

Central Research Institute for Dryland Agriculture

Hyderabad

Status of monsoon and contingency plans for deficit/excess areas of the country

During the last four days monsoon, was active with heavy rains occurring in Orissa, Jharkhand, Bihar, East Uttar Pradesh, Chattisgarh and Madhya Pradesh. There is a steady improvement in the rainfall situation in Madhya Maharashtra easing the drought situation on standing crops. All regions of Karnataka are also receiving scattered and isolated rainfall which is providing lifesaving moisture for the standing crops. Uttarkhand and Jammu & Kashmir have also received good rains in the last 24 hrs.

However, the entire North-West comprising of Gujarat, Rajasthan, Haryana and Punjab continued to remain under prolonged drought affecting the standing crops and delaying the planting in the uncovered area. Considering the above situation, the following contingency plan is suggested for different deficit regions.

Karnataka

From 1st June to 6th August 2012, state as a whole received 334 mm rainfall against the normal of 522 mm with a deficit of -35.7%. North Karnataka has received better rainfall while most districts in South are under prolonged drought. Gadag, Dharwad, Bellary and Koppal are the worst affected districts in the north and central part. More than 60% of the area has been covered in this zone.

- In all the areas/districts where adequate rains have been received, bajra, maize and sunflower may be sown at wide spacing (120-135 cm) after seed hardening (soaking in calcium chloride solution before sowing).
- Horse gram, moth bean, cowpea and vegetable crops like onion, cucumber and ridge gourd can also be sown in traditional areas.
- In view of insufficient moisture in the soil, only 50% of the recommended chemical fertilizers are to be applied at the time of sowing.

South interior Karnataka has received less rainfall and several districts are under prolonged dry spell. The worst affected are: Hassan, Tumkur, Chamrajnagar, Haveri and Belgaum etc.

- In this region, only 9.40 lakh ha of area was sown against the normal sown area of 14.24 lakh ha.

- During August, short duration finger millet varieties (Indaf-5, Indaf-9 and GPU-28) may be sown as soon as rainfall revives.
- Fodder maize (Deccan 103) and sunflower (Morden, BSH-1) are recommended in all the traditional groundnut growing areas.
- In tank fed areas, aerobic rice cultivars (MAS-946-1, Rasi and KRH-2) may be sown whenever the tanks are completely full and medium duration red gram varieties (BRG-1, BRG-2) can be cultivated for vegetable purpose, if adequate rainfall is received.

Maharashtra

The drought condition in Maharashtra has considerably eased during the last four days particularly in Madhya Maharashtra. However, Marathwada region is now experiencing dry spell but the standing crops are in good condition due to better soil depth in the region. The crop condition in Vidarbha is excellent.

Vidarbha

- In areas not sown so far, sole crops like pearl millet (PKV Raj, Shradha, Saburi), sesame (AKT-64), castor (AKC-1, GCH-4, 5, 6 and DCH-117) and pigeonpea (AKT-8811, Vipula, PKV Tara and BSMR-736) can be till 15th August.
- The intercropping of pearl millet + pigeonpea (2:1 or 4:2) can be taken up till 15th August.
- In standing crops undertake intercultural / weeding and top dressing of N fertilizer, wherever necessary.

Madhya Maharashtra

- In medium deep to deep black soils of Solapur region, sowing of sole crops like sunflower (Bhanu, Phule, Raviraj), castor, horsegram, pearl millet (shradha, Saburi, Shanti) can be sown if immediate rains of sufficient quantity are received.
- In this region, if less than 45 days old seedling of pigeonpea are available, farmers are advised to transplant pigeonpea as a sole crop or as intercrop with sunflower + pigeonpea (2:1) or mixed crop of castor + ridge gourd. Farmers are further advised to sow giant bajra or sorghum (Phule ruchira, Phule amrutha) as fodder crops.
- In shallow black / red soils of Sangli region pearl millet (Shanti, Shradha, Saburi) and in deep black soils either sole crop of sunflower (Bhanu, SS-56) or sunflower + pigeonpea (Vipula or BDN-708) in 2:1 ratio are suggested.
- In Kolhapur region of Madhya Maharashtra, in medium deep black soils sowing of fodder maize (African tall, Panchganga, Gangasafed-2, Vijay, Local) are recommend for sowing.

Marathwada

- In standing crops interculture, weeding and hoeing operations are to be taken up to conserve moisture. Top dressing is recommended only where there is a sufficient moisture.
- In the unsown areas of the region, sowing of sole crops like pigeonpea, hybrid bajra, sunflower, castor and sesame and intercrops viz., castor + pigeonpea, castor + coriander etc., can be taken up once the rainfall revives.

Rajasthan

The state as a whole received about 51% deficit rainfall till date. The western Rajasthan and eastern Rajasthan received deficit rainfall of -69% and -42%, respectively till date. Last week few parts of eastern Rajasthan received moderate to heavy rainfall while southeastern and western parts of Rajasthan experienced dry weather.

- In the areas with light or inadequate rainfall, hoeing and weeding operations and using weeds as mulch should be done to conserve soil moisture.
- If the maize crop is of around 20-25 days old, ridging in crop is recommended.
- In standing maize and sorghum crops experiencing inadequate soil moisture due to long dry spells in south Rajasthan spray of 1000 ppm thiourea or 5% kaolin to maize and sorghum crops is suggested.
- In western and eastern parts of Rajasthan, farmers are advised to sow short duration varieties of bajra (HHB-67), moth (RMO-40, RMO-225) and fodder crop (bajra) if rainfall occurs up to 15th August.

Gujarat

The state as a whole is under severe drought condition and only 62% of the area was sown. In North Gujarat, Patan and Kutch districts are the worst affected. In this region, the normal crops of pearl millet and pulses can not be sown now and only castor is recommended. In Saurashtra and Kutch, immediate weeding and interculture operations are recommended in standing crops to save moisture. Mulching with available biomass can save the standing cotton crop. Need based live saving irrigation where possible. In Saurashtra region, sowing of groundnut and pearl millet may be avoided. Instead greengram (GM-4, K-851), sesame (Purva-1, GT-3 and GT-4), castor (GAUCH-1, GCH-4 and GCH-7) and fodder sorghum (GFS-4, S-1049 and Gundari) may be taken up 15th August.

Haryana

In Haryana, scanty rainfall conditions (-73%) are still prevailing.

- In the standing cotton crop, farmers are advised to do intercultural operations, furrow irrigation followed by straw mulching for conserving soil moisture.
- After the receipt of sufficient rain, short duration varieties of bajra (HHB-67, HHB-216 and 226) and moong bean (Satya, Asha and Muskan) may be sown up to the end of first week of August.

- Short duration Basmati rice may be directly seed with 10-15% higher seed rate after seed soaking.

Punjab

In Punjab rainfall during the season so far is deficit by 66%. In the last two days isolated rainfall has occurred in some parts of Punjab.

- Under rainfed conditions, sowing of fodder, pearl millet varieties (PHBF-1, PCB-164 and FBC-16) can be taken up to August end.
- Under irrigated conditions, maize variety J-1006 can be sown up to middle of September.
- To save irrigation water in standing rice and basmati rice crops, irrigation can be advised two days after complete evaporation of ponded water.

Kerala

For the first time in many years, Kerala has experienced extreme deficit rainfall for June and July with the cumulative deficit reaching -40% by the end of July. Most of the rice fields are under stress as the southern districts are experiencing more deficit. Pepper and cardamum crops are likely to be affected due to prevailing drought. Moisture conservation practices like basin mulching may be adopted to minimize the loss. The hydro power generation is highly affected in Kerala putting the irrigated area under risk and potential negative impact on *rabi* crops.

Other States

The rainfall situation in other states is comparatively normal. However, some districts recorded deficit rainfall and for those districts contingency plans are made available in the websites of the Ministry of Agriculture (www.agricoop.nic.in), ICAR (www.icar.org.in) and CRIDA (www.crida.in). The respective KVKs also may be contacted for needful advice. For general farm operations to be taken up during this period, the regular agro-advisories issued by all the Agricultural Universities in their websites and other channels may be followed.

Availability of quality seeds

The availability of quality seed of different varieties recommended for contingency planning is provided below:

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S. No.	Crop	Centre	Variety	NS	BS	FS	CS	TL
KARNATAKA	RICE	ARS, Sirguppa	BPT-5204			9030		
		ARS, Dhadesgur	BPT-5204			5000		
		UAS, Raichur	GGV-05-01					900
		UAS, Dharwad	Intan			4600	2500	
			Abhilash				79600	
			Jaya				1600	
		UAS, Bangalore	KRH-2				57078	
			BR-2655				59550	22675
			IR-30864				100500	3050
			Thanu				19600	10750
			Jaya				52625	2000
			Thunga				200	
			KCP-1					6400
			JGL-1798					13500
			MTU 1010					3000
			MTU 1001					2500
			Jyothi				67500	2500
			IET-7191					1730
			Intan					1475
			KHP-5					1375
			KHP-9					2325
			Sharavathi					1025
	Bajra	UAS, Raichur	ICTP-82063		700			
		UAS, Dharwad	ICTP-8203			1800		850
	Greengram	UAS, Raichur	BGS-09		350			
		ARS, Bidar	BGS-9					7000
		UAS, Dharwad	China Mung					2500
	Blackgram	UAS, Raichur	DU-01		410			39000
		UAS, Dharwad	TAU-1				1200	1100
	Sorghum	UAS, Raichur	M35-1		500	2560	5850	
		ARS, Hagari	M35-1			5200		
		UAS, Raichur	M35-1					
	Pigeonpea	UAS, Raichur	TS3R				700	
		ARS, Gulbarga	TS3R					48600
		ARS, B-Gudi	TS3R					26350
		UAS, Dharwad	ICP-8863			1400		
			BSMR				1700	
		UAS, Bangalore	BRG-1				1800	
		UAS, Bangalore	BRG-2				60	
	Groundnut	UAS, Raichur	TMV-2					7800

		UAS, Dharwad	TMV-2				80250 0	
		ARS, Kawadimatti	TMV-2					8600
		UAS, Dharwad	GPBD-4		34000	5000 0	4800	
			JL-24		12000	1150 0		
			TMV-2		15500 0			
			TAG-24		1200			
	Maize	UAS, Dharwad	Arjun				20500	
			SA Tall				1900	1090 0
		UAS, Bangalore	SA Tall					5000
	Little Millet	UAS, Dharwad	JK-8				300	300
		UAS, Dharwad	CO(SA)-4					2200
		UAS, Dharwad	Sukshema					1300
	Finger Millet	UAS, Dharwad	GPU-28					4100
	Foxtail mill	UAS, Dharwad	PS-4				200	1400
	Ragi	UAS, Bangalore	MR-2				190	
			MR-6				25	
			GPU-48					25
			Indaf-7					260
	Field Bean	UAS, Bangalore	HA-4					30
	Sunflower	UAS, Bangalore	KBSH-41				62	
		UAS, Bangalore	KBSH-42				110	
		UAS, Bangalore	KBSH-44				340	
		UAS, Bangalore	KBSH-53				25128	
	French Bean	UAS, Bangalore	A.Komal				1028	528
ORISSA	RICE	CRRRI	CR Borodhan-2		50			
			Sahabhagidhan		270			
			CR Dhan – 10		60			
			CR Dhan – 601		60			
			Naveen		210			700
			Khitish		660			
			Ratna		270			
			CR Dhan – 500		120			
			Satabdi		210			400
			IR – 36		480			
			IR – 50		420			
			IR – 20		240			
			Savitri		390			
			Swarna <i>Sub-1</i>		150			
			Pooja		180			
			Tapaswini		60			

			Luna Suvarna		60		80
			Luna Sampad		90		
			Moti		180		
			Anjali				150
			Annada				150
			Sahabhagi				100
GUJARAT	RICE	Anand Ag Un.	GR-7				40
			GR-12				350
			Gurjari				750
			GAR-13				060
			IR-28				250
			Dandi				150
		KVK, Kheda	GAR-1				300
	Maize	Anand Ag Un.	GW-1				2500
			GM-3				400
	Sorghum(F)	Anand Ag Un.	S-1049				2300
			C-10-2				2120
	Mungbean	Anand Ag Un	Meha				3900
		Junagarh Ag Un	GM-4				140
		KVK Vadodara	Meha				750
		KVK, NAU	Meha				550
	Green gram (Moong)	Navsari Ag. Un. Navsari	CO-4			360	
			Meha			13700	
			GBM-1			250	
		Navsari Ag. Un. Navsari	Gm-4			500	
			CO-4			400	
		KVK, SDAU	GM-4				150
		DST, SDAU, Saedarkrushinagar	GM4		3640		
	Blackgram	Junagarh Ag Un	Gu-1			100	4248
		Navsari Ag. Un. Navsari	Gu-1			100	
		DST, SDAU, Saedarkrushinagar	Gu 1		670		
	Cowpea	Anand Ag Un	Pusa Falguni				100
	Chickpea	KVK, NAU	GG-2				780
	Pigeonpea	Anand Ag Un	BDN-2				600
		Junagarh Ag Un	BDN-2				94
			GT-101				948
	Arhar (Tur)	Navsari Ag. Un. Navsari	GT-102			70	
	Castor	Anand Ag Un	GCH-7				1205
		Junagarh Ag Un	GCH-7				918

		MPUA&T, Chittorgarh	KU-96-3					1100
			PU-31					170
		MPUA&T, Jhalawar	KU-96-3					100
		MPUA&T, Rajsamand	PU-31					500
		KVK, Banasthali, Tonk	PU-40					600
			RBU-38					600
			IPU 94-1					340
	Til(Sesame)	ARS, Jalore	RT-46		756			
		ARS, Sumerpur	RT-127		70			
		ARS, Mandore	RT-46		150			80
		ARS, Mandore	RT-127		50			300
		ARS, Jalore	RT-346					1315
		ARS, Jalore	RT-127					953
		KVK, CAZRI Pali-Marwar	RT 346					250
	Gaur	MAF, Rojari	RGC-1002		400			
		MAF, Rojari	RGC-1003		1000			
		MAF, Rojari	RGC-936		700			
		ARS, Bikaner	RGC-936		330			600
		ARS, Bikaner	RGC-1003		280			
	Cowpea	ARSS, Tabiji	RCV-7		75			
		KVK, Tabiji Farm, Ajmer						200
		KVK, Banasthali, Tonk	RC-101					160
	Groundnut	ARS, Bikaner	HNG-10		8000			
	Mothbean	ARS, Bikaner	RMO-40		300			
	Castor	ARSS, Sumerpur	RHC-1					1100
	Dhaicha	MPUA&T, Chittorgarh	Local					300
BIHAR	Maize	RMR&SPC, DMR, Begusari	HKI-193-1		7500			
			HKI-163		2000			
			BML-6		2000			
			BML-7		1000			
		Rajendra Ag Uv	Saktiman					1600
			Laxmi			2000		
			Deoki					350
	Paddy	Rajendra Ag Uv	Rajendra Sweta			1200 0		
			R. Bhagwati		60	2000 0		
			Prabhat		150	7500		
			MTU 1010			1500		
			R.Suwashini			1500		
			R. Kasturi			1500		

			CSR 36		200	8000		
		BAU, Sabour, Bhagalpur	Rajendra Bhagavati			1395 0		
			Rajendra Mahsuri			3750		
			MTU 1001		480	4200		
			Rajendra Kasturi			30		
			Usar Dhan		240			
			Rajendra Suwasini		210			
	Arhar	Rajendra Ag Uv	Malavia 13		1000	80		
			Bahar		240	1000		
			Pusa-9		400	1500		
			NDA1		360	1165		
JHARKHAND	Paddy	KVK Lohardaga	Lalat			4700		
		KVK Bokaro	Lalat			2550		
		KVK Bokaro	Abhishek			1200		
		KVK Giridih	Lalat			2820		
			MTU7029*			300		
		KVK Pakur	MTU7029*			1300 0		
		Gauria Karma Farm, Hazaribagh	Lalat			1920 0		
			IR64			2400		
			Abhishek			1980		
		RAC Farm, Kanke, Ranchi	MTU7029*			400		
		ZRS Chianki	Sahbhagi			1000 0		
			Navin				8000	
	Maize	Gauria Karma Farm, Hazaribagh	HQPM-1			600		
ANDHRA PRADESH	Rice	DRR, Hyd	Jaya		2500			
			Dhanarasi		1000			
			Mahsuri		700			
			Sampada					1800
			Akshaydhan					2000
			Krishna Hamsa					1800
			DRR Dhan 38					900
			Jarava					1000
			Varadhan					500
	Sorghum (Grain)	DSR, Hyd	SPV 462 (PSV1)					2000
	Sorghum (Forage)		CSH 20 MF					400

			CSV 21 F					350
	Sweet Sorghum/ Forage		CSV24SS					800
			CSH 22 SS					150
UTTRANCHAL	Groundnut	VPKAS, Almora	VLGN1					150
	Finger Millet	VPKAS, Almora	VL Mandua 324		5			
			VL Mandua 149					15
MANIPUR	Rice	CAU, Imphal	CAU-R 1					4000
HARYANA	Mungbean	CCSHAU, Hisar	Satya	120	22		370	
			Basanti	80			1800	
			MH 421	180				
			MH 125			3100		
			MH 318			120		
			Pusa 9531		1000			
	Rice	IARI, RS, Karnal	Pusa Basmati 1		16300			
		IARI, RS, Karnal	Improved Pusa Basmati 1		3500			
		IARI, RS, Karnal	Pusa Sugandh 3		3000			
		IARI, RS, Karnal	Pusa Sugandh 5		900			
	Pigeonpea	CCSHAU, Hisar	Paras	15				
			Manak	15				
	Clusterbean (Guar)	CCSHAU, Hisar	HG 2-20		66			
			HG 563			280	50	95
	Urdbean	CCSHAU, Hisar	UH-1	80				
	Pearl millet	CCSHAU, Hisar	HHB-223					219
	Sorghum	CCSHAU, Hisar	HJ-513		35			
CHATTISGARH	Paddy	IGKV, Raipur	Danteshwari		360			
			IR 36		1560			
			Karma mahsuri		120			
			MTU 1010			450		
			Chandrasahini			30		
			BPT 5204				390	
			Jaldubi		500	500		
	Finger millet		GPU 28			2880		
	Pigeon pea		Rajeev lochan				80	
			Asha			250		
Delhi (NBPGR)	Moong		Pusa Vishal					100
TAMIL NADU	Paddy	TNAU,	ADT 37		1265	1344		

		Coimbatore				0		
			ADT 39		10710	1445 0		2772
			ADT 43		8979	1904 1		626
			ADT (R) 45		3745	1481 0		230
			ADT 45			2700		
			CO 43		1747	5610		
			ADT (R)47		1482			
			TNAU CMS 2A		199			
			CB 87 R		326			
			Bhavani		200			1280
			CO (R) 48		500			
			CO (R) 49		1300			2500
			CO (R) 50		1200	1470		1200
			ADT 38		1000			
			ADT 36		1500			800
			ADT 42		900			
			ADT 44		250			
			ADT (R) 46		1000			6000
			ADT (R) 48		350			
			TKM 9		1000			
			ADT 36		800	1350		800
			IR 36		200			
			I.W.Ponni			1769 0		
			CR 1009			1900 0		2500 0
			ASD 16			1748 0		1801 9
			ASD 18					2420
			NLR 34449			4194		
			ADT (R) 49					1050 0
	Sorghum		CO 27					1000
			K 8		52			
			CO (S) 28		17			
	Finger Millet (Ragi)		CO 13		61			
			CO (Rg) 14		116			
	Greengram		CO (GG) 912		230			
	Cowpea		CO 6		350			
	Groundnut		VRI 2		420			
	Sesame		TMV (Gn) 13		300			
			VRI (Sv) 1		94			
			VRI (Sv) 2		132			
			TMV 3		30			

	Sunflower		SVPR 1		88		
			Morden		150		
	Castor		TMV 5		64		
			TMV 6		52		
			TOTAL				
UTTAR PRADESH	Pigeonpea	IIPR, Kanpur	Long duration		6400		
		IIPR, Kanpur	Narendra Arhar 1		5500		
		IIPR, Kanpur	Bahar		2600		
	Mungbean	IIPR, Kanpur	Meha		600		
		CSAUA&T, Kanpur	PDM-139				440
	Sorghum	CSAUA&T, Kanpur	CSV-13				294
			CSV-15				305
			Bundela				668
	Forage Sorghum	IGFRI, Jhansi	MP Chari		300		
	Forage	IGFRI, Jhansi	Subrabool		1000		
		IGFRI, Jhansi	Dinanath Grass		2000		
	Rice	GBPUAT, Pantnagar	Pant Dhan-12				1500
			Pant Dhan-11				1000
			Pant Dhan-18				2200
		NDUAT, Faizabad	Swarna Sub-1				2500 0
			Vardan				1500 0
			Sambhi Mansuri				1600
		CSAUA&T, Kanpur	NDR 359				2519 0
			NDR-97				2809 5
			Pant-12				30
			Sambha Mansoori				1193
			Pusa Basmati-1				5928
			Improved Basmati				480
			Sugandha-6				357
			Sarju-52				3660
	Maize	CSAUA&T, Kanpur	Gaurav				100
			Kanchan				100
	Blackgram	CSAUA&T, Kanpur	Pant U-35				500
			Shekhar-2				45
			Azad-2				38

			Azad-3				108
	Sesame	CSAUA&T, Kanpur	Shekhar				45
			T-78				3
UTTARAKHAN D	Greengram	GBPUAT, Pantnagar	Pant Moong- 5				500
			Pant Moong- 2				600
			Pant Moong- 4				400
			Pant Moong- 6				100
	Rice		Pant Dhan 12				1500
			Pant Dhan 11				1000
			Pant Dhan 18				2200
			Govind				1500
	Blackgram		Pant U-35				500
	Maize		Gaurav				100
			Kanchan				100
	Fodder		Pant Chari 5				50
			Pant Chari 6				20
ASOM	Rice	AAU, Jorhat	Jyomoti		0	1400	
		AAU, Jorhat	Swarnav		0	4320	
		AAU, Jorhat	Dinanath		0	2800	
	Toria	AAU, Jorhat	TS-38		1420	5601	
		AAU, Jorhat	TS-36		380	9971	
		AAU, Jorhat	TS-46		0	65	
		AAU, Jorhat	M-27		220	1040	
		AAU, Jorhat	TS-67		0	150	
	Jute	AAU, Jorhat	Tarun		10	635	
		AAU, Jorhat	JRC 212		0	60	
	Greengram	AAU, Jorhat	Pratap		5480	203	
	Blackgram	AAU, Jorhat	T9		0	514	
		AAU, Jorhat	PU 31		0	797	
		AAU, Jorhat	KU 301		70	909	
		AAU, Jorhat	USJD 113		65	181	
	Sesame	AAU, Jorhat	ST 1683		0	1384	
	Planting Material	IGFRI, Jhansi	NXB Hybrid		3 Lakh		
		IGFRI, Jhansi	Guinea grass		10 Lakh		
		IGFRI, Jhansi	Other grass		5 Lakh		