

# TOMATO

Lycopersicon Lycopersicum

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# Modern glasshouse



# Growing in Glasshouse



**Internal  
Transport  
system**



Plant can grow up to  
12 meter

# Biological Plant protection



bug scan &  
bumble bee  
pollution



# Grading



**Tomatoes  
on the vine**



# 4 COMMERCIAL TYPES

 round


 ribbed

 oblong / elongated


 cherry tomatoes

(including ‘cocktail’ tomatoes)





# Type tomato - minimum size

- Round > 35 mm
  - Ribbed > 35 mm
  - Oblong > 30 mm
  - Cherry tomato may be < 30 / 35 mm
  - Tomatoes on the vine?
- 



# Black tomato



**Name: Kumato  
round type**

# Yellow tomatoes on the vine



# Coeur de Boeuff



**Ribbed tomato**  
**Green variety**

# Coeur de Boeefe



Should be  
eaten green



# Romatype tomato



**Oblong  
type**

# San Marzano type on the vine



OBLONG TYPE

# Wild wonder mix






**Cherry tomatoes  
on the vine**





# Minimum requirements


## Tomatoes should be:

- entire
  - healthy
  - almost free from visible residue
  - beginning of ripening
  - fresh
  - free from pests or damage caused by pests
- 







# Tomatoes on the vine

**In the case of trusses of tomatoes:**

- **the stalks must be:**
    - **Fresh**
    - **Healthy**
    - **Clean**
    - **Free from all leaves and any visible foreign matter.**
- 




# Major defects

-  **Open damaged fruit flesh**
  -  **Hollow**
  -  **Dark green fruit flesh**
- 




# Minor defects

- **Misshapen**
  - **Discolouring**
  - **Small (not open) cracks**
  - **Small bruises**
  - **Scarves of the flowers**
- 




# CLASS - EXTRA

- **firm flesh**
  - **shape must be characteristic of the variety**
  - **Free from greenbacks**
  - **very slight superficial defects are allowed**
- 




# CLASS I

- **Must be:**
  - **reasonably firm**
  - **free of cracks and visible greenbacks**
- 



# CLASS I


**Allowed are:**

- **Slight defect in shape**
  - **Slight defect in colouring**
  - **Slight bruising**
  - **Slight skin defects, but not open**
- 



# CLASS I

**“Ribbed” tomatoes may show:**


- **healed cracks not more than 1 cm long**
  - **no excessive protuberances**
  - **a small umbilicus, but no suberisation**
  - **suberisation of the stigma up to 1 cm<sup>2</sup>**
  - **fine blossom scar in elongated form**  
**<  $\frac{2}{3}$  of the greatest diameter of the fruit.**
- 





# CLASS II


**Allowed are:**

- **Shape defects**
  - **Defects in colouring**
  - **Skin defects but not into the fruit flesh**
  - **healed cracks up to 3 cm for round, ribbed or oblong tomatoes.**
- 



# CLASS II

**‘ribbed’ tomatoes may also show:**

- **more pronounced protuberances than but without being misshapen**
  - **an umbilicus**
  - **suberisation of the stigma up to 2 cm<sup>2</sup>**
  - **fine blossom scar in elongated form**
- 

# Colour scales



Not allowed



Rot caused by  
Botrytis

Not allowed



Residue

Not allowed



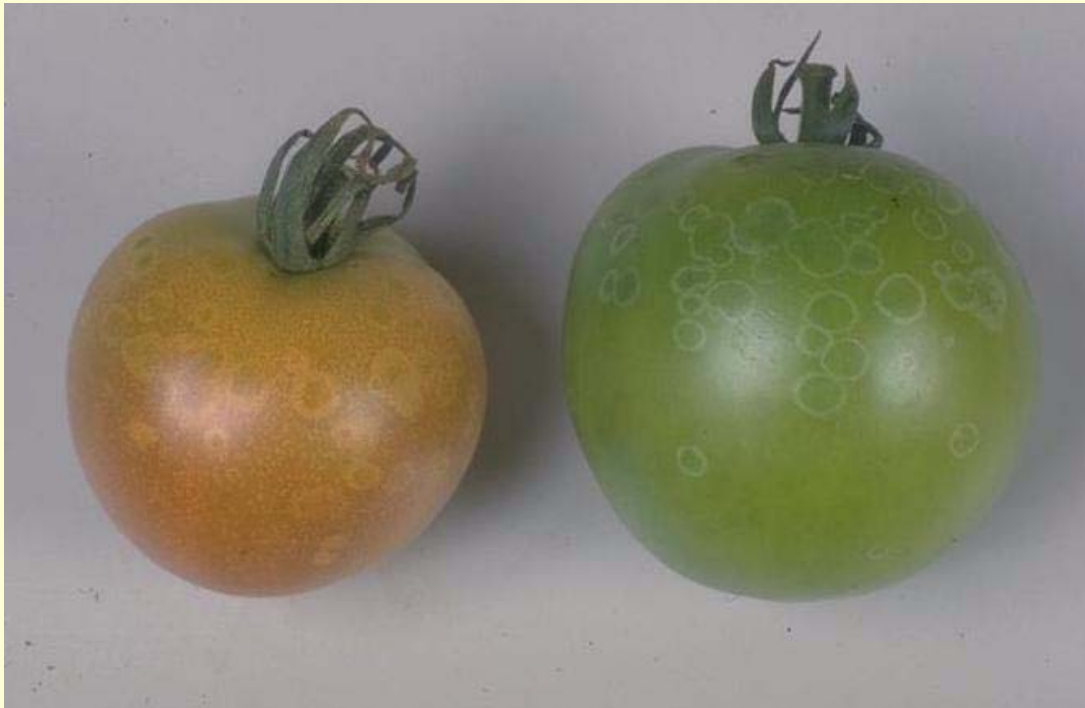
open stalk  
damages

Not allowed



**Healed crack**

Not allowed



**Botrytus**

**Class I max 5 dots**  
**class II max 10 dots**



Not allowed



blossom-end  
rot  
also called:  
bottom-end rot

Not allowed



blossom-end  
rot

San Marzano tomato

Not allowed

PEPINO tm  
VIRUS



Not allowed



**Cold damage**

Not allowed



**Unripe fruit**

Allowed in **CLASS I**



discolouring

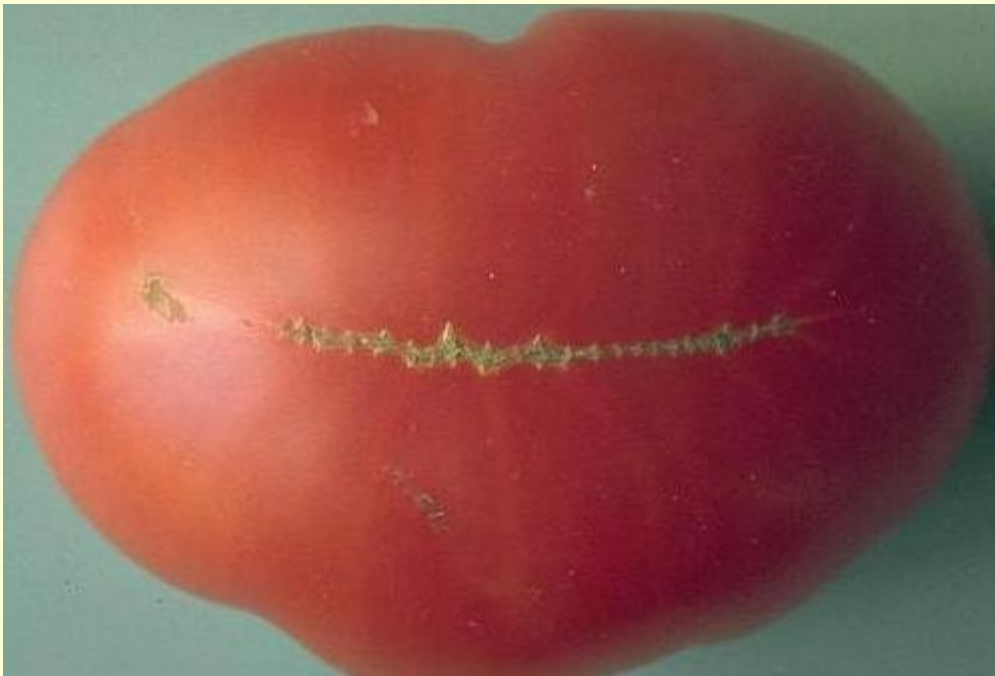
# Allowed in **CLASS I**



Slightly and  
partly hollow

max 50% of  
the outline  
and a space  
of max 1/2 cm

Allowed in **CLASS I**



scarves of the  
flowers max  
 $2/3$  diameter



# CLASS I



Yellow Calyx

only on the crown  
leaves

# CLASS II



yellow  
calyx

# CLASS II



Hollow  
( $<1$  cm)

# CLASS II / OUT OF GRADE



corked  
oval  
cracks

# CLASS II



skin defects  
(perished  
cells)  
bottom side

# CLASS II



**water disease**

# CLASS II



**Shape**

# CLASS II



**misshapen  
not  
symmetric  
(top shape)**

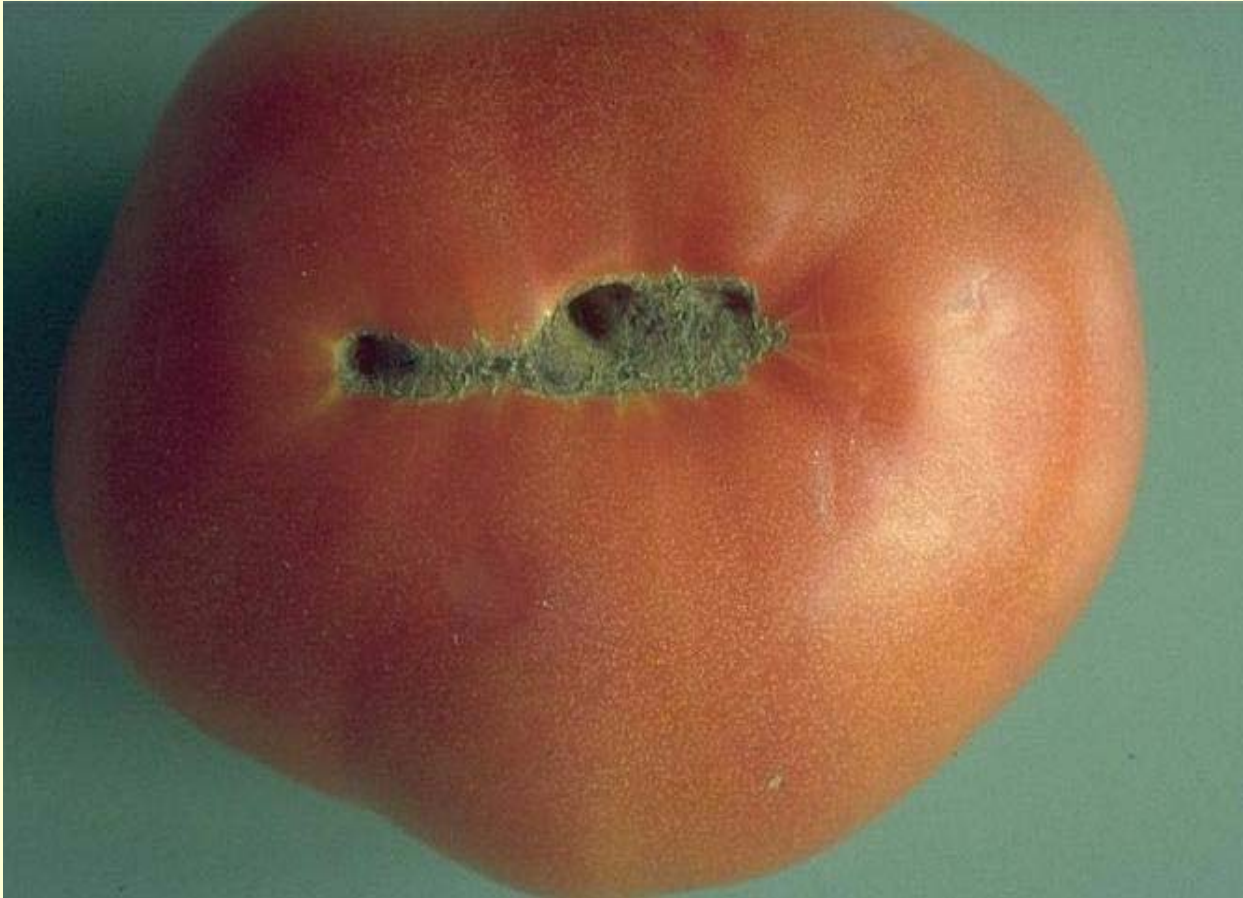


# CLASS II



**Shape**

# CLASS II



**corked scar**

( $> 1 \text{ cm}^2$ )

# CLASS II



**misshapen  
(boxing-glove)**

# CLASS II



**star cracks**  
**> 1 cm**

# CLASS II



**Small  
cracks**

# CLASS II



**COLOUR  
DEFECT**

# CLASS II



**Colour defect  
caused by  
water disease**



# Sizing

● 30 - 35 mm	only plum
● tomatoes	
● 35 - 40 mm	CC
● 40 - 47 mm	C
● 47 - 57 mm	A
● 57 - 67 mm	B
● 67 - 82 mm	BB
● 82 - 102mm	BBB
● 102 mm and more	BBBB

➤ **No scale for trusses of tomatoes.**










# SIZING TOLERANCE

**Normally 10% !**


**But **no tolerances** for:**

-  **Round tomatoes < 33 mm**
  -  **Ribbed / Oblong tomatoes < 28 mm**
- 



# QUALITY TOLERANCES

**“Extra” Class: 5% by number or weight of tomatoes not satisfying the requirements of the class but meeting those of Class I or, exceptionally, coming within the tolerances of that class.**





# QUALITY TOLERANCES

**CLASS I:** 10 % by number or weight....

- In the case of trusses of tomatoes, 5 % by number or weight detached from the stalk.

Also in prepackaging





# QUALITY TOLERANCES


**CLASS II:** 10 % by number or weight ....

with the exception of produce affected by rotting, marked bruising or any other deterioration rendering it unfit for consumption.

- In the case of trusses of tomatoes, 10 % by number or weight of tomatoes detached from the stalk.
- 



# PRESENTATION

- **with or without calyx / short stalk**
  - **as trusses of tomatoes**
- 

# PRESENTATION


● **Trusses of tomatoes must show at least:**

	<u>Prepackaging</u>	<u>Other packaging</u>
<b>Cherry tomatoes</b>	<b>4</b>	<b>6</b>
<b>Other types</b>	<b>2</b>	<b>3</b>





# Storage conditions

- **Less sensitive for ethylene**
  - **Sensitive for dehydration**  
**(especially around the stalks)**
  - **Sensitive for cold storage**  
**(bad for flavours / taste)**
- 



**Storage at 13 - 16 °C**

**Red** tomatoes 10 - 12°C





# TOMATO

## End

**Any Questions?  
Please ask them**

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