



MORPHOLOGICAL DESCRIPTOR

BITTER GOURD

Momordica charantia 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) (after two weeks)

Seedling color (cotyledon) L. green Green Dark green

Seedling hairiness Absent Present

STEM CHARACTERISTICS

Growth habit Vine

Stem color L. green Green Dark green

Stem shape Angular Rounded

Stem branching Absent Present

Tendrils length (cm)

Stem hairiness Absent Sparse Medium Profuse

LEAF CHARACTERISTICS

Leaf color L. green Green Dark green

Leaf size Small Medium Large

Leaf incision Absent Weak Medium Strong

Palmate leaf intersection Palmatifid Palmatsect Palmatipartite

Petiole attitude Erect Semi erect Horizontal

Petiole length (cm)

Petiole thickness (mm)

Petiole shape Round Angular

FEMALE FLOWER CHARACTERISTICS

Ring on the inner side of corolla Absent Present

Color of ring Green Yellow Greenish yellow

Sepal length (cm)

Pistil color (before opening) Yellow Orange

MALE FLOWER CHARACTERISTICS

Ring on the inner side of corolla Absent Weak Medium Strong

Color of ring Green Yellow Greenish yellow

Sepal length (cm)

Pedicel length (cm)

Color of pedicel L. green Medium green Dark green

Pedicel hairiness Weak Medium Strong

FRUIT CHARACTERISTICS

Fruit color (Immature) L. green Green Blackish green

Fruit color (mature) Yellowish green Orange

Fruit shape Oblanceolate Obovate Widely obovate Fusiform

- Fruit flesh color L. green Yellowish white
- Flesh thickness (cm)
- Fruit length (cm)
- Fruit diameter (cm)
- Fruit base Pointed Rounded Flattened
- Fruit size Small Medium Large
- Pedicle length (cm)
- Fruit glossiness Weak Medium Strong
- Fruit warty swellings Weak Medium Strong
- No. of fruiting ribs
- Flesh firmness Loose Medium Tight
- Fruit bitterness Low Medium High V. high
- Fruit yield (kg/acre)

SEED CHARACTERISTICS

- Seed color Whitish Yellow Yellowish brown
- Seed size Small Medium Bold
- Seed shape Narrowly elliptic Elliptic Widely elliptic
- Beak emergence Weak Medium Strong
- Seed testa reticulation Weak Medium Strong
- 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)	<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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PALMATE LEAF INTERSECTION



Palmatifid



Palmatipartite



Palmatisect

FRUIT SHAPES



Oblanceolate



Obovate



Widely obovate



Fusiform

FRUIT WARTINESS



Weak



Medium



Strong