



**MORPHOLOGICAL DESCRIPTOR**  
**TOMATO (*Lycopersicon esculentum* L.)**



Federal Seed Certification & Registration Department  
Ministry of Food, Agriculture & Livestock  
Government of Pakistan, Islamabad

*Testing Genetic Suitability and Adaptability: and  
Registration of Crop Varieties is Legal Obligation  
under Section 8 of Seed Act, 1976.*

**Dr. M. Ashraf Tajammal**  
**Ms. Naheed Naz**

**GENERAL**

Variety name .....

Parentage .....

Pedigree .....

Breeder (s) .....

Comparable variety (s) .....

Breeding center/institute .....

Variety maintainer .....

Origin  Local  Exotic

Breeding method  Selection  Hybridization  Introduction  Any other

Areas of adaptation .....

Planting time .....

Maturity duration  Short  Medium  Long

**SEEDLING CHARACTERISTICS**

Seedling height (cm) .....

Seedling pubescence  Absent  Sparse  Medium  Strong

Seedling anthocyanin  Absent  Weak  Medium  Strong

**PLANT CHARACTERISTICS**

Growth type  Determinate  Indeterminate

Growth habit  Bushy  Spreading  Trailing

**STEM CHARACTERISTICS**

Stem color  L. green  Green  Dark green

Stem thickness (mm) .....

Internode length (between 1st & 4<sup>th</sup> node)  Short  Medium  Long

Stem anthocyanin  Absent  Weak  Medium  Strong

Stem hairiness  Sparse  Medium  Profuse

**LEAF CHARACTERISTICS**

Leaf attitude ( in middle third of plant)  Erect  Semi erect  Horizontal  Drooping

Leaf color  L. green  Green  Dark green

Leaf type  Type 1  Type 2  Type 3  Type 4

Leaf length/width (cm) ...../.....

Division of blade  Pinnate  Bipinnate

**FLOWER CHARACTERISTICS**

Flowering days .....

Inflorescence type  Uniparous  Multiparous

Flower color  Yellow  Orange

Pedicel length (from abscission layer to calyx)  Short  Medium  Long

Anther color  Creamy  Yellow  Orange  Anyother

Stigma pubescence  Absent  Present

**FRUIT CHARACTERISTICS**

Fruiting days .....

Fruit color  Yellowish green  Orange  Pink  Red

Fruit shape in longitudinal section  Flattened  Slightly flattened  Round  Rectangular  Cylindrical

Heart-shaped  Obovoid  Ovoid  Pear-shaped  Strongly pear-shaped

Fruit ribbing at stem end  Absent  Weak  Medium  Strong  V. strong

Fruit cross section  Round  Not round

Fruit intensity of green color of shoulder  Light  Medium  Strong

Fruit size of blossom scar  V. small  Small  Medium  Large

Fruit top  Round  Pointed  Flat

**SEED CHARACTERISTICS**

- Seed color  Yellow  L. brown  Dark brown
- Seed shape  Round compressed  Semi round compressed
- Seed length (mm) .....
- Seed width (mm) .....
- Seed thickness (mm) .....
- 1000, seed weight (g) .....

**ENVIRONMENTAL ADAPTABILITY** (Evaluation done under define conditions)

**Flowering Response to seasons**  Stable  Variable  Highly variable

**Drought tolerance**  Least tolerant  Medium  Most tolerant  
(Measured as reduction in yield).

**Tolerance to salinity**  Least tolerant  Medium  Most tolerant  
(Measured by reduction in plant height 30 days after sowing).

**Tolerance to acid soils**  Least tolerant  Medium  Most tolerant  
(Measured as reduction in plant height 30 days after sowing).

**Cold tolerance**  Least tolerant  Medium  Most tolerant  
(Measured as reduction in general vigour and productivity after being continuously exposed to an average temperature of 15 °C for at least 15 days).

**Heat tolerance**  Least tolerant  Medium  Most tolerant  
(Measured as yield reduction when continuously exposed to average of 40 °C during the flowering period).

**RESISTANCE TO INSECTS/PESTS**

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**RESISTANCE TO DISEASES**

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**DISTINGUISHING CHARACTERISTICS**

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**RECOMMENDED/APPROVED BY**

Variety Evaluation Committee (VEC)  
Experts Sub Committee  
Provincial Seed Council

Yes  
 Yes  
 Yes

No  
 No  
 No

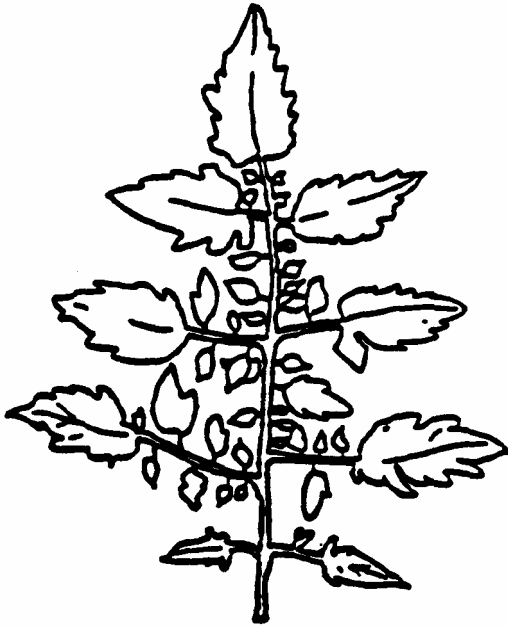
**COMMENTS OF SPOT EXAMINATION**

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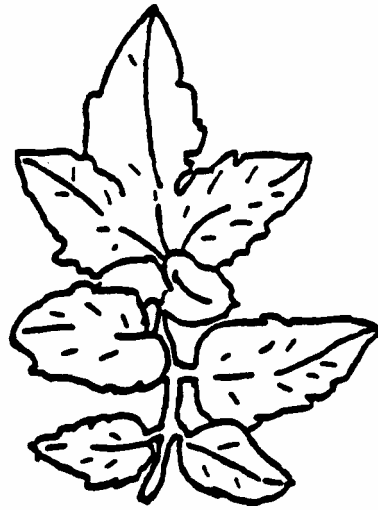
**ADDITIONAL INFORMATION**

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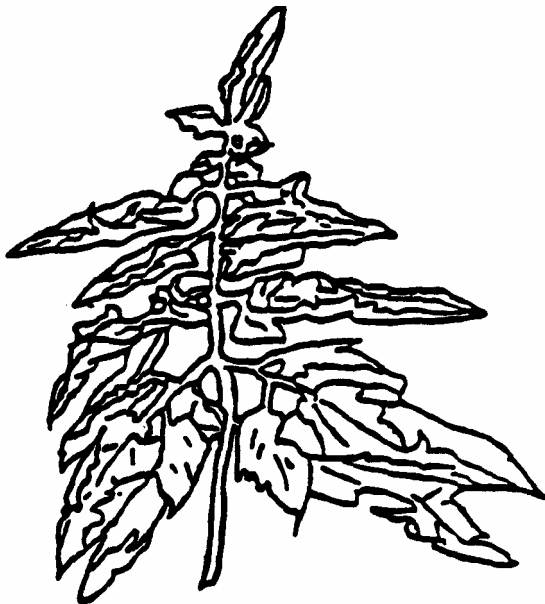
LEAF TYPE



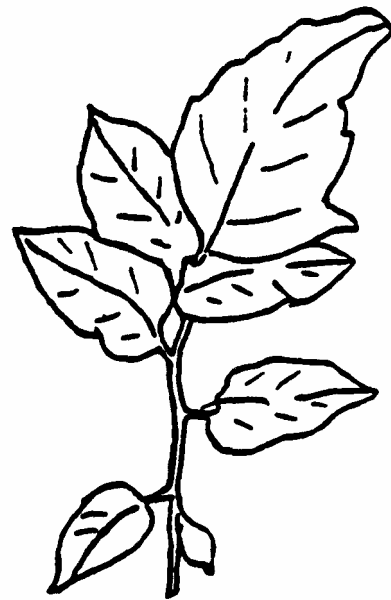
Type 1



Type 2

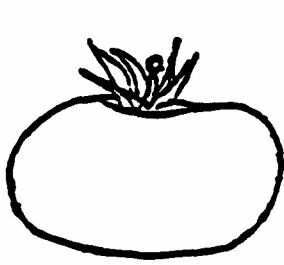


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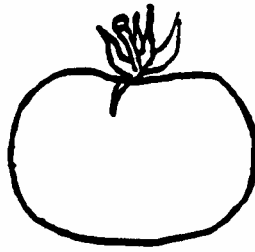


Type 4

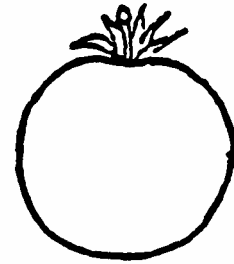
**FRUIT SHAPE IN LONGITUDINAL SECTION**



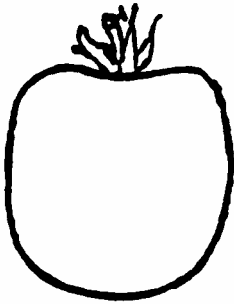
Flattened



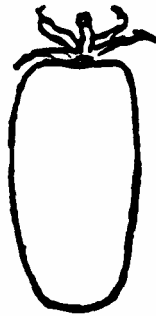
Slightly flattened



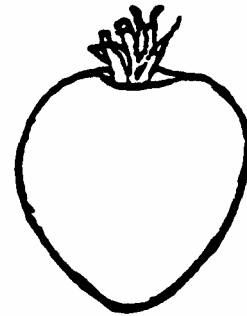
Round



Rectangular



Cylindrical



Heart-shaped



Obovoid



Ovoid



Pear-shaped

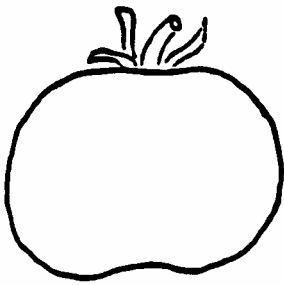


Strongly pear-shaped

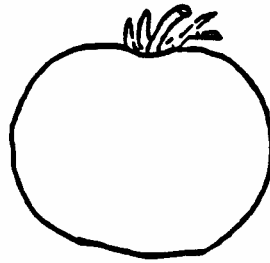
**PEDICEL LENGTH (FROM ABSCISSION LAYER TO CALYX)**



FRUIT SHAPE AT BLOSSOM END



Indented



Flat



Pointed