

State: RAJASTHAN

Agriculture Contingency Plan: District NAGAUR

1.0 District Agriculture Profile				
1.1	Agro-Climatic/Ecological Zone			
	Agro Ecological Sub Region (ICAR)	Western Plain, Kachchh And Part Of Kathiawar (2.3)		
	Agro-Climatic Region (Planning Commission)	Western Dry Region (XIV)		
	Agro climatic zone (NARP)*	Transitional plain of inland drainage (RJ-3)		
	List all the districts falling under the NARP zone	Sikar, Jhunjhunu, Nagaur and parts of Churu.		
	Geographic coordinates of district	Latitude	Longitude	Altitude
		27° 00' N	73° 40' E	302 m
	Name and address of the concerned ZRS/ZARS/RARS/RRS/RRTTS	Agriculture Research Station, Fatehpur-shekhawati, Distt.:Sikar (Raj.) 332301 Agriculture Research sub Station , Nagaur		
	Mention the KVK located in the district	Krishi Vigyan Kendra (Nagaur)		
1.2	Rainfall	Average(mm)	Normal onset	Normal cessation
	SW monsoon (June-sep.)	346.8	Last week of June	Last week of September
	NE monsoon (oct.-dec.)	-	-	-
	Winter (Jan-March)	-		
	Summer (Apr-may)	-		
	Annual	346.8		

1.3	Land use Pattern of the distt.	Geographical area	Forest area	Land under non agriculture Use	Parmanent Past.	Cultivable wasteland	Land under misc.tree crops &groves	Barren&uncultivable land	Current fallows	Other fallow
	Area(Lakh ha)	1764	18.2	86.8	72.6	14.5	-	58.5	165	93.9

1.4	Major soils	Area (000 ha)	Percent(%) of total
	Clay soils	22.8	1.9
	Clay loam soils	134.4	11.2
	Sandy loam soils	472.3	13.5
	Sandy soils	565.7	47.3
1.5	Agriculture land use	Area(000 ha)	Cropping intensity %
	Net sown area	1232.8	115.2
	Area sown more than once	188.5	
	Gross cropped area	1421.4	
1.6	Irrigation	Area(000 ha)	Percent (%)
	Net irrigated area	275.0	19.3
	Gross irrigated area	362.6	25.4
	Rainfed area	1232.8	86.7
	Sources of irrigation	Number	Area(000 ha) % area

	Canals	-	-	-
	Tanks	-	-	-
	Open wells & Bore well	38950	232	100
	Lift irrigation	-	-	-
	Other sources	-	-	-
	Total	-	232	100
	Pump sets	32363	-	-
	Micro irrigation	-	-	-
	Groundwater availability and use	No. of blocks	% area	Quality of water
	Over exploited	-	-	-
	Critical	-	-	-
	Semi-critical	-	-	-
	Safe	-	-	-
	Wastewater availability and use	-	-	-

- Over-exploited: groundwater utilization>100%; critical: 90-100%; Semi-critical: 70-90%; safe:<70%

1.7 Area under major field crops & horticulture etc.

S.No	Field crops	Total area(000ha)	Irrigated	Rainfed
	Bajra	439	150	289
	Mothbean	207	-	207

	Moong	206	-	206
	Clusterbean	159	-	159
	Mustard	127	127	-
	Wheat	72	72	-
	Gram	21	21	-
	Barley	12	12	-
	Methi	12	12	-
	Horticulture crops-Fruits			
	Aonla		-	
	Ber		-	
	Mango		-	
	Horticulture crops-Vegetables			
	Cabbage		-	
	Cauliflower		-	
	Bringal		-	
	Tomato		-	
	Chillies		0.7	
	Onion		0.6	
	Cumin		3.6	
	Medicinal & Aromatic crops			

	Ishabgol	15.6
	Rose	-
	Genda	-
	Plantation crops	-
	Mehandi	-
	Castor	-
	Fodder crops	-
	Sorghum fodder	5.6
	Bajra	-
	Lucerne	0.2
	Total fodder crop area	5.8
1.8	Livestock	Number (000)
	Cattle	363
	Buffaloes total	420
	Goat	1083
	Sheep	747
	Others (camel, pig, Yak etc.)	32
	Commercial dairy farms	220 (No.)
1.9	Poultry	
	Commercial (Number of birds)	37097

	Backyard	-							
1.10	Inland fisheries	Area(ha)			Yield(t/ha)			Produc.(tones)	
	Brackish water	-			-			-	
	Fresh water	-			-			-	
1.11	Production & Productivity of major crops	Kharif		Rabi		Summer		Total	
		Production (000 t)	Productivity (Kg/ha)	Production (000 t)	Productivity (Kg/ha)	Production (000 t)	Productivity (Kg/ha)	Production (000 t)	Productivity (Kg/ha)
	Pearl millet	219	498	-	-	-	-	219	498
	Clusterbean	46	292	-	-	-	-	46	292
	Cowpea	-	-	-	-	-	-	-	-
	Mungbean	67	325	-	-	-	-	67	325
	Mothbean	36	173	-	-	-	-	36	173
	Wheat	-	-	169.3	2352	-	-	169.3	2352
	Barley	-	-	27.6	2299	-	-	27.6	2299
	Mustard	-	-	163.4	1287	-	-	163.4	1287
	Gram	-	-	30.7	1464	-	-	30.7	1464
	Methi	-	-	9.8	818	-	-	9.8	818
Major horticulture crops									
	Onion	-	-	5.8	9602	-	-	5.8	9602
	Cumin	-	-	16.5	375	-	-	16.5	375

	Isabgol	-	-	9.8	628	-	-	9.8	628
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1.12	Sowing window for 5 major crops	Pearl millet	Clusterbean	Cowpea	Mungbean	Mothbean
	Kharif-Rainfed	Ist weak June to Ist week July	Last weak June to Last week July	Ist week July to 3rd week July	Ist week July to 3rd week July	I week July to Ist week August
	Kharif-Irrigated	2 nd June to Ist week July	Ist week of July-2nd week July	-	-	-
	Crop	Wheat	Barley	Mustard	Gram	Fenugreek
	Rabi-Irrigated	2 nd week to 4 th week Nov	1 st week to 2nd week Nov.	2 nd week to 4 th week Oct.	2 nd week to 4 th week Oct.	1 st week to 2nd week Nov.

1.13	What is the major contingency the district is Prone to? (tick Yes/No)	Regular	Occasional	None
	Drought	√	Aug. √	-
	Flood	-	-	-
	Cyclone	-	-	-
	Hail storm	-	-	-
	Heat wave	√	(Sept. & March) √	-
	Cold wave	√	(Jan- & Feb.) √	-
	Frost	√	(Jan- & Feb.) √	-
	Sea water inundation	-	-	-

	Pests and diseases	Jassid & Whitefly,Pod borer	Aug.,Feb.,March ✓	-
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1.14	Include Digital Maps of the District for	Location map of district with in state as Annexure 1	Enclosed: Yes
		Mean annual rainfall as Annexure 2	Enclosed: Yes
		Soil map as Annexure 3	Enclosed : Yes

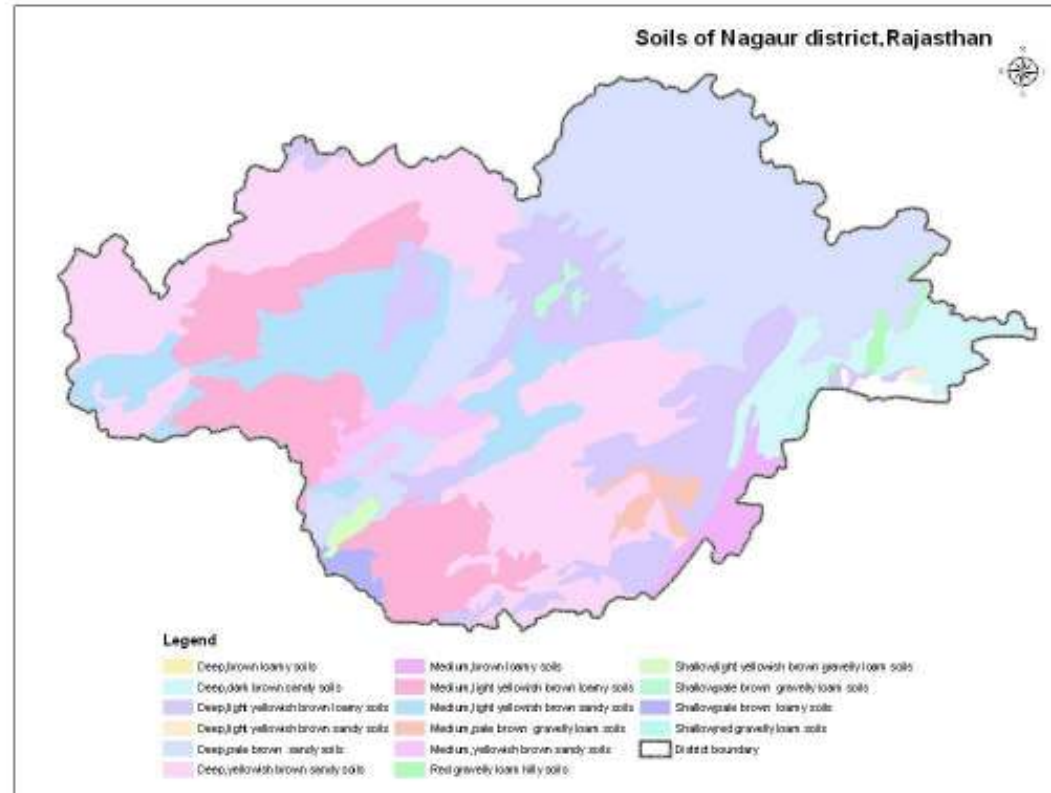
Annexure 1: Location map of Nagaur



Mean annual rainfall as annexure-II
District-Nagaur

Year	Rainfall (mm)
1994	379.7
1995	505.1
1996	765.3
1997	603.9
1998	404.8
1999	243.1
2000	300.3
2001	363.4
2002	144.2
2003	469.1
2004	295.1
2005	387.5
2006	267.0
2007	319.3
2008	464.9

Annexure 3: soil map



2.0 Strategies of weather related contingencies

2.1 Drought

2.1.1-Rainfed Situation

Condition	Suggested Contingency measures				
Early season drought delayed onset	Major farming situation	Crop /cropping system	Change in crop/cropping system	Agronomic measures	Remarks on implementation
Delayed by 2 week (2 nd wk July)	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	Prefer Varieties-HHB-67,RHB-121,RHB-30	1.Seed treatment with thiourea @1000ppm 2.Basal dose of RDF 3. Wider row spacing(60 cm.) and making ridge and furrow after 30 DAS. 4.Soil/Straw mulch after 15 -20 DAS 5. Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	Prefer varieties RGC-936,RGC-1003,RGC-1017	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3. Weed free field.	-do-
		Cowpea	Prefer varieties RC-101,RC-19	1.Basal dose of RDF 2. Weed free field and dust mulching.	-do-
		Greengram	Prefer varieties RMG-62,RMG-268	-do-	-do-
		Mothbean	Prefer varieties RMO-40, RMO-435	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3. Weed free field and dust mulching.	-do-
	Rainfed Deep yellowish brown sandy soil (medium rain fall area)	Pearl millet	Prefer varieties -HHB-67,RHB-121,RHB-30	1.Seed treatment with thiourea @1000ppm 2.Basal dose of RDF 3. Wider row spacing(60 cm.) and	Seed source 1.NSSC 2.RSSC 3.NSP

	(25.20 %)			making ridge and furrow after 30 DAS. 4.Soil/Straw mulch after 15 -20 DAS 5. Weed free field.		
		Clusterbean	Prefer varieties RGC-936,RGC-1003,RGC-1017	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field.	-do-	
		Cowpea	Prefer varieties RC-101,RC-19	1.Basal dose of RDF 2.Weed free field and dust mulching.	-do-	
		Greengram	Prefer varieties RMG-62,RMG-268	-do-	-do-	
		Mothbean	Prefer varieties RMO-40,RMO-435	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field and dust mulching.	-do-	
		Rainfed Deep pale brown sandy soil (high rain fall area) (22.14 %)	Pearl millet	Prefer Varieties-HHB-67,RHB-121,RHB-30	1.Seed treatment with thiourea @1000ppm 2.Basal dose of RDF 3.Wider row spacing(60 cm.) and making ridge and furrow after 30 DAS. 4.Soil/Straw mulch after 15 -20 DAS 5.Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP
			Clusterbean	Prefer Varieties-RGC-936,RGC-1003,RGC-1017	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field.	-do-
			Cowpea	Prefer Varieties-RC-101,RC-19	1.Basal dose of RDF 2.Weed free field and dust mulching.	-do-
			Greengram	Prefer Varieties-RMG-62,RMG-268	-do-	-do-
			Mothbean	Prefer Varieties-RMO-40,RMO-435	1.Seed treatment with thiourea @500ppm	-do-

				2.Basal dose of RDF 3.Weed free field and dust mulching.	
	4. Rainfed Others soil (24.84 %)	Pearl millet	Prefer varieties -HHB-67,RHB-121,RHB-30	1.Seed treatment with thiourea @1000ppm 2.Basal dose of RDF 3.Wider row spacing(60 cm.) and making ridge and furrow after 30 DAS. 4.Soil/Straw mulch after 15 -20 DAS 5. Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	Prefer Varieties-RGC-936,RGC-1003,RGC-1017	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3. Weed free field.	-do-
		Cowpea	Prefer Varieties-RC-101,RC-19	1.Basal dose of RDF 2. Weed free field and dust mulching.	-do-
		Greengram	Prefer Varieties-RMG-62,RMG-268	-do-	-do-
		Mothbean	Prefer Varieties-RMO-40,RMO-435	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field and dust mulching.	-do-

Condition	Suggested Contingency measures				
Early season drought delayed onset	Major farming situation	Crop /cropping system	Change in crop/cropping system	Agronomic measures	Remarks on implementation
Delayed by 4 week (4 th wk July)	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	Varieties-HHB-67,HHB-60 or Replace with clusterbean variety RGC-936	1.Seed treatment with thiourea @1000ppm in pearl millet and @ 500ppm in moth and clusterbean 2.Basal dose of RDF including FYM	Seed source 1.NSSC 2.RSSC 3.NSP

			or Cowpea variety RC-101 or Mothbean Variety RMO-40,RMO-435	3.Soil/Straw mulch after 15 -20 DAS 4.Weed free field.	
		Clusterbean	Prefer Varieties-RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3. Weed free field.	-do-
		Cowpea	Prefer Varieties-RC-101	1.Basal dose of RDF 2. Weed free field and dust mulching.	-do-
		Greengram	Prefer Varieties-RMG-62, RMG-268	-do-	-do-
		Mothbean	Prefer Varieties-RMO-40, RMO-435	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3. Weed free field and dust mulching.	-do-
	Rainfed Deep yellowish brown sandy soil (medium rain fall area) (25.20 %)	Pearl millet	Varieties-HHB-67,HHB-60 or Replace with clusterbean variety RGC-936 or Cowpea variety RC-101 or Mothbean Variety RMO-40,RMO-435	1.Seed treatment with thiourea @1000ppm in pearlmillet and @500ppm in moth and clusterbean 2.Basal dose of RDF including FYM 3.Soil/Straw mulch after 15 -20 DAS 4. Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	Prefer varieties RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field.	-do-
		Cowpea	Prefer varieties RC-101	1.Basal dose of RDF 2.Weed free field and dust mulching.	-do-

		Greengram	Prefer varieties RMG-62, RMG-268	-do-	-do-
		Mothbean	Prefer varieties RMO-40, RMO-435,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field and dust mulching.	-do-
	Rainfed Deep pale brown sandy soil (high rain fall area) (22.14 %)	Pearl millet	Varieties-HHB-67,HHB-60 or Replace with clusterbean variety RGC-936 or Cowpea variety RC-101 or Mothbean Variety RMO-40,RMo-435	1.Seed treatment with thiourea @1000ppm in pearlmillet and @500ppm in moth and clusterbean 2.Basal dose of RDF including FYM 3.Soil/Straw mulch after 15 -20 DAS 4.Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	Prefer varieties RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field.	-do-
		Cowpea	Prefer varieties RC-101	1.Basal dose of RDF 2.Weed free field and dust mulching.	-do-
		Greengram	Prefer varieties RMG-62, RMG-268	-do-	-do-
		Mothbean	Prefer varieties RMO-40, RMO-435,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field and dust mulching.	-do-
		Rainfed Others soil (24.84 %)	Pearl millet	Varieties-HHB-67,HHB-60 or Replace with clusterbean variety RGC-936 or Cowpea variety RC-101 or Mothbean Variety RMO-	1.Seed treatment with thiourea @1000ppm in pearlmillet and @500ppm in moth and clusterbean 2.Basal dose of RDF including FYM 3.Soil/Straw mulch after 15 -20 DAS 4.Weed free field.

		40,RMO-435			
		Clusterbean	Prefer varieties RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field.	-do-
		Cowpea	Prefer varieties RC-101	1.Basal dose of RDF 2. Weed free field and dust mulching.	-do-
		Moong	Prefer varieties RMG-62, RMG-268	-do-	-do-
		Mothbean	Prefer varieties RMO-40, RMO-435,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field and dust mulching.	-do-

Condition	Suggested Contingency measures				
Early season drought delayed onset	Major farming situation	Crop /cropping system	Change in crop/cropping system	Agronomic measures	Remarks on implementation
Delayed by 6 week (2 nd wk August)	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	Replace with clusterbean variety RGC-936 or Mothbean Variety RMO-40, RMO-435 or Green fodder pearl millet(Raj-171) and cowpea(RCp-27) mixed cropping	1.Seed treatment with thiourea @ 500ppm in moth and clusterbean 2.Basal dose of RDF including FYM 3.Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field dust mulching	-do-
		Cowpea	Replace with clusterbean (Variety RGC-936) or mothbean(RMO-40,RMO-435)	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	Prefer varieties RMO-	-do-	-do-

			40,RMO-435		
Rainfed Deep yellowish brown sandy soil (medium rain fall area) (25.20 %)	Pearl millet	Replace with clusterbean variety RGC-936 or Mothbean Variety RMO- 40,RMo-435 or Green fodder pearlmillet(Raj-171) and cowpea(RCp-27) mixed cropping	1.Seed treatment with thiourea @ 500ppm in moth and clusterbean 2.Basal dose of RDF including FYM 3.Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP	
	Clusterbean	RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field dust mulching	-do-	
	Cowpea	Replace with clusterbean (Variety RGC-936) or mothbean(RMO-40,RMO- 435)	-do-	-do-	
	Greengram	-do-	-do-	-do-	
	Mothbean	Prefer varieties RMO- 40,RMO-435	-do-	-do-	
Rainfed Deep pale brown sandy soil (high rain fall area) (22.14 %)	Pearl millet	Replace with clusterbean variety RGC-936 or Mothbean Variety RMO- 40,RMO-435 or Green fodder pearlmillet(Raj-171) and cowpea(RCp-27) mixed cropping	1.Seed treatment with thiourea @ 500ppm in moth and clusterbean 2.Basal dose of RDF including FYM 3.Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP	
	Clusterbean	RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field dust mulching	-do-	
	Cowpea	Replace with clusterbean (Variety RGC-936) or mothbean(RMO-40,RMO- 435)	-do-	-do-	
	Greengram	-do-	-do-	-do-	
	Mothbean	RMO-40,RMO-435	-do-	-do-	
Rainfed Others soil	Pearl millet	Replace with clusterbean variety RGC-936 or	1.Seed treatment with thiourea @ 500ppm in moth and clusterbean	Seed source 1.NSSC	

	(24.84 %)		Mothbean Variety RMO-40,RMo-435 or Green fodder pearl millet(Raj-171) and cowpea(RCp-27) mixed cropping	2.Basal dose of RDF including FYM 3. Weed free field.	2.RSSC 3.NSP
		Clusterbean	Prefer varieties RGC-936,	1.Seed treatment with thiourea @500ppm 2.Basal dose of RDF 3.Weed free field dust mulching	-do-
		Cowpea	Replace with clusterbean (Variety RGC-936) or mothbean(RMO-40,RMO-435)	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	Prefer varieties RMO-40,RMO-435	-do-	-do-

Condition	Suggested Contingency measures				
	Major farming situation	Crop /cropping system	Change in crop/cropping system	Agronomic measures	Remarks on implementation
Early season drought delayed onset Delayed by 8 week (4th wk August)	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	Replace with Mothbean Variety RMO-40 or conserve moisture for Rabi crop	1.Seed treatment with thiourea @ 500ppm in moth bean 2.Basal dose of RDF 3.Weed free field.	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	Rainfed Deep yellowish brown sandy soil (medium rain fall area) (25.20 %)	Pearl millet	-do-	-do-	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-

	Rainfed Deep pale brown sandy soil (high rain fall area) (22.14 %)	Pearl millet	Replace with Mothbean Variety RMO-40 or conserve moisture for Rabi crop	-do-	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	Rainfed Others soil (24.84 %)	Pearl millet	Replace with Mothbean Variety RMO-40 or conserve moisture for Rabi crop	-do-	Seed source 1.NSSC 2.RSSC 3.NSP
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	Mothbean Variety RMO-40 or conserve moisture for Rabi crop	-do-	-do-

Condition	Suggested Contingency measures				
	Major farming situation	Crop /cropping system	Crop management	Soil nutrient and moisture conservation measures	Remarks on implementation
Early season drought (Normal onset)					
Normal onset followed by 15-20 days dry spell after sowing leading to poor germination/crop stand etc.	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	Resowing or Gap filling	1.Dust or straw mulching 2.No need to apply basal dose	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA
		Clusterbean	Resowing	No need to apply basal dose in resowing if already applied	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	Rainfed Deep yellowish brown sandy soil (medium	Pearl millet	Resowing or Gap filling	1.Dust or straw mulching 2.No need to apply basal dose	Seed source 1.NSSC 2.RSSC

	rain fall area) (25.20 %)				3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	Rainfed Deep pale brown sandy soil (high rain fall area) (22.14 %)	Pearl millet	Resowing or Gap filling	1.Dust or straw mulching 2.No need to apply basal dose	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	Rainfed Others soil (24.84 %)	Pearl millet	Resowing or Gap filling	1.Dust or straw mulching 2.No need to apply basal dose	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	Resowing	No need to apply basal dose in resowing if already applied	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-

Condition	Suggested Contingency measures				
	Major farming situation	Crop /cropping system	Crop management	Soil nutrient and moisture conservation measures	Remarks on implementation
Mid season drought (Long dry spell, Consecutive two weeks rainless(>2.5mm period))					

At vegetative stage	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	1.Weed free 2. Life saving irrigation if available 3.Remove alternate row 4.Ridge and furrow making 5.Spray of thiourea @ 0.1%	1.Hoeing and weeding	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA
		Clusterbean	1.Weed free 2. Life saving irrigation if available 3.Spray of thiourea @ 0.05%	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	Hoeing and weeding	-do-
		Mothbean	Weed free	-do-	-do-
	Rainfed Deep yellowish brown sandy soil (medium rain fall area) (25.20 %)	Pearl millet	1.Weed free 2. Life saving irrigation if available 3.Remove alternate row 4.Ridge and furrow making 5.Spray of thiourea @ 0.1%	-do-	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA
		Clusterbean	1.Weed free 2. Life saving irrigation if available 3.Spray of thiourea @ 0.05%	-do-	-do-
		Cowpea	1.Weed free 2. Life saving irrigation if available	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	Weed free	-do-	-do-
	Rainfed Deep pale brown sandy soil (high rain fall area) (22.14 %)	Pearl millet	1.Weed free 2. Life saving irrigation if available 3.Remove alternate row 4.Ridge and furrow making 5.Spray of thiourea @ 0.1%	-do-	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA

		Clusterbean	1.Weed free 2. Life saving irrigation if available 3.Spray of thiourea @ 0.05%	-do-	-do-
		Cowpea	1.Weed free 2. Life saving irrigation if available	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	Weed free	-do-	-do-
	Rainfed Others soil (24.84 %)	Pearl millet	1. Weed free 2. Life saving irrigation if available 3.Remove alternate row 4.Ridge and furrow making 5.Spray of thiourea @ 0.1%	-do-	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA
		Clusterbean	1.Weed free 2. Life saving irrigation if available 3.Spray of thiourea @ 0.05%	-do-	-do-
		Cowpea	1.Weed free 2. Life saving irrigation if available	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	Weed free	-do-	-do-

Condition	Suggested Contingency measures				
Mid season drought (Long dry spell)	Major farming situation	Crop /cropping system	Crop management	Soil nutrient and moisture conservation measures	Remarks on implementation
At reproductive stage	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	1.Life saving irrigation if available 2.Thiourea spray @ 0.1%	dust mulching	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under

					MANREGA
		Clusterbean	1.Life saving irrigation if available 2.Thiourea spray @ 0.1%	-do-	-do-
		Cowpea	Life saving irrigation if available	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	Rainfed Deep yellowish brown sandy soil (medium rain fall area) (25.20 %)	Pearl millet	1.Life saving irrigation if available 2.Thiourea spray @ 0.1%	dust mulching	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	1.Life saving irrigation if available 2.Thiourea spray @ 0.1%	-do-	-do-
		Cowpea	Life saving irrigation if available	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	Rainfed Deep pale brown sandy soil (high rain fall area) (22.14 %)	Pearl millet	1.Life saving irrigation if available 2.Thiourea spray @ 0.1%	dust mulching	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	1.Life saving irrigation if available 2.Thiourea spray @ 0.1%	-do-	-do-
		Cowpea	Life saving irrigation if available	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-
	4. Rainfed Others soil	Pearl millet	1.Life saving irrigation if available	dust mulching	Seed source 1.NSSC

	(24.84 %)		2.Thiourea spray @ 0.1%		2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	1.Life saving irrigation if available 2.Thiourea spray @ 0.1%	-do-	-do-
		Cowpea	Life saving irrigation if available	-do-	-do-
		Moong	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-

Condition	Suggested Contingency measures					
Terminal drought	Major farming situation	Crop /cropping system	Crop management	Rabi crop planning	Remarks on implementation	
	Rainfed Deep pale brown sandy soil (high rain fall area) (27.82%)	Pearl millet	Harvesting	Conserve soil moisture	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA	
		Clusterbean	-do-	-do-	-do-	
		Cowpea	-do-	-do-	-do-	
		Greengram	-do-	-do-	-do-	
		Mothbean	-do-	-do-	-do-	
	Rainfed Deep yellowish brown sandy soil (medium rain fall area) (25.20 %)	Pearl millet	-do-	-do-	-do-	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	Harvesting	Conserve soil moisture	-do-	
		Cowpea	-do-	-do-	-do-	
		Greengram	-do-	-do-	-do-	
		Mothbean	-do-	-do-	-do-	
	Rainfed Deep pale brown sandy	Pearl millet	-do-	-do-	Seed source 1.NSSC	

	soil (high rain fall area) (22.14 %)				2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
	Mothbean	-do-	-do-	-do-	
	Rainfed Others soil (24.84 %)	Pearl millet	-do-	-do-	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Clusterbean	-do-	-do-	-do-
		Cowpea	-do-	-do-	-do-
		Greengram	-do-	-do-	-do-
		Mothbean	-do-	-do-	-do-

2.1.2 Irrigated situation: N.A

2.2 Unusual rains (untimely, unseasonal etc.): N.A

2.3 Floods : N.A

2.4 Extreme events: Heat wave/cold wave/frost

Extreme event	Suggested contingency measures			
	Seedling/nursery stage	Vegetative stage	Reproductive stage	At harvest
Heat wave				
Pearlmillet	Shelter belt	Shelter belt	Apply irrigation	
Clusterbean	-do-	-do-	-do-	
Cowpea	-do-	-do-	-do-	
Moong	-do-	-do-	-do-	
Mothbean	-do-	-do-	-do-	
Cold wave				
Wheat	-	-	-	-
Mustard	-	-	0.1% H ₂ SO ₄ spray or apply irrigation or	-

			smoking of straw on north-west side of the field or shelter belt	
Gram	-	-	-do-	-
Barley	-	-	-	-
Frost				
Horticultural crop				
Tomato	-	-	0.1% H ₂ SO ₄ spray or apply irrigation or smoking of straw on north-west side of the field or shelter belt	-
Brinjal	-	-	-do-	-
Aonla & ber	-	-	Thatch making up to 3 years old plantation	-

2.5 Contingent strategies for livestock, Poultry, & Fisheries

2.5.1 Livestock

	Suggested contingency measures		
	Before the event	During the event	After the event
Drought			
Feed & fodder Availability	Sufficient	Sufficient	Harvest the dried crops and grasses & bring from neighboring state/district
Drinking water	-do-	-do-	Sufficient
Health & diseases	-do-	-do-	Sufficient Govt. facilities

2.5.2 Poultry

	Suggested contingency measures		
	Before the event	During the event	After the event
Drought			
Feed & fodder Availability	Sufficient	Sufficient	Sufficient
Drinking water	-do-	-do-	-do-
Health & diseases	-do-	-do-	-do-

2.5.3 Fisheries: N.A