

**What is postharvest loss?**

Post-harvest loss is the reduction in both quantity and quality from harvest to consumption. Quality losses include those that affect the nutrient/caloric composition, the acceptability, and the edibility of a given product. Quantity loss in developing countries including Nigeria is a huge problem as it reduces availability of the product when many people across the country are still plagued by malnutrition.

**Why is post-harvest loss in tomatoes important?**

Tomato is the second most important vegetable crop in the world (after potato) because it contains large amounts of vitamin C (providing 40 percent of the daily value of vitamin C). What is more, tomatoes supply vitamin A (which supports immunity, vision, and skin health); vitamin K (good for our bones); and potassium (a key nutrient for heart function, muscle contractions, as well as maintaining a healthy blood pressure and fluid balance). Since tomatoes are so vital for our health, there is a need to reduce wastage of the crop. Post-harvest loss of tomatoes is a major threat to food security in Nigeria. About 1.8 million tons of tomatoes are produced in Nigeria but over 50% of the total quantity of locally produced tomatoes are lost. Losses are due to poor storage, poor transportation system and lack of processing enterprises.

**What are the effects of post-harvest loss on tomato consumption and production?**

Post-harvest loss opens the door for importation of canned tomatoes, to bridge the demand for tomatoes by an ever increasing population.

These post-harvest losses are a huge disincentive to small and peasant farmers who end up with these apparently unpreventable losses, thereby making gains from tomatoes proceed not commensurate with efforts he puts in.

**What can YOU do to prevent these losses?**

**Good news!** There are strategies that you can immediately implement on your farm to reduce these losses. The strategies can be divided into logistic activities and quality control activities.

**Logistic activities to reduce post-harvest losses?**

- Monitor the quantity of tomatoes harvested at the same time due to their short shelf life.
- Tomatoes can be harvested either in matured green, partially ripened or ripened state. Except for immediate consumption, tomatoes should be harvested at the matured green stage to allow for a much longer time for ripening after harvesting.
- Instead of using baskets, use locally constructed padded crates to store tomatoes because the traditional raffia basket is tightly woven with no air space for the tomatoes, thus increasing the rate of spoilage.
- If woven raffia or palm baskets must be used, the baskets should be woven with the smooth side of the material turned inward.
- Plastic crates can also be used for storing of tomatoes
- Tomatoes should be stacked in such a way that no crate touches the produce in the lower crate

- Use padded trucks for transportation to market rather than bikes
- Control the height of stacked tomatoes.



Source: [www.google.com](http://www.google.com)

**What are the quality control activities to reduce post-harvest losses?**

- Tomatoes are best harvested in the morning or evening. (Tomatoes left after one hour of harvesting under the sun with a temperature greater than 15°C will deteriorate.
- Store and transport tomatoes at or below 15°C.
- When electricity supply is unreliable, use the low-tech pot in the pot (zeer) system (evaporative cooling) to store tomatoes for a few days.
- Dry tomatoes to increase availability during off-season period.



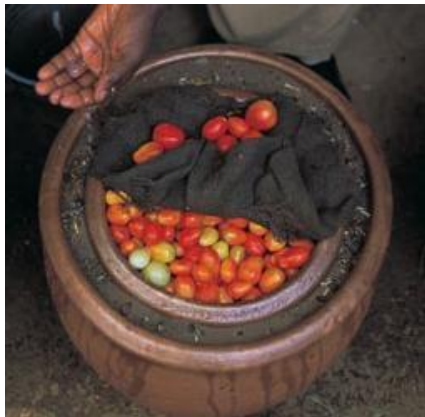
Source: <http://bit.ly/2DVAMgX>

*Proper stacking of tomatoes*



Source: <http://bit.ly/2Y6Y2Ab>

*Zeer pot low technology storing method*



Source: <http://bit.ly/2ZVq8Ak>

If most of the strategies presented are followed religiously then post-harvest losses in tomatoes will be significantly reduced.

*Dried tomatoes*



Source: <http://bit.ly/2vBuIWp>

For more information on the content provided in this manual, contact: Mrs Hephzibah Onyeje Obekpa atamahephzibah@yahoo.com (Federal University of Agriculture, Makurdi).

The production of this document was supported by the Feed the Future Nigeria Agricultural Policy Project.

## Feed the Future Innovation Lab for Food Security Policy

### Nigeria Agricultural Policy Project

May 2019

## Reducing Postharvest Loss in Tomatoes

Hephzibah Onyeje Obekpa



Source: <http://bit.ly/2LkXhSA>