



Quality Parameter of produce





Onion

General Characteristics:

Color: According to color, there are two types of onions

- i) Red onions-pinkish red colored skin.
- ii) White onions-white colored skin.

Shape:

Generally, round and oval onions are preferred .If the onion is having flat surface then it is well and good.

Size: Onions with a diameter of 4.0-6.5 cm having a weight more than 100-150

Grams/piece is preferred. (8-10 Onions/ Kg).

Texture: Onion should be hard and firm at the neck point. Onion should be properly

cured and thin, dried upper layer should be intact.

Grades: Onion is categorized into 3 three grades:

- Big onions: more than 150 grams/piece –for salad making and for Hotel
- Ideal/medium sized onion: 100 grams and above –general customers prefer this.
- Sambar/ baby onions: 50 grams and below – preferred by South Indians for making Sambhar and other dishes.

Details of different grades

	Grade A	Grade B	Grade C
Weight	Big onions	Medium	Sambar/Baby onions
	> 150 grams	100 gram & above	50 grams or below



for Selection of good Quality Onions:

- Medium sized, round onions with flat tops.
- With be firm, hard and dried.
- With smaller and tightly closed neck.
- Skin must be thin, papery, dried and intact with bulb.
- The fleshy scales should not be exposed.

Rejections Specifications:

- Very large and under sized onions are not preferred.
- With green tops having sprouted onions.
- With loose or half peeled outer skins.
- That is having double bulbs.
- With soft, long and open lose necks.
- Which are damaged, deformed or any cut on surface.
- Disease bulb having *aspergillus* rots characterize by blackish scale with soft texture and fowl smell.



Potato



General Characteristics:

Color: Yellowish or olive in color

Shape: Elongated and round

Size: Diameter of the potatoes should be 4.5 cm to 6.5 cm

Texture: Surface should be smooth and shining

Grade details Size grades

	Special	Big- Ideal size	Medium	Small
Weight	> 500 grams	200-250 grams 4-5 potatoes/kg	100-150 gram 8-10 potatoes/kg	< 90 grams

Quality Specification in Order to Select Good Potatoes

- Select potatoes which are medium in size i.e. 100-250 gm/piece.
(Maharashtra people prefer – long and round one, where as South Indians prefer round one to make curry)
- Potatoes should be mature and properly cured, firm and free from blemishes, cut and mud over the surface.
- Skin should be tightly intact to the tuber and shouldn't be easily removable.
- Select potatoes free from skinning and feathering (Removed skins due to improper handling)
- Select potatoes free from defects and decay on the surface.
- Select live potatoes without sprouting and drying symptom (Cut and see the fluid oozing out of the flesh)

Criteria for Rejection

- Very big and small potatoes.
- Shriveled, sprouted, bruised potatoes.
- Immature and freshly harvested potatoes.
- Green potatoes (Greening of potatoes due to Solanin formation due to exposure to the sun light in the field).
- Damaged and diseased potatoes having large cut marks and diseases spots.



Cauliflower



General Characteristics:

Color: Whitish Curds with fresh green colored jacket leaves

Size: The curd must be at least 4 inches (10 cm) in diameter with a weight of 400-800 Grams per Curd.

Texture: The surface of the curd should be compact and firm

Different Grades Available

1. Bigger Curd: More than 1 kg/Curd.
2. Medium curd: 700-800 grams/Curd.
3. Small curds: Less than 400 Grams/Curd

Quality Specifications for Ideal Cauliflower:

- It should be white/cream color and should have shape characteristics of variety.
- Curd should be free from bruises and blemishes
- Curd should be sound and free from any type of disease and insect infestation.
- Cauliflower stem should be maximum 8-10 cm. long from the lowest periphery of the curd and leaf should be trimmed up to the level of curd surface.

Criteria for Rejection:

- Extra large and over-mature (Spreading Curds) curds are rejected.
- Reject curds having hollow stem structure attached to the curds
- Reject yellow or pink colored Curds
- Reject Curds with black or yellow spots
- Reject Curds infested with green worms (Larvae)



Cabbage



General Characteristics:

Color: There are two kinds of Cabbages available in the market.

Green cabbage – Green in colour

Red cabbage - Pinkish red in color

Shape: Round head

Size: 700-800 Grams/piece. (Minimum 6 inches i.e. 15 cm diameter is required)

Texture: Head must be firm (hard) that can be easily tested by pressing on by thumb.

Grades : Different Grades Available in the Market

1. Big Cabbages: More than 1kg/Head- Preferred for Salad making
2. Medium Cabbages (Ideal Size): 700-800 gram/head-Preferred by the Customers
3. Small Cabbages: Less than 500 gram/head- Not Preferable.

Quality Specifications for selecting good quality Cabbages:

- Cabbage should be firm, clean and compact, with green/light green/purplish red color and have shape characteristics of variety.
- Wrapper leaves (outer green leaves of the head) should not be loosely attached to the head.
packed in the polybags.
- Cabbage should not be puffy and should be free from cut/crack, dirty outer leaves, pale look, purple color development, stem end rot, desiccated leaves and any type of damage caused by pressure and mechanical means.
- Cabbage should be covered with 2-3 outer leaves and stem should be cut from the surface of the head.

Criteria for Rejections:

- Reject cabbage, whose wrappers (outer leaves) are
- Wilted, decayed & insect eaten.
- Loose and more numbers of wrapper leaves.
- Very big or small sized cabbages should be rejected.
- Cabbage with thick and fibrous leaves.
- Head is more matured (See that the head splits open when it is matured).
- Discolored leaves.



Carrot

General Characters:

Color: Red /Orange color **Shape:** Conical shape **Size:**

Ideal Qualities of Carrots (Other than Baby Carrot):

- Carrot should be fresh, clean, firm, turgid, and topped (without leaves and stalk) and should have color and shape characteristics of variety.
- Carrot should be smooth and shiny and should be free from bruises, surface nodes and secondary roots.
- Carrot should not be matured, broken, and misshaped/deformed and should be free from abnormal external moisture, foreign smell and/or taste.
- Carrot should be sound and free from insect infestation, rotting and fungal infection and should not have diseases like watery soft rot, bacterial soft rot etc.
- Select young, tender, well-colored carrots.
- It should be thin and long with orange/red colored skin.
- It must be having a mild flavor.

Criteria for Rejection

- Carrots having roots bruising and tip-breakage are rejected. (Signs of Rough handling).
- Very large sized Carrots (More than 200 gram/piece) should be rejected.
- Roots with large green “Sunburned” areas at the top should be rejected (If found then trimmed)
- Tops with discolored or decay leaves are also avoided, as this is a sign of over maturity.
- Reject Damaged, Decayed or Deformed carrots
- Reject muddy and cracked Roots, roots with bitter taste, and roots having holes on the surface.
- Reject discolored roots, roots having sunburn marks on the surface, flabby and wilted roots & any kind of spotted roots





General Characteristics:

Color: Whitish /slightly reddish White

Size: Medium Sized long round radish with 2-2.5 cm diameter has more demand.

Shape: Typical radish shape (Gradually Tapering End)

Texture: The radish should be of uniform and similar shape as per varietals specification for the variety, well formed, smooth, firm but of tender texture. It should be smooth form, tender and fibreless.

Radish

Ideal Qualities of Radish:

- Small or medium, thin and long radish has more demands in the market.
- Radish that is free from dirt and having a clean surface are preferred.
- Radish having hairs at the bottom narrow portions are good roots.
- Bunched radish tops should be fresh in appearance and turgid.
- It should also be free from harvest damage, decay, disease or insects.
- The top leaves should be green and fresh.
- Radish should be clean, fresh, smooth, soft, turgid and should have shape and color characteristics of variety.
- Radish should be free from cut/crack, bruises, secondary roots and black/brown spots
- Radish should not be broken, misshaped and slinky.
- Radish should be sound, smooth and free from insect and disease infestation.
- Radish should be free from holes, diseases and blackening of edible portions have green and fresh leaves which should not have holes or disease spots.
- Radish should be topped (without leaves and stalk) leaving two inch stalk length.

Criteria for Rejection

- Reject too large or small in size radish and having thick fibrous skin.
- Avoid radish those are having yellow or decayed tops.
- Reject damaged, deformed or decayed radish as listed below : -
 - 1) Too Fleshy radish.
 - 2) Water-soaked, wilted, and black shoots at the top.
 - 3) Pithy centers with edible roots
 - 4) Soft roots
 - 5) Holes or spot on the roots.



Tomato



General Characteristics:

Color: Red color/Slightly yellowish red

Shape: Round

Size: 80-100 gm/piece (10-12 pieces/kg)

Texture: Surface should be smooth and glossy in appearance.

Ideal Quality for selection of good tomatoes:

- Tomato should be mature, well developed, firm with smooth/glossy appearance
- It should have specific shape and size as per varietal characteristics.
- Tomato should be picked at mature or turning red ripe stage, so that it may reach to the final destination safely.
- Skin should be thin, tight and glossy in appearance.
- Surface of the tomatoes must be free from any sort of defects, disorder or contaminants
- Tomato should be firm and matured
- The fruits should be harvested with stalk along with calyx.
- Tomato should be free from sunburn, bruised marks, dry circular and black spots on surface.
- Tomato should not be mis-shaped, dry, soft, punctured and in over-ripe stage.
- Tomato should be free from cuts, growth cracks and any other mechanical and packing damage.
- Tomato should be sound and free from insect infestation, and disease like blossom end rots (BER) and others.

Criteria for Rejections:

- Very small and large tomatoes from the lot should be rejected.
- Pressed or flat surface due to over crowding of tomatoes.
- Over ripe and cracked tomatoes should be rejected
- Sunburn (green and yellow area) near the stem scar of tomatoes should also be rejected
- Tomatoes with distorted shape should be rejected.
- Disease/infested tomato should be rejected.
- Blossom End Rots (decayed with black rot area opposite to stem scar end)

Different Grades of Tomatoes

- Big/Fancy Tomatoes: More than 200 grams/Piece (4-5 pieces/Kg)-
- Medium Tomatoes: 50-70 grams/Piece (15-20 Pieces /Kg)
- Organic Tomatoes: 30-40 grams/Piece (20-25 Pieces/Kg)
- Ideal Tomatoes : 80-100 grams/Piece (10-12 pieces/Kg)- Namdhari Seeds