farming community is becoming increasingly important. Quality seed is the key input for realizing potential productivity. As the quality deteriorates during subsequent generations the old seed must be replaced with fresh lots of quality seeds. Ideally seed should be replaced every year for hybrids and every three to four years for non-hybrids. Therefore it is necessary to improve the availability of quality seeds to raise the Seed Replacement Rate (SRR). Despite implementation of the organized seed programme, the seed replacement rate has only reached 15 per cent. There exists an alarming gap between the demand and supply of quality seeds.

INTRODUCTION

The Seed Programme includes the participation of State Government, SAU system, public sector, cooperative and private sector institutions. With the best efforts of all these organized sectors, only 15-20 per cent of the total requirement of quality seed is being met. In most cases, the farmers depend on their own farm saved seeds for crop production which needs certain basic practices of selection of good seeds for sowing. The crops are raised for market and a small portion of the grains are separated, stored and used as seeds in the next season. These seeds may not meet the quality aspects as expected for a seed which results in poor field stand, and ultimately low yield.

The role of private seed industry in the production and distribution of quality seeds is well recognized in the Indian seed industry. They generally produce high value seeds in low volume, which cater to the needs of only few selected farmers. The immediate increase in the productivity and production of these crops can be achieved by a higher distribution of quality seeds of new and high yielding varieties. Seed village concept is a novel and highly practical approach to produce and distribute high quality seeds. It needs to be promoted to facilitate production and timely distribution of quality seeds of desired varieties at village level. In this context, the concept of seed village advocates village self-sufficiency in production and distribution of quality seeds is getting momentum.

Seed Village:

A village, wherein trained group of farmers are involved in production of seeds of various crops and cater to the needs of themselves, fellow farmers of the village and farmers of neighboring villages in appropriate time and at affordable cost. Govt. of India implemented Seed Village Programme (Beej Gram Yojana) in 2014-15 to upgrade the quality of farmer's saved seeds. It was launched by the Ministry of Agriculture and Farmers Welfare as a key component of the Sub-Mission on Seeds & Planting Materials (SMSP) under Nation Mission on Agriculture Extension & Technology (NMAET).

Objectives:

The basic objectives of the Seed Village Programme are:

1. Increasing production of certified/quality seed.
2. Increasing Seed Replacement Rate in crops like paddy, wheat, soybean, gram, etc.
3. Upgrading the quality of farm saved seeds with specific objective to shift 10% village and produce a lot amount of seed each year through farmers' participatory seed production.
4. Familiarizing new varieties to uplift varietal replacement.
5. Securing availability of seed in contingent situation.

Concept:

1. Organizing seed production in Cluster (or) compact area.
2. Replacing existing local varieties with new high yielding varieties.
3. Increasing the seed production.
4. To meet the local demand, timely supply and reasonable cost.
5. Self-sufficiency and self-reliance of the village.
6. Increasing the seed replacement rate.

Features:

1. In seed village programme must have to follow the compact area approach. Minimum of 25 and maximum 150 farmers are required per unit of 10 ha.
2. Seed is available at the door steps of farms at an appropriate time.
3. Seed availability at affordable cost even lesser than market price.
4. Increased confidence among the farmers about the quality because of known source of production.
5. Producer and consumer are mutually benefited.
6. Facilitates fast spread of new cultivars of different kinds.

Establishment of Seed Villages:

The present programme of seed village scheme is having two phases.

I. Seed production of different crops**II. Establishing Seed Processing Unit**

Seed village concept is to promote the quality seed production of foundation and certified seed classes. The area which is suitable for raising a particular crop will be selected and raised with single variety of a kind.

Selection of Area:

The area with the following facilities selected like irrigation facilities, suitability of climatic conditions to raise the crop for more than one season, labour availability, knowledge of local farmers on that particular crop, occurrence or outbreak of pest and diseases, past history of the area for suitability to raise seed crop, average rainfall and distribution and closeness to an urban area for easy movement of seed and other inputs.

Seed supply:

Suitable area for seed production will be identified by the Scientists. The foundation/ certified seeds or University labeled seeds will be supplied by the University through Krishi Vigyan Kendras (KVKs) and Research Stations at 50% subsidy cost to the identified farmers in the area. The farmers will use these quality seeds and take up their own seed production in a small area (1 acre) for their own use.

Capacity Building:

To fill the gap between technologies and the community participation, special emphasis is being given to build farmer's capacity to produce quality seeds. Training on seed production and seed technology to the identified farmers for the seed crops grown in the seed villages will be given for technology empowerment of farmers.

Duration of the training: 3 days

1. First one day training: At the time of sowing and training on isolation distance, sowing practices, seed treatment, and other agronomic practices.
2. Second one day training: During flowering and training on identifying off-types and removal, maintenance of seed plots, plant protection measures, maturity status and harvesting methods.
3. Third one day training: After harvest and training on seed cleaning, grading, seed treating, bagging and storage aspects, seed sampling and sending to seed testing laboratory for analysis.

A seed grower forum will be organized for further empowerment of technology and marketing.

II. Establishing Seed Processing Unit:

Post-harvest seed handling is a vital component of the total technology in marketing available good quality seeds of improved varieties. If the seeds are not processed and handled properly, all the past efforts in production may be lost. Hence seed processing and packaging is very important aspect in seed production. The location of

seed processing centers is based on the available infrastructure and convenience. Such a place will be well connected with roads and transportation facilities.

The basic infrastructure in each seed processing: Seed grader cum cleaner, Bag closer, trolleys, scales and furniture, building to house equipment, seed storage structure seed threshing and drying yard.

Information Center:

It will have internet facility to provide access to information on seed demand and market trends, agriculture market index, weather forecast, plant protection measures etc.,

Advantages of Seed Village Concept Or Compact Area Approach:

1. Solve the problem of isolation: Mainly in cross pollinated crops where it requires more isolation distance the problem solved by raising a single variety in a large area.
2. Mechanization is possible from sowing to harvesting.
3. Postharvest handling of seed is easy.
4. The problem of varietal admixture during processing, drying avoided because of a single variety.
5. Seed certification official will cover large area per unit time.
6. Reduces the cost of cultivation.
7. Seed of high genetic & physical purity is produced.

CONCLUSION:

Seed village programme can increase horizontal area under seed production and more farmers involve on it. As a result considerable yield is increased of selected varieties than local varieties or saved seed. All of this shows their willingness to accept new technologies. Seed village concept help's for mass cultivation as a result cost for maintaining any crop is highly reduced for eg., seedling preparation, spraying insecticides, taking advise from entomologist ,pathologist ,as commonly shared among the villager's so cost per farmer highly reduced as a result profit is increased.

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