

8. Sorghum Nucleus, Breeder Seed Production & DUS

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Breeder seed production of sorghum during Kharif 2007-08

During Kharif 2007, there was surplus production of breeder seed of allocated lines and varieties of sorghum at four AICSIP centers viz., Akola, Indore, Mauranipur and Udaipur Kharif 2007 (Tables 1&2). **The breeder seed production details at MAU Parbhani were not reported.**

Table 1. Centre-wise breeder seed production (quintals) of sorghum during Kharif 2007 (Kharif Centers)

S. No.	Name of the Producing Centre/State	Name of the variety / parental line	DAC Indent	Actual allocation as per BSP – I target	Actual Production	Production surplus (+) Deficit (-) over BSP/I targets
1	Dr.PDKV, Akola	AKMS 14A	1.44	1.50	2.05	0.55 (+)
		14B	0.68	1.00	4.37	3.37 (+)
		AKR 150	1.40	1.25	2.90	1.65 (+)
		R 354	0.04	0.10	2.30	2.20 (+)
2	MAU, Parbhani	PVK 400	1.10	2.00	--	2.00 (-)
3	JNKVV, Indore	IMS 9A	0.08	0.15	2.00	1.85 (+)
		9B	0.05	0.10	2.00	1.90 (+)
		Indore 12	0.06	0.10	1.00	0.90 (+)
		JJ 938	0.30	1.00	7.00	6.00 (+)
		JJ 1041	2.20	3.00	10.00	7.00 (+)
4	CRF, Mauranipur	CSV 13	1.40	1.50	5.00	3.50 (+)
		CSV 15	2.23	2.00	3.38	1.38 (+)
		Bundele	0.60	1.00	3.50	2.50 (+)
5	MPUA&T, Udaipur	AKMS 14A	1.44	0.50	1.90	1.40 (+)
		14B	0.68	0.25	1.45	1.20 (+)
		CSV 15	2.33	2.00	2.50	0.50 (+)
		SU 556 (SPV 1430)	0.71	1.00	1.25	0.25 (+)
6	Parbhani	NOT reported in spite of repeated reminders				
	Total		12.29	18.45	52.6	34.15(+)

Table 2. Variety-wise breeder seed production (quintals) of sorghum during Kharif 2007 (Kharif Centers)

<i>Sl. No.</i>	<i>Hybrids/Varieties</i>	<i>Year of Release & Notification</i>	<i>Actual allocation as per BSP-I target</i>	<i>Actual production</i>	<i>Production surplus (+) Deficit (-) over BSP-I targets</i>
(A)	Hybrids				
I	CSH 14	S.O.814(E) - 4.11.1992			
1	AKMS 14 A		2.00	3.95	1.95 (+)
2	AKMS 14 B		1.25	5.82	4.57 (+)
3	AKR 150		1.25	2.90	1.65 (+)
II	CSH 18	S.O.1050(E) - 26.10.1999			
4	IMS 9A		0.15	2.00	1.85 (+)
5	IMS 9B		0.10	2.00	1.90 (+)
6	Indore 12		0.10	1.00	0.90 (+)
III	CSH 19R	S.O.821(E) - 13.9.2000			
7	R354		0.10	2.30	2.20 (+)
IV	SPH 387	S.O. 937(E) - 04.9.2002			
8	SU 556		1.00	1.25	0.25 (+)
(B)	Varieties				
9	CSV 13	S.O.471(E) - 5.5.1988	1.50	5.00	3.50 (+)
10	CSV 15	S.O.349(E) - 2.5.1996	4.00	5.88	1.88 (+)
11	PVK 400	S.O.615(E) - 17.8.1993	2.00	NOT received from PARBHANI in spite of repeated reminders	2.00 (-)
12	JJ 938	S.O.1(E) - 1.1.1996	1.00	7.00	6.00 (+)
13	JJ 1041	S.O.425(E) - 8.6.1999	3.00	10.00	7.00 (+)
14	Bundele	S.O.1566 (E) - 5.11.2005	1.00	3.50	2.50 (+)
		Total	18.45	52.6	34.15 (+)

Nucleus seed production of sorghum during Kharif 2007

During Kharif 2007, five centres viz., Akola, Indore, Mauranipur, Udaipur and Pantnagar produced the nucleus seed of all the allocated parental lines / varieties (Table 3). However, the centre-wise status indicated that there were shortfalls (small quantities ranging 1-5 kg) of some lines at Akola, Indore and Mauranipur centres. The nucleus seed production details at MAU, Parbhani were not reported.

Table 3. Centre-wise nucleus seed production (kg) of sorghum during Kharif 2007

S. No.	Centre	Parental line / variety	Allocation	Production	Production surplus (+) Deficit (-) over allocation
1.	PDKV, Akola	AKMS 14A	25	26	1 (+)
2.		14B	15	15	0
3.		AKR 150	15	12	3 (-)
4.		AKR 73	10	7	3 (-)
5.		R 354	10	10	0
6.		AK 70A	10	12	2 (+)
7.		AK 70B	5	5	0
8.		296A	10	8	2 (-)
9.		296B	5	6	1 (+)
10.		CS 3541	10	8	2 (-)
11.	MAU, Parbhani	PVK 400	5	--	5 (f)
12.		2077A	10	--	10 (f)
13.	<i>NOT reported in spite of repeated reminders</i>	2077B	5	--	5 (f)
14.		2219A	15	--	15 (f)
15.		2219B	10	--	10 (f)
16.		CSV 18 (SPV 1595)	5	--	5 (f)
17.	JNKVV, Indore	IMS 9A	5	3	2 (-)
18.		9B	5	3	2 (-)
19.		Indore 12	5	5	0
20.	CRF, Mauranipur	CSV 13	10	5	5 (-)
21.		CSV 15	10	5	5 (-)
22.		Bundele	5	8	3 (+)
23.	MAUA&T, Udaipur	AKMS 14A	10	8	2 (-)
24.		14B	5	5	0
25.		AKR 150	5	5	0
26.		CSV 10	5	5	0
27.		CSV 15	10	10	0
28.		CSV 17	10	10	0
29.		SU 556 (SPV 1430)	5	5	0
30.	GBPUA&T, Pantnagar	2219A	10	10	0
31.		2219B	5	15	10 (+)
32.		UPMC 503	5	20	15 (+)

-- Not reported. (Parbhani)

Centre-wise allocation for Nucleus Seed Production (kg) - 2008-09

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<i>S.no.</i>	<i>Centre</i>	<i>Parental line / variety</i>	<i>2008-09 tentative allocation(kg)</i>
1.	MPKV, Rahuri	RSV 9R/SPV 504 /Swathi	10
2.		Selection 3	5
3.		CSV 216R/Phule Yashoda	10
4.		CSV 19SS (RSSV 9)	15
5.		SSV 84	15
6.		RSSGV 3	10
7.	PDKV, Akola	AKMS 14A	25
8.		14B	15
9.		AKR 150	15
10.		AKR 73	10
11.		R 354	10
12.		AK 70A	10
13.		AK 70B	5
14.		296A	10
15.		296B	5
16.		CS 3541	10
17.	MAU, Parbhani	PVK 400	5
18.		2077A	10
19.		2077B	5
20.		2219A	15
21.		2219B	10
22.		CSV 18 (SPV 1595)	5
23.	JNKVV, Indore	IMS 9A	5
24.		9B	5
25.	CRF, Mauranipur	Indore 12	5
26.		CSV 13	10
27.		CSV 15	10
28.		Bundele	5
29.	MAUA&T, Udaipur	AKMS 14A	10
30.		14B	5
31.		AKR 150	5
32.		CSV 10	5
33.		CSV 15	10
34.		CSV 17	10
35.		SU 556 (SPV 1430)	5
36.	GBPUA&T, Pantnagar	2219A	10
37.		2219B	5
38.		UPMC 503	5
39.	NRCS, Hyderabad	2077A	10
40.		2077B	5
41.		2219A	10
42.		2219B	5
43.		CS 3541	5
44.		296A	10
45.		296B	5
46.		RS 29	5
47.		27A	20
48.		27B	15
49.		C 43	15
50.		RS 673	5
51.		CSV 14R	5
52.		CSV 15	15
53.		SPV 1616	10
54.		ICSA 38	25
55.		ICSB 38	15
56.		SSV 84	15
57.		MS 7A	10
58.		7B	5
59.	RS 627	10	
60.	ANGRAU, Hyderabad	SPV 462	10
61.	ICRISAT, Patancheru	MR 750	3
62.		ICSV 745	3
63.		CSV 13	6
64.	RARS, Bijapur	M 35-1	30
65.	CRS, Solapur	104A	5
66.		104B	5
67.		RS 585	5
68.	UAS, Dharwad	M 148-138	5
69.		AKMS 14A	10
70.		14B	5
71.		AKR 150	5

Allocation of sorghum breeder seed production for 2008-09 as per DAC Indent (q)
(F.No.4-12/2007-seed Dt.4.4. 2007) – Draft

No	Hybrids	Parental line/Variety	DAC Indent (q)	BSP Allocation (q)	1	2	3	4	5	6	7	8	9	10	11
					<i>Rabi</i>	<i>Rabi</i>	<i>Rabi</i>	<i>Rabi</i>	<i>Rabi</i>	<i>Rabi</i>	<i>Kharif</i>	<i>Kharif</i>	<i>Kharif</i>	<i>Kharif</i>	<i>Kharif</i>
					NRCS	ANGRAU	Bijapur	Solapur	Dharwad	Rahuri	Akola	Parbhani	Indore	Mauranipur	Udaipur
1.	CSH 9	296A	1.53	4.00	1.00		1.00			1.00	1.00				
2.		296B	0.94	2.00	0.50		0.50			0.50	0.50				
3.		CS 3541	0.86	1.00	1.00										
4.	CSH 14	14A	1.44	3.50		1.00			0.50		1.50				0.50
5.		14B	0.68	2.00		0.50			0.25		1.00				0.25
6.		AKR150	1.40	2.00		0.50			0.25		1.25				
7.	CSH 15R	104A	0.11	0.25			0.25								
8.		104B	0.09	0.15			0.15								
9.		RS 585	0.03	0.15			0.15								
10.	CSH 16	27A	0.64	1.00	1.00										
11.		27B	0.34	0.50	0.50										
12.		C 43	0.45	0.50	0.50										
13.	CSH 17	RS 673	0.24	0.25	0.25										
14.	CSH 18	9A	0.08	0.15								0.15			
15.		9B	0.05	0.10								0.10			
16.		I- 12	0.06	0.10								0.10			
17.	CSH 19R	R 354	0.03	0.10							0.10				
18.	CSH 22 SS	ICSA 38	0.23	*	*										
19.		ICSB 38	0.12	*	*										
20.	CSH 23	MS 7A	0.23	25	25										
21.		MS 7B	0.12	15	15										
		VARIETIES													
22.		M 35-1	2.55	7.00			7.00								
23.		CSV 13	1.40	1.50										1.50	
24.		CSV 15	2.23	4.00										2.00	2.00
25.		csv 216R	0.73	1.00						1.00					
26.		SPV 462	0.50	1.00		1.00									
27.		PVK 400	1.10	2.00								2.00			
28.		JJ 938	0.30	1.00									1.00		
29.		JJ 1041	2.20	3.00									3.00		
30.		SPV 1430	0.71	1.00											1.00
31.		Bundele	0.60	1.00										1.00	
		TOTAL	21.99	40.65	5.15	3.00	8.50	0.55	1.00	2.50	5.35	2.00	4.35	4.50	3.75

Sorghum DUS characterization

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DUS characterization: Grain sorghum

Data for 2 years (2006-07 & 2007-08) as per new guidelines are available at NRCS for both kharif and Rabi, while at Rahuri data for only one year for kharif, 2007 and two years data for rabi (2006-07 & 2007-08) for set of genotypes are available.

Kharif 2007:

1. **NRCS, Hyderabad:** During Kharif 2007, the field experiment was raised at NRCS on 20th June 2007 with 84 Kharif entries (extant / notified varieties, hybrids & parental lines including forage) of sorghum. Seven Kharif entries (SSV 74, GJ 36, HC 260, HC 308, GFS 4, GFS 5 and HJ 513) were rejected due to the non-uniformity in character expression with in the population at different stages of crop. The observations were recorded with 77 Kharif entries for 33 characteristics (DUS test guidelines published by PPV&FRA) and were grouped under different states of characteristics. The characterization of 77 Kharif entries and the interpretations were done on the basis of grouping under different states of 33 characteristics. The trait wise interpretations for 21 qualitative characteristics and 12 quantitative characteristics were done.
2. **MPKV, Rahuri:** During Kharif 2007, the DUS experiment was raised with 84 Kharif entries (extant / notified varieties, hybrids & parental lines including forage) of sorghum. The observations were recorded for 33 traits (DUS test guidelines published by PPV&FRA).

Rabi 2007-08

1. **NRCS, Hyderabad:** The DUS characterization trial with 25 Rabi entries (Sorghum releases) were sown at NRCS during 1 week of November 2007. The observations are being recorded for 33 characteristics (DUS test guidelines published by PPV&FRA).
2. **MPKV Rahuri:** During Rabi 2007-08, the DUS experiment was raised with 25 Kharif entries during last week of October 2007. The observations are being recorded for the second year for 33 characteristics (DUS test guidelines published by PPV&FRA). The team comprised of Drs. N Kannababu, M Elangovan and G Shyam Prasad from NRCS, and Prof. PD Khade, Dr. VR Shelar and Mr. RS Shaik from Rahuri visited on 14 February 2008 for monitoring the DUS characterization of 25 Rabi entries.

DUS characterization: Forage sorghum

Data for only one year (kharif, 2007) is available at both locations.

3. **GBPUA&T, Pantnagar:** During Kharif 2007, a set of 14 forage sorghum varieties were characterized for 33 traits (DUS test guidelines published by PPV&FRA). The monitoring team comprised of Drs. N Kannababu, VA Tonapi & PK Shrotria visited the DUS characterization plot at GBPUA&T, Pantnagar on 6 September 2007.
4. **CCSHAU, Hisar:** During Kharif 2007, a set of 15 forage sorghum varieties were characterized for 33 traits (DUS test guidelines published by PPV&FRA). The monitoring team comprised of Drs. N Kannababu, VA Tonapi from NRCS, Hyderabad, and Drs. SS Verma, DP Deswal, RPS Kharb & RK Kashyap from CCS HAU, Hisar visited the DUS characterization plot at CCS HAU, Hisar on 4 September 2007.