

Chief Synoptic Feature (Based on 1430 hours IST observations of 30th July 2009)

- Widespread rainfall activity with isolated heavy to very heavy falls is likely over northeastern states and fairly widespread rainfall with isolated heavy falls over west Bengal & Sikkim and parts of plains of northwest India during next 48 hours and decrease thereafter.
- A feeble off-shore trough extends from Konkan & Goa coast to Kerala coast. Fairly widespread rainfall activity is likely over west coast of India during next 2-3 days.
- KALPANA-1 Cloud Imagery at 0830 hours IST shows convective clouds over parts of north, west central and southeast Bay of Bengal, Andaman Sea, southeast Arabian sea, north coastal Orissa and Bihar. Low/medium clouds are seen over parts of northwest, west, central, Peninsular India and remaining parts of east India.

Salient Agromet Advisories for Farmers

The *kharif* crops in the most parts of west, central parts and eastern region are in good condition and sowing and transplanting of the *kharif* crops is carried out. Because of insufficient rainfall in East Uttar Pradesh, Haryana, North Interior Karnataka, South Interior Karnataka and Rayalaseema sowing has not been geared up.

Salient Agromet Advisory for the Problem Areas

Due to insufficient rainfall following advisories for farmers are recommended:

East UP: Direct seeding of rice is advised with improved varieties where adequate rainfall received during last week. Select short duration varieties of alternate crops like mung, jowar, bajra, urd, pigeon pea, sesamum and adopt closer spacing to compensate the yield loss. Farmers in Kanpur Dehat and Banda districts are advised to wait for sufficient rainfall to undertake sowing.

Haryana: As the condition of rainfall improved during last week in North Haryana, farmers are advised to transplant of short duration Basmati rice. Farmers are also advised to do the sowing of pearl millet, mung, urd. Farmers are advised to apply life saving irrigation to already transplanted rice in south Haryana due to insufficient rain.

Interior Karnataka: Undertake sowing of short duration alternate *kharif* crops in Interior Karnataka where sufficient amount of rainfall received. Farmers in Bagalkote, Bidar, Bijapur, Dharwad, Gadag, Gulbarga, Koppal and Raichur in North Interior Karnataka and Bangalore Rural, Bellary, Chamrajnagar, Chitrdurga, Kolar, Mandya, Mysore and Tumkur districts in South Interior Karnataka are advised to wait for sufficient rainfall to undertake sowing.

In the remaining subdivisions farmers are advised to continue either sowing or transplanting of *kharif* crops

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

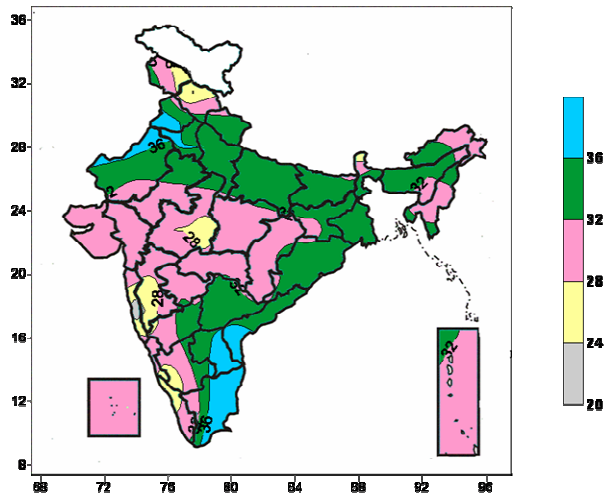
Sub-division	Cumulative Rainfall for the period									
	1 st July		8 th July		15 th July		22 nd July		29 th July	
	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.
A & N Islands	96.1	-20	90.4	-15	93.8	-73	97.8	-17	95.1	10
Arunachal Pradesh	132.5	15	126.7	41	128.2	-75	142.1	-69	141.8	-7
Assam and Meghalaya	131.3	-14	127.7	-13	138.5	-66	121.2	-63	125.3	-10
NMMT	77.4	29	73.8	-14	85.2	-37	75.1	-32	76.7	29
SH West Bengal & Sikkim	130.5	9	137.3	9	135.6	-66	128.4	-62	137.6	4
Gangetic West Bengal	76.7	-32	72.1	-6	73.9	-33	69.4	-9	68.9	-9
Orissa	71.4	-28	81.0	23	76.7	214	79.7	170	75.0	-49
Jharkhand	70.2	-23	76.7	-8	74.7	-31	78.8	-28	77.4	-34
Bihar	63.1	2	74.8	-33	80.6	-85	78.9	-71	76.8	34
East Uttar Pradesh	51.5	-33	58.8	-47	76.2	-49	81.0	-63	66.4	10
West Uttar Pradesh	35.5	-53	51.5	-88	65.2	-23	61.7	-51	67.2	-68
Uttarakhand	64.9	-7	83.8	-79	101.1	-39	97.0	14	103.8	-1
Haryana, Chandigarh & Delhi	19.7	11	28.4	-82	46.8	-55	41.3	-85	40.3	-34
Punjab	20.8	13	35.8	-93	45.5	-29	44.4	-30	45.3	40
Himachal Pradesh	37.4	-53	48.6	-93	64.5	-35	72.0	-38	76.6	-22
J & K	18.4	-82	29.4	-38	38.7	-37	47.7	-16	51.9	-15
West Rajasthan	13.0	-67	20.1	-41	22.9	14	26.4	-14	24.4	18
East Rajasthan	30.6	-24	40.5	-39	51.6	0	58.5	42	55.4	-20
West M. P.	52.1	-35	63.4	-34	68.3	-1	68.4	82	77.1	-1
East M. P.	73.1	-61	83.0	-8	86.0	8	83.3	61	84.1	-70
Gujarat region	59.8	-88	85.7	-55	84.5	14	74.7	91	82.9	49
Saurashtra & Kutch	37.1	35	48.2	-47	44.3	97	46.3	239	41.6	289
Konkan and Goa	255.7	-29	263.3	65	227.3	62	235.8	21	232.9	-9
Madhya Maharashtra	47.5	-73	57.5	16	54.5	60	54.2	53	49.3	32
Marathwada	42.8	-44	36.8	53	34.3	47	44.9	-26	54.6	-83
Vidarbha	73.9	-14	75.4	13	76.9	30	70.3	22	74.8	-53
Chhattisgarh	82.1	-53	91.3	-9	86.1	96	88.7	37	92.8	-53
Coastal A. P.	32.4	-25	35.8	-17	30.1	-4	36.2	-33	41.3	-93
Telangana	46.7	-49	47.6	-46	45.6	8	58.4	-49	64.9	-92
Rayalseema	12.8	-22	16.5	-80	17.0	-79	22.4	-87	25.9	-94
TamilNadu & Pondicherry	8.6	-4	14.5	-12	15.5	-34	16.3	9	19.1	-86
Coastal Karnataka	271.1	-47	274.6	124	253.3	46	289.0	26	257.4	-39
N. I. Karnataka	25.6	-77	23.6	-12	26.4	73	30.4	7	32.7	-82
S. I. Karnataka	45.1	-72	56.8	68	49.0	70	50.2	127	48.1	-45
Kerala	194.5	-8	203.5	24	170.6	-13	165.3	93	157.5	-62
Lakshadweep	64.8	82	60.8	169	63.7	-74	65.5	-34	69.4	-92

The subdivisions like West Uttar Pradesh, Himachal Pradesh and Raylaseema received scanty / deficient rain in all the 5 weeks; East Uttar Pradesh, Jharkhand, Haryana, Chandigarh & Delhi and Telangana received scanty / deficient rain in 4 out of last 5 weeks; Bihar, Punjab, Jammu & Kashmir, East Rajasthan, West Rajasthan, Marathwada, Coastal Andhra Pradesh and Lakshadweep received scanty / deficient rain in 3 out of last 5 weeks. Remaining States received normal / excess rain in 2 or more weeks during last 5 weeks.



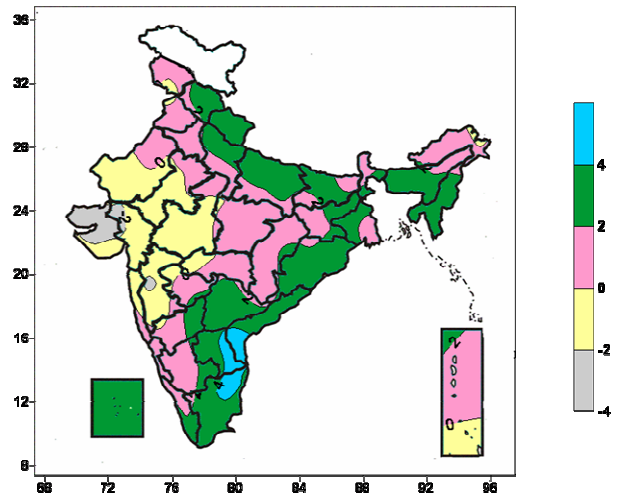
Contour maps for the week ending 29.07.09

Actual Mean Maximum Temperature (°C) in India for the week ending 29.07.09



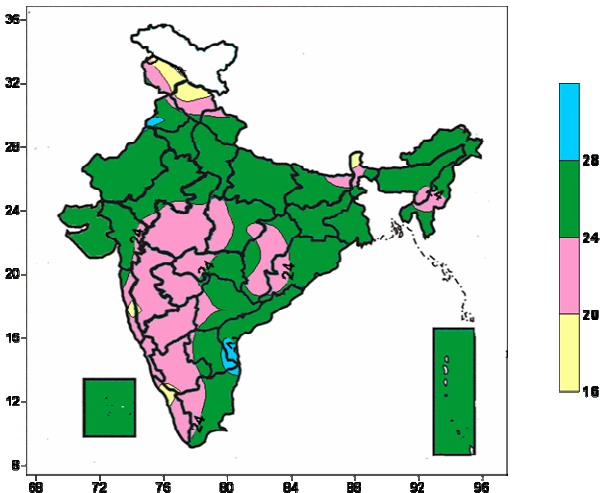
Actual Mean Maximum temperature ranged between 36°C and above over some parts of Punjab, Haryana, West Rajasthan, Coastal Andhra Pradesh, Raylaseema, coastal Tamil Nadu, 32 to 36°C over most parts of Rajasthan, Uttar Pradesh, Uttarakhand, Bihar, Northeast India, North Saurashtra & Kutch, Raylaseema, some parts of Jammu & Kashmir, Punjab, Haryana, Gujarat, Madhya Pradesh Jharkhand, West Bengal, Coastal Andhra Pradesh, Telengana, South & North Interior Karnataka, Tamil Nadu, Kerala, Andamana & Nicobar Island, 24 to 28°C over some parts of Jammu & Kashmir, Himachal Pradesh, Chattisgarh, Tamil Nadu, Kerala, South & Coastal Interior Karnataka, Konkan & Goa, 28 to 32°C over remaining parts of the country.

Maximum Temperature (°C) Anomaly In India for the week ending 29.07.09



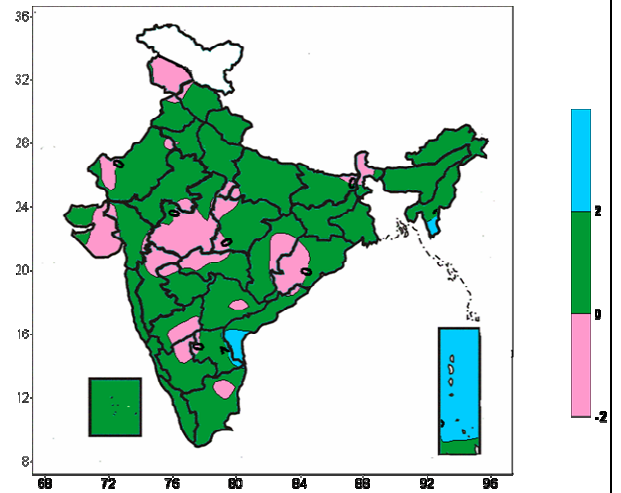
Actual Mean Maximum temperature anomaly ranged between 2°C and above over most parts of Himachal Pradesh, Uttarakhand, Northeast India, Sub-Himalyan West Bengal, some parts of Jammu & Kashmir, East Uttar Pradesh, Bihar, Sikkim, Andhra Pradesh, North Interior Karnataka, Andaman & Nicobar Islands, -2 to 0°C most parts of Orissa, Chattisgarh, Maharashtra, Madhya Pradesh, Gujarat, Saurashtra & Kutch, some parts of Punjab, Rajasthan, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh, Telengana, Tamil Nadu, Kerala, Karnataka, Andaman & Nicobar Island, 0 to 2°C over remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 29.07.09



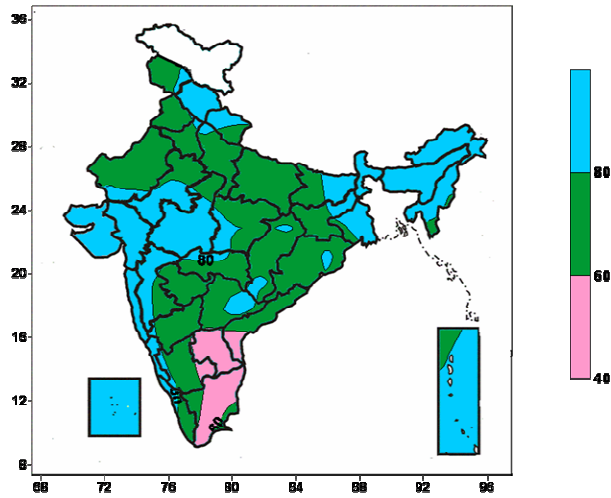
Actual Mean Minimum Temperature ranged between 26°C and above over most parts of Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Gangetic West Bengal, Tripura, West Rajasthan, some parts of Uttarakhand, Jharkhand, Sub-Himalayan West Bengal, Assam, Coastal Andhra Pradesh, Rayalaseema, Saurashtra & Kutch, Tamil Nadu, Laksahweep, 18 to 22°C over some parts of Jammu & Kashmir, Himachal Pradesh, Orissa, Chattisgarh, Karnataka, North Kerala, Madhya Maharashtra, Tamil Nadu, 14 to 18°C over some parts of Jammu & Kashmir, Himachal Pradesh, 22°C to 26°C over remaining parts of the country.

Minimum Temperature (°C) Anomaly in India for the week ending 29.07.09

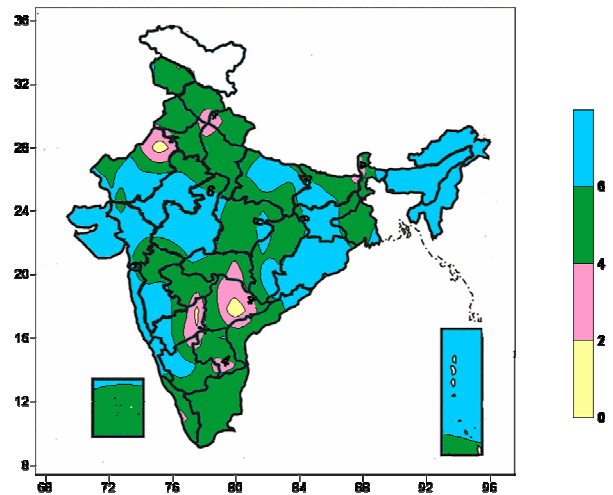


Minimum Temperature anomaly ranged between -2 to 0°C over most parts of Jammu & Kashmir, Orissa, some parts of Punjab, west Uttar Pradesh, Rajasthan, Gujarat, Saurashtra & Kutch, Chattisgarh, Madhya Pradesh, Coastal Andhra Pradesh, Telengana, Tamil Nadu, Kerala, South Interior Karnataka, Madhya Maharashtra, Konkan, Vidarbha, 0 to 2°C over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 29.07.09



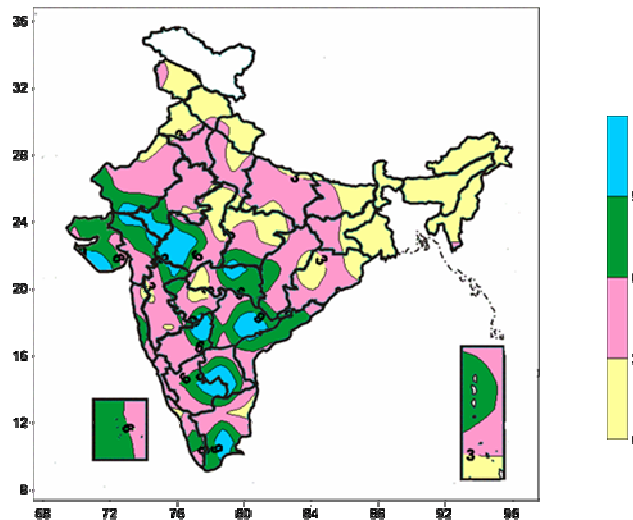
Cloud amount (okta) over India for the week ending 29.07.09



Relative humidity more than 80% over most parts of Himachal Pradesh, West Bengal, Sikkim, Northeast India, Gujarat, Saurashtra & Kutch, West Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Lakshdweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Uttarakhand, Haryana, West Uttar Pradesh, Bihar, Jharkhand, Orissa, Chattisgarh, East Madhya Pradesh, Vidarbha, Interior Karnataka, Telengana, Kerala, 40 to 60% over most parts of Rayalaseema, Tamil Nadu, some parts of Coastal Andhra Pradesh, South Interior Karnataka, 60 to 80 % over remaining parts of the country.

Cloud amount 6 okta and above over most parts East Uttar Pradesh, Jharkhand, Northeast India, Orissa, Rajasthan, Gujarat, Saurashtra & Kutch, West Madhya Pradesh, Konkan & Goa, South Madhya Maharashtra, Coastal Karnataka, Andaman & Nicobar Islands, some parts of Bihar, West Bengal, Chattisgarh, East Madhya Pradesh, Vidarbha, Interior Karnataka, Coastal Andhra Pradesh, Lakshdweep Islands, 2 to 4 okta over some parts of Himachal Pradesh, Uttarakhand, Haryana, West Uttar Pradesh, West Rajasthan, Bihar, Sub-Himalayan West Bengal, Marathwada, Vidarbha, Interior Karnataka, Andhra Pradesh, Kerala, 0 to 2 okta over some parts West Rajasthan, Telengana, North Interior Karnataka, 4 to 6 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 29.07.09



Wind speed ranged between 9 knots and above over some parts of Rajasthan, Gujarat, Saurashtra & Kutch, Madhya Pradesh, Madhya Maharashtra, Vidarbha, Interior Karnataka, Andhra Pradesh, Tamil Nadu, 6 to 9 knots over most parts of Saurashtra & Kutch, North Coastal Andhra Pradesh, Lakshdweep Islands, some parts of Rajasthan, Gujarat, Madhya Pradesh, Chattisgarh, Maharashtra, Interior Karnataka, Telangana, Rayalaseema, Kerala, Tamil Nadu, Andaman & Nicobar Islands, 0 to 3 knots over most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, West Bengal, Sikkim, Northeast India, some parts of Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Orissa, Madhya Pradesh, Chattisgarh, Maharashtra, Kerala, Tamil Nadu, Andaman & Nicobar Islands, 3 to 6 knots over remaining parts of the country.

Zonewise Agromet Advisories

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

Himachal Pradesh

- **Realised Rainfall:** Many districts received rainfall during last week.
- **Rainfall distribution fro last 5 weeks**

State/Districts	01.07.09	08.07.09	15.07.09	22.07.09	29.07.09
More than 3 weeks continuously deficient to no rain					
Chamba	-94	-95	-69	-34	-80
Kullu	-72	-90	-23	-39	-57
Lahaul and Spiti	-98	-94	-42	-72	-68
Mandi	-18	-84	-24	-69	-44
Shimla	-29	-89	**	-85	-35
2weeks continuously deficient to no rain					
Kinnaur	4	-86	208	-77	-60
Sirmaur	-56	-95	11	-64	-27
Districts received sufficient rainfall during previous week					
Bilaspur	-59	-99	-19	-11	167
Hamirpur	-69	-100	-54	25	62
Kangra	-45	-93	-59	10	5
Solan	-16	-96	-69	-63	48
Una	1	-100	-62	103	187

- **Rainfall Forecast:** Many places during next 48 hours and at a few places thereafter.
- **Major Kharif Crops:** Rice, Vegetables
- **Crop Stage:** Sowing, transplanting
- **Crop Condition:** Good.
- **Advisory:**
- Transplanting of rice may be completed to avoid reduction in yields. Transplanting solanaceous vegetable crops may be taken up with realized rainfall.
- Farmers are advised for drainage in already sown maize and soybean fields.

Major Seasonal Crop: Fruit crops, Flower crops and Vegetables

- Undertake weeding, intercultural operations and top dressing of fertilizers after current spells of rain.
- Farmers are also advised to arrange the staking in vegetable crops to avoid the damage.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
- fruit rot in tomato, chilli and Shimla mirchi, spray Dithane M-45 @ 2-3 g per litre of water at 10-15 days interval.
- red pumpkin beetle and fruit fly in curcubits, spray Malathion 1ml/litres +50 gram gur or sugar. For control of red pumpkin beetle spray cypermethrin @ 30ml per 30 litres water in one kanal.
- Undertake spraying after current spells of rain.

Uttarakhand

- **Realised Rainfall:** Most districts of Uttarakhand received good rainfall.
- **Rainfall distribution for last 5 weeks**

More than 3 weeks continuously deficient to no rain					
Garhwal Tehri	-66	-99	-73	-37	-62
Nainital	-63	-98	-46	-73	-22
Rudraprayag	-80	-94	-69	-46	-47
Udham Sing Nagar	-100	-100	-55	-84	-45
Districts received sufficient rainfall during previous week					
Almora	-100	-74	-42	9	-66
Chamoli	-59	-42	-35	23	14
Champawat	196	-95	-3	70	-15
Dehradun	-57	-67	-77	-26	27

Garhwal Pauri	-37	-99	-63	-12	44
Haridwar	84	-98	-67	124	101
Pithoragarh	-90	-70	-35	2	-17
Uttarkashi	282	-61	35	176	29

- **Rainfall Forecast:** Many places during next 48 hours and at a few places thereafter.

Major Kharif Crops: Rice, Soyabean, Groundnut, Tur, mung, sesame.

- **Crop Stage:** Transplanting
- **Crop Condition:** Good
- **Advisory:**
 - Complete transplanting of rice seedlings.
 - Undertake sowing of mung and sesame and transplanting of vegetable with realized rainfall.
 - **Major Seasonal Crop with stage:** Sugarcane ratoon (early vegetative), cabbage, garlic, tomato (vegetative), maize, French bean (early vegetative),
- **Crop Condition:** Good

Advisory: Apply weeding and intercultural operation after current spells of rain.

- Undertake planting of mango, litchi, guava, citrus, loquat and amla and sowing of annual flower crops.
- Farmers are advised to postpone irrigation to the standing crops as there was good rainfall in most of the districts during last week.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - khaira disease in rice in valleys, if appears in the crop under irrigation, farmers are advised to spray the solution of 5 kg zink sulphate and 20 kg urea in 1000 litre of water/ per hectare for control of the said disease.
 - Undertake spraying of pesticides after current spells of rain

Punjab

- **Realised Rainfall:** Many districts of Punjab received good rainfall
- **Rainfall distribution for last 5 weeks**

State/Districts	01.07.09	08.07.09	15.07.09	22.07.09	29.07.09
More than 3 weeks continuously deficient to no rain					
Amritsar	-44	-100	-24	-68	-52
Fatehgarh Saheb	34	-100	-48	-88	-76
Ferozpur	-80	-97	-88	-100	-72
Muktesar	31	-69	-56	-100	-84
2weeks continuously deficient to no rain					
Bhatinda	165	-88	47	-84	-22
Faridkot	-9	-100	-14	-100	-100
Districts received sufficient rainfall during previous week					
Gurdaspur	-31	-100	-77	60	-13
Hoshiarpur	**	-99	-64	-16	190
Jalandhar	45	-95	-49	-80	245
Kapurthala	58	-92	-20	127	226
Ludhiana	137	-61	-3	-26	136
Moga	-63	-100	-4	-100	-17
Nawashahar	23	-95	-65	-20	54
Patiala	59	-95	-59	-53	34
Ropar	28	-98	-55	91	63
Sangrur	-47	-95	117	-4	49

- **Rainfall Forecast:** Many places during next 48 hours and at a few places thereafter.
- **Major Kharif Crops:** Rice, maize, guar, til, urd, bajra, cowpea, cotton,
- **Crop Stage:** Sowing/ transplanting
- **Crop Condition:** Rice crop is in satisfactory condition.
- **Advisory:** Complete transplanting of rice(basmati varieties) and sowing of maize, til, urd, guar, bajra may be continued where adequate rainfall was received.

Major Seasonal Crop with stage: Sugarcane and Vegetables

- **Advisory:** Undertake weeding, intercultural operations in sugarcane and cotton on a non rainy day.
 - Undertake planting of evergreen fruit trees like mango, litchi, guava, ber papaya etc.
 - *Kharif* fodder like guinea grass and Napier bajra grass sowing at regular intervals may be continued for continuous supply of sufficient green fodder. Undertake sowing of non-legume fodders in mixture with legume fodders like cowpea and guara where adequate rainfall was received.
 - Farmers are advised to postpone irrigation to the standing crops as there was good rainfall in most of the districts during last week.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - fruit borer of brinjal and okra. Spray sevin/hexavin 50 WP @ 800 g for brinjal and 500 g for okra in 100-125 litre water per acre after current spells of rain
 - jassid in cotton, spray the crop with 40 ml of Confidor 200 SL or 40 g Actara 25 WG in 100 litres of water per acre after 1-2 days after current spells of rain
 - hispa and leaf folder in rice crop, spray Monocil @ 560 ml or Chlorpyrifos @ 1000 ml by dissolving in 100 lts. of water per acre after current spells of rain.

Haryana

- **Realised Rainfall:** Many districts of Haryana received deficient/scanty rainfall.
- **Rainfall distribution for last 5 weeks**

State/Districts	01.07.09	08.07.09	15.07.09	22.07.09	29.07.09
More than 3 weeks continuously deficient to no rain					
Bhiwani	18	-68	-32	-97	-62
Faridabad	-76	-69	-80	-100	-61
Gurgaon	-18	-21	-94	-83	-46
Hissar	-37	-84	-52	-96	-58
Katihah	-23	-100	-76	-33	-38
Karnal	48	-88	-49	-100	-50
Kurukshetra	-11	-90	-90	-91	-74
Mahendragarh	223	-96	-54	-97	-75
Panchkkula	-81	-100	-73	-79	-33
Panipat	144	-89	-45	-100	-72
Rohtak	-20	-86	-77	-69	-26
Sirsa	-97	-93	-64	-99	-92
2 weeks continuously deficient to no rain					
Fatehabad	-38	-96	-11	-61	-87
Rewari	30	-44	-9	-100	-98
Yamunanagar	-64	-98	-7	-55	-45
Districts received sufficient rainfall during previous week					
Ambala	127	-80	-67	-61	14
Chandigarh	-7	-97	-74	-48	94
Jhajar	2	-65	-49	-77	18
Jind	60	-75	-30	-100	23
Sonepat	120	-95	-50	-87	59

- **Rainfall Forecast:** Few places
- **Major Kharif Crops:** Rice, maize, guar, bajra, cotton
- **Crop Stage:** Sowing/ transplanting
- **Crop Condition:** Sowing could not be completed due to insufficient rainfall in Southern Haryana. Northern Haryana is mainly having irrigation facility, But due to insufficient rain rice transplanting stage is affected. Sowing of Bajra, Pulses and Jowar is continued.
- **Advisory:** As the condition of rainfall improved during last week in North Haryana, farmers are advised to transplant of short duration Basmati rice. Farmers are also advised to do the sowing of pearl millet, mung, urd. Farmers are advised to apply life saving irrigation to already transplanted rice in south Haryana due to insufficient rain.

- Farmers are advised to conserve the moisture in the already sown standing crops by inter-cultural operations.
- Farmers are advised to undertake sowing of short duration varieties of pearl millet like HHB 67 (I), HHB 117 and moong and urad where adequate rainfall received.

Major Seasonal Crop with stage: Spring sugarcane (early vegetative/vegetative), vegetable crops (vegetative), cotton(early vegetative) and berseem (vegetative)

- **Crop Condition:** Good
- **Advisory:**
 - Undertake hoeing and weeding and apply the remaining dose of nitrogen fertilizer to the sugarcane on a non rainy day.
 - Farmers are advised to apply irrigation to the standing crops as there was no significant rainfall in most of the districts during last week.
 - Farmers are advised to undertake weeding and hoeing in cotton and inter-cultural operations in tomato, onion and chilli on a non rainy day.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - jassid in cotton crop, spray the crop with recommended insecticide by the University if there is incidence of jassid on a non rainy day.

Delhi

- **Realised Rainfall:** Good amount of rainfall in the State.
- **Rainfall distribution for last 5 weeks**

State/Districts	01.07.09	08.07.09	15.07.09	22.07.09	29.07.09
New Delhi	-48	-92	-94	-89	84

- **Rainfall Forecast:** few places.

Major Kharif Crops: Maize, vegetables and rice

- **Crop Stage:** Sowing, transplanting
- **Crop Condition:** Satisfactory

Advisory: Present weather is conducive for sowing of sweet corn varieties like Madhuri, vin orange and baby corn varieties like H. M. 4. Undertake transplanting of rice with realized rainfall. Sowing of sweet corn may be completed before 15th August.

Major Seasonal Crop with stage: Vegetables (flowering / fruiting / harvesting),

- **Crop Condition:** Good

Advisory: During this week farmers are advised to do inter-cultural operation in vegetable crops on a non rainy day. Present weather conditions are highly favourable for nursery preparation of mid-season cauliflower and short duration radish (Pusa Desi), spinach and onion.

Uttar Pradesh

- **Realised Rainfall:** Many districts of East Uttar Pradesh received good rainfall and many districts of West U.P. received deficient/scanty rainfall
- **Rainfall distribution for last 5 weeks**

East Uttar Pradesh					
More than 3 weeks continuously deficient to no rain					
Allahabad	-42	-47	**	-39	-57
Ballia	-36	-67	-99	-82	-27
Fatehpur	-100	-42	-57	-98	-80
Kushi nagar	-32	-83	-99	-100	-50
Mau	-97	-22	-100	-99	-63
Unnao	-100	-100	-32	-91	-22
3 weeks continuously deficient to no rain					
Deoria	-58	-17	-96	-98	-64
Gazipur	-96	-5	-84	-67	-47

2 weeks continuously deficient to no rain					
Banda	-65	-35	-10	-65	-94
Farrukhabad	-88	-100	-13	-66	-71
Kanpur City	-87	-77	52	-86	-84
Kanpur Dehat	-47	-82	-18	-81	-98
Districts received sufficient rainfall during previous week					
Ambedkar Nagar	-70	-90	-100	-86	-11
Azamgarh	-62	7	-37	-94	18
Bahraich	38	-59	-41	-33	27
Balrampur	-37	-96	-84	-99	136
Barabanki	-8	-96	27	-71	139
Basti	-34	-55	-90	-68	15
Faizabad	18	-27	-81	-91	65
Gonda	47	-15	-58	-92	47
Gorakhpur	-67	264	-80	-23	46
Hardoi	-40	-95	-79	-67	84
Jaunpur	-90	-90	-15	-79	45
Kheri	137	-87	-43	-46	-7
Lucknow	-55	-18	-48	-87	12
Maharajganj	14	-31	-100	-79	**
Mirzapur	-92	-26	-43	6	-76
Pratapgarh	-100	-3	33	-11	55
RaiBareilly	-96	-91	-24	-75	-13
Sant Ravidas Nagar	43	89	-47	6	-38
Shrawasti	156	-99	-83	-33	57
Sidharthnagar	16	-54	-72	-24	79
Sitapur	17	-90	16	-91	66
Sonbhadra	-79	20	-60	18	-8
Sultanpur	-59	-75	-71	-91	169
Varanasi	-72	-38	-63	-30	32
West Uttar Pradesh					
More than 3 weeks continuously deficient to no rain					
Agra	-58	-91	-43	-58	-87
Aligarh	-3	-99	-70	-100	-56
Etah	-100	-95	-56	-95	-78
Ghaziabad	-100	-100	-73	-91	-57
Jotirba Phule Nagar	-100	-100	-28	-100	-84
Mahamaya Nagar	-79	-77	-87	-98	-96
Mainpuri	-100	-100	-31	-56	-98
Meerut	-7	-81	-57	-96	-66
Muzzaffarnagar	30	-100	-75	-94	-90
Rampur	-94	-99	-65	-92	-72
2 weeks continuously deficient to no rain					
Badaun	-100	-100	52	-86	-51
Etawah	-100	-93	32	-62	-97
Firozabad	-100	-100	12	-87	-84
Hamirpur	-71	-50	117	-42	-97
Shahjahanpur	55	-100	-15	-99	-34
Districts received sufficient rainfall during previous week					
Auraiya	-98	-95	11	-12	-99
Baghpat	158	-89	-19	-20	25
Bareilly	-17	-99	-17	-89	4
Bijnor	-3	-100	-57	6	-64
Bulandsahar	-36	-78	-67	-90	-15
Jalaun	-100	-96	23	-2	-100
Jhansi	-82	-85	43	40	-99

Lalitpur	-68	-40	28	-3	-94
Mathura	-74	-50	-65	-6	-99
Moradabad	-59	-100	-45	41	-68
Pilibhit	-62	-100	-77	-98	-4
Saharanpur	-77	-98	-50	-19	-82

- **Rainfall Forecast:** Few places.

Major Kharif Crops: East UP: Rice, mung, jowar, bajra.

- **West UP:** Rice, groundnut, urd, mung and vegetables

- **Crop Stage:** Sowing/ transplanting

- **Crop Condition:**

- **East UP:** Crop sowing has been affected due to insufficient rain and up to 28.07.09 sowing were taken up by 53 % in the State.
- **West UP:** Crop sowing has been affected due to insufficient rains.
- **Advisory:** Due to delayed monsoon/ insufficient rains, following contingent plan is recommended in East U.P
- **East UP:** Direct seeding of rice is advised with improved varieties such as NDR-80, NDR-97, NDR-118, Barani Deep etc. where adequate rainfall received during last week. Select short duration varieties of alternate crops like mung, jowar, bajra, urd, pigeon pea, sesamum and adopt closer spacing to compensate the yield loss. Farmers in Kanpur Dehat and Banda districts are advised to wait for sufficient rainfall to undertake sowing.
- **Advisory for West UP:** Sowing/transplanting of rice, urd, mung, groundnut and vegetables is advised.
 - Transplant the rice seedling days after filling the water in the field & transplant 3-4 seedlings/hill together, if the seedlings are more than 30 days old and keep distance 15 cm between plants & 20 cm between rows.

Major Seasonal Crop with stage: Sugarcane (vegetative) and vegetables (vegetative/fruitle), mango (fruit setting)

- **Crop Condition: Good**

- **Advisory**

- Undertake weeding, intercultural operations and application of fertilizers in the standing crops like sugarcane, vegetables and mentha on a non rainy day

- Continue field preparation and planting of turmeric and ginger

- Apply irrigation to the crops in west U.P.

- **Plant Protection:** Weather conditions are favourable for mild incidences of fruit borer in tomato and brinjal, spray the solution of Carbaryl @ 2 g / litre of water on a non rainy day.

J & K

- **Realised Rainfall:** Good rainfall in most of the districts.

- **Rainfall Forecast:** Many places during next 48 hours and at a few places thereafter.

Major Kharif Crops: Rice, maize, vegetables

- **Crop Stage:** Sowing, transplanting

- **Crop Condition:** improving due to recent rainfall.

- **Advisory:** Farmers are advised to take up sowing of short duration varieties of normally sown green gram and black gram crops and transplanting of late varieties of rice using 4-5 seedlings per hill utilizing the realized and expected rainfall during next 5 days.

Major Seasonal Crop with stage: Vegetables (vegetative to fruiting)

- **Crop Condition:** Good

- **Advisory:** Sowing of carrot and nursery sowing of knol khol may be done. Undertake harvesting of matured vegetable crops like brinjal, tomato, bhindi.

- **Plant Protection:** Apply phorate 10G @ 10 kg/ha or carbofuron 3G @ 20 kg/ha for control of root weevil and thread worms in rice after current spells of rain.

Rajasthan

- **Realised Rainfall:** Most districts received good rainfall in both the sub-divisions

- **Rainfall distribution for last 5 weeks**

More than 3 weeks continuously deficient to no rain					
East Rajasthan					
Jaipur	28	-58	-28	-25	-73
Karauli	111	-91	-53	-62	-73
Sawai Madhopur	-8	-74	-38	-37	-89
3 weeks continuously deficient to no rain					
Alwar	70	-19	-32	-29	-26
2 weeks continuously deficient to no rain					
Dholpur	21	-76	30	-43	-97
Jhunjhunu	49	-53	26	-82	-73
Sikar	71	-64	-5	-80	-80
Districts received sufficient rainfall during previous week					
Ajmer	-58	-10	19	18	-57
Banswara	-72	-76	-28	115	65
Baran	-33	10	-43	50	-81
Bharatpur	17	-6	-30	-16	31
Bhilwara	-66	-22	8	53	-27
Bundi	-13	-46	-32	88	-87
Chittorgarh	-33	34	13	94	37
Dausa	39	-73	-51	4	-59
Dungarpur	-80	-60	-44	366	121
Jhalawar	-12	-48	48	125	-29
Kota	-1	55	6	93	-53
Rajsamand	-24	-22	109	101	56
Sirohi	-99	-80	7	162	98
Tonk	-51	-86	11	36	-68
Udaipur	-91	-83	75	184	142
West Rajasthan					
3 weeks continuously deficient to no rain					
Hanumangarh	-82	-17	-33	-92	-44
2 weeks continuously deficient to no rain					
Churu	-73	-1	-11	-84	-23
Nagaur	-61	-61	-11	-48	-82
Districts received sufficient rainfall during previous week					
Barmer	-53	-95	82	60	182
Bikaner	-100	87	119	13	2
Jaisalmer	-66	-76	-24	-53	49
Jalore	-91	-98	8	44	19
Jodhpur	-52	-47	-33	-4	2
Pali	-38	-66	22	83	20
Sri Ganganagar	-100	140	54	-92	10

- **Rainfall Forecast:** Few places in East Rajasthan and isolated places in West Rajasthan.

Major Kharif Crops:

East Rajasthan: Cowpea, bajra, maize

West Rajasthan: Pearl millet, sorghum, maize, cluster bean, Sesamum, Pigeonpea, Groundnut

- **Crop Stage:** Sowing
- **Crop Condition:** Satisfactory
- **Advisory: East Rajasthan:** Continue sowing of cowpea, sesame and bajra. Sow early maturing improved sesame varieties like RT125, RT 127 and RT 46. In case of late sowing prefer early maturing varieties of green gram, moth bean, cowpea, clusterbean and sesame instead of millets. Intercrop early maturing varieties of pearl millet with early maturing varieties of greengram, mothbean, cowpea, clusterbean and sesame.

West Rajasthan : Continue sowing of kharif crops (Pearl millet, sorghum, cowpea, soybean, urd, Sesamum, Pigeonpea, Groundnut) .

Major Seasonal Crop with stage: vegetable crops (flowering / fruiting / harvesting)

- **Crop Condition: Good**
- **Advisory:** Undertake intercultural operations in bajra, jowar, sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger
- **Plant Protection:** Spray Malathion 50 EC @ 1.0 ml or Endosulfan 35 EC @ 1.5 ml per litre water to control mango hopper in mango tree
 - Spray Karathane @ 1 ml or Sulphur Fungicide @ 2.5 g / litre of water to control .powdery mildew in mango and vegetables
 - Spray Endosulphan @ 2 ml per litre of water to control fruit borer in tomato, brinjal and bhindi in Banswara.

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

Bihar

- **Realised Rainfall:** Most of the districts of Bihar received good rainfall.
- **Rainfall distribution for last 5 weeks**

More than 3 weeks continuously deficient to no rain					
Nalanda	**	-60	-86	-46	-49
Siwan	-89	-81	-100	-87	-50
Vaishali	37	-75	-98	-97	-86
3 weeks continuously deficient to no rain					
Araria	-17	9	-98	-72	-20
Bhojpur	-14	-55	-97	-96	-48
Kishanganj	**	-94	**	-96	-70
Madhepura	**	**	-99	-94	-37
Patna	-19	18	-84	-85	-41
Districts received sufficient rainfall during previous week					
Aurangabad	-64	-60	-64	16	7
Begusarai	**	-96	-46	-41	27
Bhabua	**	-85	**	-49	90
Bhagalpur	12	-28	-62	-54	183
Buxar	-71	-77	-89	61	-14
Darbhanga	12	-37	-95	-84	123
East Champaran	-12	-33	-90	-96	123
Gaya	-17	29	-77	-78	2
Gopalganj	**	-57	-100	-89	116
Jhanabad	**	**	**	-49	9
Jamui	**	-55	-93	-73	40
Katihar	-43	-60	-89	-84	-5
Khagadia	-14	-60	-79	-14	40
Madhubani	-24	-41	-93	-65	191
Monghyar	2	36	-67	53	32
Muzaffarpur	11	-13	-91	-92	6
Purnea	103	35	-78	-76	86
Rohtas	-37	**	-41	-72	16
Saharsha	171	-49	-98	-76	39
Samstipur	-40	-79	-72	-61	34
Saran	**	**	-100	-96	9
Sitamarhi	-82	-35	-100	-99	26
Supaul	**	-99	-100	-74	88
West Champaran	154	21	-84	-88	68

- **Rainfall Forecast:** Many places with heavy rainfall at isolated places
- Major Kharif Crops:** urd, sunflower, maize and pigeon pea
- **Crop Stage:** Sowing/transplanting
- **Crop Condition:** Already sown crops are recovering from stress condition
- **Advisory**

- Farmers are advised to continue sowing of contingent crops like urd, sunflower, maize, til and pigeon pea in upland areas in place of rice. Utilising the realized rainfall, farmers are advised to do paddy transplanting only in medium and low land situations by SRI method.
- Farmers are advised to sow maize, lobia and jowar as green fodder crops where there is very little scope for irrigation in upland situations.

Major Seasonal Crop with stage: Sugarcane (vegetative/grand growth), fodder maize, jowar, lobia and sudan grass (vegetative)

• **Crop Condition:** Satisfactory

• **Advisory:**

- Undertake intercultural operations, application of fertilizers after current spells of rain.
 - Apply irrigation to the standing crops as there was good rainfall in most of the districts during last week.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- top borers in sugarcane. Apply Carbafulan 3G@33 kg per hectare in the affected crops after current spells of rain.
 - Stem borer in maize, apply Furaton 3G @ 3 to 4 grains per plant after current spells of rain.

Jharkhand

- **Realised Rainfall:** Many districts of Jharkhand received rainfall.
- **Rainfall distribution for last 5 weeks**

More than 3 weeks continuously deficient to no rain					
Giridih	-23	-24	-74	-43	-66
3 weeks continuously deficient to no rain					
Koderna	**	**	-87	-28	-76
Santhal Parganas	-36	-17	-38	-75	-38
2 weeks continuously deficient to no rain					
Godda	**	**	**	-31	-63
Pakur	**	**	**	-59	-100
Ranchi	-33	29	33	-23	-72
Bokaro	-1	-40	-5	-66	-33
Districts received sufficient rainfall during previous week					
East Singhbhum	-84	25	92	-25	32
Godda	**	**	**	-31	-63
Gumla	**	**	**	-13	-8
Hazaribagh	-14	-19	-40	24	-62
Lohardagga	**	**	-93	1	-60
Palamau	3	-5	-26	-15	-15
West Singhbhum	**	**	-92	-22	-7

- **Rainfall Forecast:** Many places.

Major Kharif Crops: Maize, Arhar, Til, Ragi, Vegetables

- **Crop Stage: Sowing**
- **Crop Condition:** Crop condition is improving. No soil moisture stress except Northwestern districts like Garhwa, Palamu, Latehar and Chatra where still there is scanty rainfall and sowing of *kharif* crops has been already affected.
- **Advisory:** Continue sowing of til, mung, maize, arhar, ragi, vegetables in upland, middle land and low land.

Major Seasonal Crop with stage: Sugarcane (vegetative/grand growth),

- **Crop Condition: Good**
- **Advisory:** Farmers are advised to undertake weeding, intercultural operations in sugarcane on a non rainy day.
- Undertake planting of mango variety like Mallika, Amrapali, Langra, Himsagar in the pits already filled with soil and manures.
- Undertake transplanting of brinjal, chilly, tomato utilizing the realized rainfall.

Orissa

- **Realised Rainfall:** Most of the districts received rainfall.
- **Rainfall distribution for last 5 weeks**

Orissa					
Angul	-45	70	177	244	-94
Balasore	-15	-77	116	112	-32
Bargarh	-35	155	246	325	-66
Bhadrak	-20	-39	252	310	-52
Bolangir	-65	9	247	213	-88
Boudh	-24	107	373	218	-62
Cuttack	26	159	288	204	-28
Deogarh	-55	33	30	91	-94
Dhenkanal	-60	69	291	315	-89
Gajapati	14	26	147	149	-90
Ganjam	-29	15	355	146	-81
Jagatsingpur	-66	205	217	315	-87
Jajpur	14	-3	171	178	-66
Jharsuguda	-56	115	-8	101	-50
Kalahandi	-47	-22	325	257	102
Kandhamal	-1	-3	386	309	-61
Kendrapara	-57	39	251	535	-55
Keonjhar	-42	-5	315	142	-80
Khurda	39	29	342	172	-91
Koraput	-49	-51	202	87	-25
Malkangiri	-70	-38	75	10	-54
Mayurbhanj	-3	21	142	38	-46
Nawapara	-64	33	263	304	-32
Nawarangpur	24	-21	130	33	71
Nayagarh	53	-6	564	369	-59
Puri	-2	45	254	319	-75
Rayagada	13	37	144	77	-45
Sambalpur	-70	-12	107	154	-89
Sonepur	-27	127	318	351	-84
Sundargarh	-18	8	10	78	-51

- **Rainfall Forecast:** Many places over Orissa during next 48 hours and increase thereafter.

Major Kharif Crops: Rice, ragi, arhar, maize, green gram, blackgram

- **Crop Stage:** Satisfactory
- **Crop Condition:** Transplanting is continued.
- **Advisory:** Complete transplanting of rice.
- Go for bushening of direct sown paddy in medium and low land at 21 days stage. Apply 16 kg nitrogen per acre at bushening followed by weeding and gap filling. Drain out the excess water at the time of fertilizer application and pond it again after one day. If basal dose fertilizer not applied, apply 18 kg Urea, 100 kg SSP and 26 kg MOP while bushening followed by top dressing of 35 kg Urea after 7 to 10 days.
- Complete sowing of sesame, greengram and blackgram and vegetables like lady's finger, cowpea and cluster bean and raise vegetable nurseries for cauliflower, brinjal, tomato and chillies in uplands.

Major Seasonal Crop with stage: Sugarcane (early vegetative), vegetables (fruiting / harvesting), onion (vegetative), jute (vegetative),

- **Crop Condition:** Good
- **Advisory:** Undertake weeding, intercultural operations and application of fertilizers after current spells of rain.
- Harvest all the cultured fish from the pond and drain out water from it for complete drying. In perennial ponds where water draining is impossible, apply Mahua oil cake 1 t/acre to kill all the predatory and weed fishes. Clear the aquatic weeds from the pond and strengthen the embankments.

- **Plant Protection:** Weather conditions are favourable for cut worm in rice. Apply chloropyriphos around the bund to prevent the entry of cut worm to the unaffected field and spray 2 ml chloropyriphos in 1 litre water in the afternoon/cool hour after current spells of rain.

West Bengal

- **Realised Rainfall:** Most of the districts of West Bengal received good rainfall
- **Rainfall distribution for last 5 weeks:**

West Bengal					
GWB					
3 weeks continuously deficient to no rain					
Burdwan	-36	27	-51	-59	-26
Nadia	7	-2	-78	-43	-50
Districts received sufficient rainfall during previous week					
Bankura	-65	-1	5	-15	-1
Birbhum	-34	-5	-53	-14	-55
Hooghly	-23	-65	-64	-34	-3
Howrah	-6	-85	-47	102	48
Midnapore	-45	-15	8	17	-21
Murshidabad	22	-51	-89	-77	34
24 Pargana (N)	-52	-39	-69	-5	-17
Purulia	-55	22	14	-35	8
24 Pargana (S)	-10	30	-31	52	8
SHWB					
More than 3 weeks continuously deficient to no rain					
Coochbehar	31	-41	-95	-89	-31
Districts received sufficient rainfall during previous week					
Darjeeling	-8	62	-33	-52	22
Jalpaiguri	88	39	-81	-70	12
Malda	-35	-33	-86	1	-8
Dinajpur (N)	-11	9	-98	-83	12
Dinajpur (S)	-100	-49	-81	-98	77

- **Rainfall Forecast:** Many places with heavy rainfall at isolated places
- **Major Kharif Crops:** Rice, vegetables
- **Crop Stage:** transplanting
- **Crop Condition: Good**
- **Advisory:** Continue transplanting of rice seedlings.
- Undertake transplanting of vegetable with the realized
- The nursery bed should be prepared near the pond for irrigation or removal of excess water from the seedbed.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), jute (vegetative)
- **Crop Condition: Good**
- **Advisory:** Undertake harvesting of jute crop.

Plant protection: Weather conditions are favourable for mild incidences of –

- red mite in bhindi. Spray Dicofall @ 3ml per litre of water, if attack is noticed. In case of fruit borer attack, spray Triazophos 40 EC @ 1.2 ml mixing with 1ml Sandovit per litre of water should be applied. Spray chemicals after spells of rain.

Sikkim

- **Realised Rainfall:** Deficient rainfall is received over the state.
- **Rainfall distribution for last 5 weeks:**

Sikkim	-57	-2	-30	-51	-14
--------	-----	----	-----	-----	-----

- **Rainfall Forecast:** Many places with heavy rainfall at isolated places
- **Major Seasonal Crop with stage:** Very High hills: Summer Potato: Tuberization/Tuber Maturity/Early Harvesting; High Altitude Maize: Late Vegetative/Flowering (b) High hills: Off-

Season Vegetable crops: Vegetative/Late Vegetative; **Seed Potatoes:** Tuberization/Tuber-Maturity/Early-Harvesting; (c) **High/ Medium/ Low hills: Maize:** Flowering/ Cob Maturity/ Early Harvesting; **Kharif Vegetables:** Vegetative/Late Vegetative; **Large Cardamom:** Transplanting of Seedlings/ Secondary Flowering/Primary Capsule Formation/Capsule formation & maturity (**low hills**) (d) **Medium & Low Hills: Rice:** seedling/tillering **Ginger:** Early Vegetative/Vegetative; **Orange:** Nursery Transplanting of Seedlings/ Flowering/ Early Fruiting/Fruiting.

• **Crop Condition: Good**

- **Advisory:** Transplanting of orange seedling should be continued. Deshooting/debugging of newly planted to 1 – 4 years old trees, upto a basal height of 40 – 50 cm should be done on monthly basis.
- Nursery beds of large cardamom suckers may be mulched properly with dried forest leaves in order to prevent soil erosion and weed growth.
- Inter-cultivate in the transplanted paddy as per usual practice in order to incorporate FYM/compost and to break and scratch the compact soil. This would make the soil loose and aerate it.
- During the tillering stage, in the medium hills, water level of 3-4 cm should be maintained to enable maximum tillering as in case of insufficient water, tillering will be less and facilitate excess growth of weeds.
- Top dressing of ginger with organic manures and mulching to be done after spells of rain and on monthly basis. Proper drainage to be maintained and weeding to be done after spells of rain.
- Diseased/pest infested suckers may be removed and destroyed.
- Chirke and Foorkey infected cardamom plants may be destroyed by uprooting and buried in the pits at regular intervals.

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

Assam

- **Realised Rainfall:** Many districts received good rainfall during last week.
- **Rainfall distribution for last 5 weeks:**

More than 3 weeks continuously deficient to no rain					
Dhubri	-75	-60	-94	-93	-29
Hailakandi	-51	-75	-90	-66	-68
Kokrajhar	-4	-29	-100	-95	-35
Nowgong	-63	-65	-88	-41	-63
Sibsagar	-86	-32	-43	-23	-33
3 weeks continuously deficient to no rain					
Dibrugarh	-2	38	-47	-20	-55
East Garo Hills	286	88	-79	-100	-46
Karimganj	-33	36	-49	-59	-58
Tinsukia	11	54	-84	-42	-48
Districts received sufficient rainfall during previous week					
Barpeta	103	-32	-84	-64	42
Bongaigaon	-55	-56	-90	-84	19
Cachar	46	-25	-70	-65	48
Darrang	-51	156	-41	-79	171
East Khasi Hills	132	113	-63	-67	57
Goalpara	-12	46	-95	-51	25
Golghat	-75	1	20	-60	87
Jorhat	-2	-20	-45	-42	16
Kamrup	-9	4	-66	-44	99
Karbi Analog	-60	-14	-12	9	72
Lakhimpur	-1	-27	-26	-19	-48
Morigaon	-15	-16	-14	-5	6
Nalbari	45	-2	-29	-59	37
Sonitpur	8	-46	11	-46	-3

- **Rainfall Forecast:** Most places with heavy rainfall at isolated places
- Major Kharif Crops: Sali paddy**
- **Crop Stage: Transplanting**

- **Crop Condition:** Transplanting of sali rice is continued.
- **Advisory:** Continue transplanting of *sali* paddy may be continued with 21-25 days old seedlings in case of semi dwarf and short duration varieties and 30-40 days in case of long duration and local varieties. Undertake sowing of early cauliflower varieties like Early Kunwori, Pusa Ketki, Pusa Dipali etc. in the 1st fortnight of August. High yielding varieties of green gram such as T-44, K-801 etc. and black gram(T-9, T-27 etc.) may be sown under the prevailing weather conditions.

Major Seasonal Crop with stage: vegetables (vegetative / flowering / fruiting / harvesting), early *ahu* rice (tillering / panicle initiation), *Capsularis* jute (vegetative / harvesting), *Olitorius* jute (vegetative), maize (vegetative) and sugarcane (vegetative),

- **Crop Condition:** Good
- **Advisory:**
 - As rain/thundershowers are likely at most places over the State with heavy rainfall at isolated places is likely during next 48 hours, postpone irrigation, weeding and intercultural operations. As maize and jute crops are sensitive to water logging, provide adequate drainage facilities to remove excess water.
- **Plant protection: Weather conditions are favourable for mild incidences of –**
- pollu beetle in pepper, farmers are advised to apply Endosalfan 35EC or Dimethoate 30EC @ 1ml/ lit of water against grubs after current spells of rain.
- stem bleeding in coconut tree. In case of infected plant, infected portion of stem should be scraped out completely and apply Bordeaux paste or coal tar after current spells of rain.

Arunachal Pradesh

- **Realised Rainfall:** Most of the districts received good rainfall
- **Rainfall sheet**

State/Districts	01.07.09	08.07.09	15.07.09	22.07.09	29.07.09
More than 3 weeks continuously deficient to no rain					
Changlang	-80	-63	-90	-82	-93
Lower Subansiri	-73	-87	-86	-46	-28
3 weeks continuously deficient to no rain					
East Kameng	81	92	-79	-41	78
East Slang	64	10	-85	-99	-27
Lohit	-3	95	-81	-84	-50
Districts received sufficient rainfall during previous week					
East Kameng	81	92	-79	-41	78
Papumpara	138	22	28	96	146
Tawang	-52	-12	-80	-92	-9
Tirap	-30	-1	-21	-61	15
Upper Subansiri	-15	-70	-88	-77	47
West Kameng	333	449	-48	33	229
West Siang	47	81	**	-97	5

- **Rainfall Forecast:** Most places with heavy rainfall at isolated places
- Major Kharif Crops:** *jhum* rice, WRC rice, millets
- **Crop Stage:** vegetative
 - **Crop Condition:** Good.
 - **Advisory:** Postpone irrigation, weeding and intercultural operations. Maintain 3-5 cm standing water in rice field.

Major Seasonal Crop: Vegetables

- Harvest the matured vegetable crops.
- Plant Protection:** Prophylactic measure for protection of seed ginger rhizome from fungal disease may be taken. Water logging in the field must also be avoided. Earthing up may be done.

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

Andhra Pradesh

- **Realised Rainfall:** Most of the districts received rainfall in coastal Andhra Pradesh and Telangana during last week except Rayalaseema.
- **Rainfall distribution for last 5 weeks**

Coastal Andhra Pradesh					
More than 3 weeks continuously deficient to no rain					
Guntur	-90	-61	-80	-86	-94
Krishna	-72	-43	-38	-47	-97
Nellore	-30	-41	-71	-83	-85
Prakasam	-98	-66	-36	-87	-100
East Godavari	-49	62	-19	-15	-91
Sirkakulam	49	37	86	42	-95
Visakhapatnam	51	-42	76	-19	-83
Vizianagram	82	-28	100	54	-92
West Godavari	-63	19	-47	9	-93
More than 3 weeks continuously deficient to no rain					
Telangana					
Hyderabad	-96	-57	-58	-45	-99
Mehabubnagar	-99	-78	-61	-57	-98
Medak	-91	-75	-49	-56	-94
Nalgonda	-98	-78	-62	-68	-99
Rangareddy	-81	-31	-38	-54	-96
2 weeks continuously deficient to no rain					
Adilabad	28	-35	52	-66	-81
Karimnagar	-29	-37	30	-55	-90
Nizamabad	-40	-10	41	-51	-88
Warangal	-51	-42	-4	-41	-97
Districts received sufficient rainfall during previous week					
Khammam	-84	-40	43	-8	-92
Rayalaseema					
More than 3 weeks continuously deficient to no rain					
Anantapur	-83	-82	-84	-84	-91
Chittoor	39	-72	-86	-93	-86
Cuddapah	103	-90	-96	-92	-99
Kurnool	-95	-77	-59	-81	-96

- **Rainfall Forecast:** Few places
- Major Kharif Crops:** Cotton, soybean, jowar, black gram, green gram, pearl millet, finger millet, jowar, green gram, groundnut, sunflower, rice, brinjal, tomato and chillies.
- **Crop Stage:** Sowing
 - **Crop Condition:** Sowing of crops like ground nut, jowar, maize, pulses, sesame, sunflower and cotton is affected in Rayalaseema. Sowing of *kharif* crops in Coastal Andhra 33%, Rayalaseema 25% and Telangana 62%.
 - **Advisory:** As the rainfall is not adequate in the State, different districtwise cropping strategies including sowing of short duration *kharif* crops is advised in many parts of the State. Farmers in Rayalaseema are advised to take short duration or alternate crop till the end of July. Take up sowings of rainfed crops like groundnut, cotton, redgram, castor etc. in those areas having sufficient soil moisture. Protect the already sown crops with life saving irrigation.

Major Seasonal Crop: Sugarcane and Vegetables

- Farmers are advised to undertake intercultural operations in sugarcane, vegetables, early sown crops to keep the fields weed free on a non rainy day in Telangana. Apply irrigation to the crops.
- Harvesting of the muskmelon should be completed on bright sunny day.

Plant Protection: Weather conditions are favourable for mild incidences of –

- stem borer in rice, spray Cartap hydrochloride @ 2 g or Phosphomidon @ 2 ml per litre of water or apply Cartap hydrochloride granules @ 8-10 kg per acre upto 20-25 days after planting.
- smut in sugarcane. To control, dip the setts in Propiconazole solution @ 1 ml per litre of water for 15 minutes before planting. In ratoon crop, spray Propiconazole @ 0.5 ml per litre of water at 30 to 35 days after ratooning and 2nd spray at 30 days after the 1st spray.
- Undertake spraying on a non rainy day in Telangana.

Karnataka

- **Realised Rainfall:** Most of the districts except in North Interior Karnataka received rain.
- **Rainfall distribution for last 5 weeks**

Districts received sufficient rainfall during previous week					
Coastal Karnataka					
Dakshin Kannada	-40	122	34	48	-47
Udupi	-28	148	50	43	-20
Uttar Kannada	-58	115	50	8	-43
North Interior Karnataka					
More than 3 weeks continuously deficient to no rain					
Bijapur	-75	-55	-40	-78	-92
Gulbarga	-85	-34	-55	-63	-94
Raichur	-68	-95	-73	-91	-99
3 weeks continuously deficient to no rain					
Bidar	-96	-53	-49	-63	-91
2 weeks continuously deficient to no rain					
Bagalkote	-75	-29	5	-35	-89
Koppal	-91	-80	29	-85	-98
Districts received sufficient rainfall during previous week					
Belgaum	-73	3	277	200	-56
Dharwad	-49	33	108	48	-73
Gadag	-40	16	51	7	-95
Haveri	-88	118	226	150	-7
South Interior Karnataka					
More than 3 weeks continuously deficient to no rain					
Bangalore Rural	-45	-71	-63	-68	-97
Bellary	-98	-63	-25	-38	-93
Kolar	-59	-79	-81	-84	-92
2 weeks continuously deficient to no rain					
Bangalore Urban	-40	5	-83	-88	-100
Tumkur	-54	17	-75	-35	-98
Districts received sufficient rainfall during previous week					
Chamarajnar	-87	29	24	235	-100
Chickmagalur	-66	108	150	169	-54
Chitradurga	-82	74	12	2	-81
Davangere	-52	85	43	111	-57
Hassan	-81	-21	-17	50	-54
Kodagu	-66	86	107	247	-48
Mandya	-99	19	-10	16	-88
Mysore	-79	57	85	263	-89
Shimoga	-76	115	109	182	17

- **Rainfall Forecast:** Many places with heavy rainfall at isolated places in coastal Karnataka and at a few places in Interior Karnataka

Major Kharif Crops: Jowar, Maize, Bajra, Redgram, Ragi, Greengram, Blackgram, Cowpea, Sesamum, Groundnut, Sunflower, Soyabean, Cotton.

- **Crop Stage:** Sowing/ transplanting. Early sown crops are at early vegetative/vegetative stage.
- **Crop Condition:** Due to poor rainfall in many parts of north/south interior districts, sowing of crops have been affected.

Advisory: Continue transplanting of rice in coastal Karnataka. Undertake sowing of short duration alternate *khari* crops in Interior Karnataka where sufficient amount of rainfall received. Farmers in Bagalkote, Bidar, Bijapur, Dharwad, Gadag, Gulbarga, Koppal and Raichur in North Interior Karnataka and Bangalore Rural, Bellary, Chamrajnagar, Chitrdurga, Kolar, Mandya, Mysore and Tumkur districts in South Interior Karnataka are advised to wait for sufficient rainfall to undertake sowing. (See Annexure I)

- **Major Seasonal Crop:** Sugarcane and Vegetables
- Undertake ratooning in sugarcane. Undertake intercultural operations in sugarcane and early sown crops to keep the field weed free on a non rainy day in Interior Karnataka and after current spells of rain in coastal Karnataka.

Plant Protection: Weather conditions are favourable for mild incidences of –

- powdery mildew disease in green gram, spray Carbendazim 0.1%.
- thrips, mites and murda-complex disease in chilli, spray 1.7 ml Rogar or 1.5 ml Metasystox +2.5ml Dicofol per litre of water.
- Undertake spraying on a non rainy day in Interior Karnataka and after current spells of rain in coastal Karnataka.

Kerala

- **Realised Rainfall:** Most of the districts of the state received rain.
- **Rainfall distribution for last 5 weeks**

Kerala					
Alappuzha,	47	-3	-59	46	-66
Kannur	8	52	3	96	-40
Ernakulam	25	18	-31	49	-49
Idukki	-3	9	16	82	-74
Kasaragod	-19	65	-24	21	-50
Kollam	5	-42	-44	95	-76
Kottayam	7	-7	-59	25	-81
OKozhikode	51	95	33	151	-44
Malappuram	-12	18	24	119	-59
Palakkad	-29	38	84	177	-60
Pathanamthitta	4	7	-48	16	-65
Thiruvananthapuram	-27	-38	-32	74	-90
Thrissur	-13	37	-2	119	-67
Wyanad	-75	-15	35	110	-84

- **Rainfall Forecast:** Many places with heavy rainfall at isolated places

Major *Khari* Crops: Rice

- **Crop Stage:** Transplanting. Tillering in problem area zone.
- **Crop Condition:** Due to heavy rain pepper, cardamom and rice were affected.
- **Advisory:** Continue transplanting of rice. Farmers are advised to drain out excess water from the field to avoid water stagnation.

Major Seasonal Crop: Vegetables and plantation crops (coconut, arecanut, pepper and cashew).

- Intercultural operations, application of fertilizers and pesticides may be continued after current spells of rain
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
- neck blast in transplanted rice. Spray Hinosan @ 200ml/acre using high volume sprayers (500 l per hectare)
- sheath blight in transplanted rice, spraying of *Pseudomonas* culture @ 15 g / l is advised.
- pollu beetle in pepper, bud rot in coconut and soft rot in ginger;
- Undertake spraying current spells of rain.

Tamilnadu

- **Realised Rainfall:** Most of the districts of the state received poor rain.
- **Rainfall distribution for last 5 weeks**

Mor than 3 weeks continuously deficient to no rain					
Tamil Nadu					

Chennai	-87	-67	-99	-91	-25
Cuddalore	70	-65	-100	-75	-100
Dharmapuri	-100	-63	-76	-86	-100
Dindigul	219	-92	-95	-46	-99
Kanchipuram	-37	-91	-99	-98	-37
Karur	-95	-100	-100	-99	-100
Krishnagiri	-100	-76	-65	-94	-100
Madurai	228	-99	-100	-99	-98
Nagapattinam	25	-100	-100	-96	-100
Namakkal	114	-43	-100	-89	-93
Perambalur	-83	-75	-100	-92	-100
Pondicherry	52	-39	-75	-93	-100
Pudukottai	32	-66	-100	-63	-97
Ramanathapuram	-74	-98	-100	-99	-100
Sivaganga	61	-84	-100	-97	-78
Thanjavur	101	-81	-97	-79	-100
Tiruvallur	-81	-82	-98	-93	-31
Tiruvannamalai	-100	-95	-100	-100	-100
Tiruvarur	90	-100	-100	-100	-100
Trichy	86	-55	-100	-100	-100
Tuticorin	-100	-100	-100	-81	-100
Vellore	-65	-96	-100	-99	-94
Villupuram	-27	-64	-79	-93	-100
Virudhunagar	-100	-100	-100	-100	-100
Districts received sufficient rainfall during previous week					
Coimbatore	200	579	611	1127	-7
Erode	59	-2	-100	19	-100
Kanyakumari	-69	-65	45	204	-100
Nilgiris	-27	36	110	189	-71
Salem	-85	95	-97	-15	-91
Theni	299	471	388	358	-87
Tirunelveli	-84	-35	147	687	-100

- **Rainfall Forecast:** Few places

Major Kharif Crops: Groundnut, pulses and rice

- **Crop Stage:** Sowing/transplanting
- **Crop Condition:** Satisfactory
- **Advisory:** Continue sowing of crops like pulses, groundnut and transplanting of rice seedlings wherever sufficient rainfall received during last week.

Major Seasonal Crop: Sugarcane, banana and vegetables.

- Intercultural operations, application of fertilizers may be continued in vegetables and sugarcane
- Apply irrigation to the standing crops as there was no significant rainfall in most of the districts during last week.
- Due to the forecast of high wind speed for coming days, provide staking for banana in Virudhunagar and rubber and banana in Kanyakumari.

Plant Protection: Weather conditions are favourable for mild incidences of –

- sheath blight in rice, spray edifenphos at 1 l / ha on a non rainy day to control the disease.
- cigatago leaf spot in banana. If incidence is noticed, spray carbendazim @ 1 g / l on a non rainy day.
- mealy bug incidence in papaya, cotton and mulberry crops. Look out for the incidence and spray Neem oil 3% to avoid the spread of the pest incidence to other crops.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT, RAJASTHAN]

Maharashtra

- **Realised Rainfall:** Most of the districts of the Konkan & Goa, Madhya Maharashtra and Vidarbha received rain and most districts in Marathwada received scanty rain during last week.
- **Rainfall distribution for last five weeks**

2 weeks continuously deficient to no rain					
Konkan & Goa					
Mumbai	11	55	189	-41	-46
Ratnagiri	-37	115	51	-22	-34
Districts received sufficient rainfall during previous week					
Goa	-21	199	70	-1	-66
Raigad	-50	-17	67	**	-25
Sindhudurg	54	247	122	-7	-42
Thane	-58	-31	32	113	81
Madhya Maharashtra					
2 weeks continuously deficient to no rain					
Dhule	-46	33	52	-30	-56
Solapur	-80	-49	40	-53	-85
Districts received sufficient rainfall during previous week					
Ahmednagar	-93	101	-2	-1	-1
Jalgaon	-26	65	12	53	-41
Kolhapur	-63	46	176	104	59
Nandurbar	-87	-61	-2	69	3
Nasik	-72	133	-11	252	269
Pune	-96	-59	23	-1	-1
Sangli	-98	12	62	15	-30
Satara	-78	5	132	70	81
2 weeks continuously deficient to no rain					
Marathwada					
Beed	-29	227	40	-38	-93
Latur	-64	**	15	-44	-96
Nanded	-14	-28	51	-71	-97
Usmanabad	-98	-14	49	-56	-67
Districts received sufficient rainfall during previous week					
Aurangabad	-60	93	15	39	-55
Jalna	-47	131	126	31	-68
Parbhani	-33	25	45	-17	-89
Vidarbha					
3 weeks continuously deficient to no rain					
Yeotmal	27	-17	-45	-36	-73
2 weeks continuously deficient to no rain					
Washim	-37	-29	7	-25	-73
Districts received sufficient rainfall during previous week					
Akola	62	85	-11	29	-50
Amraoti	13	118	-11	59	-50
Bhandara	-52	-26	143	32	-62
Buldhana	13	127	-9	42	-43
Chandrapur	-62	11	2	28	-62
Gadchiroli	-50	-46	41	14	-44
Gondia	-40	-34	142	55	-60
Nagpur	34	43	118	49	-30
Wardha	31	30	-20	28	-51

- **Rainfall Forecast:**, Many places over Konkan & Goa, Madhya Maharashtra, Few places over Marathawada and Vidarbha

Major Kharif Crops: Rice, ragi, cotton, Vegetables, Pulses, bajra, groundnut, tur, horse gram, soybean, jowar

- **Crop Stage:** Rice, ragi in seedlings/ transplanting and other *kharif* crops are in sowing/ germination. Early sown crops are at early vegetative stage.
- **Crop Condition:** Good

- **Advisory:** Complete transplanting of rice in Konkan and continue transplanting in North Madhya Maharashtra. For one month old seedlings, 4 to 5 seedlings per hill may be transplanted.
- Sowing of short duration crops like bajra, tur, horse gram is advised in Madhya Maharashtra. Sowing of short duration crops viz; sunflower, hybrid bajra, coriander etc. and intercropping systems (bajra + pigeon pea) is where sufficient amount of rainfall recorded is advised in Marathwada. Sowing/transplanting of cotton and rice is advised in Vidarbha. Alternative crops like sunflower, castor, pearl millet, sesamum can be sown till August 15th.

Major Seasonal Crop: Fruit crops, Sugarcane and vegetables

- Undertake intercultural operation, fertilizer application in early sown crops, sugarcane and vegetables after current spells of rain in Konkan, Madhya Maharashtra, on a non rainy day in Marathwada and Vidarbha.
- Apply irrigation in Marathwada.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - bud rot in coconut and koleroga (immature nut drop) in arecanut in Konkan. For control, spray 1% Bordeaux mixture.
 - Sucking pests in early sown cotton in Central Vidarbha Zone. For control spray Dimethoate 30% WS @ 10 ml or Methyl Demeton 25% @ 8ml or Acetameprid 20% @ 4 g in 10 litres of water .
 - There is attack of leaf eating caterpillar on soyabean crop in western Maharashtra plain zone. For control, spray Nimark 5% or Trizophos 0.4% or Chloropyriphos 0.04% or Acephate 0.07% or Endosulfan 35 EC @ 715 ml per 500 liters of water. Also there is attack of green semilooper in Latur, Amravati and Nadpur division, spray Endosulfan 35% @17ml per 10 liters of water.
 - Apply plant protection measures after current spells of rain in Konkan, Madhya Maharashtra, on a non rainy day in Marathwada and Vidarbha.

Gujarat

- **Realised Rainfall:** Most of the districts of the state received good rain.
- **Rainfall distribution for last f weeks**

Gujarat Region					
Ahmedabad	-95	-70	81	38	24
Anand	-99	-81	35	34	-36
Banaskantha	-91	-97	48	63	89
Baroda	-99	-26	-1	12	**
Broach	-96	2	-50	49	-46
Dahod	-91	-55	7	21	-18
Dangs,	-86	-38	-37	109	33
DNH & Daman	-53	-10	66	147	174
Gandhinagar	-100	-56	71	-14	201
Kheda	-100	-81	6	59	3
Mehsana	-99	-87	58	102	39
Narmada	-96	-69	-3	131	12
Navsari	-72	-53	-17	182	76
Panchmahal	-99	-36	-16	16	-21
Patan	-86	-88	-5	51	18
Sabarkantha	-99	-39	60	103	111
Surat	-72	-58	4	210	77
Valsad	-55	-48	21	144	163
Saurashtra, Kutch & Diu region					
Amreli	-42	14	173	200	30
Bhavnagar	-67	-23	46	187	-15
Diu	-27	-58	**	**	**
Jamnagar	154	-76	177	353	421
Junagarh	41	-5	159	428	488
Kutch	50	-92	70	184	353

Porbandara	172	-88	171	744	794
Rajkot	-41	14	44	143	185
Surendranagar	-39	-55	70	-18	21

- **Rainfall Forecast:** Few places.
- Major Kharif Crops:** Rice, castor, pigeon pea, cotton, groundnut, bajra, sesamum, cluster bean, pulses
- **Crop Stage:** Sowing
- **Crop Condition:** Crop sowing is improving. 70% of the sowing is completed in Gujarat state. Due to flooding in some coastal districts of Saurashtra, resowing need to be done.
- **Advisory:** Continue sowing of castor, green gram, black gram, cluster bean, cowpea, groundnut, bajra, sesamum, pulses, cotton.
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables
 - Undertake intercultural operation and application of fertilizer and plant protection measures to the early sown standing crops.
 - Undertake planting of different fruit crops like mango, sapota, pomegranate, lemon, guava, custard apple etc.
 - Remove excess water in vegetable nursery beds. Drain it regularly from nursery.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - seedling rot in vegetable nursery, drench nursery with Bordeaux mixture @ 0.6% or Ridomil MZ @ 0.05% on a non rainy day.
 - collar rot and root rot diseases are observed in cotton and groundnut. Spray carbendazim @ 10 gm + mencozeb @ 20 gm in 10 liters of water on a non rainy day.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Realised Rainfall:** Most of the districts received rain during last week.
- **Rainfall distribution for last 5 weeks**

East Madhya Pradesh					
State/Districts	01.07.09	08.07.09	15.07.09	22.07.09	29.07.09
More than 3 weeks continuously deficient to no rain					
Umaria	31	-59	-53	-35	-44
3 weeks continuously deficient to no rain					
Katni	-72	12	-52	-69	-89
2 weeks continuously deficient to no rain					
Chhatarpur	-15	-24	20	-23	-94
Panna	-100	-32	22	-30	-97
Satna	-72	3	1	-25	-90
Districts received sufficient rainfall during previous week					
Balaghat	-60	4	45	108	-59
Chindwara	-31	138	78	275	-14
Damoh	-72	-15	-10	-9	-83
Dindori	-100	13	-60	26	-71
Jabalpur	-37	-65	-43	225	-79
Mandla	-99	-25	-44	39	-47
Narsingpur	-79	-68	-63	187	-59
Rewa	-83	-12	112	-14	-90
Sagar	-43	-23	-30	44	-72
Seoni	-49	**	42	145	-29
Shahdol	-100	-42	8	53	-92
Sidhi	-43	-10	13	34	-96
Tikamgarh	-61	-86	63	12	-97
West Madhya Pradesh					
2 weeks continuously deficient to no rain					
State/Districts	01.07.09	08.07.09	15.07.09	22.07.09	29.07.09
Badwani	-97	-61	20	-57	-32

Bhind	-98	-100	33	-51	-95
Morena	-2	-99	-14	-79	-97
Districts received sufficient rainfall during previous week					
Betul	-21	96	-27	223	-15
Bhopal	-20	-47	-3	368	-21
Datia	-21	14	72	31	-99
Dewas	28	-32	-19	45	24
Dhar	-55	-41	84	1	66
Guna	-57	-74	-23	21	-71
Gwalior	-72	-79	52	-11	-93
Harda	46	-1	-81	62	190
Hosangabad	-40	-35	-27	194	70
Indore	67	-77	60	97	188
Jhabua	-84	81	-15	15	98
Khandwa	-32	-34	4	87	36
Khargone	7	26	15	7	123
Mandsaur	-100	-83	90	201	-24
Neemuch	-90	119	39	27	-44
Raisen	-88	-33	-31	90	-37
Rajgarh	-85	-56	-9	282	-23
Ratlam	-57	-88	-20	35	91
Sehore	-11	-59	14	146	-20
Shajapur	-89	-27	-24	121	14
Sheopur Kalani	-49	-92	-89	-7	-97
Shivpuri	13	-63	38	71	-80
Ujjain	28	-52	21	155	58
Vidisha	-18	-68	-12	12	-55

- **Rainfall Forecast:** Few places

Major Kharif Crops: Rice, jowar, sunflower, maize, jowar and soybean

- **Crop Stage:** Sowing/transplanting. Early sown crops in early vegetative stage.
- **Crop Condition:** Good. However in Gwalior and Chambal divisions soyabean and rice crops are under water stress conditions
- **Advisory:** Complete the transplanting of rice at earliest by reducing row distance and 2-3 seedlings per hill. Transplant the 14 days old seedlings in main field of rice for SRI system. Transplant the rice seedlings by lehi system if farmers couldn't follow SRI system.
- Continue sowing of short duration *kharif* crops like rice, jowar, sunflower, maize, jowar and soybean.

➤ Manage proper drainage facilities in the field. Follow inter cropping of maize and mung with soyabean.

Major Seasonal Crop with stage: Sugarcane (cane development), cotton (boll development/ maturity) and vegetable crops (vegetative)

- **Crop Condition: Good**

- **Advisory:** Undertake intercultural operations in the seasonal crop.

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

- fruit fly in okra in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts, spray trizophos crops in open weather conditions @ 1.5 ml per liter.
- fruit fly in bhindi, tomato, beetle guard, cucurbit in Tikamgarh, Chattarpur and Datia, spray Malethyon 50 EC 1 ml or Trijophos 40 EC 1.5 ml per litre of water.
- Sucking pest in soyabean in Bhopal, Sehore, Damoh, Vidisha, Raisen, Sagar, Sehore.
- Application of pesticides may be undertaken on a non rainy day.
- **Animal Husbandry:** To control ticks and mite in cattle, sheep and goat, apply butox / deltox @ 4 ml / litre of water on the body in Jhabua and Dhar districts.

- Arrange vaccination for animals to protect from the disease Galgotu, Langadi and Anthrex in Sagar, Bhopal, Vidisha, Damoh, Raisen, Sehore.

Chattisgarh

- **Realised Rainfall:** Most of the districts received rain.
- **Rainfall distribution for last 5 weeks**

2 weeks continuously deficient to no rain					
Chattisgarh					
Dantewara	-82	3	78	-37	-74
Surguja	9	-65	10	-21	-81
Bastar	-47	-16	83	6	-3
Bilaspur	-63	22	12	16	-70
Dhamtari	-56	-4	507	29	-47
Durg	-64	-51	218	71	-70
Janjgir	-98	-34	120	41	-86
Jashpurnagar	-75	-6	-2	32	-23
Kanker	-93	-5	184	-9	-14
Korba	-95	-10	91	-3	-17
Koriya	-27	-12	-30	90	-92
Kowardna	-3	-40	-55	15	-89
Mahasumund	-52	237	220	480	-58
Raigarh	-51	37	111	166	-73
Raipur	-61	-1	200	147	-71
Rajandgaon	-46	-22	169	42	-43

- **Rainfall Forecast:** Few places.

Major Kharif Crops: Rice, soybean, maize, sesamum, tur.

- **Crop Stage:** Sowing/transplanting
- **Crop Condition:** Good
- **Advisory:** Farmers are advised to undertake transplanting of rice. In case of older seedlings transplant two to three plants per hill. Where the nursery of rice is not raised, farmers are advised for *lehi* cultivation or line sowing.
 - Undertake sowing of soybean, pigeonpea with soybean.
 - Conditions are favourable for biasi of direct seeded rice. Hence, wherever direct seeded dry sown rice is of about 25-30 days old, biasi operation can be performed. After biasi operation Saghan Chalai should be done at the earliest.
 - Undertake sowing of maize, groundnut and black gram (in light soils of transmahanadi belt of Chhattisgarh).

Major Seasonal Crop with stage: Sugarcane (vegetative), vegetables (flowering / fruiting / harvesting), irrigated maize (vegetative)

- **Crop Condition:** Good
- **Advisory:** Intercultural operation and earthing up and also application of fertilizers may be continued on a non rainy day.

Annexure I

Contingency plan for districts of Interior Karnataka

Bangalore (urban) and Tumkur

- If sufficient rains are received, take-up sowing of redgram (variety HYD-3C and TTB-7) and groundnut (variety TMV-2, JL-24). Fingermillet (ragi growers) can go for Indaf- 8, Indaf-9,HR-911,PR-202 and MR-1.

Bidar

- The farmers are advised to go for sowing of niger, horsegram, bajra, sunflower as an alternative crop.
- Those farmers who have irrigation facilities can sow the pigeon pea with 25% extra seeds than recommended seed rate

Technology Tips for Mitigating Drought in Sugarcane

- In the event of drought 60 kg K₂O/ha may be applied with last irrigation
- Weed control through herbicides may be taken in late planted cane (2; 4-D @ 1.5 kg/ha)
- If there are no rains then mulching by dry leaves and grasses may be done to conserve soil moisture.
- Spray of 2.5% each of urea and KCl in the situations of prolonged drought
- The hoeing in inter row spacing may be undertaken to create dust mulch to break soil capillaries for checking surface moisture loss.

Bijapur

- Contingency crops for August first fortnight sowing in red and shallow black soils: In places where sowing was not taken up during June and July due to non receipt of rainfall, sowing of bajra, sunflower, Navane, Horsegram is advised.
- Contingency crops for August first fortnight sowing in medium to deep black soils : Sowing of bajra, sunflower, horsegram, *herbaciium* cotton (Jayadhar, Suyodhar) and cotton as relay crop in Ground nut crop can be taken up.
- To conserve moisture in the lands where *kharif* sowing is not done and that land is spared for *rabi* sowing, compartment bunds/contour bunds can be made and/or repeated intercultivation to conserve water can be practiced.
- Plant the fruit tree/trees useful for preparing agricultural implements/fodder trees or any other useful or high value trees on the bunds of the field or on the land which is not fit for cultivation of field crops.
- Due to low rainfall so far in the district, some area has not been sown. This may result in shortage of fodder to animals. So, sowing of fodder crops like fodder sorghum and maize, cowpea, horse gram can be given preference in the land where the *kharif* crops have not been sown and also on lands which are spared for sowing of *rabi* crops.

Raichur and Gulbarga

- In areas left unsown due to lack of rainfall and land areas sown by early season *kharif* crops like greengram, blackgram etc., and harrowed due to lack of soil moisture are to be used for sowing of sunflower, bajra and medium to long duration tur crop sowings after receiving sufficient rain.