

## 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.

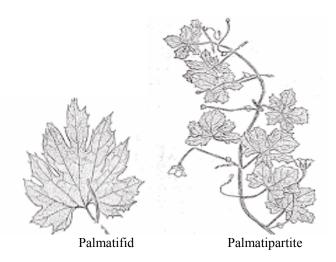
Dr. M. Ashraf Tajammal Ms. Naheed Naz

<u>GENERAL</u>					
Variety name					
Parentage					
Pedigree					
Breeder (s)					
Comparable variety (s)					
Breeding center/institute					
Variety maintainer					
Origin	□ Local				
Breeding method		☐ Hybridization	☐ Introduction	n 🗆 Any other	
Areas of adaptation		=	Introduction	1 - Any outer	
*		•••••			
Planting time					
Maturity duration	□ Snort	☐ Medium	□ Long		
SEEDLING CHARACTERIS	TICS				
Seedling height (cm)		(after two weeks)			
Seedling color (cotyledon)	☐ L. green		☐ Dark green		
Seedling hairiness	☐ Absent	☐ Present			
STEM CHARACTERISTICS	!				
Growth habit	<u>2</u> □ Vine				
		□ Сизан	□ Doult oncor		
Stem color	☐ L. green ☐ Angular	□ Green	☐ Dark green		
Stem shape	□ Angular	□ Rounded			
Stem branching	☐ Absent	☐ Present			
Tendril length (cm)					
Stem hairiness	☐ Absent	☐ Sparse	☐ Medium	☐ Profuse	
LEAF CHARACTERISTICS		□ Croom	□ Dorle organ		
Leaf color	-	☐ Green	☐ Dark green		
Leaf size			□ Large	_	
Leaf incision		□ Weak	□ Medium	□ Strong	
Palmate leaf intersection	☐ Palmatifid	☐ Palmatsect	□ Palma	tipartite	
Petiole attitude	☐ Erect	☐ Semi erect	☐ Horizontal		
Petiole length (cm)					
Petiole thickness (mm)					
Petiole shape	$\square$ Round	☐ Angular			
•		C			
FEMALE FLOWER CHARA					
Ring on the inner side of	☐ Absent	□ Present			
corolla					
Color of ring	☐ Green	☐ Yellow	☐ Greenish ye	llow	
Sepal length (cm)					
Pistil color (before opening)	□ Yellow	□ Orange			
(11 1 F 2)		<b>&amp;</b> -			
MALE FLOWER CHARACT	<b>TERISTICS</b>				
Ring on the inner side of	☐ Absent	□ Weak	☐ Medium	$\square$ Strong	
corolla					
Color of ring	☐ Green	☐ Yellow	☐ Greenish ye	llow	
Sepal length (cm)			,		
Pedicel length (cm)					
Color of pedicel	☐ L. green	☐ Medium green	□ Dark green		
Pedicel hairiness	□ Weak	□ Medium	_		
i cuicei naniness	□ VV CaK	- Medialli	☐ Strong		
FRUIT CHARACTERISTICS	S				
Fruit color (Immature)	□ L. green	☐ Green ☐ I	Blackish green		
Fruit color (mature)	☐ Yellowish g		-		
Fruit shape	☐ Oblanceolate		□ Widely	obovate	siform
b			_ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	I U	~~1111

Fruit flesh color Flesh thickness (cm) Fruit length (cm) Fruit diameter (cm) Fruit base Fruit size Pedicel length (cm) Fruit glossiness Fruit warty swellings No. of fruiting ribs Flesh firmness Fruit bitterness Fruit yield (kg/acre)	□ Small □ Weak □ Weak □ Loose	☐ Yellowish ☐ Rounded ☐ Medium	<ul><li>☐ Flattened</li><li>☐ Large</li><li>☐ Strong</li><li>☐ Strong</li><li>☐ Tight</li></ul>	7. high
SEED CHARACTERISTICS Seed color Seed size Seed shape Beak emergence Seed testa reticulation 000, seed weight (g)	☐ Whitish Yello	l Medium tic □ Ell ledium □	$\square$ Bold	y elliptic
ENVIRONMENTAL ADAPT Flowering Response to seasons			der define conditi  Highly variable	
<b>Drought tolerance</b> (Measured as reduction in yield).	☐ Least tolerant	□ Medium	☐ Most toleran	t
<b>Tolerance to salinity</b> (Measured by reduction in plant height 30 days after sowing).	☐ Least tolerant	□ Medium	□ Most toleran	t
Tolerance to acid soils (Measured as reduction in plant height 30 days after sowing).	☐ Least tolerant	□ Medium	□ Most toleran	t
Cold tolerance (Measured as reduction in general vigour and productivity after being continuously exposed to an average temperature of 15 °C for at least 15 days).	□ Least tolerant	□ Medium	□ Most toleran	t
Heat tolerance (Measured as yield reduction when continuously exposed to average of 40 °C during the flowering period).	☐ Least tolerant	□ Medium	□ Most toleran	t
RESISTANCE TO INSECTS/	PESTS			

Morphological Descriptor		<b>7.1</b>	~ .
		Bitter	Gourd
RESISTANCE TO DISEASES			
			• • • • • •
			• • • • • • • • • • • • • • • • • • • •
DISTINGUISHING CHARACTERISTICS			
			• • • • •
	•••••	• • • • • • • • • • • • • • • • • • • •	•••••
	•••••		•••••
			•••••
	•••••		
RECOMMENDED/APPROVED BY			
Variety Evaluation Committee (VEC)	$\square$ Yes	□ No	
Experts Sub Committee	$\square$ Yes	$\square$ No	
Provincial Seed Council	$\square$ Yes	$\square$ No	
COMMENTS OF SPOT EXAMINATION			
ADDITIONAL INFORMATION			
			• • • • • • • • • • • • • • • • • • • •

## PALMATE LEAF INTERSECTION





Palmatisect

## FRUIT SHAPES







Obovate



Widely obovate



## FRUIT WARTINESS

