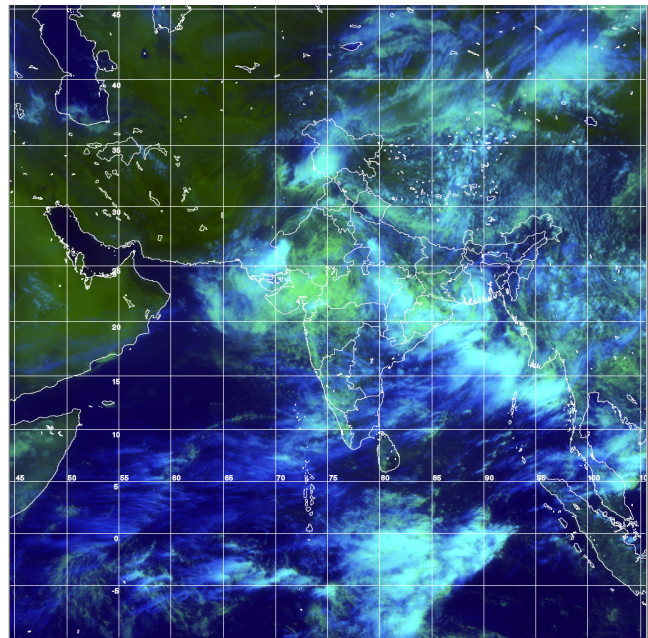




National Agromet Advisory Bulletin

Thursday, 11th August, 2011

(For the period 11th August to 15th August, 2011)



Satellite image 0600 UTC Dated 12th August, 2011

Issued by
National Agrometeorological Advisory Service Centre
Agricultural Meteorology Division
India Meteorological Department, Shivajinagar, Pune.

The bulletin is also displayed in the website (<http://www.imdagrimet.gov.in>)
of the Division

Executive Summary

Except Rayalaseema, Punjab and Haryana, most parts of the country received adequate rainfall for sowing/transplanting and raising of *kharif* crops. Good rainfall is reported from most / many districts of Arunachal Pradesh, Assam, Madhya Pradesh, Chattisgarh, East Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Rajasthan, Gujarat region, Konkan and Goa, Vidarbha, Orissa, West Bengal, Kerala and Coastal and South Interior Karnataka during last week. Widespread / fairly widespread rainfall is also likely to occur during next three days in Gangetic West Bengal, Jharkhand, Orissa, Saurashtra& Kutch, Gujarat region, northeastern states, northwest, Central& remaining parts of east India and along west coast. In view of this, farmers of these parts of the country are advised to complete sowing of *kharif* crops. Postpone irrigation in the already sown crops.

As there is deficient rainfall in Rayalaseema, especially in Anantapur, Cuddapah and Kurnool, during last few weeks, already sown groundnut is showing wilting symptoms. Farmers are advised to apply supplementary irrigation to save the crops. Farmers, who could not sow the crops in these districts, till date, are advised to undertake sowing of short duration varieties of red gram, black gram, castor and field bean after receiving sufficient rainfall. Deficient rainfall is also reported in Fatehgarh Sahib, Faridkot, Ferozpur, Mansa, Muktsar, Sangrur and Mohali districts of Punjab and Jhajar, Hissar, Bhiwani, Fatehbad, Rewari and Rohtak districts of Haryana during last four weeks. This has caused moisture stress in rice in Haryana. Rainfall for the States of Punjab, Haryana and Andhra Pradesh is given below.

As isolated heavy to very heavy rainfall would occur over Gangetic West Bengal, Jharkhand, north Orissa, north Chhattisgarh, Uttar Pradesh, east Madhya Pradesh and Saurashtra& Kutch during next 48 hours and isolated heavy rainfall would occur over Jammu division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, coastal Karnataka, Kerala during next 48 hours, farmers in these States are advised to arrange adequate drainage facilities in the already sown crop fields to avoid water stagnation. Weather Forecast map is provided.

Due to favourable weather conditions, there are incidences of sucking pests, Helicoverpa, Spodoptera, leaf miner, bud and stem necrosis in groundnut in Andhra Pradesh, leaf eating caterpillar in green gram in Karnataka, thrips, black bug, bacterial leaf blight, stem borer and gall midge in rice in Kerala, internode borer and shoot borer in sugarcane in Tamil Nadu, tobacco caterpillar in cotton in Rajasthan, white fly, aphids and jassids in cotton in Maharashtra and white ant and tikka disease in groundnut in Orissa. Farmers are advised to undertake appropriate plant protection measures to control the pests and diseases.

Realised rainfall for the States of Punjab, Haryana and Andhra Pradesh during last few weeks

State/Districts	Actual	13.07.11	Actual	20.07.11	Actual	27.07.11	Actual	03.08.11	Actual	10.08.11
Punjab										
Amritsar	2.1	-95	53.4	8	29.3	-46	47.3	-16	78.6	75
Barnala	1.5	-96	1.1	-97	16.0	-62	28.7	-28	23.5	-38
Bhatinda	7.1	-67	39.2	26	0.0	-100	6.2	-78	52.2	43
Faridkot	0.0	-100	0.0	-100	0.0	-100	7.2	-81	29.0	34
Fatehgarh Saheb	23.3	-61	58.0	24	0.8	-98	1.3	-98	16.5	-63
Ferozpur	1.3	-96	2.5	-92	1.0	-97	2.4	-93	33.7	14
Gurdaspur	35.7	-36	51.9	-33	36.2	-58	6.6	-91	139.9	77
Hoshiarpur	25.4	-56	119.3	67	10.0	-83	3.4	-96	39.0	-37
Jalandhar	27.0	-48	119.5	152	0.3	-99	21.5	-59	35.5	-22
Kapurthala	68.5	151	93.2	197	6.5	-81	47.3	46	36.9	6
Ludhiana	15.8	-67	22.7	-54	2.7	-93	11.8	-75	24.0	-47
Mansa	7.9	-70	5.6	-85	0.0	-100	8.9	-70	10.2	-76
Moga	6.5	-81	35.1	1	0.0	-100	20.4	-39	108.5	216
Muktesar	0.0	-100	5.2	-80	0.0	-100	1.7	-93	16.4	-45
Nawashahar	27.7	-66	110.7	110	1.0	-98	12.8	-83	43.9	-24
Patiala	52.6	6	59.0	47	23.4	-50	17.5	-66	12.5	-76
Ropar	25.6	-61	72.0	25	13.0	-76	37.6	-46	17.5	-70
Sangrur	4.4	-89	0.6	-99	0.8	-98	20.5	-49	7.2	-81
Mohali	51.1	3	8.6	-79	29.0	-38	5.3	-90	9.0	-83
TarnTaran	3.7	-91	16.4	-67	0.3	-99	0.0	-100	41.5	-7
Haryana										
Ambala	121.9	59	55.9	-10	93.3	37	33.2	-50	23.9	-63
Bhiwani	10.7	-69	8.5	-74	0.0	-100	10.5	-65	25.9	-15
Chandigarh	33.8	-55	103.1	65	41.8	-34	33.2	-54	36.9	-57
Faridabad	24.8	-47	25.5	-39	17.0	-65	27.5	-32	39.3	-8
Fatehabad	7.8	-70	6.5	-71	0.8	-98	13.3	-52	26.9	10
Gurgaon	53.8	-1	2.0	-96	32.0	-42	26.6	-38	16.0	-68
Hissar	14.8	-53	8.7	-69	2.3	-93	17.8	-28	18.2	-33
Jhajar	19.3	-34	1.5	-96	0.0	-100	58.9	85	2.7	-92
Jind	37.5	-19	1.9	-95	1.4	-95	25.3	-17	12.0	-64
Katihah	20.3	-46	4.0	-91	0.0	-100	18.3	-47	3.5	-92
Karnal	33.3	-43	11.0	-80	25.0	-35	16.3	-63	22.9	-50
Kurukshetra	50.7	-3	5.2	-90	2.6	-94	0.2	-99	14.6	-65
Mahendragarh	6.9	-82	26.1	-40	0.0	-100	12.4	-52	12.0	-69
Palwal	38.4	-17	1.6	-96	46.8	-5	13.8	-66	42.6	0
Panchkkula	83.8	1	63.0	-17	27.3	-65	9.8	-89	28.8	-64
Panipat	6.4	-89	1.4	-97	1.4	-97	0.5	-99	5.7	-86
Rewari	61.1	67	9.8	-80	3.5	-93	1.2	-97	22.1	-63
Rohtak	17.0	-63	1.1	-98	1.2	-98	13.3	-62	24.7	-32
Sirsa	0.4	-98	18.3	-25	0.0	-100	9.4	-64	88.3	500
Sonepat	64.6	22	19.4	-58	9.4	-83	9.9	-78	19.3	-51
Yamunanagar	103.9	55	69.7	9	29.1	-62	35.1	-59	17.5	-79
New Delhi	19.2	-67	10.5	-82	17.8	-72	11.9	-80	13.4	-80
Andhra Pradesh										
Coastal Andhra Pradesh										
East Godavari	23.6	-44	58.9	30	26.1	-49	46.5	12	42.4	-6
Guntur	19.1	-31	14.6	-54	49.7	26	65.2	85	8.5	-70
Krishna	35.7	-17	47.5	10	44.7	-23	104.8	113	13.0	-68
Nellore	6.8	-62	2.1	-90	24.5	-7	38.1	116	6.0	-70
Prakasam	16.6	-2	5.0	-78	20.3	-25	16.2	-28	8.2	-47
Sirkakulam	68.7	73	21.1	-52	18.2	-62	73.9	70	25.3	-43
Visakhapatnam	64.3	86	17.7	-56	33.0	-28	58.9	48	32.4	-13
Vizianagram	26.9	-25	18.7	-52	43.0	-4	52.9	26	10.0	-72
West Godavari	37.0	-28	63.5	27	37.5	-40	102.1	108	20.6	-63
Telangana										
Adilabad	57.3	-13	81.0	19	26.7	-67	110.2	45	48.4	-28
Hyderabad	22.4	-29	51.5	33	60.9	17	17.8	-63	6.5	-84

Karimnagar	51.7	-2	76.1	47	36.3	-43	61.2	2	20.4	-63
Khammam	50.9	-10	104.2	75	34.9	-52	45.9	-38	27.5	-54
Mehabubnagar	24.7	-21	9.6	-74	53.9	27	68.3	59	13.7	-56
Medak	49.0	8	81.8	62	31.3	-49	86.0	44	29.4	-36
Nalgonda	40.1	48	21.1	-43	55.3	29	23.2	-35	3.5	-88
Nizamabad	76.9	33	123.4	118	50.3	-34	135.3	81	38.0	-42
Rangareddy	31.2	-18	26.6	-37	39.6	-22	57.6	23	5.9	-82
Warangal	43.7	-19	81.1	42	29.3	-59	114.6	91	9.1	-83
Rayalaseema										
Anantapur	4.4	-70	4.2	-72	51.4	194	10.4	-33	12.1	-19
Chittoor	3.6	-83	9.0	-63	67.8	138	24.4	27	14.5	-46
Cuddapah	7.0	-61	0.7	-97	70.0	141	18.1	-22	3.6	-86
Kurnool	12.8	-48	2.7	-89	53.6	71	39.4	33	14.7	-43

	(20% or more) excess rainfall		(-60 to -99 %) scanty rainfall
	(-19 to +19%) normal rainfall		(-100%) no rainfall
	(-20 to -59%)deficient rainfall		Data not available

Distribution of rainfall for remaining states of the country during last week

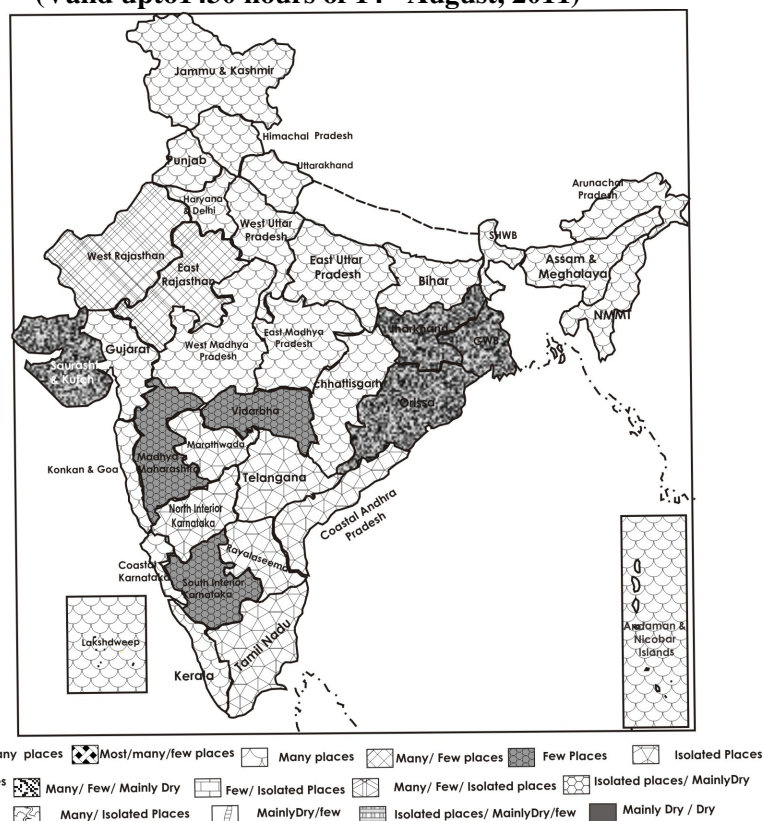
State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11
Arunachal Pradesh			Himachal Pradesh			Seoni	73.4	-11
Changlang	65.6	28	Bilaspur	20.5	-78	Shahdol	103.0	1
East Kameng	80.2	67	Chamba	63.0	-25	Sidhi	87.2	9
East Siang	44.6	-71	Hamirpur	70.9	-28	Singrauli	246.0	277
Lohit	67.8	-20	Kangra	262.2	61	Tikamgarh	121.1	38
Lower Subansiri	30.0	-53	Kinnaur	24.9	122	Umaria	163.0	66
Papumpara	281.2	133	Kullu	54.9	43	West Madhya Pradesh		
Tawang	3.0	-98	Lahaul and Spiti	16.0	-45	Alirajpur	128.8	104
Tirap	97.4	11	Mandi	94.1	-6	Asoknagar	172.8	110
Upper Siang	109.2	126	Shimla	52.8	-3	Badwani	34.5	-34
Upper Subansiri	152.8	427	Sirmaur	55.6	-57	Betul	72.4	-12
West Kameng	45.1	-68	Solan	16.0	-81	Bhind	66.9	-3
West Siang	28.2	-45	Una	115.1	51	Bhopal	118.2	26
Assam			Jammu & Kashmir			Burhanpur	97.5	44
Barpeta	70.1	-6	Anantnag	21.5	-11	Datia	62.5	-24
Bongaigaon	67.0	-12	Badgam	9.8	-30	Dewas	147.6	76
Cachar	118.7	-9	Doda	34.4	25	Dhar	141.9	104
Darrang	**	**	Jammu	140.4	46	Guna	226.3	150
Dhubri	152.2	73	Kathua	117.2	5	Gwalior	48.7	-42
Dibrugarh	70.5	-30	Kupwara	1.3	-93	Harda	136.1	38
East Garo Hills	122.0	32	Ladakh(Leh)	4.5	61	Hosangabad	252.4	112
East Khasi Hills	441.9	112	Pulwama	7.2	-67	Indore	183.4	147
Goalpara	115.1	151	Srinagar	13.7	-27	Jhabua	132.3	93
Golghat	92.7	48	Udhampur	53.3	-61	Khandwa	89.3	9
Hailakandi	57.0	-40	East Madhya Pradesh			Khargone	99.3	53
Jaintia Hills	77.0	-51	Anuppur	116.6	13	Mandsaur	172.5	124
Jorhat	128.4	48	Balaghat	144.4	34	Morena	113.3	51
Kamrup	112.6	134	Chhatarpur	75.0	-32	Neemuch	344.0	428
Karbi Analog	30.3	-43	Chindwara	57.1	-13	Raisen	104.4	-3
Karimganj	30.4	-70	Damoh	131.0	18	Rajgarh	306.4	224
Kokrajhar	71.0	-42	Dindori	133.8	14	Ratlam	236.1	222
Lakhimpur	99.0	-14	Jabalpur	70.9	-34	Sehore	154.6	58
Morigaon	58.0	-21	Katni	65.0	-38	Shajapur	141.7	58
N.C.Hills	123.3	167	Mandla	136.8	19	Sheopur Kalani	176.0	152
Nowgong	87.9	46	Narsingpur	95.7	2	Shivpuri	106.1	35
Nalbari	100.7	35	Panna	100.9	-8	Ujjain	145.1	93
Sonitpur	34.3	-49	Rewa	141.6	59	Vidisha	109.8	18
Sibsagar	74.9	-9	Sagar	90.6	-20	Chattisgarh		
Tinsukia	19.5	-77	Satna	147.1	60	Bastar	68.8	-21

State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11
Bijapur	87.8	-35	Aligarh	41.1	-24	Kishanganj	20.9	-75
Bilaspur	143.0	67	Auraiya	53.1	-19	Lakhisarai	130.0	117
Dantewara	97.1	-9	Badaun	28.2	-58	Madhepura	47.4	-14
Dhamtari	53.6	-24	Baghpat	12.0	-75	Madhubani	21.0	-62
Durg	112.0	37	Bareilly	29.9	-61	Monghyar	119.0	99
Janjgir	101.1	-3	Bijnor	1.5	-98	Muzaffarpur	60.3	7
Jashpurnagar	207.7	103	Bulandsahar	34.1	-33	Nalanda	158.7	149
Kanker	52.6	-49	Etah	44.5	-22	Nawada	133.8	72
Korba	158.7	52	Etawah	14.0	-81	Patna	144.8	184
Koriya	195.1	87	Firozabad	21.3	-62	Purnea	73.4	21
Kawardha	153.0	110	GBNagar	38.0	-23	Rohtas	157.6	89
Mahasumund	56.9	-27	Ghaziabad	1.7	-97	Saharsha	44.9	-2
Narayanpur	25.6	-78	Hamirpur	60.9	-12	Samstipur	95.4	64
Raigarh	97.6	9	Jalaun	28.1	-66	Saran	99.1	64
Raipur	72.7	-8	Jhansi	70.2	-6	Sheikpura	51.5	-6
Rajandgaon	102.6	17	Jotirba Phule Nagar	4.5	-93	Sheohar	24.4	-50
Surguja	142.0	43	Kanshiramnagar	44.2	-23	Sitamarhi	69.6	41
East Uttar Pradesh			Lalitpur	124.0	36	Siwan	98.1	75
Allahabad	72.9	-9	Mahamaya Nagar	47.0	-14	Supaul	25.2	-45
Ambedkar Nagar	98.6	40	Mahoba	91.0	27	Vaishali	97.6	71
Azamgarh	92.1	37	Mainpuri	58.8	-5	West Champaran	86.1	35
Bahraich	83.3	36	Mathura	105.8	129	Jharkhand		
Ballia	119.4	101	Meerut	3.7	-95	Bokaro	141.4	99
Balrampur	71.2	4	Moradabad	24.6	-67	Chatra	158.7	55
Banda	64.0	-22	Muzzaffarnagar	12.3	-80	Deoghar	142.7	105
Barabanki	134.0	128	Pilibhit	19.1	-76	Dhanbad	187.6	144
Basti	77.3	28	Rampur	2.6	-97	Dumka	157.2	97
Chandauli	73.6	0	Saharanpur	22.3	-70	East Singbhum	154.9	74
Deoria	40.0	-24	Shahjahanpur	24.1	-68	Garhwa	107.7	22
Faizabad	207.8	232	UttaraKhand			Giridih	194.5	155
Farrukhabad	45.6	-35	Almora	52.4	-21	Godda	135.4	161
Fatehpur	32.8	-61	Bageshwar	72.0	9	Gumla	209.8	111
Gazipur	106.8	31	Chamoli	125.6	83	Hazaribagh	84.4	3
Gonda	93.6	39	Champawat	82.5	-2	Jamtara	222.0	159
Gorakhpur	103.5	39	Dehradun	101.1	-42	Khunti	63.8	-17
Hardoi	37.4	-35	Garhwal Pauri	67.2	-43	Koderna	172.4	93
Jaunpur	56.3	-10	Garhwal Tehri	26.6	-68	Latehar	78.8	-19
Kannauj	52.7	-22	Haridwar	24.7	-76	Lohardagga	111.6	38
Kanpur City	40.6	-42	Nainital	76.9	-27	Pakur	206.2	192
Kanpur Dehat	33.7	-51	Pithorgarh	77.7	-34	Palamau	146.7	67
Kaushambi	36.8	-55	Rudraprayag	109.4	-24	Ramgarh	96.4	18
Kheri	44.5	-27	Udham Sing Nagar	0.0	-100	Ranchi	167.0	118
Kushi nagar	68.1	4	Uttarkashi	196.1	87	Sahebganj	100.2	74
Lucknow	53.0	-15	Bihar			Seraikela	116.3	35
Maharajganj	24.6	-65	Araria	54.4	-22	Simdega	181.2	74
Mau	70.0	9	Arwal	139.4	113	West Singbhum	63.8	-24
Mirzapur	119.5	36	Aurangabad	209.9	152	East Rajasthan		
Pratapgarh	64.3	-10	Banka	174.8	199	Ajmer	88.0	136
RaiBareilly	30.2	-55	Begusarai	97.6	40	Alwar	39.0	-29
Sahuji Maharajnagar	54.5	-27	Bhabua	94.8	11	Banswara	351.6	360
Sant Kabirrnagar	149.0	148	Bhagalpur	210.2	275	Baran	222.9	166
Sant Ravidas Nagar	52.0	-29	Bhojpur	110.0	127	Bharatpur	37.0	-33
Shrawasti	37.4	-39	Buxar	114.8	137	Bhilwara	123.3	147
Sidharthnagar	92.9	29	Darbhangha	60.5	6	Bundi	140.1	150
Sitapur	109.2	68	East Champaran	55.7	13	Chittorgarh	180.9	193
Sonbhadra	148.6	64	Gaya	166.8	85			
Sultanpur	105.7	61	Gopalganj	71.7	52	Dausa	108.6	66
Unnao	20.3	-70	Jahanabad	172.6	159	Dholpur	61.9	-13
Varanasi	65.3	-1	Jamui	115.2	70	Dungarpur	267.2	416
West Uttar Pradesh			Kathihar	78.7	51	Jaipur	63.4	27
Agra	40.1	-35	Khagadia	140.1	64	Jhalawar	199.7	126

State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11
Jhunjhunu	43.9	28	Ahmednagar	2.2	-88	Sonepur	65.3	-36
Karauli	53.7	-32	Dhule	31.5	-15	Sundargarh	135.6	54
Kota	189.8	167	Jalgaon	41.5	-24	West Bengal		
Pratapgarh	286.3	340	Kolhapur	123.8	-6	GWB		
Rajsamand	76.6	81	Nandurbar	88.8	34	Bankura	90.0	45
Sawai Madhopur	149.0	94	Nasik	34.1	-49	Birbhum	255.9	243
Sikar	31.1	-8	Pune	23.2	-61	Burdwan	117.1	73
Sirohi	229.1	188	Sangli	10.9	-60	Hooghly	185.6	202
Tonk	158.2	196	Satara	60.6	36	Howrah	153.5	54
Udaipur	145.3	203	Solapur	2.2	-89	East Midnapore	102.0	36
West Rajasthan			Marathwada			Murshidabad	164.4	216
Barmer	42.9	71	Aurangabad	16.1	-55	Nadia	111.0	116
Bikaner	27.0	60	Beed	9.1	-64	24 Pargana (N)	252.4	260
Churu	37.0	45	Hingoli	53.3	-3	Purulia	106.0	38
Hanumangarh	25.6	8	Jalna	23.2	-34	24 Pargana (S)	251.3	181
Jaisalmer	10.4	-18	Latur	11.7	-72	West Midnapore	128.1	69
Jalore	75.5	106	Nanded	31.7	-33	SHWB		
Jodhpur	45.5	100	Usmanabad	2.1	-93	Cooch Behar	46.4	-73
Nagaur	42.2	55	Parbhani	17.2	-55	Darjeeling	130.3	-12
Pali	78.7	92	Vidarbha			East Sikkim	157.8	31
Sri Ganganagar	23.7	46	Akola	24.7	-60	Jalpaiguri	49.0	-65
Gujarat Region			Amraoti	65.7	-6	Malda	94.0	67
Ahmedabad	34.6	-32	Bhandara	161.8	41	North Dinajpur	69.1	10
Anand	67.3	6	Buldhana	26.4	-53	North Sikkim	98.3	23
Banaskantha	104.6	145	Chandrapur	107.4	12	South Dinajpur	47.5	-7
Baroda	101.5	25	Gadchiroli	136.7	28	South Sikkim	151.6	26
Broach	41.8	-29	Gondia	151.3	39	West Sikkim	78.0	-2
DNH	80.4	-53	Nagpur	129.5	72	Karnataka		
Dahod	87.0	10	Wardha	92.0	25	Coastal Karnataka		
Daman	52.1	-69	Washim	51.8	-27	Dakshin Kannada	307.0	58
Dangs	74.0	-54	Yeotmal	64.6	-4	Udupi	299.5	35
Gandhinagar	52.0	-19	Orissa			Uttar Kannada	253.4	43
Kheda	80.2	19	Angul	44.1	-49	North Interior Karnataka		
Mehsana	107.6	105	Balasore	58.1	-30	Bagalkote	10.1	-38
Narmada	114.0	21	Bargarh	46.8	-47	Belgaum	42.2	13
Navsari	58.2	-56	Bhadrak	67.6	-22	Bidar	12.8	-68
Panchmahal	148.4	70	Bolangir	23.3	-71	Bijapur	6.0	-64
Patan	83.7	134	Boudh	79.1	-11	Dharwad	29.8	9
Sabarkantha	250.0	284	Cuttack	69.2	-18	Gadag	17.7	2
Surat	45.8	-50	Deogarh	68.5	-44	Gulbarga	6.3	-79
Tapi	45.7	-65	Dhenkanal	61.8	-29	Haveri	44.5	44
Valsad	78.1	-39	Gajapati	32.2	-41	Koppal	18.8	-8
Saurashtra, Kutch & Diu region			Ganjam	18.7	-61	Raichur	12.6	-52
Amreli	11.8	-60	Jagatsingpur	55.7	-38	Yadgir	10.4	-66
Bhavnagar	14.8	-54	Jajpur	119.1	45	South Interior Karnataka		
Diu	3.9	-89	Jharsuguda	101.8	-14	Bangalore Rural	32.8	52
Jamnagar	2.2	-94	Kalahandi	43.8	-51	Bangalore Urban	47.8	78
Junagarh	9.0	-81	Kandhamal	43.8	-51	Bellary	25.9	38
Kutch	13.4	-52	Kendrapara	55.7	-38	Chamarajnar	15.2	-4
Porbandar	19.4	-61	Keonjhar	48.7	-43	Chichballapur	11.6	-48
Rajkot	8.6	-81	Khurda	52.0	-32	Chickmagalur	149.9	27
Surendranagar	25.2	-41	Koraput	57.6	-44	Chitradurga	15.4	3
Maharashtra			Malkangiri	31.2	-69	Davangere	27.6	31
Konkan & Goa			Mayurbhanj	73.3	-24	Hassan	42.8	27
Goa	152.3	-20	Nawapara	27.8	-54	Kodagu	204.4	40
Mumbai	35.3	-70	Nawarangpur	59.3	-38	Kolar	18.5	-11
Raigad	136.6	-31	Nayagarh	39.8	-42	Mandya	55.1	430
Ratnagiri	138.8	-35	Puri	20.1	-73	Mysore	38.5	146
Sindhudurg	125.8	-31	Rayagada	28.6	-48	Ramnagara	21.1	-5
Thane	90.7	-47	Sambalpur	60.5	-51	Shimoga	187.7	75
Madhya Maharashtra						Tumkur	17.1	-4

State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11	State/Districts	Actual	10.08.11
Kerala			Chennai	17.3	-44	Pudukottai	19.5	-3
Alappuzha	96.9	18	Coimbatore	16.3	90	Ramanathapuram	0.7	-88
Kannur	248.8	83	Cuddalore	15.8	-38	Salem	22.4	1
Ernakulam	291.1	171	Dharmapuri	1.9	-88	Sivaganga	20.7	-2
Idukki	223.4	71	Dindigul	10.2	-16	Thanjavur	8.9	-40
Kasaragod	232.5	50	Erode	6.1	-32	Theni	25.4	290
Kollam	87.1	57	Kanchipuram	36.9	17	Tirunelveli	6.4	-3
Kottayam	186.0	108	Kanyakumari	9.1	-50	Tiruvallur	35.5	35
Kozhikode	319.7	143	Karur	0.0	-100	Tiruvannamalai	10.5	-63
Malappuram	172.6	78	Krishnagiri	5.8	-66	Tiruvarur	2.2	-88
Palakkad	172.4	111	Madurai	10.7	-30	Toothukudi	0.0	-98
Pathanamthitta	112.7	32	Nagapattinam	2.4	-86	Trichy	3.2	-71
Thiruvananthapuram	38.2	20	Namakkal	5.0	-74	Vellore	6.4	-77
Thrissur	273.1	152	Nilgiris	43.0	-4	Villupuram	12.5	-40
Wyanad	147.7	-8	Perambalur	0.1	-99	Virudhunagar	0.9	-91
Tamil Nadu			Puducherry	34.8	17			

Weather Forecast (Valid upto 1430 hours of 14th August, 2011)



Major Feature of Weather Forecast upto 1430 hours IST of 14th August, 2011

- Widespread rain/thundershowers would occur over Gangetic West Bengal, Jharkhand, Orissa and Saurashtra & Kutch.
- Fairly widespread rain/thundershowers would occur over Gujarat region, northeastern states, northwest, central & remaining parts of east India and along west coast.
- Isolated rain/thundershowers would occur over interior parts of peninsular India.

Weather Warning

- Isolated heavy to very heavy rainfall would occur over Gangetic West Bengal, Jharkhand, north Orissa, north Chhattisgarh, Uttar Pradesh, east Madhya Pradesh and Saurashtra & Kutch during next 48 hours.
- Isolated heavy rainfall would occur over Jammu division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, coastal Karnataka, Kerala and Lakshadweep during next 48 hours.

Weather Outlook up to 1430 hours IST of 16th August, 2011

- Fairly widespread rainfall activity would continue over most parts of the country outside interior peninsula where it may be isolated.

Zonewise Agromet Advisories

EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL & SIKKIM]

- **Realised Rainfall:** Most of the districts of the States of the region received rainfall during last week.
- **Rainfall Forecast:** Widespread rain / thundershowers would occur over Gangetic West Bengal, Jharkhand and Orissa. Isolated heavy to very heavy rainfall would occur over Gangetic West Bengal, Jharkhand and north Orissa during next 48 hours.
- **Advisories:**
 - In view of likely occurrence of widespread / fairly widespread rain / thundershowers over the States of the region during the period, farmers are advised to postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops in these States. In view of isolated heavy to very heavy rainfall over Gangetic West Bengal, Jharkhand and north Orissa during next 48 hours, farmers are advised to arrange for adequate drainage to avoid water stagnation in the fields.
 - In Jharkhand, farmers are advised to complete transplanting of rice within a week using SRI method. Undertake sowing of urd and improved & short duration varieties of horse gram in upland in Central and North Eastern Plateau Zone of Jharkhand.
 - Farmers in Western Plateau Zone of Jharkhand are advised to continue sowing of *kharif* crops like rice, maize, groundnut, urd, arhar etc. utilizing monsoon rain. Prepare the land and undertake sowing / transplanting of *kharif* vegetables like bhindi, bean, tomato, French bean, cauliflower, cabbage etc.
 - In South Eastern Plateau Zone of Jharkhand, farmers are advised to undertake sowing of maize, arhar, green gram, black gram and groundnut. Also complete sowing of arhar as sole crop as well as intercrop with any of the crops like jowar, maize, groundnut, soybean, urd, moong bean and okra.
 - Undertake sowing of maize, arhar, vegetables like okra, bitter gourd, cluster bean, cow pea, ridge gourd, lady's finger, brinjal, tomato and chillies, transplanting of rice and planting of mangoes in Orissa utilizing monsoon rain. Also undertake sowing of ragi and sesame as the weather is optimum for sowing of these crops.
 - Farmers in West Bengal are advised to undertake sowing of maize, early tomato and cauliflower, transplanting of *aman* rice in low land and start cultivation of mushroom. Drain out excess water from already planted ginger and turmeric fields in Terai Zone.
 - Farmers in Old Alluvial Zone of West Bengal are advised to harvest Jute at 100 DAS if *aman* rice is to be cultivated in the same field, otherwise, it may be harvested at 120 to 125 DAS.
 - In New Alluvial Zone of West Bengal, if *aman* rice seeds are not yet sown, sow short duration varieties utilizing the realized rainfall.
 - Farmers in Bihar are advised to undertake sowing of *kharif* maize, *kharif* fodder crops (jowar, Dinanath grass and bajra), mishrikand, onion, pointed gourd and transplanting of fruit trees, cauliflower etc.
 - Farmers in the districts of North West Alluvial Plain Zone of Bihar are advised to transplant short duration rice varieties with available rain water and remove the weeds from the field.
 - Farmers in South Bihar Alluvial Zone are advised to undertake transplanting of vegetable crops like brinjal, tomato, chilli and cauliflower on ridges, if seedlings are ready. Farmers are also

advised to start sowing of rainy season cucurbits on ridges. This is time for late sowing of arhar, sesame and also for transplanting of fruit trees. As sowing time of long and medium duration varieties of rice in the nursery is almost over, short duration varieties of rice should be sown in the nursery as soon as possible. Farmers are also advised to transplant ready seedlings of rice through SRI method.

- Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
- Weather is conducive for the occurrence of blast and brown spot disease even in nursery seedlings of rice in South Eastern Plateau Zone of Jharkhand; spray Indofil M 45 @ 2-5 g or Beam (tricyclazole) @ 6 g per 10 liters of water. Collar rot disease has been found in elephant foot yam; spray carbendazim @ 1 g + Thirum @ 2 g per liter of water. Weather is also conducive for the attack of stem borers in turmeric and ginger, fruit and shoot borer in brinjal and okra, fruit fly in cucurbitaceous vegetables, leaf blight in tomato and chilli; spray Roger @ 1 ml per liter of water and also remove affected parts and spray Malathion @ 2 ml per liter of water for fruit and shoot borer and bait trap for fruit fly.
- In some patches of Western Plateau Zone of Jharkhand, vegetables are attacked by hairy caterpillars; spray Dichlorvos @ 5 ml per 10 litres of water mixed with Tipol in the solution and avoid the stagnation of water near the root zone of the crop.
- White ant attack has been found in groundnut in Sundargarh, Deogarh, Cuttack, Kendrapara, Khurda, Puri districts of Orissa. Carry out soil drenching thoroughly with 2 ml Chloropyriphos per litre of water. Tikka disease has been found due to climatic condusiveness; apply Carbendazim @ 2 g / litre of water.
- The current weather is favourable for infestation of fruit and shoot borer in brinjal in Khurda, Keonjhar, Puri, Cuttack, Ganjam, Jagatsingpur and Nayagarh districts of Orissa; install Pheromone traps and spray 4 g Sevin WP or 2 ml Malathion in 1 litre water.
- Due to high humidity in Coastal Saline Zone of West Bengal, symptoms of *Collectotrichum piperis* (local name chitla) disease appeared on the leaf blade of betel vine. To prevent it Bordeaux mixture (4:4:50) @ 0.5% or any Copper Oxychloride preparation @ 0.3-0.4% should be sprayed at 15 days interval. Drain out excess water as soon as possible. Also there is a chance of rot disease (*Sclerotium* rot). To stop the progress uproot the affected plants with soil and apply lime in that place. Drain out excess water as soon as possible.
- In Old Alluvial Zone of West Bengal, fruit and shoot borer may infest brinjal in this weather condition. To manage this, spray Lamda cyhalothrin 2.5 EC @ 1.5 ml or Neem oil 2-3 ml per litre of water. Also there may be infestation of collar rot on vegetables; spray Copper oxychloride (Blitox) @ 4 g / Tricyclazole @ 0.5 g / *Trichoderma viridae* @ 4 g per litre of water.
- In this weather condition, in New Alluvial Zone of West Bengal, combined attack of downy mildew and mosaic may be seen in bitter gourd and pointed gourd; apply Redomil –MZ @ 2 g per litre of water.
- In Terai Zone of West Bengal, weather condition is favourable for infestation of rhizome rot on spices; multiply *Trichoderma sp.* in cow dung (mix *Trichoderma sp.* @ 5 g per kg of cow dung covered with plastic sheet and wait for 10 days) and broadcast 100 kg per bigha. In this weather condition brown spot may be found on the leaf of betel vine; spray Mancozeb 64% + Matalaxyl 8% @ 1.5 g / litre or Bordeaux mixture 1% by wetting the whole vine.
- Undertake plant protection measures after current spells of rain.
- Stages of major crops are mentioned in Annexure I.

Animal Husbandry

- During this monsoon season there is a chance of black-quarter in Coastal Saline Zone of West Bengal; keep the cattle clean and if this disease occur, promptly give penicillin and tetracycline and inoculate into the site of lesion. Cattle may also be attacked by worm infection. Give medicine after testing the stool and prohibit grazing in the field, keeping them under shade.
- In North Eastern Plateau Zone of Orissa, periodic vaccination *viz.* FMD, HS and BQ may be carried out to protect the dairy animals. Clean and hygienic water should be fed to dairy animals. Keep the animal shed clean. RD vaccine should be given immediately to the chicks which are 7 days old. To prevent coccidiosis disease spray antibiotic solution named Kohrsolin-TH in the poultry house.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]

- **Realised Rainfall:** Most of the districts of Arunachal Pradesh and Assam received rain during last week.
- **Rainfall Forecast:** Fairly widespread rain / thundershowers would occur over the States of the region during the period.
- **Advisory**
 - As most of the districts of Assam and Arunachal Pradesh received rain during last week and also fairly widespread rain / thundershowers would occur over the states of this region, farmers are advised to postpone irrigation to the crops. Farmers are also advised to postpone intercultural operations and application of fertilizer and plant protection measures.
 - In Assam, farmers are advised to complete sowing of groundnut, sesame, pulses, pigeon pea, cauliflower (early varieties), radish, nursery sowing of *sali* rice and planting of banana and pine apple. Taking the advantage of adequate rain during last few weeks, farmers are also advised to prepare the land and undertake transplanting of *sali* rice if the seedlings are ready.
 - In flood affected areas in Lower Brahmaputra Valley Zone in Assam, farmers are advised to raise nursery seedlings in flood free area or high lands and transplant at a convenient time.
 - In Manipur, for flooded areas, contingency nurseries with late variety / cold tolerant variety RC Maniphou 7 may be raised.
 - Farmers in Tripura are advised to undertake preparation of main field and transplanting of *aman* rice.
 - Farmers in Arunachal Pradesh are advised to undertake preparation of main field and complete transplanting of rice at the earliest.
 - Farmers in Mid Tropical Hill Zone in Nagaland are advised to complete sowing of groundnut, soyabean, pulses and prepare nurseries for rice crop.
 - Farmers in Mizoram are advised not to allow the rain water to stand in the maize crop as this crop is highly sensitive to standing water.
 - Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
 - In Central Brahmaputra Valley Zone in Assam, present situation of alternate drying and wetting condition may favour the occurrence of rotting of leaves and stems of beetle vine and quick wilt of black pepper. Prophylactic application of Bordeaux mixture may prevent the spread / outbreak of the diseases.
 - In Hill Zone of Assam, there is chance of infestation of rice hispa where the crops are at tillering stage; farmers are advised to monitor the crop and spray Quinolphos @ 2 teaspoonful / 5 litres of water to control the attack.
 - In North Bank Plain Zone in Assam, there is chance of attack of gummosis disease on citrus due to heavy rainfall and high relative humidity. Farmers are advised to clean the affected portion and wash with 'potash water'. Bordeaux mixture should be used in affected area. As preventive measure, it is essential to drain out excess water from the area. The weather is also favourable for pollu beetle grabs in black pepper, which feed on tender berries; therefore farmers are advised to apply Endosalfan 35 EC or Dimmethoate 30 EC @ 1 ml / litre of water against grabs.
 - In North Bank Plain Zone in Assam, due to water stagnation in root zone, the betel vine may be infected with foot rot and leaf spot diseases. In addition to keeping the root zone free from water stagnation, apply four drenches (in root zone) with 1% Bordeaux mixture at 30 days interval and spray (on leaves) 0.5% Bordeaux mixture at 15 days interval.
 - In Sub Tropical Hill Zone of Arunachal Pradesh, there is high possibility of infestation of sheath blight on rice. Farmers are advised to remove collateral hosts from bunds and spray Spencer / Bavistin @ 2 g / litre of water.
 - In Mizoram, there is chance of infestation of rice stem borer, leaf hopper and plant hopper on rice due to substantial increase in minimum temperature and evening humidity and an appreciable decrease in sunshine hours with occasional rainfall; farmers are advised to monitor

the crop and to apply Nuvacron / Monocil 36 SL @ 1020 WG in 400 litre of water per ha. Also, due to prevailing weather conditions, there is chance of incidence of gummosis in Khasi Mandarin; farmers are advised to scrap the diseased portion and apply Bordeaux paste. There is also chance of tikka disease in groundnut due to warm and moist weather conditions; farmers are advised to burn plant disease debris. In severe case, foliar spray with Bordeaux Mixture (4:4:50) is recommended.

- Due to hot and humid conditions and high wind speed, there is also chance of sigatoka leaf spot on banana in Mizoram and Tripura; farmers are advised to apply Mancozeb @ 0.01%.
- In Ri-Bhoi, East Khasi and West Khasi hill districts of Meghalaya, there is chance of occurrence of blast disease in rice; farmers are advised to spray Carbendazim 50 WP @ 1-1.5 g / litre of water. There is chance of wilt in banana; farmers are advised to drench the field with 1-2 % Bordeaux mixture.
- In Nagaland, due to high moisture in the soil, there is chance of stem rot in papaya; farmers are advised to spray Copper oxychloride @ 3 g / litre of water.
- In Mild Tropical Plain Zone of Tripura, due to the prevailing humid weather, there is chance of attack of gundhi bug and sheath blight in upland rice; farmers are advised to spray Imidachloprid @ 1.5 ml per liter of water for gundhi bug and surf @ 1 g per litre of water for sheath blight.
- Apply plant protection measures after current spells of rain.
- Stages of major crops are mentioned in Annexure I.

Animal Husbandry:

- Undertake immunizations against Brucellosis, Foot and mouth disease (FMD), HS, BQ and Anthrax diseases in cattle and buffaloes in Central Bramhaputra Valley Zone in Assam.
- Farmers in Arunachal Pradesh are advised to avoid dumping excreta and also to undertake deworming with broadspectrum anthelmintic viz., Albendazole, Fenbendazole etc. Also provide adequate clean water to the pigs throughout the day in present weather condition.
- Farmers in Manipur are advised to deworm the cattle, sheep, goat etc. and vaccinate against Haemorrhagic Septicemia. It is also advised to vaccinate poultry birds against Coccidiosis, Ranikhet, Gumboro etc. It is also advised to deworm and vaccinate pigs with SFV (Swine Fever vaccine).
- In Mizoram, vaccinate and deworm the pigs from swine fever and internal parasite. Avoid dampness to prevent from coccidiosis in poultry. Add coccidiostats in the poultry feed for prevention of this disease.

NORTHWEST INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- **Realised Rainfall:** Many of the districts of this region received rainfall.
- **Rainfall Forecast:** Fairly widespread rain/thundershowers is likely to occur over the region. Isolated heavy to very heavy rainfall would occur over Uttar Pradesh and isolated heavy rainfall would occur over Jammu division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand during next 48 hours.
- **Advisory:**
 - As fairly widespread rainfall is likely over the region, postpone irrigation to the crops. Farmers are advised to provide adequate drainage facilities in Uttar Pradesh, Jammu Division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand as heavy to very heavy rainfall is likely at isolated places is likely during next 48 hours.
 - Complete sowing of cowpea and radish in Punjab.
 - Farmers in Uttar Pradesh are advised to undertake sowing of moong, urd and vegetables viz. brinjal, chilli, lady's finger, onion, gourd, bottle gourd, cucumber, toria and new planting of mango, banana, papaya, banana, amrud, amla and lemon. Give mechanical support to banana and sugarcane crop to avoid lodging due to wind.

- Farmers in Bhabar and Tarai Zone of Uttarakhand are advised to undertake sowing of urd, mung, raddish, transplanting of broccoli and harvesting of matured frenchbean, tomato, brinjal crops and also fodder grass. Farmers are also advised for weeding and top dressing of urea operations during this week. Maintain proper drainage in all vegetable crops. Farmers are advised to spray a mixture of 5 g zinc sulphate and 20 g Urea dissolved in one liter of water if deficiency of Zinc in the crop.
- Farmers in Delhi are advised for sowing of sweet corn, baby corn, urad, arhar, moong, sarson saag, radish, spinach and coriander in this week. Transplanting of onion seedling, brinjal, tomato, chilli cauliflower, and cabbage are advised on raised bed if seedlings are ready. Farmers are also advised to prepare nurseries of cauliflower. This is suitable time to all crops and vegetables for hoeing & weeding after that split dose of nitrogen should be broadcast for optimum growth.
- Weather is conducive for rice blast incidence in nursery, red pumpkin beetle and fruit fly in cucurbits in Himachal Pradesh, spray Blitox 12 g per four litres of water in 100 sq m areas to control rice blast, spray Malathion 1ml/litres +50 gram gur or sugar to control fruit fly and Cypermethrin @ 30ml per 30 litres of water per kanal to control red pumpkin beetle. Farmers are advised to not allow stagnation of water in pulse fields as the crops are susceptible to waterlogging.
- Continue sowing of raddish and cauliflower with early maturing varieties of green gram, moth bean, cluster bean in West Rajasthan utilising the realised rainfall. Farmers are advised to apply first dose of nitrogen in bajra and continue hoeing and weeding after current spells of rain.
- Farmers in Jammu and Kashmir are advised to undertake sowing/nursery sowing of bajra, radish, cabbage and carrot, transplanting of basmati rice, cauliflower, knol khol and chillies, planting of fruit plants like mango, citrus, litchi, loquat, guava and papaya. Farmers are advised to undertake top dressing in late transplanted rice, early sown maize, vegetable crops like bhindi, chillies, pumpkin, sponge gourd, bitter gourd, bottle gourd, tomato and cauliflower. Drain out the excess water from field of ground nut, bajra, pulse and maize crop under low laying area of Kathua district and also from the orchards in Doda district as there are further chances of rain.
- Farmers in Punjab and Haryana are advised to drain out excess standing water from cotton, orchards, vegetable and maize field. Maintain 10 cm of standing water in the rice fields. Last dose of nitrogen through 35-40 kg urea may be applied, if already not given after current spells of rain. Start sowing of radish, cauliflower and planting of *kharif* onion both with bulbsets as well as seedlings.
- In Bhabar and Tarai zone of Uttarakhand, due to prevailing weather, there are chances of stem borer in rice crop. To control, farmers are advised to broadcast 10 kg Phipronil-0.3 G or 8 kg Phipronil-0.4 or 8 kg Cartop Hydrochloride-4G per acre.
- Due to prevailing weather, there are more chances of incidence of Kanker disease in lemon trees in Udhamasinghnagar district of Uttarakhand, farmers are advised to spray 2 mg of Blitox-50 fungicide dissolved per liter of water on to save the fruits from disease.
- Attack of Tobacco caterpillar is observed in Narma cotton at some places of Sriganganagr district of Rajasthan. Farmers are advised to install pheromone traps in the field or use Nuwaluron 10 EC 1.0 ml or Emomectine Benzate 5 SG 0.5 gm per litre. Attack of spotted bollworm is also seen in indiginous cotton, for control farmers are advised to spray Fenvelrate 20 EC or Indoxacarb 14.5 S.C. 1 ml / litre water.
- Spraying may be undertaken after current spells of rain in the region.
- In Jammu & Kashmir, stem and root borer may likely to infect the rice crop due to prevailing weather situation under such situation, farmers are advised to apply Phorat 10G@ 10kg/ha or Carbendazim3G @ 20 kg/ha, when 5% dead hearts or egg mass/m².
- In Jammu & Kashmir, citrus trees showing deficiency of zinc may be given foliar spray of 0.3 % w/v zinc sulphate in Doda district. Farmers are also advised to maintain field sanitation by partial sterilization of soil with heat or with formaline 40 % using 10 l /m²

seed bed area. For control of damping off in radish, turnip, knolkhol, cauliflower and staking of tomato and cucurbit to avoid contact of fruits with soil to control fruit rot.

- Prevailing weather is conducive for development of whitefly on okra, cowpeas, brinjal and chilli in Punjab and Haryana, farmers are advised to take proper plant protection measures.
- The weather is conducive for infestation of stemborer in rice in Punjab, The affected plants show yellowing and drying of central shoot (dead heart). If showing more than 5% dead heart, spray with 350 ml Hositation 40 EC (trizophos)/Nuvacron (monocrotophos) in 100 litres of water per acre. Also there may be incidence of leaf folder which fold the leaves, eat out the green tissues and produce white streaks. Spray the crop when the leaf damage reaches 10% with 350 ml hesitation 40 EC (trizophos)/Nuvacron (monocrotophos) in 100 litres of water per acre.
- Stages of major crops are mentioned in Annexure I.
- **Animal Husbandary**
 - In some parts of Uttar Pradesh and Rajasthan, farmers are advised to protect domestic animals from coming in direct contact with rains. Do not allow water to stagnant in their sheds. Try to keep their litter dry.
 - In Himachal Pradesh, Weather is conducive for spread of FMD and galgotu so, farmers are advised for vaccination of animals against FMD.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

- **Realised Rainfall:** Most of the districts in Kerala, Coastal Karnataka, Belgaum and Haveri in North Interior Karnataka, Bangalore Rural & Urban, Chickmagalur, Kodagu, Hassan, Mysore, Mandya and Shimoga districts in South Interior Karnataka, East Godavari and Visakhapatnam in Coastal Andhra Pradesh, Adilabad and Nizamabad in Telangana and Nilgiris, Kancheepuram, Puducherry and Tiruvallur in Tamil Nadu received good rainfall. No significant rainfall occurred in Rayalseema and the remaining parts of the region.
- **Rainfall Forecast:** Isolated rain/thundershowers would occur over interior parts of peninsular India.
- **Advisories:**
 - As there was sufficient rainfall in most of the districts in Kerala, Coastal Karnataka, Belgaum and Haveri in North Interior Karnataka, Bangalore Rural & Urban, Chickmagalur, Kodagu, Hassan, Mysore, Mandya and Shimoga districts in South Interior Karnataka, East Godavari and Visakhapatnam in Coastal Andhra Pradesh, Adilabad and Nizamabad in Telangana and Nilgiris, Kancheepuram, Puducherry and Tiruvallur in Tamil Nadu, drain out excess water and postpone irrigation to the crops.
 - Farmers in the Krishna Godavari Zone of Andhra Pradesh are advised to undertake gap filling in cotton, *kharif* sowing of black gram, green gram, redgram, cotton and maize etc., utilizing realized rainfall.
 - Farmers of scarce rainfall zone of Rayalaseema are advised to undertake transplanting of rice. Provide alley ways of 20 cm for every 2m, at the time of transplanting for better aeration and sunlight, for regular inspection of the crop and for applying fertilizers. Before transplanting tips of rice seedlings are to be clipped to prevent the incidence of stem borer in main field.
 - Sowing of maize, desi cotton, horse gram, setaria, sunflower, cowpea, onion, chilli may be continued in the North Dry Zone of Karnataka.
 - Farmers in Cauvery Delta Zone of Tamil Nadu are advised to undertake nursery sowing of rice variety CR 1009 during second week of August as the long duration variety CR 1009/Savithri/Ponmani is suitable for samba and nursery.
 - Farmers in the Eastern Dry Zone of Karnataka are advised to undertake fallow ploughing for better rain water infiltration and land preparation for sowing of crops.
 - Farmers in the Southern Dry Zone of Karnataka are advised to undertake sowing of rice, ragi, sugarcane, cotton, sunflower, cowpea, soyabean, horsebeans, gram and horticulture crops.

- The farmers of North Transition Zone where sowing was not taken up during June and July due to non receipt of rainfall are advised to take up contingency sowing of sunflower, Navane and short duration pulses in red and shallow black soils and for medium to deep black soils as contingency crops. Contingency crops like sunflower, horsegram, *Herbicum* cotton (Jayadhar, Suyodhar) and cotton as relay crop in ground nut crop can be taken up.
- Farmers of Hill zone are advised to take up sowing of cotton under irrigated condition.
- Farmers of high altitude zone of Kerala are advised as a prophylactic measure to control blast disease, avoid excess usage of nitrogen fertilizers. Soil application of one kg pseudomonas after mixing with 20 kg cowdung in within 30 days after transplanting will serve as a preventive measure against major diseases in rice; apply 1% Bordeaux mixture in the tender leaf axils to control bud rot in coconut and to control mahali and bud rot diseases in arecanut; Drench the soil and with 0.2 % Copper oxy chloride and spray the aerial part with 1% Bordeaux mixture to control Quick wilt and pollu disease in pepper and measure to control rhizhome rot in cardamom drench the soil with 2-3 liters of copper oxy chloride (0.25%) solution.
- Due to prevailing weather condition in the Problem areas zone of Kerala, the attack of rice thrips, attack of black bug, bacterial leaf blight and attack of stem borer and gall midge is noticed in different fields. To prevent the spread of the Bacterial leaf blight disease to other fields, it is advisable to keep bleaching powder in small bundles at the entrance of irrigation channels @ 2 kg/acre. Spraying fresh cowdung water made by mixing cowdung in water @ 20 g/litre is effective for controlling the disease in the initial stages. The farmers are advised to keep watch on the crop and consult the agricultural officer.
- Green leaf eating caterpillar was noticed in green gram Bidar taluka region in the North East Transition Zone of Karnataka. So, for effective control spray Quinolphos @ 2 ml per liter of water. Due to continuous rain and decrease in temperature the rust disease was noticed in soyabean. To control this take up spraying of Propiconazole or Hexaconazole 1 ml per liter of water.
- In Kuruvai rice, green algae infestation is noticed in Cauvery Delta Zone of Tamil Nadu, due to prevailing weather. To control this, drain the water immediately and apply copper sulphate at 1 kg / acre uniformly. For the management of yellow stemborer and leaf folder use pheromone trap @ 5 / ac to monitor the population. Apply cartarp hydrochloride 4 G @ 5kg/ac during tillering and panicle initiation stages.
- Irrigation should be given for the maize crop in Western Zone in Tamil Nadu during this period to ensure optimum moisture availability during the most critical phase and the farmers are advised to raise one row of cowpea for every five rows of rainfed groundnut wherever red hairy caterpillar is endemic.
- Incidences of internode and top shoot borer attack in sugarcane and stem borer in rice is seen in the Southern Zone of Tamil Nadu. To control stem borer, spray neem oil @ 20 ml/lit or Azadirachtin @ 3 ml/lit in the morning hours, trichogramma card @ 2 cc/acre and in when it reaches above ETL spray profenophos at 2.0 ml/lit of water or Chlorpyriophos @ 2 ml per litre of water and use the light trap and release 4 cc of trichogramma egg parasitoid per acre to control internode and top shoot borer. The diseases such as bacterial leaf spot, blight and blast may occur in the prevailing weather conditions. Farmers are advised to undertake precautionary measures.
- Due to prevailing weather in High Altitude Hilly Zone of Tamil Nadu, blister blight spreads in tea. Farmers are advised to apply Copper oxy chloride @ 85g + tilt @ 80 ml / ac.
- In the southern Telangana zone, prevailing weather conditions are congenial for the incidence of white fly in sugarcane and aphids in vegetables. Farmers are advised to control white fly by spraying Malathion @ 2 ml per litre of water, two times at 10-15 days interval and aphids by spraying Dimethoate or Methyl – O-Demeton @ 2 ml per litre of water.
- Undertake plant protection measures after spells of rain in Kerala, Coastal Karnataka and on a non- rainy day over South Interior Karnataka.
- Varieties are mentioned in Annexure II.

- **Realised rainfall:** All the districts of the Konkan and Goa and Gujarat region and most of the districts of Vidarbha (except Buldhana and Akola), Dhule, Jalgaon, Kolhapur, Nandurbar, Nashik, Satara districts of Madhya Maharashtra and Hingoli and Nanded districts of Marathwada received significant rain during last week.
- **Rainfall forecast:** Wide spread rainfall would occur over Saurashtra and kutch region, fairly wide spread over Konkan and Goa and Gujarat region, scattered over Madhya Maharashtra and Vidarbha and isolated over Marathwada. Isolated heavy to very heavy rainfall would occur over Saurashtra and kutch during next 48 hours.

Advisory:

- In view of occurrence of widespread / fairly widespread rain over Saurashtra and Kutch, Konkan and Goa and Gujarat region, farmers are advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the crops. As isolated heavy to very heavy rainfall would occur over Saurashtra and kutch during next 48 hours, farmers advised to arrange for adequate drainage facilities to avoid water stagnation in this region.
- As there were no significant rain during last week, Farmers in Pune, Sangli and Solapur districts of Madhya Maharashtra, Aurangabad, Beed, Jalna, Usmanabad and Parbhani districts of Marathwada and Akola and Buldhana districts of Vidarbha are advised to apply irrigation to the crops.
- Utilizing monsoon rain, farmers of east Vidarbha region are advised to complete the transplanting of 20 to 22 days old rice seedlings.
- Undertake hoeing and weeding in early sown *kharif jowar*, soyabean, groundnut, cotton, *bajra*, maize in Madhya Maharashtra and Vidarbha on a non-rainy day and also in Marathwada to keep the crops weed free.
- This is the proper time of planting of fruit crops in Konkan and Kolhapur Division.
- As prevailing weather is favourable, farmers of Madhya Maharashtra and Marathwada are advised to undertake planting of *adsali* sugarcane before 15th August.
- Farmers in Maharashtra are advised to undertake sowing of spinach and methi. Also complete the sowing of brinjal, tomato, cauliflower and chilli.
- Farmers in Western Zone of Maharashtra are advised to start transplanting of onion.
- Farmers in South Gujarat Zone are advised to provide proper support to the fruit crops like banana and propping may be done for sugarcane to reduce the probable damage due to high wind speed.
- Farmers are advised to carry out sowing of castor in South Gujarat Heavy Rainfall Zone.
- Farmers in North Gujarat Zone are advised to carry out transplanting of different horticultural crops.
- Farmers in North West Zone of Gujarat are advised to carry out sowing of castor and *kharif* vegetables like guar, cowpea, bottle gourd etc. and planting of horticultural crops.
- Farmers in South Saurashtra Zone of Gujarat are advised for sowing of pigeon pea between two rows of groundnut crop in relay cropping.
- Farmers in North West Zone of Gujarat are advised for sowing of castor up to 15th August to escape the incidence of castor semi looper.
- Farmers in Bhal and Coastal Zone are advised to carry out sowing of cluster bean and sesame.
- Suitable varieties of the crops for sowing are mentioned in Annexure II.
- Due to light rains, there may be incidence of leaf folder, army worm and blue beetle in rice in South Konkan; for control of leaf folder, spray Monocrotophos @ 12 ml / 10 litres of water. For control of army worm and blue beetle, spraying of Monocrotophos 36WSC @ 14 ml or Carbaril 50 WP @ 20 g or Cypermethrin 25 EC @ 2.4 ml per 10 litres of water or dusting with 2% Methyl Parathion dust @ 20 kg / ha may be done.

- Due to humid and rainy weather, there may be infestation of green semi looper and tobacco eating caterpillar in early sown soyabean in East Vidarbha; spray Chloropyrifos 20 % @ 20 ml or Quinolphos 25 % @ 20 ml in 10 liters of water.
- Due to favourable weather, infestation of sap sucking pests (aphids, jassids, thrips etc.) may increase in cotton in Central Vidarbha zone; if infestation exceeds ETL (10 pests / leaf), spray Dimethoate 30% @ 10 ml or Methyl Dimeton 25% @ 8 ml in 10 litres of water. Due to continues cloudy weather there may be infestation of white fly, aphids and jassids in western Maharashtra scarcity zone; spray Acitamiprid @ 4 g + sticker in 10 litres of water. There is also possibility of attack of mealy bug in cotton in Pune Division. For primary control of mealy bug, the weeds near the bunds of field should be uprooted and destroyed. At primary stage use *Metavyrazium anasoli* or *verticylium leconi* @ 4 g per litre along with 1 g detergent powder. If there is more incidence, spray Dimethoate 30% @ 10 ml or Methyl Dimeton 25% @ 25 ml or Di chlorovas 76% @ 1 ml or Chloropyrifos 20 ml or Acitamiprid 20% @ 20 g per 10 litres of water.
- Due to favourable weather, powdery mildew may spread in cucumber in Madhya Maharashtra; spray twice Metalaxyl 8% + Mancozeb 64% @ 20 g / 10 litres of water at an interval of 10 days.
- Due to clouds and more humidity, there is chance of infestation of powdery mildew in green gram in Central Vidarbha zone; spray Dinocap @ 10 ml or Tridemorf @ 10 ml in 10 litres of water.
- There is a possibility of occurrence of powdery mildew and hopper in mango in South Gujarat Heavy Rainfall Zone; farmers are advised to spray wettable sulphur (3 g / litre) and Carbaryl (4 g / litre) respectively.
- Due to 23 – 28⁰C temperature and high humidity forecast in South Gujarat Heavy Rainfall Zone, there are chances of stem rot in papaya; drench with 1% *Trichoderma viridi* followed by pasting of 1:1:10 Bordeaux mixture on trunks upto 50 cm to manage the disease.
- Stages of major crops are mentioned in Annexure I.

Animal Husbandry

- Keep away animals from heavy rainfall in Gujarat.
- Provide green fodder and cool water for drinking. Vaccination should be done to animals (cows, buffaloes and sheep) against foot and mouth disease and to sheep against P.T.R. disease under the guidance of veterinary doctors. Protection should be given to dairy / farm animals, sheep, goat and poultry birds from heavy rains and cold winds. Do not allow to store water in animal shed. Pits in cattle shed should be filled with soil.

CENTRAL INDIA[M.P., CHHATTISGARH]

- **Realised Rainfall:** Sufficient rain occurred in most of the districts in Madhya Pradesh and Chattisgarh
- **Rainfall Forecast:** Widespread rain/thundershowers would occur over Central India.
- **Warning:** Isolated heavy to very heavy rainfall would occur over Madhya Pradesh during next 48 hours.

Advisory:

- As there was good rainfall in most of the districts in Madhya Pradesh and Chattisgarh during last week, postpone irrigation to the crops. Arrange for drainage facilities in the crop fields as isolated heavy to very heavy rainfall would occur over Madhya Pradesh during next 48 hours.
- Farmers in Jhabua Hill Zone of Madhya Pradesh are advised to carry out transplanting of fruit plants like mango, guava, anola, citrus, chickoo and pomegranate etc.
- Farmers in Vindya Plateau, Central Narmada Valley and Gird Zone are advised for proper drainage of water in field of soyabean, arhar, til, jowar and maize.
- Farmers in Kymore Plateau & Satpura Hill Zone are advised to maintain optimum water level in paddy fields and arrange for drain out excess water. Also provide drainage channels as per requirements of crop in legumes and oilseeds crop fields to avoid water stagnation in the field. There

are chances of rainfall in this week, transplant the rice seedlings in main field with reduced distance and 3-4 seedlings in places.

- As isolated rainfall would occur over the Chattisgarh Plain Zone farmers are advised to undertake *biasi* operation of direct seeded rice wherever sufficient moisture is available. After *biasi* operation *Saghan Chalai* should be done at the earliest.
- In areas of insufficient rainfall in Bastar Plateau Zone of Chattisgarh, oilseed and pulses crops like Urad, horsegram (Kulthi), niger (ramtil), moong (greengram) and urad (blackgram) crops may be sown in upland *marhan* situation in place of rice crop.
- Due to prevailing weather conditions in Chattisgarh Plain Zone, farmers are advised to sow the oilseed and pulse crops in unsown areas and in the bunds of rice. Present weather conditions are favourable for the planting of horticultural crops viz, papaya, mango, guava etc. at the earliest. Farmers having the irrigation facilities are advised to complete the transplanting of rice as early as possible. Undertake sowing of rice by Lehi Method.
- In view of rainfall, farmers in Bundelkhand Zone of Madhya Pradesh farmers are advised to monitor the mite, jassid and grasshopper in the ladyfinger and brinjal crop, spray Phosmite @1.5-2.0 ml per litre of water for mite and control for the jassid and grasshopper to spray rogor in clear sky condition.
- Cloudy, rainy weather in Jhabua Hill and Nimar Valley Zone of Madhya Pradesh is favourable for attack of sucking pest on cotton, spray Thiomithaxam 0.3 g/l (7.0 g/pump) of water.
- Rainy weather is congenial for girdle beetle and gram borer in soybean in Bundelkhand Zone and Central Narmada Valley Zone of Madhya Pradesh, farmers are advised to spray Trizophos 40 E.C. or Endosulfan 35 E.C. @2.0 ml per litre of water mix with 1 ml Teepol in clear sky condition.
- Due to rainfall activity and cloudy weather conditions during past few days in Chhattisgarh Kharif and vegetable crops are favourable for the pest incidence. Farmers are advised to keep eye on the vegetable crop like Brinjal, Okra as they are in flowering and fruiting stage as well as rice and other kharif crops. If the infestation is above ETL spray the recommended insecticides in clear weather conditions and during the morning/evening hours. Use of Light trap in the fields during 07 pm to 09 pm will be beneficial for the crops.
- Spray chemicals after spells of rain in the region.
- Stages of major crops are mentioned in Annexure I.

Animal Husbandry & Poultry

- There is possibility of overcast sky conditions during next five days and increase in the night temperature; hence farmers are advised to provide airy space and proper ventilation for hens. In rainy season lesser digestion of grasses is a common phenomenon in milch cattle therefore, supplement the food with mineral and salt.
- Arrange for vaccination for Foot and Mouth disease in Kymore Plateau and Satpura Hill Zone of Madhya Pradesh. Use potassium permanganate @ 5 ml per liter of water for infected animals. Also vaccinate the cattles for Anthrax and arrange for provide medicine for worms and increase light duration in poultry farms to maintain egg production.

Annexure I Major Crops

EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL &SIKKIM]

- Sugarcane (early vegetative / vegetative), rice, *kharif* maize, *kharif* arhar, sesame, sorghum, jowar, lobia for green fodder, mishrikand (sowing / vegetative), onion, radish (sowing), cauliflower and fruit trees (transplanting) in Bihar.

- Sugarcane (early vegetative / vegetative), papaya (transplanting), turmeric, ginger, elephant foot yam (planting / vegetative), rice (transplanting/ vegetative), rainy season vegetables like bhindi, bean, tomato, French bean, cauliflower, cabbage etc. (sowing / vegetative), maize, pigeon pea, urd, moong bean, groundnut (sowing / early vegetative) and sweet potato (transplanting / vegetative) in Jharkhand.
- Arhar and maize (sowing / early vegetative), papaya, marigold, tuberose (planting), cowpea (sowing / early vegetative), *kharif* vegetables (sowing / vegetative), sugarcane (vegetative), *kharif* rice (transplanting / tillering), groundnut (sowing / early vegetative), chrysanthemum, ragi (sowing / vegetative), turmeric and ginger (planting / early vegetative), yam (sowing), sesamum, green gram, black gram, niger (sowing / early vegetative), mango, banana, lemon, cashew nut, marigold (planting) in Orissa.
- *Aman* rice (transplanting / tillering), tomato, cauliflower (nursery preparation / transplanting), *aus* rice (panicle initiation / flowering / grain formation), *kharif* maize (sowing / vegetative), jute (vegetative / harvesting), mango, coconut, guava, banana (planting) and *kharif* vegetables (sowing / planting / vegetative / fruiting) in West Bengal.
- Large cardamom (capsule formation / transplanting of suckers from nursery), *kharif* vegetables (harvesting), orange (fruiting.), ginger (germination / early vegetative), rice (early tillering), maize (harvesting), seed potato (tuberization) in Sikkim.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]

- Sugarcane (active vegetative), *ahu* rice (flowering / grain formation / ripening), *sali* rice (transplanting / tillering), *olitorius* jute (maturity / harvesting / retting), maize (vegetative), groundnut (sowing / vegetative), arhar, pigeon pea, sesame, raddish, cauliflower (early variety) (sowing / early vegetative) and jute (for seed production) (early vegetative), ginger / turmeric (vegetative), black / green gram (sowing / vegetative), banana (planting), cowpea (sowing / vegetative) and khasi mandarin (sowing / vegetative) in Assam.
- Rice (nursery preparation / transplanting / vegetative), tuber crops (vegetative), soyabean and groundnut (vegetative) and maize (tasseling / silking / cob formation / maturity / harvesting) in Arunachal Pradesh.
- Soyabean (flowering / pod formation), groundnut (pod formation), *kharif* rice (transplanting / tillering), ginger and turmeric (vegetative / rhizome formation), early cauliflower (transplanting), tomato (nursery raising), lemon (fruiting / harvesting) in Manipur.
- *Ahu* rice (panicle initiation / flowering / grain filling), arhar (sowing / vegetative), vegetables (vegetative / flowering / fruiting / maturity), *sali* rice (transplanting / tillering), early cauliflower and cabbage (transplanting / vegetative), ginger and turmeric (rhizome formation), *Khasi* mandarin (flowering / fruiting), banana (vegetative) in Meghalaya.
- Rice (transplanting / tillering), *kharif* maize (tasseling / silking / cob formation), groundnut (flowering), soyabean (vegetative / flowering), okra (sowing / vegetative), ginger and turmeric (planting / vegetative), *khasi* mandarin (new planting / vegetative / fruiting), French Bean, rice bean, urd and moong bean (vegetative / flowering / pod formation), banana (vegetative / fruiting), cucurbits (sowing / vegetative) in Mizoram.
- Soyabean, groundnut, green gram and black gram (sowing / vegetative), rice (preparation of nursery), maize (cob formation / maturity), okra (flowering / fruiting), lowland rice (transplanting), banana (fruiting), colocasia (flowering) and papaya (transplanting) in Nagaland.
- *Aus* or *kharif* rice (panicle initiation / flowering / grain formation), *aman* rice (transplanting / early tillering), upland / jhum rice (flowering / milk), cucurbits and other vegetables (flowering / fruiting), maize (tasseling / silking / cob formation) and sesame (vegetative / flowering / pod formation) in Tripura.

NORTHWEST INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- Tomato, chilli, paddy (transplanting/early vegetative), brinjal & cucurbits crops (flowering/fruitletting), lentil (pod formation), maize, hybrid cluster bean, baby corn, Pigeon pea (sowing/ vegetative), green gram and black gram, cotton (sowing), Sugarcane(sowing) in Delhi.
- Vegetables (flowering / fruiting / harvesting), garlic, ginger (planting), bhindi, (transplanting), cucurbits (transplanting), Khira, summer squash, bitter gourd, tur, brinjal, Shimla mirch, pepper and tomato (transplanting), Apple (fruit development), pomegranate (flowering), ginger, arbi, amaranthus, turmeric, rice, maize (sowing/transplanting) in Himachal Pradesh.
- Berseem (vegetative), cucurbits (vegetative / flowering/maturity), onion (seed bed preparation), capsicum, chilli, brinjal (nursery sowing / transplanting), raddish, carrot, turnip, cauliflower, cabbage, broccoli (sowing / transplanting), *kharif* fodder viz. maize, jowar, bajra, cowpea (growth / harvesting), early sown maize (initiation of tassel emergence / grain development), maize (vegetative), *kharif* pulses, moong, mash (flowering / pod development), rice (tillering/panicle initiation), *Kharif* oilseed like groundnut, sunflower, summer brassica etc. (vegetative/ flowering / seed development), orchards (apple-fruit development and pear – maturity) in Jammu & Kashmir.
- Chilli, capsicum (transplanting), tomato (vegetative/maturity/harvesting) and lahi (flowering / fruiting), sugarcane (planting), rice (nursery sowing/transplanting), litchi, loquat, peach, citrus (flowering / fruiting), mango (early varieties) (flowering), maize (cob formation), foxtail millet, okra, bottle gourd, bitter gourd, ginger, turmeric, soyabean (sowing / planting), sorghum, pigeon pea, urd and pearl millets(sowing) in Uttarakhand.
- *Spring* sugarcane (sprouting), berseem (vegetative), vegetables(fruiting), sugarcane (germination/tillering), pulses (seedlings), cotton (ball initiation), okra (sowing/vegetative), rice (sowing/transplanting), maize (knee height stage) in Punjab.
- Sugarcane (spring season) (planting/emergence/early vegetative), barseem (vegetative), pulses, moong, mash, pigeon pea (sowing), rice (transplanting/tillering) in Haryana.
- Rice (Transplanting), winter sugarcane (vegetative growth), summer sugarcane (initial growth / formative stage), cucurbits like gourd, bittle gourd, cucumber, etc. and another vegetables like lady's finger, tomato, brinjal, chilli etc. (sowing / flowering/fruitletting), black gram, baby corn/ maize / fodder maize, vegetables (vegetative/flowering/fruitletting), groundnut, jowar, bajra, til, moong, urd, moong (sowing), arhar (sowing /early vegetative), tomato, brinjal, cabbage (sowing) in Uttar Pradesh.
- Rice (nursery sowing/transplanting), narma cotton, desi cotton (flowering / boll formation in Sriganganagar), pearl millet, sorghum, maize, soybean, chilli, moong, cowpea, urd, sorghum and cluster bean (sowing) in Rajasthan.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

- Kuruvai rice (tillering/ flowering), cotton (flowering/boll formation), vegetables (nursery / transplanting/ fruitletting), sugarcane (vegetative/ grand growth/maturity), groundnut (vegetative/ flowering / peg formation/ pod development), maize (vegetative/harvest), sorghum (vegetative/flowering), black gram (flowering/ harvest), green gram (flowering/harvest) in Tamil Nadu.
- Sugarcane (ratooning/vegetative), cotton (sowing / vegetative), hybrid jowar, maize, ragi, sugarcane, sunflower, groundnut, red gram and horticulture crops (vegetative) in Karnataka. Early sown crops are at early vegetative stage.
- Maize (Sowing to seedling stage), jowar, cotton (vegetative), sugarcane and pulse crops like green gram (vegetative), rice (nursery / transplanting stage), groundnut (early sown crop – pegging, late sown crop- flowering/ vegetative) in Andhra Pradesh.
- *Virippu* rice (tillering/panicle initiation/flowering) and black pepper (berry development), ginger (vegetative), turmeric and vegetable crops (flowering to harvesting stage) *Mundakan* rice (sowing/transplanting) in Kerala.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Sugarcane (new *adsali* - planting / old *adsali* - grand growth), sugarcane (pre-seasonal) (vegetative), sugarcane (*suru*) (early vegetative), *Kharif* rice (early tillering in Konkan, Kolhapur, Pune, Nashik Division and transplanting in East Vidarbha), jowar (early vegetative / vegetative), soyabean (early vegetative / branching/ flowering), groundnut (early vegetative / vegetative / flowering in early sown crop), cotton (vegetative), red gram (early vegetative) and green gram (branching / flowering / pod formation in early sown crop).
- *Kharif* bajra (vegetative), vegetables (sowing / transplanting / vegetative), sugarcane (vegetative), groundnut (vegetative / flowering / pegging), *kharif* pulses (sowing / germination / vegetative), cotton (vegetative / flowering), rice (seedling / transplanting) in Gujarat.

CENTRAL INDIA [M.P., CHHATTISGARH]

- Sugarcane (vegetative), vegetables (flowering and fruiting), moong, urad, maize, soybean, sesame, groundnut, jowar groundnut, pigeon pea, *kharif* onion, brinjal, tomato and chilli etc. (sowing), rice (transplanting) in Madhya Pradesh.
- Rice (seedling / tillering), sugarcane (planting), maize, groundnut, arhar, green gram and sesame (sowing), ginger, turmeric, papaya, mango and guava (planting) in Chhattisgarh.

Annexure II

List of Varieties

Orissa**Arhar:**

Early duration- Prabhat, Upas-120, ICPL-86012, ICPL-87.

Medium duration - Asha, Visakha, DA-11, C-11 etc.

Papaya: Honey Dew, Kurg Honey Dew, Co-1, Co-2, Pusa Delicious, Pusa Majestic, Pusa Dwarf and Pusa Giant.

Cow pea:

Bush type – Pusa Phalguni, Pusa Komal, SEB-2, Pusa Barsati.

Runner type – American Long and Banarasi Long.

Other improved varieties – Russian Giant, EC-4316, NP-3, C-152, UPC-286, UPC-5286 and IGFI-450.

Okra:

Improved high yielding varieties – Utkal Gourav, Arka Anamika, Uphar, Parvani Kranti.

Hybrid varieties – Varsa, Vijay, Vishal, Tara, Adhunik, Atyadhunik and Supriya.

Bitter gourd: Pusa Domousumi, Coimbatore Long Green and Arka Harit.

Ridge gourd: Pusa Najdar, Jaypur Long and any local variety.

Cluster bean: Pusa Naubahar.

Ginger: Suprava, Suruchi, Surabhi.

Turmeric: Roma, Surama, Rang, Rashmi etc.

Maize: Navjot, Shakti, Decan-107, Decan-109.

Rice:

Extra early – Kaling-3.

Early – Khandagiri, Bandana, Pathara, Parijat, Annada, Jogesh, Siddant.

Medium – Pratikshya, Manaswini, Tapaswini MAS, Konark, Kharavela, Naveen, Abhisek, Lalat, MAS MTU-1001, MTU-1010, Konark, Gajapati, Surendra, Lalat.

Late - CR-1009, CR-1018, Swarna (MTU-7029), Indravati, Mahanadi, Puja, Ramachandi, Kanchana, Sarala, Lunishree, Ranidhan, Mrinalini, RGL-2837, Ketakijoha, Moti, Padmini, Kanchana, Mahanadi, Jagabandhu.

Fine - CR-1014, BPT-5204.

Flash flood areas - Swarna Sub-1.

Yam: Shreekirti, Shreerupa, Hatikhoj, Shreeshilpi; small yam – Shreelata, Shreekala.

White yam: Shreesubhra, Shreepriya, Shreedhanya.

Groundnut: Ak-12-24, TG-3, TG- 38, TMV 2, ICGS -11, JL-24 and Smruti for oil.

Ragi: Divyasingh, AKP-2, AKP-3, AKP-7, Godavari, Neelachal, Bhairavi, Shubhra and Chilika.

Chrysanthemum:

Yellow - Chandrama, Kiku, Biory, Super Giant and Evening Star.

White - Snow Ball, Inoscence and Premier.

Red - Brave, Rustic, Alfred and Wilson.

Sesamum: Kanaka, Kalika, Vinayak, Uma, Prachi, Tilottama, Nilima.

Green gram: K-851, PDM-11, PDM-54, OUM-11-5.

Black gram: T-9, Pant U-11, Pant U-19, Pant U-30.

Niger: Deomali, Niger-1.

Cashew nut: BPP-4, Bhubaneswar-1, VRI-2, Hybrid 2-17.

Banana: Dwarf Cavendis, Robusta, G-9, Tissue cultured Banana – Hampa, Patakpara, Bantal and Kabuli.

Mango: Baiganpalli, Totapuri, Bombay green, Suvarnarekha, Neelam, Himsagar, Langra, Dusheri, Amrapalli, Mallika, Ratna, Sindhu, Alphanso, Keshar etc.

Lemon: Ureka, Lisbon, Bhillafranka of lemon and Kagazilembu, Mexican lime, Sarbati lime and Tahita of lime.

Marigold: Giant Ball, African Yellow, Giant Ball African Orange, Early Yellow, Early Orange, Serakola, Africut, Sun Giant, Crown Of Gold, Spun Gold and Cuprid Yellow.

West Bengal

Aman rice:

Upland situation (110-120 days): Rasi, Khitish, Bhupen, CST-7-1, PNR-519, Kunti, Ajaya, CSR-6.

Shallow low land (130-140 days): Manas Sarovar, MTU-7029 (Swarna Masuri), MTU-1001, MTU-1010, Naveen, IET-5656.

Semi deep water (150-160 days): Jogen, Sabita, Purnendu, Amulya, CR-1009, CR-1018, Sarala.

Banana: Mortoman, Chapa, Kathali, Singapuri.

Jharkhand

Turmeric: Rajendra Sona.

Ginger: Burdwan and Nadia.

Elephant foot yam: Gajendra.

Maize: Birsa-1, Birsa Vikas-1, Suhan-1, Suwan Composite 1 (100 days) and hybrid variety – HQPM 1 (100 days), composite variety – Birsa Makka 1 (80-85 days) and hybrid variety - Kanchan (80-85 days), Birsa Vikash Makka 2 (70-80 Days).

Rice: Swarna (MTU 7029), Rajshree, BPT 5204 (Sambha Mahsuri), Birsamati and for hybrid rice – Proagro or Arize 6444; for medium land rice – IR 36, 64, Lalat, Naveen, Sahbhagi, BR 10, Kanak, Rajendra Dhan 202, Sugandha, Birsa Vikash Sugandh Dhan 2, Birsa Vikash Dhan 203; Birsamati, early duration varieties – Vandana, Lalat, Birsa Dhan 108, 109, 110.

Horse gram: Birsa Kulthi-1 (95 days), G.H.G.-20 (75 days).

Urd: T 9, Pant U 19, 30, 35 and Birsa Urd 1.

Moong bean: Pusa Vishal, SML 668, K 885, PS 16, Pant Moong 2 and PDM 11.

Pigeon pea: Birsa Arhar (210 days), Bahar (240 days) and ICPH 2671 (210 days).

Finger millet: Birsa Marua 2, A 404 and GPU 45, 47.

Groundnut: AK 12-24, Birsa Moongfali 1, 2, 3 and bold type – Birsa Bold (BAU 13).

Sweet Potato: Birsa Sakarkand-1 and Sri Bhadra.

Sesame: Kanke Safed and Krishna.

Horse Gram: Birsa Kulthi-1 (95 days), G.H.G.-20.

Bihar

Rice: Mansuri, Rajendra Mansuri, Nata Mansuri, Rajendra Sweta, Santosh, Rajshree, Satyam, Pankaj, Swarna (MTU 7029), Sita, Kank and IR-36.

Short duration varieties: Pusa 2-21, IR-36, Saket-4, Prabhat and photosensitive tall local varieties like Katarni, Kamini, Sugandha, Tulsi Munjari.

Kharif maize: Shaktiman 2, Shaktiman 3, Shaktiman 4 and Deoki.

Scented rice: Sugandha, Kamani, Rajendra Suwasani and Rajendra Kasturi.

Mishrikand: Rajendra Misrikand 1.

Onion: N-53, Agrifound Dark Red and Baswant 780.

Tomato: DBRT-2, Arka Vikash, Pusa Gaurav, Labonita, Marglov, Punjab Kesri, Sweet 72, Pant Bahar and hybrid varieties such as Vaishali, Rupali, Navin, Ratna, ARTH-3.

Brinjal: Rajendra Baigan-2, Rajendra Annapurna, Pant Baigan, Pusa Anmol, Pusa Purple Long, Arka Navneet, Pusa Hybrid-5.

Radish: Pusa Chetki, Pusa Deshi, Pusa Himani, Pusa Reshmi, Japani Safed, Arka Nishant.

Cauliflower: Kuwari, Patna Early, Pusa Katki, Pusa Dipali, Hajipur Aगत.

Pointed gourd: Rajendra Parwal 1, Rajendra Parwal 2, F.P. 1, F.P. 3.

Assam***Sali rice:***

Long duration: Monohar Sali, Andrew Sali, Gitesh.

Short duration: Luit, Kapili, Kolong, Dishang.

Others: Jalashree, Jalkuwari, Plaban.

Arhar: T-21.

Early cauliflower: Early Kunwari, Pusa Deepali, Pusa Katki.

Green gram: T-44, Kopergaon, K-851, ML-56, ML-131.

Black gram: SB 121 (Saonia Mah), T-9, T-27, Pant U-19, T-122.

Radish: Pusa Desi, Pusa Himani, Pusa Chetki.

Cowpea: RC 19, TVX-944-02E.

Sesame: AST-1, Madhabi, Vinayak, Punjab Til -1, Gouri.

Meghalaya

Arhar: T-21.

Manipur

Rice: RC Maniphou 7.

Delhi

Hybrid cluster bean: Pusa Komal, Pusa Sukamol,

Baby corn: HM-4.

Sugarcane: Karan-1, Karan-2, Co-64, and Co-1496.

Late varieties of Cotton: H-777, H-974, H-1098.

Pigeonpea - Pusa 2001, Pusa991, Pusa992, Paras manak, UPAS 120.

Soybean: Pusa-9712, Pusa-9814, and Pusa-16.

Fodder Sorghum: Pusa chari-9, Pusa chari-6.

Himachal Pradesh

Cauliflower: Sweta, Madhuri

Capsicum green: California wonder, Mahabharat, Capsicum yellow : US 616

Cucumber: Kiyan

Summer squash: hybrid green

Lettuce: Iceberg
Brinjal : Arka Nidhi, PPC
Ageti bhindi : P-8, Prabhini kranti, Arka anamika
Frenchbean : Contender
Pepper : Surjmukhi
Broccoli: Palam Samridhi
Rajmash : Triloki,Jwala,baspa Kailash

Jammu & Kashmir

Rice : Jaya, RR-8585, IET-1410, Ratna,PC-19, GS-2, mansar, trikuta, C-5 and C-8
 Direct sowing : Jaya, RR-8585, PC-19, IET-1410 and Ratna, Basmati-370, Sanwal Basmati, Local Basmati (Ranbir)
Brinjal : PPL, PPC & PPR
 Raddish: Japanese white
 Carrot: . Nantes and Pusa Yamdagini
 Turnip : Purple Top White Globe
Chillies : NP-46A, Pusa jawala
Maize : var.GS-2, mansard, trikuta, C-5 and C-8, GS-2, Super composite, Mansar, C-6, C-8 and Local
Pulses: Mash: Pant U-19, Moong: PDM-54, ML-131 and ML-818.
Groundnut: Punjab no.1, M-13 and JL-24,
Bajra:WCC-75, ICMS-7703 and Hybrid M.H.B-110,
Til: Punjab Til-1.
Cabbage: GA, POI

Punjab

Paddy : Pusa Basmati 1, Pusa 1121, Punjab Basmati 2, Punjab Mehak and Super Basmati during these days and Basmati 370 and Basmati 386, PAU 201, PR 120, PR 118, PR 116, PR 114, PR 113, PR 111, PR 115 etc.
Okra : Punjab 7 / Punjab 8
Radish : Punjab Ageti, Pusa Chetk

Haryana

Baisakhi Mung: K851 and Type 44 and Muskan
Pigeon pea: UPAS 120, T-21.

Uttar Pradesh

Arhar : T-7, Amar, Bahar, Narendra Arhar-1, Azad, Malaviya -13, Pusa-9.
Jowar: CSV-13, CSV-15, S.B.P.-1388, Vijeta, CSH-16, C.S.H.-9, C.S.H.-14, C.S.H.-13, C.S.H.-23.
Maize : Tarun, Navin, Kanchan,Sweta, Navjyoti, Ganga-1 and 2, Duccan-107.
Til : Ta-4, Ta-12, Ta-13, Ta-78
Urd: Shekar-1, Azad-1, Azad-2, Azad-3, Ta-9, Pant U-19, Ta-65, I.P.U.94-1, Pant Urd-33, Narendra Urd-1, Bhokhar-2, Pant urd-30 or Pant Urd -35
Moong : Pant Moong-1, Pant Moong-2, Pant Moong-3, Pant Moong-4, P.D.M.-11, P.D.M.-54, Narendra Moong-1, Samrat, K.M.-2241, K.M.-1995.
Bajra: composite var. : W.C.C.-75, Raj-171, Hybrid var.: Pusa-322, I.C.M.H.-451
Vegetables:
Pumpkin: Azad pumpkin-1, Narendra pumpkin-1,
Gourd: Kalyanpur Lambi Hari, Pusa Meghdoot, **Taroi-** Kalyanpur Chikni, Pusa Chikni,
Bitter gourd: Baramasi, Narendra Baramasi,
Cucumber – Kalyanpur Hara

Lady's finger – Azad Bhindi-1,2, Parmani, Kranti, Pusa Sawani, Vaishali, Selection-1

Brinjal : Azad-1 type-3, Pusa purple log, Azad Baingan gol, Kranti

Onion : N-53, AG found Dark Red, Arka Kalyan.

Lobia: Improved varieties T & 5269, T&2, UPC & 4200, Pusa Komal, 5269

Mango: early var.: Bambai Hara, Gopal Bhog, Medium var.: Dabhahari, Langada, Lucknow Safeda, late var.: Chouda, Amrapali, Mallika, Swarn Rekha.

Banana: Dwarf Kovindis, Basrai Dwarf, for vegetables purpose: Hari chhal.

Pappaya: Pusa Delecius, Pusa Mejestry, Pusa Dwarf, Pusa joint, C.O.-1,2,3.

Amrud: Lucknow-49, Alahabadi Safeda, Banarasi Surkh, Chittidar, Apil colour, Arkamrudula

Awala: Chakaiya, Krushna, Kanchan, Narendra Awala-6,7, Lakshmi-52

Lemon: Kagji gol, Hybrid-2

Uttarakhand :

Maize : Ganga-2, Ganga-7, African Tall, Ganga-5, Pusa Hybrid-1, Pusa Hybrid-2 and Composite varieties like Gaurav, Amar or Surya, Him, Ganga Makka-9, Ganga Makka-11

Lobia : Russian Joint, EC-4216, UPC-5286 etc.

Okra : VL Bhindi-1

Soyabean : Brag, PK-262, VL Soya-2, VL Soya 21, VL Soya-47, pant soya-1042, 1092 and PRS-1

Gahat : VLG-1

Ugal : VL-7, PRB-1

Urd : Pant Urd-19, Pant Urd-30. Pant Urd-31 or Pant Urd-35

Cabbage: GA, POI

Rajasthan

Rice : JC152(90 to 95 days), JC5(100 to 110 days), JC10(100 to 120 days), RC9(80 to 85 days), RC19(60 days), Ratan BK79, Jay Basmati 370] Kasturi(IET8580)] Taravari Basmati, Pusa Sugand 4 & 5, Pusa improved Basmati-1.

Moth : RGC197, RMO 257, RMO 435, RMO 423, RMO 225 and RMO 40,

- i. **Pearl millet**: Pusa 334, Pusa 383, HHB 67, HHB 94, Raj 171, ICMH 356, ICTP 8201 and RHB 121, H.H.B.-67(I), I.C.T.P.-8203, H.H.B.-60, Raj.- 171, G.H.B.-538, R.H.B.-90 and I.C.M.H.-356, Raj 171, H.H.B. 67, Pusa 334, Pusa 383, HHB 67, HHB 94, Raj 171, ICMH 356, ICTP 8201, RHB 121 MH-169, RHB 90, RHB121, CZP 9802, ICMH356, Pusa-334, HHB-67, HHB-94.

Moong : K-851(60 to 65 days), Pusa Baishaki(60 to 80 days), RMG62(60 to 65 days) ML131, 267, Ganga-1(Jamunothri), Ganga-8 (Gangothri), SML668, SUM-2, K-851, , ML131, Pusa 267,

Sorghum: Improved varieties/hybrids - CSV 15, CSH 14, CSH 16, CSH 5-6,9, SPV 245, 346, 475, 96, CSV 15, SSG-59-3 and MP-Chari, CSV-15, CSV-17, Pratap Jowar-1430 and green fodder, varieties are Rajasthan Chari-1, Rajasthan Chari-2, SPV-837, and MP-Chari.

Cluster bean: Improved varieties - RGC 936, RGC 986, RGC 1002, RGC 1003, RGC 1017, and HG 365.

Sesamum: Improved varieties - Pratap, TC 25, RT 46, RT 54, RT 103, RT 125 and Tt 13.

Ground nut: Improved varieties - GG 2, GG 7, HNG 10, Prakash and M 13.

Green gram: Improved varieties - K 851, RMG 62, RMG 268 and Ganga

Bajra: R.H.B.-121, H.H.B.-67(I), I.C.T.P.-8203, H.H.B.-60, Raj.- 171, G.H.B.-538, R.H.B.-90 and I.C.M.H.-356

Guar: HG 75, RGC 936, RGC 197, RGC 966, RGC 1017, RGC 1002 and RGC 1003 a

Moth bean: RMO-40, RMO-435, RMO-225, RMO 257, RMO 423

Maize: Sagar Ganga white 2, Sagar Ganga 5, Pratap maize 2, 5, PEHM-2 and Mahi Kanchan

Til : R.T. 46, TC 25, C50(Pratap) RT 46, 103 and 125

Urd : Krishna, T-9, pant U19, Pant U 31, RBU 38, Barka, KU 96-3.

Arhar: Prabhat, Gwalior-3, UPAS 120, ICPL 87, 151, ICPH-8.

Soyabean: MACS 58, 450, JS 80-21 335, 93-0, PS16, PK472, NRC-12, Pratap soya 2, RKS24.

Groundnut : RSB 87, RS 138, JL 24, RG 14,

Cowpea: C-152, JC-5, JC-10, C-52, RS-9, FS-68, RC-19, RC-101 and RCP-27

Tomato: Pusa Ruby, Pusa early dwarf, Roma

Brinjal: Pusa long, Meghdoot, ArkaBahar, Pusa summer and prolific round

Fodder grass : Desmodium, Muslai, Gold, Penicum Koleratum.

Cucumber: Balam, PusaSahyog, **Radish :** Pusa Chetki, **Cauliflower :** Improved Japanese, Pusa hybrid-2 & Himjyoti

Guava: Allahabad safeda and Lucknow 49, **Pomegrante:** Ganesh, Jhalore and Seedless, **Orange:** Nagpur and Kinnoo, **Lime:** Kagzi and Baramasi, **Aonla:** Banarshi, Krishana, Kanchan, Chakaiya, NA7, NA9 and NA10, **Ber:** Sonor,Thornless, Katha Alwar, Gola,and Seb

Gujarat

Cluster bean: G.Guar-2.

Caster: GAUCH-1, GCH-2, GCH-4, GCH-5, 6 or 7.

Pegion pea: BDN-2, Viashali, ICPL-87, Gujarat-100.

Sesame: GT-1 or GT-2.

Maharashtra

Red gram: ICPL-87, Vipulla, BSMR-853, 736 for Madhya Maharashtra, ICPL-87119 (Asha), C-11 for Vidarbha.

Adsali Sugarcane: CO-86032 (Neera), COM-88121, COM-0265 (Phule-265).

Banana: Basrai, Shrimanti and Gradnine.

Mrug Banana: Basrai, Shrimanti, Gradnine.

Andhra Pradesh

Blackgram: LBG-20, LBG-623, T-9, Madira-307 and LBG-752

Greengram: LGG-407, LGG-430, LGG-460 warangal-2

Redgram: LRG-30, LRG-38, LRG-41, ICPL-8863, ICPL-87117

Groundnut: TAG-24, JL-24, K-6, K-9, Narayani, ICGV-91114

Sesame: Gauri, Madhavi, YLN-11, YLH-17, YLH-66

Paddy:

MTU-7029 (Swarna), MTU-2067 (Chaitanya), MTU-2077, Krishnaveni, BPT-5204 (sambamashuri), BPT-1768(Bapatlasannalu), MTU-1061 (Indra), NLR-T-145 (Swarnamukhi), NLR-34449 (Nelluri mashuri), NLR-9674 (kothamolokolukulu), NLR- 28523 (Sriranga), NLR-3BPT-5204 (sambamashuri), Pushkala(RGL-2624), IR-64 and MTU-9993, MTO-1010, MTU-1001, Vasundhara, Swarna and Srikakulam sannalu

Karnataka.

Sugarcane : CO-419 , CO-62175,& CO-7804

Sunflower : Modern, KBSH-1,41,42,&44

Fieldbean : HA-3,4

Green gram : Selection – 4, BGS-9

Black gram : TAU – 1, DU – 1, T-9

Soybean : JS - 335

Jowar : DSV – 2

Paddy: Mangala, Mukthi, KMP-105

Ragi: GPU-26,28,45 &48, HR-911, Indaf-5,9 PR-205

Redgram: TTB-7, BRG-1, 2, ICP-7035 , CPI-7035

Maize: Ganga-11, Deccan-103, NAC-1137, NAH-1137
 Tur Var,: (Medium to Long Duration)PT-221,GS-1,ICP-8863(Maruti),ICPL-87119(Asha)WRP-1, ,&
 Short Duration Var: like ICPL-87(Pragati), Selection-31(Zone 2 irrigated areas),GCS-11-39 (Zone-2)

Madhya Pradesh

Maize- JM 12, JVM 421, JM 13, JM 216; **Hybrid varieties:** HPQM-1, Payonior 30R77, Sinzenta NK 30, Monsento Allrounder, Bioseed 9681;

Soybean: JS 9560 (85 days), JS 9305 (90-95 days), JS 335 (110 days);

Urd: JU 86, JU 3, T- 9 etc

Moong: K851, Jowar moong-721, Pant moong-4, TJM-3,

Urd:Oant U-30, RBU-38, Jowar Urd-3, RJU-88.

Arhar: Laxmi, Pragti, Asha, Jagrati, JKM-7 and JKM-189

Mango: Kesar, Aamrapali, Dasahri, Mallika, Guava: seedless, Sardar, Allahabadi safeda,

Amla:chakaiya, NA 3, NA 7, **Pomegranet:** Ganesh, Mradula.

Short duration varieties for Jabalpur

Paddy-JR-201, Poornima, JRH-5, JRH-8 (Hybrid), IR-36, JR-503SV-1

Jowar-JJ-741, JJ-938, JJ-1022, JJ-1041 and CSV-15

Arhar-Laxmi, Pragti, Asha, Jagrati, JKM-7 and JKM-189

Soybean-JS-95-60, JS-93-05, JS-97-52, JS-80-21, JS-335, NRC-37

Moong-Pusa Vishal, K-851, JN-721, Jawahar-99-37, HUM-1, HUM-2, JM-98-90, PDM-11

Urd-JU-2, JU-3, JU-86, T-9, JCB-623, LGB-884 and TAU-1

Chattisgarh

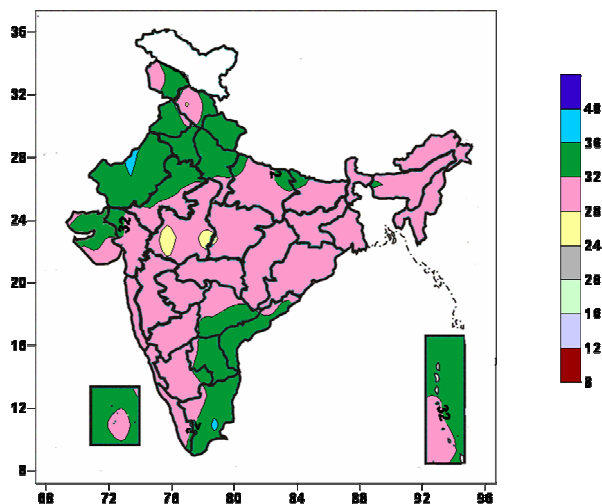
Paddy: MTU-1001, MTU-1010, IR-64, IR-36, Poornima, Annada, Mahamaya, Karma, Mahsuri, Bamleshwari, Swarna

Soybean: JS 335, Indira Soya-09, JS 93-05.

Annexure III

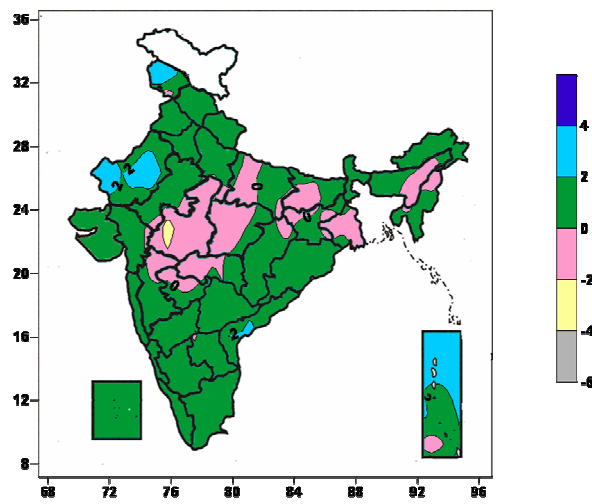
Contour maps for the week ending 10.08.2011

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 10.08.11



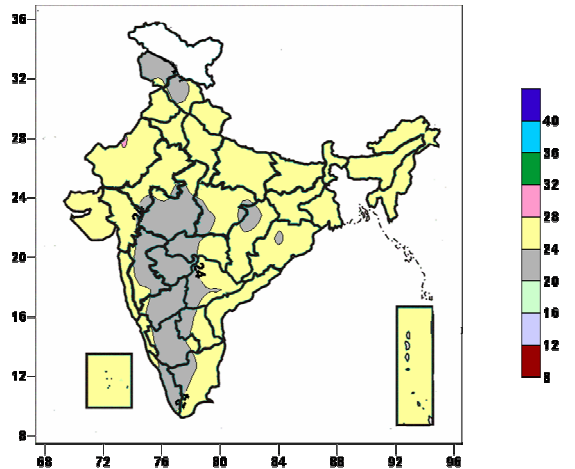
Actual Mean Maximum temperature ranged between 36 to 40 $^{\circ}\text{C}$ over some parts of West Rajasthan, Tamil Nadu, 32 to 36 $^{\circ}\text{C}$ over most parts of Rajasthan, Jammu & Kashmir, Uttarakhand, Punjab, Haryana, Delhi, West Uttar Pradesh, Andhra Pradesh, Tamil Nadu, Saurashtra & Kutch, Lakshadweep, Andaman & Nicobar Islands, some parts of Himachal Pradesh, East Uttar Pradesh, Bihar, Gujarat, South Interior Karnataka, Kerala, 24 to 28 $^{\circ}\text{C}$ over some parts of Madhya Pradesh, 32 $^{\circ}\text{C}$ to 36 $^{\circ}\text{C}$ over remaining parts of the country.

Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 10.08.11



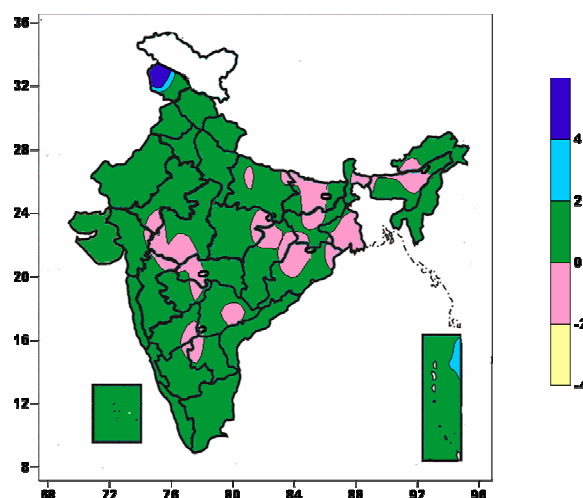
Actual Mean Maximum temperature anomaly between 2 to 4 $^{\circ}\text{C}$ over most parts of Jammu & Kashmir, West Rajasthan, some parts Coastal Andhra Pradesh, -2 to 0 $^{\circ}\text{C}$ over most parts of Madhya Pradesh, Gangetic West Bengal, Nagaland, Vidarbha, some parts of East Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Assam & Meghalaya, Manipur, Madhya Maharashtra, Marathwada, Gujarat, , Andaman & Nicobar Islands, -2 to -4 $^{\circ}\text{C}$ over some parts of West Madhya Pradesh, 0 to 2 $^{\circ}\text{C}$ over remaining parts of the country.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) In India for the week ending 10.08.11



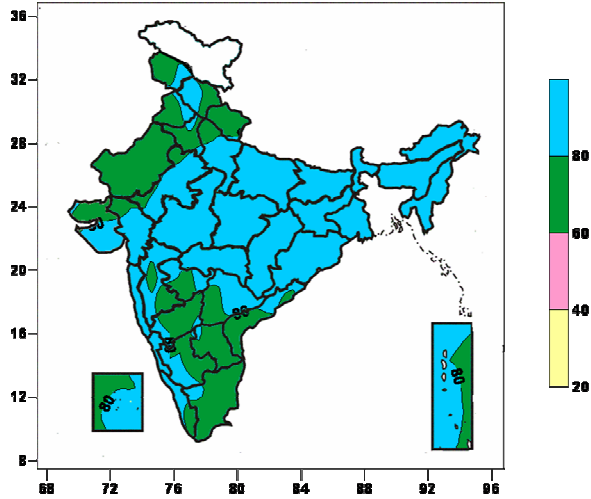
Actual Mean Minimum Temperature ranged between 20 to 24 $^{\circ}\text{C}$ over most parts of Jammu & Kashmir, Himachal Pradesh, West Madhya Pradesh, Maharashtra (except Konkan & Goa), South & North Interior Karnataka, Kerala, some parts of East Rajasthan, Chattisgarh, Orissa, East Madhya Pradesh, Telangana, Raylaseema, Tamil Nadu, 24 to 28 $^{\circ}\text{C}$ over remaining parts of the Country..

Minimum Temperature ($^{\circ}\text{C}$) Anomaly In India for the week ending 10.08.11



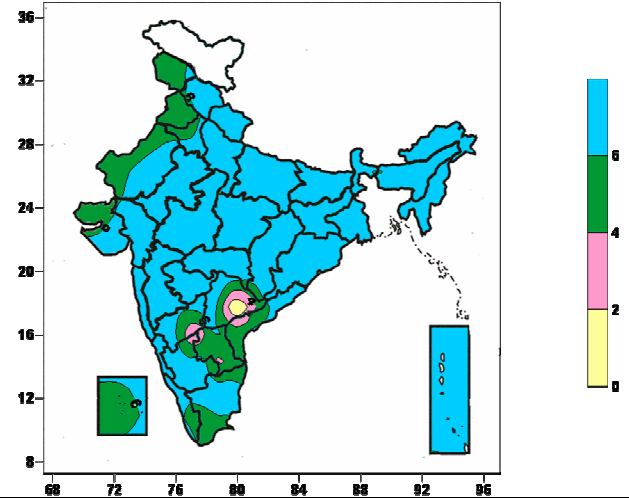
Minimum Temperature anomaly ranged above 4 $^{\circ}\text{C}$ over most parts of Jammu & Kashmir, 2 to 4 $^{\circ}\text{C}$ over some parts of Jammu & Kashmir, -2 to 0 $^{\circ}\text{C}$ over most parts of Bihar, Gangetic West Bengal, some parts of East Uttar Pradesh, Jharkhand, Gangetic West Bengal, Assam, Arunachal Pradesh, Orissa, Chattisgarh, East Rajasthan, Madhya Pradesh, Telangana, Raylaseema, South & north Interior Karnataka, Madhya Maharashtra, Marathwada, Vidarbha, Gujarat, 0 to 2 $^{\circ}\text{C}$ over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 10.08.11



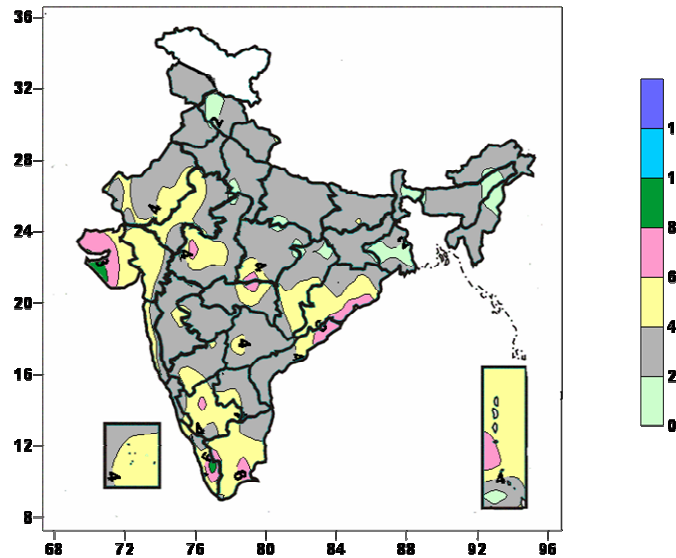
Relative humidity between 60 to 80% over most parts of West Rajasthan, Jammu & Kashmir, Punjab, Haryana, Delhi, Andhra Pradesh, Tamil Nadu, South & North Interior Karnataka, Madhya Maharashtra, Marathwada, some parts of Himachal Pradesh, East Rajasthan, West Uttar Pradesh, Gujarat, Saurashtra, Kerala, Lakshadweep, Andaman & Nicobar Islands, 80% and above over remaining parts of the country.

Cloud amount (okta) over India for the week ending 10.08.11



Cloud amount 4 to 6 okta over most parts of Jammu & Kashmir, Punjab, Coastal Andhra Pradesh, Raylaseema, Lakshadweep Islands, some parts of West Rajasthan, Haryana, Tamil Nadu, Kerala, North & South Interior Karnataka, Saurashtra & Kutch, 2 to 4 okta over some parts of Andhra Pradesh, North & south Interior Karnataka, 0 to 2 okta over some parts of Telengana, 6 okta and above over remaining parts of the country.

Wind speed (knots) over India for the week ending 10.08.11



Wind speed ranged between 8 to 10 knots over some parts of Kutch, Kerala, 6 to 8 knots over some parts of Coastal Orissa, Madhya Pradesh, Vidarbha, Tamil Nadu, Kerala, South Interior Karnataka, Saurashtra & Kutch, Andaman & Nicobar Islands, 4 to 6 knots over most Parts of Gujarat, Tamil Nadu, South Interior Karnataka, Lakshadweep, Andaman & Nicobar Islands, some parts of Rajasthan, Madhya Pradesh, Chattisgarh, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra, Saurashtra & Kutch, 0 to 2 knots over some parts of Himachal Pradesh, Uttarakhand, Uttar Pradesh, Punjab, West Bengal, North East India, Madhya Pradesh, Andaman & Nicobar Islands, 2 to 4 knots over remaining parts of the country.