#### **COLOR CHARTS PRESCRIBED FOR EXPORT TOMATOES**

#### **Important note:**

The below colour charts should be read in conjunction with the export standards and requirements prescribed for fresh vegetables under the banner of the Agricultural Product Standards Act 119 of 1990.

#### **TYPES OF TOMATOES**







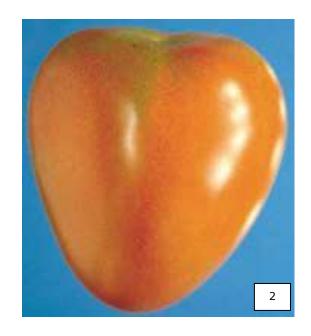
Photo 1: Round and cherry tomatoes

Photo 2: Ribbed tomatoes

Photo 3: Oblong tomatoes

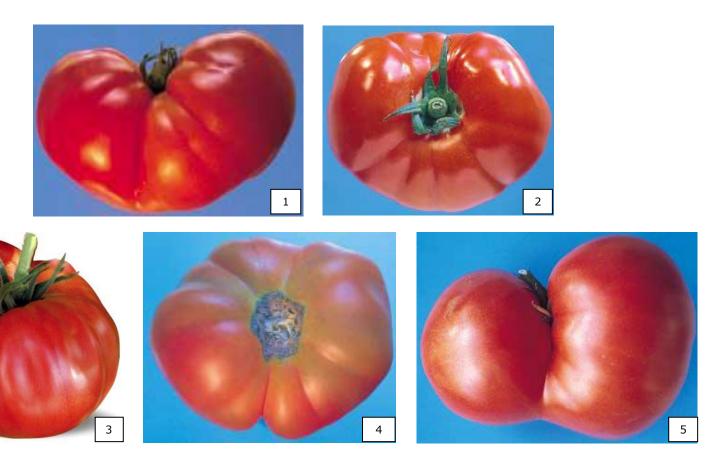
#### **DEFECT IN SHAPE OF ROUND TOMATO**





Defect	Class I	Class II	Out of Grade	Notes
Defect in shape for round tomato	Photo 1	Photo 2	x	Limit allowed for defect in shape.
				Class I: – slight malformation can be allowed.
				<b>Class II:</b> – Malformation should not affect the appearance of the tomato.

## **DEFECT IN SHAPE OF RIBBED TOMATO**



Defect	Class I	Class II	Out of Grade	Notes
Defect in shape for ribbed tomato	Photo 1	Photo 1	Photo 5	Class I: - slight malformation can be allowed up to 4 intense
	Photo 2	Photo 2		ribbing as depicted in photo 1 and photo 2.
		Photo 3		Class II: - Malformation should not affect the appearance of the
		Photo 4		tomato. Up to 6 intense ribbing is allowed as depicted in photo 3
				and photo 4.

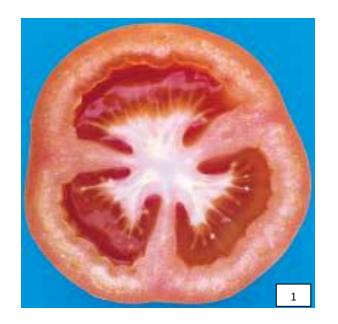
### **DEFECT IN SHAPE OF OBLONG TOMATO**

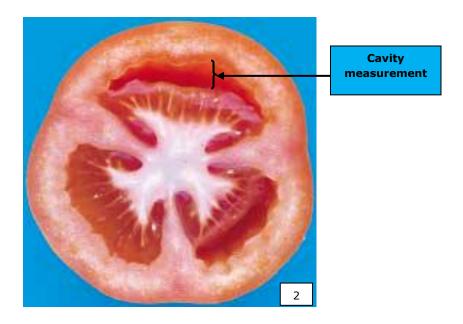




Defect	Class I	Class II	Out of Grade	Notes
Defect in shape for oblong tomato	Photo 1	Photo 2	х	Limit allowed for defect in shape.
				Class I: – slight malformation can be allowed.
				<b>Class II:</b> – Malformation should not affect the appearance of the tomato.

### **HOLLOWNESS**





Defect	Class I	Class II	Out of Grade	Notes
Hollowness	Photo 1	Photo 2	x	Photo 1: Slight hollowness - Class I - Limit allowed as stipulated below.  Class I: - All segments may show cavities up to a maximum of 3 mm measured from the inner skin to the start of the internal flesh of a tomato.  Photo 2: Hollowness - Class II - Limit allowed as stipulated below.  Class II: - The cavities in two segments may be 6 mm provided that the cavities in the other segments do not exceed 3 mm or cavities in one segment may exceed 6 mm provided that the cavities in all other segments do not exceed 3 mm.

### **SUPERFICIAL BLEMISHES**





Defect	Class I	Class II	Out of Grade	Notes
Superficial blemishes	Photo 1	Photo 2	Х	Photo 1: Slight superficial blemishes - Class I - Limit allowed.
				Photo 2: Superficial blemishes - Class II - Limit allowed.
				Class I: – Superficial blemishes not deeper than 1.5 mm and a total surface area of 225 mm² (a circle of 15 mm in diameter) may be allowed.  Class II: – Superficial blemishes not deeper than 1.5 mm and a total surface area of 340 mm² (a circle of 18.439 mm in diameter) may be allowed.
				15 mm or 225 mm <sup>2</sup> 18,439 mm or 340 mm <sup>2</sup> 20 mm or 400 mm <sup>2</sup>

### **BOTRYTIS GHOST SPOTS**





Defect	Class I	Class II	Out of Grade	Notes
Botrytis ghost spots	Photo 1	Photo 2	х	Photo 1: Botrytis ghost spots - Class I - Limit allowed. Photo 2: Botrytis ghost spots - Class II - Limit allowed.

## **CRACKS FOR RIBBED TOMATOES**







Defect	Class I	Class II	Out of Grade	Notes
Cracks	Photo 1	Photo 2	Photo 3	Photo 1: Healed cracks for ribbed tomatoes - Limit allowed for class 1 (10mm if within 1.5mm depth for one or more cracks in total).  Photo 2: Radial cracks - Limit allowed for class 1 or class 2 if within specifications.  Class I: - One or more cracks which individually or collectively are not longer than 10 mm and deeper than 1.5 mm.  Class II: - One individual crack not longer than 20 mm and deeper than 1.5 mm or two or more cracks which are collectively not longer than 20 mm and deeper than 1.5 mm.  Photo 3: Fresh cracks - Not allowed (regarded as injuries and the tolerance for injuries thus applies.

# **UMBILICUS**





Defect	Class I	Class II	Out of Grade	Notes
Umbilicus	Photo 1	Photo 2	х	Photo 1: Small umbilicus - Class I - Limit allowed. Rough marks not deeper than 1.5 mm and a total surface area of 225 mm² (a circle of 15 mm in diameter) may be allowed.  Photo 2: Umbilicus - Class II - Limit allowed. Corky marks not deeper than 1.5 mm and with a total surface area of 340 mm² (a circle of 20 mm in diameter) may be allowed.

## **SUBERIZATION OF THE STIGMA**





Defect	Class I	Class II	Out of Grade	Notes
Suberization of the stigma	Photo 1	Photo 2	Х	<b>Photo 1:</b> Suberization of the stigma - Class I - Limit allowed.
				<b>Photo 2:</b> Suberization of the stigma - Class II - Limit allowed.
				Class I: - Superficial blemishes not deeper than 1.5 mm and
				a total surface area of 225 mm <sup>2</sup> (a circle of 15 mm in
				diameter) may be allowed.
				Class II: - Superficial blemishes not deeper than 1.5 mm and
				a total surface area of 340 mm² (a circle of 18.439 mm in
				diameter) may be allowed.

### **FINE BLOSSOM SCAR**





Defect	Class I	Class II	Out of Grade	Notes
Fine blossom scar	Photo 1	Photo 2	х	Photo 1: Fine blossom scar - Class I - Limit allowed. Photo 2: Fine blossom scar - Class II - Limit allowed.
				Class I: – Superficial blemishes not deeper than 1.5 mm and a total surface area of 225 mm² (a circle of 15 mm in diameter) may be allowed.  Class II: – Superficial blemishes not deeper than 1.5 mm and a total surface area of 340 mm² (a circle of 18.439 mm in diameter) may be allowed.

## **GREENBACK**





Defect	Class I	Class II	Out of Grade	Notes
Greenback	Photo 1 Photo 2	Photo 1 Photo 2	х	Photo 1: Greenback - External appearance - Limit allowed. Photo 2: Greenback - Internal appearance - Limit allowed.

### **YELLOWBACK**





Defect	Class I	Class II	Out of Grade	Notes
Yellowback	X	x	Photo 1 Photo 2	No standard specified.

## **INJURIES**



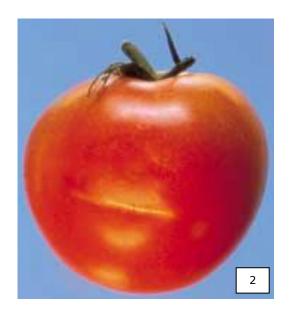




Defect	Class I	Class II	Out of Grade	Notes
Injury	Х	х	Photo 1 Photo 2 Photo 3 When not healed	<b>Photo 1:</b> Damaged tomato - Not allowed (the tolerance for injuries must be applied).
				Photo 2: If concentric cracks (photo 2) is dry, the following standard should be applied:  Class I: - Concentric cracks not deeper than 1.5 mm which individually or collectively does not exceed a quarter of the circle.  Class II: - Concentric cracks not deeper than 1.5 mm which individually or collectively does not exceed half of the circle.  Photo 3: If cracks are not healed the tolerance for injuries shall be applied.

## **BRUISES**





Defect	Class I	Class II	Out of Grade	Notes
Bruises	x	Photo 1	Photo 2	Photo 1: Bruises - Limit allowed.
				Photo 2: Marked bruising - Not allowed.

### **EXTERNAL DEFECTS**





Defect	Class I	Class II	Out of Grade	Notes
Pseudomonas (photo 1) Alternaria (photo 2)	Х	х	Photo 1 Photo 2	Photo 1: Pseudomonas - Not allowed. Photo 2: Alternaria - Not allowed.

### **INTERNAL BROWNING**





Defect	Class I	Class II	Out of Grade	Notes
Internal browning	х	х	Photo 1 Photo 2	Photo 1: External appearance - Not allowed. Photo 2: Internal appearance - Not allowed.

### **EXTERNAL DEFECTS**





Defect	Class I	Class II	Out of Grade	Notes
Watercore (photo 1)	Х	X	Photo 1	Photo 1: Watercore - Not allowed.
Chilling injury (photo 2)			Photo 2	Photo 2: Chilling injury - Not allowed.

## **EXTERNAL DEFECTS**

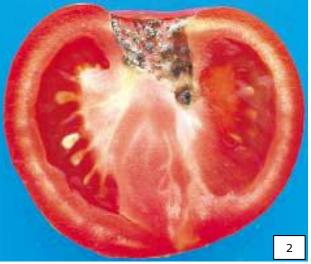




Defect	Class I	Class II	Out of Grade	Notes
Chemical treatment residues (photo 1) Soiled tomato (photo 2)	х	×	Photo 1 Photo 2	Photo 1: Chemical treatment residues - Not allowed. Photo 2: Soiled tomato - Not allowed.

### **DAMAGE BY INSECTS**







Defect	Class I	Class II	Out of Grade	Notes
Damage by insects (photo 1)	X	х	Photo 1	Photo 1: Not allowed.
Damage by insects (photo 2)			Photo 2	Photo 2: Not allowed.
Damage by snails (photo 3)			Photo 3	Photo 3: Not allowed.

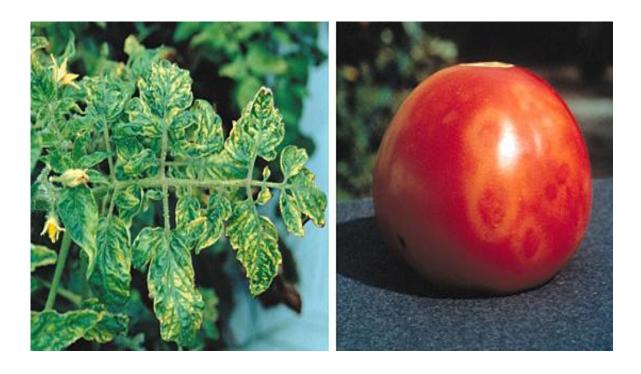
## **SIGNS OF ROTTING**





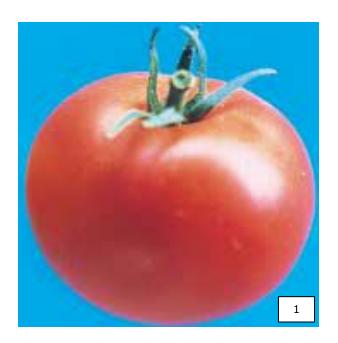
Defect	Class I	Class II	Out of Grade	Notes
Signs of rotting (photo 1) Blossom-end rot (photo 2)	×	Х	Photo 1 Photo 2	Photo 1: Signs of rotting - Not allowed. Photo 2: Blossom-end rot - Not allowed.

## **EXAMPLE OF MOSAIC VIRUS**



Defect	Class I	Class II	Out of Grade	Notes
Mosaic virus	х	x	√	Class 1: – None allowed.
				Class 2: – Mosaic infestation with a total surface area of not more than 12.5%.

### **EXTERNAL APPEARANCE**





Defect	Class I	Class II	Out of Grade	Notes
Perfect produce (photo 1) Not fresh in appearance (photo 2)	Photo 1	Photo 1	Photo 2	Photo 1: Perfect produce. Photo 2: Not fresh in appearance - Not allowed.

# MARKING REQUIREMENTS

