

DUS Characters of BPT varieties

S. No.	Character	BPT 5204	BPT 3291	BPT 1235	BPT 4358	BPT 1768	BPT 2270	BPT 2231
1	Coleoptile colour	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless
2	Basal leaf: sheath colour	Green	Green	Green	Green	Green	Green	Green
3	Leaf: Intensity of green colour	Light	Medium	Medium	Medium	Light	Dark	Medium
4	Leaf: Anthocyanin colouration	Absent	Absent	Absent	Absent	Absent	Absent	Absent
5	Leaf: Distribution of anthocyanin colouration	-	-	-	-	-	-	-
6	Leaf sheath: Anthocyanin colouration	Absent	Absent	Absent	Absent	Absent	Absent	Absent
7	Leaf sheath: Intensity of Anthocyanin colouration	-	-	-	-	-	-	-
8	Leaf: Pubescence of blade surface	Medium	Medium	Strong	Medium	Medium	Medium	Medium
9	Leaf: Auricles	Present	Present	Present	Present	Present	Present	Present
10	Leaf: Anthocyanin colouration of auricles	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless
11	Leaf: Collar	Present	Present	Present	Present	Present	Present	Present
12	Leaf: Anthocyanin colouration of collar	Absent	Absent	Absent	Absent	Absent	Absent	Absent
13	Leaf: Ligule	Present	Present	Present	Present	Present	Present	Present
14	Leaf: Shape of ligule	Split	Split	Split	Split	Split	Split	Split
15	Leaf: Colour of ligule	White	White	White	White	White	White	White
16	Leaf: Length of blade	Medium	Medium	Long	Medium	Long	Medium	Short
17	Leaf: Width of blade	Medium	Medium	Medium	Medium	Medium	Medium	Medium
18	Culm: Attitude (For floating rice only)	-	-	-	-	-	-	-
19	Culm: Attitude	Semi erect	Erect	Erect	Erect	Semi erect	Erect	Erect
20	Time of heading: (50%) of plants with panicles)	Late	Medium	Medium	Medium	Late	Late	Late
21	Flag leaf: Attitude of blade (Early observation)	Erect	Erect	Erect	Erect	Erect	Erect	Erect

S. No.	Character	BPT 5204	BPT 3291	BPT 1235	BPT 4358	BPT 1768	BPT 2270	BPT 2231
22	Spikelet: Density of pubescence of lemma	Medium	Medium	Strong	Weak	Strong	Medium	Weak
23	Male sterility	Absent	Absent	Absent	Absent	Absent	Absent	Absent
24	Lemma: Anthocyanin colouration of keel	Absent	Absent	Absent	Absent	Weak	Absent	Absent
25	Lemma: Anthocyanin colouration of area below apex	Absent	Absent	Absent	Absent	Weak	Absent	Absent
26	Lemma: Anthocyanin colouration of apex	Absent	Absent	Absent	Absent	Absent	Absent	Absent
27	Spikelet: Colour of stigma	White	White	White	White	White	White	White
28	Stem: Thickness	-	-	-	-	-	-	-
29	Stem: Length(excluding panicle)	Very short	Very short	Short	Very short	Short	Short	Short
30	Stem: Anthocyanin colouration of nodes	Absent	Absent	Absent	Absent	Absent	Absent	Absent
31	Stem: Intensity of anthocyanin colouration of nodes	-	-	-	-	-	-	-
32	Stem: Anthocyanin colouration of internodes	Absent	Absent	Absent	Absent	Absent	Absent	Absent
33	Panicle: Length of Main axis	Medium	Short	Medium	Medium	Medium	Medium	Long
34	Flag leaf: Attitude of blade (Late observation)	Semi erect	Semi erect	Semi erect	Semi erect	Semi erect	Semi erect	Semi erect
35	Panicle: Curvature of main axis	Semi-straight	Semi-straight	De-flexed	De-flexed	De-flexed	De-flexed	Straight
36	Panicle: Number per plant	Many	Medium	Medium	Many	Many	Many	Medium
37	Spikelet: Colour of tip of lemma	White	Yellowish	Black	White	White	White	White
38	Lemma and Palea: Colour	Straw	Gold and gold furrows on straw background	Brown furrows on straw	Straw	Brown (Tauny)	Gold	Brown (Tauny)
39	Panicle: Awns	Absent	Absent	Present	Absent	Absent	Absent	Absent

S. No.	Character	BPT 5204	BPT 3291	BPT 1235	BPT 4358	BPT 1768	BPT 2270	BPT 2231
40	Panicle: Colour of awns (Late observation)	-	-	Yellowish brown	-	-	-	-
41	Panicle: Length of longest awns	-	-	Very long	-	-	-	-
42	Panicle: Distribution of awns	-	-	Whole length	-	-	-	-
43	Panicle: Presence of secondary branching	Present	Present	Present	Present	Present	Present	Present
44	Panicle: Secondary branching	Clustered	Clustered	Clustered	Clustered	Clustered	Clustered	Clustered
45	Panicle: Attitude of branches	Erect	Erect	Erect	Erect	Erect	Erect	Erect
46	Panicle: Exertion	Mostly exerted	Well exerted	Partly exerted	Well exerted	Well exerted	Mostly exerted	Well exerted
47	Time of maturity (Days)	Late	Medium	Early	Medium	Very late	Very late	Late
48	Leaf: Senescence	-	-	-	-	-	-	-
49	Sterile lemma: Colour	Straw	Red	Red	Straw	Straw	Straw	Straw
50	Grain: Weight of 1000 fully developed grains	Very low	Low	Medium	Very low	Low	Low	Low
51	Grain: Length	Very short	Very short	Short	Very short	Very short	Very short	Very short
52	Grain: Width	Very narrow	Very narrow	Narrow	Very narrow	Very narrow	Very narrow	Very narrow
53	Decorticated grain: Length	Short	Short	Medium	Short	Short	Short	Short
54	Decorticated grain: Width	Narrow	Narrow	Medium	Narrow	Narrow	Narrow	Narrow
55	Decorticated grain: Shape (in lateral view)	Medium slender	Medium slender	Long slender	Medium slender	Medium slender	Medium slender	Medium slender
56	Decorticated grain: Colour	Light brown	Light brown	Light brown	Light brown	Light brown	Light brown	Light brown
57	Endosperm: Presence of amylase	Present	Present	Present	Present	Present	Present	Present
58	Endosperm: Content of amylase	Medium	Medium	Medium	Medium	Medium	Medium	Medium

S. No.	Character	BPT 5204	BPT 3291	BPT 1235	BPT 4358	BPT 1768	BPT 2270	BPT 2231
59	Gelatinization temperature through alkali spreading value	Medium	Low	Medium	Medium	Medium	High	Medium
60	Decorticated grain aroma	Absent	Absent	Absent	Absent	Absent	Absent	Absent
61	Any special characters of the varieties like Biotic or abiotic stress tolerance, lodging tendency, dormancy etc.,	Export quality rice	Non-lodging Moderately resistant to neck blast	Tolerant to gall midge	-	Non-lodging Tolerant to BLB & blast	Non-lodging Tolerant to blast & BPH	Moderately resistant to blast

DUS Characters of BPT Varieties

S. No.	Character	BPT 2595	BPT 2782	BPT 2411
1	Coleoptile colour	Colourless	Colourless	Colourless
2	Basal leaf: sheath colour	Green	Green	Green
3	Leaf: Intensity of green colour	Medium	Medium	Medium
4	Leaf: Anthocyanin colouration	Absent	Absent	Absent
5	Leaf: Distribution of anthocyanin colouration	-	-	-
6	Leaf sheath: Anthocyanin colouration	Absent	Absent	Absent
7	Leaf sheath: Intensity of Anthocyanin colouration	-	-	-
8	Leaf: Pubescence of blade surface	Medium	Medium	Medium
9	Leaf: Auricles	Present	Present	Present
10	Leaf: Anthocyanin colouration of auricles	Colourless	Colourless	Colourless
11	Leaf: Collar	Present	Present	Present
12	Leaf: Anthocyanin colouration of collar	Absent	Absent	Absent
13	Leaf: Ligule	Present	Present	Present
14	Leaf: Shape of ligule	Split	Split	Split
15	Leaf: Colour of ligule	White	White	White
16	Leaf: Length of blade	Long	Medium	Long
17	Leaf: Width of blade	Medium	Medium	Medium
18	Culm: Attitude (For floating rice only)	-	-	-
19	Culm: Attitude	Erect	Erect	Erect
20	Time of heading: (50%) of plants with panicles)	Late	Medium	Late
21	Flag leaf: Attitude of blade (Early observation)	Erect	Erect	Erect
22	Spikelet: Density of pubescence of lemma	Strong	Strong	Medium
23	Male sterility	Absent	Absent	Absent

24	Lemma: Anthocyanin colouration of keel	Absent	Absent	Absent
25	Lemma: Anthocyanin colouration of area below apex	Absent	Absent	Absent
26	Lemma: Anthocyanin colouration of apex	Absent	Absent	Absent
27	Spikelet: Colour of stigma	White	White	White
28	Stem: Thickness	-	-	-
29	Stem: Length(excluding panicle)	Short	Very short	Very short
30	Stem: Anthocyanin colouration of nodes	Absent	Absent	Absent
31	Stem: Intensity of anthocyanin colouration of nodes	-	-	-
32	Stem: Anthocyanin colouration of internodes	Absent	Absent	Absent
33	Panicle: Length of Main axis	Medium	Medium	Medium
34	Flag leaf: Attitude of blade (Late observation)	Semi erect	Erect	Semi erect
35	Panicle: Curvature of main axis	Deflexed	Deflexed	Deflexed
36	Panicle: Number per plant	Medium	Many	Many
37	Spikelet: Colour of tip of lemma	White	White	White
38	Lemma and Palea: Colour	Straw	Straw	Straw
39	Panicle: Awns	Absent	Absent	Absent
40	Panicle: Colour of awns (Late observation)	-	-	-
41	Panicle:Length of longest awns	.-	-	-
42	Panicle: Distribution of awns	-	-	-
43	Panicle: Presence of secondary branching	Present	Present	Present
44	Panicle: Secondary branching	Strong	Strong	Strong
45	Panicle: Attitude of branches	Semi erect	Semi erect	Semi erect
46	Panicle: Exertion	Mostly exerted	Well exerted	Mostly exerted
47	Time of maturity (Days)	Late	Medium	Medium
48	Leaf: Senescence	-	-	-
49	Sterile lemma: Colour	Straw	Straw	Straw
50	Grain: Weight of 1000 fully developed grains	Low	Low	Low
51	Grain: Length	Very short	Very short	Very short
52	Grain:Width	Very narrow	Very narrow	Very narrow
53	Decorticated grain: Length	Short	Short	Short
54	Decorticated grain: Width	Narrow	Narrow	Narrow
55	Decorticated grain: Shape (in lateral view)	Medium slender	Medium slender	Medium slender
56	Decorticated grain: Colour	Light brown	Light brown	Light brown
57	Endosperm: Presence of amylase	Present	Present	Present
58	Endosperm: Content of amylase	Medium	Medium	Medium
59	Gelatinization temperature through alkali spreading value	Medium	Medium	High
60	Decorticated grain aroma	Absent	Absent	Absent
61	Any special characters of the varieties like Biotic or abiotic stress tolerance, lodging tendency, dormancy etc.,	Non-lodging Moderately resistant to blast and BPH	Anaerobic germination Moderately resistant to blast and BPH	Anaerobic germination Moderately resistant to blast and BPH

Sl.No.	Variety	Cross/selection	Duration (days)	Avg. Yield (Q/ha)	Characters
1	Chaitanya (IET-9265)	Sowbhagya x ARC-5984	150	65-70	semi-dwarf type with all plant parts green in colour, glumes are straw in colour, medium slender grains, grains straw coloured, tolerant to brown plant hopper. All parts of the plant are green in colour.
2	MCM 100 (Pandu Ranga)	MTU 1042 x MTU 1061,	140-145	60-75	non lodging, semi-dwarf (60 cm), leaf Sheath, leaf blade green, leaf juncture white, light hairyness on leaves, node and internode green in colour, auricle present, panicle type-Compact, dense and fully exerted, medium panicle length, awns absent, medium slender grain, kernal white, apiculus and glumes straw coloured, stigma green colour, low shattering, tolerant to salinity, moderately tolerant to BPH, medium slender grain, dormancy for 2 weeks. Test weight- 19.2g, L/B ratio-2.5, Kernal l -5.01 mm, b- 1.98 mm.
3	MCM 103	BPT-5204 x MTU 4870	140	60-65	medium duration, salt tolerant, plant height 100 cm, semi-dwarf, erect, compact growth habit, leaf sheath, leaf blade green, leaf juncture white, light hairyness on leaves, auricle present, panicle type-semi exert well exerted, medium panicle length, awns very short, awns present at tips only, medium slender grain, kernal white, apiculus and glumes straw coloured, stigma white colour, low shattering, Tolerant to salinity, moderately tolerant to WPH, leaf blast, fine grain, dormancy for 2 weeks, test wt – 14.5g, L/B ratio-2.5, Kernal l- 5.19 mm, b-2.06 mm.
4	MCM 109	MTU-4870 x MTU 2716	130-135(K), 120-125 (R)	60-62	tolerant to salinity, moderately tolerant to BPH, BLB, leaf blast, fine grain, test wt- 15.0g, L/B ratio-2.69, Kernal l- 5.20 mm, b-1.93 mm.
5	MCM 125	MTU 1042 x MTU 1061	145	60-62	tolerant to salinity, moderately tolerant to BPH, BLB, fine grain, non-lodging with strong culm, long panicle (26.38 cm), test wt-15.0g, Seed dormancy 2 weeks, Kernal l- 5.45 mm, b- 1.80 mm, L/B ratio2.84,

6	MTU 1001) (Vijetha) - IET-13967	Vajram X MTU-7014	135-140 (K) 120-125 (R)	55-60(K) 65-70(R)	semi-dwarf (115 cm), compact, erect, fully exerted compact panicles, medium slender white kernal, hairness absent on leaves, green appiculus stigma, 4-6 weeks dormancy.
7	MTU 1002 (Vijetha)	MTU 5249 X MTU 7014	135 (K), 125 (R)	65 -68	resistant to BPH and Blast. Strong seed dormancy.
8	MTU 1010 (Cotton Dora sannalu)- IET 15644	MTU-2077 x IR64	115-120	67-74	plant height- 108 cm, semi dwarf with medium tillering, green foliage grain straw glumed, long slender. Habit- Erect, Internode- Green, Leaf sheath- Green, Juncture- white, Auricle- Green, Septum- Green, Leaf blade- Green non- pigmented, Flag leaf non- pigmented, Erect, Exertion- Good, Awnless, Panicle- Compact, Lemma and Palea-Green, Rice white colour, translucent, Maturity days to 50% flowering- 90 days, non susceptible to Zinc deficiency and is tolerant to BPH and blast suitable for Rabi under irrigated conditions.
9	MTU 1061 (Indra)	PLA 1100 X MTU 1010	150	65-70	semi tall (115 cm), erect plant, non-lodging, plae green leaf with intermediate hairiness, long compact fully exerted panicle, white medium slender grain. BPH resistant, tolerant to salinity.
10	MTU 1064 (Amara)	PLA 1100 X MTU 1010	115-120	68-72	semi tall -115 cm, erect, non-lodging, long fully exerted compact panicle, white stigma, white medium slender grain, tolerant to BPH, BLB & submergence, suitable for low lying areas of Krishna and Godavari zone of A.P.
11	MTU 1075 (Pushyami) (IET 18482)	MTU 5249 X MTU 1010	135-140	55-60	erect, 118 cm tall, non-lodging plant with intermediate hariness on green leaves, medium compact mederately exerted panicles, long slender non shattering white grain. tolerant to leaf blast, BLB , sheath blight, BPH, WBPH and leaf folder.
12	MTU 1121 (Sri Dhruthi)		125		semi erect, semi tall -110 cm, plant with dark green foliage with long copmact fully exerted panicle.
13	MTU 1140 (Bheema)	MTU-5249 X MTU1010	140-145 (K) 135 (R)	55-60	semi tall, erect, non-lodging with strong culm, light green leaf with light gold internodes, long compact fully exerted panicle, medium slender white non-shattering,

14	MTU 1153 (Chandra)	MTU 1010 XMTU 1081	120	70-75	plant height (118.2 cm), no. of effective tillers (12.7), length of panicle (27.25 cm), no. of filled grains per panicle- (197) and test weight (24.3 g), Strong stem, lodging resistant, grain fall is more in the field but will not germinate in field. Husk is mostly white in colour. Resistant to BPH and blast.
15	MTU 1156 (Tarangini)	MTU-1010 x MTU-1081	120	68-72	semi erect, non-lodging, white stigma, long fully exerted compact panicle, white long slender kernel.
16	MTU 1172	MTU 7029 x MTU 1064	150	70-75	moderately tolerant to BLB, leaf blast, sheath rot and leaf spot diseases, tolerant to abiotic stresses, high yielding, flood tolerant, possesses two weeks seed dormancy.
17	MTU 1190 (Varam)	MTU 1081 X Swarnasub 1	140-145	65-70	non-lodging, moderately tolerant to neck blast, leaf blast and BLB, two weeks dormancy. Tolerates 7-10 days flash floods.
18	MTU 1210 (Sujatha)	MTU 1001 X KMB 150	135 (K) 125 (R)	35-40	BPH and blight resistant, 110 cm plant height, 8-10 tillers, 26 cm panicle length, test wt-16.8g, non-lodging, translucent grains, low shattering, medium slender grain.
19	MTU 1212	IR 64 X PLA 99- 1-3-1-3	140	70-72	non-lodging, nitrogen responsive variety with two weeks seed dormancy, semi tall with 115-120 cm plant height, green foliage, low shattering with completely exerted panicles bearing high grain number, grain type is straw glume & medium slender, kernal length is 5.72 mm, kernal width is 2.10 mm, high yielding, test weight is 21.38 gm, Moderately resistant to leaf blast, neck blast, sheath blight, sheath rot and BLB.
20	MTU 1223 (Varsha)	MTU 1081 x MTU 1064	150	35 - 40	moderately tolerant to BLB and Blast. 120-125 cm plant height, 9-10 tillers, panicle length- 29 cm, dormancy 2 weeks, medium slender white grain. Suitable for rainfed shallow low lands, 2 weeks dormancy.

21	MTU 1224 (Maruteru Samba)	JGL 3844/NLR 34449/BPT 5204	135	60-65	resistant to leaf blast and BPH, non-lodging, high yielding, nitrogen responsive, semi-tall with green foliage, two weeks dormancy, low shattering with completely exerted panicles bearing high grain number, very high head rice recovery(66%) with translucent grains. suitable for both transplanted and direct seeded conditions.
22	MTU 1232	MTU 1075 x Swarna-sub1//*3 Swarna sub1A	135-140 days (Normal) & 140-145 days (Submergence)	37-40 (floods) 60-65 (normal)	flood tolerant, Flash floods for 10 days (15DAS- tillering) & Stagnant flooding (30-50cm), photo-insensitive, Non lodging, low grain shattering, Medium Slender, Straw glume, Head rice recovery 66.32%, moderately tolerant to BPH, sheet blight, leaf blast.
23	MTU 1239	MTU 1075 X BNM 71	140	35 - 40	non-lodging, semi-dwarf, low grain shattering, medium slender translucent grain, tolerant to BPH and sheath blight, resistant to leaf blast, plant height 110- 120 cm, tillers (>10), panicle length 24-26 cm, test wt-19.5 g, dormancy 2 weeks.
24	MTU 1273	MTU 1010/ FL478 X *3MTU1010	120	60-65	moderately resistant to blast and brown spot, high HRR and desirable grain quality.
25	MTU 1280	MTU 1001 X KMP 150	135	70-72	non-lodging variety with fertilizer responsiveness and two weeks seed dormancy. semi dwarf with 105-110 cm plant height, green foliage, grain type is straw glume, long bold & translucent grains, low grain shattering, kernel length is 6.12 mm, kernel width is 2.19 mm, test weight is 24.51 g. moderately resistant to neck blast, rice tungro disease, stem borer and leaf folder.

26	MTU 1281	MTU 1075 / MTU 1081 / MTU 1121	140	70	nitrogen responsive variety and two weeks seed dormancy. semi tall with 115-120 cm plant height, green foliage, low shattering with completely exerted panicles bearing high grain number, grain type is straw glume & medium slender, kernal length is 5.60 mm, kernal width is 1.92 mm, test weight is 16.98 g, moderately resistant to leaf blast, neck blast and brown plant hopper.
27	MTU 1293	MTU1010/ FL478// ³ MTU1010	120-125	56-60 q/ ha(normal), 30-34 q/ ha(stress)	plant height 120-125cm, semi erect, non-lodging plant, leaf sheath, leaf blade, leaf juncture- green, hairiness on leaves- present, internode, node, Auricle-green. compact, compact well exerted panicle. Panicle length-long, awns-absent, long slender grain, Kernal- white, abdominal white- VOC. grain hairiness- absent, apiculus-straw, glumes- straw, stigma-white. low shattering. 2 weeks dormancy is present. suitable for saline soils, tolerant to salinity, moderately resistant to blast and brown spot, tolerant to sheath rot, rice tungro and brown spot, high HRR and desirable grain quality, suitable for coastal salinity conditions.
28	MTU 1310	MTU1075 X CR 3598-1-4-2-1	135-140	70-75	moderately resistant to leaf blast and neck blast, posing 2 weeks dormancy, low grain shattering.
29	MTU 1318	MTU 1064 x MTU 7029	150	65-70	plant height 108-110 cm, semi-dwarf erect plant, leaf sheath, leaf blade- light green, leaf juncture- green, hairiness on leaves- absent, internode, node-green. Auricle- pale green, compact, moderately exerted panicle. Panicle length-medium, awns-absent, medium slender grain, Kernal- white, abdominal white- absent. grain hairiness- absent, apiculus-straw, glumes- brown, stigma-green. non lodging, low-shattering. 2 weeks dormancy is present. moderately resistant to BPH, neck blast and sheath rot.
30	MTU 1321	MTU 5249 / IR 72	140	65-70	moderately resistant to leaf blast, neck blast, sheath blight, sheath rot and rice tungro disease, posing 2 weeks dormancy, low grain shattering.

31	MTU 2077 (Krishnaveni)	Sowbhagya x ARC 5984	150-155	55-60	semi dwarf type with all plant parts green in colour, medium slender grains, grain is brown in colour, tolerant to BPH and resistant to gallmidge. Suitable for Coastal dist. of Krishna, Godavari Zone for Kharif season, grains brown colour.
32	MTU 3626 (Prabhat)	IR8 X MTU3	135 (K) 125 (R)	55-60(K) 65-70 (R)	semi dwarf dense plant growth, medium panicle length, fully exerted compact panicle, white coarse, long bold non- shattering kernel.
33	MTU-1262 (Maruteru Mahsuri	(BPT 5204/NLR 34449) X MTU 1075	150-155	55-65	plant height 115cm, semi-tall, erect plant and non lodging, leaf sheath, leaf blade, leaf juncture- green, hairiness on leaves- absent, internode, node, Auricle-green. compact, fully exerted panicle. Panicle length-medium, awns-absent, medium slender grain, Kernal- white, abdominal white- absent. grain hairiness- light, apiculus-straw, glumes- straw, stigma-white. non-shattering. fine grain variety, tolerant to BPH and BLB, 2 weeks dormancy is present.
34	MTU-7029 (IET-5656) (Swarna)	Vasishtha x Mashuri	150-155	60-65	plant semi-dwarf (95 - 100cm), Internode, node and auricle -green, with profuse tillering, Compact and fully exerted panicle, medium long panicles, awns are absent, foliage dark green, hairyness absent on leaves, greyish brown glumes. Grains short bold, kernels white translucentwithout abdominal white. grain pubescence is present. Apiculus -straw colour, Brown glume, green stigma, non shattering, dormancy-3 weeks. High yield under low nitrogen input, wide adaptability, susceptible to BPH. Resistant to BLB.
35	NDLR 7 (Nandy- al Sona)	BPT-3291 X CR- 157-212	99-102	70-75	Medium height (105 cm), narrow light green leaves with compact panicles, yellow kernals with pointed tip and ridges.

36	NLR 145 (Swar-na-muki)	CICA-41 x IR 625-23-1	130-140	70-75	plant height-80-85 cm., semi-dwarf, compact, with erect flag leaf, No. of ear bearing tillers-16/ hill, Straw strength, Non-lodging, Internode thickness-6.8 mm, Pigmentation, Leaf sheath-Green, Leaf bladeGreen, Internode-Pale green, Glumes-Straw colour, Apiculus-Straw colour. Panicle characters: Panicle length-22.0 cm, No. of grains/ panicle-130, Panicle density-5.9 grains/ cm, Nature of panicle-Drooping at maturity, Panicle exertion-Awn-less, Sterility-Few basal spikelets sterile. specifically suitable for tanked irrigation in southern zone where blast is endemic.
37	NLR 3041 (Nel-lore Sona)	BPT-5204 x NLR 145	135-140	65-75	medium duration, absence of chalkiness in grain and having high head rice recovery, grains are short in size, suitable for late Kharif and Rabi seasons. Recommended as an alternate to BPT-5204 in Nellore region due to blast tolerance apart from its superior grain and good cooking quality.
38	NLR 3186	NLR 28600 X Brazelio secan-dro	150	70-72	Long duration molagolukulu rice culture suitable for Kharif and late Kharif seasons. It has good tolerance to Blast and with good cooking quality.
39	NLR 3238	BPT-5204 x MTU 1010	120- 125	65-68	short statured (100 cm), photo-sensitive suitable for early Kharif, Kharif and Rabi seasons. It has a Zinc content of 22.5 ppm in polished rice with good cooking quality.
40	NLR 3354 (Nel-lore Dhanyarasi)	NLR 34242 X NLR 34303	120- 125	70-72	short statured (100 cm), photo-sensitive suitable for Kharif and Rabi seasons. It has good tolerance to leaf and neck blast.
41	NLR 33892 (Pardhiva)	NLR-27999 x MTU- 4870	155	45-50	erect plant height 110-135 cm. Long and dense panicle with dirty brown bloom. Resistant to blast, good cooking quality, suitable for single cropped areas of Nellore, Prakasam, Kadapa, Guntur Districts.
42	NLR 3418	NLR34449 X NLR 34417	140-150	70-75	Long duration rice culture suitable for Kharif, late Kharif and Rabi seasons. It has good tolerance to Blast and fine grain culture.

43	NLR 34449 (Nellore Mashuri)	IR72 X BPT-5204	120-125	60-70	plant erect with 70-85 cm height, 10-15 ear bearing tillers, moderate straw strength, 0.55 cm internode thickness, very dark green foliage, green glumes (straw on ripening), dense compact awnless panicle, 1000 seed wt.-14.5 g, resistant to leaf blast and tolerant to neck blast. Recommended for cultivation during early kharif and rabi seasons in Blast endemic areas of southern zone. Though it is a short duration variety, it can be grown throughout the year.
44	NLR 4001 (Nellore Siri)	NLR 145 X MTU 5249	140- 145	70-75	short statured (100 cm), photo-sensitive suitable for Kharif and Rabi seasons. It has good tolerance to neck blast and BLB.
45	NLR 4001 (Nellore Siri)	NLR 145/MTU 5409	140-145	65-70	dwarf culture, non-lodging, compact and erect, fine grain with good cooking quality, Tolerant to neck blast and BPH.
46	NLR 40024 (Swetha)	WGL 14280-1 X NLR 30491	120-125	70-75	short duration, medium bold grain rice culture, suitable for early kharif and rabi, tolerant to blast and heat, high yielding, grains are bold in shape.
47	NLR 40054 (Nellore Sugandha)	MTU 7029/RNR 19994	130	65-70	tolerant to leaf blast and gall midge, aromatic rice culture, dwarf, compact and erect, fine grain with good cooking quality.
48	NLR 4054 (Nellore Sugandha)	MTU 7029 X RNR 19994	130- 135	65-70	short statured (100 cm), aromatic, photo-sensitive suitable for early Kharif, Kharif and Rabi seasons. It has good tolerance to leaf blast and BLB, gall midge (Bio type 4).
49	PKVHMT	Selection from HMT sona	135-140	40-45	, duration- days, dwarf stature, non lodging with pale green leaves. Fine short slender grain.
50	RGL 2332 (Sreekurma)	BPT-5204 x IR-54	150	65-68	withstands aged seedlings, tolerant to gall midge biotype 4 and blast, non lodging, medium slender grain type.
51	RGL 2538 (Vasundhara) (IET-16085)	Phalguna x IET 6858	130- 140	55-60	Resistant to gall midge biotype 4. Plant height –erect, semi dwarf 100-105 cm, Tillering ability –medium 12-15 no., foliage light green, leaf sheath-green, grain type-long slender length-6.90,breadth-1.83, length & breadth ratio-3.77. Flag leaf is short and erect and ear heads droop at maturity. Non-lodging, long slender straw glumed grains. tolerant to RTV & blast, resistant to plant hopper and GM, Suitable for late sown and late planting conditions.

52	RGL-2537 (Sri Kakulam San-nalu)	CRT-145 X CR-1014	155 -160	55-60	Transplanting to flowering- 95 to 100 Days, Intermediate tall of 110-120 cm height with drooping ear head and lengthy flag leaf at maturity, compact tillering, Normally does not lodge at maturity, pale green foliage, glumes straw coloured, 23.5 to 26.5 cm panicle length, 120-140 grains per panicle, No. of ear bearing tillers- 8-10 no./ hill. Leaf sheath, Leaf blade and Internodes -Green. Glumes and Apicules –Straw. Panicle length- 23.5 cms x 26.5 cms, No. of grains/ panicle- 120 to 140 No., Panicle density- 5 grains/ cm. Awnless, panicle density- 5 grains/cm, semi drooping completely exerted panicles with 16-19% sterility, white translucent grains with 8.6 mm length, 2.4 mm breadth, L/ B ratio: 3.6 mm, 19.6 to 20.1 g is test seed wt., shelling %- 69-70, good milling and cooking quality, size of kernel is 5.82 mm. Suitable for rainfed conditions, late planted conditions of coastal districts and especially Prakasam districts of A.P.
53	RNR 15048 (Tel-angana Sona Masoori)	MTU 1010 X JGL 3855	125	65-70	short duration, short slender, super fine variety suitable for both kharif and rabi seasons. It is semi-tall, , high yielding variety, having resistance to blast disease, suitable for late sowing conditions and has high head rice recovery (>67%), sugar free rice-low glyce-mic index with GI of 51.0.
54	RNR 2458 (Krishna)	Chandan x BPT 5204	135 (K), 145-150 (R)	65-72	Semi-dwarf, medium slender grains, Highly suitable for late planting, resistant to cold (at vegetative stage) and moderately resistant to salinity.
55	UMA (MO-16)	MO-6 x Pokkali rice	115-120 (K) 120-135 (R)	45-55	Dwarf plant, medium tillering, non-lodging, non-shattering, medium bold red kernel with three weeks of dormancy, bran colour -red, Resistant to BPH, and GM biotype 5, dormancy- 3 weeks, suitable for all the three seasons,

**SALIENT FEATURES OF SORGHUM
(JOWAR/ GREAT MILLET) (*Sorghum bicolor*)**

Hybrid or Variety	Cross	Days to 50% Flowering	Duration Days	Yield (ql./ha)	Salient features
HYBRID KHARIF					
CSH-17 (SPH-660)	AKMS-14A X RS-673	64	103	34	Plant height 203 cm, Tan pigmented, enclosed internodes, panicle semi loose and elliptical in shape, pearly white round seed and free threshing. Resistant to lodging and shattering.
CSH-9	MS296A X CS3541	70-80	105 -110 Fodder 95-100	38-40	All Kharif tracts as well as Maghi areas of Kurnool & Summer irrigated tracts, plants 150 to 200 cm tall with semi compact, spindle shaped, non-lodging and drought tolerant, grains are bold and quality better than CSH - 5 and creamy. Resistant to all diseases
CSH-14	AKMS 14A X AKR 150	60-70	90-100 Fodder 95-100	(Grain) 30-35	Replacement to CSH-1 for grain quality.
CSH-15R (SPH-677)	CMS-104A X RS585	71	-	-	Plant height 196 cm. top internodes exposed, Dark green leaves, dropping Canopy, Semi-compact cylindrical panicle, bloom colour light brown to straw, seed pearly white, round and very bold
CSH-16 (SPH-723) (SIT-17)	MS27A X C43	67	Fodder 97	(Grain) 43	Plant height 180 cm. exposed internodes, white mid rib, ear head long, cylindrical, semilax & blunt at the top, seed white pearly. Resistant to green mould & sorghum downy mildew
CSH-18 (SPH-960)	IMS-9A x INDORE-12	75	110	43	Plant height 210-215 cm. Leaf sheath purple at base, Earhead long, elliptical, semi-compact upto middle with loose and pointed apex, grain pearly white, shining, round and medium bold.

CSH-19R	104-A X AKR 354	71	117	30	Plant height 225 cm. Dark green leaf colour. Broad size, panicle with loose apex, semi- compact awnless, highly responsive to fertilizers
HYBRID-RABI					
CSH-13R	MS296A RS29	X 70-80	100-110	30-35	Suitable for cultivation for Rabi areas. Plants are 170 to 200 cm tall. Ear head semi compact and conical shape seed medium size and creamy white. Moderately tolerant to charcoal rot and shoot fly in early rabi susceptible Subsequently released - for kharif also
VARIETIES- KHARIF					
SPV-462	MS 8271 x IS 3691	60-65	105-110 Fodder 100-120	Grain 33-36	Suitable for all Kharif areas. Plants are 200-220 cm tall. Dual purpose variety with good fodder quality Ear head semi open, well exerted, seeds are medium sized and creamy white. Tolerant to mould and leaf spots and moderately resistant to shoot fly and stem borer, non lodging.
CSV-15	SPV475 x SPV 462	70-75	110-112 Fodder 125-135	Grain 30-36	Suitable for Kharif areas, Plants are 200-230 cm,tall. Dual purpose variety with good fodder quality Ear head oblong, semi-compact panicle branches long. Seed white round and medium bold. Tolerant to stemborer, shoot fly. Resistant to leaf spot and grain mold.
VARIETIES-RABI					
C S V - 8 R (SPV-86)	R-24xR-16	60-65	110-115 Fodder 50-60		Suitable for all Rabi areas, Plant height 200-230 cm tall, Ear head semi compact with medium peduncle, grains bold round and white pearly, Non-lodging. Easy threshability. Tolerant to all major diseases. Resistant to Shoot fly and Charcoal rot.

Sorghum Varieties and their characters

Variety Name	Cross	Duration Days	Yield (ql./ha)	Salient Features
CSH-9	MS296A X cs 3541	105-110	38-40 Fodder- 98-100	Plants height 150-200 cm, medium tall, thick juicy stem, vigorous growth, large semi compact head, spindle shaped, non-lodging and drought, tolerant, round bold seeds and quality better than CSH - 5, tolerant to grain molds& resistant to leaf diseases.
CSH-14	AKMS 14A x AKR 150	90-100 Fodder 95-100	38-40 Fodder-88	Replacement to CSH-1 for grain quality. Plant height 181cm., medium tall, early maturing, semi loose panicle, bold seed, tolerant to grain mold and leaf spot diseases, for low rainfall areas and inter & resistance cropping
CSH 24MF	ISCA 467 x Pant Chair 6	105-110 (early)	Green fodder- 788, Dry Fodder-918 ql./ha	Early flowering 60 days, erect plant type suitable for high density sowing and mixed cropping with fodder cowpea, Highly responsive to the fertilizers, multi-cut forage hybrid -Tan, light green foliage with green midrib, Resistant to foliar diseases, medium thick juicy stem with basal tillers. Narrow cylindrical semi compact panicle borne on straight peduncle, resistant to lodging.
CSV 15	SPV 475 x SPV 462	107-112	36 Fodder- 121	Tall, dual purpose, tall-sweet-juicystalk, medium bold round seed, glumes small and straw colour, large ear - head, oblong shape, compact upto middle and open toward apex, resistant to all leaf spot diseases, tolerant to shoot fly and stem borer. Recommended as dual purpose and also as green forage variety for North West India
CSV 23 (SPV 1714)	SPV 861 x SU 248	115-120 (medium)	25-30	Plant height 215-225 cm, Non-lodging, non shattering on on-set of monsoon, due to medium maturity escapes terminal drought, tolerant to grain mold, shooty fly and stem borer. Recommended for release and cultivation in States of Tamil Nadu, Andhra Pradesh, Rajasthan, Gujarat, Haryana and Uttarakhand under Normal rainfed condition.

CSV 27 (SPV 1870)	(GJ 38 x Indore 12) - 2 - 1 - 2 - 1 GJ 38 = GJ 35 x E 35-1	113-119	28-30 Fodder Yield 193	This variety is for dryland rabi regions to help the farmers to realize better income and livelihood security. Plant height: 230-240 cms, Internode covered and creamy. yellow green midrib, semi - compact symmetric panicle, grayed yellow bold seed. Resistant to grain moulds and moisture stress, non-senescence (green foliage up to maturity) and non-lodging.
PANT CHARI-6 (UPMC-503)	Selection in Zimbabwe Germplasm Line EC-438401	105–110		The plants are tall, erect, tan pigmented and stem is sweet and juicy (tss-6–7%). The seed is red, semi-bold and circular in shape. It is resistant to major foliar diseases namely, zonate leaf spot, downy mildew, gray leaf spot and moderately resistant to anthracnose and sooty stripe under natural field conditions. It provides 80–100 t/ha green fodder and 25–35 t/ha dry fodder and 18–20 q/ha seed yield.

Bajra Varieties and their characters

Variety Name	Duration Days & Yield (ql./ha)	Salient Features
ICMA 843-22	65-70 days duration	42-55 Days for 50% flowering, Plant height 80-110 cm, medium stem, dark green leaf colour, medium broad leaf shape, lanceolate medium dense ejected earhead, bold grain size, resistant to downy mildew
H77/833-2-202	60-70 days duration	42-55 Days for 50% flowering, Plant height 100-160cm, medium stem, medium narrow and thin leaves, Cylindrical Dense ear head with small bristles, tip sterility, bold grains
Dhanshakthi (ICTP 8203)	81-85 days duration	Medium Plant height, Semi compact lanceolate ear earheads with variable glumes, Bold, globular and shiny grains, Grey seeds with enriched Iron content & zinc (76-91ppm) (39-48 ppm)
ICMA 04999		Erect plant type, plant height short (105.5 cm), Time of spike emergence medium (47 days), Narrow (2.9 cm) short (42.3 cm) leaves, anther colour brown, node pubescence absent, node pigmentation brown, complete spike emergence, spike length small (19.2 cm), spike bristles absent, spike shape lanceolate, girth medium (2.5 cm), No. of productive tillers-2.4, tip sterility absent, spike density compact, globular seeds with deep grey colour, Test weight 0.72 g.

Variety Name	Duration Days & Yield (ql./ha)	Salient Features
MIR 525-2		Erect plant type, plant height short (141.5 cm), Time of spike emergence medium (47 days), broad (4.2 cm) medium (14.1 cm) leaves, anther colour yellow, node pubescence present, node pigmentation brown, complete spike emergence, spike length small (17 cm), brown spike bristles present, spike shape conical, girth medium (2.2 cm), No. of productive tillers-2.6, tip sterility absent, spike density compact, globular seeds with yellow brown colour, Test weight 0.66 g.
HMS 7A	70-76 days duration	47-52 Days to 50% flowering,
H77/833-2-202	65-75 days duration	42-45 Days to 50% flowering, plant height 100-160 cm, tillers are height with nodal tillers, stem light green, leaves small narrow and thin, ear head are small with thin girth candle shape with tapering tip.
HHB 67 Improved ICMA 843-22 x H77/833-2-202	68-70 days duration Seed yield- 20-25	41-45 Days to 50% flowering, Plant height 160-180 cm, thin stem, Dark green leaf colour, medium narrow leaf shape, lanceolate/conical earhead semi compact with small brown bristles, grain size medium, bold, slate gray grain colour
HHB-226 (MH 1479) ICMA-843-22 X HBL	70-75 days duration (medium) Seed yield- 20-25, Dry fodder yield- 45-50	48 days for flowering, Resembles HHB 197, Plant height 156 cm (medium), dark green medium broad leaves, Medium long candle shaped bristled earheads, brown long bristles, Medium sized grains, highly resistant to downy mildew, tolerant to rust, resistant to lodging & shattering, fertilizer responsive, suitable for early to late planting. Test weight -0.79 g.
MH 1663 (MPMH 17) ICMA 04999 x MIR 525-2	79-80 days duration Seed yield- 28-30	Erect plant type, plant height medium (181.2 cm), Time of spike emergence very early (42 days), Broad (4.7 cm) long (61.05 cm) leaves, anther colour yellow, node pubescence present, node pigmentation purple, complete spike emergence, spike length medium (26 cm), brown spike bristles present, spike shape lanceolate, girth medium (3 cm), No. of productive tillers-3, tip sterility absent, spike density very compact, globular seeds with grey brown colour, Test weight 0.65 g.
HHB 234 HMS 7A x H77/833-2- 202	75-76 days duration (early) Seed yield- 17-20	Days to 50% flowering - 47, Plant height 155-177 cm, no. of productive tillers-2.7, length of inflorescence- 23-28 cm, thickness is 2-2.2 cm, candle shaped earheads with small bristles (5-5.2 mm), medium seed size and tolerant to downy mildew. Test weight 0.77 g

Maize Varieties and their characters

Variety Name	Salient Features
African Tall	Duration Days K-120-130, R-130-140, Days to 50% silking Kharif – 65-70 days Rabi – 75-80 days, strong vigorous ,very tall plant (300-350 cm) with developed stalks, long spreading leaves, Thick green stem, a few purple stem are also found, Tassel loose to semi compact with purple tinge on glumes, silk is Pink/green, husk tight, ear big , long tapering, ear placement above the middle of plant, grain white, bold, semi dent, shelled cob Mostly white with few purple, Yield 40-50 qL./ha
BML -6	Long plant height, drooping leaf, wide leaf angle between blade and stem, Anthocyanin coloration present on brace roots, late tassel anthesis, dense tassel, anthocyanin pigmentation present on Anther, late ear emergence, medium leaf blade, conical cylinder ear shape, Ear semi flint, white kernels in indented shape with yellow cap,.
BML-45	Medium plant height, straight leaf, small leaf angle between blade and stem, Anthocyanin coloration present on brace roots, medium tassel anthesis, sparkly dense tassel, anthocyanin pigmentation present on Anther, medium ear emergence, narrow leaf blade, conical ear shape, Ear semi flint, white kernels in round shape with yellow cap.
Uday Female (S-9-F-11)	Leaf angle between blade and stem is wide, Anthocyanin coloration of brace roots is present, Anthocyanin coloration is slight yellow to light red on Tassel glumes, Anther anthocyanin present, Density of Tassel is dense, Ear shape is semi flint, kernels are yellow with orange cap
Uday Male (S9-M-14)	Leaf angle between blade and stem is small, Anthocyanin coloration of brace roots is present, Anthocyanin coloration is slight yellow to red on Tassel glumes, Anther anthocyanin present, Density of Tassel is sparse, Ear shape is semi dent, kernels are yellow with orange cap
CM 202 X CM 111	Tall sturdy plant, Broad Leaf width, Green Leaf colour, Variable Leaf texture, Large Tassel with open dense shape, Glume Green with light purple tinge colour, purple and green anther colour, predominately green silk colour, green husk colour, cylindrical Ear shape, light purple cob colour, semi dent grain texture, yellow white grain colour, purple base root, kernel rows are straight
CM 400 X CM 300	Tall sturdy plant, Broad medium leaf width, dark green leaf colour, Leathery and normal leaf texture, medium tassel size, predominately purple glume colour, predominately purple anther colour, green and purple silk colour, green and purple husk colour, cylindrical ear shape, white and purple cob colour, semi dent grain texture, kernel rows are straight

SAILENT FEATURES OF BENGALGRAM (*Cicer arietinum*)

Sl.No.	Variety		Duration (days)	Avg.Yield (Q/ha)	Characters
1	Jaki 9218	(ICCC-37 X GW 57) x (ICCV-17), ICCx860265-BPBP-29P-BP)	95-115	18-20	Resembles BG-256 variety, Days to 50% Flowering - 44-46, Plant height 37 cm, semi-spreading type, profuse branching, large leaflet size, Weak anthocyanin pigmentation, pubesce present, Stem has purple colour, Dark pink Flower colour, Pod size is large, very bold seeds, Seeds are golden yellow at maturity, turn light to brown under storage beyond 9 months, Testa texture is smooth resistant to fusarium wilt, root rot & color rot, Resistant to Lodging; can tolerate shattering for 15 to 20 days after physiological maturity, test weight-28.5 g, Suitable for both irrigated as well as rainfed conditions, Suitable for Rabi planting in Central Zone of India.
2	JG 11	Pusa 362/Pusa 372/DCP 92-3) X donor parent (ICC 4958)	90-95	15-18	Days to 50% flowering -46, Purple stem with large leaflets, semi-spreading with profuse branching, bearing large dark pink flowers, resistant to powdery mildew and wilt, large pod size, very bold light brown and smooth testa. single seed pod and shrivelled pods, Suitable for only irrigation condition, also comes up well in dry land (tolerant to drought) and has high yielding capacity. highly resistant to fusarium wilt.
3	NBeG 3 (Nandyala Sanga 1)	Annigeri X ICC 4958	90-105	Rainfed : 17-20 q/ha. With one or two irrigations: 20-25 q/ha.	High yielding bold seeded desi variety. 100 seed weight 26-28g. Medium sized pods (15-20 mm, seed is desi type with angular shape, rough texture with prominent ribbing. Tolerant to wilt, high temperature and drought.
4	NBeG 47 (Dheera)	ICCV 2 X PDG 84-16	90-105	Rainfed : 17-20 With one or two irrigations: 20-25	Plant height 60 cm, Semi erect plant type, kabuli variety, Suitable for mechanical harvesting, Brown wrinkled medium size seed. Desi variety suitable for mechanical harvesting. Should be grown under high density planting of 44 plants per metre square. 100 seed weight 26-28g. Tolerant to wilt.
5	NBeG 49 (Nandyal Gram 49)	Annigeri X ICC 4958	90-105	Rainfed : 17.5-20 q/ha. With one or two irrigations: 20-25 q/ha.	Semispredding plant type with medium height, Green stem with anthocyanin pigmentation on the stem, Pink flowers with medium sized leaflets and pods, 26-27g.

					seeds: medium bold, angular, brown color seeds with rough testa with uniform size .tolerant to wilt, Light brown wrinkled medium sized seed. High yielding desi chickpea line with attractive bold seeds. 100 seed weight
6	N BeG 119 (Nandyal Gram 119)	(ICCV 98502 x ICCV 98004) x ICCV 92311),	90-100	Rainfed : 16-18 q/ha. With one or two irrigations: 18-24 q/ha.	Large seeded(38.8g/100seeds) kabuli variety/ Kabuli White Wrinkled Bold, bold seeded kabuli line with beige colour attractive seeds . 100 seed weight is 38-40g. Tolerant to wilt to some extent.
7	NBeG 452 (Nandyal Gram 452)	ICCV 37 X ICC 12451	90-105	Rainfed : 18-20q/ha. With one or two irrigations: 20-25q/ha.	semi-spreading plant type with small leaflets, pink flowers, Bold and attractive seeds with 100 seed weight of 23-25g. Tolerant to wilt.
8	NBeG 776	ICC 12419 X JG 11	90-105	17-24	Semi erect plant type, pod zone starts from 25 cm from ground level, green stem with anthocyanin pigmentation, small leaf lets, pink flower, angular brown colour seeds with rough testa, resistant to wilt, amenable to mechanical harvesting, 100 seed weight-25.0 g.
9	NBeG 810 (Nandyal Gram 810)	ICCV 95311 x ICCV 95333	110-150	Rainfed : 18-20 q/ha. With one or two irrigations: 20-22q/ha.	high yielding, extra large seeded (>40 g/100 seed) kabuli chickpea variety with wide adaptability. Wilt resistant.
10	NBeG 857 (Nandyal Gram 857)	ICCV 12419 X JG 11	95-100	25-28	tolerant to wilt, semi-spreading plant type, medium plant height, attractive pink flowers, can be cultivated in irrigated and rainfed conditions, recommended for south zone of AP, 100 seed weight-23.4 g.
11	NBeG 1267 (Nandyal Gram 1267)		90-95	21-23	Suitable for mechanical harvesting in rainfed as desi variety during Rabi, could also be grown with 1-2 protected irrigations in normal fertility condition, seed protein 15.96%.
12	P/KAK-2	segregating breeding population ICCX-870026	91-113	19-21	Days to 50% flowering -50 days, Plant height 55 to 65 cm. Semi-spreading with 4 to 5 basal branches, white flower, stem normally green with or without light pigment and turns yellow at senescence, very bold pods and white seeds. There is non lodging and non shattering. resistant to Fusarium wilt

Blackgram Varieties and their characters

Sl. No.	Variety	Cross	Duration (days)	Avg. Yield (Q/ha)	Characters
1	CO-6 (COBG 653)	DU 2 x VB 20	65-70	9910	short duration, 30-35 cm plant height, hypocotyl anthocyanin coloration is purple, erect determinate plant type, stem green with purple splashes, stem pubescence absent, terminal leaflet shape is lanceolate, green leaves with no pubescence, green petiole with purple splashes, green pods with no pubescence, black lusture seeds, no. of branches: 4, No. of clusters: 14, No. of pods per plant: 41, No. of seeds per pod: 7, bold seeds with a mean 100 seed weight of 5.5 g, determinate and has synchronized maturity, y resistant to mungbean yellow mosaic virus (MYMV), stem necrosis and root rot, tolerant to sucking pests and spotted pod borer infestation.
2	GBG 1 (Ghan-tasala Minumu 1)	PU 31 x LBG 685	70-75	13-14	medium duration, photo-insensitive and suitable for kharif, rabi, summer seasons, suitable for rice fallows, erect plant type, dark green foliage, leaves are lanceolate to oval in shape. Pods densely hairy, medium size shiny seed, resistant to YMV diseases/ abiotic stresses.
3	IPU 2-43	DPU 88-319 X DUR-1	70-75	15-16	Erect upright growth habit, plant type: determinate, Stem color: green light purple splashes, Stem pubescence: Absent, leaf shape: Ovate lanceolate, Pod pubescence : Absent, seed shape: oval, seed color : black, seed lusture : dull, Resistant to MYMV & PM.
4	LBG 402 (Prabhava)		90-95	20 – 25	Pure line selection from PLU 91, Photo-sensitive, flowering starts after 50 days, resistant to wilt.
5	LBG 752	LBG 402 x LBG 20	80-85	18 – 20	Photo-insensitive, tolerant to MYMV. Semi determinate with profuse branching. Stem is hairy, leaves are lanceolate and dark green in colour. Pods are sparsely hairy and medium long with 5-7 seeds. Seed is medium bold and shiny black.
6	LBG 787	LBG 685 X IPU 981	80-85	20-22	Photo insensitive, main stem bearing, medium sized shinning seed, main stem bearing, YMV resistant and high yielding.
7	LBG 884	LBG 709 x KU 96-3	80-85	20-22	Photo-insensitive, grow in rainfed, irrigated and rice fallow, tolerant to lodging, Flowering starts at 30 DAS and indeterminate growth, hairy pod with shiny medium bold seeds, resistant to MYMV.
8	PU 31	UPU 97-10 x DPU 88-31	65-70	15 to 20	Early maturing, dwarf (about 70 cm plant height), sturdy stem with only few primary branches with pods bearing from base to tip of the plant. dark green foliage with purplish pigmentation on stem and petiole and dense pubescence on pods. pod contains 7 black seeds of medium size (3.86 g/100 seeds), Seed- black, resistant to YMV and all foliar diseases of blackgram. It is photo thermo sensitive suitable for Kharif, rabi and spring/summer seasons.

9	T 9	Selection from Ba-reilly, U.P	75-85	Oct-15	Erect plant type, stem at base pink colour and the top is green with pinkish wash leaves narrow lanceolate dark green, flowers, pods yellow in colour, medium in length, no pubescence, borne in clusters, Black shiny seeds with mottling and medium bold.
10	TAU 1	T-9 x UM-196 (Mutant of No. 55)	68-75	13-15	Leaflets triangular in shape. Leaves triangular in shape. Leaves bear few scales, pods Slightly hairy, purplish black at maturity, Purplish black, and white hilum, black colour, resistant to powdery mildew.
11	TBG 104 (Tirupati Minu-mu-1)	PU19x LBG623	80-85	12-14	duration-80-85 days, Photo intensive, Narrow, dark green leaves with violet tinge at tender stages, hairy pod with violet tinge at tender stages, seeds: medium bold and shiny greenish black color. Avg. yield-12-14 q/ha
12	TBG 129		80-90	16-18	suitable for all seasons, shiny bold seeded black-gram resistant to YMV & suitable for rice fallows completed first year minikit testing It is identified through agroinoculation technique, YMV tolerant.
13	VBN 8 (VBG 09-005)	VBN 3 x VBG 04-008	65-75	13-14	Days to 50% flowering: 35-40 days, Semi-erect, determinate plant type, broad to narrow lanceolate terminal leaflets, stem color-green light purple Splashes, stem pubescence- present, pod pubescence - Present, seed lusture: Dull, Seed shape :oval, Seeds per pod: 7-8. Resistant to YMV, LCV, leaf curl virus, stem necrosis; free from PM and CLS and moderately resistant to root rot. suitable for summer irrigated conditions.
14	VBN 9 (VBG 12-111)	Mash 114 x Vamban 3	60-85	12-14	Non-lodging, non-shattering and determinate growth habit with synchronized maturity. Suitable for rice fallow cultivation in south zone. Plant height - Semi erect and determinate plant type with lanceolate leaflet. Flower colour-Yellow. Days to 50% flowering-42 days (33-47 days). Pod character-Pubescent, matured pod is black in colour. Pod length-4.6 cm, 4.2-5.2 cm. Mod. resistant to MYMV, urdbean Leaf Curl Virus and PM. suitable for rice fallow conditions.
15	VBN 10 (VBG 12-034)	Vamban 1 x UH 04-04	61- 90	11-13	Plant height-Semi erect and determinate plant type with lanceolate leaflet. Flower colour-Yellow. Days to 50% flowering-40 days (30-53 days). Pod character-Pubescent, matured pod is black in colour. Pod length-4.2 cm (4.0-4.5 cm). Resistant to MYMV, urdbean LCV and Leaf Curl Virus.
16	VBN 11	PU 31 x CO 6	70-75	9-10 (irrigated) 8-9 (rainfed)	Stem colour as purple with green while VBN 6 has purple. Time of flowering as medium while VBN 6 and VBN 8 are early. Plant growth habit: Semi erect. Plant habit: Determinate. Stem colour: Purple with green. Stem pubescence: Present. Terminal leaflet shape- Lanceolate. Foliage colour- Dark green. Leaf Vein colour: Green. Petiole colour: Purple. intensity of colour of premature pods: Green. Pod pubescence: Present. Pod length: 4.5-5.5 cm. Pod colour at maturity: Black. Seed colour: Black. Seed lusture: Dull. Seed shape: Oval. Days to 50% flowering: 40-45 days.

SALIENT FEATURES OF GREENGRAM VARIETIES

Sl. No.	Variety	Cross	Duration (days)	Avg. Yield (Q/ha)	Characters
1	CO-8	COGG 923 x VC 6040A	55-60	9-11	Plant height: 55-60cm, 2-3 secondary branches, dark green leaves, ferminal leaflet shape is ovate pod pubescence, Dull green seed colour drum shaped seed, 3.5-4 g/100 seed at protein content -20.2g. resistant to yellow mosaic and moderately resistant to stem necrosis, root rot, aphids and stemfly.
2	IPM 02-14		62-70	7-10	High yielding & suitable for all seasons including rice fallows. Plant height: 36-39 cm, Erect upright plant, medium leaf size, Determinate growth, synchronous maturity, shiny green seed, MYMG and leaf crinkle resistant.
3	IPM 02-3		70-72	9-10	Plant height: 36-39 cm, Erect upright plant, medium leaf size, Determinate growth, synchronous maturity, greenish purple leaf vein, greenish - purple splashes petiole colour, yellow flower with oval shaped medium seed.
4	IPM 205-7 (Virat)	IPM 2-1 x EC 398889	52-56	10-11	short-statured, erect and upright plants with green, ovate and entire leaves and a green stem with purple splashes. The flowers are of light yellow color while the pod habit is intermediate. Pods are short, straight and black on maturity while the seeds are medium large (4.2 g/100 seed), green, oval and shining. Seeds have high protein content (25%), highly resistant to mungbean yellow mosaic disease and powdery mildew and moderately resistant to Cercospora leaf spot. It has been recommended for cultivation under irrigated conditions during the Summer season with a height of 50-60 cm. Long pods with 12-14 grains per pod. Bold and lustrous green grains. 1000 grains weigh 48 gm. Resistant to yellow mosaic virus.
5	IPM 410-3 (Shikha)	IPM 03-1 x NM-1	65-70	13-16	it has green, shining, attractive and medium large seeds, suitable for cultivation during spring season, Resistant to YMD, PM, CLS.
6	LGG 410 (Lam 410)	Mutant of ML 26-10-3	65 – 70	14-16	crop green, suitable for Kharif, rabi and summer.

7	LGG 460 (Lam 460)	Lam M2 x ML 267	65-70	15-16	Suitable for uplands and rice fallows yield potential 15 -16 g/ha. Tall (52 cm.), semi erect, determinate, light green stem, Oval primary leaves, Synchronous maturity, Green pods, shiny green-gold seeds 50% days of flowering- 34 days. Bearing confirm to the top with long pods, YMV Tolerant.
8	LGG-450 (Pushkara)	Mutant of ML 26-10-3,	65 - 70	12-14	Plant height: 45-55 cm, plant semi erect in habit pods black, glossy, pod wall contain higher cuticle wax, suitable for Kharif & Rabi, Days to 50% flowering- 37 days, seeds are round, shining. Thick green 3.2g/100 seeds. Yield(ql./ha)- 12, Moderately resistant to YMV resistant to ABLs and pre-harvest sprouting recommended rice fallows.
9	LGG-407 (Lam 407)	Mutant of ML 26-10-3,	70-75	12-14	Plant height: 45-55 cm, tall erect stem with pentafoolate, broad leaves, dark green foliage, thick, blackish pods bearing mainly on the top of the plants. Synchronous, maturity suitable for round the year, Days to 50% flowering- 40, black pods with round medium bold shining green seeds, 3.5g/100 seeds, Yield(ql./ha)- 14, Moderately resistant to YMV and BLS diseases & moderately resistant to bacterial leaf spot and root rot.
10	LGG 574 (Lam Pesara 574)	LGG 460 x P 101	65-70	15-16	Short duration variety, tall growing, Light green foliage with oval shaped leaf ii) Pods are long with 10-12 seeds iii) Seeds are medium bold and shinning suitable for upland and rice fallow conditions, mechanical harvest, medium, bold shiny green seed, Tolerant to MYMV, ULCV, CLS and WUV, photo-insensitive, suitable for Rabi uplands & rice fallows, amenable for mechanical harvest.
11	LGG 607 (Lam Pesara 607)	MGG 295 x COGG 912	60-65	15-17	Short duration variety, suitable for inter cropping, Light green foliage with oval shaped leaf, Pods are long with 10-12 seeds, Seeds are medium bold and shining, resistant to MYMV, tolerant to ULCV, CLS, non lodging, determinate growth habit with synchronized maturity, medium bold shiny seed.

12	LGG 630		70-75	9-11	Photoinsensitive, Resistant to YMV. Determinate with light green and ovate leaves. Seed is shining green and medium in size. long pods with more no of pods per cluster per plant. No. of pods/plant ranged from 10-13.
13	MGG 295 (MADIRA)		65-70	12-14	Pods green in colour with purple suture, blunt beak, pods congregate on top of the plant in clusters, seeds are bold, dull, green in colour, resistant to ABLs & tolerant to YMV, suitable for Kharif, Rabi and summer seasons.
14	MGG 347		65-70	13-15	Pods congregate on top of the plant in clusters green pods will have prominent purple suture and blunt beak seeds are medium bold, drawn shaped, dull dark green in colour, Tolerant to thrips, stemfly, YMV, Cerospora spots & drought, suitable for all seasons.
15	Pusa Vishal		60-65	11-12	Plant height- 43-46 cms. Profused long pods initially green in colour and blackish at maturity with bold seed. Growth habit- Determinate, erect and early. Leaf characters- Simple compound- compound, Shape of the leaf panicle ovate, colour- green, pubescent glabrous pubescent, stem colour green, Flower colour- cream, pod colour- light brown, very bold seeded (6 g/100 seed) Res. to YMV, Tol. to Jassids and whitefly, suitable for summer.
16	VBN 6 (VGG 15-030)	VBN (Gg) 2 x IPM 409 - 4,	70 To 75	8-10	moderately resistant to Mungbean Yellow Mosaic Virus, Powdery mildew and Urdbean Leaf Crinkle Virus diseases
17	WGG-42 (YADAGIRI)		55-60	7.5-10	yellow flowers, long green pods, sparse hairs without sutures with bold shining seeds suitable for all seasons including rice fallows. Synchronous maturity, photoinsensitive, short stature.

Redgram Varieties and their characters

Sl. No.	Variety	Cross	Duration (days)	Avg. Yield (t/ha)	Characters
1	GRG-152 (Bheema)		160-165	18-20	Spreading plant habit, Yellow flowers with sparse red streaks, Green pod with purple stripes, brown and bold seed, Moderately resistant to wilt and sterility mosaic diseases
2	ICPL 87 (Pragathi)	ICPX 73052 (T 21 x JA 277)	110-135	20	Plant height 80-85 cm, Semi-spreading & short determinate plant type, Yellow flowers, Large brown pods, loose drooping clusters at the top of the plant, Pod Colour at grain filling stage is green with red purple streaks, seeds are large, light brown, round in outline but slightly flattened, tolerant to fusarium wilt. Recovers from insect damage.
3	ICPL 85063 (Laxmi)	BDN 1 X (T 21 X JA 275)	140-170	16-20	Erect Indeterminate growth habit with long main branches, dark green foliage, medium bold dark brown seeds, Plant height-160 cm in Kharif and 120 cm in rabi season, Growth habit- Semi spreading, Stem colour Green, Leaf shape- Broad elliptic, Leaf hairiness, Glabrous, Day to 50% flowering in kharif 120 days and in rabi 85 days, Base Flower colour- yellow, Second flower colour- Colour of streaks on dorsal side of the vexillum is purple, Pattern of Streaks- Spares streaks, Flowering pattern –Indeterminate, Seed per pod-3-4, main colour of pod is mixed with green and purple, pod form- flat, pod hairiness, glabrous, Seed colour pattern- Plain, Base seed colour- reddishbrown, seed shape- oval, resistant to sterility mosaic virus and moderately resistant to wilt, good dhal recovery and high protein content. 100 seed weight- 10-12 g.
4	ICPL-87119 (Asha)	ICP 1-6-W3 -WI x C 11	115-180	20-25	Medium duration, Plant height – Mean: 178 cm. Range: 140-227 cm. Semi-spreading and indeterminate tall growth habit. Flower colour yellow (with sparse streaks), back of Vexillum red veined green pod with dark purple streaks, resistant to wilt and SMD, seed colour is brown.
5	ICPL 8863 (Maruthi)	selection from ICP 7626 (P-15-3-3)	150-180	15-20	Plant height 150-180 cm, Indeterminate plant type with spreading branches, Yellow flowers with purple streaks, Young pods are green with purple streaks medium sized-brown colour seeds, test weight-9.5 g.
6	ICPL 14003 (PRG 176) (Ujwala)		130-135	22-25	Dwarf, Semi spreading branching habit, semi determinate flowering, Complete yellow flowered petals without any streaks, Plain green colored pods, seed: dark brown, oval, Suitable for Kharif, resistant to terminal drought and is suitable for light charka soils (light red soils with low water retention), Tolerant to fusarium wilt and terminal drought.

7	LRG-30 (Pal-nadu)	Pureline selection from local race	170-180	20-22	High yielding variety with wide adaptability, Plant height 100-110 cm, Spreading indeterminate plant type, Stem green with brownish pigmentation. Erect & bushing in habit, standard petals yellow, Pods green with maroon streaks, Medium bold, Light down, test weight- 11.6g. Possess regeneration capacity.
8	LRG-41	SELECTION FROM LOCAL LAND RACE OF CHILAKALURIPET of Guntur district,	175-180	20-22	Plants are bushy with indeterminate growth habit with drooping tendency, plant height : 170-200 cm ; growth habit : semi spreading ; stem colour : green colour ; leaf shape : broad-elliptic ; days to 50% flowering : 125-130 in kharif, 85-95 days in rabi ; seeds/pod : 3-4 ; seed colour pattern : plain ; base seed colour : dark brown ; seed shape : oval ; 100 seed wt. : 10 Gm, flowers yellow in colour, Tolerant to Helicoverpa pod borer.
9	LRG 52 (Am-aravathi)	LRG 41 x Maruthi (ICP 8863),	125-170	15-18	Medium duration, plants are bushy with indeterminate growth habit with drooping tendency at flowering and pod formation stages, semi spreading, Plant height : 160-180cm, Flower : Yellow Leaf : Oblong, Colour of seed : Brown, 100 seed weight : 11-12 gm, Days to 50% flowering : 115-120 days, Pods : Tender pods purple in colour, Pod length : 4-5cm, No of seeds : 4, Seed size : large, Seed shape : Globular, Reaction of major diseases: moderately resistant to wilt.
10	LRG 105 (Krishna)	ICPL 7414 x ICPL 87119,	165-180	22-25	resistant to wilt and sterility mosaic virus, erect plant type with erect tendency at flowering and pod formation stages. Non lodging at pod maturity, suitable for intercropping, flower colour yellow, pod colour is green with brown streaks and having prominent constriction. Seed colour is brown, test weight 11-12 gm.
11	LRG 133-33 (SOWBHAGYA)	LRG 30 x ICP 8863,	165-180	23-26	branching habit is spreading, flower colour is yellow with sparse streaks, Green pod with maroon streaks formed in clusters with long peduncle, resistant to wilt, test weight-10-11g.
12	PRG- 158 (PALEM KANDI)	ICP-8863 X BSMR-65	150- 180	16-18	early duration, PLANT HEIGHT : 150-180 CM; DAYS TO FLOWERING : 95-100 DAYS FROM SEEDLING TO FLOWERING. Green stem, Base flower colour is predominantly yellow, no. of streaks in secondary flower colour, semi-determinate, semi-spreading, higher branching and higher plasticity, flower predominantly yellow, medium bold, dark brown seed. TOLERANT TO DROUGHT. RESISTANT TO FUSARIUM WILT,
13	Rudreshwara (WRG – 65)	WRG-13 x ICPL 87051	175- 180	18-20	Spreading , Medium plant type and green stem, Petal : yellow color with sparse streaks, Pod: Green with brown streaks, Pod pubescence: present. Seed: large brown oval grain. Suitable for Kharif conditions, suitable for cultivation throughout Andhra Pradesh.
14	TRG-59 (Tirupati Kandi 59)	IC7035 x ICP8863,	160-180	18-20	medium duration, erect & suitable to Kharif and early rabi. Flowers yellow in color. Pods are green with brown stripes. Plants are bushy with indeterminate growth habit. Dark brownish orange medium bold seed (11-12g/100 seed), tolerant to fusarium wilt and SMD, Suitable for sole and intercrop in kharif. It is also suitable for early rabi (August-September).

MORPHOLOGICAL CHARACTERS OF GROUNDNUT VARIETIES

Sl. No.	Variety	Cross	Duration (days)	Avg. Yield (Q/ha)	Characters
1	GJG-32	(F 334 A-B-14 x NCAC 2214) x ICG 2241) x (ICGMS 42 x Kadir 3) x ICGMS 28 x (F 334A-B-14 x NCAC 2214)] x LI x (Robut 33-1-1-5)	95-120	34	Spanish bunch (erect) type, Leaf shape is oblong elliptic, Leaflet is medium in size and dark green in colour, Shallow pod constriction, medium pod size, medium reticulation, Small kernels with Rose colour testa, Seed dormancy absent, 69 % shelling and 53.90 % oil content.
2	GPBD 5	TG 49 X GPBD 4	105 - 11	20-21	Plant height is 30 cm, spanish bunch, erect plant type with dark green foliage. Possesses bunch type pod bearing and ease to uproot. Leafs are light green in colour with oblong shape and medium size, Decumbent 2 type of growth habit, slight pod beak, medium pod size, 2-1 Kernels/pod, moderate constriction, moderate reticulation, 68 % shelling, small kernel size, tan colour testa, 100 kernel weight is 37 gm and oil content is 46 %.SMK-84.
3	JL-501	Selection from TAG-24	102-105	16-17	Early maturing and medium pods clustered at base, Plant height: 25-35 cm, Erect, Spanish bunch, Leaf Oblong elliptic shape, Leaf size Medium, Foliage colour Green, Pod beak Moderate, Pod size Medium, Kernel nature: 1-3 seeded, mostly two seeded, Constriction: None to slight, Reticulation: Slight, Shelling outturn: 67 %, Kernel size: Medium, Testa colour: Light tan, 100 kernel weight (g): 36, - Oil content (%): 48.3, - SMK (%): 90.
4	K 1535 (Kadir 6 Amaravathi)	Kadir 6 xNCAC 2242	120-130	20-22 (K) 35-40 (R)	Medium tall plant with dark green foliage, resembling tall Kadir 6 with dark green oblong leathery foliage, Spanish habit and Bunch type, No. of primaries : 4-6, No of secondaries : 0-2, large size Pods with 2 seeded, slight Reticulation, no constriction, No Beak and rose colour Testa.
5	K 1812 (KADIRI LEPAKSHI)	(ICGV 92069 / ICGV 93184) x ICGV 98300)	107-112	35	medium tall plant with profuse branching and cluster pod bearing habit having small ob-ovate medium stay green dark coloured foliage and both ends tapering shiny rose testa coloured attractive kernel, Very high yielding, profuse bearing spanish variety with high oil and high protein. Multiple resistant for drought, pests and diseases.

6	K 1719 (Kadiri Chi-thravathi)	Kadiri 7 Bold x TAG 24	110-115	40-45	Early, high yielding, erect, spanish bunch variety with bold seeds and high oil. Dark green (SPAD:40), lanceolate, tip acute, leathery-foilage & Fusiform kernel with rose testa. Moderality resistant to sucking pests, thrips, defoliations, stem rot, root rots and leaf spots. Confectionary bold and good for green fresh pods marketing.
7	Kadiri 6	JL24 x AH 316/S	95-105 (K) 110-115 (R)	20-25 (K) 40-45 (R)	Spanish bunch with Light green, tall plant 30-35 CM; Light green foliage, broad leaves, profuse bearing; no. Of primaries : 4-6; no. Of secondaries : 0-2; pod character : medium in size, 2 seeded; kernel characters - reticulation : moderate; constriction : moderate; beak : moderate; teata tan in colour, 69-72 % of shelling and oil content of 50 %.
8	KDG-123 (PHULE MORANA)	ICGV 96050 X ICGV 96239	118-125	25-30	Semi-spreading, Alternate flowering pattern on side branches, has distinguishing character as medium constriction on pod, semi spreading growth habit, small leaflet size, dark green leaflet colour, glabrous stem pubescence, flower absent on main axis, alternate flower arrangement on side branches, simple inflorescence, having higher dry pod yield with good shelling per cent and also foliar disease tolerance. Oil percentage - 47-48%, test weight-35-46 g.
9	KDG 128 (Phule warna)		115-120	24-29	Semi-spreading, slight constriction on pod, prominent beak on pod, reticulation present on pod. Moderately resistance to rust and late leaf spot disease, Oil percentage – 50%, higher dry pod yield, test weight- 40.75 g.
10	KDG 160 (Phule Chaitanya)	[(ICGV 92069 x ICGV 93184) x (ICGV 87121 x ICGV 87853) x ICGV 92023],	115-120	33-34	Spanish Bunch variety which gave higher dry pod yield, moderate constriction on pod, slight beak on pod, moderate reticulation present on pod, oil content of this variety is also high (51.4%), Moderately resistant to stem rot, late leaf spot disease, test weight - 43.1 g.
11	TAG-24	SELECTION FROM THE CROSS TGS-2 (TG-18 A X M 13) X THE1 (TALL MUTANT X TG-9),	95-117	18-20	Short duration variety, Semi Dwarf Spanish Bunch type, plant height- 15-20 cm, elliptical shaped dark green small leaflets, medium pod size with 1-2 seeded and occasional 3 seeded pods, pubescent- hairy, tolerant to bud necrosis and leaf spot - diseases, flowering pattern : sequential, moderate constriction, moderate reticulation, medium sized kernels with light rose kernel colour.

					Better yield than other varieties of this segment. SHELLING OUT TURN : 70-72%, 100 KERNEL WEIGHT : 35-38 G. OIL CONTENT : 50.8% C. MATURITY : DAYS TO FLOWER : KHARIF : 26 DAYS SUMMER : 30 DAYS DAYS TO MATURITY : KHARIF : 100-105 DAYS SUMMER : 112-117 DAYS. FAIRLY TOLERANT TO BUD NECROSIS AND LEAF SPOT DISEASES.
12	TAG 73	mutant variety	105-110	30-32	Semi dwarf spanish bunch type variety with higher water use efficiency. duration- days with more 3- seeded pods, 73-75% shelling and oil content is 50.8%. This variety is also suitable for cultivating in three seasons especially for summer.
13	TCG 1518 (Tirupati 3)	Selection from TMV-10	125-130	20-25 (K) 35-45 (R)	resistant to Kalahasti malady incited by soil borne nematode, tolerant to foliar diseases, seeds dormant up to 40 days after harvest and has variegated testa.
14	TCG 1704 (Tirupati 1)	Selection from E.C106983/3	100-105	20-25 (K) 40-45 (R)	Early maturing and drought tolerant. Spanish bunch groundnut variety, leaflets narrow with ashy coating.
15	TCGS 29 (Narayani)	JL 24 × Ah316/S	100-105	20-25 (K) 35-45 (R)	early maturing, spanish bunch, Plant height : 48 cm; growth habit : determinate, erect; branching : sequential; leaflets : large, elliptical, green angular light greenish; stem : purple; pod size : medium bold; pod constriction : moderate; pod reticulation : moderate; pod beak : slight; seed size : medium bold; testa colour : light red; 100-pod weight : 90-100 g; 100 seed weight : 40-45 g; shelling out-turn : 72-76%; sound mature kernels : 80-90%, drought tolerant, highly stable performance in different types of soils and situations. Pod size is similar to jl-24 but pods are reticulated with red testa colour seeds. It is early by a week compared to jl-24. Leaflets are slightly narrow & elliptical.
16	TCGS 894 (Pragati)	TAG24 x Jyothi	105-110	28	Early, short statured, high pod and kernel yield, high test weight- 41 g, high shattering out turn-70 %, high water use efficient and attractive kernels.

17	TCGS 1043 (Dharani)	VRI-2 × TCGP-6	100-105	16-26 (K) , 37-43(R)	Spanish bunch, Plant height (cm) - 40-50 cm (Kharif) and 25-35 cm (Rabi), - Growth habit Erect, Determinate, Primary branches make a slightly wider angle with main axis than clear Spanish bunch varieties like Narayani, TMV 2 and Kadiri 6, - Branching - Sequential, - Leaflets - Oblong elliptic, dark green, oblong elliptic, Stem- Angular, green, Seed medium to bold with Rose testa, Moderate pod size with slight to moderate reticulation, Moderate constriction, slight beak at tip Withstands drought, 75-77 % of shelling and 48% of oil content. Tolerant to late leaf spot, spot, rust, collar rot, stem rot and bry root rot.
18	TCGS-1073 (Dheeraj)	Narayani X JAL 30	105-110 (K) -110-115 (R)	15-22 (K) 34-40 (R)	Growth habit: Erect, Determinate (primary branches make a slightly wider angle with mains axis than clear Spanish bunch varieties like Narayani, TMV 2 & Kadiri-6); Branching: Sequential; Leaflets: Oblong elliptic, dark green, slightly leathery texture; Stem: Angular, green with slight purple pigmentation. Pod size: Medium to bold; Pod constriction: Moderate; Pod reticulation: Moderate to prominent, Pod beak: Slight, Seed size: Moderate to bold Testa colour: Light rose, 100-pod weight (g): 110-144 g, 100-seed weight (g): 54-70g, Shelling out-turn (%): 73-80, Sound mature kernels (%): 84-90, Water-use efficient Spanish bunch culture with high yield potential. Suitable for cultivation in irrigated situation both in Kharif and Rabi.
19	TCGS 1157 (Nithya haritha)	TAG 24 x Jyothi	105-110	25-27 (K) 40-45 (R)	Short statured Spanish bunch culture with high yield potential. Possesses fresh seed dormancy, bears higher frequency of three seeded pods.
20	TCGS 1694 (VISISHTA)	K 6 x ICG (FDRS) 79	100-105 (K), 105-110 (R)	35-40 (K) 40-45 (R)	short duration, Suitable for Kharif & rabi. Short stature, Tolerant to foliar diseases viz., ELS, LLS, and rust. WUE variety, stay green, Uniform maturity with attractive pod and kernel quality is comparable with K-6 (pink testa with 49% oil content), Bold kernels, foliage retained upto harvest, high test weight-41.0 gm, high shelling out turn -70%.

SALIENT FEATURES OF SOYBEAN VARIETIES

Sl. No.	Variety	Duration (days)	Avg. Yield (Q/ha)	Characters
1	ASb-22	105-110	30-32	High yielding variety, Tolerant to shattering even under delayed harvestings by 8 to 10 days.
2	KHSB-2	105-120	20-25	Purple flowers, awny pubescence, yellow seed coat, black hylem, semi-indeterminate, moderately tolerant to bacterial pustules.
3	Jawahar Soya 93-05 (JS-93-05SSSS)	90-95	25-35	Plant height-55-60 cm. semi determinate, pubescence on seedling, stem hairiness, pod hairiness is absent, pigmentation on stem weak purple, Dark foliage, Lanceolate leaves, leaf hairiness absent, four seeded pods, glabrous stem and pod, violet flower, pod colour at maturing bronze, yellow seeds, black hilum, Growth habit-semi determinate, days to flower initiation -36-38 days, leaf surface -smooth, flower colour-violet, pods per plant -45-55, seeds per pods -2-4, seed colour -Yellow, hilum colour -Black, resistant to bacterial diseases. Days to 50% Flowering- 36 to 45 day, 100 seed weight -10-12 g.,oil % 17.5-19.0, Protein % 41-42, germination % -90-95.
4	JS 20 116 (Jawahar Soybean 20-116)	97 -101	17-18	JS 97-52 x JSM 120 A, suitable for timely sown 20 June to 5 July, 45 cm Row to Row and 5-7 cm plant to plant distance, tolerant to abiotic stresses, White flower, Rounded ovate leaf, Glabrous pods and stem, Black hilum, It is of medium with strong stem, does not lodge, resistant to shattering up to seven days after maturity, It performs well under recommended dose of fertilizers 20 N, 60 P2O5, 20 K2O and 20 S kg/ha.
5	KDS 753 (Phule Kimiya)	90-100	31-34	Plant growth semi-determinate, seed size medium, purple flower, tawny pubescence, large size seed, brown hilum. Tolerant to drought and high yield.
6	KDS 726(Phule Sangam)	105-110	35-37	Plant growth semi-erect to horizontal. Height-76.2-121 cm, violet flower, rounded ovate leaf, yellow seeds with brown hilum, Penta foliate. Grain size is large & oil recovery% is better. Excellent yield potential. Resistant to Rust disease and purple seed stain disease. Moderately resistance to Stem fly and defoliators. Tolerant to major pests.
7	LSb 18 (Bheem)	105-110	28-30	It a a high yielding variety immune to Cercospora leaf spot/ blight, rust, target leaf spot, Indian bud blight, soybean mosaic virus, collar rot and charcoal rot diseases. It is also resistant to defoliators and leaf miner and moderately resistant to pod borer.
8	MACS-13	90-100	25-30	Purple flowers, awny pubescence, yellow seed coat, brown pod, branching indeterminate resistant to bacterial pustules, tolerant to viral diseases and leaf spot.
9	MACS-58	90-100	25-35	Purple flowers, awny pubescence, yellow seed coat, brown pod, branching indeterminate resistant to bacterial pustules, tolerant to viral diseases and leaf spot.
10	PK-472	100-105 (K), 105-110 (R)	30-35	White flowers, grey pubescence, yellow seed coat, brown hilum determinate, dark green foliage resistant to bacterial pustules & Yellow mosaic tolerant to Rhizoctone.
11	S 335 (Jawahar Soybean 335)	80-100	17.5-18.0	Plants 46 cm tall, semi-determinate spars, pubescence on leaves stem & pods, seed yellow, rounds with Black hylum, leaves dark green flowers purple. Sparse pubescence on leaves stem and pods. Leaves dark green at flowering.

12	MACS 1520	98-102	30-35	Resistant to lodging due to thick stem, pods non-shattering habit up to ten days after maturity, Highest yield at optimum seed rate-plant population of 0.45 million plants per hectare, Spacing of 45 cm row to row and 5-7 cm plant to plant distance gives high yields. Flower colour:Purple, Brown pods with Tawny Pubescence, Seeds: Medium size, yellow seed coat with black hilum, tolerant to abiotic stresses, Absolute Resistance to Charcoal Rot, Susceptible to Mosaic Virus (YMV) and Target leaf Spot (TLS), moderately resistant to Alternaria Leaf Spot. High resistance to S. Litura, moderately resistant to Stem Fly, defoliators, semi loopers and Girdle Beetle.
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Cowpea Varieties and their characters

Sl. No.	Variety	Duration (days)	Avg. Yield (Q/ha)	Characters
1	DC 15	70-85		Suitable for sowing during II Fortnight of June, Stem colour purple after 30 days of sowing, stem pubescence absent, semi-spreading habit, Determinate type, Leaves dark green, Lanceolate and tapering pointed at end. glabrous leaf surface, vexillum purple in colour, Uniform Pod maturity (Pods can be harvested with single picking), pods are straight, medium length (15-25 cm), Pods per plant >15, seeds per pod >18, elliptical brown seeds with seed length (5-10 mm), GL-Bold, Very long creamy white pods when dried and Pod length up to 22cm. Moderately resistant to Cowpea Mosaic; Moderately tolerant to Aphids and Pod borer. Tolerant to pod borer damage (%) and aphids, 100 Seed weight- 16-18 g.
2	DFC-1 (Konkan fodder cow-pea- I)	100 days		Days to 50% flowering (for fodder), Kharif: 60-65 days, Rabi:75-80 days. Brownish strips on surface of pods, non striped pods also occasionally present, Seed with mosaic spotting. Plant height- Kharif: 180-200 cm, Rabi:75-100 cm, No. of branching/ plant- 4 to 5, foliage%- 47, Colour of leaves- Dark green, No. of pods/ plant-10-12, Pod length-15-20 cm, No. of leaves/ plant-30-35, No. of seeds/plant-10-12, Colour of pods- hite and brownish scattered strips on the surface. 100 seed wt.-14 g. FREE FROM PEST ATTACK. TARCE INCIDENCE OF MILD MOSAIC AT LATE FLOWERING STAGE.
3	KBC 9	80-85	0.5-0.6	Plant is bushy and erect (58-60 cm), leaves are light green with cariceous texture, 4 primary branches, No. of clusters per plant-11, Pods arev bold and brown, seeds rhomboid, bold and reddish brown with smooth texture,
4	Sweta	90-95		Very leafy (L/S ratio 0.7), More number of broad leaves (100 to 110), Remains green from flowering to late pod formation stage without deterioration in forage quality and yield. Mid late in flowering (70 to 75 days for 50 % Flowering), Dark Green Colour, Seed coat colour – Brick red, Creeping nature- Produces vines,
5	TPTC 29 (Tirupati cowpea - 1)	80-90		bushy line for dual purpose. photo insensitive, Suitable for different cropping systems and Suitable for kharif, rabi and summer seasons. Dark green foliage with broad leaves, Flower is in violet colour, Pods are long with 14-16 seeds per pod, Seeds are bold in size with light brown in colour. Moderately resistant to dry root rot and yellow mosaic disease.

Sesamum Varieties and their characters

Sl.No.	Variety	Duration (days)	Avg. Yield (Q/ha)	Characters
1	CUMS-09A (Tanjila)	91	9.5-12.0	Suitable for irrigated, summer crop with early or late sown condition, , oil yield 438.5 kg/ha - 558.0 kg/ha, oil content 46.17%, high degree of resistance to diseases like root rot, phyllody and powdery mildew, no major insect pests are reported.
2	GOURI	85-90	8.0-8.5	Plant height medium, branching stem four angled, flowers white with purple wash, solitary, long & four loculed capsules, dark brown seed colour & medium size, tolerant to gall fly, Oil content- 48-50 %
3	MADA-HAVI	70-80	8.0-8.5	Plant height medium, branching stem quadrangular, flowers solitary flat and medium in size, capsules oblong, flat and 4 loculed, seed light brown and medium in size, suitable for sequence cropping, Oil content-48-51 %
4	RAJES-WARI	95-100	8.0-8.5	Plant height medium(110-120 cm), leaves dark green, branching stem quadrangular, capsules densely arranged in clusters, 3 capsules/axil and opposite so appear as whorl, white seed & bold size, Oil content-51-53 %
5	YLA-MAN-CHILI YLM 11 (Varaha)	80-85	9-11	Vinayak x Kanak, dark brown seed colour, capsules matures at a time
6	YLA-MAN-CHILI YLM 17 (Gouth-am)	75-80	8.5-9.5	Vinayak x Kanak, Plant height medium(110 cm), leaves light green and glabrous, early matured light brown seed strain, it bears smaller casuples, tolerant to spot and powdery mildew. Oil content- 53 %
7	YLA-MAN-CHILI YLM 66 (Sarada)	80-90	10-12	YLM-17 x PS-201, Uniform maturity of the plant population, erect, angular and straight stem with branching habit, plant height- 110-120 cm. Stem is angular and straight. Leaves are dark green, lower leaves are cordate and the upper leaves are lanceolate and linear. Leaves are alternatively arranged. Flower is solitary, tubular, corolla, white with pink wash. The capsules are single, bicarpelary, tetralocular, alternate, seeds are light brown colour, medium size, seed coat smooth 1000 seed weight-3.30 g, Oil content- 50.3 %

SALIENT FEATURES OF JUTE VARIETIES

Sl.No.	Variety	Duration (days)	Characters
1	CO 58	270-285	It can be sown even in mid-March due to presence of premature flowering resistance genes. Plant height 3.6m - 4.0 m, Completely green colour stem, petiole and leaf margin, Non-shattering pod, days to 50% flowering 110-115 days. Stem rot Tolerant, Root rot tolerant, Anthracnose tolerant, Yellow mite tolerant, Semilooper tolerant, stem weevil tolerant.
2	JBO 2003H	170-175	It can be sown even in mid-march, as it possesses pre-mature flowering resistance genes. Plant height : 3.4 M - 4.1 M; stem : cylindrical, green pigmentation with rudimentary auxillary bud, stem diameter: 1.4-2.4 Cm; leaf : colour: green, dorsal surface shining, leaf margin green, shape: largely ellipsoid with upper part lanceolate. Length : 16.2 Cm, breadth : 5.5 Cm, area : 58.81 Sq. Cm; leaf angle : 45.3 Degree; flower : petal: yellow; fruit : pods: green, cylindrical in shape, non-shattering; seed colour : steel gray, 1000-seed wt. 1.85 G. Adapted to rainfed situation, tolerant to stem rot, rust rot and anthracnose, moderately tolerant to white mite.
3	JRO 204 (SUREN) IDN/SU/053 X KEN/DS/060	270-280	Tall plant (400cm), green cylindrical stem, non-lodging, non-branching, green lanceolate leaf, non-shattering pod, non branching with rudimentary auxillary buds on leaf axil, yellow flower and steel grey seed, non-branching with rudimentary auxillary bud on leaf axil, resistant to pre-mature flowering - hence suitable for early sowing, leaf character :- colour : completely green; shape : lanceolate; length : 14.89 Cm; width : 5.78 Cm; area : 56.79 Sq. Cm; flower characters :- petal colour : yellow; days to flower : 180-190 days (normal sown); fruit : elongated, non-dehiscent; seed :- colour : steel grey; 1000 seed weight : 1.80 Gm, incidence of stem rot, root rot and anthracnose under field condition were very low.
4	JRO 524	180-200	Plant height 4.6-4.9m full green stem and foliage non-shattering pod dark green seed. Possesses quick retting and stripping properties making extraction quite easy. Free from premature flowering when sown in 3rd week of march. Petiole is longer than jro-7835 but lamina length and breadth are smaller than jro-7835.
5	JRO 878 (CHAITALI TOS- SA)	210-230	DAYS TO FLOWRING 185-210 DAYS. Very tall plant (400cm), non-shattering pods, red pigmentation on stem, petiole and denticular tip, suitable for high lands and areas with less rainfall.
6	JROG 1 (Rithika)	220-250	non-shattering pod with high resistance to abiotic stress
7	JRC 212 (SOBIJJ SONA)	170-180	Plant height 380-460 cm, stem and foliage completely green flower non-shattering. Seeds of chocolate colour, 1000 seed weight 3.043 Gm, days to flowering 140-150 days.
8	JRC 321 (SONALI)	150-160	Duration-, plant height 350-380 cm, stem and foliage cappy red upper surface of petiole red. Flower smaller than c.Ollitorius, days to 50% flowering 130-140 days, non-shattering ods with finest fibre qulity, suitable for late sowing.

9	JRC-532 (C-532)	100-110	Tall (3.5 M- 4.0m), cylindrical stem, non-lodging type, non-shattering pod flowering at 110 days-hence suitable for early harvest, stem : stem fully green, non-branching, basal diameter- 1.5 Cm. Colour : green, shape : lanceolate, length : 14.6 Cm, breadth : 6.4 Cm, area : 59.4 Sq.Cm, petal colour : yellow, days to flower : 110 days, fruit : globular, non dehiscent, presence of trace of red pigmentation.Seed- colour : chocolate brown, 1000 seed weight : 3.60 Gm, drought resistant at early stage of growth and can tolerate water logging at later stage of growth, tolerant to stem rot, root rot and anthracnose. Tolerant to semilooper, yellow mite and stem weevil.
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SALIENT FEATURES OF MESTA VARIETIES

Sl. No.	Variety	Duration (days)	Characters
1	AMV-7 (Janardhan)	130-135	roselle variety, suitable for mid-May to mid-June sowing, tolerant to moisture stress, resistant to major pests and diseases, Good fibre quality, higher fibre yield.
2	AMV-8 (AHS-216) (AR-121 X AMV-4)	140-150	roselle variety, tall growing, high fibrequality with comparable fineness (3.08g/tex), suitable for medium to light soils under rainfed agro-ecosystem of A.P. Odisha, Maharashtra, West Bengal and Bihar. Tolerant to sucking pests like aphids, white flies, leaf hoppers and mealy bugs and is moderately tolerant to foot and stem rot disease.
3	AMV-9 (ADITYA) (AR-121 X AMV-4)	140-150 for fiber, 180-190 for seed	roselle variety, suitable for medium to light soils under rainfed agro-ecosystem of A.P. Odisha, West Bengal, Bihar and North-Eastern States. Sowing time- Mid May to Mid-June. high fibre quality with comparable fineness (3.05g/tex),
4	AMV 10 (AHS-286) (R-118 X AMV-5)	140-150	roselle variety, tolerant to foot and stem rot disease, aphids, leaf hoppers and semi-loopers, lower incidence of white flies and mealy bug, strong fibre, tolerant to foot and stem rot diseases, high yielding.
5	JRM-5 (Shrestha)		kenaf variety, tolerant to jassids and spiral borer and good fibre quality and strength, suitable for mid-April to mid-May, better fibre quality.
6	JBM-81 (Shakti)		kenaf variety, resistant to foot and stem rot and tolerant to spiral borer, Mealy bug and good fibre quality and strength, suitable time of sowing mid April to mid May, pod slightly cylindrical and non-shattering; seed colour: black.
7	CRIJAF R 5 (Roselle Ratna)		Suitable for mid-April to mid-May sowing, resistant to foot and stem rot diseases and major pests (jassids, aphids, semi-looper and white flies), has a better fibre fineness (2.69 tex) and fibre tenacity (18.88 g/tex).

MORPHOLOGICAL CHARACTERS OF FINGER MILLET (RAGI)

Sl. No.	Variety	Sl.No.	Duration (days)	Avg. Yield (Q/ha)	Characters
1	KMR (301) Gowri (MR 1 x GE 1409)	1	120-125	50-55	Open ears with tip incurved fingers, Bold grains, Suitable for rabi season, , high grain weight, high yielding,
2	CFMV 1 (Indravathi)	2	105-115	35-40	It has 7-8 fingers with an ear length of 8-9 cm, purple pigmented at nodes and leaf sheath junctions, glumes are highly purple pigmented, resistant to finger blast, neck blast, foot rot and banded blight, non-lodging, fertilizer responsive, rich in ca, fe, zn
3	CFMV 4	3	110-115	38-40	Pure line selection from FMGP 101, resistant to leaf blast, moderately resistant to neck blast, brown spot, banded sheath blight, foot rot diseases, stem borer, ear head caterpillars, mylocerus weevil, grass hoppers, tolerant to lodging, sturdy culm with reddish brown semi-compact ear heads, synchronized maturity, amenable to mechanical harvest.
4	GPU 48 (RATNA)	4	100 - 105	28-30	GPU 26 x L 5, purple pigmentation on all parts of the plant, highly resistant to finger and neck blast, suitable for late kharif and summer.
5	ML 365	5	110 - 115	50-55	IE 1012 x Indaf 5, medium height, semi-compact ears with tip incurved fingers, resistant to neck blast and tolerant to drought, profuse tillering, high yielding
6	PPR-1012 (Tirumala) (AE-3077 x Ratnagiri)	6	115-120	30-35	Tolerant to all the three types of blast and drought diseases/abiotic stresses. Lengthy and broad fingers heads with tips incurved fingers with semi open ear leads. Purple pigmentation on leaf juncture, nodes and glumes. High fodder yielder. Good grain quality. Medium bold, copper brown colour with high calcium.
7	PPR-2350 (Padmavathi)	7	110-115	25-30	Suitable for late planting in costal A.P.
8	PPR-2700 (Vakula)	8	105-110	32-35	KM 55 x U 22/B, medium tall plant, purple pigmentation at nodes, light purple pigmentation at leaf sheath, Presence of clumpy ears,early flowering (70 days) large compact ear heads & ear heads appear dark purple at grain heardening stage. Suitable for Kharif rainfed situations in Southern zone of A.P. as it escapes from terminal drought situations. Suitable for all seasons under irrigated conditions, Semi-dwarf, resistant to lodging due to high culm strength. Resistant to leaf blast and tolerant to drought.
9	PR 10-45 (Gouthami)	9	115-120	31-33	GPU 28/GE 4931, moderately resistant to leaf blight and banded blight/leaf blast, neck blast. Tolerant to lodging, synchronized maturity, reddish brown semi compact ear heads with top curved fingers.
10	VL 352	10	95 - 100	33 - 35	VR 708 x VL 149, Erect plants, compact ears with tip incurved fingers, light copper coloured, bold grains, 1000 grain weight 3.25 - 3.4 g, Early duration, Moderately resistant to blast, All ragi growing areas of the country,
11	VL 376	11	103-109	29-31	GE 4172 x VL Ragi 149, Non pigmented node and semi-compact ear-heads with top incurved figures, Responsive to fertilizer and moderately resistant to blast.

12	VL 379	12	103-111	31-34	Resistant to neck and finger blast diseases, calcium content is 284.15 mg/100g, non-pigmented node, plant height of 91-101 cm, semi-compact ear heads with 7-8 incurved fingers of 7-10 cm in length, medium bold (2.35/1000 grains) light copper colour grains.
13	VR 762 (BHARATHI)	13	110-115	28-30	Pure line selection from VMEC 134, medium tall plants, incurved fingers, reddish brown coloured grains, longer internodal length, moderately resistant to blast, tolerant to ear caterpillars and aphids.
14	VR-847 (Sri Chaitanya)	14	110-115	26-28	GPU 26 x L 5, erect plants, medium tall, semi compact ears with tip incurved fingers, dark green vegetation, broad fingers, more no. of tillers, no pigmentation on nodes, tall plants, medium duration, flowering at 90 days, small size, semi compact ear heads, moderately resistant to blast, tolerant to caterpillars and aphids.
15	VR 929 (VEGAVATHI)	15	115-120	36 Q/ha of grain and 71 Q/ha of fodder,	GE 3076 x VR 854, erect growth habit with 97-107 cm height and a medium duration, that means it comes to flowering in 80-85 days. The plant is green all throughout nodes and leaf juncture without any anthocyanin pigmentation. Culm branching is absent and at the time of flowering, glumes are dark green in colour and as it matures the (6-7) fingers become incurved giving the ear head compact shape at dough stage. The fingers of the ear doesn't have any further branching and all the fingers except thumb finger are arranged in a single whorl. 3-5 productive tillers/plant, 7.5-8.2 cm ear length. At seed maturity, it can be clearly seen that grains are partially covered by the glumes. The shape of the grain is round with smooth seeds covered by glumes partially and grains are light brown in colour, high resistance towards banded blight, brown spot and cercospora leaf spot. Grains are rich in protein (9.8%) and zinc (33 mg/kg), Ca and dietary fibre, responsive to fertilizers, high-yielding variety, 1000 grain wt -2.40 g
16	VR-936 (Hima) (IE 2695 x PR 202)	16	110-120 (K) 105-110 (R)	28-30	100 - 115 cm medium tall plants, medium size ear heads with medium bold, dull white coloured grains, purple pigmentation on all parts of the plant. First white ragi culture developed in A.P. Suitable for both rainfed Kharif and rabi cultivation, suitable for late planting, responsive to N-fertilizers. Moderately resistant to blast, banded sheath blight and bacterial leaf blight, positive response to Nitrogenous fertilizers (90 kg/ha).
17	VR-988 (Suvanamukhi) (GE-3076 x VR-855)	17	105-110	32-35	Resistant to leaf blast, finger blast, neck blast and banded blight. Also resistant to defoliating insects viz., grass hoppers and ear head caterpillar.
18	VR 1099 (Gosthani)	18	110-115	35-38	GPU 28 X GE 4985, ear head is compact, grains are copper brown in colour, Resistant to lodging, long duration variety with culm strength and synchronous maturity. Resistant to Finger blast, Neck blast & banded blight. Suitable for intercropping in Redgram and Bhendi. Highly suitable for high altitude regions, grains rich in Fe, and Zn.

Korra Varieties and their characters

Sl. No.	Variety	Duration (days)	Avg. Yield (Q/ha)	Characters
1	AK 132 -1	82-85	18-20	variety from Pure line selection, Adaptive to AP, Drought Tolerance, Suitable For Rayalaseema
2	ARJUNA	(Early) 80 - 85	10-15	Pure line selection from Zada Korra of Sathenapalli, 110 - 115 cm tall plants, 3 - 4 compact and long panicles, yellow coloured, bold grains, suitable for Guntur, Prakasam and Kurnool districts of Andhra Pradesh.
3	CHITRA	80 - 85	12 - 15	Pure line selection from ISe 377, semi dwarf plants (85-90 cm), 2 - 3 productive tillers, long, compact, drooping and tapering panicles with blunted tip, short awns, tolerant to drought, non-lodging.
4	Sri Lakshmi	80-85	23-25	variety from Pure line selection, semi compact panicles having a tuft of pink hairs at the top, medium sized grains, purple pigmented panicles, resistant to downy mildew and rust, tolerant to moisture stress, adaptive to AP, High seed yield.
5	SiA 2593 (Krishnadevaraya)	85-90	20-22	Selection from SiA326 x SiA 242, adaptive to AP, High seed yield
6	SIA 3085	80-85	20-30	Pure line from SiA 2644, semi-compact, cylindrical shaped, purple pigmented panicles of 16 - 20 cm long , small to medium sized bristles, medium bold and yellow coloured grains, resistant to blast and downy mildew, adaptation to all foxtail millet growing areas of the country, resistant to blast and downey mildew, high yielding
7	SiA 3088 (Suryanandi)	70-75	20-25	Pure line from SiA 1244 , 120 - 130 cm tall plants, compact, cylindrical shaped panicles, sparse and green bristles, medium sized, golden yellow coloured grains, resistant to blast and downy mildew, tolerant to drought, adaptation to all foxtail millet growing areas of the country mainly under black, red and chalky soils, non-lodging, early duration, suitable for double cropping, high yielding.
8	SiA 326 (PRASAD/ NALLAMALA KORRA)	70 - 75	18 - 22	Pure line selection, medium tal with 110 - 120 cm height, thin stem, pigmentation absent on stem, panicle greenish yellow medium length, broad & compact panicle, 3 - 4 cylindrical panicles of 14 - 20 cm long, small to medium sized bristles, densely packed grains, slight yellow coloured, bold grains, absence/sparse bristles, clear lobes with greenish yellow medium length broad spindle shaped compact panicles, golden yellow colour seed, moderately resistant to downy mildew, tolerant to drought, suitable for all foxtail millet growing areas of the country, non-lodging, rich in protein (13.21 -13.30 %).

9	Sia 3156	85-90	20-25	Pure line from 2871, tall plant, purple pigmentation on stem, lengthy and large awned purple colour compact panicles with compact lobes having pigmented bristles, 3 - 4 productive panicles, Broad and light green coloured foliage, dull yellow colour seed, Tolerant to shootfly, Highly responsive to nitrogenous fertilizers, high yielding
10	Sia 3159	80-85	30-33	Srilakshmi x SiA 1378, rainfed- Kharif, Irrigated -Rabi & Summer, moderately resistant to leaf blast and downey mildew, tolerant to shoot fly, long panicle with medium bold lustrous grain, non lodging, suitable for mechanical harvest, grains have high protein (12.8g/100g grain).
11	Sia 3222 (Garuda)	60-62	15-20	SIA 3075 x SIA 326, dwarf plant, purple pigmentation present on stem, short awnless panicles with red colour pigmentation, attractive orange seed, mono culm, suitable for machine harvest, tolerant to blast & downey mildew.
12	Sia 3223 (Renadu)	85-90	27-32	Selection from GS 96 population, Tall plant, 1. Leaf width: Broad. 2. Basal plant pigmentation: Green. 3. Tillering nature: 3-4. 4. Plant height: Tall. 5. Senescence: Non senescence at maturity. compact panicles with compact lobes having dense bristles, creamy white colour seed, tolerant to blast, downey mildew, high grain & fodder yield.