

Table 1 Varieties of spice crops released through All India coordinated Research Project on Spices

Black pepper

Sl No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Dry recovery %	Piperine %	Oleoresin %	Essential oil %	Salient features
1	Panniyur 1	Pepper Research Station, KAU, Panniyur, Kerala	1967	F ₁ of Uthirankotta x Cheriyananiyakadan	1242	35.3	5.3	3.5	3.5	Highest yield potential. Do not tolerate shade, moderately high oleoresin (11.8%) long spikes & bold berries
2	Panniyur 2	Pepper Research Station, KAU, Panniyur, Kerala	1991	Open pollinated progeny of Balankotta	2570	35.7	6.6	10.9	3.4	Shade tolerant, rich in oleoresin high pipline
3	Panniyur 3	Pepper Research Station, KAU, Panniyur, Kerala	1991	F ₁ of Uthirankotta x Cheriyananiyakadan	1953	27.8	5.2	12.7	3.1	Late maturing, suitable for all pepper growing region, performs well under open situation. Long spikes & bold berries
4	Panniyur 4	Pepper Research Station, KAU, Panniyur, Kerala	1991	Clonal selection from Kuthiravally	1277	34.7	4.4	9.2	2.1	Stable yielder, performs well under adverse condition also
5	Panniyur 5	Pepper Research Station, KAU, Panniyur, Kerala	1996	Open pollinated progeny of Perumkodi	1107	35.7	5.3	12.33	3.8	Suitable for both monocropping & mixed crop in coconut/arecanut gardens. Long spikes
6	Panniyur 6	Pepper Research Station, KAU, Panniyur, Kerala	2000	Clonal selection from Karimunda	2127	33	4.9	8.27	1.33	Steady and stable yielder tolerant to drought and adverse climatic conditions. Suitable for open condition as well as partial shade
7	Panniyur 7	Pepper Research Station, KAU, Panniyur, Kerala	2000	Open pollinated progeny of Kalluvally	1410	34	5.6	10.6	1.5	Vigorous, hardy and a regular bearer, long spike, high piperine (5.6%) tolerates adverse climatic condition suitable open and shaded conditions.
8	Panniyur 8	Pepper Research Station, KAU, Panniyur, Kerala	2013	Hybrid of Panniyur 6 x Panniyur 5	5760	37	5	12	3.8	Suited to all pepper growing regions of Kerala. Field tolerant to drought situations and <i>Phytophthora</i> foot rot.
9	Sreekara	Indian Institute of Spices Research, Calicut, Kerala	1990	Clonal selection from Karimunda	2677	35	5.1	13.0	7.0	High quality and high volatile oil content with wider adaptability to all pepper growing tracts.

10	Subhakara	Indian Institute of Spices Research, Calicut, Kerala	1990	Clonal selection from Karimunda	2352	35	3.4	12.4	6.0	High quality and high volatile oil content with wider adaptability to all pepper growing tracts.
11	Panchami	Indian Institute of Spices Research, Calicut, Kerala	1991	Clonal selection from Aimpriyan	2828	34	4.7	12.5	3.4	Late maturing variety with excellent fruit set.
12	Pournami	Indian Institute of Spices Research, Calicut, Kerala	1991	Clonal selection from Ottaplackal	2333	31	4.1	13.8	3.4	High yielding variety, tolerant to root knot nematode.
13	IISR Sakthi	Indian Institute of Spices Research, Calicut, Kerala	2006	Open pollinated progeny of Perambamundi.	2253	43	3.3	10.2	3.7	Tolerant to <i>Phytophthora capsici</i>
14	IISR Thevam	Indian Institute of Spices Research, Calicut, Kerala	2006	Clonal selection of Thevamundi,	2481	32.5	1.6	8.15	3.1	Vines grow vigorously, stable yielding field tolerant to <i>Phytophthora</i>
15	IISR Girimunda	Indian Institute of Spices Research, Calicut, Kerala	2004	Hybrid between Narayakodi x Neelamundi	2880	32	2.2	9.65	3.4	Recommended for rainfed conditions, suitable for high elevation
16	IISR Malabar Excel	Indian Institute of Spices Research, Calicut, Kerala	2006	Hybrid between Cholamundi x Panniyur-1	1440	32.3	11.7	2.4	2.8	Suitable for high elevation and plains
17	PLD -2	Indian Institute of Spices Research, Calicut, Kerala	1971	Clonal selection from Kottanadan	2475	-	3	15.45	4.8	Late maturity high quality cultivar, recommended for Trivandrum and Quilon districts of Kerala.
18	Arka Coorg Excel	Central Horticultural Experiment Station, Chettalli, IIHR	2012	Seedling Selection	-	-	-	-	-	To develop bold seeded, long spiked, high yielding pepper variety
19	Vijaya	KAU, Trchur, Kerala	2012							

* Yield Kg/ha (Dry)

Cardamom

Sl No.	Variety	Centre developed	which	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Dry recovery	Oil %	1,8 Cineol %	α - terpenyl acetate %	Salient features
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1	Mudigere 1	Regional Research Station, UAS, Mudigere. Karnataka	1984	Clonal selection from Malabar type	300	20	8	36	42	Erect and compact panicle, suitable for high density planting, moderately tolerant to thrips, hairy caterpillar and white grubs, pubescent leaf. Short panicle, pale green, oval bold capsule	
2	Mudigere 2	Regional Research Station, UAS, Mudigere. Karnataka	1994/1996	Clonal selection from open pollination of Malabar type	475		8	45	38	Early maturing variety, suitable for high density planting ,round/oval bold capsules.	
3	PV 1	Cardamom Research Station, KAU, Pampadumpara, Idukki, Kerala	1991	A selection from Walayar collection ,Malabar type	260	19.9	6.8	33	46	An early maturing type,short panicle,elongated slightly ribbed light green capsules,Long, bold capsule	
4	PV 2	Cardamom Research Station, KAU, Pampadumpara, Idukki, Kerala	2001	Selection from OP Seedlings of PV-1,a Malabar type	982	23.8	10.45	-	-	Early maturing, lengthy panicle, Long bold capsules, high dry recovery percentage, field tolerant to stem borer and thrips, suitable fro elevation range of 1000-1200 m above MSL.	
5	ICRI 1	ICRI (Spices Board), Myladumpara, Kerala	1992	Selection from Chakkupalam collection, Malabar type	325	22.9	8.7	29	38	An early maturing type globose ,round and extra bold dark green capsules ; medium sized panicle with profusely flowering , early maturing type,	
6	ICRI 2	ICRI (Spices Board), Myladumpara, Kerala	1992	Clonal selection from germplasm, Mysore type	375	22.5	6.67	29	36	Performs well under high altitude and irrigated condition, medium long panicles, oblong bold and parrot green capsules,tolerant to azhukal disease	
7	ICRI 3	ICRI (Spices Board), Myladumpara, Kerala	1994	Selection from Malabar type	440	22	6.6	54	24	Early maturing long pubescent leaves, tolerant to rhizome rot disease, oblong,bold parrot green capsules. suitable for hill zone of Karnataka	
8	ICRI 4 TDK 4	ICRI (Spices Board), Myladumpara, Kerala	1997	Clonal selection from lower pulleys, a Malabar type	455	22.76	6.4	-	-	Early maturity, medium sized panicles, Globose bold capsules. Suitable for low rainfall areas, relatively tolerant to rhizome rot and capsule borer	
9	ICRI 5	ICRI (Spices Board), Myladumpara, Kerala	2006	Hybrid between MCC 260 x MCC 49	1,543	23.15	7.13	-	-	First hybrid variety, Early maturity Moderately tolerant to drought, High yield under intensive management, Capsule size 68% ; more than 70 mm,	
10	ICRI 6 (MCC – 73)	ICRI (Spices Board), Myladumpara, Kerala	2006	Selection from the germplasm(acc. MCC-73)	1,200	19.0	7.33	-		High yield, Medium maturity, Relatively tolerant to drought, High percentage of bold capsules Capsule size 71% ; more than 7mm	
11	ICRI 7	ICRI (Spices Board),	2010	Hybrid	-	22	8.84	-	-	Suitable for Wayanad, Kerala, Semi-erect panicles	

		Myladumpara, Kerala									Angular bold capsules, Oleoresin 7.99%
12	IISR Kodagu Suvasini (CCS-1)	Indian Institute of Spices Research, Calicut, Kerala	1997	Selection from OP progeny of CL-37 from RRS Mudigere, Malabar type	745	22	8.7	42	37		Early maturing, suitable for high density planting, long panicle, tolerant to rhizome, rot, thrips, shoot/panicle/capsule borer.
13	IISR Avinash (RR-1)	Indian Institute of Spices Research, Calicut, Kerala	2001	A selection from OP progeny of CCS-1, a malabar type	847	20.8	6.7	30.4	35.5		Dark green capsules. Tolerant to rhizome rot, and shoot/panicle/capsule borer.
14	IISR Vijetha (NKE-12)	Indian Institute of Spices Research, Calicut, Kerala	2001	Clonal selection from field resistant plants for Katte, a Malabar type	643	22	7.9	45	23.4		Resistant to katte virus, bold capsules. Field tolerant to thrips and borer.

Ginger

Sl No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Dry recovery %	Oleoresin %	Crude fibre%	Essential oil %	Crop Duration	Salient features
1	Suprabha	High Altitude Research Station, OUA &T, Pottangi, Orissa	1988	Clonal selection from Kunduli local	16.6	20.5	8.9	4.4	1.9	229	Plumpy rhizome, less fibre, wide adaptability, suitable for both early and late sowing.
2	Suruchi	High Altitude Research Station, OUA &T, Pottangi, Orissa	1990	Clonal selection from Kunduli local	11.6	23.5	10.9	3.8	2.0	218	Profuse tillering, bold rhizome, early maturing, suitable for both rainfed and irrigated condition.
3	Suravi	High Altitude Research Station, OUA &T, Pottangi, Orissa	1991	Induced mutant of Rudrapur local	17.5	23.6	10.2	4.0	2.1	225	Plumpy rhizome, dark skinned yellow fleshed, suitable for both irrigated and rainfed conditions.
4	Himgiri	Department of vegetable crops, YSPUJ&F, Solan, Himachal Pradesh	1996	Clonal selection from Himachal collection	13.5	20.2	4.29	1.6	6.05	230	Best for green ginger less susceptible to rhizome rot disease, suitable for rainfed condition.
5	IISR Varada	Indian Institute of Spices Research, Calicut, Kerala	1996	Selection from germplasm	22.66	19.5	6.7	3.29-4.50	1.7	200	High yielder, high quality bold rhizome, low fibre content. Wide adaptability and tolerant to diseases.
6	IISR Mahima	Indian Institute of Spices Research, Calicut, Kerala	2004	Selection from germplasm	23.2	23	4.5	3.26	1.72	200	High yielder, plumpy extra bold rhizomes, resistant to <i>M. incognita</i> and <i>M. javanica</i> pathotype 1
7	IISR Rejatha	Indian Institute of Spices Research,	2004	Selection from germplasm	22.4	20.8	6.3	4	2.36	200	High yielder, plumpy and bold rhizome

		Calicut, Kerala									
8	Aswathy (IC NO. 0584128)	Department of Spices and Plantation crops, Kerala Agriculture University, Trichur	-	Single plant selection from somaclones of cultivar Rio-de-Janeiro	23	19.7	7.45	3.5	3.32	220-240	Ideal for cultivation both as pure and intercrop. High yielding high quality clone suitable for green with high recovery of volatile oil and oleoresin. Filed tolerant to Phyllosticta leaf spot.
9	Athira (IC No. 0584128)	Department of Spices and Plantation crops, Kerala Agriculture University, Trichur	-	Selection form somaclones of cultivar Maran	21	22.6	6.8	3.4	3.1	220-240	Ideal for cultivation both as pure intercrop. Suitable for fresh and dry ginger. Tolerant to soft rot and bacterial wilt diseases than parent cultivar. High yielding high quality clone with high zingiberence
10	Karthika (IC No. 0584129)	Department of Spices and Plantation crops, Kerala Agriculture University, Trichur	-	Selection form somaclones of cultivar Maran	19	21.6	7.2	3.7	3.2	220-240	Ideal for cultivation both as pure and intercrop. Suitable for fresh and dry ginger. Tolerant to soft and bacterial wilt diseases than parent cultivar. Low infestation of shoot borer under field conditions. High pungency clone with high gingerol.
11	Subhada	High Altitude Research Station, OUA &T, Pottangi, Orissa	2009	Mutagen in EMS (40 PPM) treatment and selection of mutants	18000	22.4	10.4	3.4	2.0	210	Suitable for hills and plains

* Yield tonnes/ha (fresh)

Turmeric

SI No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Dry recovery %	Curcumin %	Oleoresin %	Essential oil %	Crop duration	Salient features
1	CO.1	Dept. of spices and plantation crops, TNAU, Coimbatore, Tamil Nadu	1982	Vegetative mutant by x-ray irradiation of Erode local	30.5	19.5	3.2	6.7	3.7	270 days	Bold and orange yellow rhizomes, suitable for drought prone areas, water logged, hilly areas saline and alkaline areas
2	BSR.1	Dept. of spices and plantation crops, TNAU, Coimbatore, Tamil Nadu	1986	Clonal selection from Erode local irradiated with x rays	30.7	20.5	4.2	4	3.7	285	Bright yellow rhizome suitable for problem soils and drought prone areas of Tamil Nadu.
3	BSR.2	Dept. of spices and	1994	Induced mutant from	32.7	-	-	-	-	245	A high yielding short duration variety with bigger

		plantation crops, TNAU, Coimbatore, Tamil Nadu		Erode local								rhizomes, resistant to scale insects
4	Krishna	Maharashtra	1983	Clonal selection from Tekurpeta collection	9.2	16.4	2.8	3.8	2	240		Plumpy rhizomes, moderately resistant to pests and diseases
5	Sugandham	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	1984	Clonal selection from germplasm	15.0	23.3	3.1	11	2.7	210		Thick, round rhizomes with short internodes. Moderately tolerant to pest and diseases
6	Roma	High Altitude Research Station, OUA &T, Pottangi, Orissa	1988	Clonal selection from T.Sunder	20.7	31	6.1	13.2	4.2	250		Suitable for both rainfed and irrigated condition. Ideal for hilly areas and late sown season.
7	Suroma	High Altitude Research Station, OUA &T, Pottangi, Orissa	1989	Clonal selection from T. Sunder by x- ray irradiation	20.0	26	6.1	13.1	4.4	253		Round and plumpy rhizome, field tolerance to leaf blotch, leaf spot and rhizome scales.
8	Ranga	High Altitude Research Station, OUA &T, Pottangi, Orissa	1992	Clonal selection from Rajpuri local	29.0	24.8	6.3	13.5	4.4	250		Bold and spindle shaped mother rhizome, suitable for late sown condition and low lying areas. Moderately resistant to leaf blotch and scales
9	Rasmi	High Altitude Research Station, OUA &T, Pottangi, Orissa	1992	Clonal selection from Rajpuri local	32.0	23	6.4	13.4	4.4	240		Bold rhizomes, suitable for both rainfed and irrigated condition, early and late sown season
10	Rajendra Sonia	Dept. of Hort., Tirhut College of agriculture RAU, Dholi, Bihar	1989	Selection from local germplasm	42.0	18	8.4	-	5	225		Bold and plumpy rhizome
11	Megha turmeric 1	ICAR, R.C..NEH Region, Shillong, Meghalaya	1996	Selection form Lakadong type	23.0	16.37	6.8	-	-	300-315		High curcumin content and bold rhizomes, suitable for North east hill region and North west Bengal.
12	Pant Peetabh	G.B Pant University of Agriculture and technology, Pantmagar, Uttaranchal	2001	Clonal selection from local type	29.0	18.5	7.5	-	1	-		Resistant to rhizome rot
13	Suranjana	Uttar Bangal Krishi	2000	Clonal selection from	29.0	21.2	5.7	10.9	4.1	235		Tolerant to rhizome rot and leaf blotch; resistant to

	(TCP-2)	Viswa Vidyalaya, North Bangal, Pundibari		local types of west Bengal								rhizome scales and moderately resistant to shoot borer suitable for open and shaded condition
14	Suvarna	Indian Institute of Spices Research, Calicut, Kerala	1987	Selection from germplasm, collected from Assam	17.4	20	4.3	13.5	7	200		Bright orange coloured rhizome with slender fingers, field tolerant to pest and diseases.
15	Suguna	Indian Institute of Spices Research, Calicut, Kerala	1991	Selection from germplasm, collected from AP	29.3	20.4	4.9	13.5	6	190		Early maturing, field tolerant to rhizome rot.
16	Sudarsana	Indian Institute of Spices Research, Calicut, Kerala	1991	Selection from germplasm, collected from Singhat, Manipur	28.8	20.6	5.3	15	7	190		Early maturing, field tolerant to rhizome rot.
17	IISR Prabha	Indian Institute of Spices Research, Calicut, Kerala	1996	Open pollinated progeny selection	37.0	19.5	6.5	15	6.5	205		High yielding varitey
18	IISR Prathibha	Indian Institute of Spices Research, Calicut, Kerala	1996	Open pollinated progeny selection	39.1	18.5	6.2	16.2	6.2	225		High yielding varitey
19	IISR Kedaram	Indian Institute of Spices Research, Calicut, Kerala	2004	Clonal selection from germplasm	34.5	18.9	5.5	13.6	-	210		Resistant to leaf blotch.
20	IISR Alleppey Supreme	Indian Institute of Spices Research, Calicut, Kerala	2004	Selection from Alleppey Finger turmeric	35.4	19	5.55	16	-	210		Tolerant to leaf blotch.
21	Kanthi	Dept. of plantation crops and spices, KAU, Trichur	1996	Clonal selection from Mydukur variety of Andhra Pradesh	37.65	20.15	7.18	8.25	5.15	240-270		Erect leaf with broad lamina, big mother rhizomes with medium bold fingers and closer internodes
22	Sobha	Dept. of plantation crops and spices, KAU, Trichur	1995	Clonal selection from local type	35.88	19.38	7.39	9.65	4.24	240-270		High Yielding Varitey with high curcumin content (7.39%), Erect leaves with narrow lamina. Mother rhizome big with medium bold figures and closer internodes. Inner core of rhizomes is dark orange like Alleppey. More territory rhizomes.
23	Sona	Dept. of plantation crops and spices, KAU, Trichur	2002	Clonal selection from local germplasm	21.29	18.88	7.12	10.25	4.4	240-270		Orange yellow rhizome, medium bold with low territory fingers. Best suited for central zone of Kerala. rhizome medium bold. Field tolerant to leaf blotch.
24	Varna	Dept. of plantation	2002	Clonal selection from	21.89	19.05	7.87	10.8	4.56	240-270		Bright orange yellow rhizome, medium bold with

		crops and spices, KAU, Trichur		local germplasm							closer internodes,territory fingers present.suited to central zone of Kerala. Field tolerant to leaf blotch
25	Narendra Haldi – 1	Department of Vegetable Science N.D. University of Agriculture & Technology, Kumarganj, Faizabad.	2007/ 2010	Selection from germplasm (NDH 18)	-	-	-	-	-		High yield potential, good size and colour of rizhomes,high amount of cur cumin and essential oil
26	Duggirala Red	Dr. Y. S. R. Horticultural University Turmeric Research station, Kammarpally	2013	Mass selection	25	23.5	4.1	-	-	240-270	High yielding variety, Rhizomes are long, plumpy, strong and very deep orange in colour.
27	Narendra Haldi – 2	Department of Vegetable Science N.D. University of Agriculture & Technology, Kumarganj, Faizabad	-	-	-	-	-	-	-	-	High yield potential, good size finger
28	Narendra Haldi – 3	Department of Vegetable Science N.D. University of Agriculture & Technology, Kumarganj, Faizabad	2012	Selection from germplasm (NDH 9)	-	-	-	-	-	-	Highyielding,, Root knot resistant, Moderate resistant against leaf spot and leaf blotch
29	Surangi	High Altitude Research Station, OUA &T, Pottangi, Orissa	2009	Clonal selection	23400	28	4.5-6.5	12.7	4.6	180-200	Suitable for hills and plains

* Yield tonnes/ha (fresh)

Cinnamon

SI No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Bark recovery %	Bark oil %	Leaf oil %	Salient features
1	YCD.1	Hort. Research station (TNAU), Yercaud , Tamil	1996	Clonal selection from op seedings progenies of Sri Lankan type	360	35.3	2.8	3	Good bark recovery adopted to wide range of soil and rainfed conditions.

		Nadu							Recommended for high ranges at 500-1000m above MSL.
2	PPI (C) -1	HRS, (TNAU), Pechiparai, Tamil Nadu	2003	Selection from OP seedlings progeny introduced from Sri Lanka	980	34.22	2.9	3.3	Suitable for cultivation in high rainfall zones and hill regions of Tamil Nadu at an altitude of 100-500 m MSL.
3	Konkan Tej	Regional coconut research station, Dr, BSKKV, Vengurle, Maharashtra	1993	Seedling selection from progenies of Sri Lankan accessions	334	29.16 51.78	3.2	2.28	Superior qualities with 3.2% bark oil with bark recovery 29.16%,cinnamaldehyde in bark oil 70.23, eugenol in bark oil 6.93%,eugenol in leaf oil 75.5%,yields 4.10kg fresh bark.
4	Sugandhini (ODC-130)	Aromatic and Medical Plants Research station, Odakkali, Kerala	2000	Single tree selection from Wayanadu local collection.A Sri Lankan type	640	51.0	0.94	1.6	Recommended for cultivation for leaf oil production, cinnamaldehyde in bark oil 45%, eugenol in leaf oil 93.7%;released mainly for leaf oil purpose.densely foliage.
5	RRL(B) C-6	Regional research Laboratory, CSRI, Bhubaneswar, Orrisa	1996	Selection from germplasm collection-OP seedling progenies	250	-	-	-	High quality,sweet and pungent bark with 83% cinnaldehyde in bark oil,94.0% eugenol in leaf oil,leaf oil 0.8% .Spreading,branching,nature
6	IISR Nithyashree	Indian Institute of Spices Research, Calicut, Kerala	1996	Clonal selection from OP seedling progeny	200	-	2.7	3	Good regeneration capacity ,bark and leaf oleoresin contents are high. Good bark recovery with good aroma and taste. Bark oleoresin-10.0%
7	IISR Navashree	Indian Institute of Spices Research, Calicut, Kerala	1996	Selection from Op seedling progeny of Sri Lankan collection	200	40.6	2.7	2.8	High quality line ,good bark recovery with good aroma and taste, .High cinnamaldehyde (73%) in bark oil, medium quality High shoot regeneration. Bark oleoresin 8%, cinnamaldehyde in leaf oil 15%,eugenol in bark oil 6%,eugenol in leaf oil 62%

Nutmeg

SI No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield	Myristicin %	Elimicin %	Salient features
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1	Konkan Sugandha	Regional Fruit Research Station (BSKKU), Vengurla, Maharashtra	1998	Single plant selection from local seedling population	200- 526 fruits/tree	-	-	Adaptable in Konkan region. Tree canopy is conical and compact. No incidence of major pests / disease
2	Konkan Swad	Regional Coconut Research station, Ratnagairi	2003	Selection from nutmeg seedling from Ratnagiri district	761.38 fruits/tree	-	-	Adapted in Konkan region with warm, humid condition as well as shade provision.canopy erect, conical shape.contain 39.85 essential oil in seed and 10.9 % in mace. No incidence of major pests / disease are noticed
3	IISR Viswasree	Indian Institute of Spices Research, Calicut, Kerala	2001	Clonal selection from elite germplasm	1000 fruits/tree (1.33Kg mace, 9kg dry,3122Kg/ha)	Nut 12.48 and mace 20.03		Low incidence of fruit rot. Nut recovery 70%, mace recovery 35%, 7.14% mace oil, oleoresin nut 2.48% and mace 13.85% respectively, butter 30.9%, Especially suitable under mixed cropping system
4	IISR Keralashree	Indian Institute of Spices Research, Calicut, Kerala	2012	Seedling selection from elite mother tree from Burliar Farmer's Participatory Breeding)	2000 fruits/tree	9.4	0.7	High yield, high quality and extra bold fruit mace and nut.

Coriander

SI No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Avg yield (kg/ha)	Essential oil %	Duration (days)	Salient features
1	Guj. Cor.2	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	1974	Selection from germplasm	1100	0.35	112	Suitable for early sowing , erect plant, round bold grains, moderately tolerant to wilt and powdery mildew
2	Co.1	Dept. of spices and PI.Crops, HC & RI, TNAU, Coimbatore, Tamil Nadu	1997	Selection from Koilpatti local	440	0.27	110	A dual purpose variety with small statured plant, suitable for rainfed areas, small grain
3	Co.2	Dept. of spices and PI.Crops, HC & RI, TNAU, Coimbatore, Tamil Nadu	1982	Reselection from culture P2 of Gujarat	520	0.40	90-100	A dual purpose variety, suitable for saline, and alkaline and drought prone areas seeds oblong,medium.
4	Co.3	Dept. of spices and PI.Crops, HC & RI, TNAU, Coimbatore, Tamil Nadu	1991	Reselection from Acc.695 of IARI, New Delhi type	650	0.38-0.41	85-95	A dual purpose variety, good yielder, medium sized grains, suitable for both rainfed and irrigated condition, rabi as well as kharif season. Field tolerant to powdery mildew, wilt and grain mould.
5	Co(CR).4	Dept. of spices and PI.Crops, HC & RI, TNAU, Coimbatore, Tamil Nadu	2002	Reselection from germplasm ATP77 guntur collection	600	0.4	65-70	Early maturing variety suitable for both rainfed and irrigated condition; grains oblong and medium; field tolerant to wilt and grain mould

6	Guj.Cor.2	Dept. of spices and PI.Crops, HC & RI, TNAU, Coimbatore, Tamil Nadu		Reselection from Co.2	1450	0.40	110	Semi spreading type, suitable for early sowing,moderately tolerant to powdery mildew,grains oblong,lodging and shattering resistant.
7	Rajendra Swathi	Dept. of Hort., Tirhut College of agriculture RAU, Dholi, Bihar	1988	Pureline selection from Muzaffarpur collection	1300	0.65	90-100	Medium sized plant with fine,aromatic round grains,Suitable for intercropping, field tolerance to aphids
8	Sadhana	Regional Agrl. Research Station, APHU, Lam, Guntur, A P	1989	Mass selection from local Alur collection	1025	0.20	95-110	A dual purpose, semi-erect variety, suitable for rainfed condition field tolerance to white fly, mites and aphids. A mid-late variety withstands moisture stress, responded well to input management under optimum moisture level.
9	Swathi	Regional Agrl. Research Station, APHU, Lam, Guntur, A P	1989	Mass selection from Nandyal germplasm	855	0.30	82-85	Plants medium size semi-erect type, early maturing variety, suitable for rainfed condition, and late sown season. Field tolerant to white fly, Suits well to the areas where the soil moisture retentiveness in compariably less, being early maturity. It escapes powdery mildew disease.
10	CS 287	Regional Agrl. Research Station, APHU, Lam, Guntur, A P		Reselection from Guntur collection	600	0.40	110	Early maturing variety, suitable for both rainfed and irrigated condition. Field tolerant to wilt and grain mould.
11	Sindhu	Regional Agrl. Research Station, APHU, Lam, Guntur, A P	1991	Mass selection germplasm,Warangal local	1000	0.40	100-110	Oval medium breakable grains, suitable for rainfed areas, tolerant to wilt, powdery mildew as well as drought condition, medium duration.
12	Hisar Anand	Department of Vegetable Cops, HAU, Hisar, Haryana	1994	Mass selection from Haryana collection	1400	0.35	-	A medium tall dual purpose variety,oval medium sized seeds, wider adaptability to different soil conditions.Resistant to lodging due to spreading habit.
13	Hisar Sugandh	Department of Vegetable Cops, HAU, Hisar, Haryana	2001	Mass selection from indigenous germplasm	1400			Suitable for irrigated conditions.Resistant to stem gall diseases.
14	Hisar Surabhi	Department of Vegetable Cops, HAU, Hisar, Haryana	2004	Mass selection from local germplasm	1800	0.4-0.5	130-140	Bushy erect plant type, seed medium, oblong; tolerant to frost, less susceptible to aphids, medium duration

15	Azad Dhania-1	C.S. Azad University of agriculture and technology, Kanpur, Uttar Pradesh	1996	Mass selection from Kalyanpur germplasm collection	1000	0.29	120-125	Erect, early branching, number of umbellates per umbel 5, tolerant to moisture stress , powdery mildew and aphids .
16	Pant haritima	G.B Pant University of Agriculture and technology, Pantnagar, Uttaranchal	1993	Selection from local type Pant Dhania	1200	0.4	150-160	Tall erect plant, a dual purpose type , good yielder of leaves, smaller seeds with high oil. Resistant to stem gall .
17	DWA 3*	University of Agricultural Science, Dharwad, Karnataka	1999	Purelineselection from Karnataka collection	400	0.27	-	A dual purpose variety and for seed production in rabi crop, moderately tolerant to powdery mildew , black clay soils are best suited
18	CIMPOS-33	Central Institute of Medicinal Plants, Regional centre, Mehsana, Gujarat	-	Selection from germplasm introduced from Bulgaria	2100	1.3	-	Tall erect, compact, profusely branching and flowering, grains small and bold. Mainly recommended for oil production .
19	ACR-01-256 (NRCSS ACR-1)	NRC seed spices, Ajmer, Rajasthan	2005	Reselection from EC-467683 from Russia	1100	0.35-5	-	Dual purpose variety , long duration, resistant to stem gall and wilt .
20	RCr 20	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	1997	Recurrent half sib election from Jaipur local	900	0.25	100-110	Medium sized bushy plant suitable for rainfed crop or limited moisture condition and heavy soils of south Rajasthan. Moderately resistant to stem gall, bold grains, early maturity .
21	RCr.41	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	1988	Recurrent half sib selection from local type from "Kotta"	909	0.25	130-140	A tall erect plant with thick stem. Grows well under irrigated conditions, resistant to stem gall , wilt and moderately resistant to powdery mildew. Small seeds (9.3g/1000 seed), long duration variety
22	RCr 435	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2003	Recurrent selection from local germplasm from Jalore	1000	0.33	110-130	Plants are bushy, erect, bold seeds, medium sized, medium maturing variety, adapted for irrigated condition moderately resistant to root knot and powdery mildew.
23	RCr 436	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2001	Recurrent half sib selection from local germplasm from Kotta	1100	0.33	90-100	Plants semi dwarf , bushy type with quick early growth and bold seeds. Resistant to root rot and root knot nematodes most suitable for limited moisture condition and heavy soils of south Rajasthan
24	RCr446	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2001	Half sib selection from local type from Jaipur local	1200	0.33	130	Plants tall, are leafy erect with higher number of seeds per umbel. Seeds medium in size and moderately resistant to stem gall .

25	RCr 684	SKN College of Agriculture, RAJAU, Jobner, Rajasthan		Mutation breeding of gamma rays. Induced mutant of Rcr-20	990	0.32	110-120	Resistant to stem gall and less susceptible the powdery mildew. Adapted to medium heavy textured soil and sandy loam soil under irrigation. Bold seeds, Medium maturity.
26	RCr 480	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2009	Recurrent selection based on individual plant progeny (half sib) performance in accession No.480	-	-	-	-
27	Hisar Sugandh (DH- 36)	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2001	Mass selection from germplasm collected from farmer's field of Haryana.	-	-	-	
28	Sudha (LCC-128)	Regional Agrl. Research Station, APHU, Lam, Guntur, A P	2006	Mass selection made from the land race collected from Ongole district	-	-	-	
29	DH – 246 (Hisar Surbhi)	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2004	Selection form local germplasm	-	-	-	-
30	LCC - 234	Dr.YSR. Horticultural University Horticultural Research Station, Lam Guntur	2013	Mass selection made from the land race collected from Prakasam district	15-18	0.15	35-55	High yielding leaf variety suitable for off season production in Andhra Pradesh
31	DH 220	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2012	-	1373	0.39		This variety has out yielded other varieties, Hisar Ananad (National check) and Loyal checks under coordinated varietal trials of AICRPS.
32	DH 206	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2009	Selection from germplasm	-	-	-	-
33	RCr 728	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2009	-	-	-	-	-
34	APHU Dhania -1	Regional Agrl. Research Station, APHU, Lam, Guntur, A P	2010	Mass selection from germplasm	10-12	0.4	80-100	Suitable for growing in Bihar, Madhya Pradesh, Uthar Pradesh and Tamil Nadu.
35	Hisar Bhoomit (DH-228)	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2007 (state release)	Selection from germplasm	180-200	-	110	Small seeded with high oil content, suitable for leaf production

*Yield Kg/ha (Dry)

Cumin

SI No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Essential oil %	Crude fibre %	Duration (days)	Salient features
1	Mc.43	Spices Research Station, GAU, Jagudan, Gujarat	1952	Selection from germplasm	580	2.7	15.5	-	Plant semi spreading, grains bold lustering withstand lodging and shattering, moderately tolerant resistant to <i>Fusarium</i> wilt, <i>Alternaria</i> blight & powdery mildew.
2	Guj. Cumin 1	Spices Research Station, GAU, Jagudan, Gujarat	1983	Selection from local germplasm (Vijaypur -5)	550	3.6	14.25	-	Plants bushy and spreading, grains bold , linear oblong; Withstand shattering and lodging, moderately tolerant to wilt, powdery mildew and blight.
3	RZ-19	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	1988	Recurrent selection from UC.19	500	-	-	-	Erect plant, bold, lustrous grain, tolerant to wilt and blight suitable for late sowing season.
4	Guj Cumin 2	Spices Research Station, GAU, Jagudan, Gujarat	-	Pure line selection from M2 irradiated seeds from MC-43	620	4	22.1	-	Bushy plant, good branching habit, grains bold, medium sized, lustrous grain, tolerant to wilt and blight suitable for late sowing season
5	Guj. Cumin 3	Spices Research Station, GAU, Jagudan, Gujarat	-	Recurrent selection derived from W.German entry EC-232689	620	4.4	-	-	Bushy dwarf plant, fruit medium sized, frost wilt resistant variety suitable for winter season in limited irrigation. Higher essential oil content, seed pungent with good aroma
6	RZ-19	Repeat	1988	Recurrent single plant progeny selection from Ajmeer	560	-	-	140-150	Erect plant, pink flowers, bold, lustrous grain, gray pubescent, tolerant to wilt and blight suitable for late sowing season.
7	5-404	Spices Research Station, GAU, Jagudan, Gujarat	1952	Selection from local germplasm	350	2.2	7.7		An erect plant, medium sized fruit, moderately tolerant to powdery mildew.
8	RZ-209	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	1995	Recurrent single plant progeny selection from Jore	650	-	-	120-130	A variety shown some resistance with blight and wilt disease
9	RZ-223	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	-	Mutation breeding in UC-216	600	3.0-3.5	-	120-130	Wider adaptability, resistant to wilt, superior in yield and seed quality over RZ-19.Plants bushy, semi-erect, long bold attractive seeds, medium duration.
10	Ac-01-167	NRC seed spices, Ajmer,	2005	Reselection from EC-243373	515	3			Bold seeds resistant to wilt.

		Rajasthan							
11	RZ-345	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2009	recurrent selection based on individual plant progeny (half sib) performance in accession 345	-	-	-	-	-
12	GC-4 (Gujarat Cumin – 4)	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	2006	The Cumin variety JC-2000-72 is the selection from GC-3.	-	-	-	-	-
13	RZ- 223	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2004	The variety has been developed through mutation breeding in UC-216	-	-	-	-	-
14	RZ-341 (UC – 341)	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	-	The variety has been developed through poly cross between high volatile oil content and low volatile oil content	-	-	-	-	-

* Yield Kg/ha (Dry)

Fennel

Sl No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Essential oil %	Crude fibre %	Duration (days)	Salient features
1	PF – 35	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	1973	Selection from local germplasm	1280	-	-		Plant tall and spreading moderately tolerant to leaf spot , leaf blight and sugary diseases
2	Co.1	Dept. of spices and plantation crops, HC & RI, TNAU, Coimbatore, Tamil Nadu	-	Reselection from PF 35	570	-	-	220	Medium statured, diffuse branching. Suitable for intercropping and border cropping with chilli and turmeric. Suitable for drought prone, water logged, saline and alkaline conditions.
3	Guj Fennel 1	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	1984	Pure line selection from Vijaypur local	1695	2.2	-	158	Plant tall and bushy, shattering and lodging, suitable for early sowing and rabi crop, reasonably tolerant to drought , moderately tolerant to sugery disease, oblong, medium bold and dark green seeds.
4	Guj fennel 2	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	1997	Pedigree selection from local germplasm	1940	2.4	-	159	Plants bushy, bold grains, rich in volatile oil and suitable for both rain fed and irrigated condition

5	RF 101	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2001	Recurrent half sib selection from local germplasm collection from Jobner	1400	1.9	-	150-160	Errect medium tall nature,medium maturity type with long bold grains, most suitable for loamy and black cotton soil.
6	S-7-9	-	-	Slection	1100	1.2	24	210	A bushy plant with big umbel, moderately tolerant to blight .
7	Guj Fennel II	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	2003	Selection based on individual plant progeny performance from local germplasm	2489	1.98		148	A medium maturity type adopted to rabi season un der irrigation; seeds medium bold.
8	RF 125	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2003	Reccurent half sib selection is an exortic collection EC 243380 from Italy	1700	2.5-3.0 (2.78)	-	110-130	Plants are short statured with compact umbels and long bold seeds when green presence, denser view of plants . Tollerent to sugery disease.
9	Hisar Sawrup	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2004	Mass selection from indigenous germplasm of Haryana	1600	1.6	-	175-185	Plants grow up right, spreading, gives a bushy appearance. A late maturity type grain long and bold, resistant to lodging, no shattering of grains .
10	Azad Sanuf-1	C.S. Azad University of agric. And technology, Kanpur, Uttar Pradesh	1996	Selection from germplasm	1500	2	-	160-170	Medium plants, resistant to blight and root rot desases . Escapes attack of aphids due to early maturity, seeds are bold green.
11	Pant Madhurika	G.B Pant University of Agriculture and technology, Pantmagar, Uttaranchal	2001	Pure line selection from local germplasm	-	-	180-185	110	Tall robust eruct plant with big umbels having bold seeds with green fine ridgs sweet in taste, medium maturity.
12	GF- 11 (Gujarat Fennel – 11)	Spices Research Station, GAU, Jagudan, Gujarat	2004	Recurrent selection based on individual plant progeny performance.	-	-	-	-	
13	RF 143	SKN College of Agriculture, RAJAU, Jobner, Rajasthan		Recurrent selection from individual plant progeny	1200	1.87	-	-	Medium tall and reccomented for loamy and black cotton soils
14	AF-01-119 NRCSS-AF1	NRC seed spices, Ajmer, Rajasthan	2005	Recurrent selection from individual plant progeny	1950	-	-	-	Medium maturity seed, bold, tolerent to blight
15	RF – 205 (UF – 205)	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2009	Recurrent selection based on individual plant progeny (half –sib) from F2 generation of a cross between JF-25 x RF – 125.	-	-	-	-	-
16	HF -143	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2012	NA	1779	NA	NA	150	This variety has out yielded other varieties, GF-II (National check) and local checks undr coordinated varietal trials of AICRPS.

17	RF – 281	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	2012	-	-	-	-		
18	RF-178	SKN College of Agriculture, RAJAU, Jobner, Rajasthan							
19	Rajendra saurbha	Dept. of Hort., Tirhut College of agriculture RAU, Dholi, Bihar	2000						
20	HF-33	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2004						High yielding
	JF-444-1	Spices Research Station, GAU, Jagudan, Gujarat (Recommended for National release)	2010	Selection based on individual plant progeny performance form local germplasm	2588	2.05		154	Compact seeds in umbellate, Hard and flat stem, synchronise maturity, Small umbellate at center of umbel.

* Yield Kg/ha (Dry)

Fenugreek

Sl No.	Variety	Centre which developed	Year of release	Pedigree/Parentage	*Av. yield (kg/ha)	Seed protein %	Duration (days)	Salient features
1	Co.1	Dept. of spices and plantation crops, HC & RI, TNAU, Coimbatore, Tamil Nadu	1982	Reselection from TG-2356 introduced for North India	680	-	80-85	A quick growing, dual purpose , early maturing variety tolerant to root rot disease. Seeds contain 21.7% protein.
2	Co 2	Dept. of spices and plantation crops, HC & RI, TNAU, Coimbatore, Tamil Nadu	1999	Selection from CF 390	480	-	85-90	Short duration dual purpose variety , field tolerant to <i>Rhizoctonia</i> root rot disease, suitable for both <i>kharif</i> and <i>rabi</i> season.Early maturity,short duration.
3	Rajendra kanti	Dept. of Hort., Tirhut College of agriculture RAU, Dholi, Bihar	1988	Pure line selection from Reghunathpur collection	1300	9.5	-	Medium sized bushy plant; early maturity, suitable for intercropping in both <i>kharif</i> and <i>rabi</i> season,, field tolerant to <i>cercospora</i> leaf spot, powdery mildew and aphids.
4	RMt.1	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	1990	Pure line selection from Nagpur local	1400	21	-	Vigorous semi erect medium sized,moderately branched growth habit, medium sized,bold and attractive typically yellow coloured grains, moderately resistant to root knot nematode and powdery mildew and aphids

5	Lam sel.1	Dr.YSR. Horticultural University ,Horticultural Research Station, Lam Guntur	1992	Selection from germplasm collection of Uttar Pradesh	740	53	-	Dual purpose varieties, early maturing, bushy type and medium height 940cm, more number of branches and green matter. When cultivated for green leaf purpose it gives an average green yield of 12 tonnes per hectare. Field tolerant to major pests and diseases.
6	Hisar Sonali	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	1994	Pure line selection from germplasm	1700	-	-	Tall and bushy vigorous growing variety, dual purpose variety, late maturity (140-145 days), suitable for cultivation under irrigated condition. Moderately resistant to root rot and aphids.
7	Hisar Suvarna	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2001	Pureline selection from local germplasm	1600	-	-	A quick growing, erect and tall, dual purpose, medium maturity (130-140days) , moderately resistant to percospora and powdery mildew. suitable for cultivation throughout the country.
8	Hisar Madhavi	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2001	Pureline selection from local germplasm of UP	1900	-	-	A quick growing, erect and tall, dual purpose, medium maturity (130-140days), moderately resistant to powdery mildew and to downy mildew. A variety with under adaptability suitable for both irrigated and rainfed condition.
9	Hisar Muktha	Dept. of vegetable Crops, CCS, HAU, Hisar, Haryana	2001	Pureline selection natural green seed coated mutant line from UP	2000	-	-	A quick growing seedtype variety, medium maturity (135-140days), moderately resistant to powdery mildew and to downy mildew. Erect and tall plants.Wide adaptability.Suitable for both irrigated and rainfed condition.
10	RMt 303	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	-	Mutation breeding from variety RMt 1	1900	-	-	Medium maturity variety (145- 150 days) seeds bold ,with typical yellow colour ,less susceptible to powdery mildew
11	RMt 305	SKN College of Agriculture, RAJAU, Jobner, Rajasthan	-	Mutation breeding from variety RMt 1	1300	-	-	First determinant type, multipodant, early maturing, wider adaptability, resistant to powdery mildew and rootknot nematodes. Seeds bold, attractive and yellow, duration 120-125 days.
12	Guj Methi 1	Spices Research Station, GAU, Jagudan, Gujarat	-	Recurrent selection based on pure line selection from J. Fenu 102	1864	-		The first variety from Gujarat released for the state.Plant dwarf.
13	RMt143	SKN College of Agriculture, Jobner, Rajasthan	-	Pureline selection of local collection of Jodhpur	1600	-	140-150	Moderately resistant to powdery mildew , seeds bold yellow colour, suitable for heavier soils.
14	Rajendra Abha		-	NA	NA	NA	NA	NA

	(Kasuri Methi)							
15	Pant Ragini	G.B Pant University of Agriculture and technology, Pantmagar, Uttaranchal	2001	Selection from local germplasm	1200		170-175	A dual purpose tall bushy type resistant to downy mildew and root rots, medium maturity. Seed contain 2-2.5% essential oil
16	NRCS- AM -1 AM-01-35	NRC seed spices, Ajmer, Rajasthan	-	Selection from local germplasm	1720	-	-	Dual purpose, tolerant to powdery mildew
17	RMt-351 (UM-351)	SKN College of Agriculture, Jobner, Rajasthan	2006	The variety has been developed through irradiation of RMt-1 (a released variety of Rajasthan state) with gamma rays at 20 kr.	-	-	-	-
18	APHU Methi-1 (LFC-84)	Dr.YSR. Horticultural University ,Horticultural Research Station, Lam Guntur	2009 (Recommended for state release)	Selection from a land race collected from Guntur district.	-	-	-	-
19	RMt- 361 (UM- 361)	SKN College of Agriculture, Jobner, Rajasthan	2009	Developed through irradiation of RMt-1 with gamma rays.	-	-	-	-
20	HM – 348	Department of Vegetable Cops, HAU, Hisar, Haryana	2013	Pure line selection form germplasm collected form Haryana	-	-	-	This variety has out yielded other varieties, Hisar Sonali (National check) and local checks under Coordinated varietal trials of AICRPS ar Hisar, Pantnagar & Lam centes.
21	HM – 219	Department of Vegetable Cops, HAU, Hisar, Haryana (Recommended for national release)	2009	Selection form germplasm collected form Haryana	-	-	-	
Ajowain								
1	Gujarat Ajowan – 1	Sardarkrushinagar Dantiwada Agricultural University, Jagudan	-	Selection form germplasm	2269	-	-	Non-shattering, mildly susceptible to powdery mildew and resistant to insects, a late maturity (176 days) variety.
2	Pant Ruchika	G.B Pant University of Agriculture and technology, Pantmagar, Uttaranchal	2001	pure line selection for local collection	600/800	-	-	Erect, bushy plant, seed light brown, and attractive; late maturing variety (170-175 days)
3	RFA – 68	A.R.S. Substation, Udaipur	-	Selection form local germplasm grown in	900	-	-	A medium maturity variety, flowers in about 90 days

		Agricultural University, Chittorgarh. Rajasthan		Pratapgarh area				takes about 150 days to mature.
4	Ajmer Ajowan 1	NRC seed spices, Ajmer, Rajasthan	2004	Selection from Pratapgrah local NRCSS AA-61	1420	-	-	Plant tall, late maturity group (160 days), suitable for early and rabi sowing under irrigated and limited available water conditions, seeds medium size, contains 3.4 % volatile oil.
5	Ajmer Ajowan - 2	NRC seed spices, Ajmer, Rajasthan	2004	Selection from Gujarat local NRCSS AA- 19	1280	-	-	A bushy plant, early maturing group (147 days), moderately tolerant to drought, seeds medium, 3.0 % volatile oil, moderately
6	Lamsel - 1	PRS, ANGRAU, Guntur, Andra Pradesh	-	Mass selection	1000 /1400	-	-	A tall early maturity (140 days) variety.
7	Lamsel – 2	PRS, ANGRAU, Guntur, Andra Pradesh	-	Mass selection	1000/1200	-	-	A spreading bushy trype with more braches, requieing more spacting
8	Rajendra Mani	Dept. of Hort., Tirhut College of agriculture RAU, Dholi, Bihar	-	NA	NA	-	-	NA
Nigella								
1	Azad Kalaunji	C .S. Azad University of Agriculture and technology, Kanpur, Uttar Pradesh	1998	Selection from germplasm from Kalyanpur	1000/1200	-	-	Erect plant, bold seeds, highly aromatic .maturity 135 to 145 days
2	Rajendra Shyama	Dept. of Hort., Tirhut College of agriculture RAU, Dholi, Bihar	-	-	-	-	-	-
3	Pant Krishna	G.B Pant University of Agriculture and technology, Pantmagar, Uttaranchal	-	Selection from indigenous germplasm	500/600	-	-	Plant medium statured, susceptible to damping off, medium maturity, bold seed , suitable for cultivation Uttar Pradesh and Uttaranchal
4	Ajmer Nigella – 1	NRC seed spices, Ajmer, Rajasthan	-	Selection from Rampura local	720	-	-	Seeds are black, bold, volatile oil content in 0.7%, field resistant to root rot (<i>Fusarium Oxysporum</i>) . Suitable for growing under irrigation medium duration type (135 days)
Mango gigner								
1	Amba	High Altitude Research Station, OUA &T, Pottangi, Orissa	-	Selection from local germplasm	21.9	-	-	Oleoresin 6.48 % , essential oil 0.8 % , dry recovery 18.7%. No major disease and pest problem.

* Yield Kg/ha (Dry)