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A Catalog of Mungbean Cultivars Released Around the World

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Asian Vegetable Research and Development Center
Tropical Vegetable Information Service

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Foreword

The Asian Vegetable Research and Development Center is committed to expanded support of germplasm conservation and utilization of vegetables which are high in nutritional value and useful to the humid tropics. Designated by the IBPGR to maintain the World Mungbean Collection, the AVRDC accepts its great responsibility to collect, conserve, characterize, evaluate and document the germplasm for this important source of protein.

Making this germplam and germplasm information available to scientists throughout the world who are interested in mungbean improvement is a dominant part of the utilization program at the AVRDC. A third, very important element of the mungbean improvement program at the AVRDC, is the germplasm enhancement aspect which encompasses the multidisciplinary approach of breeding, plant pathology, plant physiology and entomology.

Our purpose is to provide plant breeders with the genetic resources and information that will enable them to develop the plant materials they need to serve their national food production needs. This catalog is a vital part of this improvement process, and through this medium we hope to promote the exchange of mungbean germplasm among scientists.

George A. Marlowe, Jr.

George A. Marlowe, Jr.
Director General, AVRDC

Introduction

The Asian Vegetable Research and Development Center (AVRDC) has been designated by the International Board for Plant Genetic Resources (IBPGR) as the base collection center for mungbeans (*Vigna radiata* (L.) Wilczek). AVRDC currently holds 5,107 mungbean accessions in its Genetic Resources and Seed Unit (GRSU).

Information on the released mungbean cultivars from different parts of the world are scattered in various publications (see references). The objective of this catalog is to bring together such scattered information so that it will be more useful to mungbean researchers.

The data presented herein were collected by sending a questionnaire to various cooperating scientists in different countries. Twenty-four scientists returned the questionnaire. Their names and addresses are listed on pages 5 and 6. Where there was more than one scientist per country, their information was compared and pooled to provide maximum information on each cultivar. In addition to the information obtained from the questionnaire, data were collected from a literature search for some of the cultivars.

The references provided by the cooperators and those collected and used by us in compiling the data are found in the reference section.

This catalog is formatted in such a way that the cultivars are listed first according to alphabetical order of the country. Secondly, within each country the cultivars are listed in chronological order of the release. In cases where the year of release is unknown, such cultivars are listed at the end of each country.

The name of the breeder(s) who released the cultivar is given where available. When the breeder's name is unavailable, either the institution and the state or location where the cultivar was released is provided.

In addition to the name, source and origin of the cultivar, some of the key morphological and agronomic data are given in Table 1.

Responses to various disease reactions are presented in Table 2. The diseases include Cercospora leaf spot (CLS), powdery mildew (PM), bacterial blight (BB), mungbean yellow mosaic virus (MYMV), other virus diseases, nematode, root rot, and other diseases. Wherever information is available for other viruses and other diseases, the specific names of the disease and the response of the cultivar is provided within the table.

The reactions to insect pests such as whitefly, jassids, pod borers, and other insects are given in Table 3.

Responses to diseases and insects reported are likely to be location specific due to differences in environment, pathogen (or insect) races or host and pathogen interaction in a specific environment. Therefore, the ratings should be viewed from that perspective.

Adaptation to seasons, locations and other specific situations along with remarks on the cultivars is listed in Table 4.

All questions and technical correspondences concerning this publication should be addressed to S. Shanmugasundaram, AVRDC, P.O. Box 42, Shanhua, Tainan 74199, Taiwan, China.

Acknowledgment

We would like to express our thanks to the scientists whose names are listed on page 2, who have responded to the questionnaire and provided the data for this publication. We would like to thank the following individuals who typed, proofread, assisted in the computer programming, reviewed the manuscript and edited the final version of the manuscript: Teresa S.C. Liang, Shirley Y.L. Chen, H.Y. Tien, A.T. Tschanz, N.S. Talekar, N.V. Llemit, John Soderlund and B.T. McLean.

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Abbreviations and Codes

Cultivar name:	Cultivars within each country are arranged chronologically.
Pedigree:	The immediate parents of the cultivar or the origin of the cultivar when information is available. Lines with a prefix 'V' are accessions maintained at AVRDC. Lines with a prefix 'VC' are breeding lines which originated at AVRDC.
Year released:	The year in which the cultivar was released.
Breeder/Institution/State:	The plant breeder(s) who released the cultivar. The university, institution or state which released the cultivar is given when the plant breeder's name is unavailable.

Plant type:	Description of the growth habit such as determinate, indeterminate, viny, bushy, trailing, semi-trailing and erect.
Seed coat color:	Green, dark green, yellow, brown, black, mottled.
Luster:	Dull, shiny.
Seed size:	Grams per 100 seeds. Large, medium and small where exact size is unavailable.
Maturity:	A range in days from sowing until harvest or maturity.
Yield potential:	Expressed in t/ha (a range is given where available).

Cultivars were rated as either resistant, moderately resistant or susceptible to diseases and insects.

Contributors of Information on Released Mungbean Cultivars

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Table 1. Pedigree, morphological and agronomic characteristics of mungbean cultivars released around the world.

Name of Cultivar/ Country	Parentage	Year Released	Breeder/ Institution/State	Plant Type	Seed Color	Seed Luster	Seed Size (g)	Maturity (days)	Yield Potential (t/ha)
Australia									
CELERA	Introduced from Nicaragua	1969		Erect, determinate	Bright green	Shiny	3.0-3.5	80-100	1.7
BERKEN	Selection from Jumbo Mung, Oklahoma, 1962	1975	James Kirby	Erect, determinate	Green	Shiny	5.5-6.0	75-95	1.5
KING	EG-MG-7, Bred by E.M. Catipon, BPI, Los Baños	1982	P.S. Putland	Erect, moderately determinate	Dark green	Shiny	6.5-7.5	80-110	1.0
Bangladesh									
KISHOREGONJ	Unknown, collected from farmer's field	1930	Unknown	Medium height moderate branching	Yellow	Smooth, dull	Medium	90	0.7-1.2
Costa Rica									
ASVEG 78	VC 1089A[y] (ML-3 × Ph.coll.1)	1978	Chien-Nan Yang	47 cm	Green	Dull	4.2	65	1.2
China[z]									
BA JIAL QI				Erect	Green	Shiny	6.0	95	
CHUAN DI LONG				Trailing	Green	Shiny	6.6	84	
CHUEN 17				Trailing	Green	Shiny	4.2	86	
DA JIAO DOU				Erect	Green	Dull	6.1	61	
DA KE LUDOU	Shanxi			Trailing	Green	Dull	6.0	100	
DA MING LU	Shandong			Erect	Green	Shiny	6.4	77	
DING JIA MAO LU				Erect	Green	Dull	3.5	82	
FANG SHAN LU DOU	Beijing			Erect	Green	Shiny	4.5	60	
GAO YANG XIAO LU	Hubei			Semitrailing	Green	Shiny	3.7	74	
HUANG HUA LU DOU				Semitrailing	Green	Shiny	3.9	68	
JIN BANG CHUI	Shanxi			Erect	Green	Dull	4.8	107	
LAO YA ZUO				Erect	Green	Dull	5.5	62	
LIU TIAO QING				Trailing	Green	Dull	5.5	68	
LOU SHANGLOU				Trailing	Green	Shiny	3.8	66	
MING GUANG LU DOU ANHUI				Semitrailing	Green	Shiny	5.4	98	
MING LU NO. 3				Semitrailing	Green	Shiny	4.6	82	
PU CHENG LU DOU				Trailing	Green	Shiny	5.1	106	
SHEQI DA JIAO WENG	Henan			Erect	Green	Dull	6.0	66	
XIAO LUDOU				Erect	Yellow	Shiny	6.3	71	
YAN CHENG LU DOU	Sichuan			Erect	Green	Dull	3.3	70	
YANG JIAO JAIO				Trailing	Green	Shiny	7.2	109	
YING GE LU				Trailing	Green	Shiny	7.4	88	
YING GE LU-1				Trailing	Green	Shiny	4.8	91	
ZHAI MING LU				Erect	Green	Shiny	4.7	66	
XU YIN NO. 1	VC 1973A (CES 1D-21 × EG-MG-16)	1985			Green	Shiny		59-69	1.5-2.7
Ecuador									
INIAP 451	VC 1163 (EG-MG-4 × ML-6)	1985			Green	Dull and shiny mixture			
Fiji									
STATION 46	VC 1000-45-B (EG-MG-16 × ML-3)	1982				Green	Dull		
STATION 25	VC 1007-14-5-B (ML-11 × CES 78)	1984				Green	Shiny		
STATION 27	VC 1160-1-1-2-B (CES-55 × ML-3)	1984				Green	Dull		

[z]It is likely that many of those listed are local varieties from the specific provinces. [y]All VC lines originate from AVRDC.

Table 1. Continued.

Name of Cultivar/ Country	Parentage	Year Released	Breeder/ Institution/State	Plant Type	Seed Color	Seed Luster	Seed Size (g)	Maturity (days)	Yield Potential (t/ha)
India									
TYPE-1	Selection from Muzaffarpur (Bihar)	1948	Uttar Pradesh	Semispreading	Green	Dull	3.0	60-65	0.6-0.8
CO 1	Selection from local germplasm	1952	Tamil Nadu Agril. Univ.	Erect				130-140	0.5-0.6
KOPERGAON	Selection from bulk local germplasm	1956		Erect	Green	Shiny	4.5	60-62	0.5-0.6
JALGAON-781	Selection from China Mung 784	1957		Spreading	Green	Very shiny	4.5	70-80	0.5-0.6
KHARGONA-1	Selection from K-119-56	1961	Madhya Pradesh	Spreading	Green	Shiny	4.6-5.1	60-65	0.6-0.8
KRISHNA 11	Local selection from Gwalior	1961			Light green			65	0.4-0.7
SHINNING MOONG NO. 1	Selection from China mung	1962	Gurcharn Singh	Dwarf, erect	Light green	Shiny	Bold	75	0.4
TYPE-44	Type-1 × Type-49	1962	G.N. Pathak	Semierect, medium height (30-50 cm)	Green	Dull	3.6	60-65	0.8-1.0
TYPE-51	4465-4 × 4474-3	1962	Uttar Pradesh	Erect, tall (65-85 cm)	Green	Shiny	3.0	70-80	0.8-1.0
SONALI (B-1)	Selection from Chaitali Mung	1963	West Bengal	Branchy	Golden	Shiny	Small	60-65	1.0-1.2
D 66-24	Selection from local material	1968	Rajasthan	Erect	Green	Shiny		60-65	0.4-0.6
D 66-26	Selection from local germplasm	1968		Erect (60-65 cm)	Green	Shiny		60-65	0.4-0.6
GUJRAT 1	Selection from local germplasm	1969	Gujarat	Semispreading	Green	Dull	2.5-3.2	80-90	1.0-1.2
G-65	Pure line selection from local collection from Gurdaspur (Punjab)	1971	G.S. Bhullar K.B. Singh	Indeterminate	Green	Dull	2.5-3.5	65-70	1.1-1.25
GUJRAT 2	Selection from local germplasm	1971	Gujarat	Semispreading (55-60 cm)	Green	Dull		70-75	0.9-1.2
JAWAHAR 45 (HYB. 45)	Madia × UP local	1971	Madhya Pradesh	Semierect, branchy	Green	Shiny	3.0	75-80	1.2-1.5
PANNA (B-105)	Selection from local germplasm	1971			Green	Shiny	Large 4-5	55-60	0.9-1.1
PUSA BAISAKHI	Selection from Type-44	1971	L.M. Jeswani S.P. Singh	Semierect, bushy, short, compact, determinate	Green	Dull	3.5-4.0	60-65	1.0-1.6
ML-1	Hyb. 45 × P 23-67	1973	K.B. Singh	Erect, compact	Green	Shiny	Medium	90	1.8
12/333	Amrit × Pusa Baisakhi	1974	Bihar		Yellow		3.2	60-65	0.6-0.8
CO 2	Selection from PLS 365/3	1975	Tamil Nadu Agril. Univ.	Semispreading	Green	Dull		65	0.5-0.7
CO 3	Pureline selection from PLS 367 in 1976	1976	Tamil Nadu Agril. Univ.	Semispreading, erect	Green	Shiny	Medium	65-70	0.7
ML-5	No. 54 × Hyb. 45	1976	K.B. Singh T.S. Sandhu J.S. Brar	Tall, erect, determinate	Green	Shiny	2.6	90	1.3-1.5
AMRIT (NO. 122)	Selection from local material	1978	Bihar	Spreading	Mottled yellow		3.1	60	1.0-1.5
KM 1	S-8 × PS-16	1978	Tamil Nadu	Erect, compact	Green	Shiny		60-65	0.6-0.7
KM 2	122 × 59	1978	Tamil Nadu	Erect, compact	Green	Shiny		65-70	0.62
PS-16	Selection from Iran germplasm P 596	1978	P.L. Somayajulu J.L. Tickoo	Erect, tall, determinate	Green	Shiny	3.6-4.3	60-65	1.0-2.0
DHAULI (TT9E)	Mutation breeding from a stable type developed from the cross T-51 × local type	1979			Green	Very shiny			0.6
K 851	4453-3 × T-44	1979	S.N. Singh S.B.L. Srivastava J.S. Sandhu	Semispreading, medium tall, dark green foliage	Green	Shiny	3.8	60-65	1.0-1.2

Table 1. Continued.

Name of Cultivar/ Country	Parentage	Year Released	Breeder/ Institution/State	Plant Type	Seed Color	Seed Luster	Seed Size (g)	Maturity (days)	Yield Potential (t/ha)
MOHINI (S-8)	BR-2 × Type-2	1979	L.M. Jeswani S.P. Singh J.L. Tickoo	Tall, erect, determinate	Green	Shiny	3.6-4.5	70-75	1.0-2.0
ML-131	ML-1 × ML-23	1980	T.S. Sandhu	Short, erect, compact, determinate	Green	Shiny	Medium	80-85	1.8-2.0
KONDAVEEDU (LEG 127)	Pure line selection from 'Pusa Baisakhi Mung'	1980	C. Sree Ramulu	Erect	Green	Dull	Medium bold	60-65	1.0-1.2
ML-1321	ML-1 × ML-23	1980	T.S. Sandhu J.S. Brar R.S. Malhotra	Short, determinate	Green	Shiny	Medium 3.0	85	1.4-1.7
SUJATA (HYB. 12-4)	L 24-2 × Pusa Baisakhi	1980			Green	Shiny	2.2	65-70	0.8-1.0
SABARMATI (PIMS-4)	Plm 1066 × Pusa Baisakhi	1981	R.M. Shah K.P.S. Chandel K.C. Pant A.R. Pathak R.S. Patel	Erect	Dark green	Dull	3.1	70-75	1.0-1.2
SML-32	T-1 × G-65	1981	T.S. Sandhu J.S. Brar R.S. Malhotra A.S. Gill	Determinate	Green	Dull	3.7	70	1.2-1.35
ADT-2	ADT-1 × G-1	1982	Tamil Nadu	Bushy, semierect, branchy			2.1	65-70	0.835
PANT MUNG-1 (UPM 79-1-1)	M 294-1 × T-44	1982	D.P. Singh	Erect	Green	Dull	3.0	70-75 (*kharif*); 65-70	0.6-1.0
PS-7	Selection from P 4092	1982	P.L. Somayajulu J.L. Tickoo	Erect, short, determinate	Green	Dull	4.8-5.0	60-67	1.0-1.4
PS-10	Selection from P 469	1982	P.L. Somayajulu J.L. Tickoo	Erect, tall, determinate	Green	Dull	4.2-4.5	65	1.0-1.8
CO 4	Gamma ray mutant of CO 1	1983	Tamil Nadu Agril. Univ.	Erect, compact	Green			85	0.9-1.5
JYOTI (HYB. 4-3)	L 24-2 × Pusa Baisakhi	1983		Erect, bushy	Mottled black	Dull			0.6-0.8
PUSA 101	S-8 × (EG-MG-16 × VC 2125) × (MG50-10A (Y) × ML-5)	1983-84	J.L. Tickoo N. Chandra	Tall, erect, determinate, thick stem	Green	Shiny	4.0	70	1.0-2.32
PUSA 105	(Tainan-1 × ML-6) × (EG-MG-16 × ML-3)	1983	J.L. Tickoo N. Chandra	Tall, erect, determinate	Deep green	Shiny	3.8-4.0	72	1.0-2.28
RATILA SELECTION	Selection from a local material	1983			Mottled black	Shiny			0.8-1.2
TAP-7	Gamma ray-induced early mutant of S-8	1983	S.E. Pawar R.G. Thakare B.T. Khadilkar K.B. Wanjari A.R. Kshirsagar G.R. Fulzele	Erect	Green	Shiny	Small	63-65	0.9-1.0
PANT MUNG-2	Mutant of ML-26	1984	D.P. Singh	Semierect	Green	Shiny	4.0	65-70 (*kharif*); 60-65	0.8-1.0
S-9	BR-2 × Type-21	1984			Green	Shiny	3.0	65-70	0.97
ML-337	ML-1 × LM 987	1985		Erect, tall (85 cm)	Green		3.0	72	1.0-1.2
PAIYUR-1	Local selection from Kaveripattanam	1985			Green	Dull	3.54	85-90	0.742
PANT MUNG-3 (UPM 79-4-12)	LM 294-1 × L 80	1985	D.P. Singh	Erect	Green	Dull	3.0	75-85	1.1
PDM 11	Selection from LM 595	1985		Erect (50-60 cm)	Green		3.5	60-70	1.0-1.2
TAU-1	T-9 × U-196 (variety × mutant) U-196 is gamma ray-induced, dark	1985	S.E. Pawar R.G. Thakare A.R. Kshirsagar P.B. Ghawagawe	Semidwarf	Purple black	Dull	4.8	70-75	1.3-1.4

Table 1. Continued.

Name of Cultivar/ Country	Parentage	Year Released	Breeder/ Institution/State	Plant Type	Seed Color	Seed Luster	Seed Size (g)	Maturity (days)	Yield Potential (t/ha)
	green, large-leaf mutant of variety N		G.R. Fulzele K.B. Wanjari						
ML-267	ML-1 × LM 987	1986	T.S. Sandhu J.S. Brar M.M. Verma S.S. Sandhu	Short, erect, determinate	Green	Shiny	Medium 2.9	85	1.45-2.0
LGG 407	Mutant from Pant Mung-2	1987	A. Satyanarayana Sri P. Seenaiah	Erect, tall	Green	Shiny	Medium bold	75	1.4-1.5
BR-2	Selection from Bhagalpur local		Bihar	Semierect	Mottled green			110-115	1.0-1.2
ILOGAN 781	Selection from China mung				Green	Shiny	4.5	70	0.8
LGG 450	Mutant from Pant Mung-2		A. Satyanarayana Sri P. Seenaiah	Erect	Green	Shiny	Medium bold	70-75	1.4-1.6
MOONG 305					Green		3.4	85	
PDP 71-1	Selection from local germplasm			Semierect	Light yellow			70-75	0.8
R 288-8	Selection from local germplasm			Semierect, tall (90-100 cm)	Green	Shiny		70-75	0.7-1.0
R5-4	Selection from local germplasm			Erect	Green			60-65	0.6-0.8
SUNAINA	China mung × Type-1			Semierect			4.0	60	0.5-1.5
LAM M-2				Tendency to twine	Green	Dull		80-85	1.8-2.0
Type-10			Uttar Pradesh				Small		0.6-0.7
VARSHA (H 70-16)			Haryana	Dwarf, erect, compact, bushy	Green	Shiny	7.0	60-65	0.8-1.0
Indonesia									
MANYAR	VC 1089-B29-3B-2-2-B (ML-3 × Ph. coll.1)	1983	Omar Osa Hidayat E. Suryadi Y. Ruchiyat	Determinate	Green	Dull	4.6	51	1.5
NURI	ML-3 (V 2773)	1983	Omar Osa Hidayat E. Suryadi Y. Ruchiyat	Determinate	Green	Shiny	3.6	51	1.6
GELATIK	VC 1160-22-2B-1-B (CES-55 × ML-3)	1986	A. Rasyid Marzuki Lukman Hakim	Erect (50 cm)	Green	Dull			
WALET	VC 1163A (EG-MG-4 × ML-6)	1986	A. Rasyid Marzuki Lukman Hakim	Short, erect (45 cm)	Green	Shiny	6.2	55	0.64-1.2
BHAKTI					Green			64	0.81
Kenya									
KVr 26	EGT 26/13/9	1982		Determinate	Green	Shiny	Bold	60-65	1.5
KVr 22	EGT 22/20/4	1985		Determinate	Golden	Shiny	Medium	80-90	1.2
Korea, Rep. of									
BANGASA	CES 1D-21	1980	K.Y. Park E.H. Hong Y.H. Lee S.D. Kim Y.H. Hwang Y.S. Ham	Erect	Green	Shiny	Medium	75	1.33
SEONHWANOGDU	VC 1973A (CES 1D-21 × EG-MG-16)	1982	E.H. Hong Y.H. Lee S.D. Kim Y.H. Hwang Y.H. Moon Y.S. Ham	Erect	Green	Shiny	Medium-large	65	1.40
Pakistan									
6601	Landrace	1971	S.A. Qureshi	Erect	Green	Shiny	2.95	94	0.97
NIAB MUNG 121-25	Local strain RC71-27	1983	Ilyas A. Malik	Erect	Green	Shiny	3.19	70	1.39

Table 1. Continued.

Name of Cultivar/ Country	Parentage	Year Released	Breeder/ Institution/State	Plant Type	Seed Color	Seed Luster	Seed Size (g)	Maturity (days)	Yield Potential (t/ha)
NIAB MUNG 13-1	Local Var. 6601	1983	Ilyas A. Malik	Erect	Green	Shiny	3.29	63	1.17
NIAB MUNG 19-19	Local strain Pak 22	1983	Ilyas A. Malik	Erect	Green	Shiny	3.08	66	1.31
NIAB MUNG 20-21	Local strain Pak 22	1983	Ilyas A. Malik	Erect	Green	Shiny	3.06	65	1.27
NIAB MUNG-28	Local strain Pak 17	1983	Ilyas A. Malik	Erect	Green	Shiny	3.04	81	1.05
Philippines									
BPI MD 15-2	Glossy Green 51 × Dull Green 28-1	1969	Dept. of Agriculture, Bureau of Plant Industry (DA-BPI)	Erect	Green	Shiny	6.7	60-65	1.0-1.3
BPI MG50-10A (G)	Glossy Green 51 × Glabrous Green	1969	DA-BPI		Green	Shiny	6.7	60-65	1.0-1.3
BPI GLABROUS #3	MG50-10A × IIAG 36A	1971	DA-BPI	Erect	Green	Shiny	6.8	60-65	1.0-1.3
CES 87	(CES 14 × MG50-10A)	1975	University of the Philippines at Los Baños Institute of Plant Breeding (UPLB-IPB)	Erect	Green	Shiny	6.0	65-68	1.0-1.5
PAG-ASA 1	CES 1D-21 (CES 87 × ACC. 293)	1979	UPLB-IPB	Erect	Green	Shiny	4.6	65-68	1.0-1.2
PAG-ASA 2	CES 2F-1	1981	UPLB-IPB	Erect	Yellow	Shiny	4.0	58-69	1.0-1.3
PAG ASA 3	CES 2G-4 (ML-18 × CES 1K-25)	1983	UPLB IPB	Erect	Yellow	Shiny	4.6	60-67	1.2-1.5
BPI Mg2	VC 1163 (EG-MG-4 × ML-6)	1984	DA BPI	Erect	Green	Shiny	5.5	56-57	1.1-1.4
BPI Mg4	VC 2764B (EG-MD-6D × ML 6) × (CES 1D 21 × PHLV-18)	1986	Elena M. Catipon Ben Legaspi	Erect	Green	Shiny			
BPI Mg5	(EG-MD-16D × ML-6) × (PAG-ASA 1 × PHLV-18)	1986	DA-BPI	Erect	Green	Shiny	6.1	60-61	1.1-1.45
PAG-ASA 5	UPLB Mg5 (CES 2C-1 × CES 3N-1)	1986	UPLB-IPB	Erect	Green	Shiny	6.1	60	1.0-1.48
Sri Lanka									
TYPE-77	VC 1131-B-12-2-B (EG-MG-16 × ML-3) × EG-MG-16	1982	Dept. of Agriculture		Green	Shiny			
Taiwan, China									
TAINAN SELECTION #3	VC 1628A (PAG-ASA 1 × PHLV-18)	1981	Tainan DAIS		Green	Shiny		60-72	0.5-1.7
Tanzania									
IMARA	EG-MD-6D (V 1380)	1983		Erect	Green	Shiny			
Thailand									
MALEDMAN PHAK DAM	Local	1976		Indeterminate	Green		7.7		0.8
MALEDMAN PHAK KHAO	Local	1976		Indeterminate	Green		7.7		0.8
UTHONG 1	Selection from M7A from the Philippines	1976		Semideterminate	Green	Shiny	6.5		
KAMPHAENGSAEN 1	VC 1973A (CES 1D-21 × EG-MG-16)	1985	Peerasak Srinives	Erect (47 cm)	Green	Shiny	5.8-7.5	50-55	0.4-1.8
KAMPHAENGSAEN 2	VC 2778A BPI Glab. 3 × (CES 44 × ML-3) × (CES 1D-21 × PHLV-18)	1985	Peerasak Srinives	Erect (46 cm)	Green	Shiny	6.3-7.2	50-55	0.6-1.9

Table 1. Continued.

Name of Cultivar/ Country	Parentage	Year Released	Breeder/ Institution/State	Plant Type	Seed Color	Seed Luster	Seed Size (g)	Maturity (days)	Yield Potential (t/ha)
CHAINAT 60	VC 1178 (MG50-10A (Y) × ML-6)	1987	Dept. of Agriculture		Green	Shiny			
U.S.A.									
KILOGA		1959	Oklahoma Agril Expt. Station				Large	Medium early	
TEXSPROUT	VC 1973A (CES 1D-21 × EG-MG-16)	1987	Texas Agril. Expt. Station	Erect, determinate	Green	Shiny	7.8	65	1.6
BERKEN			Oklahoma Agril. Expt. Station				Large	Early	
JUMBO							Large		0.85-0.95
OKLAHOMA 12			Oklahoma Agril. Expt. Station				4.0	80-85	1.0-1.7
Vietnam									
DAU MO (GLOSSY BEAN)	Local selection	1960	Unknown	Erect	Dark green	Shiny	Large	55-75	1.5-2.5
DAU MOI (DULL DRY BEAN)	Local selection	1960	Unknown	Erect	Dark green	Dull	Small	55-75	1.2-2.0
DAU MO VANG (YELLOW GLOSSY BEAN)	Local selection	1983	Inst. of Agric. Tech. in S. Vietnam	Erect	Dark green	Shiny	Large	55-65	1.5-2.5
DX 102A	VC 2768A (EG-MD-6D × ML-3) × (CES 1D-21 × PHLV-18)	1985	University of Cantho	Erect	Dark green	Shiny	Large	62-75	1.9-2.7
DX 113	VC 2763A (EG-MD-6D × ML-6) × (BPI Glab. 3 × VC 1301)	1985	University of Cantho	Erect	Dark green	Shiny	Large	67-75	1.6-2.2

Table 2. Response to selected fungal, bacterial, nematode and virus diseases of mungbean cultivars released around the world.

Name of Cultivar/ Country	Parentage	CLS[2]	PM	BB	MYMV	MMV	Other Virus	Nematode	Root Rot	Other Diseases	
Australia											
CELERA	Introduced from Nicaragua		MR								
Bangladesh											
KISHOREGONJ	Unknown, collected from farmer's field	S	S		S						
Costa Rica											
ASVEG 78	VC 1089A (ML-3 × Ph.coll.1)	R									
Ecuador											
INIAP 451	VC 1163 (EG-MG-4 × ML-6)						R				
India											
ADT-2	ADT-1 × G-1		MR		MR						
AMRIT (NO. 122)	Selection from local material	R			R						
CO 3	Pureline selection from PLS 367 in 1976						Yellow vein mosaic virus R				
CO 4	Gamma ray mutant of CO 1		R		R				R	Tip blight	R
DHAULI (TT9E)	Mutation breeding from a stable type developed from the cross T-51 × local type	R	R								
G-65	Pure line selection from local collection from Gurdaspur (Punjab)				S						
GUJRAT 1	Selection from local germplasm	R			S						
JAWAHAR 45 (HYB. 45)	Madira × UP local				S						
JYOTI (HYB. 4-3)	L 24-2 × Pusa Baisaki				R						
K 851	4453-3 × T-44	S		S	S	S					
KM 1	S-8 × PS-16				R					Bacterial disease	MS
KOPERGAON	Selection from bulk local germplasm	S			S						
KRISHNA 11	Local selection from Gwalior				S						
LGG 407	Mutant from Pant Mung-2				R						
LGG 450	Mutant from Pant Mung-2				R						
ML-1321	ML-1 × ML-23	MR		MR	MR						
ML-267	ML-1 × LM 987	MR		MR	R						
ML-337	ML-1 × LM 987	MR	MR		MR						
ML-5	No. 54 × Hyb. 45	MR		MR	MS						
ML-1	Hyb. 45 × P 23-67				R						
ML-131	ML-1 × ML-23	R	R		R						
MOHINI (S-8)	BR-2 × Type-2	R			R					*Macrophomina*	R
MOONG 305											
PAIYUR-1	Local selection from Kaveripattanam				R						
PANT MOONG-1 (UPM 79-1-1)	L 294-1 × T-44	MS			MS				MS	Colletotrichum leaf spot	MS

[2]CLS = Cercospora leaf spot; PM = Powdery mildew; BB = Bacterial blight; MYMV = Mungbean yellow mosaic virus; MMV = Mungbean mottle virus

Table 2. Continued.

Name of Cultivar/ Country	Parentage	CLS[2]	PM	BB	MYMV	MMV	Other Virus	Nematode	Root Rot	Other Diseases
PANT MOONG-2	Mutant of ML-26				MS					
PANT MOONG-3 (UPM 79-4-12)	LM 294-1 × L 80		MR		R		Leaf curl virus MR			*Macrophomina* MR Anthracnose MR Leaf crinkle R *Rhizoctonia* R
PDM 11	Selection from LM 595	R	R		R					
PS-10	Selection from Iran germplasm P 469	R								
PS-16	Selection from P 596		R		R					
PUSA 101	S-8 × (EG-MG-16 × VC 2125) × (MG50-10A (Y) × ML-5)	R			R					
PUSA 105	(Tainan-1 × ML-6) × (EG-MG-16 × ML-3)		R		R					*Macrophomina* R
RATILA SELECTION	Selection from local material		MR		MR					
RS-4	Selection from local germplasm	S			S					
S-9	BR-2 × Type-21				S	S		S		Bacterial diseases S
SABARMATI (PIMS-4)	Plm 1066 × Pusa Baisakhi	R	R		S					
SUJATA (HYB. 12-4)	L 24-2 × Pusa Baisakhi	MS	MS		R					
SUNAINA	China mung × Type-1	R								
TAP-7	Gamma ray-induced early mutant of S-8	R	R							
TAU-1	T-9 × U-196 (variety × mutant) U-196 is gamma ray-induced, dark green, large-leaf mutant of variety N		MS							
TYPE-44	Type-1 × Type-49				MS					
TYPE-51	4465-4 × 4474-3									
VARSHA (H 70-16)					S					
Indonesia										
GELATIK	VC 1160-22-2B-1-B (CES-55 × ML-3)	R	R							
MANYAR	VC 1089-B29-3B-2-2-B (ML-3 × Ph.coll.1)									*Cercospora canescens* R
NURI	ML-3 (V 2773)									*Uromyces* sp. R *Cercospora canescens* R
WALET	VC 1163A (EG-MG-4 × ML-6)	R	R							*Uromyces* sp. R
Kenya										
KVr 22	EGT 22/20/4									R
KVr 26	EGT 26/13/9									R
Korea, Rep. of										
BANGASA	CES 1D-21									M
SEONHWANOGDU	VC 1973A (CES 1D-21 × EG-MG-16)									M
Pakistan										
6601	Landrace	MS			MR					
NIAB MUNG 121-25	Local strain RC71-27	MS			R					
NIAB MUNG 13-1	Local Var. 6601	MS			MR					
NIAB MUNG 19-19	Local strain Pak 22	MS			R					
NIAB MUNG 20-21	Local strain Pak 22	MS			R					
NIAB MUNG-28	Local strain Pak 17	MS			MR					

Table 2. Continued.

Name of Cultivar/ Country	Parentage	CLS[t]	PM	CB	MYMV	MMV	Other Virus	Nematode	Root Rot	Other Diseases
Philippines										
BPI GLABROUS 13	MG50-10A × IIAG 36A	S	S							
BPI MD 15-2	Glossy Green S1 × Dull Green 28-1	S	S							
BPI Mg2	VC 1163 (EG-MG-4 × ML-6)	MR	MR							
BPI Mg4	VC 2764B (EG-MD-6D × ML-6) × (CES 1D-21 × PHLV-18)	MR	MR							
BPI Mg5	(EG-MD-16D × ML-6) × (PAG-ASA 1 × PHLV-18)	MR	MR							
BPI MG50-10A (G)	Glossy Green S1 × Glabrous Green	S	S							
PAG-ASA 1	CES 1D-21 (CES 87 × ACC. 293)	MR								
PAG-ASA 2	CES 2F-1	R	R							
PAG-ASA 3	CES 2G-4	MR	S							
CES 87	CES 14 × MG50-10A	S	S							
PAG-ASA 5	UPLB Mg5 (CES 2C-1 × CES 3N-1)	MR	S						Rust	R
Sri Lanka										
TYPE-77	VC 1131-B-12-2-B (EG-MG-16 × ML-3) × EG-MG-16				R				Charcoal rot	R
Thailand										
KAMPHAENGSAEN 1	VC 1973A (CES 1D-21 × EG-MG-16)	MR	MR							
KAMPHAENGSAEN 2	VC 2778A BPI Glab. 3 × (CES 44 × ML-3) × (CES 1D-21 × PHLV-18)	MR	MR							
U.S.A.										
TEXSPROUT	VC 1973A (CES 1D-21 × EG-MG-16)	S	MR							
Vietnam										
DAU MO (GLOSSY BEAN)	Local selection						Yellow green mosaic virus	R	Common diseases	R
DAU MO VANG (YELLOW GLOSSY BEAN)	Local selection						Yellow green mosaic virus	R	Common diseases	R
DAU MOI (DULL DRY BEAN)	Local selection						Yellow green mosaic virus	R	Common diseases	R
DX 102A	VC 2768A (EG-MD-6D × ML-3) × (CES 1D-21 × PHLV-18)	R					Yellow green mosaic virus	R	Common diseases Local diseases	R R
DX 113	VC 2763A (EG-MD-6D × ML-6) × (BPI Glab. 3 × VC 1301)	R					Yellow green mosaic virus	R	Common diseases Local diseases	R R

Table 3. Response to selected insect pests of mungbean cultivars released around the world.[z]

Name of Cultivar/Country	Parentage	Whiteflies	Jassids	Pod Borers	Other Insects	
Bangladesh						
KISHOREGONJ	Unknown, collected from farmer's field			S		
India						
G-65	Pure line selection from local collection from Gurdaspur (Punjab)				Thrips	R
KM 1	S-8 × PS-16			R		
ML-1321	ML 1 × ML-23	S	MR			
ML-267	ML-1 × LM 987	MS	R			
ML-5	No. 54 × Hyb. 45	MS	S			
PUSA 105	(Tainan-1 × ML-6) × (EG-MG-16 × ML-3)	R	R		Aphid	R
SML-32	T-1 × G-65				Thrips	R
Korea, Rep. of						
BANGASA	CES 1D-21					M
SEONHWANOGDU	VC 1973A (CES 1D-21 × EG-MG-16)					M
U.S.A.						
TEXSPROUT	VC 1973A (CES 1D-21 × EG-MG-16)			MR	Aphid	MR
Vietnam						
DAU MO (GLOSSY BEAN)	Local selection			R		
DAU MO VANG (YELLOW GLOSSY BEAN)	Local selection			R		
DAUMOI (DULL DRY BEAN)	Local selection			R		

[z]R = Resistant; MR = Moderately Resistant; S = Susceptible.

Table 4. The adaptation, locations grown and other remarks of mungbean cultivars grown around the world.

Name of Cultivar/Country	Parentage	Adaptation	Location Grown	Remarks
Australia				
BERKEN	Selection from Jumbo Mung, Oklahoma, 1962	Dryland	All production areas in Australia	Lodges under good growing conditions
CELERA	Introduced from Nicaragua	Higher rainfall areas	Northern NSW, southern Queensland	Sensitive to zinc deficiency, hard seed coat up to 35%
KING	EG-MG-7, Bred by E.M. Catipon, BPI, Los Baños		Northern territory, Queensland	
Bangladesh				
KISHOREGONJ	Unknown, collected from farmer's field	Widely adapted	Almost all over Bangladesh	Prized for its flavor
Costa Rica				
ASVEG 78	VC 1089A (ML-3 × Ph.coll.1)	Loamy soil	Batan, Limon	
China				
XU YIN NO. 1	VC 1973A (CES 1D-21 × EG-MG-16)	Widely adapted	Plains and hills of Huang and Huai river valleys	
Ecuador				
INIAP 451	VC 1163 (EG-MG-4 × ML-6)			Resistant to pod weathering, manual/mechanical harvesting
India				
12/333	Amrit × Pusa Baisakhi	Summer season	Bihar Chota Nagpur	Days to 50% flowering -35, round bold seed shape, yellow seed coat, synchronous maturity
ADT-2	ADT-1 × G-1	*Kharif* season	Bihar	
AMRIT (NO. 122)	Selection from local material	Late planting	Bihar	
BR-2	Local selection from Bhagalpur	*Kharif* season	Bihar	Hairy pods
CO 1	Selection from local germplasm	Suitable for dryland cultivation, rainfed areas	Tamil Nadu	Hairy pods
CO 2	Selection from PLS 365/3		Tamil Nadu	Bold seeds
CO 3	Pure line selection from PLS 367 in 1976			Plant height 30-35 cm, 3-4 branches, green foliage, pods borne in clusters and linear, leaves broad borne on long petioles, trifoliate, rarely lobed, ovate in outline, long pods (6-10 cm), green venation
CO 4	Gamma ray mutant of CO 1	Rainfed, irrigated	Tamil Nadu	Oblong and bold seeds
D 66-24	Selection from local material		Rajasthan	
D 66-26	Selection from local germplasm		Rajasthan	Bold seed
DHAULI (TT9E)	Mutation breeding from a stable type developed from the cross T-51 × local type		Orissa	

Table 4. Continued.

Name of Cultivar/Country	Parentage	Adaptation	Location Grown	Remarks
G-65	Pure line selection from local collection from Gurdaspur (Punjab)	Summer/Spring March/April-june seasons	Punjab	
GUJRAT 1	Selection from local germplasm	Semi-arid regions, drought tolerant	Gujarat	Seeds/pod, 13
GUJRAT 2	Selection from local germplasm	Summer/spring, *kharif* seasons	Gujarat	Pod length 8-9 cm, 15 seeds per pod
ILOGAN 781	Selection from China mung		Maharastra, Gujarat	Days to 50% flowering - 30, round bold seed shape, shining hair on pods
JALGAON-781	Selection from China Mung 784	Medium and heavy soils with no water lodging	Parts of Maharashtra	
JAWAHAR 45 (HYB. 45)	Madira × UP local	Suitable for *kharif*	Madhya Pradesh, Rajasthan	Plant height 60-65 cm, tendency to produce five leaflets at some nodes, flowers in bunches, light green stem and foliage, smooth seed texture
JYOTI (HYB. 4-3)	L 24-2 × Pusa Baisakhi	Suitable for *rabi* season	Orissa	
K 851	4453-3 × T-44	Well adapted to whole northern India, summer all over India	Uttar Pradesh, Bihar, Orissa, Haryana, Punjab, Madhya Pradesh	Seeds/pod, 10 to 14
KHARGONA-1	Selection from K-119-56	Suitable for double cropping	Himar Region of Madhya Pradesh	
KM 1	S-8 × PS-16		Tamil Nadu	Medium-size seeds
KM 2	122 × 59		Tamil Nadu	
KOPERGAON	Selection from bulk local germplasm	Suitable for summer	Madhya Pradesh, Maharashtra	
KRISHNA 11	Local selection from Gwalior	Suitable for Qualior region	Madhya Pradesh	
LAM M-2		*Rabi* season for upland rice fallows	Andhra Pradesh	
KONDAVEEDU (LGG 127)	Pure line selection from 'Pusa Baisakhi Mung'	Rainfed black soil tract	Andhra Pradesh	
LGG 407	Mutant from Pant Mung-2	Wide adaptability for all seasons	Andhra Pradesh	
LGG 450	Mutant from Pant Mung 2	Good, *kharif* season	Andhra Pradesh	Resistant to preharvest sprouting
ML-1321	ML-1 × ML-23	Main season July-October	Punjab, Northwestern plains zone & Peninsular zone	Used as a check in the national trials
ML-267	ML-1 × LM 987	*Kharif* season	Uttar Pradesh, Punjab, Andhra Pradesh & Haryana, Western zone, Northwestern plains zone	Used as a check in the national trials
ML-337	ML-1 × LM 987		Uttar Pradesh, Punjab, Bihar, Madhya Pradesh, Maharasthra, Delhi, Himachal Pradesh	Seeds/pod, 10 to 12
ML-5	No. 54 × Hyb. 45	Widely adapted for *kharif* (July-Sept.)	Punjab north plains, western & northeastern zones	Used as a check in the national trials
ML-1	Hyb. 45 × P 23-67	Main *kharif* season, (July-Sept.)	Plains of Punjab	
ML-131	ML-1 × ML-23	Main *kharif* season (July-Sept.)	Maharashtra, plains of Punjab, Peninsular zone of India	

Table 4. Continued.

Name of Cultivar/Country	Parentage	Adaptation	Location Grown	Remarks
MOHINI (S-8)	BR-2 × Type-2		North, east & west plain, central & Peninsular, Madhya Pradesh, Delhi, Rajasthan	
MOONG 305			Punjab	
PAIYUR-1	Local selection from Kaveripattanam	Drylands & intercropping with ragi and cotton	Tamil Nadu	Days to 50% flowering, 45
PANNA (B-105)	Selection from local germplasm	Suitable for Gangetic alluvium zone in summer and laterite zone in rainy season		
PANT MUNG-1 (UPM 79-1-1)	M 294-1 × T-44	*Kharif*, summer seasons	Uttar Pradesh, northern plains, western zone, Delhi, Punjab, Haryana	
PANT MUNG-2	Mutant of ML-26	*Kharif*, summer seasons	Northeast, northwest plains & Central zone of India, Uttar Pradesh, Bihar, West Bengal	
PANT MUNG-3 (UPM 79-4-12)	LM 294-1 × L 80	*Kharif* season	Northwest plains of India, western zone of Uttar Pradesh, Punjab, Delhi	
PDM 11	Selection from LM 595	Suitable for spring/summer seasons	Madhya Pradesh, Maharashtra, Gujarat	Brownish black pods, seeds/pod, 11
PDP 71-1	Selection from local germplasm	Upland area of coastal region, *kharif* season	Andhra Pradesh	Olive grey mature pods with light brownish hairs
PS-10	Selection from P 469	Northern plains	Uttar Pradesh, Delhi, Bihar, Punjab, Haryana	Spring, summer, broad leaves, very synchronous maturity
PS-16	Selection from Iran Germplasm P 596	*Kharif*, spring, summer seasons	Uttar Pradesh, Delhi, Madhya Pradesh, Bihar, Maharashtra, Andhra Pradesh, Karnataka, Haryana, Jammu, Kashmir	Most-cultivated variety of India, blackish brown pods at maturity
PS-7	Selection from P 4092	Spring, summer	Northern plains of Uttar Pradesh, Delhi, Bihar, Punjab, Haryana	Purple-pigmented stem, broad leaves, very synchronous maturity
PUSA 101	S-8 × (EG-MG-16 × VC 2125) × (MG50-10A (Y) × ML-5)	*Rabi* season	South India	Lodging resistant and good yielder
PUSA 105	(Tainan-1 × ML-6) × (EG-MG-16 × ML-3)	Suitable for *kharif* season	Uttar Pradesh, Madhya Pradesh, Punjab, Maharashtra, Delhi, Haryana, Himachal Pradesh Northwestern plain and Central zone	
PUSA BAISAKHI	Selection from Type-44	Wide adaptability, summer season	Uttar Pradesh, Delhi, Rajasthan, Maharashtra, Jammu and Kashmir, Karnataka, Northeast Hill region	First variety released in India
R 288-8	Selection from local germplasm		Rajasthan	
RATILA SELECTION	Selection from a local material		Orissa	
RS-4	Selection from local germplasm		Suitable for Udaipur and Kota regions in Rajasthan, Haryana	Medium-size seeds
MOHINI (S-8)	BR-2 × Type-2	Rainy season	Whole India	
S-9	BR-2 × Type-21	Rainfed	Haryana	
SABARMATI (PIMS-4)	Plm 1066 × Pusa Baisakhi		Gujarat	

Table 4. Continued.

Name of Cultivar/Country	Parentage	Adaptation	Location Grown	Remarks
SHINNING MOONG NO. 1	Selection from China mung	Hilly areas & plains, summer season (March-June), intercropping in gardens in plains		Determinate, 40-45 cm, slightly pubescent stem and leaves
SML-32	T-1 × G-65	Plains, summer (March-June) season	Punjab	Relatively synchronous maturity
SONALI (B-1)	Selection from Chaitali Mung	Mid to late Jan., summer season	West Bengal	Suitable for mid to late Jan., planting in coastal alluvium and growing as summer crop in Gangetic alluvium zone
SUJATA (HYB. 12-4)	L 24-2 × Pusa Baisakhi	*Kharif*, pre-*rabi*, season, coastal region	Orissa	
SUNAINA	China mung × Type-1	Summer, specifically to Chottanagpur plateau of Bihar	Bihar	
TAP-7	Gamma ray-induced early mutant of S-8	*Kharif* (June-Sept.) season	Vidarbha region of Maharashtra	Being considered for release in Karnataka State due to its higher yield (36%) over check PS-16. About 50 t seed was being distributed during 1987 *kharif* season and 36% of the total certified seed production was of TAP-7 in Maharashtra State
TAU-1	T-9 × U-196 (variety × mutant) U-196 is gamma ray-induced, dark green, large-leaf mutant of variety N	*Kharif* (June-Sept.) season	Maharashtra	
TYPE-1	Selection from Muzaffarpur (Bihar)		Uttar Pradesh	Blackish brown pod at maturity, pod length 5.5 to 7.5 cm
TYPE-10		*Rabi* season	West Bengal	Suitable for Gangetic alluvium areas of West Bengal
TYPE-44	Type-1 × Type-49	Suitable for spring and summer seasons in northern India	Uttar Pradesh, Rajasthan, Assam, Jammu and Kashmir, Haryana, Bihar, Orissa, Punjab	Pod length (7-9 cm), 11 to 14 seeds/pod
TYPE-51	4465-4 × 4474-3	Curved long pods (7-9 cm), suitable for *kharif* season	Uttar Pradesh	
VARSHA (H 70-16)			Haryana	Long pods, 10 to 11 seeds/pod
Indonesia				
BHAKTI			Bone, South Sulawesi	Plant height (47 cm)
GELATIK	VC 1160-22-2B-1-B (CES-55 × ML-3)			Nonshattering, uniform maturity
MANYAR	VC 1089-B29-3B-2-2-B (ML-3 × Ph.coll.1)	Dry fields	Lombok (Nusa Tenggara)	1st harvest: 52%; 2nd harvest: 35%; 3rd harvest: 10%, but not favorable
NURI	ML-373 (V 2773)	Dry fields	Lombok (Nusa Tenggara)	1st harvest: 52%; 2nd harvest: 35%; 3rd harvest: 10%, but not favorable
WALET	VC 1163A (EG-MG-4 × ML-6)	Latosol and Andosol		Nonshattering, uniform maturity
Kenya				
KVr 22	EGT 22/20/4	Wide (below 1,000 m)	Coast and eastern Kenya	
KVr 26	EGT 26/13/9	Wide (0-1,600 m)	Eastern Kenya	

Table 4. Continued.

Name of Cultivar/Country	Parentage	Adaptation	Location Grown	Remarks
Korea, Rep. of				
BANGASA	CES 1D-21	Good	Southern region	
SEONHWA-NOGDU	VC 1973A (CES 1D-21/EG-MG-16)	Good	Whole country	
Pakistan				
6601	Landrace	Wide adaptability	All Pakistan	Indeterminate growth, lodging prone, uneven maturity
NIAB MUNG 121-25	Local strain RC71-27	Wide adaptability	All Pakistan	Short statured, determinate growth, top fruit bearing, uniform maturity, amenable to mechanized harvesting & threshing, gamma ray-induced mutant at 20 kR
NIAB MUNG 13-1	Local Var. 6601	Wide adaptability	All Pakistan	Short statured, erect, top fruit bearing, suitable for taking extra crop of mungbean in the fallow period between wheat harvest and maize or rice planting, gamma ray-induced mutant
NIAB MUNG 19-19	Local strain Pak 22	Wide adaptability	All Pakistan	Short statured, determinate growth, top fruit bearing, uniform maturity, amenable to mechanized harvesting & threshing, gamma ray-induced mutant at 40 kR
NIAB MUNG 20-21	Local strain Pak 22	Wide adaptability	All Pakistan	Short statured, erect, top fruit bearing, suitable for taking extra crop of mungbean in the fallow period between wheat harvest and maize or rice planting, gamma ray-induced mutant at 40 kR
NIAB MUNG-28	Local strain Pak 17	Wide adaptability	All Pakistan	Semideterminate, lodging prone, gamma ray-induced mutant at 20 kR
Philippines				
BPI GLABROUS #3	MG50-10A × IIAG 36A	Wet and dry seasons		Pods with no pubescence, 58-63% carbohydrate and 24-26% protein
BPI MD 15-2	Glossy Green S1 × Dull Green 28-1	Dry season		Pods (16-20 cm) with 16-20 seeds/pod, resistant to shattering
BPI Mg2	EG-MG-4 × ML-6	Wet & dry seasons		Upright growth habit, lodging resistant, 23.3% protein and 61.1% carbohydrate
BPI Mg4	VC 2764B (EG-MD-6D × ML-6) × (CES 1D-21 × PHLV-18)			Uniform maturity, lodging resistant
BPI Mg5	(EG-MD-16D × ML-6) × (PAG-ASA 1 × PHLV-18)	Wet & dry seasons		Upright growth habit, 21.4% protein and 63.0% carbohydrate
BPI MG50-10A (G)	Glossy Green S1 × Glabrous Green	Dry & wet seasons		Responds to high plant density, 22.2% protein and 46.7% carbohydrate
PAG-ASA 1	CES 1D-21 (CES 87 × ACC. 293)	Wet & dry seasons		Nonlodging, 22.8% protein and 49.1% carbohydrate

Table 4. Continued.

Name of Cultivar/Country	Parentage	Adaptation	Location Grown	Remarks
PAG-ASA 2	CES 2F-1	Wet & dry seasons		Pods with no pubescence, 22.2% protein and 44.2% carbohydrate, 38% hard seeds
PAG-ASA 3	CES 2G-4 (ML-18 × CES IK-25)	Wet & dry seasons		Pods with no pubescence, 21.6% protein and 50-98% carbohydrate
CES 87	CES 14 × MG50-10A	Wet & dry seasons		Nonshattering and lodging resistant, 21.8% protein and 47.6% carbohydrate
PAG-ASA 5	UPLB Mg5 (CES 2C-1 × CES 3N-1)	Wet & dry seasons		Upright growth habit, 22.6% protein and 60.2% carbohydrate
Taiwan, China				
TAINAN SELECTION #3	VC 1628A (PAG-ASA 1 × PHLV-18)	Spring season	Chia Nan area	Uniform maturity, lodging resistant
U.S.A.				
BERKEN				Lodging resistant, nonshattering
TEXSPROUT	VC 1973A (CES 1D-21 × EG-MG-16)	Wide adaptability	North Texas	Good, resistant to lodging and pod shattering
Vietnam				
DAU MO (GLOSSY BEAN)	Local selection	Good	Whole country, esp. central & southern parts	
DAU MO VANG (YELLOW GLOSSY BEAN)	Local selection	Good	Whole country esp. central & southern parts	
DAUMOI (DULL DRY BEAN)	Local selection	Good	Whole country, esp. central & southern parts	
DX 102A	VC 2768A (EG-MG-6D × ML-3) × (CES 1D-21 × PHLV-18)	Good, sandy loam soils after rice	Western part	Uniform maturity
DX 113	VC 2763A (EG-MD-6D × ML-6) × (BPI Glab. 3 × VC 1301)	Good	Western part	Nonuniform maturity, tolerant to acidic and saline soil