



## PRODUCTION OF TOMATO SEED

The practice of tomato seed production is becoming more important among tomato growers in Mauritius and Rodrigues due to the unavailability of seeds when needed or the scarcity of good quality ones.

The following are recommended for the production of quality tomato seeds :

Hybrid tomato varieties should not be considered for seed production.

### Selection of plants

- ◆ Select plants before the first harvest from fields earmarked for seed production.
- ◆ Avoid abnormal plants and those showing symptoms of pests and diseases. Special attention must be paid to bacterial speck and bacterial spot (dark brown spots on leaves, cankers on fruits) as well as tomato mosaic virus (mosaic, yellowing and upward rolling of leaves) that are seed transmitted.
- ◆ Mark the selected plants (with a bamboo stick, for example) to distinguish them from the other plants.

### Harvest of fruits

- ◆ Harvest fruits which have started to ripen (the appearance of the red colour is an indication). Fruits at mature green stage give poor quality seeds.
- ◆ Pick fruits selected for seed first and avoid mixing them with those destined for sale. Keep them separately in a well-aerated place, free from moisture and rodents.
- ◆ Allow to ripen fully (for about one week).

## Seed extraction

### *For small-scale production*

- ◆ Slice the fruit into two and extract the seeds with a spoon
- ◆ Allow juice and seeds to ferment in an open vessel

### *For large scale production*

- ◆ Place the fruits on a large plastic sheet and crush them to a pulp
- ◆ Filter pulp through a wire mesh to separate out the seeds
- ◆ Allow seeds and juice to ferment in an open vessel

In both cases, fermentation lasts for about three days, during which the seeds will settle to the bottom. The seeds are then cleaned by placing the fermented mass on a sieve under running water.

## Seed drying


- ◆ Spread the seeds thinly on a cloth adequately protected from birds and allow to dry in direct sunlight.
- ◆ Stir the seeds regularly to prevent the formation of clumps and to promote uniform drying.
- ◆ Drying usually takes 3-4 days during which the moisture content drops to below 7%.

## Seed storage

Perform a germination test with a sample of the seeds just after drying to ensure that they are viable. At the same time store the rest of the seeds in a cool and dry place.

*The germination test can be done by uniformly spreading the seeds over a moistened paper towel placed inside a covered glass plate. The towel should be kept moist all the time. After 15 days, the total number of seedlings which have emerged will give an indication of the germination capacity of the seeds which will be stored.*

- ◆ Place the seeds to be stored in small plastic bags
- ◆ Seal the bags to keep the seeds free from moisture and label them with the name of the variety and the date of production
- ◆ For short term use, store in a cool and dry place and for long term use, keep in a refrigerator

 **At plantation, appropriate seed treatment should be strictly followed (see MSIRI Recommendation Sheet No. 95 of April 1996)**