



Production Technology of Quality Seeds of Wheat

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Cereals have throughout history been unquestionably the most important sources of plant food for humans and livestock. The development of all the major cereals occurred long before the recorded history for all the oldest civilizations. Wheat is the most staple cereal crop in India and specifically in northern India. The yield of the crop is affected by many factors and good quality seed can contribute the most. Quality seed is very important thing for increasing the production. It is necessary to maintain the varietal characteristics of seed, and control the seed borne disease for the production of high-quality seed. Wheat crop being a self-pollinated crop, is less deteriorated in terms of varietal characteristics and thus require the seed replacement after four to five years, provided a separated seed plot is maintained following systematic seed production programme. Farmers can follow the guidelines given by various ICAR institutions and respective SAUs for quality seed production. The main excerpts for quality seed production of wheat are the following:

1) Land Requirements

A separate piece of fertile land which is well levelled, free from surface drainage and low-lying water table, and with assured water supply should be demarcated for seed production.

2) Method of Sowing

Seed rate of 100 kg/ha for timely sown should be used and choose late sown variety for the late sown conditions. Adopt normal recommended nutrient management practices as per the respective area. Use seed drill for sowing purpose and ensure that the seed drill is well cleaned and no backlogged seed should be remained in the machine. While sowing, left every eight and ninth row as unsown to walk and inspect the crop during sown condition.

3) Isolation

Minimum isolation distance of three meters of seed plot of a variety with other varieties should be maintained in order to avoid possible out crossing and admixture. To prevent any kind of infection of seed borne disease maintain 150 meters distance from any triticale or rye field or any loose smut infected wheat plants.

4) Rouging

Its very mandatory activity to weed out the off-type plants based on the features as:

- Auricle pigmentation
- Plant height
- Days of flowering
- Ear color

It is recommended to perform at least three rouging, one each at early vegetative growth, at 75 % ear emergence and maturity. The rouged plants should be well disposed off from the seed bed to avoid any kind of mixing of these seeds and bulk seed.

5) **Harvesting and handling of seed**

Take of the harvesters, threshers and clean it profusely before performing various activities like harvesting, threshing, seed treatment, packing and processing.

6) **Seed treatment and storage**

Treat the seed through seed dresser using vitavax 75 WP @2.5 g/kg to control loose smut and other seed borne disease such as hill bunt. The moisture of the seed at the time of harvesting is around 14-15 % and at this moisture level seeds should not be stored at ware house. It should be shade dried until the moisture level reduced to 9-10 %. This will increase the seed viability as well as reduce the chances of damage by storage pest and fungi.

