

# Potato

## Post Harvest Technology

### Grading

Differentiation of quality for potatoes is very complex. However, high quality traits, in commercial trade, include more than 70 to 80% of tubers which are well shaped, brightness of colour (esp. reds, yellows, and whites), uniformity, firmness, freedom from adhering soil, freedom from bruising (black spot or shatter-bruising), scuffing or skinning, growth cracks, sprouting, insect damage, *Rhizoctonia* Black Scurf, decay, greening, or other defects.

### Packaging

The harvested potatoes are packed in jute gunny bags.

### Storage

Storage requirements of potato vary with the purpose for which potatoes are stored. The methods generally used for storage of potatoes are-

#### Room Storage

The room should have a high plinth and good ventilation. The doors and ventilators should be fitted with insect-proof wire-nets. Potatoes can be stored in single layers on sand. Frequent examination is necessary to discard tubers showing rotting symptoms.

#### Pit Storage

In this system, the tubers are stored in pits 60-75 cm deep and 2.5 metre long and 1 metre wide. These pits are made in a cool shady place. Water is sprinkled inside the pit to achieve the cooling effect. After two days neem leaves, dry grass or sugarcane trash is lined all round the pit from inside. Bamboo chimneys of 1.5 metre length are placed inside the pit 1 metre apart for facilitating evaporation of the moisture deposited due to transpiration of the stored tubers. Pits are then filled with tubers leaving 15 cm on top followed by a one-foot layer of dry grass. A thatch is provided over the pit as protection from rain and sun.

## Cold Storage

This is the best method of storing potatoes. At optimum conditions, potatoes should have good quality after storage of 3 to 5 weeks. Best temperature and humidity conditions for potatoes are as follows-

<b>Intended Use</b>	<b>Temperature</b>	<b>RH (%)</b>
Seed	2.4°C	95
Table	7°C	98
Processing	8-12°C	95

Potatoes in the cold storage are spread over the shelf to a thickness of not more than 30 cm. Individual shelves are about 45 cm high and 15 cm space is allowed between two layers.

Sprouting is often a serious problem in storage of potatoes. Temperature, humidity, variety and maturity affects sprouting. Isopropyl N-Chlorophenyl Carbamate (CIPC) is effective as sprout suppressant. Its effectiveness is greater when CIPC treated potatoes were stored under refrigeration under 8-12°C as against non-refrigerated storage.