



SEED QUALITY

The Rootstock Company

As a globally operating seed company, there shouldn't be a single doubt about the quality of our rootstock seeds. Seed safety & hygiene are essential elements in our quality policy. In this infographic, we briefly explain what measures we take to ensure that our seeds are free from harmful pathogens.

1 DISEASE FREE PARENTAL SEEDS

In a GSPP seed production, the starting material must meet strict hygiene requirements. Parental seeds of TRC undergo numerous inspections and lab-tests (e.g. on Cmm and ToBRFV), both during and after they have been produced.



 GSPP

2 PROPAGATION OF PARENTAL PLANTS

Parental plants for hybrid seeds production are propagated from the disease-free parental seeds.

2

3 POLINATION OF FEMALE PLANTS

The parental plants are cultivated in a separate department under GSPP conditions. The pollen of the male plants is used to pollinate the flowers of the mother plants to achieve a hybrid cross.



HARVEST OF CLUSTERS 1 TO 5

Approximately 8 weeks after pollination, the first cluster has sufficiently matured. Ripe clusters are harvested and go into seed processing.

4

5 1ST TESTING OF FEMALE PLANTS

Leaf samples are taken from 100% of the female plants. These leaves are then lab-tested, see section "Virus & testing".



HARVEST OF CLUSTERS 6 TO 9

The 4 remaining clusters are harvested when ripe and go into seed processing.

6

7 2ND TESTING OF FEMALE PLANTS

In order to determine that also the last 4 clusters are disease-free, a second leaf sample is taken from 100% of the female plants and lab-tested.



VIRUS & TESTING

Viruses need the cell of a host to multiply. The first step in this pathogenic process is for the virus to enter a cell and to infect it. Once inside, the virus has its own genetic material multiplied by the host-cell. From there on, the virus is able to spread further and infect new cells.

A healthy plant bears healthy seeds. By ensuring that the female plants are free from harmful pathogens, we can conclude the same for the seeds that have been harvested from those female plants. Since younger cells are more active than older cells, infected plants generally have a higher concentration of virus in their younger parts. For this reason, young leaves are used for testing the female plants.

SEED PROCESSING

 GSPP

A

SEED EXTRACTION

The seeds are extracted from the fruits with the help of enzymes (i.a.).

B

ACID TREATMENT

The freshly extracted seeds are submerged in an acid solution.

- Mandatory treatment for the European Union -

C

DRYING

To maintain the germination energy, the seeds are mechanically dried.

D

CLEANING

Any impurities are removed.

E

LABTESTING

Representative samples are taken from the seed lots and tested for the presence of quarantine organisms (European Union) by an accredited laboratory.

F

UPGRADING & PACKING

By performing various germination tests and applying a priming, the seeds are brought to commercial quality level. Finally, the seeds are packed.

