



MORPHOLOGICAL DESCRIPTOR

MANGO (*Mangifera indica* 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

Species

Breeding center/institute

Areas of adaptation

Parentage

Rootstock name

Scion

Origin of rootstock

Origin of scion

Type of maintenance

Type of vegetative production

Scion/rootstock compatibility

Flowering season/month

Fruiting set

Fruit ripening

TREE CHARACTERISTICS

Main branch attitude Erect Horizontal Drooping

Young leaf anthocyanin color Pink Brown

Color intensity Weak Medium Strong

LEAF CHARACTERISTICS

Full developed leaf attitude Horizontal Drooping

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

Leaf shape Ovate Oblong Elliptic

Leaf color Yellow green Green Brown green Dark green

Fully developed leaf twisting of blade Absent Present

Leaf shape in cross section Straight Concave

Leaf curvature of midrib Absent Present

Leaf position of curvature of midrib Apical Basal

Leaf relief of upper surface Smooth Raised

Leaf undulation of margin Weak Medium Strong

Leaf shape of tip Attenuate Acuminate Acute

Leaf shape of base Acute Obtuse Rounded

Leaf fragrance Absent Present

Leaf length of petiole Short Medium Long

FLOWER CHARACTERISTICS

Inflorescence length Short Medium Long

Inflorescence color of axis and branches Whitish Yellowish green Yellow Pale orange Pink

Dark pink red purple

Inflorescence pubescence on axis and branches Absent Present

Inflorescence pubescence Sparse Medium Dense

Old flower anthocyanin coloration Absent Weak Medium Strong

FRUIT CHARACTERISTICS

Mature fruit length V. short Short Medium Long V. long

Fruit width V. narrow Narrow Medium Broad V. broad

Fruit length/width (cm)/.....

Fruit shape in cross section Narrow elliptic Broad elliptic Circular

Fruit skin color Green Green and purple Green and red Green and orange Green and pink

Morphological Descriptor**Mango**

- Fruit non-green area Small Medium Large
- Fruit bloom on skin Inconspicuous Conspicuous
- Fruit density of lenticels Sparse Medium Dense
- Fruit conspicuousness of lenticels Weak Medium Strong
- Fruit size of lenticels Small Medium Large
- Fruit skin Smooth Rough
- Fruit stalk cavity Absent Shallow Medium Deep
- Fruit neck Absent Present
- Fruit prominence of neck Weak Medium Strong
- Fruit shape of left sholder Rounded upward Rounded outward Rounded downward Sloping downward Falling abruptly
- Fruit shape of right shoulder Rounded upward Rounded outward Rounded downward Sloping downward Falling abruptly
- Fruit groove in left shoulder Absent Present
- Fruit lumpiness on left shoulder Absent Present
- Fruit sinus Absent Present
- Ripe fruit predominant color of skin Green Yellow green Green & yellow Yellow Yellow & orange Orange yellow and red Orange and red Red Orange and purple Red and purple Purple
- Ripe fruit brilliance of skin color Absent Present
- Ripe fruit pattern of skin color Even Speckled
- Fruit speckling of skin color Weak Medium Strong
- Skin thickness Thin Med Thick
- Skin adherence Weak Med Strong
- Flesh color Greenish yellow Pale yellow Yellow Pale orange Orange Dark orange
- Flesh firmness Soft Med Firm
- Juiciness Dry Medium Juicy
- Flesh texture Fine Med Coarse
- Fruit fibre beneath the skin Low Med High
- Fruit flavor Absent Present

STONE CHARACTERISTICS

- Stone relief of surface Grooved Smooth Ridged
- Stone length of fibre on cheeks V. short Short Med Long V. long
- Stone fiber density V. sparse Sparse Med Dense V. dense
- Fiber texture Fine Med Coarse
- Stone thickness of endocarp V. thin Thin Med Thick V. thick
- Seed polyembryony Absent Present
- Time of first flowering Early Med Late
- Time of fruit maturity V early Early Med Late Very late

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)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Experts Sub Committee	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Provincial Seed Council	<input type="checkbox"/> Yes	<input type="checkbox"/> No

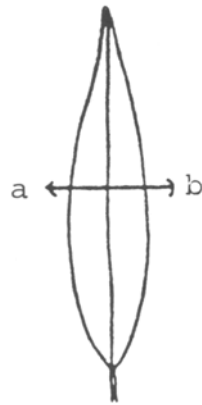
COMMENTS OF SPOT EXAMINATION

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ADDITIONAL INFORMATION

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LEAF SHAPE IN CROSS SECTION



Straight

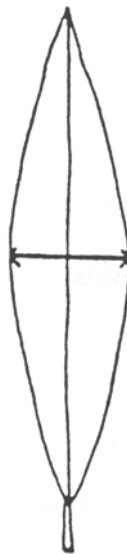


Concave

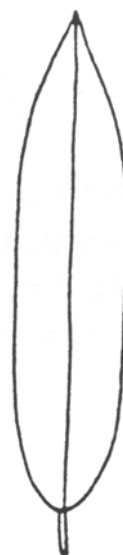
LEAF SHAPE



Lanceolate to ovate



Elliptic



Oblong

CURVATURE OF MIDRIB



Absent



Present

LEAF SHAPE TIP



Attenuate



Acuminate



Acute

LEAF SHAPE BASE



Acute

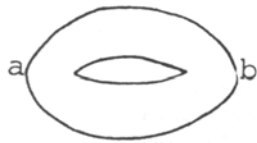
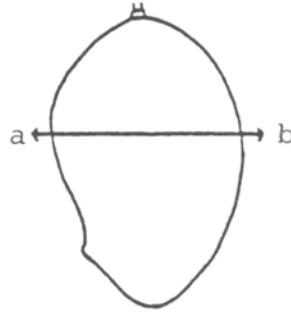


Obtuse

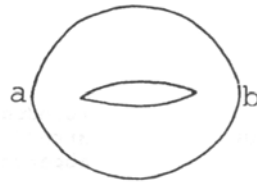


Rounded

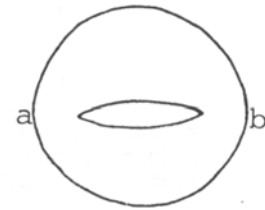
FRUIT SHAPE IN CROSS SECTION



Narrow elliptic



Broad elliptic



Circular

DEPTH OF STALK CAVITY



Shallow



Medium



Deep

PROMINENCE OF NECK



Weak



Medium



Strong

MATURE FRUIT LEFT AND RIGHT SHOULDER



Rounded upward



Rounded outward



Rounded downward



Sloping downward



Falling abruptly

GROOVE IN LEFT SHOULDER



Absent



Present

LUMPINESS ON LEFT SHOULDER



Absent



Present

FRUIT SINUS



Absent



Present