



MORPHOLOGICAL DESCRIPTOR

GROUNDNUT (*Arachis hypogaea* 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.*

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Ms. Naheed Naz

Descriptor

Groundnut

GENERAL

- Variety name
- Species 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
- Type of variety Virginia Spanish Valencia
- Main use Roast Oil Multiple purpose
- Planting time
- Maturity duration Short Medium
- Earlier than Cultivar
- Later than Cultivar
- Sowing time
- Maturity duration Short Medium Long
- Suitable for sowing Early Medium Late All sowings

SEEDLING CHARACTERISTICS

- Seedling length (cm) (2 weeks)
- Seedling leaf color L. green Green Dark green Others
- Seedling hairiness Absent Sparse Medium Profuse

PLANT CHARACTERISTICS

- Growth habit Procumbent-1 Procumbent-2 Decumbent-1 Decumbent-2
 Decumbent-3 Erect
- Stem length (cm) [Range.....]
- Stem height Dwarf Medium Tall
- Stem color Light green Green Dark green
- Stem thickness Thin Medium Thick
- Stem pigmentation Absent Weak Medium Strong
- Stem hairiness Absent Sparse Medium Profuse
- Branching Sparse Moderate Profuse
- Number of branches [Range.....]
- Branching pattern Alternate Sequential Irregular with flowers on main stem
 Irregular without flowers on main stem
- Taller than Cultivar
- Shorter than Cultivar

LEAF CHARACTERISTICS

- Leaf angle Erect Semi erect Horizontal
- Leaf color Light green Green Dark green
- Leaf stalk length (cm)
- Leaf hairiness Absent Sparse Medium Profuse
- Leaflet length (cm)
- Leaflet width (cm)
- Leaflet size Small Medium Large
- Number of leaflets/leaf

FLOWER CHARACTERISTICS

- Days to flower (50% flowering)
- Flower color Yellow White Orange Garnet
- Flower size Small Medium Large
- Flower marking on standard Absent Present
- Color of marking**
- Peg anthocyanin Absent Weak Medium Strong
- Flowers on main stem Absent Present

Descriptor

Groundnut

POD CHARACTERISTICS

- Pod length (cm)
- Pod width (cm)
- Pod size Small Medium Large
- Pods/plant [Range.....]
- Seeds/pod [Range.....]
- Pod reticulation Smooth Slight Moderate Prominent
- Pod beak Absent Slight Moderate Prominent V. prominent
- Pod constriction Absent Slight Moderate Deep V. deep
- Pod yield (kg/acre)

SEED CHARACTERISTICS

- Seed size Small Medium Bold
- Seed color L. brown Reddish brown Purple Variegated
- Seed shape Round Oblong Elongated Cylindrical Flat
- Seed length (mm)
- Seed width (mm)
- Cotyledon color White Cream
- Hull thickness Thin Medium Thick
- 1000, seed weight (g)
- Oil content (%)
- Protein content (%)

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).

Descriptor

Groundnut

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 No
 Yes No
 Yes No

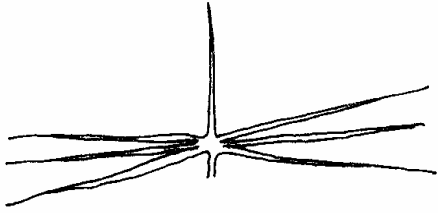
COMMENTS OF SPOT EXAMINATION

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ADDITIONAL INFORMATION

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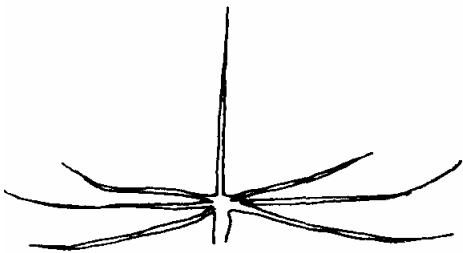
GROWTH HABIT AT FLOWERING



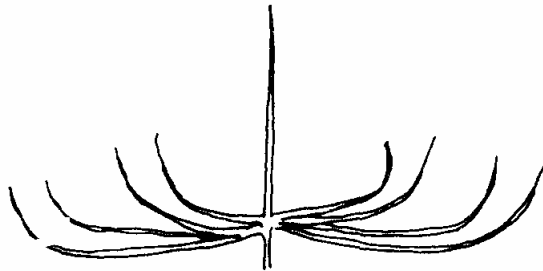
Procumbent-1



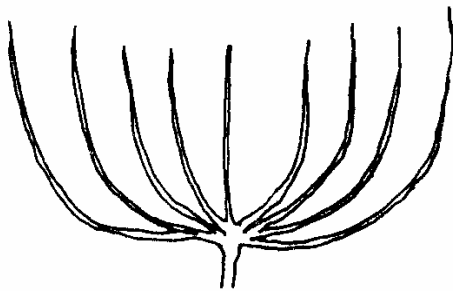
Procumbent-2



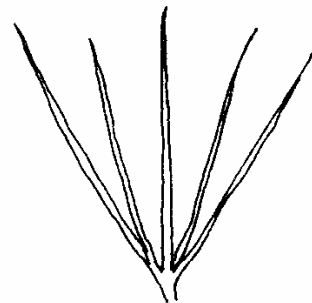
Decumbent-1



Decumbent-2

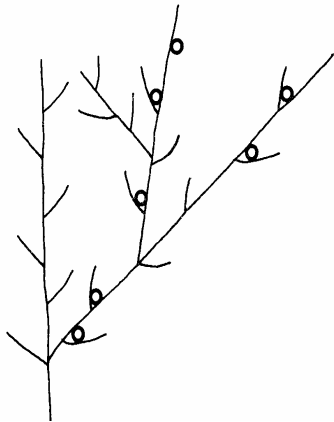


Decumbent-3

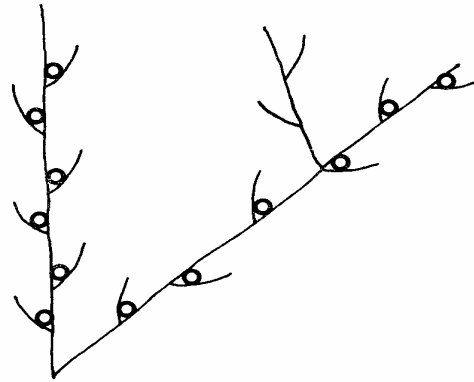


Erect

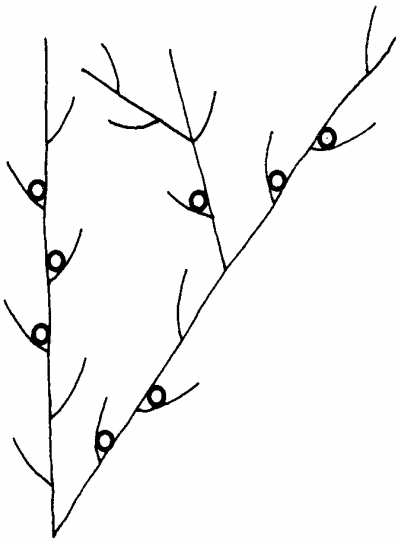
STEM BRANCHING PATTERN



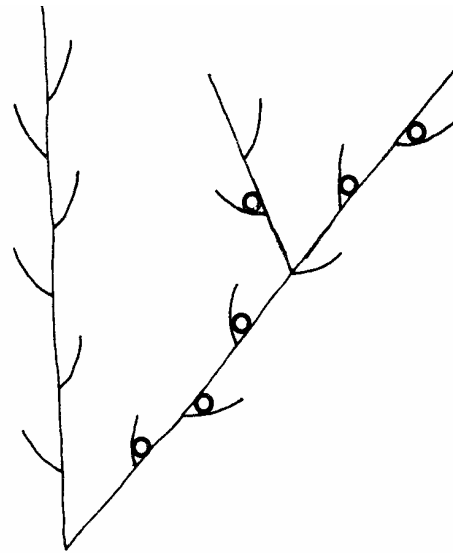
Alternate



Sequential



Irregular with flowers on main stem



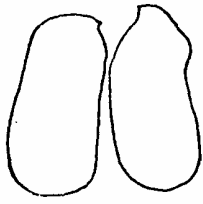
Irregular without flowers on main stem

○ Reproductive branch

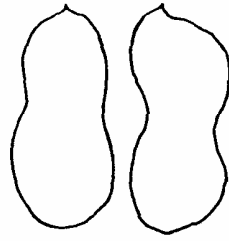
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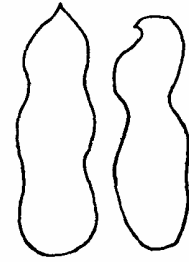
POD CONSTRUCTIONS



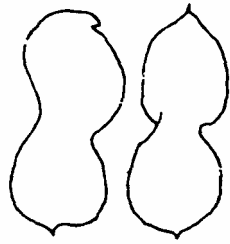
Absent



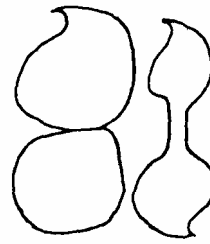
Slight



Medium

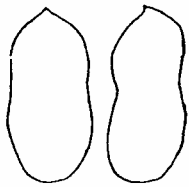


Deep

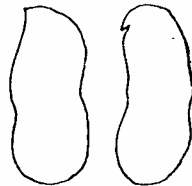


V. deep

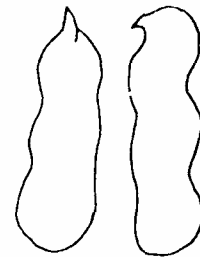
PROMINENCE OF BEAK



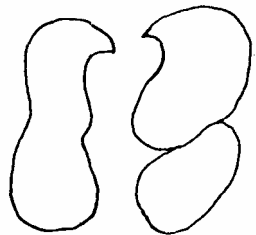
Absent



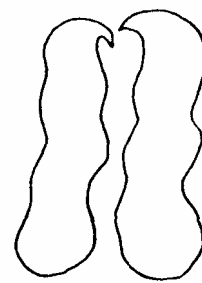
Slight



Moderate



Prominent



V. prominent