

Details of nationally released **kharif sorghum hybrids**

S. No	Hybrid	Name under which tested in the project	Year of release	Notification No.	Centre which developed the hybrid	Pedigree of the hybrid	Pedigree of the parental lines of the hybrid	Grain Yield (q/ha)	Fodder yield (q/ha)	Maturity (Days)	Salient features	Area for which recommended
1	CSH 1	CK60A x IS84	1964	4045/24.09.1969 786 /2.2.76	NRCS	CK 60A x IS 84	CK 60A-Kafir (USA) IS84-SA7529-55-1-1-1-1 from Texas Durra Caudatum race (USA)	30	75	100	Pl.ht 150 cm, Dwarf, early thin stem, peduncle, long loose panicle, bold seed. Resistible to leaf spot diseases.	Maharashtra, Karnataka, MP Gujarat, UP, Rajasthan, Tamil Nadu
2	CSH 2	CK60A x IS 3691	1965	4045/24.09.1969	NRCS	CK 60A x IS 3691	CK 60A-Kafir (USA) IS 3691-Durra Caudatum (USA) DD x EHEG	30	72	115	Pl.ht 150 – 180 cm, purple pigmented stem thick and juicy stem, leaves dark green ,earhead short oval shaped and compact, glume blackish purple. Medium sized pearly white seed.	Maharashtra, Karnataka, MP Gujarat, UP, Rajasthan, Tamil Nadu
3	CSH 3	2219A x IS 3691	1970	566(E) 21.09.1974	NRCS	2219A x IS 3691	2219A-Selection from Kharif shallu IS 36914-Durra Caudatum (USA)	35	75	150	Pl.ht 150 – 170 cm, Earhead semi compact and spindle shaped, medium size glume and reddish to purple in colour. Medium sized pearly white seed. Tolarent to shoot fly and resistant to leaf spot diseases, downy mildew and sugary disease.	Maharashtra, Karnataka, MP Gujarat, UP, Rajasthan, Tamil Nadu
4	CSH 4	1036A x Swarna	1973	440(E) 21.08.1975	NRCS	1036A x Swarna	1036A=CK60B(kafir USA) x PJ&K(Kharif ParbhaniJowar) Swarna-Selection from IS 3924. IS 3924-Kafir durra (USA) SA 9804	35	80	115	Pl.ht 160 – 190 cm, purple pigmented stem thick and juicy stem, leaves dark green ,earhead elliptical and semi compact. Glumebkblackish purple. Medium sized pearly white seed. Tolarent to lodging.	Maharashtra, Karnataka, MP Gujarat, UP, Rajasthan, Tamil Nadu
5	CSH 5	2077Ax CS3541	1975	786/02.02.1976	NRCS	2077A x CS3541	2077A-IS2046x3677B 3677B not known IS2046 -Kafir (Senegal) SA8339 CS 3541-IS 3675xIS3541	38	93	110	Pl.ht 174 cm, Medium tall, thick juicy stem, medium bold seed, large long head, resistant to grain deterioration, and leaf spot diseases.	Maharashtra, Karnataka, MP Gujarat, UP, Rajasthan, Tamil Nadu

							IS 3675-Kafir durra(USA) Back 2931BKAFX8038B Yel. IS 3541-Zerazera (Ethiopia)-NYITHIN					
6	CSH 6	2219Ax IS 3541	1977	1004/ 23.03.1973	NRCS	2219A x CS354 1	2219A-Selection from Kharif shallu CS 3541-IS 3675xIS3541 IS 3675-Kafir durra(USA) Back 2931BKAFX8038B Yel. IS 3541-Zerazera (Ethiopia)-NYITHIN	33	81	98	Pl. ht. 161 cms. Early maturing, medium stem, medium bold and hard seed, panicle long, resistant to grain deterioration, tolerant to leaf spot diseases, emitable for drier areas.	Maharashtra, Karnataka, Andhra Pradesh, Gujarat, Rajasthan, Tamil Nadu
7	CSH 9	SPH 61	1983	19(E) 14.01.1982	NRCS	296A x CS354 1	296A-IS3922xKarad local. IS 3922-kafir durra -yell end.Karad local- kharif local from Maharashtra	40	98	108	Pl. ht. 182cms. Medium tall, thick juicy stem, vigorous growth, bold round seed, large semi-compact head, tolerant to grain molds& resistant to leaf diseases.	Maharashtra, A.P, M.P, Gujarat, Rajasthan, U.P.
8	CSH 10	SPH 196	1984	867(E) 26.11.1986	Dharwad	296A x SB 1085	296A-IS3922xKarad local. SB 1085- *	36	120	115	Pl. ht. 233cms. Tall, dual purpose, vigorous plant, bold seed, tolerant to grain molds and resistant to leaf diseases.	Maharashtra, Karnataka, AP, MP, Rajasthgan, UP
9	CSH 11	SPH 221	1986	867(E) 26.11.1986	ICRIS AT	296A x MR 750	296A-IS3922xKarad local. MR 750- *	41	91	110	Pl. ht. 194cms. Medium tall, loose and large panicle, small seed, thick stem, tolerant to grain deterioration and resistant to leaf spot diseases. Some lodging under severe drought.	Maharashtra, AP, MP, UP, Gujarat, Rajasthan, Tamil Nadu
10	CSH 13 K & R	SPH 504	1995	527(E)/ 16.08.1991 647(E)/ 09.09.1997	NRCS	296A x RS 29	296A-IS3922xKarad local. RS29-SC108 x SPV126 SC108(PurdueUniv.US A) SPV126-Tall mutant of CS3541	39	144	110	Pl. ht. 261cms. Tall, dual purpose, high fodder yield, panicle braod, semi loose, spindle shape, seed round medium bold, light creamy in colour and free threshing. Highly tolerant to grain	Maharashtra, AP, MP, UP, Gujarat, Rajasthan, Tamil Nadu, Karnataka
11	CSH 14	SPH 468	1992	386(E) 15.05.1990	Akola	AKMS 14A x	AKMS 14A-(MR760 x BT632)x AKMS 2B	38	88	105	Pl. ht. 181cms. Medium tall, early maturing, semi loose panicle, bold	Maharashtra, Karnataka,

						AKR 150	AKR 150=CS 3541x900 *				seed, tolerant to grain mold and leaf spot diseases, for low rainfall areas and inter & resistance cropping.	AP, UP, Rajasthan, Tamil Nadu
12	CSH 16	SPH 723	1997	647(E) 09.09.1997	NRCS	27AxC 43	27A-83B x 199B 83B-(CS3687xCS3922) 199B-(2219BxCS3922) CS3687-durra caudatum (USA) IS 3687--durra caudatum (USA) CS 3922-kafir durra - yell end. Karad local-kharif local from Maharashtra C43-CS3541xIS23549 CS3541-See S.No. 5 IS23549-Guinea-Caudatum (Ethiopia)	43	96	110	Pl. ht. 210cms. Medium tall, long loose panicle with open apex, medium bold seed, highly tolerant to grain mold and resistant to leaf diseases.	Maharashtra, Karnataka, AP, MP, UP, Gujarat, Rajasthan, Tamil Nadu
13	CSH 17	SPH 660	1999	425(E) 08.06.1999	NRCS	AKMS 14A x RS 673	AKMS 14A-See S.no. 11 * RS 673-SPV 544xK24-1 SPV 544=CS 3541xCO18 x CO27 x 1022 CS 3541-See S.no. 5 CO 18- CO27- 1022- K24-1=SG IRL-MR-1- Midge resistant dwarf variety, Georgia USA	41	104	103	Pl. ht. 205cms. Tall, early maturing, enclosed internodes, panicle semi loose, pearly white round seed, tolerant to shootfly and stem borer.	Karnataka, Gujarat, MP, Tamil Nadu
14	CSH 18	SPH 960	1999	1050(E) 26.10.1999	Indore	IM 9A x Indore 12	IMS9A x INdore 12 IMS9A-2077Ax(MA9Bx Vidisha 60-1)11-4-2-5-5A 2077A-See S.no. 5 Vidisha 60-Sel. from a local (kharif) Indore 12- (SSV53 x	46	131	115	Pl. ht. 212cms. Tall, madrib dull green, thick and juicy stem, purple at base, pearly white medium bold seed, medium maturity, resistant grainmold.	Maharashtra, Karnataka, AP, MP, UP, Gujarat, Rajasthan, Tamil Nadu

							SPV475)-7-1-1-1* SPV475- (IS12622x555)x(IS 3621x2219B)xE35-1 IS12622-durra bicolor (Ethiopia). SA2300 IS 3612- caudatum(Nigeria) BA 45FARIA BOMKUM 2219-See S.no. 3 E35-1-Ethiopian early line					
15	CSH 21	SPH 1342	2005	1177 (E) 25.08.2005	Mahen dra	MLSA 848 X MLR 34	----	43	110	195	Pl. ht. 195cms. Dull green midrib, semi compact spindle shape panicle, medium round cream colour seed.For the Zones – I & II ; Maharashtra, Karnataka, AP, MP, Gujarat, Rajasthan, UP (*Developed by Mahendra Seeds, Jalna)	For the Zones – I & II Maharashtra, Karnataka, Andhra Pradesh, Madhya Pradesh, Gujarat, Rajasthan, Uttar Pradesh
16	CSH 23	SPH 1290	2005	1566(E) 05.11.2005	NRCS	MS 7A x RS 627	MS 7A- Selection from AKMS 14A RS 627- RS 71 x M 35- 1	41	87	105	Pl. ht. 178cms. Tall (180cm), dull green midrib, medium bold, white seed. Early maturity (103 days) avoid terminal drought.	For Zones – I & II Maharashtra, Karnataka, Andhra Pradesh, Madhya Pradesh, Gujarat, Rajasthan, Uttar Pradesh
17	CSH 25	SPH 1567 (Parbh aniSainat	2008	1108(E) 08.05.2008	Parbh ani& DSR	PMS 28 A x C 43		43	127	115	Pl. ht. 205cms. Tan, tall, white midrib, semi-compact ear- head, pearly white seed, medium almond shape, tolerant to grain-mold and shoot fly.	Kharif hybrid- Rainfed kharif sorghum

		h)										areas under normal time of sowing especially for Maharashtra and Karnataka and central zone II areas.
18	CSH 26	SPH 1629	2011	SO 312 (E) 01.02.2013	Dev Gen Seeds and Crops Tech. Pvt. Ltd, Secunderabad	MLSA 848 X R 400	--	43	142	109	Kharif Hybrid, 205 cm ht, White midrib colour, semi erect leaves, semi compact panicle, Tolerant to Charcoal rot, Ergot, Rust, shoot fly, aphids and stem borer.	Maharashtra, Karnataka, MP, South Gujarat, and north AP & TN
19	CSH 27	SPH 1644	2011	SO 312 (E) 01.02.2013	DSR	279 A X CB 11	Single cross hybrid between Female: 279 A (IC No. 591743)- 422B x IS 30469; and Male: CB 11 (IC No. 591745)- SPV 1023 x C 43	39	136	104	Kharif Hybrid, 205 cm ht, Tan plant color with cylindrical semi compact panicle and white bold elliptical seed. Medium maturity group. Tolerant to grain mould disease under natural conditions	Rajasthan, North Gujarat, UP, AP and Tamil Nadu
20	CSH 28	SPH 1647	2012	312 (E) 01.02.2013	Nuzvedu seeds	NS 516AX NS444 R	--	47	152	111	Kharif Hybrid, 203 cms, medium tall, Medium Maturity, Long bold panicle, bold grains, tolerant to shoot fly and grain mold. High grain and fodder yield, high response to nitrogen fertilizer.	Maharashtra, Karnataka, MP, South Gujarat, and north AP (Zone II)
21	CSH 29	SPH 1648	2012	-	Mahodaya Seeds	501A & 606R	Developed through segregating material received from ICRISAT 501 A & B : One parent is 296 B. and other from own inbred line. 606 R	49	152	111	Kharif Hybrid, 220 Cm tall, White midrib colour, semi erect leaves, semi compact panicle, lustrous grain, Medium maturity, Resistant to foliar diseases, moderately resistant to grain mold.	Maharashtra, Karnataka, MP, South Gujarat, and north AP (Zone II)

							:derivative parents from ICRISAT & Own					
22	CSH 30	SPH 1655	2012	SO 952(E) 10.04.2013	DSR	415 A X AKMS 14B	Single cross hybrid between Female: 415 A (IC No. 594158)- AKMS 14B x IS 25017 (AKMS 14B= Female parent of CSH 14; IS 25017= Grain mold resistant genetic stock); and Male: CB 33 (IC No. 594160)- GMRP 13 x CSV 15 (GMRP 13= Grain mould tolerant line from Parbhani; CSV 15= SPV 475xSPV462;SPV 475= (IS12622x555) x (IS3612xE35-1-52) 12622; 555=IS3687 x Aispuri; SPV462= (IS 2947x SPV232) x1022 IS2947; SPV232= 148 x 512; 148=IS3687 x Aispuri IS1151)	43	140	103	Tan, 216 cm tall, plant color with symmetric semi compact panicle and white bold elliptical seed. Resistant to lodging. Non-shattering.	Maharashtra, Karnataka, MP, South Gujarat, North AP under rainfed Kharif cultivation
23	CSH 32	SPH 1674	2013	SO 952(E) 10.04.2013	Dev Gen seeds	MLA 55 & R 421	--	50	142	107	Kharif hybrid, 221 cm tall, White midrib colour, semi erect leaves, semi compact panicle, Tolerant to Charcoal rot, Ergot, Rust, shoot fly, aphids and stem borer. Non-lodging, &non-shattering, highly responsive for Deep soils.	Maharashtra , Karnataka, MP, South Gujarat, and north AP
24	CSH33 (NSH 55)	SPH 1703	2014	1228 (E) 07.05.2015	Nuzive edu seeds	NS 509A X NB 235 R	NS 509A: 296A X NS 509 B NB 235 R: NSGP 112 X NSGP 52	45	118	96-100	Kharif hybrid, 185 cm, early maturity, well exerted compact panicle, medium bold grain, Non-lodging, &non shattering tolerant to major pests and diseases.	Rajasthan, UP, North Gujarat, South Andhra Pradesh & TN
25	CSH34	SPH 1702	2014	112 (E) 12.01.2016	Hitech seeds	HTJP0 01 A X	Parents are originated from ICRISAT	45	129	113	Kharif hybrid, 210 cm tall, medium maturity, earhead - semi compact,,	Maharashtra , Karnataka,

						HTJP0 02 R	&received under HPRC.				awn less, long bulging panicle, boarder in upper part to symmetrical in shape, white medium length stigma, creamy white medium bold grain, resistant to downy mildew, under natural conditions escapes grainmold due to little bit more maturity duration.	MP, AP, Chattisgarh Gujarat, and Rajasthan
26	CSH 35	SPH 1705	2015	Notification awaited	Akola	AKMs 30 A X AKR 504	AKMS 30 A: [(2077 B X B 573190X296 B] sel 10-1 AKR 504 ⊗AKR 426- 2XAKR 436)2-3	41	126	109	Kharif hybrid, 215 cm tall, medium maturity, earhead - semi compact, oblong with tapering apex; internodes covered by leaf sheath, dull green mid rib, non lodging non shattering, moderately tolerant to major pests and diseases.	Maharashtra , Karnataka, MP, South Gujarat, and Telangana