

OVER 225 HI-YIELDING SPICE VARIETIES IN INDIA - (Part III)

Johny .A. Kallupurackal, and P.N. Ravindran, 2

Indian Institute of Spices Research, Calicut - 673 012¹ Centre for Medicinal Plants Research, Kottakkal - 676 503²

5. CHILLI

SI. No	Variety/ Year of release	Pedigree/ Parentage & Plant type	Institution/ University	*AV.yield kg/ha (dry)	Salient features
1	K 1 (Kovil patti-1)1965	Pure line selection from local Sathur Samba/ Assam type B 72-A	Regional Agriculture Experimental Station, Kovil patti, TNAU, Tamil Nadu.	1700	Plants tall, spreading, long fruit (6.6 cm) pendent, red, smooth shiny surface with pointed tips, bright scarlet fruits, 75-80 seeds, pericarp 0.07 cm thick, girth 4 cm capsaicin content 0.3 mg/g of fruit, more tolerant to thrips and fruit rot, duration 210 days. The variety is suitable for rainfed cultivation in southern districts of Tamil Nadu.
2	K 2 (Kovil patti-2) 1975	A hybrid cultivar, between K1 x Sathur Samba.	-do-	1800	Tall, semi-spreading plant, fruits are long, pendulus, solitary fruit orientation, strongly stalked characters, smooth with blunt tip, pods 7.3 cm long, girth 4 cm, bright scarlet red, pericarp thickness 0.19 mm, 80-85 seeds, capsaicin 0.49 mg/g of fruit; tolerance to thrips, duration 210 days.
3	:	A variety evolved by pure line selection from Samba type from Sathur of Ramanathapuram district of Tamil Nadu.	Horticulture Reserch, Station periyakulam - 625 604, TNAU, Tamil Nadu	2100	Plant erect, medium tall, compact with moderate branching; elongated and stout fruits with high pungency; high capsaicin (0.72 mg/g). Fruits 7.3 to 8.0 cm long, seed content 55.0%, bright red in colour, duration 210 days; can be grown through out the year, all the three seasons



प्राइसस भारत

				भारत	
	Co 21984	selection from a 'gundu' type from CA (P) 63	Camil Nadu Agricultural Jniversity, Coimbatore- 541 003, Tamil Nadu	2200	An erect plant habit with pendulus and strongly stalked fruit charaters. The variety is suited for both green and dry chilli. Plants are medium tail; less spreading; fruits conical, small, thick, erect, oblong, (2.4 cm long) bright red, high seed content (60%), capsaicin 0.56 mg/g of fruit, suitable for green, duration 200-210 days. This variety is exclusively suited for the agroclimatic regions of Coimbatore of Tamil Nadu.
5	PKM-1 1990	A hybrid between AC 1792 x Co.1.	-do-	3100	Plant dwarf, bold fruits, red in colour, suitable for irrigated condition, duration 180 days.
6	Co 3 (CA 586)	A pure line selection from an OP progeny	-do-	3500	Plants are dwarf and less spreading. A dual purpose chilli, fruits are thick, long and slender and red colour with high oleoresin content, suitable for high density
		germplasm introduced from Sri Lanka	*		planting, duration 165-210 days.
7	Co4	N.A.	-do-	4000	A gundu cultivar and a vegetable type, duration 210 days.
8	PMK-1	A 'gundu' type. Advanced generation selection from cross of Co.2 > Ramanathapura	Nadu	2300	Suitable for rainfed cultivation, duration 210 days Medium pungent, short fruit.
		gundu (an indigenous genotype)			



		•		भारत	
9	PLR-1 (Palur)1991	Pure line selection from CAP-8 a Kandangadu type.	Vegetable research station, Palur, TNAU, Tamil Nadu	1800	A 'gundu' cultivar suitable for harvesting as green chilli, plant dwarf, duration 210 days, fruit glossy green in colour, medium pungent, pendent medium size suitable for pickling purpose
10	(Madurai 1) 1975	An induced mutant obtained through Gamma irradiating seeds of K1	Horticultural College & Rese. Institute, TNAUMadurai- 625 104, Tamil Nadu	1900	Plants dwarf, bushy compact suited for high density planting (30 x 30 cm). Fruits semi erect, pendulus, strongly stalked in clusters (4-9/clump); 8.0 cm long, shiny, red colour, 50 to 60 seeds/fruit, high capsaicin content (0.70 mg/g); 210 days duration, suitable for southern districts of Tamil Nadu.
11	Pusa Jwala 1974	A hybrid cultivar (of Samba type) between NP46A x Puri Red	Indian Agricultural Research Institute, Pusa-110 012, New Delhi	7500 (green chilli)	Plants dwarf bushy, light green with broad leaves. Fruits 9 to 10 cm long, usually curved and thin light green, turning light red at maturity, shrunken skin, capsaicin 0.48 mg/g of fruit, dry fruit wrinkled and liable to break during transport. Fairly tolerant to thrips, mites and aphids. Suitable for growing all parts of the country.
12	Pusa Sada Bahar 1989	Hybrid between Pusa Jwala x IC 31 339 (C frutescens) plant	-do-	2000	A multipurpose chilli, erect, comparatively tall (60-80 cm), highly pungent, erect fruit in cluster of 6-14 numbers, 6 to 8 cm length. Ripe fruit bright red in colour. Resistant to CMV, TMV, leaf curl.
13	NP 46A(National release)	A pure line	-do-	7500 (green chilli)	Plant bushy dwarf, dense and spreading, a Samba type, fruits 8 to 9 cm long, thin, pendulus with pointed tip, wrinkled, bright green in colour, light red on ripening and less seed and contains 0.53 mg capsaicin/g of fruit. Tolerant to thrips and susceptible to viral disease.
14	Capsicum- Pusa Deepti (KT-1) 1997	A hybrid	IARI, Regional station, Katrain-175 129, Himachal Pradesh	35000 (green chilli)	Plants vigorous, erect medium and bushy, fruits are smooth erect conical light green with thick flesh, 9-11 cm long and 3-5 cm in diameter. Early to medium maturity, tolerant to bacterial leaf spot and anthracnose disease, recommended for growing in temperate and subtropical regions of India.

* Information of cultivars released before 1965 are not available for inclusion in this list. Details of cultivars released by State Variety Release Committees of many chilli growing states also could not be traced.



खाइस्ट भारत

_	·				रत
15	KDC-	A cultivar obtained by crossing between Bydagi x Capsicum frutesence.	UAS, Dharward- 580 005, Karnataka	N.A.	Prostrate habit, semi wrinkled red fruits with me capsaicin than that of Bydagi. High colour and le pungency, 40% higher yield than the local varie Resistance to leaf curl disease. Suitable f intercropping with cotton, and for cultivation in bla cotton soil.
16	НСН-96		Agricultural Res.earch Station (Chilli) Devi hosur Haveri, UAS, Dharward, Karnataka	2500 (10- t/h green chilli)	A dual purpose hybrid having tolerance to leaf
17	GPC-82	A selection from germplasm	UAS, GKVK, Bangalore- 560 065, Karnataka	N.A.	A high yielding type, ovate leaves, fruits are smooth medium size, green with moderate pungency. Wider adaptability, grown in different seasons of the year through out Karnataka. Tolerant to leaf curl complex.
18	Pant C-1 1972	A hybrid between NP 46 A x Kandahari (C. frutescens)	Agri. and	1200	Plants erect, 50-60 cm tall; fruiting commences in two months, and picking commences in 100 days after transplanting, fruits erect, small 5.5 cm long with blunt apex, surface smooth, pericarp thickness 0.09 mm, light green, turns to light red at maturity. Highly pungent, tolerant to mosaic and leaf curl viruses.
9	Pant C-2	A hybrid cultivar, between NP46A x Kandahari (C. frutescens)	-do-	1400	Plants erect, medium in height, fruit long with blunt tip, pendent. Tolerant to mosaic and leaf curl virus
Kε	alyan Sel. 1	NA	-do-	Ņ.A.	N.A.
	G11962	A selection from Nallapattu Local.	RARS, ANGRU,Guntur- 522 034 Lam, A.P	N.A.	NA.
C	G2 1962	A selection from NP46A	-do-	N.A.	Fruits medium, slightly curved tip, calyx cup shaped green turning to red at maturity.
			. 1 .	•	



		•		भारत	
23	G31962	A pure line selection from NP46A		Pot yield)	Plant medium height, pods 6 to 7 cm long and 3 cm in girth; seed content 44%, pods red, thin, medium long, tips acute and slightly curved and highly pungent. Suitable for rainfed and irrigated conditions.
1	Bhagya Laxmi (G4)1968/ 1977(State/ National release)	A pure line selection from Thobian chillies from Sri Lanka.	19	Pot. yield)	Plants tall, dense, leaves narrow, semi erect habit, pendulus fruit, solitary fruit orientation, strongly stalked, persistent calyx, pods 7 to 8 cm long and 0.7 cm in width, olive green turning to dark red on ripening; the pedicle is attached to the fruit firmly; seed content 38 to 40%; medium pungent, capsaicin 0.52 mg/g of fruit, fairly tolerant to pest and disease, with wider adaptability, through out the country.
:	Andhra Iyothi (G5) 1972	A hybrid between G2 x Bihar-13 variety	-do-	Pot. vield)	Plant tall and dence; pods short and stout, guadu type, 3-4 cm long 2-4cm in girth with conical shape; pericrp thick, glossy and deep red in colour, pungent capsaicin, content 0.65 mg/g of fruit tolerent to thrip, vider adaptability
┯	Sindhur (CA 960)1978		'-do-	1200(5000 Pot. yield)	A dual chilli variety, plants tall, pods short, stout, conical shape, pericarp light green, calyx semi cup shaped, tip blunt; fruits long 7 to 8 cm with 4 to 4.5 cm girth; top is blunt; capsaicin content 0.81 mg/g of fruit, seed content 38.0%; deep red thick pericarp; suitable for summer cultivation.
27	Aparna (CA 1068)1982	NA	-do-	2100(3500 pot, yield)	Plants tall with long internodes, pods medium size with blunt tip, pods 8.3 cm long, cylindrical with semi-cup shaped calyx and blunt tip. pericarp light green, broad, turning yellow on ripening, retains colour in storage; high pungency (0.7%) capsaicin/8 m of fruit; moderately tolerant to major pests and diseases under field conditions.
28	Bhaskar (LCA- 235)1985 (National release	Hybrid variety between G 4 x Yellow Anther mutant	-do-	5000	Plants bushy, early flowering and maturing, fruits thir medium long (5-6 cm) calyx deeply cup shaped, fruits thin, tip pointed, seed content 45%, highly pungent tolerant to thrips and mites. Suitable for pickles as well as export.
29	Prakash (LCA-206) 1991	An advanced generation selection from crossing G.3 x Hundaka a Japanese line	-do-	4500	Plants, semi tall, light green foliage, pods thin and long turn to attractive glossy red colour at maturity, medium pungent
30	LCA-305 1993	NA	-do-	5000 to 6000	red after drying, tolerant to virus.
31		A hybrid cultivar between Perennial x Long Red plants	Agricultural University	1200	Plant dwarf, bushy with dark green foliage, fruit erec small size (4.25 x 0.79 cm) dark green, turning to dark re at maturity. Rich in capsaicin (0.7%), oleoresin, dr matter, red pigment and highly pungent. Resistant to TMV, CMV, leaf curl viruses, moderately tolerant to fru rot and die back.



				भ	ि
THE CONTRACT OF THE CONTRACT O	32 CH- 1992	eloned f	rom S-12	2400 (gree chilli	and pests, high adaptability, fruits medium size high
	33 CH-	2	-do-		
	34 CH-3	ined from c between M (female) x S-2 (male).	btado- ross [-12 2530	11000 (green	foliaget immeters (05.2011), vigorous with dark gree
	1987	collection	Phule Krish Vidyapeeth Rahuri-413722 Maharashtra	1. 2000 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Dual purpose chilli, plant height 90-120 cm spreading in nature, fruit small 6.83 cm, width 0.95 cm, dark green with black patches, with 0.28% capsaicin, tolerant to die back and powdery mildew
3	Phule Jyo	indigeno genotype	u s	3000	Plants tall spreading type, fruits are dark green, medium fruit length, used as both green and dry chilli, tolerant to leaf curl and powdery mildew diseases; resistant to lodging; good for kharif and summer planting.
	mukhi	indigenou genotype		2800	Fruits are medium in length green in colour, can be used both as green and red dry chilli; for powder; tolerant to leaf curl and powdery mildew; good for kharif and summer planting.
38	(Pendent	from indigenous type.	-do-	N.A.	Fruits are borne in cluster of 4-5 and of pendent orientation
39 40	Shankeshwa -32	Selection from Sankeshwa type	r	N.A.	Plants tall (90-120 cm), fruits long 20-30 cm, thin wirey highly wrinkled, light green turn to red at maturity; mostly grown for dry fruit.
41U	Agni rekha	Advanced generation selection from cross between Dondeicha x Javala		NA	Plants are light green, tall spreading fruits bold fruit long medium pungent
_ _	AKC-86-39 2001	N.A	Akola, Maharashtra	N.A	Details not available.
42	Jawahar – 218 1987	Hybrid cultivar of Kalipeeth x Pusa Jwala.	Jawaharlal Nehru Krishi Viswavidyalaya Jabalpur- 482 004, Madhya Pradesh	(green)	Dual purpose early variety, dwarf, spreading foliage, fruit erect and big (9 x 0.92 cm), thin, wrinkled light green turn to rosy red at maturity; tolerant to leaf curl and fruit rot. Suited for green and dry chilli production.
13	JCA-154	N.A.	-do-		A pickling cultivar, fruits are dark green and turns to bright red when ripe, 115-120 days maturity, suitable for pickling.



				भार	
4	Arka Ha	- F1 hybrid dev	Indian		A dual purpose chilli. Resistant to powdery mildew
	2004	eloped using	Horticultural	chilli) 38200	and viruses. Plants tall (100 cm), fruits length 10.0 cm
İ			Research, H-	(green	spreading, duration 150-160 days.
			essaraghatta		
			Lake Post, Ba- ngalore-560	1	
			089		
4	5 Arka	A pureline sele-	-do-	N.A	Tolerant to powdery mildew and is highly pungent
	Lohit2002	ction from local			, , , , , , , , , , , , , , , , , , ,
4	6 Arka	A F1 hybrid	-do-	5.1 t (dry	
	Meghana	c h i l l i	-40-	chilli)	Green purpose chilli. Resistant to powdery mildew
	(MSH 172)	developed		33500	and viruses. Plants medium tall (80 cm), fruits length
	2004	using male		(green chilli)	10.5 cm, early bearing, duration 120-140 days.
4	7 Bharath 1990	sterile lines. A hybrid	-do-	N.A.	High yielding type.
_				11171	angil yielding type.
48	BC-14-2 2001	Pureline selection from	Orissa University of	N.A.	N.A.
	2001	sankeshwar	Agriculture		
		type.	and		
			Technology, Bhubaneshwar-		
			751 003 Orissa	· ·	
49	7	Advanced			Next described to the state of
	Jwalasakhi	generation	Department of plant	20000	Plant dwarf, pods having low pungency, tolerant to leaf curl virus and leaf spot disease; fruits are sulphery
		selection of	breeding,	(green	green, long, pendulous, succulent with low
		cross between Vellanotchi x	College of	chilli)	pungency; suitable for green chilli purpose. Adapted
-			Agriculture, Kerala		to southern districts of Kerala.
	. *	Pusa Jwala.	Agriculture		
			University,		
			Vellanikkara- 680 656.		
	,		Trichur,		
50			Kerala		
50		Combination	*-do-	22500	Plants dwarf, fruits pendulous, succulent, dark green, medium pungent, suitable for green chilli
		breeding from the		(green	purpose; tolerant to leaf curl virus and leaf spot.
		same cross		chilli)	Adapted to southern districts of Kerala
	l i	between			
		Vallanotchi x Pusa Jwala.	•	ļ	
51	Ujjhala(CA-	Single plant	Department of	22170	Plants determinate, bushy, low branching, ideal for close
		selection from	Olêriculture, College of		planting, beautiful appearance of medium size pods in
	219)	indigenous	Horticulture, Kerala		bunches, upright and cluster fruited character, pods
		1) Pos.	Agriculture		light green, erect fruits in clusters of 8-10, highly pungent and deep red, duration 4½ to 5 months;
		7	Jniversity, Vellanikkara-		tolerant to bacterial wilt, mosaic and leaf roll.
			580 656,		.,



52	Anugraha	NA NA	-do-	27000 (green chilli)549.33 g/plant.	Resembles Pusa Jwala in habit, fruits medium lor pendulus and green pods, dark red at maturity, mediu pungent, resistant to bacterial wilt. Plants are she statured with early maturity (92 days)
53	KA-2	N.A.	Indian Institute of Vegetable Research, Varanasi-221 005, Uttar Pradesh	1600 (green chilli)	
54	ССН-3	Hybrid	-do-	NA	A - Little
55	Hisar Vijay (H-28)	Single plant selection from local variety	Department of Vegetable crops, CCS Haryana Agrl University, Hisar-125 004, Haryana		A chilli suitable for green production Fruits borne in cluster, upright, medium long, dark green turning bright red on ripening, highly pungent.
5	Hisar Shakthi (H-44)	Single plant selection from an indigenous OP variety.	-do-	NA	Plants medium tall, perennial, woody, erect, highly branched, fruits medium long (8-9 cm); in cluster and erect, pointed tip, highly pungent, light green, turning in to glossy red at ripening, suitable for export.

Note: Only selected cultivars are included in the above list. Varieties released from private companies are not listed.

6. Garlic

SI No	1	Pedigree/ Parentage	Institution/ University	AV.yield t/ha	Salient features	Recommended state/region
1	Agrifound white (G-41) 1989	rom Bihar collection	National Hort. Research & Devt. Federation, Kanda Batata Bhavan, 2954E, New Mumbai, Agra Road, Nashik- 422011, Maharashtra.		Bulb compact, silvery white with creamy flesh, bigger elongated cloves, 20-25 in number, duration 150-160 days, susceptible to purple blotch and Stemphyllium blight, TSS-41%, dry matter 42.78 and good storer	Aresas where there is not much problem of blotch and blight
s	afed-1(G-1) 991	Mass selection from local collection obtained from Delhi			Compact bulbs, silvery white skin with creamy flesh, sickle shaped cloves, 25-30 in numbers. 150-160 days duration. Tolerant to insect pests and diseases like purple blotch, Stemphyllum blight, onion thrips. TSS-38%, dry matter 39.5% and good storer	



СŲ	١Ş٠	
2	US.	a

					भारत		
	3	Y a m u n a safed-2 (G-50) 1996	Mass selection from local collection of Haryana		150-200	Bulbs compact, attractive white creamy flesh, 35-40 cloves. Duration 165-170 days Tolerant to Stemphyllum and purple blotch disease as well as thrips. TSS-38-40%, drymatter 40.41%.	central and western
	4	Yamuna safed-3 (G-282)1999	Mass selection f r o m germplasm collection from Tamil Nadu	-do-	175-200	Bulbs are creamy white and bigger sized (5-6 cm diameter), compact 15-18 cloves. Duration 140-150 days. Tolerant to thrips. TSS-38-42%, dry matter 39-43% and medium storer suitable for export.	Northern parts and also in central parts of India
	5	Agrifound Parvati (G-313)1992	Selection from e x o t i c collection from Hong Kong	-uo-	175-225	Bigger sized bulbs of 5-6.5 cm, creamy white colour with pinkish tinge, 10-16 bigger cloves. Duration 250-270 days. Tolerant to common diseases, medium sorer. This variety is suitable for export, developed for long day condition and very popular in hills of Uttar Pradesh and Himachal Pradesh	Mid and high hills of northern states
	6	G-323 1990	Mass selection from local collection obtained for UP	-do-	175-220	Bulbs silvery white and bigger sized, 30-35 cloves. Plants vigorous with wider green leaves, TSS 40-42%, dry matter 41-42%	North India
	7	Godavari (selection-2) 1987	Selection	Mahatma Phule Krishi Vidyapeeth University, Rahuri-413 7 2 2 , Maharashtra	100-105	Medium sized bulbs, pinkish white colour, 22-25 cloves, maturity 140-145 days.	Maharashtra
	8	Sweta (selection- 10)	NA	-do-	100-105	Bigger bulbs, silvery white, 25-26 cloves per bulb 130-135 days maturity	Northern, central a n d western India
	9	Ooty-1	Clonal selection from germplasm	Tamil Nadu Agricultural University (TNAU) Coimbatore- 640 003, Tamil Nadu	150-170	Attractive white in colour. Big bulbs, 20-25 clove resistant to thrips and tip dying.	Tamil Nadu
[1	10	Co-2		Tamil Nadu Agricultural University, Coimbatore- 641 003, Tamil Nadu	NA	Attractive white bulbs	Tamil Nadu



144	 	1	<u>. </u>	•1	ारत	
111	 	NA NA	,-do-	NA	NA	-do-
12	VL Garlic	Clonal selection from EC 158250	Vivekanda Paevatiya Krish Anusandhan Sansthan, Almora- 263601	in hill ar	in	Uttaranci Himaci Prades Jammu Kashmir, t Bihar a
13	ARU-52	NA	Vivekanda Paevatiya Krishi Anusandhan Sansthan, Almora - 263	NA	NA	Punjab
14	T-56-4	Selection	Punjab Agricultural University (PAU), Ludhiana-141 004, Punjab	8-100	Smaller size bulb, white in colour 25-35 cloves. 130-135 days maturity	Punjab
-	LGG-1	NA	Punjab Agricultural University (PAU), Ludhiana-141 004, Punjab	NA	NA	Punjab
L	ohit-1	primitive cultivar	Dept. of Vegetable Sciences, G.B Pant University of Agriculture and Technology, Pant Nagar,		heavy seed notential fam.	ar Pradesi n c aranjal
	ant nit-2	NA II S P U A a Te	ciences, G.B	NA	NA Utta	ranjal



स्पाइसेस भारत

		•		THEC			
18	Pusa Sel-10	NA	Indian Agricultural	NA		NA	
			Research Institute,				
	* *		Pusa-110 012,		·		
		5	New Delhi				
19	HG-1	NA	Dept. of	NA ·		NA	Haryana
			Vegetable				'
	·		Sciences, Haryana				
ı			Agricultural				
		·	University				
			(CCHAU),				
ı			Hisar-125		'		
			004, Haryana				
20	HG-6	NA	Dept. of Vegetable	NA.		NA	
			Sciences,			e e	Haryana
		•	Haryana				
			Agricultural				
ı	,		University			•	
	, 1		(CCHAU),	<i>,</i>			
	·		Hisar-125 004, Haryana				
┙			maryana				

TREE SPICES

7. CINNAMON

SI	1	Pedigree/ Parentage & Plant type	Institution/ University	AV.yield kg/bark/ ha	Salient features	Recommended state/region
1	YCD.1 1996	Clonal selection from OP seedlings progenies of Sri Lankan type.	Hort. Research Station, (TNAU), Yercaud-636 602, Dist. Salem, Tamil Nadu	Dry bark yield of 360kg/ha (143.9g dry bark/ plant)	Good bark recovery, adapted to wide range of soil and rainfed conditions. Bark oil 2.8%, leaf oil 3.0%, bark recovery 35.3%.	High ranges at 500-1000 m above MSL, Tamil Nadu
2	PPI (C)-1 2003	Selection from OP seedlings progeny introduced from Sri Lanka seed supplied from IISR.	(TNAU) Pechiparai- 629 161	Fresh bark yield of 980 kg/ ha.	Bark, higher oil recovery from the bark (2.9%) and leaf oil recovery of 3.3%, bark oil 2.9%, leaf oil 3.3%, bark recovery 34.22%. Suitable for cultivation in high rain fall zones and hill regions of Tamil Nadu at an altitude range of 100-500 m MSL	High rainfall zones and hill ranges of Tamil Nadu.



SI No	1	Pedigree/ Parentage & Plant type	Institution/ University	AV.yield kg/bark/ ha	Salient features	Recommend
3	Konkan Te	Seedling selection from progenies of Sri Lankan accessions	Regional Coconut Research Station, Dr. BSKKV, Vengurle- 416516, Bhatye (Dist) Ratnagiri, Maharashtra.	Fresh bark yield of 334g/ plant(102g dry bark/ plant)	Superior qualities with 3.2% bark oil with bark recovery 29.16%, cuminaldehyde in bark oil 70.23, eugenol in bark oil 6.93%, leaf oil 2.28%, eugenol in leaf oil 75.5%, yields 4.10kg fresh bark. Bark recovery 51.78%.	Konkan region of Maharashtr
4	Sugandhini (ODC-130) 2000	Single tree selection from Wynad local collection. A Sri Lankan type	Aromatic and Medicinal Plants Research Station (KAU), Odakkali, Asamanor, P.O., Ernakulam	640 kg(1.2 kg fresh bark/tree, 18.34 kg fresh leaves/ tree/year)	Recommended for cultivation for leaf oil production, bark oil 0.94%, leaf oil 1.6%, bark recovery 51.0%, cinnamaldehyde in bark oil 45.0%, eugenol in leaf oil 93.7%; released mainly for leaf oil purpose. Densely foliage.	Midlands and high lands of Kerala and South India
5	RRL(B) C-6 1996	Selection from germplasm collection- OP seedling progenies	Regional Research Laboratory, CSRI, Bhubaneswar, Orissa	bark/ha. (Pot yield	High quality, bark with 83.0% cinnaldelyde content in bark oil, 94.0% eugenol in leaf oil, leaf oil 0.8%. spreading, branching, nature, sweet and pungent	Orissa and coastal regions of India
6 1	IISR- Nithyashree 1996	Clonal selection from OP seedling progeny	Indian Institute of Spices Research, ICAR, Calicut-673 012, Kerala	quills.(Pot. a yield 250/ l kg dry quills)	Good regeneration capacity, bark and leaf oleoresin contents are high. Good bark recovery with good aroma and taste. Bark oil 2.7%, leaf oil 3.0%, bark oleoresin 10.0%, bark recovery 30.7%, cinnamaldehyde in bark oil 58.0%, cinnamaldehyde in leaf oil 14.0%, eugenol in bark oil 5.0%, eugenol in leaf oil 78.0%.	All cinnamon growing areas in South India
	IISR- Navashree 1996	OP seedling progeny of Srilankan collections	-do-	200 kg dry quills (Pot. yield 250 kg quills)	High quality line, good bark recovery with good aroma and taste, grow well in plains and high elevations. Bark oil 2.7%. High cinnamalyde content (73%) in bark oil, medium quality. Leaf oil 2.8%, bark oleoresin 8.0% bark recovery 10.6%, cinnamaldehyde in leaf oil 15.0%, eugenol in bark oil 6.0%, eugenol in leaf oil 62.0%.	All cinnamon growing areas in South India



	Nutmeg					
SI. Vo	Variety/ Year of	Pedigree/ Parentage &	Institution/ University	*AV.yield kg/ha (dry)	Salient features	Recommende
٧q	release	Plant type	Omversity	Kg/IIa (diy)		state/region
4	1010450	71		· .		
			*			
1	Konkan	Single plant selection	Regional	200-526	Adaptable in Konkan region.	Maharashtra
	Sugandha 1998	from local	Fruit Research	fruits/ tree	Tree canopy is conical and	
	1770	seedling	Station,		compact.	
		population.	Vengurla,		· .	
			Maharashtra			
2	Konkan	Selection from	Regional	761.38	Adapted to Konkan region with	Konkan region of
	Swad	nutmeg	Coconut	fruits/tree	warm, humid conditions as well	Maharashtra.
Ì	2003	seedlings from Ratnagiri dist.	Research Station,		as shade provision. Canopy erect, conical shape. Contain	ivianai asnu a.
		. Kamagiii dist.	Bhatye (Dr.		39.8% essential oil in seed and	
			BVŠKÙ),		10.9% in mace. No incidence of	
			Ratnagiri		pest & disease are noticed	
_	,		district.			
3	Viswashree	Clonal	Indian	1000 fruits	Bushy and compact canopy, low	Kerala and
	2001	selectin	Institute	(1.33 kg mace, 9 kg	incidence of fruit rot. Nut recovery 70.0%, mace recovery	other areas of similar climatic
	(identified)	from elite germplasm	of Spices Research,	dry 3122	35.0% and nut oil 7.14%, mace oil	features
		Bermpiasin	ICAR,	kg/ha)	7.13%, oleoresin in nut 2.48%	•.
			Calicut-		and mace 13.8% respectively, nut	
	•		673 012,	:	butter 30.9% myristicin, in nut 12.48% and mace 20.03%	
	•		Kerala	i	respectively	
_	. Tamarind		<u> </u>			
<u> </u>	PKM-1	Selection	Horticultural		Dwarf high yielding line	Tamil Nadu
•			Research			
	1992		Station,	-		li
	,		Periyakulam- 625 604,			
			TNAU, Theni			
			(Dist) Tamil			•
_			Nadu			
2	DTS-1	Selection	Dept. of	1.5 kg	A sweet red type classified	Karnataka
	1996		Horticulture, University of	(dry) per	based on colour and taste of	
			Agril Sciences	1	pulp, slightly susceptible to pod	
		100	Dharwad-580	Piani		
<u>.</u>			005, Karnataka		borer	
3	Prathisthan	Selection	Fruit Research	NA NA		Maharashtra
-4			Station,		NA	
ر	1					
ر			Himayat Bagh,			



पाइसेस भारत

SI. No		Pedigree/ Parentage & Plant type	Institution/ University	*AV.yield	Salient features	Recommended state/region
4	NO. 263	Selection	Fruit Research Station, Himayat Bagh, Aurangabad, Maharashtra	NA	NA	Maharashtra
5	Yogeswari	Selection	Forest department, Karnataka.	NA	Red pulp	Karnataka.

1 I	DWA-1	A clonal selection from	Dept. of Horticulture,	NA	The plant having dark green highly aromatic shining leaves. It	Karnataka
		root suckers	University of	1	is sensitive to low temperature in	
			Agril Sciences,		winter and hence bud burst is poor during winter. The leaves	
			Dharwad-580		has an oil content of 5.22%, can	•
			005,		be dehydrated at 50°C without	
	•		Karnataka	,	loss of quality and made into dry powder.	•
2 D	WA-2	An OP seed progeny	-do-	NA	Leaves slightly pale green having lesser aroma and 4.09%	Karnataka
					oil content. It is not very	
					sensitive to low temperature and much superior in number of	
					buds burst, aid internodal	,
					length. Due to the winter	
					insensitive nature the variety gives extra income.	

11. Kokum	•	,	•		
1 Konkan Amruta 1997	Selection from seedlings from Ratnagiri and Sindhudurg districts.		138.28 kg	Attractive fruit, apple-like shape; 81.72% moisture, 9.08% TSS, 2.41% reducing sugar, 4.52% total sugar, 5.12% acidity with longer shelf life (115 days). Early maturity type suitable for processing before monsoon season.	Southern Konkan zone of Ratnagiri, Maharashtra.

(to continue)