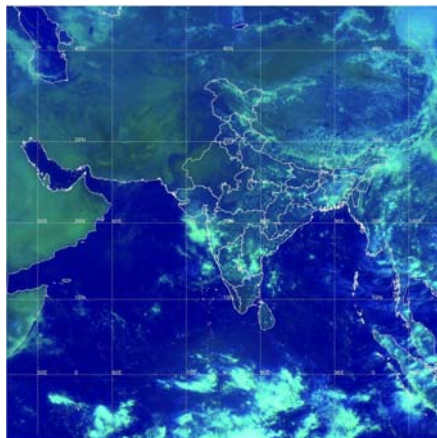




# National Agromet Advisory Bulletin

Thursday, 1<sup>st</sup> October, 2008

(For the period 1<sup>st</sup> to 5<sup>th</sup> October, 2008)



Satellite image of 6 UTC  
on 3<sup>rd</sup> October, 08



In Coastal Orissa, in flood affected up-medium lands, sowing of pre-*rabi* crops such as niger, castor, sesame and pulses and *rabi* groundnut may be undertaken. In medium and low lands, after receding of flood water, sowing of sprouted rice seeds of short duration rice is advised.



In flood affected areas of Assam, farmers are advised for direct sowing of *sali* rice seeds of the varieties like Disang, Luit, Kapili, IR-50 and Sonamukhi after receding of flood water.

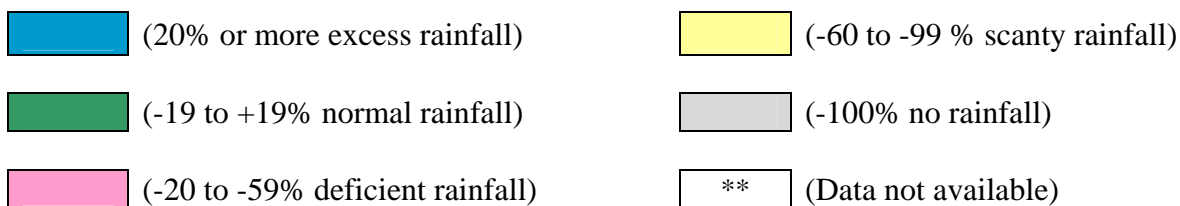
Issued by  
National Agrometeorological Advisory Service Centre,  
Agricultural Meteorology Division,  
India Meteorological Department, Shivajinagar, Pune.

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

Comparison of weekly rainfall distribution (in % dep.) in different Met. Sub-divisions during past 5 weeks

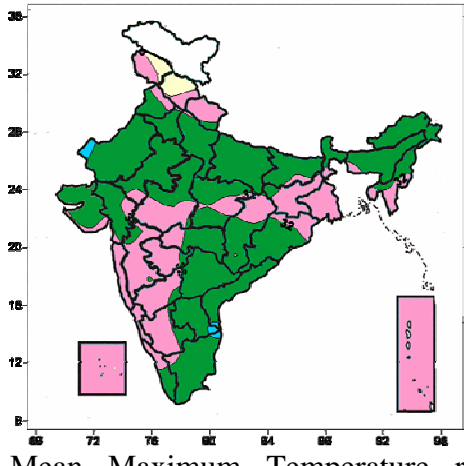
Sub-division	Cumulative Rainfall (% Dep.) for the period				
	3 <sup>rd</sup> September	10 <sup>th</sup> September	17 <sup>th</sup> September	24 <sup>th</sup> September	1 <sup>st</sup> October
A & N Islands	-46	5	63	-74	-58
Arunachal Pradesh	61	-13	-88	-59	-59
Assam and Meghalaya	121	-13	-55	-24	-20
NNMT	26	-23	-26	93	13
SH West Bengal & Sikkim	143	17	-67	-43	-55
Gangetic West Bengal	-1	8	13	50	16
Orissa	-49	11	160	125	-67
Jharkhand	-54	-4	6	58	-52
Bihar	45	15	-81	-51	38
East Uttar Pradesh	-74	20	-89	242	-70
West Uttar Pradesh	-89	14	-34	128	-97
Uttaranchal	-78	-5	-81	289	-94
Haryana, Chandigarh and Delhi	-86	5	-75	530	-99
Punjab	-53	26	-97	119	-100
Himachal Pradesh	-73	-10	-93	397	-99
J & K	-67	11	-64	-69	-95
West Rajasthan	-99	8	9	116	-100
East Rajasthan	-89	-10	88	193	-94
West M. P.	-94	-23	-21	21	-90
East M. P.	-71	-13	-74	110	-98
Gujarat region	-91	-14	234	218	-100
Saurashtra & Kutch	-94	-25	893	291	-99
Konkan and Goa	-81	0	323	66	-98
Madhya Maharashtra	91	-1	263	16	-97
Marathwada	10	-25	206	-13	-99
Vidarbha	-57	-19	12	-23	-96
Chhattisgarh	-44	-12	-46	100	-86
Coastal A. P.	-71	14	63	-69	-80
Telangana	-65	8	95	-68	-90
Rayalseema	89	29	-86	-84	-63
TamilNadu & Pondicherry	49	33	-85	-78	-72
Coastal Karnataka	-62	-17	141	-28	-98
N. I. Karnataka	91	0	-10	-60	-75
S. I. Karnataka	281	25	-17	-62	-93
Kerala	70	-22	92	-20	-99
Lakshadweep	295	7	-92	-93	-94

The sub divisions like Jammu & Kashmir, West Madhya Pradesh, received scanty / deficient rain in 4 out of last 5 weeks; Andaman Nicobar island, Arunachal Pradesh, Assam & Meghalaya, Sub-Himlayan West Bengal & Sikkim, Uttar Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Himachal Pradesh, East Madhya Pradesh, Saurashtra & Kutch, Vidarbha, Chhattisgarh, Andhra Pradesh, Coastal Karnataka, Tamil Nadu, Kerala and Lakshadweep received scanty / deficient rain in 3 out of last 5 weeks. Other subdivisions received normal or excess rain for at least 3 weeks out of last 5 weeks.



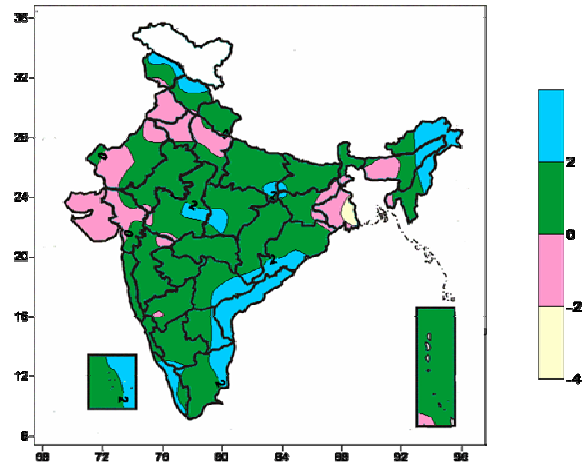
Contour maps for the week ending 30.09.08

Actual Mean Maximum Temperature (°C) In India for the week ending 30.09.08



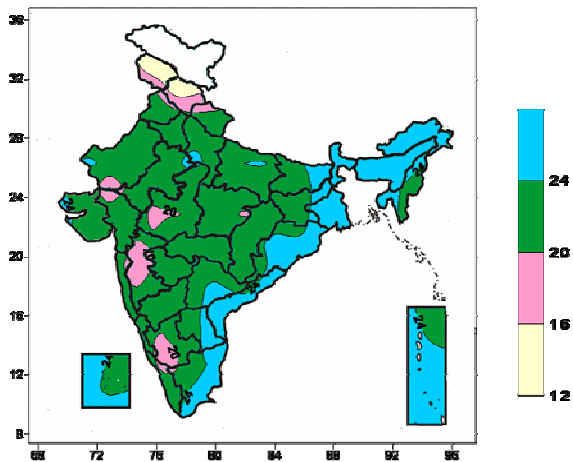
Actual Mean Maximum Temperature ranges between 36 to 40°C in some parts of West Rajasthan and 32 to 36°C over some parts of Uttarakhand, Kerala, most parts of remaining North West India, North East India, Bihar, Sub Himalayan West Bengal, Orissa, Central India, Rajasthan, Gujarat, Andhra Pradesh, Tamil Nadu, 24 to 28°C in some parts of Jammu & Kashmir, Himachal Pradesh and 28 to 32°C in remaining part of the country.

Maximum Temperature (°C) Anomaly in India for the week ending 30.09.08



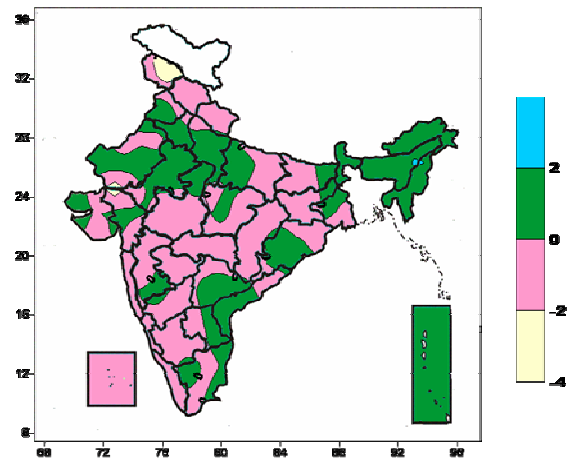
Maximum Temperature anomaly ranges between 2 to 4°C over some parts of Jammu & Kashmir, Himachal Pradesh, East Uttar Pradesh, Bihar, Madhya Pradesh, Arunachal Pradesh, Assam, Nagaland, Manipur, Orissa, Telangana, Rayalaseema, Tamil Nadu, Kerala, Lakshdweep, most parts of Coastal Andhra Pradesh, -2 to 0°C in some parts of West Rajasthan, Madhya Maharashtra, North interior Karnataka, Jharkhand, Assam, Tripura, most parts of Punjab, Haryana, West Uttar Pradesh, Gujarat, Gangetic West Bengal, -4 to -2°C in some parts of Gangetic West Bengal and 0 to 2°C in remaining parts of the country.

Actual Mean Minimum Temperature (°C) In India for the week ending 30.09.08



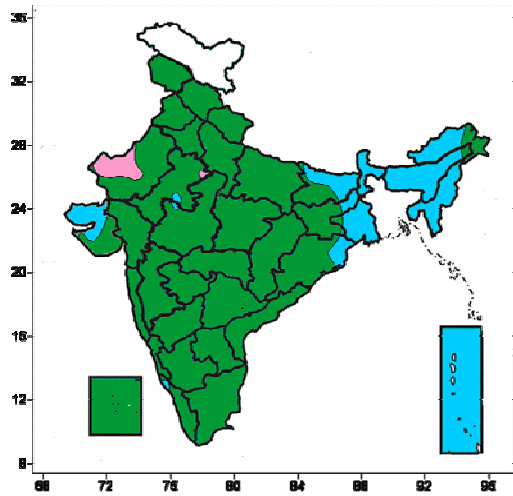
Actual Mean Minimum Temperature ranges between 24 to 28°C over some parts of Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Telangana, Rayalseema, Tamilnadu, most parts of North East India, West Bengal & Sikkim, Orissa, Coastal Andhra Pradesh Lakshdweep, Andaman Nicobar Island, 16 to 20°C in some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, Uttarakhand, West Rajasthan, North Gujarat, Madhya Pradesh, Madhya Maharashtra, South Interior Karnataka, Kerala and 20 to 24°C in remaining parts of the country.

Minimum Temperature (°C) Anomaly in India for the week ending 30.09.08



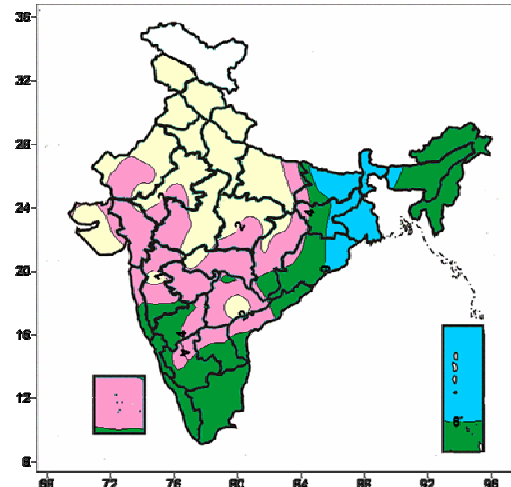
Minimum Temperature anomaly ranges between 0 to 2°C over some parts of Punjab, Haryana, Delhi, Uttar Pradesh, East India, Madhya Maharashtra, Madhya Pradesh, Rajasthan, Gujarat, Tamil Nadu, most parts of North East India, Andhra Pradesh, Andaman & Nicobar Island, -4 to -2°C over some parts of Jammu & Kashmir, -2 to 0°C over remaining parts of the country.

**Relative Humidity (%) over India for the week ending 30.09.08**



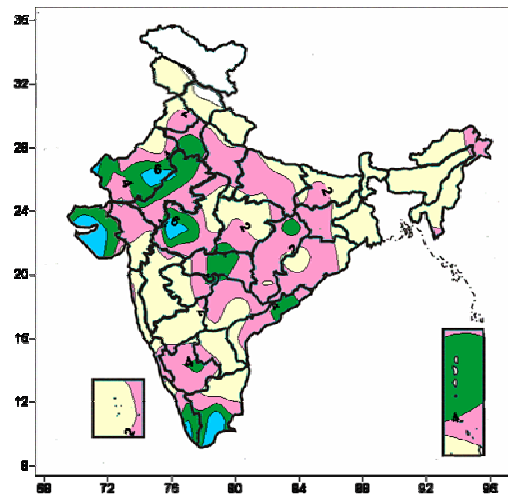
Relative humidity ranges above 80 to 100% in some parts of Rajasthan, West Madhya Pradesh, Bihar, Jharkhand, Orissa, North Saurashtra region, most parts of West Bengal & Sikkim, North East India, Andaman Nicobar Island, 40 to 60% over some parts of Rajasthan and 60 to 80% in remaining part of the country.

**Cloud amount (okta) over India for the week ending 30.09.08**



Cloud amount ranges between 6 upto 8 okta in some parts of Assam Bihar, Jharkhand, Orissa, Andaman Nicobar Island, most parts of West Bengal & Sikkim and 4 to 6 okta over some parts of Bihar, Jharkhand, Chhattisgarh, Orissa, Andhra Pradesh, Konkan & Goa, Madhya Maharashtra, Interior Karnataka, Andaman Nicobar Island, most parts over North East India, Tamil Nadu, Kerala, coastal Karnataka, 2 to 4 okta over some parts of west India, Central India, Interior Karnataka, Andhra Pradesh, East Uttar Pradesh and 0 to 6 okta in remaining part of the country.

**Wind speed (knots) over India for the week ending 30.09.08**









Wind speed ranges between 6 to 8 knots over some parts of Rajasthan, Saurashtra & Kutch, West Madhya Pradesh, Kerala, Tamil Nadu, 4 to 6 knots over some parts of Rajasthan, Saurashtra & Kutch, West Madhya Pradesh, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Kerala, Tamil Nadu, South Interior Karnataka, most parts over Andaman Nicobar Island, 2 to 4 knots over some parts of Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh, Bihar, Jharkhand, Tamil Nadu, Kerala, north east India, most parts of Uttar Pradesh, Chattisgarh, Orissa, South Interior Karnataka, Coastal Karnataka, Lakshadweep and Andaman Nicobar Island, and 0 to 2 knots over remaining parts of the country.

## Districts experiencing stress condition

*** Most Stress					
Districts	03/09/08	10/09/08	17/09/08	24/09/08	01/10/08
<b>Arunachal Pradesh</b>					
Changlang	-78	-85	-88	-52	-97
East Slang	207	-81	-100	-91	-71
Lower Subansiri	-21	-50	-85	-67	-97
Tirap	103	-49	-26	-32	-20
Upper Subansiri	81	-49	-100	-97	-39
<b>Assam</b>					
East Garo Hills	222	-81	-43	-100	-48
Jorhat	-36	-72	-83	-63	-48
Karimganj	16	-79	-85	-67	-93
Lakhimpur	200	-61	-36	-40	-62
Tinsukia	49	-51	-55	-22	-24
<b>Himachal Pradesh</b>					
Kangra	-49	-50	-88	-32	-100
<b>Punjab</b>					
Faridkot	-100	-100	-100	-100	-100
Fatehgarh Sahib	-100	-75	-100	-76	-100
Ferozpur	-2	-68	-100	-71	-100
Gurdaspur	-88	-64	-100	-76	-100
Jalandhar	-36	-62	-100	-72	-100
Kapurthala	-16	-100	-100	-22	-100
Moga	-44	-100	-100	-100	-100
<b>Madhya Pradesh</b>					
<b>East Madhya Pradesh</b>					
Katni	-30	-68	-80	-91	-100
Rewa	-49	-88	-87	-23	-88
Tikamgarh	-94	-100	-41	-31	-100
<b>West Madhya Pradesh</b>					
Harda	-100	-82	-100	-32	-100
<b>Chattisgarh</b>					
Koriya	-86	-83	-100	-100	-100
<b>Uttar Pradesh</b>					
<b>East Uttar Pradesh</b>					
Ambedkar Nagar	-100	-100	-81	-85	-100
Deoria	-100	-68	-94	-60	-100
Gazipur	-9	-28	-100	-50	-98
Maharajganj	-85	-92	-88	-78	-100

Districts	** Most Stress				
	03/09/08	10/09/08	17/09/08	24/09/08	01/10/08
Mirzapur	-10	-96	-97	-29	-100
Sonbhadra	**	-100	-100	-89	-93
Varanasi	-82	-45	-90	-77	-93
<b>West Uttar Pradesh</b>					
Meerut	-93	-90	-56	-47	-100
<b>Bihar</b>					
Bhojpur	-39	-30	-100	-85	-74
Buxar	-99	-89	-89	-77	-81
Gaya	-76	-87	-80	-28	-82
Khagadia	222	-60	-80	-73	-20
Supaul	-24	-73	-100	-99	-100
<b>Jharkhand</b>					
Palamau	-100	-80	-69	-69	-100
<b>Rajasthan</b>					
<b>West Rajasthan</b>					
Barmer	-100	-100	-31	-100	-100
<b>Orissa</b>					
Malkangiri	-96	-22	-55	-52	-100

	(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)

\*\*\* Most stress (more than 3 weeks continuously deficient to no rain)

\*\*More stress (3 weeks continuously deficient to no rain)

\*Stress (2 weeks continuously deficient to no rain.

<b>** More Stress</b>					
Districts	03/09/08	10/09/08	17/09/08	24/09/08	01/10/08
<b>Ar unachal Pradesh</b>					
East Kameng	346	75	-83	-100	-100
<b>Assam</b>					
Dhubri	376	139	-99	-88	-83
East Khasi Hills	532	-1	-61	-43	-29
<b>Punjab</b>					
Amritsar	-39	33	-100	-51	-100
<b>Haryana</b>					
Sirsa	-100	37	-100	-21	-100
<b>Madhya Pradesh</b>					
<b>West Madhya Pradesh</b>					
Badwani	-70	119	-71	-55	-100
Dewas	-96	9	-92	-34	-100
Indore	-94	89	-20	-23	-77
Mandsaur	-96	45	-20	-38	-96
Rajgarh	-100	-16	-20	-76	-100
Ujjain	-99	67	-23	-58	-99
<b>Chattisgarh</b>					
Bastar	-33	67	-27	-33	-79
<b>Uttar Pradesh</b>					
<b>East Uttar Pradesh</b>					
Ballia	-27	46	-87	-43	-92
Jaunpur	-98	-3	-86	-55	-50
<b>Bihar</b>					
Siwan	-59	162	-92	-95	-79
<b>Rajasthan</b>					
West Rajasthan					
Sri Ganganagar	-97	136	-100	-42	-100
<b>Maharashtra</b>					
<b>Vidarbha</b>					
Gadchiroli	-55	10	-47	-58	-100
Nagpur	-81	7	-43	-65	-75
<b>West Bengal</b>					
SHWB					
Coochbehar	242	5	-98	-71	-68
Darjeeling	99	-13	-70	-41	-48
Jalpaiguri	207	2	-83	-72	-88
Dinajpur (S)	-1	104	-100	-100	-32



<b>** More Stress</b>					
Karnataka	03/09/08	10/09/08	17/09/08	24/09/08	01/10/08
<b>North Interior Karnataka</b>					
Bagalkote	103	320	-82	-61	-71
Bijapur	100	322	-66	-54	-72
Gadag	108	128	-54	-84	-90
Koppal	155	477	-92	-38	-85
Raichur	181	263	-85	-77	-65
<b>South Interior Karnataka</b>					
Bangalore Rural	170	144	-87	-100	-97
Bangalore Urban	194	51	-90	-99	-99
Bellary	178	341	-92	-84	-82
Chamarajnanagar	388	143	-93	-96	-100
Chitradurga	585	516	-84	-94	-93
Davangere	344	210	-64	-82	-98
Kolar	327	252	-80	-99	-75
Mandya	223	242	-98	-97	-100
Mysore	242	54	-81	-93	-100
Tumkur	730	156	-92	-73	-89
<b>Kerala</b>					
Alappuzha	87	-3	-100	-83	-100
Kannur	-74	174	-95	-100	-100
Ernakulam	72	52	-93	-100	-99
Idukki	68	103	-100	-100	-99
Kasaragod	-89	673	-98	-100	-100
Kollam	286	189	-100	-100	-100
Kottayam	119	111	-100	-37	-96
Kozhikode	3	3	-90	-100	-100
Malappuram	69	139	-97	-100	-100
Palakkad	67	150	-93	-100	-98
Pathanamthitta	370	13	-100	-100	-100
Thrissur	-17	76	-100	-100	-100
<b>Tamil Nadu</b>					
Dharmapuri	-56	211	-100	-91	-87
Dindigul	242	65	-99	-92	-74
Erode	126	183	-95	-83	-100
Karur	123	24	-100	-97	-84
Krishnagiri	76	213	-99	-86	-86
Nagapattinam	22	12	-97	-23	-94
Namakkal	301	166	-99	-81	-100
Perambalur	-49	-14	-99	-83	-100
Pondicherry	-77	-15	-100	-72	-64

<b>** More Stress</b>					
<b>Tamil Nadu</b>	03/09/08	10/09/08	17/09/08	24/09/08	01/10/08
Pudukottai	-97	10	-100	-69	-90
Ramanathapuram	33	252	-100	-100	-100
Salem	156	183	-96	-90	-94
Sivaganga	-21	19	-100	-50	-83
Thanjavur	-57	-9	-98	-59	-99
Theni	196	488	-47	-96	-100
Tiruvannamalai	-73	65	-100	-66	-55
Trichy	-6	65	-100	-100	-55
Vellore	9	41	-86	-77	-43
Villupuram	-86	54	-99	-80	-29
Virudhunagar	192	-3	-100	-95	-99
<b>Andhra Pradesh</b>					
<b>Coastal Andhra Pradesh</b>					
Guntur	-83	-10	-69	-54	-74
Prakasam	-86	104	-83	-90	-56
<b>Telangana</b>					
Mehabubnagar	-93	85	-23	-55	-78
<b>Royalaseema</b>					
Anantapur	417	569	-97	-83	-94
Cuddapah	-87	252	-95	-80	-88
Kurnool	-30	251	-69	-88	-59

<b>* Stress</b>					
<b>Districts</b>	03/09/08	10/09/08	17/09/08	24/09/08	01/10/08
<b>Madhya Pradesh</b>					
Dhar	-89	171	21	-39	-68
Jhabua	-98	74	62	-79	-100
Ratlam	-100	71	9	-78	-100
<b>Chattisgarh</b>					
Dantewara	-90	-2	11	-88	-92
<b>Jharkhand</b>					
West Singbhum	-100	-79	103	-29	-81
<b>Rajasthan</b>					
Banswara	-91	-33	-2	-63	-100
<b>Gujarat</b>					
Dahod	-94	-41	165	-41	-100
Panchmahal	-99	-77	97	-23	-100

<b>* Stress</b>					
<b>Saurashtra, Kutch &amp; Diu region</b>	03/09/08	10/09/08	17/09/08	24/09/08	01/10/08
Diu	-100	-100	2743	-89	-100
Junagarh	-100	-93	1420	-74	-100
Porbandara	-100	-100	1370	-64	-100
<b>Maharashtra</b>					
<b>Madhya Maharashtra</b>					
Ahmednagar	79	120	56	-36	-100
Sangli	484	110	30	-30	-84
Solapur	156	473	19	-68	-100
<b>Marathwada</b>					
Aurangabad	34	272	390	-22	-100
Beed	99	214	229	-20	-100
Jalna	3	187	186	-67	-100
Nanded	-72	-28	177	-60	-100
Usmanabad	140	369	74	-27	-100
<b>Vidarbha</b>					
Buldhana	-20	296	257	-55	-100
Chandrapur	-55	-5	-12	-72	-97
Wardha	-76	54	42	-21	-87
Yeotmal	-80	-9	103	-52	-100
<b>Orissa</b>					
Bhadrak	-83	-26	342	-44	-29
Puri	-93	-28	202	-45	-30
<b>Karnataka</b>					
<b>Coastal Karnataka</b>					
Dakshin Kannada	-61	92	48	-51	-98
Uttar Kannada	-61	26	182	-40	-97
<b>North Interior Karnataka</b>					
Belgaum	281	234	124	-35	-61
Bidar	17	215	212	-58	-84
Dharwad	219	60	-19	-81	-39
Gulbarga	-13	213	-18	-75	-85
Haveri	116	102	-14	-92	-93
<b>South Interior Karnataka</b>					
Chickmagalur	187	134	189	-63	-96
Hassan	490	80	31	-94	-99
Kodagu	29	165	160	-55	-99
Shimoga	62	105	295	-22	-97
<b>Kerala</b>					
Wyanad	-16	119	-12	-100	-100

<b>* Stress</b>					
<b>Tamil Nadu</b>	<b>03/09/08</b>	<b>10/09/08</b>	<b>17/09/08</b>	<b>24/09/08</b>	<b>01/10/08</b>
Coimbatore	766	1313	10	-57	-100
Kanyakumari	1670	335	178	-71	-100
Nilgiris	56	123	9	-77	-100
Tirunelveli	1057	111	31	-100	-100
<b>Andhra Pradesh</b>					
<b>Coastal Andhra Pradesh</b>					
East Godavari	-81	-21	45	-80	-92
Krishna	-83	66	5	-79	-93
Sirkakulam	-48	81	217	-54	-85
Visakhapatnam	-54	-11	239	-68	-95
Vizianagram	-16	54	142	-44	-86
West Godavari	-86	10	89	-83	-99
<b>Telangana</b>					
Adilabad	-43	-23	109	-65	-99
Hyderabad	40	206	52	-53	-100
Karimnagar	-77	30	187	-85	-99
Khammam	-81	74	187	-55	-95
Medak	-39	38	65	-88	-100
Nalgonda	-99	52	56	-69	-68
Nizamabad	-2	-40	228	-65	-100
Rangareddy	-59	86	-15	-84	-95
Warangal	-77	59	132	-55	-99

	(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)

\*\*\* Most stress (more than 3 weeks continuously deficient to no rain)

\*\*More stress (3 weeks continuously deficient to no rain)

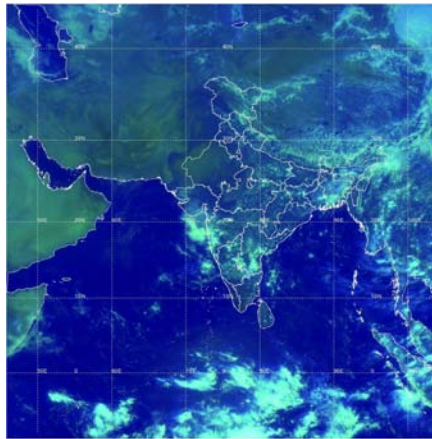
\*Stress (2 weeks continuously deficient to no rain).



### **Chief Synoptic Feature (Based on 1430 hours IST observations of 1<sup>st</sup> October, 2008)**

- Morning's upper air cyclonic circulation over East Uttar Pradesh and neighbourhood extending upto 2.1 K.M. above sea level persists. Under its influence, scattered rainfall activity is likely over Uttar Pradesh & north Bihar during next 24 hours and decrease thereafter. Scattered to fairly wide spread rainfall activity is also likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 3-4 days.
- Current Meteorological Analysis and Numerical Weather Prediction models suggest subdued rainfall activity/mainly dry weather conditions over northwest, west, central and Peninsular India during next 48 hours.
- Further withdrawal of southwest monsoon is likely from some more parts of northwest and central India during next 2-3 days.

### **Satellite image of 6 UTC on 3<sup>rd</sup> October 08**



### **Zone-wise Forecast**

#### **NORTHWEST INDIA [J & K, H. P., UTTARAKHAND, PUNJAB, HARYANA, DELHI, WEST UP]** (Forecast valid upto 1430 hours IST of 4<sup>th</sup> October, 2008)

- Rain/thundershowers are likely at a few places over West Uttar Pradesh during next 24 hours and isolated thereafter.
- Isolated rain/thundershowers are likely over Uttarakhand.
- Mainly dry weather is likely over the rest region.

#### **Quantitative District Weather Forecast for next five days:**

- Light rainfall will occur over the region.

#### **EAST INDIA [EAST UP, JHARKHAND, BIHAR, ORISSA, WEST BENGAL & SIKKIM]** (Forecast valid upto 1430 hours IST of 4<sup>th</sup> October, 2008)

- Rain/thundershowers are likely at few places over East Uttar Pradesh and north Bihar during next 24 hours and decrease thereafter.
- Isolated rain/thundershowers are likely over the rest region.

#### **Quantitative District Weather Forecast for next five days:**

- Light rainfall will occur over the region.

**NORTHEAST INDIA** [Arunachal Pradesh, NMM & T, Assam, Meghalaya] (Forecast valid upto 1430 hours IST of 4<sup>th</sup> October, 2008)

- Rain/thundershowers are likely at a few places over the region during next 24 hours and increase thereafter.

**Quantitative District Weather Forecast for next five days:**

- Light to rather moderate rainfall will occur over the region.

**SOUTH INDIA** [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS] (Forecast valid upto 1430 hours IST of 4<sup>th</sup> October, 2008)

- Rain/thundershowers are likely at a few places over Andaman & Nicobar Islands, north coastal Andhra Pradesh and Tamil Nadu.
- Isolated rain/thundershowers are likely over coastal and south Interior Karnataka, Kerala.
- Mainly dry weather is likely over the rest region.

**Quantitative District Weather Forecast for next five days:**

- Light rainfall will occur over the region.

**WEST INDIA** [GOA, MAHARASHTRA (OTHER THAN VIDARBHA), GUJARAT, RAJASTHAN] (Forecast valid upto 1430 hours IST of 4<sup>th</sup> October, 2008)

- Isolated rain/thundershowers are likely over Konkan & Goa.
- Mainly dry weather is likely over the rest region.

**Quantitative District Weather Forecast for next five days:**

- There is no chance of rain over the region except in Maharashtra where light rain will occur.

**CENTRAL INDIA** [M.P., CHHATTISGARH, VIDARBHA] (Forecast valid upto 1430 hours IST of 4<sup>th</sup> October, 2008)

- Isolated rain/thundershowers are likely over East Madhya Pradesh and Chhattisgarh.
- Mainly dry weather is likely over the rest region.

**Quantitative District Weather Forecast for next five days:**

- Light rainfall will occur in the Chhattisgarh and Vidarbha and on few occasions in Madhya Pradesh.

**Warning:**

- Isolated heavy rainfall is likely over Nagaland, Manipur, Mizoram and Tripura from tomorrow onwards for the next 48 hours.

**Weather Outlook from 1430 IST of 4<sup>th</sup> to 1430 IST of 6<sup>th</sup> October, 2008 (Based on numerical weather products):**

- Scattered rainfall activity likely over northeastern states.

# Zonewise Agromet Advisories

**NORTH WEST INDIA** [J & K, H. P., UTTARAKHAND, PUNJAB, HARYANA, DELHI, WEST UP]

## Himachal Pradesh

- **Major Standing crops:** Vegetables (vegetative / flowering / fruiting / harvesting), Maize (cob maturity / harvesting), Rice (grain formation / maturity), Apple (fruit development / maturity / harvesting), Tea (plucking), new planting of evergreen fruit plants.
- As there is no chance of rain during next five days, weather condition is favourable to undertake intercultural operation to keep the field weed free.
- As prevailing weather condition is favourable, undertake nursery sowing of early pea, cauliflower, cabbage, knoll khol and broccoli in low hills. Select varieties from Snow ball K-1, Palam Uphar, Golden Acre for cabbage, White Viena for Knol khol, Palm Kanchan, Palam Vichitrta and Palam Samridhi for broccoli and Pride of India for cauliflower for sowing.
- It is optimum time for planting of evergreen plants like Mango, litchi, guava, citrus, loquat and amla in Sub-mountain & Low hills Sub tropical zone.
- As there is no chance of rain carry out white washing on the stem of the trees with 10 kg Chuna + 100 g of Copper sulphate + 25 liters of water to protect the plants from diseases and direct solar radiation.

### Plant Protection:

- The weather conditions are favourable for damping off disease of cauliflower seedlings in Mid Hill Sub-tropical Sub-humid zone. Hence, the farmers are advised to treat the nursery beds with formaline (one part formalin and 7 parts water). The treated beds should be covered with polythene sheets. This formalin treatment should be given 15 to 20 days before seed sowing. The seeds should be sown only when the soil becomes free from formalin vapours.
- The weather conditions are also favourable for black rot of cauliflower. As black rot of cauliflower is serious disease, the seeds should be treated properly. It is done by soaking seeds in tap water for 30 minutes followed by dipping in hot water for 30 minutes and finally giving a same duration dipping in streptomycin (1 g / 10 litres of water).

### Animal Husbandry:

- Weather is conducive for spread of foot and mouth disease (FMD) and galgotu in animals. Farmers are advised for vaccination of animals against FMD.

## Uttarakhand

- **Major Standing Crops:** **Sugarcane (vegetative), Maize, groundnut and vegetables** (vegetative/flowering/early maturity), Rice (vegetative, grain formation/early maturity in Nainital district), Urd (early vegetative), soybean (flowering/pod formation).
- As there was sufficient rain in most of the districts of the State during earlier weeks, postpone irrigation to the crop.
- Farmers are advised to undertake sowing of potato varieties like Kufri Jyoti, Kufri Asokh and Kufri Anand and pea varieties like Arkil, Pant Ageta, VL-7, Pant Sabjee Mater-3, Ajad Matar-3, VL Mater-3 in valleys of Nainital District and sowing of mustard varieties PR-8988, Kranti and Krishna and vegetable pea varieties like Arkle, Pant Sabjee Mater-3, Akja Mater-1 in Udam Singh Nagar districts utilizing the stored soil moisture.
- Farmers are advised to undertake sowing of toria after harvesting of matured rice. Select Pant Toria-30, Pant toria-303 or PT 507 varieties.
- Application of fertilizers and intercultural operation in early sown crops may be carried out.
- Maintain 3 – 5 cm of water in rice the field.

## **Punjab**

- **Major Standing Crops:** Rice (flowering/grain formation), Horticultural crops (vegetative), Sugarcane (vegetative), Early sown cotton (late vegetative/squaring stage), maize, groundnut (early vegetative to late vegetative), and Sunflower (vegetative/flowering).
- As most of the districts received insufficient rain during last few weeks and mainly dry weather is likely over the State, farmers are advised to apply irrigation. As Nawashahar, Patiala and Ropar districts received sufficient rainfall during earlier weeks, farmers are advised to postpone irrigation to the crops.
- Sowing of berseem and toria can be undertaken using recommended varieties i.e PBT 37/TL 159(toria) by utilizing the stored soil moisture.
- Farmers are advised to continue sowing of desi varieties of radish, peas, potato, palak and late season varieties of cauliflower and planting of fruits crops like sweet orange, lime mango and guava in irrigated areas.
- As there is chance of occurrence of thrips and pyrilla in sugarcane, farmers are advised to monitor the crop and need to undertake control measures.

## **Haryana**

- **Major Standing Crops:** Rice (flowering/grain formation), Sugarcane (vegetative), Horticulture crops (vegetative), Sunflower (vegetative/flowering), Early sown cotton (late vegetative/squaring stage) and Bajra(vegetative).
- As most of the districts received excess rain during earlier weeks, farmers are advised to postpone irrigation.
- Farmers are advised to continue sowing of desi varieties of radish, peas, potato, palak and late season varieties of cauliflower and planting of fruits crops like sweet orange, lime mango and guava utilizing the rainfall during earlier weeks and available irrigation facilities.
- As there is chance of occurrence of thrips and pyrilla in sugarcane, farmers are advised to monitor the crop and need to undertake control measures.

## **Delhi**

- **Major Standing crops:** Maize (cob formation / cob maturity), arhar (seed formation / maturity), bajra (grain formation / maturity) and fodder sorghum (vegetative), Sugarcane (vegetative), *Kharif* rice (milk / dough / maturity).
- As there is no chance of rain during next five days, farmers are advised to undertake intercultural operation to keep the crop fields weed free.
- Wherever *kharif* rice is at milk / dough stage, apply irrigation to maintain 3 – 5 cm of standing water at these stages of crop.
- Remove water from the fields of *kharif* rice 10 – 15 days before harvesting of the crops. Weather condition is favourable to harvest already matured crops of rice.
- As the weather condition is favourable, farmers are advised to prepare land and undertake sowing of mustard and toria, gram and early varieties potato. Select varieties from Pusa Jaikisan, Varuna etc. for sowing.
- Prevailing weather condition is favourable to prepare land and sow raddish, turnip, carrot, broccolli, and pea and also to prepare nurseries for tomato and late maturing varieties of cauliflower.
- If flower or fruit drop is noticed in chilli, farmers are advised to apply Planofix @ 100 ml mixed in 500 litres of water for one ha of land as dry condition is likely to prevail for next five days.
- Details of crop varieties are mentioned in Annexure I.

## **Uttar Pradesh**

- **Major Standing Crops:** Summer sugarcane (vegetative), Mango trees (fruit setting), Kharif Rice (vegetative), Kharif pulses and maize (vegetative/flowering).

- Sowing one of early varieties of Potatoes Kufri Chandrmukhi, medium and late varieties Kufri Badshah, Kufri Bahar, Kufri Sindoori and Kufri Lalima may be undertaken utilizing the rainfall received during earlier weeks.
- As there was sufficient rain in most of the districts during earlier weeks, postpone irrigation to sugarcane and early sown *kharif* crops.
- Undertake weeding, intercultural operations, application of fertilizers and pesticides on a non rainy day in early sown crops like maize, til and urd.
- Topdressing of recommended amount of Nitrogen in transplanted rice may be done.
- Prepare field and undertake sowing of toria utilizing the rainfall received during earlier weeks.
- Undertake transplanting of brinjal, tomato and chillies (plains) and cauliflower in hilly region.

## J & K

- **Major Standing Crops:** Pulses (maturity/harvest), Rice (maturity/harvest), Maize (harvesting) in Kashmir division.
- As dry weather is likely to prevail for the next three days, apply irrigation to the standing crops in Jammu division.
- Undertake sowing of vegetable crops like potato (var. K. Badshah, K.Sindhuri, K.Chipsona & K.Jyoti), radish (var. Pusa Chetki, Japanese white & Pusa Reshmi), carrot (var. Pusa Kesar), turnip (var. PTWG), garlic (var. local, large segmented), spinach (prickly seeded) and methi (P.E.B.K.methi) in Jammu division. Also undertake sowing of *rabi* crops like toria, mustard, gobhi sarson and gram
- Undertake sowing of spinach, methi and coriander in Kashmir divisions. Also start sowing *rabi* crops like wheat, brown sarson, pea and lentil.
- Undertake harvesting of crops like rice, pulses, maize and fodder crops and vegetable crops like tomato, cucurbit and capsicum in Kashmir division.
- Arrange seeds and other inputs for taking sowing of *rabi* crops in Kashmir division.
- Undertake sowing of toria and gobhi sarson in Rajouri and winter vegetable crops like potato, radish, carrot, turnip, garlic, spinach and methi in Leh division.
- **Plant Protection:** In Jammu, weather is congenial for incidences of
- Downy mildew and smut in bajra. Rogue out downy mildew and smut affected bajra plants and destroy completely to prevent further spread.
- White flies and thrips attack in chillies crop. Spray Malathion @ 0.05% or Endosulfan 35EC @ 0.07%.
- Canker in citrus. Monitor the citrus trees and collect and destroy the affected fruits and spray Terramycin @ 1 g/10 litre of water to control the disease.
- Blister beetle in maize in Rajouri. Collect and destroy mechanically. Spray Endosulfan @ 0.7%, if required.

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

### Bihar

- **Major Standing Crops:** Sugarcane (vegetative), *Kharif* rice (panicle initiation/flowering in north Bihar and booting/panicle initiation in south Bihar), Maize (vegetative), Pulses(vegetative)
- As Purnea, Siwan, Darbhanga, East Champaran, Kathihar, Khagadia, Madhubani, Muzaffarpur, Patna, Saharsha, Sitamarhi, Bhagalpur, Bhojpur, Buxar, Gaya, Supaul, Vaishali districts are experiencing stress condition due to poor rainfall for the few weeks and as some areas of North Bihar, rice crop have started to show the symptom of water stress, apply irrigation to the rice and other standing crops. Farmers are advised not to apply irrigation in the flood affected districts. As Araria, Darbhanga, East Champaran, Kathihar, Madhubani, Muzaffarpur, Patna, Purnea, Saharsha, Samstipur, Vaishali and West Champaran district received sufficient rainfall during last week crop conditions likely to improved and therefore farmers are advised not to apply irrigation to the crops in the above mentioned districts also drain out the excess water wherever water logging is there.

- Due to receding of flood water in some areas, crop situation in North Bihar is improving. Deposition of silt in the crop fields is observed and likely to improve the fertility of the soil. Provide drainage facilities in the already sown crops and regular agricultural operations may be continued in flood affected districts. In areas, where flood water is receding, farmers may go for sowing of early potato, wheat and lentil. The detailed contingency plan given below for flood affected areas.
  1. Where flood water recedes from 1<sup>st</sup> October onwards: The low lying areas may remain wet for a long time and therefore, *rabi* sowing of wheat may be taken up with zero tillage. Likewise, lentil can also be sown. In upland areas with irrigation water available, vegetables, *rabi* maize, potato, onion, sweet potato, mustard etc. can be taken up.
- **North west alluvial plain zone:** Farmers are advised to plough the fields and continue sowing of toria in the upland.
- Those farmers who could not top dress urea in the standing paddy crop are advised to apply urea @20 kg per hectare in the crop before flowering stage.
- **Flood affected North East alluvial plain zone:**
  - Preparation field and sowing of *rabi* crops like toria and rapeseed may be done utilizing the rainfall during last week and rainfall is also expected during next five days.
  - Weather conditions are favourable for infestation of gundhi bug. Dust the crop with Folidol 5% dust @ 20-25kg/ha early in the morning to control the pest. Weather conditions are also favourable for infestation of pests like stem borer, brown plant hopper, leaf roller and swarming caterpillar and disease like blast, bacterial leaf blight and sheath blight. If there is damage of such insects and diseases beyond economic threshold level, apply Carbofuron in the wet soil @ 25kg/hectare. To control the blast disease, spray bavistin @ 1-2gm/liter water.
- Undertake intercultural operations, spraying and application of fertilizers in rice, maize, vegetables and pulse crops in north east alluvial zone on a non rainy day.
- **South Bihar:** Farmers are advised to prepare field for sowing of toria, short duration sunflower and early potato in south Bihar by taking advantage of realized rainfall during last week and rainfall is also expected during next five days.

### Jharkhand

- **Major Standing Crops:** *Kharif* rice, arhar and Early sown maize (early vegetative).
- Farmers are advised to undertake transplanting of bringal, tomato, cauliflower with application of organic manure in the fallow upland field as early vegetable crop.
- After weeding of rice, apply 18 kg of urea in midland and 22 kg in low land as top dressing per acre in Saheibganj, Godda, Pakur, Dumka, Deoghar, Jamtara, Giridih, Dhanbad, Kodarma districts and 20 kg urea in midland, 25 kg in lowland per acre in Ranchi, Khunti, Bokaro, Hazaribag Ramgarh, Chatra, Garwah, Palamu, Latehar, Lohardagga, Gumla, Simdega districts and undertake bushening and topdressing of 25 kg Urea/acre in East Singhbhum, West Singhbhum and Saraikela.
- Undertake intercultural operations, spraying and application of fertilisers in early sown maize, arhar, urd and vegetables.

### Orissa

- **Major Standing crops:** *Kharif* Rice (vegetative/panicle initiation stage and early sown crop is flowering to soft dough stage.), Sugarcane (vegetative), Maize (vegetative), cotton (early vegetative), Early sown Jute (early vegetative).
- As there was sufficient rainfall in most of the districts in earlier weeks, postpone irrigation to the standing crops. Also provide adequate drainage facilities wherever waterlogging is there.
- **Coastal Orissa:**
  - In flood affected up-medium lands, sowing of pre-*rabi* crops and *rabi* groundnut may be undertaken after the rain. Complete sowing of pre-*rabi* crops such as niger, castor, sesame and pulses.
  - In medium and low lands, after receding of flood water, undertake sowing of sprouted rice seeds of short duration rice (100-110 days like Khandagiri) with soft puddling.

- Where complete crop damage (more than 50% population) due to flood in up-land and up-medium land, go for sowing of pre-rabi crops and rabi-groundnut. Complete sowing of pre-rabi crops such as sesame and pulses. Also undertake sowing of mustard varieties M-27, TS-29, Anuradha, Parvati under rainfed condition.
- As early sown green gram, black gram and ground nut crops are at maturity stage, continue harvesting by picking up pods in case of green-gram and black-gram.
- The wet period since last few days may aggravate infestation of insects like stem-borer, leaf folder, case-worm and diseases like blast, bacterial leaf blight and sheath blight in rice and pod borer and red and black caterpillar in pulses and groundnut etc.

#### **Interior Orissa:**

- There is severe incidence of blast and moderate bacterial leaf blight in paddy variety Swarna in Western central table land zone. Farmers are advised to spray first Beam @ 1g/l or Hinosan @ 1 ml/l or Contaf plus @ 2 ml/l and for bacterial leaf blight, spray Plantomycin @ 2 g/l.

#### **West Bengal**

- **Major Standing Crops:** Sugarcane (vegetative), *aus* rice (grain maturity / harvesting), *aman* rice (panicle initiation / flowering / milk / dough).
- As rain occurred in most of the districts of the State during last couple of weeks, postpone irrigation to the crops.
- As rain is likely to occur only at isolated places, undertake intercultural operation to keep the fields weed free.
- Weather condition is favourable to harvest already matured *aus* rice.
- After harvesting of *aus* rice and jute, using stored soil moisture due to rainfall during last couple of weeks, the farmers are advised to sow seeds of rainfed *toria* and mustard. Sow early varieties of *toria* like Agrani, Panchali etc. and white-mustard like Binoy, Subinoy etc.
- Prepare land and undertake transplanting of seedlings, sowing of seeds of winter vegetables like radish, spinach and broccoli etc. and planting of improved varieties of gladiolus bulb utilizing recent rain.

#### **Plant Protection:**

- Due to cloudy weather and rainfall for last few days there is a chance of enhanced attack of brown spot and blast disease in *aman* rice under the prevailing weather condition in New Alluvial Zone. Apply 2 gm Mancozeb per litre of water to control brown spot disease. To control blast disease, apply 1 ml Hinosan or 1 gm Carbendazim per litre of water.
- Under the prevailing weather condition, there is a chance of attack of black rot of crucifer in cabbage and cauliflower in New Alluvial Zone. This causes rotting of leaves and blackening of head. Apply 1 gm Streptocycline in 10 litres of water and spray thoroughly.
- Under the prevailing weather condition, there is a chance of attack of green leaf hopper in *aman* rice in Coastal Saline Zone. Control measure should be taken when 10-20 insects per hill are found. Spray any one of the insecticides like Imidaclopride 17.8 SL @ 3 ml / litre or Acephate 75 WP @ 1 g / litre of water at 7-10 days interval.

#### **Sikkim**

- **Major Standing Crops:** Orange (fruiting/harvesting), large cardamom (capsule development / maturity/harvesting), ginger (late vegetative/flowering), maize (harvesting), rice (active tillering). This is proper time for sowing of *rabi* vegetable crops.
- As rain/thundershower are likely at isolated places over the State, apply irrigation to orange, large cardamom, ginger and vegetable crops.
- Undertake land preparation and sowing of *rabi* vegetable crops like cabbage, cauliflower, carrot, Chinese cabbage, knol-khol, garden peas radish, turnip, lettuce, celery, spinach, etc in medium and low

hills. Undertake land preparation and sowing of the vegetable crops in the nursery when the temperature is in the range of 15-20<sup>0</sup>C.

- **Plant Protection:** Chirke and foorkey infected large cardamom plants may be destroyed by uprooting / burial at regular intervals in the pits. Regular inspections may be carried out to observe caterpillar/shoot borer/shoot fly incidence if any and may be hand picked and destroyed mechanically. 1% Bordeaux mixture or copper oxychlorid @ 3gm/ltr of water may be sprayed to the cardamom plants to protect from fungal diseases.
- Weather conditions are congenial for mild incidences of fruit fly in orange. Monitor the trees and apply Sevin baits to control the pest.
- Monitor ginger for bacterial wilt in Medium and High hills and collect and destroy the affected plants completely to prevent further spread of the disease. Arrange for drainage facilities to prevent rhizome rot during spells of rain.

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

### **Assam**

- **Major Standing crops:** Sugarcane (vegetative), arhar (vegetative), already transplanted *sali* rice (tillering), vegetables (sowing / vegetative / flowering / fruiting).
- Recent flood in Assam caused substantial losses of crops in 16 districts especially *ahu* and *sali* rice, vegetables, jute etc. Kamrup, Dhubri, Goalpara, Dibrugarh, Sonitpur, Nalbari, BARPETA, Lakhimpur, Dhemaji, Morigaon, Nogaon and Dibrugarh are the worst affected districts in the wave of flood.
- As rain / thundershowers are likely at a few places over the State during next 24 hours and at many places thereafter, postpone irrigation to the crops.
- Farmers are advised to collect the *sali* rice seeds of the varieties like Disang, Luit, Kapili, IR –50 and Sonamukhi and to go for direct sowing in flood affected areas after receding of flood water. For one bigha land, 7-8 kg seeds are required.
- Seeds of black gram varieties like T-9, Pant U-19, Saonimah (SB-121) and green gram varieties like T-44, Pratap, AAU-39 may be sown in the field where *sali* rice is completely damaged during recent flood.
- This is also proper time for sowing of black gram and green gram in other areas.
- As there is chance of rainfall at many places over the State after 24 hours, farmers are advised for weeding and topdressing of urea fertilizer immediately in *Sali* rice at maximum tillering stage. For top dressing, apply 3 kg urea per bigha for high yielding and 1.5 kg per bigha for local tall varieties.
- Prepare land and sow cauliflower, cabbage, raddish, brinjal, tomato, knolkhol etc.
- As this is proper time, prepare upland for sowing of early varieties of *rabi* groundnut. The seeds can be sown up to mid October.
- Prepare land and undertake planting of toria, mustard, lentil, pea and early varieties of potato.
- Details of crop varieties are mentioned in Annexure I.

### **Plant protection:**

- Farmers are advised to apply plant protection measures after current spells of rain.
- Present weather is favourable for occurrence of blast disease in *sali* rice in Upper Bramhaputra Valley Zone. To control the disease spray Kitazin @ 1 ml / litre of water.
- There is chance of infestation of gall midge and stem borer in the *sali* rice fields in Central Bramhaputra Valley Zone due to favourable weather condition. Light trap during night hours may help to control this pest at initial stage. Holding fires around the *sali* rice field are very effective. Already affected crops should be sprayed with Monocrotophos @ 1.5 ml / litre or Ekalux @ 2 ml / litre of water.

### **Animal Husbandry:**

- After flood, Cholera, Chabaka, Anthrax, Galphula etc. diseases may occur in the animals. The deceased animals due to these diseases should be buried in the soil to avoid further spreading of the



diseases. For worm related problem the animal should be fed with the medicine ‘Piperzine’ three times in a month.

### **Arunachal Pradesh**

- **Major Standing crops:** Ginger (rhizome formation), Vegetables (harvesting), Wet seeded rice (flowering/grain formation), *Jhum* rice (maturity/harvesting), Millets (grain formation/harvesting) and maize (maturity).
- As rain / thundershowers are likely at a few places over the State during next 24 hours and at many places thereafter, postpone irrigation to standing maize, millet (cob formation stage) and ginger crops.
- Farmers are advised to continue land preparation and sowing of rapeseed and mustard, pea and winter cole vegetables and also undertake field preparation for sowing of potato, mustard and wheat by utilizing the realized rainfall during earlier weeks and also rainfall is likely over the State.

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

#### **Andhra Pradesh**

- **Major Standing Crops:** Groundnut, Jowar, Bajra, Ragi and Maize (all harvesting), Sugarcane (grand growth), Rice (vegetative), Chillies (vegetative)
- As rain/thundershower are likely at a few places over north coastal AP and dry weather is likely to prevail over remaining parts of the State, apply irrigation to the standing crops.

#### **Coastal AP**

##### **Plain Land**

- Farmers in Srikakulam are advised to start harvesting groundnut, jowar, bajra, maize, ragi and maize crops as conducive weather prevails during these days.
- Farmers in upland areas of West Godavari, Krishna, Guntur and Praskasam districts are advised to undertake *rabi* sowing of green gram (var: LGG 450, 460, 407, ML 267 and Pusa 105) and black gram (LBG 623, 20 and T 9) with a possibility of light to moderate rains during next five days. Also undertake sowing of soyabean (JS 335 and PK 1029) upto October 15<sup>th</sup>.
- Farmers in the remaining districts are advised to undertake intercultural operations in *khairf* crops on a non rainy day.
- **Plant Protection:** Weather conditions are congenial for
- moderate to severe attack of blast and sheath blight in rice in Srikakulam, Vijayanagaram and Visakappattinam districts; undertake plant protection measures on a non rainy day to control the diseases.
- BPH and blast in rice in Krishna district; spray Ethephenphos @ 2 ml/litre of water to control BPH and spray Tricyclozole @ 0.6 g/litre of water on a non rainy day to control blast.
- aphids, mealy bugs and jassids in cotton in Srikakulam; spray Monocrotophos in 1:4 or Imidaclopride in 1:20 ratio with water and also on a non rainy day to control the pests.
- whitefly, red rot and wilt in sugarcane in Krishna district; undertake plant protection measures on a non rainy day to control the pests and diseases.
- thrips in cotton and transplanted/direct sown chillies in West Godavari, Krishna, Guntur and Praskasam districts; spray Monocrotophos @ 1.6 ml/litre of water on a non rainy day to control the pest. Control of thrips also prevents spread of tobacco streak virus in cotton.

##### **High Altitude Areas**

- Farmers in high altitude regions of Srikakulam, East Godavari, Vijayanagaram, Visakappattinam and Khammam are advised to undertake intercultural operations and application of fertilizers and pesticides in *khairf* crops on a non rainy day.
- **Plant Protection:** Weather conditions are congenial for
- leaf folder and stem borer in paddy; undertake plant protection measures on a non rainy day to control the disease.

#### **Rayalaseema**

- Farmers in Anantapur and Kurnool districts are advised to apply supplementary irrigation to groundnut (at kernal initiation and pod development stage) as dry spell condition prevails in the districts for more than 10 days.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- spotted wilt in tomato in Chiththoor district; undertake plant protection measures to control the pests and diseases.
- stem borer and brown plant hopper in paddy, leaf spot and rust in groundnut, *Heliothis* in tomato and sucking pests in cotton in Cuddappah district; undertake plant protection measures to control the pests and diseases.

### **Telangana**

Farmers in Karimnagar, Nizamabad and Adilabad districts are advised to undertake intercultural operations and application of fertilizers and pesticides in early sown crops with a possibility of light to moderate rains during next five days.

- **Plant Protection:** Weather conditions are favourable for mild incidences of
- stem borer in rice. Spray Carbofuran @ 10 kg/acre to control the pest.
- *Spodoptera* in soyabean in Adilabad; undertake plant protection measures.
- mealy bug in cotton; spray Dichlorvas @ 1 ml/litre of water.
- leaf folder in red gram, stem borer in brinjal, leaf spot in turmeric and sucking pests in cotton in Karimnagar, Nizamabad, Warranagl and Medak districts; undertake plant protection measures to control the pests and diseases.

### **Karnataka**

- **Major Standing Crops:** Annual sugarcane (grand growth), Early sown *Kharif* crops (flowering/grain formation/development).
- As there was no significant rainfall during last week and rain/thundershower are likely at isolated places over Coastal and South Interior Karnataka and dry weather is likely to prevail over North Interior Karnataka, apply irrigation to the standing crops.

#### **Coastal Karnataka**

- Farmers in Udupi and Dakshin Kannada districts are advised to undertake intercultural operations in early transplanted rice, arecanut, coconut, cashew and banana. Apply FYM @ 15-30 kg/tree in addition to fertilizers to plantation crops.
- **Plant Protection:** Due to cloudy weather, leaf folder and case worm may attack rice. Monitor the crop for the pests and undertake plant protection measures.
- Due to high humidity in Udupi, Uttar Kannada and Dakshin Kannada districts, Colerago may attack arecanut. Monitor the crop and spray Bordeaux mixture @ 1%. Also leaf folder and blast may attack rice and stem borer in ginger, turmeric and cardamom in Uttar Kannada; undertake plant protection measures to control the pests and diseases.

#### **North Interior Karnataka**

- Due to receipt of light rains in Bellary, Bijapur, Bagalkot and Koppal districts during last week and with a possibility of light to moderate rains during next five days, farmers are advised to undertake intercultural operations, application of fertilizers and pesticides in early sown sunflower and cotton.
- Farmers in Bidar region are advised to undertake sowing of *rabi* jowar and safflower (til October 15<sup>th</sup>), rainfed wheat (October 1<sup>st</sup> – 15<sup>th</sup>), irrigated wheat (October 15<sup>th</sup> to November 15<sup>th</sup>) and Bengal gram (October and November) with realized rainfall during last week. Also undertake sowing of vegetable crops like brinjal, tomato, cabbage and cauliflower in the nursery.
- Farmers in Bijapur, Chitradurga and Shimoga are advised to undertake sowing of jowar, Bengal gram and safflower during rabi season. Select among A1 and GBS 964 for Bengal gram and A1, S-144 for safflower.

- Farmers in Raichur are advised to continue sowing of sunflower with realized rainfall during last week and with a possibility of moderate rains during next five days. Also undertake sowing of Bengal gram and safflower during *rabi* season.

**Plant Protection:** Due to cold and cloudy weather conditions, attack of sucking pests in cotton is reported in Dharwad district. Also necrosis is noticed in sunflower. Spray Dimethoate @ 1.7 ml to control sucking pests in cotton, To control sunflower necrosis, spray Imidachloprid 17.8 S.L @ 0.25 ml or Oxidematon 25 EC @ 1.5 ml per liter of water.

- Due to dry conditions, attack of sucking pests in cotton and Maruca in red gram is reported in Raichur; undertake plant protection measures to control the pests.
- Weather conditions are favourable for mild incidences of:
- citrus canker in Bijapur; spray Streptomycin Sulphate (0.5 g) + Copper oxi-chloride (2g)/liter of water.
- sucking pests in early sown Bt cotton in Gulbarga; undertake plant protection measures to control the pests.

### **South Interior Karnataka**

- Farmers in Bangalore, Kolar and Tumkur are advised to undertake intercultural operations and application of fertilizers in early sown crops due to conducive weather.
- Farmers in Mysore and Tumkur districts are advised to undertake transplanting of rice (Thella, Hamza, KRH 1, Mangala, Mukthi, Bilimukthi and Rasi) and planting of sugarcane (CO varieties – 419, 62175, 7804, 8371 and 86032) with the canal water.

**Plant Protection:** weather conditions are favourable for

- stem borer and leaf roller in rice in Mysore, Mandya and Chamrajnagar districts; undertake plant protection measures to control the pests.
- Tikka leaf spot in groundnut, sucking pests like thrips, aphids and white fly in cotton, stem borer in maize, blast in rice and rhizome rot and soft rot in ginger in Shimoga. Spray Carbendazim 2.1 g/litre of water to control rice blast and Tikka leaf spot in groundnut. Spray Emidochloprid @ 0.6gm/ltr of water to control sucking pests in cotton Spray Ridomil MZ @ 2g/litre and Streptocycline @ 0.5g/litre to control rhizome rot and soft rot in ginger.

### **Kerala**

- **Major Standing Crops:** *Virippu* rice (grain maturity/harvesting), *Mundakan* rice (nursery) and Plantation crops (Coconut, Arecanut, Pepper and Cashew).
- Rain/thundershowers are likely to occur at isolated places for the next three days, farmers are advised to apply irrigation to plantation crops.
- This is proper time for sowing of *mundakan* rice in nursery in Thiruvananthapuram, Thrissur, Malappuram, Kasargod, Kozhikode and Kannur districts. Select among Mangala, Mashurie, H-4 and Karuna (long duration varieties). Select among Matta triveni, Kanjana, Jaya, Athira and Aiswarya (short/medium duration varieties). Complete harvesting of *virippu* rice.
- Farmers in Thrissur district are advised to undertake sow the bhendi and transplant the tomato seedlings with a possibility of light rains during next five days. Transplanted tomato seedlings may be given temporary shade for initial period during hot sunny days. Farmers may select among Arka Anamika, Arka Abhay and Susthira varieties for bhendi which are resistant to the yellow vein mosaic.
- Farmers in Thrissur, Malappuram, Kasargod, Kozhikode and Kannur districts are advised to undertake planting of Nendran banana. Undertake intercultural operations and application of fertilizers in plantation crops (coconut, arecanut, pepper and cashew) with a possibility of light rains during next five days.
- This is proper time for sowing of chillies, brinjal, amaranthus and tomato in the nursery and direct sowing of gourds and bhendi in the main field in Malappuram, Kasargod, Kozhikode and Kannur districts. Undertake land preparation and sowing of the crops with a possibility of light rains during next five days.

**Plant Protection:** Weather conditions are favourable for the attack of

- jassids and white flies in vegetable crops in Thiruvananthapuram and Kollam; spray Acephate @ 1 g/litre of water.
- gall midge, leaf folder and stem borer in rice nursery in Thrissur; undertake plant protection measures water to control the pests.
- stem bleeding in coconut and blight in cashew in Malappuram, Kasargod, Kozhikode and Kannur districts. Spray Calyxin @ 5 ml/litre to control stem bleeding and 1% Bordeaux mixture to control blight.
- foot rot in black pepper; spray Copper oxy chloride @ 1% to control the disease.
- mahali disease in arecanut in Thrissur, Malappuram, Kasargod, Kozhikode and Kannur districts; apply 1% Bordeaux mixture to control the disease.

### Tamilnadu

- **Major Standing Crops :** Rice (*Kuruvai*) (flowering/grain formation), Early, Mid Sugarcane (cane maturity/harvesting stage), Special season sugarcane (grand growth stage), Sorghum (grain formation), Cotton (boll maturity/picking stage)
- Apply irrigation to groundnut, sugarcane and pulse crops as there was no significant rainfall during last three weeks and rain/thundershowers are likely to occur at a few places over the State during next three days.
- Undertake application of last dose of fertilizers and pesticides in *Kuruvai* rice in Thanjavur, Trichy, Karur, Nagappattinam and Perambalur districts on a non rainy day.
- Undertake sowing of bhindi, Dolichos, chillies and cowpea in Chennai, Cuddalore, Kanchipuram, Thiruvarur, Thiruvannamalai, Vellore and Villupuram districts using irrigation water.
- Farmers in Thirunelveli, Tuticorin and Virudunagar are advised to undertake sowing of chillies in nursery. Also undertake pre-monsoon sowing of cotton in the main field.
- Due to rainy conditions in Chennai, Cuddalore, Kanchipuram, Thiruvallur, Vellore, Villupuram, increase in vector activity resulting in a slight rise in arthropod borne diseases particularly blood protozoans like Anaplasmosis, Theileriosis and Trypanosomiasis and viral disease such as blue tongue amongst farm animals is expected. Undertake vector control for ticks and flies and midges under the guidance of veterinarians. Also avoid stagnation which can allow for fly and midges breeding sites. Also undertake prophylactic drenching with appropriate medication, for fluke infections like amphistomiasis and liveflukes.

**Plant Protection:** Present weather is conducive for mild incidences of

- stem borer, gall midge, thrips, blast and tungro in paddy in Thiruvallur district. Apply Carbofuran @ 12 kg/acre on a non rainy day to control the pests.
- internode borer in sugarcane and fruit borer in bhindi in Kovilpatty, Thirunelveli, Tuticorin and Virudunagar districts. Use *Trichogramma chilonis* @ 1 cc/acre on a non rainy day to control the pests.
- seedling rot in chillies nursery in Thirunelveli, Tuticorin and Virudunagar districts. Spray Copper oxy chloride @ 2.5 g/liter of water on a non rainy day to control the disease.

### WEST INDIA [GOA, MAHARASHTRA, GUJARAT, RAJASTHAN]

#### Maharashtra

- **Major Standing Crops:** Sugarcane (pre-seasonal) (elongation / cane development), sugarcane (*Suru*) (active growth / elongation), irrigated cotton (boll formation in Nasik, Pune, Latur and Aurangabad division), *kharif* groundnut (pod formation/ pod maturity in Kolhapur & Pune, pegging / pod formation in other parts of the State), *kharif* cotton (boll formation in Nasik, Pune, Latur, Amravati and Aurangabad divisions and squaring / boll formation in Nagpur division), *kharif* rice (grain formation in Konkan, flowering/ grain formation in Pune, Nashik and Kolhapur divisions and active tillering / flag leaf initiation in Nagpur division), soybean (pod maturity / harvesting in Kolhapur and pod formation / pod maturity in other districts), tur (branching / flowering in Pune and Nashik divisions & vegetative / branching in Latur, Amravati and Nagpur divisions), sunflower (flowering / seed formation), black gram and green gram (pod maturity / picking).

- As rain is not likely to occur during next five days, apply irrigation to maintain 3 – 5 cm water in *kharif* rice field and also apply irrigation to *kharif* groundnut, sunflower, jowar and tur at pod formation / grain formation stage in Ahmednagar, Pune, Sangli, Satara, Solapur, Aurangabad, Beed, Jalna, Nanded, Usmanabad, Buldhana, Chandrapur, Gadchiroli, Gondia, Nagpur, Wardha, Washim and Yeotmal districts of the State.
- The weather is favourable for carrying out intercultural operation to keep the crop fields weed free.
- Weather condition is conducive to apply third dose of Nitrogenous fertilizer (440 g Urea / Are) to mid & late varieties of *kharif* rice and also to apply 870 gm Urea per Are in finger millet in Konkan and in Sub Montane zone.
- As the prevailing weather condition is favourable, this is proper time for sowing of *rabi* jowar in Pune, Solapur, Kolhapur and Ahmednagar. Select varieties from Maldandi 35-1, RSV-833, Selection-3, Phule Yeshodha & Mauli. Mauli variety gives good result in the medium soil. Use 10 kg seeds per hectare for sowing.
- Under prevailing weather condition, this is also proper time for plantation of pre-seasonal sugarcane in all the districts of Madhya Maharashtra.
- Weather condition is favourable to undertake harvesting of matured soybean in Kolhapur and Amravati division and picking of matured pods of green gram and black gram in all divisions and harvesting of matured groundnut & bajra in Kolhapur and Pune divisions.

#### **Plant protection**

- Infestation of tobacco caterpillar in soybean is continued in Nagpur, Wardha, Bhandara, Chandrapur and Gadchiroli districts of Vidarbha. Soybean crop in 6,48,840 ha area in Nagpur division has been affected due to tobacco caterpillar infestation. The intensity of infestation is reducing gradually. Monitor the crop for the pest and spray Chlorpyrifos @ 2 litres / ha.

#### **Gujarat**

- **Major Standing Crops:** Sugarcane (cane development), *Kharif* groundnut (pod formation / early maturity), *Kharif* cotton (flowering / boll formation), *Kharif* rice (flowering / milk), Maize (cob formation / maturity), Bajra (grain formation / maturity) and other *kharif* crops (vegetative / flowering).
- As there is no possibility of rain, farmers are advised to undertake intercultural operation to keep the crop fields weed free.
- Prevailing weather is conducive to start harvesting of already matured crops of maize and bajra.
- Prepare land and undertake sowing of mustard and *rabi* castor utilizing residual soil moisture due to rain during earlier weeks in North Gujarat region. For sowing select the certified high yielding varieties of mustard *viz.*, Guj – Mustard-1, 2, 3 and castor like GCH – 5.
- As weather condition is favourable, prepare land and undertake sowing of wheat and chickpea in Bhal and Coastal zone. Sowing of wheat and chickpea should be done during October. Select varieties like Arnej – 206, GW-1 & 2 for wheat and Gujarat Chickpea – 1 & 2 for chickpea for sowing. Seed rate for chickpea crop sowing is 50 to 60 kg ha<sup>-1</sup>.

#### **Plant protection**

- There is chance of infestation of mealy bug in cotton in North Saurashtra region. To control the mealy bug, dusting of methyl parathion 2% or fenvalrate 0.4% dust should be done surrounding the plants and field boundaries. Spray the crop with profenophos 50 EC @ 20 ml in 10 litres of water along with 10 gram washing powder.
- There is chance of infestation of spotted bollworm, *Helicorpa* larva & pink bollworm in Hy. & Bt. Cotton in North Gujarat region. To control spotted bollworm, *Helicorpa* larva & pink bollworm in Hy. & Bt. Cotton, spray Endosulphon 35 EC @ 20 ml or Quinalphos 25 EC @ 20 ml or Profenophos 50 EC @ 10 ml or Polytrin 44 EC @ 10 ml or Indoxacarb 14.5 SC @ 4.5 ml or Spinosade 45 SC @ 1.5 ml in 10 litres of water.

- There is chance of infestation of tikka leaf spot in groundnut in North Gujarat region. To control tikka disease in ground nut spray cabendazim (50%) @ 5 g in 10 liters of water. If necessary, repeat the spraying after 12-15 days.

### Rajasthan

- **Major Standing Crops:** Groundnut, bajra, jowar, maize, sesame, cluster beans, red gram, cotton, vegetables. All the crops are at grain formation/development stage. This is proper time for sowing *rabi* crops.
- As there was no significant rainfall during last week in the state and dry weather is likely to prevail for the next three days, apply irrigation to the crops.
- **East Rajasthan**
- This is proper time for sowing of mustard in Alwar, Bharatpur, Dholpur, Karauli and Sawai Madhepur districts. Undertake land preparation and sowing of mustard. Select among Pusa gold, Maya, Vasundhara, PR 15, 45, Bio 902, NRCSB 506, 101 and Varuna.
- This is proper time for sowing of radish (Pusa Rasmi), carrot, mid cauliflower and winter brinjal in Ajmer and Tonk. Undertake land preparation and sowing of the crops. Before sowing treat the seeds with Thiram @ 2.5 gm per kg seeds.
- Undertake field preparation and sowing of rainfed taramira, toria and pea in Alwar, Tonk, Dausa and Jaipur. Select among Arkil, Hara bona, VL-3, Jawahar Matar-4 and Matar Ageti-6 for pea.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- white fly and jassids in cotton in Alwar and Dholpur; spray Dimethoate or Methyl Demeton @ 1 litre/ha.
- Downy mildew disease in pearl millet crop (at panicle initiation stage) in Alwar, Bharatpur, Karauli, Sawai Modhpur; spray Zineb @ 2.5 kg or Mencozeb @ 2 kg per hectare and 2-3 times at an interval of 3 days.
- sucking pests in vegetable crops in Banswara; spray Dimethoate @ 2 ml/litre of water.

### West Rajasthan

- Farmers in Barmer, Churu, Jalore and Jodhpur are advised to undertake sowing of *rabi* crops during these days. Select among Pusa kalyani, T-59, Varuna, Pusa Gold, RH 30A, PR-15, Bio-902, Pusa Jai Kisan for mustard. Farmers in Sriganaganagar and Hanumangarh may select among Pusa Gold, RGN 13, RGN-48, Varuna T-59 laxmi and RH 8812 varieties of mustard.
- Undertake sowing of sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger in Barmer, Churu, Jalore and Jodhpur.
- Farmers in Sriganaganagar and Hanumangarh are advised to undertake sowing of Kino.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- leaf eating caterpillar in fruits and vegetable crops in Barmer, Churu, Jalore and Jodhpur; spray Qunalphos @ 1.5 kg or Endosulphan @ 4.25 kg/hectre.
- pink boll worm in cotton and white fly in sugarcane in Sriganaganagar and Hanumangarh; undertake plant protection measures.

### CENTRAL INDIA [M.P., CHHATTISGARH]

#### Madhya Pradesh

- **Major Standing Crops:** Sugarcane (grand growth), soyabean (flowering), maize (silking / tasseling), cotton (vegetative) and vegetable crops (nursery/transplanting). This is proper time for sowing of *rabi* crops.
- As there was no significant rainfall during last week and rain/thundershower are likely at isolated places over East Madhya Pradesh and dry weather is likely to prevail over West Madhya Pradesh, apply irrigation to the standing crops.
- Prepare land for sowing of lentil in Gird zone covering Morena, Bhind, Gwalior, Shivpuri Guna Sheopur and Ashoknagar districts.

- Undertake land preparation and planting of vegetables like mid cauliflower, potato and field pea in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts and cauliflower in Bhind, Gwalior, Shivpuri Guna Sheopur, Ashoknagar with a possibility of light rains during next five days.
- Farmers in Indore, Mandasaur, Ratlam, Neemuch, Shajapur, Ujjain and Rajgarh are advised to undertake sowing of mustard, toria, sunflower and safflower. Undertake sowing of potato and pea as early crops if irrigation facilities are available.
- Undertake sowing of potato, berseem, garlic, pea, coriander, spinach and methi in Chhindwara and Betul districts with irrigation facilities at the earliest (in this week only). Also undertake planting of autumn sugarcane and onion. Under rainfed conditions, undertake sowing of mustard, toria and safflower.
- **Animal Husbandry:** Provide proper ventilation and clean water to cattle and arrange for vaccination to save them from infectious disease in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts. Create smoke during the night in cattle shed to prevent cattle from mosquitoes and bees.
- Undertake vaccination in cattle against Anthrax, Galgotu, Black quarter and FMD in Indore, Mandasaur, Ratlam, Neemuch, Shajapur, Ujjain and Rajgarh. Also undertake deworming.

**Plant Protection:** Weather conditions are favourable for

- Sucking pests in fruits and vegetable crops in Jabhua hills zone, spray Methyl Dimethon 25 EC 1 ml/litre. Also fruit borer in tomato; spray Tricophos @ 2 ml/litre of water.
- Leaf eating and sucking pests on Soyabean, black gram and green gram, with grain eating insects in gird zone. For control spray 500 ml of Methyl Parathyon 50 in 500 litre water /ha or sprinkle Methyle Parathyon (2%) powder 15 to 20 Kg /ha.

### Chattisgarh

- **Major Standing Crops:** Sugarcane (vegetative), Soybean and black gram (seed formation / early maturity), groundnut (seed formation / early maturity), *kharif* rice (panicle initiation / flowering / milk), pigeon pea, green gram and sesame (flowering / pod formation / early maturity).
- Weather condition is conducive to undertake intercultural operation to keep the field weed free.
- As weather condition is favourable, farmers are advised to apply last dose of Nitrogen through urea fertilizer in medium and late duration varieties of rice, which are presently at panicle initiation stage.
- As prevailing weather condition is favourable, this is proper time to prepare land and transplant tomato, chilli and brinjal if nurseries are ready.
- Present temperature trend is suitable for proper germination of niger and *toria*. Hence, it is advised to prepare the fields well pulverized and complete the sowing of these crops during this month.

### Plant protection

- Incidence of stem borer and rice bug may occur in *kharif* rice due to favourable weather condition, hence it is advised to keep watch over the crop and install light trap for initial control. If the incidence is higher, apply Carbofuron 3 G @ 10 kg / acre.
- Under present weather conditions incidence of blast may occur in rice crop. Hence, it is advised to keep watch over the crops and in case of higher incidence spray Saaf or Beam @ 1 ml/liter of water.

## Annexure I

### Crop varieties of Delhi

- **Raddish:** Hill Queen, Pusa Deshi, Pusa Rashim etc.
- **Turnip:** Pusa Sweta, Pusa Kanchan etc.,
- **Carrot:** Pusa Kesar, Pusa Mighali etc. for
- **Broccoli:** Pusa Broccoli [KTS-1], Palam Vichitra, Kanchan for for sowing.
- **Cauliflower:** Pusa Snowball K1, Pusa Himjyoti for nursery sowing.

## Crop varieties of Assam

- **Direct seeded *sali* rice varieties for sowing in flood affected areas:** Disang, Luit, Kapili, IR –50 and Sonamukhi.
- **Black gram varieties for sowing in the field of *sali* rice completely damaged during recent flood:** T-9, Pant U-19, Saonimah (SB-121).
- **Green gram varieties for sowing in the field of *sali* rice completely damaged during recent flood:** T- 44, Pratap, AAU-39.
- **Black gram in other areas:** T-9, T-27, Pant U-19, T-122 etc.
- **Green gram in other areas:** T-44, Koper Gaon, ML-56, ML-131.
- **Toria:** TS-27, TS-25.
- **Cauliflower:** Improved Japanese, Pusa Synthetic, Pusa Snowball, Pusa Ketki etc.
- **Cabbage:** Golden Acre, Pride of India, Pusa Mukta, Drum head, Eclipse Drum Head, Hybrid-10, Hybrid-20 etc.
- **Raddish:** Pusa Himani, Pusa Deshi etc.
- **Brinjal:** Pusa Kranti, Pusa Purple Long, Pusa Purple Round, JC-1, JC-2 etc.
- **Tomato:** Punjab Chhuhara, Punjab Kesri, Sioux, Pusa Ruby, Arka Abha, Arka Alok, Arka Abhijit, BT-1, Bilahi-1, Bilahi-2.
- **knolkhol:** White Vienna, Purple Vienna.
- **Early variety of *rabi* groundnut:** JL-24.
- **Early varieties of potato:** Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri etc.
- **Mustard:** TS-36, TS-38, Varuna, TM-2, TM-4, M-27 etc.
- **Pea:** T-163, Rasna, Banevila, Arkel, Azad, Alankar etc.
- **Lentil:** B-77, L-9-12, P-L-406 etc.