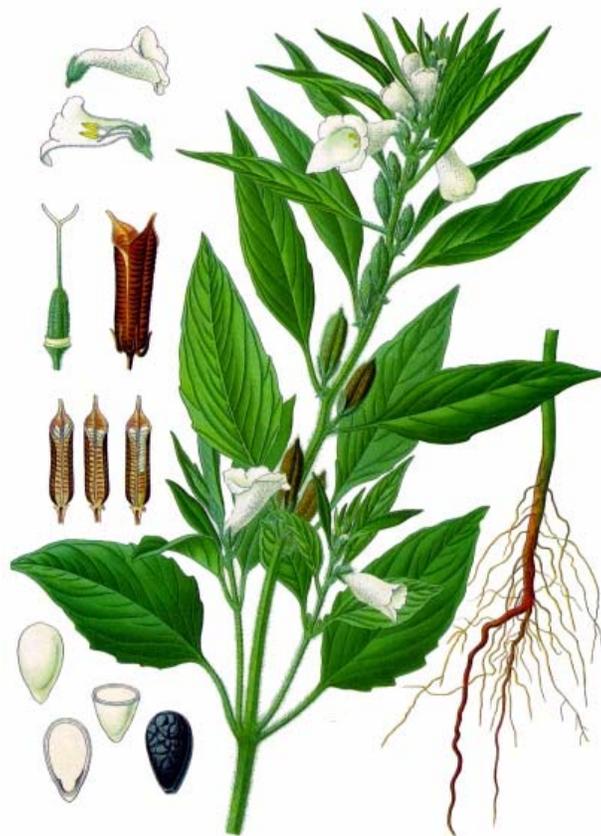




MORPHOLOGICAL DESCRIPTOR

SESAME (*Sesamum indicum* 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.*

Naheed Naz
Seed Certification Officer

GENERAL

Variety name

Parentage

Pedigree

Breeder (s)

Breeding center/institute

Variety maintainer

Comparable variety (s)

Origin Local Exotic

Breeding method Selection Hybridization Introduction Any other

Areas of adaptation

Type of variety Open Hybrid Inbred

Days to maturity [Range.....]

Maturity duration Short Medium Long

Earlier than (Cultivar)

Later than (Cultivar)

SEEDLING CHARACTERISTICS

Cotyledon color Green Green with white margin

Cotyledon shape Flat Cup shaped Others

Cotyledon hairiness Absent Present

Insertion of cotyledons Sessile Pedicellate

Length of cotyledon (mm)

Length of hypocotyl (mm)

PLANT CHARACTERISTICS

Growth type Indeterminate Determinate

Growth habit Erect Semi erect Prostrate

Root system Shallow fibrous Deep thin root Tuberos thick taproot

STEM CHARACTERISTICS:

Plant height (cm)

Stem color Green Yellow Purplish green Purple Anyother

Stem hairiness Absent Sparse Medium Profuse

Shape of hair Short and straight Medium and straight Long and bent

Stem shape in cross section Round Square

Stem branching Opposite Alternate Ternate Mixed

Branching pattern Basal Top Any other

Internode length (cm)

No. of primary branches

No. of secondary branches

LEAF CHARACTERISTICS:

Leaf color Green Green with yellowish cast Green with blue-gray cast

Green with purple cast Any other

Leaf shape Linear Lanceolate Elliptic Ovate Cordate

Leaf arrangement Opposite Alternate Ternate Mixed

Leaf hairiness Absent Sparse Medium Profuse

Shape of hair Short and straight Medium and straight Long and bent

Basal leaf profile Flat Concave Convex

Basal leaf margin Entire Serrate Dentate

Lobe incision of basal leaf Absent Weak Medium Strong

Length of basal leaf (cm)

Width of basal leaf (cm)

Length of middle leaf (cm)
 Width of middle leaf (cm)
 Length of top leaf (cm)
 Width of top leaf (cm)
 Leaf glands Absent Present
 Leaf angle to main stem Semi erect Horizontal Drooping
 Petiole length of basal leaf (cm)
 Petiole length of middle leaf (cm)
 Petiole length of top leaf (cm)
 Petiole hairiness Absent Weak Medium Strong
 Shape of petiole hair Short and straight Medium and straight Long and bent

INFLORESCENCE CHARACTERISTICS:

Days to flowering
 Days to 50% flowering
 No. of flowers/leaf axil
 Extra floral nectary development Rudimentary Small Medium Large
 Extra-floral nectar color Light yellow Yellow Purple
 No. of nodes to first flower
 Outer corolla color White White with pink tinge White with deep pink tinge Pink
 Light violet Dark violet Purple Red Maroon
 Inner corolla color White White with pink tinge White with deep pink tinge Pink
 Light violet Dark violet Purple Red Light maroon
 Corolla length (mm)
 Calyx tip color Green Purple Any other (.....)
 Length of calyx tube (mm)
 Calyx hairiness Absent Sparse Medium Profuse
 Shape of calyx hair Short and straight Medium and straight Long and bent
 Corolla hairiness Absent Sparse Medium Profuse
 Shape of corolla hair Short and straight Medium and straight Long and bent
 Lower lip color Colorless Colored
 Absence/presence of V/W shaped depression in the interior middle of corolla below the lower lip Absent Present
 Anther filament color White White with violet dots
 Anther connective tip gland Absent Present
 Style length Short Medium Long

CAPSULE CHARACTERISTICS

No. of capsules/plant
 No. of locules/capsule
 No. of carpels/capsule Bicarpellate Tetracarpellate
 Bicarpellate capsule shape Tapered at apex Narrow oblong Broad oblong Square
 Capsule arrangement Monocapsular Multicapsular
 Capsule hairiness Absent Sparse Medium Profuse
 Shape of capsule hair Short and straight Medium and straight Long and bent
 Capsule length/width/thickness (mm)/...../.....
 Capsule anthocyanin Absent Present
 Dry capsule color Green Straw/yellow Brown/tan Purple

- Capsule dehiscence at ripening Non shattering Partially shattering Completely shattering
- Capsule beak type Short Long Curved Cleft

SEED CHARACTERISTICS

- Seed shape Oval with convex side Oval with concave side Elongated
- No. of seed/capsule
- Seed coat color White Cream Beige Light brown Medium brown Dark brown
- Brick red Tan Olive Grey Dull black Bright black
- Seed coat texture Smooth Partially rough Radially rough Partially radially rough
- Reticulately rough Partially reticulately rough
- 000, 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

- | | |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |

COMMENTS OF SPOT EXAMINATION

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ADDITIONAL INFORMATION

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.....
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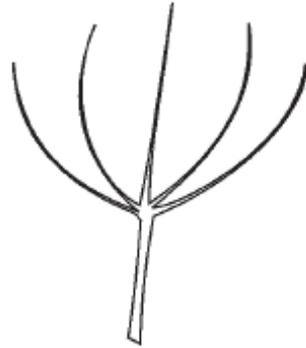
AT SEEDLING STAGE



PLANT GROWTH TYPE



Indeterminate



Determinate

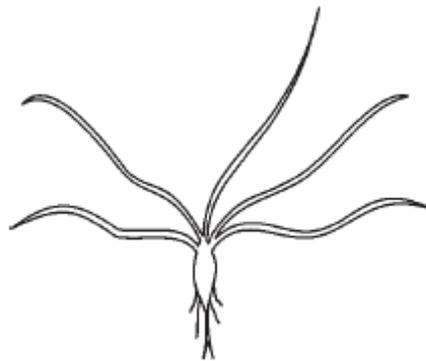
PLANT GROWTH HABIT



Erect

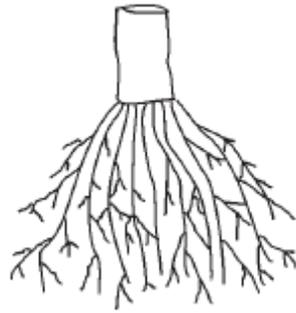


Semi erect

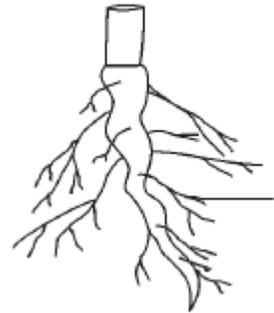


Prostrate

ROOT SYSTEM



Shallow fibrous



Deep thin tap root



Tuberous thick tap root

STEM HAIRINESS



Absent



Weak



Medium



Profuse

SHAPE OF HAIR



Short and straight

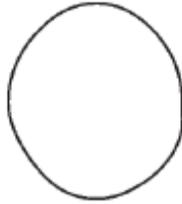


Medium and straight



Long and bent

STEM SHAPE IN CROSS SECTION



Round



Square

STEM BRANCHING



Opposite



Alternate



Ternate



Mixed

LEAF SHAPE



Linear



Lanceolate



Elliptic



Ovate



Cordate

LEAF HAIRINESS



Absent



Sparse

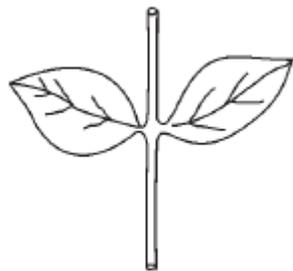


Medium



Profuse

LEAF ARRANGEMENT



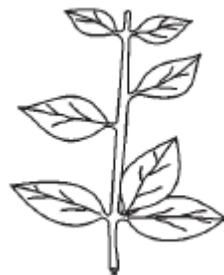
Opposite



Alternate



Ternate



Mixed

BASAL LEAF PROFILE



Flat



Concave



Convex

BASAL LEAF MARGIN



Entire



Serrate



Dentate

LOBE INCISION OF BASAL LEAF



Absent



Weak



Medium

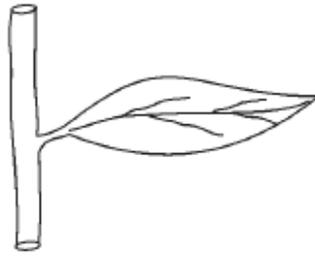


Strong

LEAF ANGLE TO MAIN STEM



Semi erect



Horizontal



Drooping

EXTRA FLORAL NECTARY DEVELOPMENT



Rudimentary



Small



Medium



Large

PLANT WITH FLOWERS



CLOSEUP OF FLOWER



PRESENCE/ABSENCE OF V OR W SHAPE DEPRESSION IN ANTERIOR MIDDLE OF COROLLA



Absent



Present

PLANT WITH IMMATURE CAPSULE



CAPSULE SHAPE



Tapered at apex



Narrow oblong

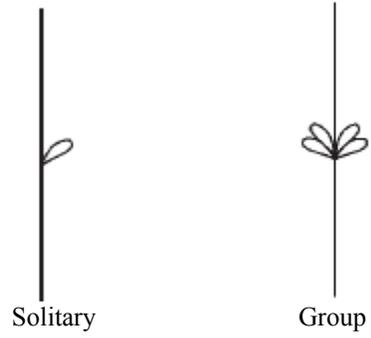


Broad oblong



Square

CAPSULE ARRANGEMENT



PLANT WITH MATURE CAPSULE



SEED COLOR



White



Cream

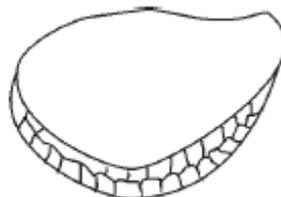


Beige

SEED SHAPE



Oval with convex side



Oval with concave side



Elongated

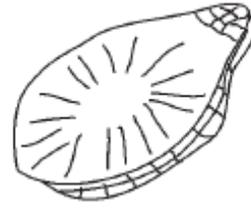
SEED COAT TEXTURE



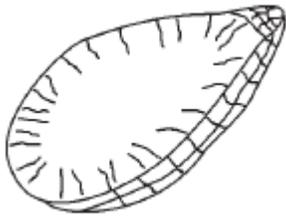
Smooth



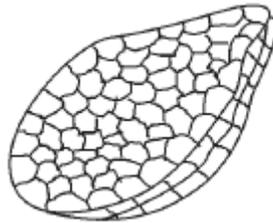
Partially rough



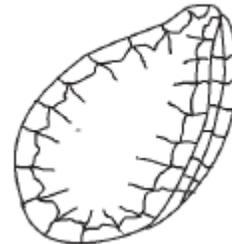
Radially rough



Partially radially rough



Reticulately rough



Partially reticulately rough