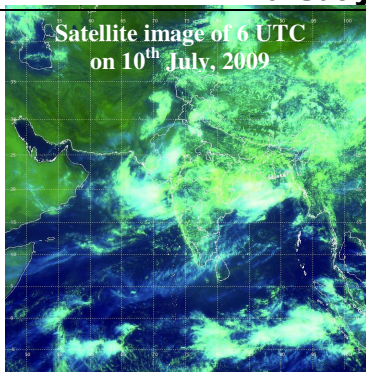


# National Agromet Advisory Bulletin

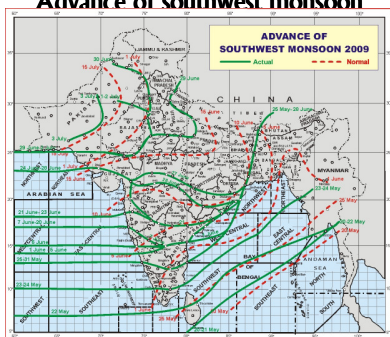
Thursday, 9<sup>th</sup> July, 2009 (For the period 9<sup>th</sup> to 13<sup>th</sup> July, 2009)



## Chief Synoptic Feature (Based on 1430 hours IST observations of 9<sup>th</sup> July 2009)

- Fairly widespread rainfall activity is likely over many parts of east & central India during next 24 hours and decrease in intensity thereafter over these regions except Orissa.
- West coast, Gujarat and interior Maharashtra is likely to experience widespread rainfall activity with heavy to very heavy falls at a few places during next 2-3 days.
- Current Meteorological conditions suggest that the maximum temperatures are likely to fall by 3-4°C over northwest India during next 48 hours.

## Advance of southwest monsoon



- The axis of monsoon trough at mean sea level passes through Phulodi, Ajmer, Shivpuri, Satna, Ambikapur, Balasore and thence southeastwards to eastcentral Bay of Bengal.
- A low pressure area is likely to form over westcentral and adjoining northwest Bay of Bengal around 12th July.

## Salient Agromet Advisories for Farmers

For the week ending 8.7.09 the overall crop situation in most of the States was satisfactory. Most of the States like West Bengal, Orissa Madhya Pradesh, Gujarat, Kerala, Karnataka etc. received good amount of rainfall during the week which was similar to rainfall pattern for the week ending 1.7.09. Rainfall situation in Maharashtra has improved in most of the districts during the week. However deficient/scanty rains was received in Punjab, Haryana, Himachal Pradesh, New Delhi, Uttarakhand, West Rajasthan, West Uttar Pradesh and Rayalaseema. Normal sowing operations has been undertaken in the States except Chhattisgarh, Bihar, Jharkhand and Madhya Maharashtra where short duration kharif crops is advised as alternative crops. Rainfall and crop situation for the week ending 8.7.09 is given below.

### Sub-Divisions with Adequate Rainfall

#### West Bengal, Orissa, Madhya Pradesh, Gujarat, Kerala, Karnataka

- As good amount of rainfall was received in the last week and rainfall is expected in the next five days, farmers are advised to continue land preparation and sowing/transplanting of kharif crops.
- Major *kharif* crops to be taken for sowing/transplanting in these subdivisions are as follows:
- Aus and aman rice in West Bengal, rice, cotton and groundnut in Orissa, rice, jowar, sunflower, maize, jowar and soybean in Madhya Pradesh, green gram, black gram, cluster bean, cowpea, groundnut, bajra, sesamum, pulses, cotton in Gujarat, rice in Kerala, rice, jowar, maize, bajra, redgram, greengram, blackgram, cowpea, sesamum, groundnut, sunflower, cotton and soybean in Karnataka

### Sub-Divisions with Deficient Rainfall

#### Punjab, Haryana, Himachal Pradesh, Delhi, Uttarakhand, West Rajasthan, West Uttar Pradesh and Rayalaseema.

- Due to insufficient rainfall, farmers in these sub-divisions are advised to :
- Undertake sowing/transplanting of rice and maize, guar, bajra in Punjab & Haryana, vegetables in Himachal Pradesh, rice and beans, maize, cluster bean, ladies finger, leafy and cucurbitaceous vegetables in Delhi, rice and pigeon pea, groundnut, soybean in Uttarakhand, pearl millet, sorghum, maize & cluster bean in West Rajasthan after receipt of sufficient rainfall. Provide life saving irrigation to early sown crops.
- Conserve soil moisture by undertaking intercultural operations in early sown groundnut to save the crop from moisture stress in Rayalaseema.

### Sub-Division with delayed Monsoon

#### East Uttar Pradesh, Chhattisgarh, Bihar, Jharkhand and Madhya Maharashtra

- Due to delay in monsoon, following contingency planning may be followed:
- In Uttar Pradesh, if rice nursery is around 30 days old, transplant 3-4 seedlings/hill in stead of 2, If the seedlings are 35-40 days old, cut 3-4 cm top portion of the seedling and then transplant, If no rice nursery is raised, go for direct sowing. Select alternate crops like mung, jowar, bajra, etc.
- Farmers are advised to go for sowing of short duration varieties of rice, soybean, maize, groundnut and black gram and pigeonpea + soybean in Chhattisgarh, rice, maize and pigeon pea in Bihar & Jharkhand, bajra, groundnut, tur, horse gram in Madhya Maharashtra.

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**

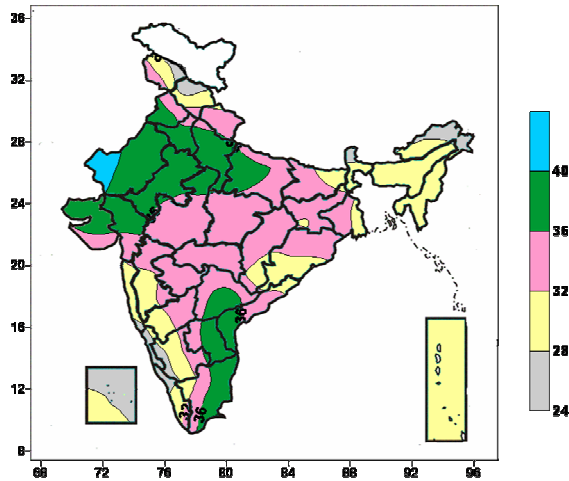
Sub-division	Cumulative Rainfall for the period									
	10 <sup>th</sup> June		17 <sup>th</sup> June		24 <sup>th</sup> June		1 <sup>st</sup> July		8 <sup>th</sup> July	
	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.
A & N Islands	136.6	-11	100.3	117	108.4	80	96.1	-20	90.4	-15
Arunachal Pradesh	98.6	-38	121.9	-29	128.9	-61	132.5	15	126.7	41
Assam and Meghalaya	128.3	-62	143.6	-30	142.1	-67	131.3	-14	127.7	-13
NMMT	85.6	-9	100.1	-77	82.1	-50	77.4	29	73.8	-14
SH West Bengal & Sikkim	88.3	-36	124.2	-22	138.0	-42	130.5	9	137.3	9
Gangetic West Bengal	46.6	-78	52.3	-78	59.5	-92	76.7	-32	72.1	-6
Orissa	31.0	2	43.8	-70	58.9	-90	71.4	-28	81.0	23
Jharkhand	29.1	-81	45.3	-52	50.3	-99	70.2	-23	76.7	-8
Bihar	27.3	-55	41.6	-82	45.3	-78	63.1	2	74.8	-33
East Uttar Pradesh	14.0	-67	18.2	-99	26.6	-100	51.5	-33	58.8	-47
West Uttar Pradesh	9.2	-68	11.8	-97	15.1	-100	35.5	-53	51.5	-88
Uttarakhand	23.1	-67	31.2	-90	47.1	-99	64.9	-7	83.8	-79
Haryana, Chandigarh & Delhi	6.8	-99	8.1	-42	10.7	-100	19.7	11	28.4	-82
Punjab	5.6	-92	8.7	-67	9.5	-100	20.8	13	35.8	-93
Himachal Pradesh	13.7	-43	18.5	-17	22.1	-93	37.4	-53	48.6	-93
J & K	12.0	91	15.7	72	11.2	-67	18.4	-82	29.4	-38
West Rajasthan	3.1	-100	5.0	91	6.4	-50	13.0	-67	20.1	-41
East Rajasthan	6.6	-100	10.9	-7	15.1	-61	30.6	-24	40.5	-39
West M. P.	11.1	-99	19.8	-90	30.4	-94	52.1	-35	63.4	-34
East M. P.	14.9	-80	21.1	-89	41.3	-99	73.1	-61	83.0	-8
Gujarat region	14.6	-100	22.3	-90	33.9	-79	59.8	-88	85.7	-55
Saurashtra & Kutch	7.7	-100	13.0	-100	27.9	-32	37.1	35	48.2	-47
Konkan and Goa	88.7	-14	152.2	-90	198.1	-67	255.7	-29	263.3	65
Madhya Maharashtra	25.1	-38	29.7	-92	33.5	0	47.5	-73	57.5	16
Marathwada	25.1	-78	32.8	-87	41.4	-43	42.8	-44	36.8	53
Vidarbha	17.7	-40	31.9	-94	51.5	-85	73.9	-14	75.4	13
Chhattisgarh	22.0	-95	35.2	-89	56.3	-99	82.1	-53	91.3	-9
Coastal A. P.	17.6	-56	22.3	-31	24.1	-68	32.4	-25	35.8	-17
Telangana	20.6	-22	28.9	-60	38.2	-78	46.7	-49	47.6	-46
Rayalseema	15.4	-77	13.5	119	12.8	8	12.8	-22	16.5	-80
TamilNadu & Pondicherry	9.8	-19	9.3	34	9.5	-56	8.6	-4	14.5	-12
Coastal Karnataka	168.8	31	218.5	-77	249.0	-58	271.1	-47	274.6	124
N. I. Karnataka	22.2	13	24.0	43	21.5	52	25.6	-77	23.6	-12
S. I. Karnataka	25.9	-19	27.9	13	31.6	-58	45.1	-72	56.8	68
Kerala	151.8	17	150.8	-69	161.0	-41	194.5	-8	203.5	24
Lakshadweep	88.7	3	67.4	-15	80.6	49	64.8	82	60.8	169

The subdivisions like Uttar Pradesh, West Madhya Pradesh, Gujarat and Telangana received scanty / deficient rain in all the 5 weeks; Gangetic West Bengal, Jharkhand, Bihar, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, Himachal Pradesh, Rajasthan, East Madhya Pradesh, Saurashtra & Kutch, Marathwada, Chhattisgarh and Coastal Andhra Pradesh, received scanty / deficient rain in 4 out of last 5 weeks; Arunachal Pradesh, Assam & Meghalaya, Sub Himalayan West Bengal & Sikkim, Orissa, Jammu & Kashmir, Konkan & Goa, Madhya Maharashtra, Vidarbha, Rayalaseema and Coastal Karnataka 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.

	(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

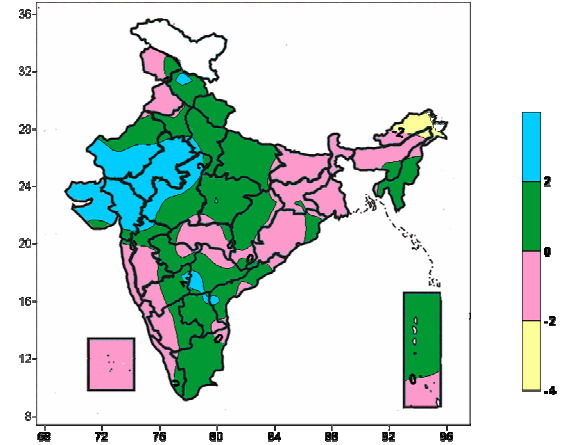
## Contour maps for the week ending 08.07.09

**Actual Mean Maximum Temperature ( $^{\circ}\text{C}$ ) In India for the week ending 08.07.09**



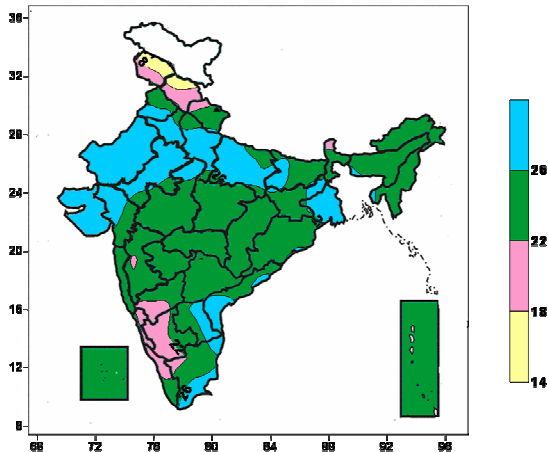
Actual Mean Maximum temperature ranged between  $40^{\circ}\text{C}$  and above over some parts of West Rajasthan,  $36$  to  $40^{\circ}\text{C}$  over most parts of Haryana, Rajasthan, Uttar Pradesh, Gujarat, Saurashtra & Kutch, Telengana, Rayalaseema, Coastal Tamil Nadu, some parts of Punjab, West Madhya Pradesh, Coastal Andhra Pradesh,  $28$  to  $32^{\circ}\text{C}$  over most parts of Northeast India, Konkan & Goa, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Bihar, Jharkhand, West Bengal. Chattisgarh, Orissa, Coastal Andhra Pradesh, Kerala, Karnataka, Madhya Maharashtra, Lakshdweep,  $24$  to  $28^{\circ}\text{C}$  over most parts of Sikkim, Coastal Karnataka, Lakshdweep Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Arunachal Pradesh, Goa, South Interior Karnataka, Kerala,  $32$  to  $36^{\circ}\text{C}$  over remaining parts of the country.

**Maximum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 08.07.09**



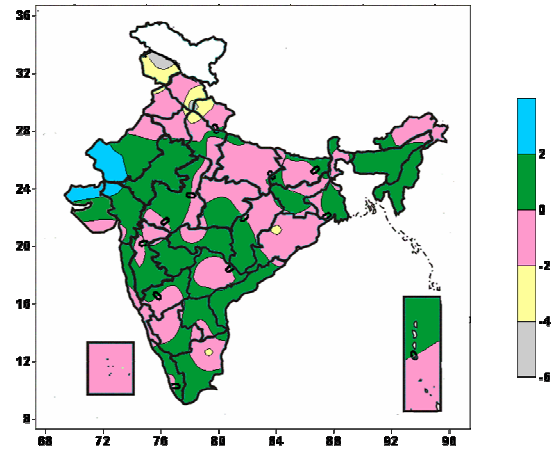
Actual Mean Maximum temperature anomaly ranged between  $2^{\circ}\text{C}$  and above over most parts of Rajasthan, Gujarat region, some parts of Himachal Pradesh, West Madhya Pradesh, Madhya Maharashtra, Andhra Pradesh, North Interior Karnataka,  $-2$  to  $0^{\circ}\text{C}$  most parts of Jammu & Kashmir, Punjab, Bihar, Jharkhand, West Bengal & Sikkim, Assam & Meghalaya, Orissa, Konkan & Goa, South Madhya Maharashtra, Vidarbha, Coastal Kerala, Coastal Karnataka, Lakshadweep, some parts of Haryana, West Rajasthan, East Uttar Pradesh, Arunachal Pradesh, Nagaland, Tripura, Marathwada, Madhya Pradesh, Chattisgarh, Andhra Pradesh, Interior Karnataka, Tamil Nadu, Andaman & Nicobar Island,  $-4$  to  $-2^{\circ}\text{C}$  over some parts of Arunachal Pradesh, Assam,  $0$  to  $2^{\circ}\text{C}$  over remaining parts of the country.

**Actual Mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 08.07.09**



Actual Mean Minimum Temperature ranged between  $26^{\circ}\text{C}$  and above over most parts of Haryana, Delhi, Uttar Pradesh, Gangetic West Bengal, Rajasthan, Saurashtra & Kutch, some parts of Punjab, Bihar, Jharkhand, West Madhya Pradesh, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu,  $18$  to  $22^{\circ}\text{C}$  over most parts of Himachal Pradesh, Coastal Karnataka, South Interior Karnataka, North Kerala, some parts of Jammu & Kashmir, Uttarakhand, Sikkim, Madhya Maharashtra, North Interior Karnataka, Tamil Nadu,  $14$  to  $18^{\circ}\text{C}$  over some parts of Jammu & Kashmir, Himachal Pradesh,  $22^{\circ}\text{C}$  to  $26^{\circ}\text{C}$  over

**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 08.07.09**

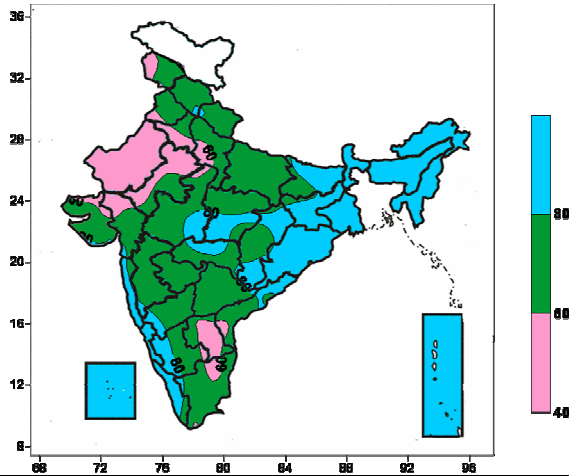


Minimum Temperature anomaly ranged between  $2^{\circ}\text{C}$  and above over some parts of West Rajasthan, Gujarat, Saurashtra & Kutch,  $-2$  to  $0^{\circ}\text{C}$  over most parts of Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Arunachal Pradesh, Orissa, North Chhattisgarh, Telengana, Goa, Karnataka, Lakshdweep Islands, some parts of West Rajasthan, Jharkhand, West Bengal, Assam & Meghalaya, Gujarat, Saurashtra & Kutch, Maharashtra, Madhya Pradesh, Coastal Andhra Pradesh, Rayalaseema, Kerala, Tamil Nadu, Andaman & Nicobar Islands,  $-4$  to  $-2^{\circ}\text{C}$  over some parts of Jammu &

remaining parts of the country.

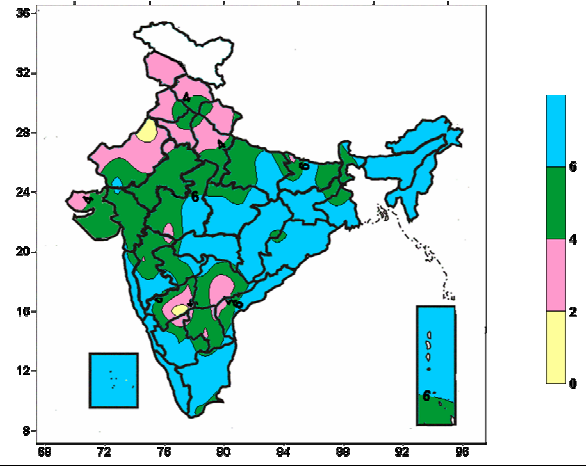
Kashmir, Punjab, Haryana, Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Orissa, Tamil Nadu, -6 to -4°C over some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, 0 to 2°C over remaining parts of the Country.

**Relative Humidity (%) over India for the week ending 08.07.09**



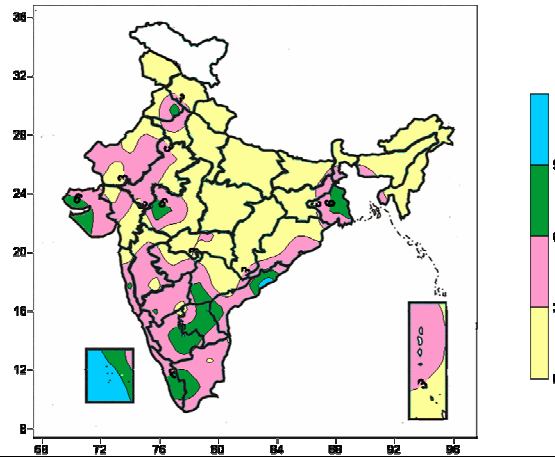
Relative humidity more than 80% over most parts of Bihar, Jharkhand, West Bengal & Sikkim, Northeast India, Konkan & Goa, Orissa, Kerala, Coastal Karnataka, Lakshdweep, Andaman & Nicobar Islands, some parts of Himachal Pradesh, Uttarakhand, Madhya Pradesh, Chattisgarh, Coastal Andhra Pradesh, South &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

**Cloud amount (okta) over India for the week ending 08.07.09**



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

**Wind speed (knots) over India for the week ending 08.07.09**



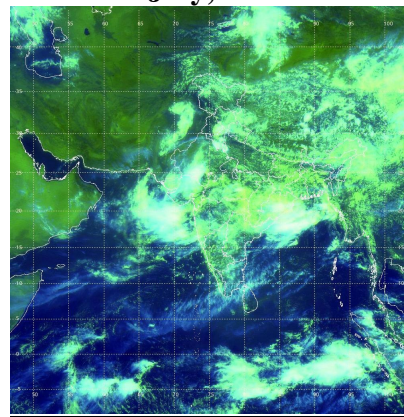
Wind speed ranged between 9 knots and above over most parts of Lakshdweep Islands, some parts of Coastal Andhra Pradesh, 6 to 9 knots over some parts of Punjab, Gangetic West Bengal, Saurashtra & Kutch, West Madhya Pradesh, Konkan, Interior Karnataka, Andhra Pradesh, Kerala, Tamil Nadu, Lakshdweep Islands, 3 to 6 knots over most parts of Rajasthan, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, Marathwada, Karnataka, Tamil Nadu, Andaman & Nicobar Islands, some parts of Punjab, Haryana, Himachal Pradesh, Bihar, Jharkhand, West Bengal, Assam & Meghalaya, Tripura, Orissa, West Madhya Pradesh, Chattisgarh, Vidarbha, Gujarat, Andhra Pradesh, Kerala, Lakshadweep Islands, 0 to 3 knots over remaining parts of the country.



**Chief Synoptic Feature (Based on 1430 hours IST observations of 9<sup>th</sup> July, 2009)**

- Fairly widespread rainfall activity is likely over many parts of east & central India during next 24 hours and decrease in intensity thereafter over these regions except Orissa.
- West coast, Gujarat and interior Maharashtra is likely to experience widespread rainfall activity with heavy to very heavy falls at a few places during next 2-3 days.
- Current Meteorological conditions suggest that the maximum temperatures are likely to fall by 3-4°C over northwest India during next 48 hours.

**Satellite image of 6 UTC on 10<sup>th</sup> July, 2009**



**Zone-wise Forecast (Forecast valid upto 1430 hours IST of 12<sup>th</sup> July, 2009)**

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

- Rain/thundershowers at a few places over the region except west Rajasthan where it will be isolated places.

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

- Rain/thundershowers at many places over Orissa.
- Rain/thundershowers at a few places over the rest region.

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

- Rain/thundershowers at many places over the region.

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

- Rain/thundershowers at most places over Coastal Karnataka.
- Rain/thundershowers at many places over Andaman & Nicobar Islands and Kerala.
- Rain/thundershowers at a few places over the rest region except Tamilnadu where it will be Isolated.

**WEST INDIA [GOA, MAHARASHTRA (OTHER THAN VIDARBHA), GUJARAT REGION, SAURASHTRA & KUTCH]**

- Rain/thundershowers at most places over Konkan & Goa and during next 48 hours and decrease thereafter.
- Rain/thundershowers at many places over Madhya Maharashtra Marathwada, Gujarat region and Saurashtra.
- Isolated rain/thundershowers over the Kutch during next 24 hours and at a few places thereafter.

**CENTRAL INDIA [M.P., CHHATTISGARH, VIDARBHA]**

- Rain/thundershowers at many places over the region.

**WARNING: (For next 48 hours)**

- Heavy to very heavy rainfall at a few places over Konkan & Goa and Coastal Karnataka.
- Isolated heavy to very heavy rainfall over Madhya Maharashtra, West Madhya Pradesh, Gujarat

region, Orissa and Kerala.

**Weather Outlook from 1430 IST of 12<sup>th</sup> July, 2009 to 1430 IST of 14<sup>th</sup> July, 2009 (Based on numerical weather products):**

- Widespread rainfall activity is likely over west coast, central and adjoining east India.
- Scattered rainfall activity over northwest India.

**Zonewise Agromet Advisories**

\*\*\* 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)

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

**Himachal Pradesh**

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Himachal Pradesh</b>					
Bilaspur	-64	-44	-100	-59	-99
Chamba	-100	-79	-80	-94	-95
Kangra	-81	-43	-100	-45	-93
Shimla	-58	-59	-100	-29	-89
Sirmaur	-64	-87	-100	-56	-95
** More stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Himachal Pradesh</b>					
Hamirpur	-71	3	-100	-69	-100
Kullu	3	20	-93	-72	-90
Lahaul and Spiti	-26	148	-100	-98	-94

- **Major Standing crops:** Vegetables (vegetative / flowering / fruiting / harvesting), potato (vegetative), *kharif* vegetables (sowing / transplanting / early vegetative / vegetative), apricot, peach, pear and plum (fruit development), rice, maize, soybean (sowing).
- Due to insufficient rainfall received during last few weeks, crop condition in the state is not good. Farmers are advised to undertake sowing/transplanting of rice and beans, maize, cluster bean, ladies finger, leafy and cucurbitaceous vegetables after receipt of sufficient rainfall. Provide life saving irrigation to early sown crops.
- As there was no significant rainfall during last week in most of the districts and rain is likely at a few places in the State during next five days, apply irrigation. Undertake weeding, intercultural operations and top dressing of fertilizers on a non rainy day.
- As the weather is opening up & snow is almost gone in Hill Temperate Dry Zone, the sowing season is about to commence. Therefore, plough the fields and leave them as such for control of soil borne pests by sun exposure. It will mitigate the losses by soil borne pests at later stages.
- Complete sowing / transplanting of French bean, tomato and capsicum and also sowing of ladies finger in sub-mountain low hills sub tropical zone utilizing the realized rainfall during last week.
- Provide mulch in the tree basins (apricot, peach, pear and plum) with straw or UV Sheet in sub-mountain low hills sub tropical zone to reduce evaporation and moisture conservation. Harvest the ripened fruits of early varieties of peach and apricot as there is forecast of high wind speed in the coming 5 days.
- Marigold and carnation flowers are at first bud development stage (after 20-25 days of transplanting) in sub-mountain low hills sub tropical zone. Pinch the first bud from the top. Cut the liliium flower at the

complete bud stage as temperature is sufficiently high to open the flower in 1-2 days. Complete transplanting of chrysanthemum in this week.

- Plucking of tea leaves may be continued at 7-8 days interval in Mid Hills Sub Humid zone.
- It is time for transplanting of vegetables like tomato, brinjal, capsicum and chillies in Mid Hills Sub Humid zone. It is time for sowing of *ageti* bhindi and pole type French bean, asparagus French bean and cowpea for vegetable in the field. It is time for direct sowing of Khira, bitter gourd, *tori* in fields. The nursery of cucurbits having 2-4 leaf stage can be successfully transplanted in fields. It is also time for sowing of ginger, *arbi*, amaranthus and turmeric.
- Sowing of rice nursery and maize and also soybean and cowpeas as intercrop with maize in the fields in Mid Hills Sub Humid zone should be completed. Treat the rice seeds with bavistin @ 2 gram per kg of seed before sowing.
- Undertake sowing of bhendi and ginger in Mid Hill Sub-tropical Sub-humid zone.
- Details of crop varieties are mentioned in Annexure I.

#### Plant protection

- Weather is favourable for attack of peach leaf curl disease in peach and pear fruit plants in Mid Hills Sub Humid zone where fruit bearing has started, spray Nuvan 1 ml + 3 g Blitox per litre of water.
- There is report of infestation of mealy bug in tea in Mid Hills Sub Humid zone and there is also chance of increase of infestation, for control spray Deltamethrin (Decis 2.8 EC) @ 1340 ml in 750 litres of water for one hectare.
- Fruit fly attack is reported in the cucurbits in Mid Hills Sub Humid zone and there is chance of increase in infestation, for control spray malathion @ 1ml / litre or carbaryl @ 2 g / litre of water.
- Weather is conducive for appearance of aphids in rose in Mid Hills Sub Humid zone, for control spray rogor @ 1 ml per litre of water.
- Undertake spraying on a non rainy day.

#### Apiary

- Keep colonies in shade conditions and examine colonies for barroa mites.
- Dust sulphur on sealed brood in the colony and not on larvae to control mites attack on honeybees.

#### Animal husbandry

- It is high time for vaccination of animals against FMD.
- Keep the animals under shed in sub-mountain low hills sub tropical zone as the day temperature can cause heat strokes. Provide adequate fresh and cold water baths.

#### Fishery

- Temperature is good for breeding of the minor carp in Mid Hills Sub Humid zone. Monitor the physicochemical parameters and growth rate of cultivable fish in ponds. Supplement the feed @ 2% of the body weight stocked twice a day. The cloudy day or warmer part of day is to be avoided for stocking. Give feed 4% of their body weight up to 15 days and after that reduce to 3% of their body weight.

#### Forestry

- Do not apply fire to twigs of trees to prevent forest fires as the day temperature has already reached 32°C.

#### Uttarakhand

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>UttaraKhand</b>					
Dehradun	-92	-100	-100	-57	-67
Garhwal Pauri	-100	-100	-100	-37	-99
Garhwal Tehri	-95	-89	-100	-66	-99
Nainital	-32	-76	-100	-63	-98
Pithoragarh	-52	-92	-100	-90	-70
Rudraprayag	-100	-98	-100	-80	-94

- **Major Standing Crops:** Sugarcane ratoon (early vegetative), cabbage, garlic, tomato (vegetative), maize, French bean (early vegetative), rice (transplanting), pigeon pea, groundnut, soybean(sowing)

- Farmers are advised to continue transplanting of rice utilizing the realized rainfall during last two weeks. Ensure shallow water level for few days for better establishment of seedling in the field.
- Undertake sowing of pigeon pea, maize, soy bean, sorghum, groundnut, cotton, fodder crops and bhendi utilizing the realized rainfall during last week.
- As there was no significant rainfall in most of the districts during last week and rain/thundershowers are likely at a few places over the State during next 5 days, apply irrigation to the standing crops. Undertake weeding and intercultural operations on a non rainy day in ratoon sugarcane, maize, french bean and vegetable crops.
- Farmers are advised to feed the animals with balanced diet and give fresh water for drinking.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
- fruit borer in tomato, shimla mirchi etc., spray Prophenophos 50 EC @ 1 ml per litre of water on a non rainy day.

## Punjab

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Punjab</b>					
Amritsar	-99	-100	-100	-44	-100
Ferozpur	-100	-62	-100	-80	-97
Gurdaspur	-58	-80	-100	-31	-100
Moga	-100	-100	-100	-63	-100
Sangrur	-100	-92	-100	-47	-95

- **Major Standing Crops:** Spring sugarcane (early vegetative/vegetative), vegetable crops like chilli, tomato, brinjal (vegetative), bhindi (early vegetative) and onion (vegetative/bulb formation), *khariif* groundnut and maize (early vegetative), cotton (early vegetative/vegetative) Early maturing cotton varieties (flowering), berseem (vegetative), *Khariif* rice(transplanting), fruit crops(flowering/fruited), hybrid maize(sowing), mung(sowing)
- Due to insufficient rainfall received during last few weeks, crop condition in the state is not good. Farmers are advised to undertake sowing/transplanting of rice and maize, guar, bajra after receipt of sufficient rainfall. Provide life saving irrigation to early sown crops.
- Continue transplanting of rice seedlings utilizing the realized rainfall during last two weeks along with proper irrigation application. Maintain standing water for fifteen days after transplanting.
- Complete sowing of mung during this week as delayed sowing results in lower yields.
- Undertake weeding, intercultural operations in sugarcane and cotton on a non rainy day.
- Undertake sowing of hybrid maize and bhindi in the State utilizing the realized rainfall during last two weeks.
- Farmers are advised to apply irrigation to the standing crops as there was no significant rainfall in most of the districts during last week.
- Harvesting of the muskmelon should be completed on bright sunny day.
- Due to arrival of monsoon, place the animals and poultry birds in clean and dry place and also adopt efficient cooling systems for them. Grazing of dairy animals should be carried out in the morning and evening hours. Young calves may be given more care. Increase the use of mineral mixture in concentrate ration of dairy animals. Use less wheat straw to avoid compaction. Vaccinate the animals against FMD and HS disease.
- **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 on a non rainy day.
- leaf curl in cotton, follow clean cultivation to prevent the incidence of mealy bug, destroy kanghi buti (sida spl.) and Peeli buti which act as collateral host of cotton leaf curl on a non rainy day.

## Haryana

*** Most Stress Districts
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State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Haryana</b>					
Fatehabad	-100	-100	-100	-38	-96
Panchkkula	-94	-100	-100	-81	-100
Sirsa	-100	-34	-100	-97	-93
Yamunanagar	-100	-91	-100	-64	-98
<b>** More stress Districts</b>					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Haryana</b>					
Faridabad	-100	-4	-100	-76	-69
Hissar	-100	154	-100	-37	-84
Rohtak	-100	79	-100	-20	-86

- **Major Standing Crops:** Spring sugarcane (early vegetative/vegetative), vegetable crops (vegetative), cotton(early vegetative) and berseem (vegetative), *Kharif* rice(transplanting), guar, bajra(sowing)
- Due to insufficient rainfall received during last few weeks, crop condition in the state is not good. Farmers are advised to undertake sowing/transplanting of vegetables after receipt of sufficient rainfall. Provide life saving irrigation to early sown crops.
- Continue transplanting of rice seedlings utilizing the realized rainfall during last two weeks along with proper irrigation application. If the farmers have already transplanted the rice, save the crop with the available water resources.
- Farmers are advised to prepare the land and continue sowing of guar and pearl millet utilizing the realized rainfall during last two weeks. Farmers are advised to conserve the moisture in the already sown crops by intercultural operations.
- 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 intercultural operations in tomato, onion and chilli on a non rainy day.
- Farmers are advised to provide the water to animals frequently and sprinkle the water on the animals at twice a day for protection against moist and hot weather conditions. Farmers are also advised to provide 50 to 100 gram good quality mixture of minerals per day for better animal productivity.

## Delhi

<b>** More stress Districts</b>					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>New Delhi</b>	-98	13	-100	-48	-92

- **Major Standing crops:** Vegetables (flowering / fruiting / harvesting), beans, maize, cluster bean, ladies finger, leafy and cucurbitaceous vegetables (sowing), chilly, tomato, brinjal, onion and cauliflower (transplanting) and rice (transplanting).
- Due to insufficient rainfall received during last few weeks, crop condition in the state is not good. Farmers are advised to undertake sowing/transplanting of rice and pigeon pea, groundnut, soybean after receipt of sufficient rainfall. Provide life saving irrigation to early sown crops.
- Farmers whose nursery is around 25 days old are advised to undertake transplanting of seedlings in the main field. Transplanting of aged seedlings will result in poor tillering. Direct seedling in prepared field is also advised, but seed rate will be four time than the normal.
- Farmers, who have already transplanted rice, are advised to maintain 2-5 cm of water in the crop.
- Farmers are advised not to sow pigeon pea now onwards because yield will be less and maturity time will clash with sowing of wheat.
- Keeping in view rainfall farmers are advised to start transplanting of Bajra.
- During this week farmers are advised to prepare nursery for sowing of Kharif onion.
- Details of varieties are given in Annexure I.

- This is the right time for sowing of brinjal, radish, spinach, chilly and tomato.
- Farmers are advised to conserve rain water in the field judiciously by proper bund making. Bunds should be taller and broader.
- Present weather conditions are highly favourable for multiplication of fruit flies and fruit and stem borer. Farmers are advised to collect infested fruits and stems and to destruct by deep burying or by burning.

## Uttar Pradesh

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>East Uttar Pradesh</b>					
Ambedkar Nagar	**	-100	-100	-70	-90
Ballia	**	-100	-100	-36	-67
Balrampur	-59	-100	-100	-37	-96
Banda	**	-100	-100	-65	-35
Basti	**	-100	-100	-34	-55
Farrukhabad	-100	-100	-100	-88	-100
Fatehpur	**	-100	-100	-100	-42
Hardoi	-100	-100	-100	-40	-95
Jaunpur	**	-100	-100	-90	-90
Kanpur City	-100	-100	-100	-87	-77
Kanpur Dehat	**	-100	-100	-47	-82
Kushi nagar	**	-100	-100	-32	-83
Mau	**	-100	-100	-97	-22
Mirzapur	**	-100	-100	-92	-26
RaiBareilly	**	-100	-100	-96	-91
Sultanpur	-55	-100	-100	-59	-75
Unnao	-100	-100	-100	-100	-100
Varanasi	-70	-100	-100	-72	-38
<b>West Uttar Pradesh</b>					
Agra	-100	-84	-100	-58	-91
Auraiya	**	-100	-100	-98	-95
Badaun	**	-100	-100	-100	-100
Bulandsahar	**	-100	-100	-36	-78
Etah	**	-100	-100	-100	-95
Etawah	**	-100	-100	-100	-93
Firozabad	**	-100	-100	-100	-100
Ghaziabad	**	-100	-100	-100	-100
Hamirpur	-100	-67	-100	-71	-50
Jalaun	**	-100	-100	-100	-96
Jhansi	-100	-96	-100	-82	-85
Jotirba Phule Nagar	**	-89	-100	-100	-100
Lalitpur	**	-100	-100	-68	-40
Mahamaya Nagar	**	-100	-100	-79	-77
Mainpuri	**	-100	-100	-100	-100
Mathura	-100	-82	-100	-74	-50
Moradabad	-84	-100	-100	-59	-100
Pilibhit	**	-100	-100	-62	-100
Rampur	**	-100	-100	-94	-99
Saharanpur	**	-100	-100	-77	-98

- **Major Standing crops:** Sugarcane (vegetative) and vegetables (vegetative/fruited), mango (fruit setting), rice (sowing/transplanting), mung, jowar, bajra (sowing)
- Due to delayed monsoon/ insufficient rains, following contingent plan is recommended: If nursery is around 30 days old, transplant 3-4 seedlings/hill in stead of 2, If it is 35-40 days old, cut 3-4 cm top portion of the seedling and then transplant, If no rice nursery is raised, go for direct sowing. Select alternate crops like mung, jowar, bajra, etc.

- Undertake field preparation and sowing of maize, mung bean, urd, jowar, bajra, til, soybean, groundnut and vegetables utilizing the realized rainfall during last week. Details of crop varieties are mentioned in Annexure I.
- Apply irrigation to the crops in West Uttar Pradesh as most of the districts received no significant rainfall during last week.
- 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.
- Undertake digging of pits for plantation of new garden of fruit crops.
- **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.
- Monitor the crops for the pests and undertake plant protection measures to control the pests.

## J & K

- **Major Standing Crops:** This is proper time for transplanting of rice and transplanting of vegetable crops and sowing of maize and other kharif crops.
- Undertake transplanting of rice seedlings in the main field in Jammu, Kathua and Rajouri divisions.
- As there are chances of rainfall in the coming days, continue sowing of maize crop in rainfed areas.
- Undertake sowing of kharif crops like pulses, groundnut, bajra, til in Jammu division.
- Undertake sowing of late varieties of bhindi, radish, pumpkin, bottle gourd, bitter gourd, sponge gourd in Jammu division
- Details of varieties are given in Annexure I.
- Continue transplanting tomato and capsicum in the main field in Leh division with rainfall received during last week.
- Complete planting fodder maize and bajra in Srinagar region.
- Undertake intercultural operations and application of fertilizers and pesticides in vegetable crops like brinjal, tomato, chilli, capsicum, bhindi, beans, cucurbits and pumpkin in Doda, Udampur, Kathua, Leh and Rajouri divisions.
- **Plant Protection:** Weather conditions are congenial for mild incidences of
- fruit borer in tomato, brinjal and bhindi crop in Jammu, Kathua and Kashmir, spray Endosulphan @ 0.07%, or carbaryl @0.1% or DD Chlorvos @0.03%.
- downy mildew in onion in Srinagar region, spray Metalaxyl @ 0.2% solution.
- scab disease in the apple fruits, spray the fungicide as recommended by University.
- leaf hoppers / plant hoppers in rice in Rajouri Division, if their number is at least 5-10 insects upto mid tillering and 20 insects / hill thereafter, spray endosulfan or monocrotophos 36 SL @ 0.04 %.
- root weevil and thread worms in rice in Rajouri Division, apply phorate 10G 2 10 kg/ha or carbofuron 3G @ 20 kg/ha 2-3 days after transplanting

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

### Bihar

* Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Bihar</b>					
Madhubani	**	**	-18	-24	-41

- **Major Standing Crops:** Sugarcane (vegetative/grand growth), fodder maize, jowar, lobia and sudan grass (vegetative), *Kharif* rice(nursery seedling/transplanting), pigeon pea, maize(sowing).
- Continue nursery sowing of medium and short duration rice in medium and low land and maize and tur in upland as sufficient rainfall received during last two weeks in the State. Farmers may transplant rice seedlings utilizing the realized rainfall and irrigation facility in low and medium land conditions. As scattered rainfall is expected, farmers are advised not to go for rice transplanting in upland areas. Details of crop varieties are mentioned in Annexure I.

- Farmers are advised to sow irrigated medium, short duration and photosensitive varieties of rice in nursery in irrigated conditions.
- Farmers are advised to prepare the field utilizing the realized rainfall during last two weeks and undertake sowing of *kharif* arhar, mung, til and *kharif* vegetables. Intercropping of arhar, urd and lobia can be done in between two rows of maize. Prepare the field for sowing of castor utilizing the realized rainfall during last two weeks.
- Undertake intercultural operations, application of fertilizers and pesticides in summer vegetables like tomato, brinjal, cauliflower, cabbage and sugarcane on a non rainy day.
- Farmers are advised to prepare the nursery for flower cultivation utilizing the realized rainfall during last two weeks.

### Jharkhand

- **Major Standing Crops:** Sugarcane (vegetative/grand growth), *Kharif* rice(nursery seedling).
- Farmers are advised to prepare the field utilizing the realized rainfall during previous weeks and undertake sowing of *kharif* crops like maize and tur.
- Farmers are advised to continue sowing of *kharif* rice and vegetables in nursery as sufficient rain was received in most of the districts during last week.
- Farmers are advised to undertake sowing of flower crops with the realized rainfall during last week.
- Farmers are advised to undertake weeding, intercultural operations in sugarcane on a non rainy day.
- Digging of pit for mango, jackfruit, litchi, guava, papaya and banana may be undertaken.
- Undertake planting of turmeric and ginger with the realized rainfall during last week.
- Rinderpest disease is common in goat. TPR vaccine @ 1 ml subcutaneous should be vaccinated except for those goats that are less than 3 months of age and are pregnant.
- Weekly rainfall data is given in Annexure II.

### Orissa

- **Major Standing crops:** Sugarcane (early vegetative), vegetables (fruiting / harvesting), onion (vegetative), jute (early vegetative), rice, ragi(transplanting), sesame, arhar, maize, green gram, blackgram(sowing)
- Farmers are advised to give priority to complete sowing of cotton and groundnut without further delay to avoid yield reduction due to moisture stress at reproductive stage / harvesting. In medium land continue sowing, and nursery may be raised with rice varieties not more than 120 days. Similarly rice (tillering variety for upland is not more than 90 days. If such varieties are not available, go for non-paddy crops in uplands.
- As rain/thundershowers are likely at many places over the State with isolated heavy to very heavy rainfall with for the next two days, postpone irrigation, weeding and intercultural operations. Provide adequate drainage facilities to avoid waterlogging.
- Digging of pits may be done and undertake planting of fruit trees as rain is received during last week.
- Farmers are advised to undertake land preparation utilizing the rainfall received during last week and undertake sowing of arhar and maize. Details of crop varieties are mentioned in Annexure I.
- Farmers are advised to prepare field and undertake sowing of ginger, turmeric, colocasia and elephant foot yam.
- Undertake sowing of vegetables like lady's finger, cowpea, cauliflower, cluster bean, brinjal, tomato and chillies in uplands. Drain out excess water from the vegetable nursery.
- 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 mild wilting, spray the crop with 1 gm treptocycline + 20 gm copper oxichloride in 10 litres of water after current spells of rain.
- Weekly rainfall data is given in Annexure II.



## West Bengal

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>West Bengal</b>					
<b>GWB</b>					
Hooghly	-100	-94	-91	-23	-65
24 Pargana (N)	-71	-99	-80	-52	-39
<b>SHWB</b>					
Malda	-97	-87	-100	-35	-33
Dinajpur (S)	-100	-34	-67	-100	-49

- **Major Standing Crops:** Sugarcane (vegetative), jute (vegetative) and *aus* rice (direct sowing / transplanting / early tillering), *aman* rice (nursery sowing), vegetables (sowing).
- Due to scanty/deficient rain conditions in New alluvial zone, jute crop at harvesting stage is affected. Farmers are advised to conserve the moisture in the soil.
- As there was sufficient rain in most of the districts over the State, postpone irrigation to already sown *aus* and *aman* rice, jute etc.
- Undertake transplanting of brinjal and chilli in Coastal saline zone. The seedlings should be treated with Diethane M-45 @ 2.5 g / litre of water before transplanting to prevent wilting disease.
- Undertake sowing of cowpea, leafy vegetables like *Amaranthus* and nursery sowing of cauliflower in Terai and Teesta zone.
- Undertake nursery sowing of *aman* rice in Gangetic Alluvial zone, Vindhya Alluvial zone and Undulating Red and Lateritic zone. One and half katha land is required for the transplanting of one bigha land. For this, 7 to 8 Kg seeds are required.
- Prepare nursery bed (3 m x 1m) for early vegetables (cabbage and cauliflower) in New alluvial Zone. Use 500-600 gm seed for one ha land.
- Continue land preparation for pigeon pea in New alluvial zone. For a bigha of land 3 kg seeds are required. Sow treated seeds in rows at a distance of 3ft.
- Complete the sowing operation of *aus* rice in New Alluvial zone as early as possible. Apply 25 Kg SSP and 6.5 Kg MOP per bigha before sowing. Sow 11 to 12 kg of seeds in rows at a distance of 8 inch apart. Undertake transplanting of *aus* rice, if seedlings are ready.
- Intercultural operations, application of fertilizers and pesticides may be continued after spells of rain.

### Plant protection

- Rainfall along with high humidity may lead to rhizome rot of ginger and turmeric in Coastal saline Zone. Raise the level of the beds to help the surplus rain water to flow freely; drench the soil around the rhizome with any Copper oxy chloride preparation (0.4%) @ 5 litre / sq. m. or spray with Metalaxyl 75 WP @ 1.5 g / litre of water before the appearance of the disease.

## Sikkim

- **Major standing crops:** (a) **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: Paddy:** Early Tillering & Transplanting; **Ginger:** Early Vegetative/Vegetative; **Orange:** Nursery Transplanting of Seedlings/ Flowering/ Early Fruiting/Fruiting.
- Farmers are advised to continue preparation of land for transplanting of seedlings in the low hills and transplanting should be completed by 15<sup>th</sup> July. Water level of 5cm to at least 3/2.5 cm should be maintained in transplanted paddy fields for better yield.
- Inter-cultivate the transplanted paddy seedlings 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.

- 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.
- The orchard must be inspected from time to time and plugging of trunk borer holes repeated and light pruning of undesirable growth/ sprouts emerging out of the trunks and removal of parasitic plants should be done.
- Top dressing of ginger with organic manures and mulching to be done on non rainy days on monthly basis. Proper drainage to be maintained and weeding to be done on non rainy days.
- Nursery beds of large cardamom suckers may be mulched properly with dried forest leaves in order to prevent soil erosion and weed growth.
- 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.
- Regular inspection may be carried out to observe caterpillar/shoot borer/shoot fly incidence, if any, and may be hand picked and destroyed mechanically or by burning.
- Weekly rainfall data is given in Annexure II.

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

##### Assam

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Assam</b>					
Hailakandi	**	-61	-98	-51	-75
Nowgong	**	-91	-83	-63	-65
** More stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Assam</b>					
Bongaigaon	**	41	-37	-55	-56
Dhubri	**	97	-25	-75	-60
* Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Assam</b>					
Sibsagar	**	-17	11	-86	-32

- **Major Standing crops:** vegetables (vegetative / flowering / fruiting / harvesting), early *ahu* rice (tillering / panicle initiation), direct seeded regular *ahu* rice (vegetative / tillering), transplanted regular *ahu* rice (transplanting / early tillering), *Capsularis* jute (vegetative / harvesting), *Olitorius* jute (vegetative), maize (vegetative) and sugarcane (vegetative), *sali* rice (nursery sowing/transplanting), soybean, arhar and cotton(sowing)
- Sow the seeds of early varieties of *sali* rice. Farmers may continue land preparations and transplanting of *sali* rice seedlings.
- As rain/thundershowers are likely at many places over the State for the next five days, postpone irrigation, weeding and intercultural operations. As maize and jute crops are sensitive to water logging, provide adequate drainage facilities to remove excess water.
- Sow the seeds of early varieties of *sali* rice. Prepare nursery beds of dimensions 10 m x 1.25 m x 0.10 m. Separation of two beds should be about 30 cm. Farmers from the flood affected areas should select cultivars like Jalashree, Jalkuwari, Plaban etc. which remain alive under water up to 15 days before panicle initiation stage.
- Undertake land preparation and sowing of arhar and cotton utilising the realised rainfall during previous weeks.
- Oilseed crops like sesame, groundnut can be sown upto August end with early maturing varieties.

- Undertake top dressing in one month old crop of maize with urea @ 30 kg per hectare and also in March planted ginger with urea @ 20 kg per hectare after current spells of rain.
- Undertake earthing up and application of fertilizer in sugarcane after current spells of rain. Apply Urea and MOP in the field @ 26 kg per bigha and 7.5 kg per bigha.
- Farmers are advised to sow the early varieties of cauliflower from mid July to first week of August
- Maintain 3-5 cm stagnant water in early *ahu* rice and direct seeded regular *ahu* rice field.
- This is proper time for planting of coconut in high land. 1 year old seedlings with 5-6 leaves should be used for planting. Time is also suitable for planting of banana, pineapple, papaya, arecanut etc.
- Harvesting and retting of *Capsularis* jute should be done preferably at pre-flowering stage (120days after sowing) to get better quality fibre. At present the water temperature in the retting tanks is ideal for retting of jute. Late sown *Capsularis* jute may be harvested after current spells of rain and kept in the field in standing position for 3-4 days before retting for proper defoliation.
- *Olitorius* jute field should be provided with proper drainage to prevent water logging. As pesticide application is not feasible in rainy weather, so arrangement of Bamboo perch is an effective measure to control the hairy caterpillar and semi-looper in jute through predatory birds.

#### Plant protection:

- There is chance of attack of fruit fly, red pumpkin beetle and epilachna beetle in summer gourds. Spray endosulphon or malathion 50 EC @ 1 ml per litre of water after current spells of rain.
- Attack of stem borers may be observed in sugarcane. Spray monocrotophos 40 EC @ 150-200 ml per 150 litres of water with hand sprayer in the field after current spells of rain to control attacks.

#### Animals

- The cattle, goat and pigs should be vaccinated against foot and mouth disease as well as anthrax disease. They should be fed with anti worm drugs.

#### Fishery

- The beds of ponds for fisheries should be ploughed followed by application of cow dung and lime at recommended dose.

#### Arunachal Pradesh

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Arunachal Pradesh</b>					
Changlang	**	-88	-99	-80	-63
Lower Subansiri	**	-42	-98	-73	-87

- **Major Standing crops:** Maize, millet (vegetative), ginger(vegetative), *jhum* rice /vegetative), WRC rice (tillering/vegetative).
- As rain/thundershowers are likely at many places over the State for the next five days, postpone irrigation, weeding and intercultural operations. Also provide adequate drainage facilities to avoid waterlogging.
- Maintain 3-5 cm standing water in rice field.
- Prophylactic measure for protection of seed ginger rhizome from fungal disease may be taken. Water logging in the field must also be avoided.

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

##### Andhra Pradesh

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Andhra Pradesh</b>					
<b>Coastal Andhra Pradesh</b>					
Guntur	-33	-36	-88	-90	-61
<b>Telangana</b>					
Karimnagar	-51	-87	-56	-29	-37
Khammam	-87	-84	-89	-84	-40

Warangal	-58	-57	-94	-51	-42
<b>** More stress Districts</b>					
<b>State/Districts</b>	<b>11.06.09</b>	<b>17.06.09</b>	<b>24.06.09</b>	<b>01.07.09</b>	<b>08.07.09</b>
<b>Andhra Pradesh</b>					
<b>Coastal Andhra Pradesh</b>					
Krishna	-90	-15	-99	-72	-43
Prakasam	-35	26	-24	-98	-66
<b>Telangana</b>					
Hyderabad	68	6	-87	-96	-57
Mehabubnagar	4	-10	-82	-99	-78
Nalgonda	33	-12	-86	-98	-78
<b>Rayalaseema</b>					
Anantapur	-73	10.5	-50	-83	-82
<b>* Stress Districts</b>					
<b>State/Districts</b>	<b>11.06.09</b>	<b>17.06.09</b>	<b>24.06.09</b>	<b>01.07.09</b>	<b>08.07.09</b>
<b>Andhra Pradesh</b>					
<b>Coastal Andhra Pradesh</b>					
Nellore	-65	95	-7	-30	-41
<b>Rayalaseema</b>					
Kurnool	-56	17.5	17	-95	-77

- **Major Standing Crops:** Sugarcane (cane development), vegetable crops (fruiting/harvesting) and chilli (fruit development/picking). This is proper time for sowing of kharif crops.
- During last four days, light to moderate rains have occurred over North Coastal Andhra Pradesh and North Telangana regions, while light rains occurred in remaining regions of the state.
- Due to insufficient rains, early sown groundnut is in moisture stress; sowing of crops like jowar, maize, pulses, sesame, sunflower and cotton is affected in Rayalaseema Conserve soil moisture by undertaking intercultural operations.
- Farmers in Warrangal are advised to continue sowing of jowar, black gram and green gram and sowing of bajra and ragi in Khammam, Mehbubnagar, Medak, Nalgonda and Nizamabad districts.
- Farmers are advised to take up sowing of kharif crops wherever cumulative rainfall of 75 to 100 mm occurred. In light soils, do not sow cotton and soybean.
- Farmers are advised to undertake field preparation and start sowing of rice, brinjal, tomato and chillies in the nursery and sowing of bhindi and gourds in the main field in Coastal Andhra Pradesh by utilizing the monsoon rains.
- Undertake sowing of jowar, black gram, green gram in north Telangana with the recent monsoon rains. Undertake sowing of rainfed crops wherever cumulative rainfall of 75 to 100 mm occurred. In light soils, sowing of cotton and soybean is not advised.
- Farmers in Guntur are advised to undertake sowing of black gram and green gram upto 15<sup>th</sup> July. Also undertake sowing of rice in the nursery.
- Details of varieties are given in Annexure I.
- Farmers in Anantapur are advised to undertake intercultural operations in early sown crops to keep the fields weed free
- Foot and mouth disease, Hemorrhagic Septicemia in cattle, sheep pox in sheep and ranikhet disease in poultry may occur under prevailing weather. To prevent the diseases, vaccinate the animals and poultry.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
  - shoot and fruit borer in brinjal; undertake plant protection measures;
  - yellow and red spider mites in sugarcane, spray wettable sulphur @ 3 g per litre of water to cover the under surface of the leaves.
- Undertake plant protection measures on after current spells of rain in Coastal Andhra Pradesh



## Karnataka

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>South Interior Karnataka</b>					
Hassan	-67	-92	-80	-81	-21
** More stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>South Interior Karnataka</b>					
Bangalore Rural	-71	242	-75	-45	-71
Bellary	-31	91	-54	-98	-63
* Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Karnataka</b>					
<b>North Interior Karnataka</b>					
Bagalkote	54	246	134	-75	-29
Bijapur	-8	238	50	-75	-55
Gulbarga	-6	-56	108	-85	-34
Koppal	-17	71	221	-91	-80
Raichur	-84	33	35	-68	-95
<b>South Interior Karnataka</b>					
Kolar	-95	271	86	-59	-79

- **Major Standing Crops:** Annual sugarcane (maturity/harvesting). This is proper time for sowing of kharif crops. Early sown crops are at early vegetative/vegetative stage.
- As rain/thundershowers is likely to occur at most places during next five days in coastal Karnataka, postpone irrigation to the crops. Arrange for drainage facilities as heavy to very heavy rainfall is likely to occur at a few places during next 48 hours.
- As good amount of rainfall was received in the last week and rainfall is expected in the next five days, continue land preparation and transplanting of rice in coastal Karnataka.
- Due to poor rainfall in Bagalkote, Bijapur, Koppal and Raichur, sowing of crops have been affected. Farmers are advised to undertake sowing of short duration kharif crops.
- With the receipt of recent rain, undertake sowing of maize, tur, sunflower, cotton and soybean in north interior Karnataka. Undertake sowing of green gram, groundnut, direct sown rice and maize in Dharwad. Undertake sowing of chilli in the nursery by utilizing the monsoon showers.
- Sowing of the following crops can be taken up in Bijapur region (1) Sowing of Redgram, Bajra, Sunflower, can be done in light and medium deep black soils (2) Sowing of Redgram can be done up to 15th July with increased seed rate of 25 to 30 % (3) Sowing of spreading type of groundnut can be taken up to 15th July (4) Sowing of Herbacious cotton can be taken till the end of July.
- Undertake sowing of rice in the nursery in Bidar. Farmers are advised to undertake sowing with the available soil moisture. Normal sowing dates of important kharif crops are as follows  
Greengram, Paddy - July first fortnight  
Soybean - Upto first fortnight of July  
Maize - Upto July end  
Bajra and Pigeonpea - July end  
Horsegram - June to September
- Also undertake ratooning in sugarcane. Undertake intercultural operations in early sown crops to keep the field weed free.
- Undertake sowing/planting of rice, sugarcane and pulses in Mysore, Mandya and Chamraj Nagar districts.
- Undertake sowing of *kharif* crops like green gram, red gram, bajra, cowpea, cotton, groundnut and jowar in Raichur and Gulbarga utilizing the monsoon rains.
- Farmers in Chitradurga are advised to undertake sowing of groundnut, red gram and sunflower. Undertake intercultural operations in early sown crops like onion, green gram, sesame and maize.

- Farmers in Shimoga are advised to undertake sowing of cotton, arhar and maize and planting of ginger by utilizing the monsoon showers.
- Details of varieties are given in Annexure I.
- Intercultural operations, application of fertilizers and pesticides may be continued after spells of rain in Coastal Karnataka and on a non rainy day in Interior Karnataka.
- Intercultural operations, application of fertilizers and pesticides may be continued after spells of rain. Avoid sowing/transplanting during spells of heavy rain.

## Kerala

State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Kerala</b>					
Thiruvananthapuram	-45	-76	3	-27	-38

- **Major Standing Crops:** vegetable (transplanting/vegetative/flowering/fruitletting/harvesting) and plantation crops (coconut, arecanut, pepper and cashew). This is proper time for sowing of rice and vegetable crops in the nursery and transplanting in the main field.
- As rain/thundershowers is likely to occur at many places during next five days, postpone irrigation to the crops. Arrange for drainage facilities as heavy to very heavy rainfall is likely to occur at isolated places during next 48 hours.
- Due to heavy rains, crops of pepper, cardamom and rice were affected. Farmers are advised to drain out excess water from the field to avoid water stagnation.
- Sowing/transplanting of *virippu* rice and vegetables may be continued in Kannur, Kasargod, Malappuram and Kozhikode districts.
- Complete planting of coconut, arecanut, pepper and cardamom in Wayanad by utilizing the monsoon rains.
- Intercultural operations, application of fertilizers and pesticides may be continued after spells of rain. Avoid sowing/transplanting during spells of heavy rain.

## Tamilnadu

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Tamil Nadu</b>					
Chennai	-55	-96	-76	-87	-67
Kanchipuram	-96	-100	-89	-37	-91
Karur	-100	-50	-75	-95	-100
Krishnagiri	-53	-100	-71	-100	-76
Ramanathapuram	-100	-89	-100	-74	-98
Tuticorin	-67	-78	-100	-100	-100
Virudhunagar	8	-100	-100	-100	-100
** More stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Tamil Nadu</b>					
Dharmapuri	24	35	-100	-100	-63
Tiruvannamalai	-100	-12	-100	-100	-95
Vellore	-99	114	-39	-65	-96
Villupuram	-38	190	-90	-27	-64
* Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Tamil Nadu</b>					
Kanyakumari	45	6	79	-69	-65
Perambalur	-100	17	23	-83	-75
Tiruvallur	-8	-84	15	-81	-82

- **Major Standing Crops:** Sugarcane (cane maturity) and cotton (picking stage). This is proper time for transplanting *kuruvai* rice and vegetable crops.
  - As there was no significant rain during last week except in Coimbatore and Nilgiris and no significant rainfall is expected during next five days over the State, apply irrigation to the crops.
  - Complete transplanting of *kuruvai* rice in the man field in Cauvery deltaic areas.
  - Continue planting of banana in Erode district
  - Undertake intercultural operations in early transplanted brinjal crop in Namakkal district to keep the field clean.
  - Undertake earthing up operations in sugarcane in Thirunelveli district Propping may be undertaken to prevent from lodging due to high winds
  - Undertake transplanting of vegetable crops during monsoon in Kanyakumari district. Avoid water stagnation in ginger field to prevent rhizome rot.
- Plant Protection:** Weather conditions are favourable for mild incidences of –
- little leaf in brinjal in Coimbatore, sucking pests in vegetable crops in Erode and leaf spot in banana in Kanyakumari districts; undertake plant protection measures to control the pests.

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

### Maharashtra

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Maharashtra Konkan &amp; Goa</b>					
Thane	-100	-100	-66	-58	-31
<b>Madhya Maharashtra</b>					
Nandurbar	-99	-100	-24	-87	-61
<b>Vidarbha</b>					
Gondia	-61	-95	-90	-40	-34
Washim	-82	-100	-47	-37	-29

- **Major Standing Crops:** *Kharif* rice (germination in Nashik, Kolhapur and Nagpur divisions and seedling / transplanting in South Konkan & Kolhapur division), soyabean (early sown crop at early vegetative stage in Kolhapur division & sowing / germination in other divisions ), cotton (sowing / germination in Nashik, Kolhapur and Amravati divisions), *kharif* jowar(sowing / germination ) and bajra ( sowing / germination in Madhya Maharashtra & Marathwada).
- As rainfall is likely to occur at most/many places in the State with heavy to very heavy rainfall at during next two days in Konkan, Madhya Maharashtra and Marathwada, postpone irrigation, weeding, intercultural operations and top dressing of fertilizers to the standing crops. Provide adequate drainage facilities to avoid water logging in the above mentioned regions.
- Continue transplanting of rice in Konkan and sowing of cotton and rice may be taken up in Vidarbha. Short duration crops like bajra, groundnut, tur, horse gram after receipt of rain may be taken up particularly in north Madhya Maharashtra. Sowing of bajra, jowar, groundnut in districts where sufficient rains received may be taken up in Marathwada and farmers in others may wait upto 12<sup>th</sup> July.
- Undertake nursery sowing of onion, tomato, brinjal and chilli in the raised beds of suitable size. Continue sowing of improved varieties.
- Sowing of *kharif* (drill) rice may be completed in Kolhapur, Nashik & Vidarbha utilizing recent monsoon rain. Before sowing treat rice seeds with 3% brine solution for 5 – 10 minutes and apply fungicide Thiram @ 3 – 5 g per kg of seeds. Also complete the sowing of *kharif* rice in nurseries for rice seedlings in North Konkan, Nagpur, Nasik & Kolhapur divisions. Continue sowing of soybean, cotton, jowar, bajra, groundnut, tur, mung, black gram & sunflower.
- Apply 1kg Nitrogenous dose(urea) per guntha to 10 -15 days rice seedlings in Konkan, Kolhapur & Nagpur divisions. Also weeding may be done in rice nursery.
- Apply first dose of N (750 gm Urea) and K (660 gm MoP) along with sufficient quantity (5 Ghamela) of FYM and 3 kg SSP to 5 years old mango plant. Decrease the dose of fertilizers as per the age of plant.

- As monsoon has been advanced in North Madhya Maharashtra & Marathwada during last week, but due to subdued monsoon activity these region received insufficient rains. Farmers are advised to select short duration crops and intercropping system may be adopted for sowing of *kharif* crops. In North Madhya Maharashtra crops like bajra, rala, groundnut, castor, tur, horse gram may be selected for sowing and intercrops like bajra + tur (2:1), sunflower + tur(2:1), guar + tur(1:2) & castor + guar( 1:2) may be sown. In Marathwada normal sowing of *kharif* crops may be done upto 12<sup>th</sup> July.

- Details of crop varieties are mentioned in Annexure I.

#### Fishery

- Feed management of brackish water shrimps may be followed. Water level in the pond may be maintained at 1.5 m.

#### Plant protection

- There is chance of infestation of fruit canker on tamato crop in western Maharashtra plain zone, for control spray Matalaxyl @ 250 gm plus sticker 100 ml in 100 liters of water.
- Under prevailing condition, sapota ( *chikku*) is likely to be infested by bud borer in Thane district, for control spray Neemazal @ 8 ml per 10 lits. of water.
- Apply plant protection measures in all the regions of the State after current spells of rain.

### Gujarat

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Gujarat Region</b>					
Ahmedabad	-100	-99	-87	-95	-70
Anand	-100	-98	-99	-99	-81
Banaskantha	-100	-38	-92	-91	-97
Baroda	-100	-100	-55	-99	-26
Dahod	-100	-68	-73	-91	-55
Dangs,	-100	-100	-49	-86	-38
Gandhinagar	-100	-98	-97	-100	-56
Kheda	-100	-97	-92	-100	-81
Mehsana	-100	-89	-100	-99	-87
Narmada	-100	-100	-80	-96	-69
Navsari	-100	-99	-95	-72	-53
Panchmahal	-100	-70	-69	-99	-36
Patan	-100	-66	-100	-86	-88
Sabarkantha	-100	-71	-65	-99	-39
Surat	-100	-100	-93	-72	-58
Valsad	-100	-100	-56	-55	-48
<b>Saurashtra, Kutch &amp; Diu region</b>					
Bhavnagar	-100	-100	-55	-67	-23
Diu	-100	-100	-70	-27	-58
Surendranagar	-100	-100	-36	-39	-55

- Major Standing Crops:** Sugarcane (vegetative), vegetables (vegetative / flowering / fruiting / harvesting), *kharif* vegetables (sowing), *kharif* rice (nursery sowing), castor, pigeon pea, cotton, bunch groundnut, bajra, sesamum, cluster bean, pulses etc. (sowing).
- Continue sowing of green gram, black gram, cluster bean, cowpea, groundnut, bajra, sesamum, pulses, cotton in all the districts with the realized rain during last week.
- As rain is likely to occur in many places of the State during next five days due to arrival of monsoon, postpone irrigation, intercropping operation and application of fertilizer and plant protection measures to the early sown standing crops.
- Continue sowing of *kharif* crops like rice, maize, tur, groundnut till 15<sup>th</sup> July in Gujarat region and groundnut, bajra, sesamum, pulses, short duration cotton in Saurashtra & Kutch region utilizing the rainfall received during last week.
- Harvest the matured fruits of vegetable crops.



- Prepare rice nurseries utilizing monsoon rain. It is recommended to treat rice seeds with 3 g of saresan or agrosan or emesan fungicide per 1 kg rice seeds before sowing of nursery. Select the desired rice varieties from early maturing cultivars and late maturing cultivars. Adopt seed rate of 25 to 30 kg per hectare.
- Raise seedlings for brinjal, tomato, chilli and other vegetable crops utilizing monsoon shower.
- Undertake land preparation and sowing of castor at 90 X 45 cm spacing, pigeon pea at spacing of 120 X 45 cm by dibbling method and also cotton and treat pigeon pea seeds with *Rhizobium* @ 25 g / kg seeds.
- There is chance of infestation of stem rot in groundnut. For control of stem rot in groundnut 2.5-3 kg Tricoderma with 500 kg castor cake should be applied at the time of sowing in furrow.
- Details of crop varieties are mentioned in Annexure I.

## Rajasthan

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>East Rajasthan</b>					
Dungarpur	-100	-93	-28	-80	-60
Rajsamand	-100	-69	-24	-24	-22
<b>West Rajasthan</b>					
Pali	-100	-76	-89	-38	-66
** More Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>East Rajasthan</b>					
Bhilwara	-100	32	-96	-66	-22
Tonk	-100	168	-100	-51	-86
Udaipur	-100	-7	-89	-91	-83
<b>West Rajasthan</b>					
Barmer	-100	49	-41	-53	-95
Jaisalmer	-100	121	-100	-66	-76
Jalore	-100	51	-100	-91	-98
Jodhpur	-100	81	-87	-52	-47
* Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>East Rajasthan</b>					
Banswara	-100	-71	2	-72	-76
Sirohi	-100	-98	-18	-99	-80
<b>West Rajasthan</b>					
Nagaur	-100	137	-18	-61	-61

- **Major Standing Crops:** vegetable crops (flowering / fruiting / harvesting). Sowing of kharif crops like pearl millet, sorghum, maize, cluster bean and groundnut and transplanting of chilli is in progress.
- Due to insufficient rainfall received during last few weeks, crop condition in the state is not good. Farmers are advised to undertake sowing/transplanting of pearl millet, sorghum, maize & cluster bean in West Rajasthan after receipt of sufficient rainfall. Provide life saving irrigation to early sown crops.
- Sowing of cowpea and bajra in Jodhpur and Barmer may be started utilizing the monsoon showers.
- Sowing of *kharif* crops like pearl millet, sorghum, maize & cluster bean may be started in West Rajasthan wherever sufficient rainfall is received
- Undertake field preparation and sowing of groundnut and complete transplanting of chilli in Bhiwara, Chittorgarh, Sirohi and Udaipur utilizing the monsoon showers.
- Undertake field preparation and sowing of *kharif* crops like pearl millet, sorghum, maize & cluster bean etc. in Jaipur region utilizing monsoon showers.
- Details of varieties are given in Annexure I.
- Undertake sowing of paddy, Sesamum, pearl millet, sorghum, guar and bajara and vegetables in Alwar, Bharatpur, Dholpur, Karauli.

- Undertake sowing of sorghum, soyabean, legumes Bhiwara, Chittorgarh, Sirohi and Udaipur
- Undertake intercultural operations in bajra, jowar, sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger in Pali, Barmer, Churu, Jalore and Jodhpur.

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

- mango hopper in mango tree at flowering stage in Ajmer, Dausa, Jaipur and Tonk districts, spray Malathion 50 EC @ 1.0 ml or Endosulfan 35 EC @ 1.5 ml per litre water.
- powdery mildew in mango and vegetables in Banswara, spray Karathane @ 1 ml or Sulphur Fungicide @ 2.5 g / litre of water.
- fruit borer in tomato, brinjal and bhindi in Banswara, spray Endosulphan @ 2 ml per litre of water.

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

### Madhya Pradesh

*** Most Stress Districts					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>East Madhya Pradesh</b>					
Jabalpur	-96	-23	-100	-37	-65
Mandla	-100	-100	-100	-99	-25
Narsingpur	-59	-100	-100	-79	-68
Panna	-100	-100	-100	-100	-32
Sagar	-100	-55	-91	-43	-23
Shahdol	-100	-95	-100	-100	-42
Tikamgarh	-100	-100	-100	-61	-86
<b>West Madhya Pradesh</b>					
Badwani	-100	-100	-100	-97	-61
Bhind	-100	-100	-100	-98	-100
Bhopal	-100	-96	-77	-20	-47
Dhar	-100	-100	-87	-55	-41
Guna	-100	-76	-100	-57	-74
Gwalior	-100	-99	-100	-72	-79
Hosangabad	-86	-31	-100	-40	-35
Khandwa	-100	-100	-79	-32	-34
Mandsaur	-100	-100	-100	-100	-83
Raisen	-100	-65	-98	-88	-33
Rajgarh	-100	-100	-96	-85	-56
Ratlam	-100	-100	-86	-57	-88
Shajapur	-100	-100	-94	-89	-27
Sheopur Kalani	-100	-92	-100	-49	-92

- **Major Standing Crops:** Sugarcane (cane development), cotton (boll development/maturity) and vegetable crops (vegetative). Sowing of kharif crops like jowar, sunflower, maize, jowar and soybean and transplanting of chilli is in progress.
- As rain/thundershowers are likely to occur at many places over the state, farmers are advised to postpone irrigation to the crops.
- With the advance of monsoon in the State, farmers are advised to undertake field preparation and sowing of *kharif* crops like jowar, sunflower, maize, jowar and soybean.
- Prepare nursery for mango, guava, pomegranate and citrus plant in Indore, Dewas, Mansaur, Ratlam, Neemach, Ujjain, Shajapur, Rajgarh.
- Prepare nursery for kharif onion, brinjal, chilli, tomato in Khargone.
- Undertake sowing of moong in Sagar, Bhopal, Vidisha, Damoh, Raisen, Sehore.
- Undertake sowing of kharif vegetables like bhindi and ladies finger in Tikamgarh, Datia, Chattarpur,
- Details of varieties are given in Annexure I.
- Undertake intercultural operations in early sown sorghum, jowar, sunflower and vegetables like ladies finger, cow-pea, tomato, brinjal, and chilli after spells of rain in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts.

- **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 Galghotu, Langadi and Anthrex in Sagar, Bhopal, Vidisha, Damoh, Raisen, Sehore.
- **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 after spells of rain.

## Chhattisgarh

State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Chhattisgarh</b>					
Durg	-100	-100	-100	-64	-51
Janjgir	-100	-100	-100	-98	-34
Rajandgaon	-100	-100	-97	-46	-22

- **Major Standing Crops:** Sugarcane (vegetative), vegetables (flowering / fruiting / harvesting), irrigated maize (vegetative), *kharif* rice (nursery sowing).
- As rain/thundershowers are likely to occur at many places over the state, farmers are advised to postpone irrigation to the crops.
- Due to delayed onset of monsoon long duration rice varieties may face moisture stress conditions at the time of maturity. Therefore, farmers are advised to go for sowing of early and medium varieties of rice (upto 125 days) in place of medium and late duration rice varieties under rainfed conditions to avoid moisture conditions at the time of maturity.
- Details of varieties are given in Annexure I.
- Conditions are favourable for sowing of soybean in vertisols of Chhattisgarh (mainly Kabirdham Durg, Rajnandgaon and Bilaspur districts). Hence, farmers are advised to complete the sowing of soyabean at the earliest. Recommended varieties for this region are JS-335, JS 93-05 etc. Proper drainage channels should be prepared in soybean fields. It is also advised to increase the seed rate by 10-15 percent (100 kg/ha).
- Conditions are favourable for sowing of maize, groundnut and black gram in light soils of transmahanadi belt of Chhattisgarh. Sowing of these crops should be completed as early as possible.
- Nursery of Brinjal, Chillies and tomato can be sown during this period.
- Intercultural operation and earthing up and also application of fertilizers may be continued after spells of rain.

## Annexure I

### Crop varieties

#### Himachal Pradesh

- **Ageti bhindi:** P-8, Prabhini kranti, Arka anamika.
- **French bean:** Kentucky Wonder.
- **Brinjal:** Arka Nidhi, PPC.
- **Capicum:** California Wonder.
- **Ladies finger:** Harbhajan, Pusa Savani and P-8.
- **Soybean:** Sivalik, Lee, Bragg and Hatrit Soya.
- **Cowpea:** Himachal Lobia-1.

#### Uttarakhand

- **Rice:** Saket-4, Govind, Narendra-80, Pusa 2-21, scented varieties like Pant Sugandh-15, Tarawadi Basmati, Pusa Basmati-1, Type-3, Basmati-370
- **Maize:** Ganga-2, Ganga-5, Pusa Hybrid-1, Pusa Hybrid-2 and Composite varieties like Gaurav, Amar and Surya.
- **Soyabean:** Brag, PK-262, VL Soya-2, VL Soya 21, VL Soya-47 etc.
- **Sorghum:** HHB-60, HHB-67, MH-179, HC-4, ICMB-8440
- **Pigeon pea:** ICPL-151, Pusa-6, UPAS-120

#### Punjab

- **Rice:** PAU 201, PR 120, PR 118, PR 116, PR 114, PR 113, PR 111, PR 115, Pb Mehak, Pb Basmati No 2, Pusa Basmati no 1 & 2, Pusa 1121, Super Basmati
- **Mung :** ML 818, PBM-1, ML 613 and ML 267
- **Bhindi :** Punjab Padmani, Punjab-8 and Punjab-7

#### Haryana

- **Cotton:** desi cotton varieties: HD 107, HD 123 and AAH 1, american cotton with varieties: HS6 & H1117.
- **Rice:** PAU 201, PR 120, PR 118, PR 116, PR 114, PR 113, PR 111, PR 115 etc.
- **Guar :** HG 365 and HG 563.

#### Delhi

- **Kharif onion:** N-53, Agrifond Dark Red, N-780 etc

#### Uttar Pradesh

- **Rice :** Aswani, Manhar, Saket-4, Govind, Narendra-118, Narendra-97
- **Mung : Upas-120, T-21**
- **Maize:** Shaktiman-2, Prakash

#### J & K

- **Rice:** Jaya, RR-8585, IET-1410, Ratna, PC-19
- **Maize:** GS-2, Vijay, Mansar, C-5 and C-8.
- **Pulses :** Mash Pant U-19, Moon PDM-54, ML-131,
- **Groundnut :** Punjab No.1, M-13 and JL-24,
- **Bajra :** WCC-75, ICMS-7703 and Hybrid M.H.B-110,
- **Til :** Punjab Til.1

#### Bihar

- **Rice:** Pravat, Bhagwati, Saket etc. and scented varieties like Sugandha, Kamini, Suwasini, Kasturi, Sita, Kanak prabhat, Pusa-2-21, Saket katarni kamini, Tulsimanjari
- **Maize :** Suwan, Deoki, Shaktiman 3 and 4, Ganga Safad -2, Ganga-11.
- **Mung :** T-49 and PDM 44.
- **Arhar :** Malviya chatmarkar, Malviya Vikas, Bahar, Laxmi



## Jharkhand

- **Ginger:** Reo-de-genero, Nadia, China, Samastipur, Suprava, Suruchi
- **Turmeric:** Suravi, Rajendar, Roma

## Orissa

- **Jute:** JRC-212, JRC-321, JRC-9442, JRC-4444.KC-1, For up land: JRD-632, JRD-878, JRD-5204
- **Rice:** Early varieties: Parijat, Khandagiri, Vandana, Jogesh, Siddant, Medium varieties: MTU-1001, MTU1010, Pratikshya, Tapaswini, Konark, Surendra, Lalata, Kharavela, Naveen, Surendra, Late varieties: CR-1009, CR-1018, Ranidhan, Swarna, RGL-2837, Ketakijoha, Moti, Padmini, Kanchana, Mahanadi, Jagabandhu.
- **Arhar:** Early duration: Prabhat, Upas-120, ICPL-86012, Medium duration: Asha, Visakha, Late duration – D-11, Pusa-9, Bahar.
- **Ginger :** Suprava, Suravi, Suruchi
- **Turmeric:** Ranga, Rashmi, Rama, Surama
- **Colocasia:** Pallabi, Rashmi, Satamukhi and
- **Elephant foot yam :** Gajendra, M-15, Santaragachhi
- **Maize :** Navjyot, Shakti, Deccan-107, Deccan-10, MRM 3838, MRM 3765, Saktiman-1, Bio 9681, Cargill

## West Bengal

- **Aman rice:**
  - **New Alluvial Zone:** IET-4094, 2233, Ratna, Bikash, Kshitish, Sasyashree, IR-42, Swarna, Mashuri, IET-8002 etc.
  - **Long duration varieties for Coastal Saline Zone:** Sabita (NC-492), Sabitri (CR-1009), Dharitri (CR-1097), Lunisri, Gayetri (CR-1018).
- **Pigeon pea:** Sweta, Churni etc.
- **Cabbage:** K.K. cRos.
- **Cauliflower:** Early Patnai.

## Assam

- **Transplanted *ahu* rice:** Lachit, Chilarai, Govind, IR-50, Rachi, Jaya etc.
- **Sali rice:** Mahsuri, Ranjit, Bahadur, Vasundhara, Kushal, Piyoli, Moniram, Rangali, Bhogali, Ketkijaha etc.
- **Late Sali rice:** Gitesh, Monohar Sali etc.
- **Arhar:** T-21.
- **Cotton:** J-34, Khaki, MCU-1, MCU-4 etc.
- **Areca nut:** Kahikuchi, Kachar, Sribardhan, Mohin nagar, Sumongala vital-11 etc.
- **Sesame:** Gouri, Binayaka, Madhabi, Punjab Til No1, RT-1
- **Cauliflower:** Pusa Keteki, Pusa Dipalee, Early Kowari, Jowahar Moti,

## Andhra Pradesh

- **Greengram:** PDM 54, WGG 37, LGG 407, LGG 460, TM 96-2.
- **Greengram (upland):** ML 267, LGG 450, LGG 460, LGG 407, Pusa 105, PDM 54
- **Blackgram:** LBG 20, T 9, LBG 623, WBG 26.

## Karnataka

- **Greengram:** Selection-4 (delayed/Non shattering), China Moong
- **Blackgram:** T-9, TAU-1
- **Tur:** Medium to Long Duration: PT-221, GS-1, ICP-8863 (Maruti), ICPL-87119 (Asha) WRP-1 & Short Duration: ICPL-87 (Pragati), Selection-31 (Zone 2 irrigated areas ) GCS-11-39 (Zone-2)
- **Cowpea:** C-152
- **Horsegram:** GPM-6 (accepted to release)
- **Groundnut:** R-2001-3, R-2001-2, R-8808, R-9251, S-206, TMV-2
- **Castor:** 48-1, GCH-4
- **Niger:** No-71 (High yielding), RCR-18
- **Sesame:** E-8, DS-1 (White )
- **Bajra:** ICTP-8203

- **Kharif Sorghum** Hyb/ Ver: CSH-14, CSH-5, CSH-16, CSH-18 and DSV-1, SSV-74
- **Fodder Bajra:** DFB-1, DRSB-2 (Short duration around 50 days)
- **Coriander:** DWD-3
- **Mesta:** AS-73-CP-560, HS-2, HC-583, LGG 407, Pusa 105, PDM 54

#### Maharashtra

- **Kharif rice:** Karjat 1, 2, 3, 184, Ratnagiri 3, 73, 711, Sahyadri, Bhogavati, Phule Radha, Phule Maval, Pusa in Konkan, Madhya Maharashtra and PKV- Khamanga, PKV-HMT, Sindewahi-1, 5, PKV-Ganesh, Sakoli-8 & Karjat -6 in east Vidarbha.
- **Kharif bajra:** Shraddha, Saboori, Shanti, ICTP-8203.
- **Kharif jowar:** C.S.H-14 to 18, C.S.H -23 ,S.S.V-84, Phule Amruta(RSSV).
- **Kharif groundnut:** SB-11, Phule Pragati, TMV-10, M-13, TAG-24, TG-26, Phule Vyas (JL-220).
- **Kharif tur:** I.C.P.L-87, A.K.T-8811, Vipula, B.S.M.R.-853, B.S.M.R-736, Tur No.148. B.D.N.1,2 & Maruri.
- **Kharif maize:** Ganga-11, Deccan-105, Trisulata, Pro-311, Bio-9681, Samishra, Dhaval, African tall.
- **Kharif Soybean :** MACS-13, 58, 124, 450, JS-335, PK-1029 & Phule Kalyani for Madhya Maharashtra, PKV 1, TAMS 38 for Vidarbha, MACS 47, 61, 61-2 & Samruddhi for Marathwada.
- **Green gram :** Vaibhav, Phule M-2.

#### Gujarat

- **Kharif rice:**
  - **Early maturing cultivars:** Sukhvel-20, GR-3, 4, 6, 7.
  - **Late maturing cultivars:** GR-101, 102, 103, 104, Narmada and Masuri.
- **Castor:** GCH-4, 5, 6.
- **Pigeon pea:** Guj PP-1, 100, 101 and IPCL - 87.

#### Rajasthan

- **Pearl millet:** MH 169, HHB 67, RHB 30, RHB 58 (Bharatpur), RHB-121, RHB-127, HHB-67 (improved), ICMH-356, CZP-9802, GHB-538 and Pusa-623 (Bikaner).
- **Sorghum:** CSH 9, SPV 245 and SSB 59-3 (Bharatpur), Pratap jowar 1430, CSV-17, CSV-15, CSH-13, CSV- 13, SPV- 346 and RJ 96 (Udaipur).
- **Sesamum:** RT125, RT 127, Pragati and RT 46
- **Paddy:** Pusa Basmati 1, Mahi Sugandha, PR 10, Pusa Sugandhi
- **Tomato:** Pusa Rubi, Pusa Earli and Vihar
- **Okra:** Pusa Savani, Abhay, Arka Anamika and Arka Upahar
- **Brinjal:** Pusa Summer Prolific Round, Pusa Summer Prolific Long, Meghdoot, Navin and Arka Bahar
- **Cucumber:** Balam and Pusa Sahyog
- **Soybean:** T-49, J.S. - 335, Gorav, MACS-13, MACS-58, Moneta, PK-472, PS-16 and JS-71-05.
- **Moong :** K-854, Pusa Baisakhi, RMG-62.
- **Urad :** Krishna, T-9, Pant-U and RBU-38(Barkha).
- **Cow pea:** C-152, J.C-5, J.C- 10 and R.S -9.

#### Madhya Pradesh

- **Moong:** K-851, Jawahar moong-721, Pant moong-4, TJM-3
- **Urad:** U-30, RBU-38, Jawahar Urad-3, JU-86
- **Soyabean:** JS-335, JS-9305, JS-9560, PK-472, NRC-37.

#### Chattisgarh

- **Kharif rice**
  - **Matasi soil-** Samleshwari, Aditya, Poornima, Annanda, Danteshwari,
  - **Dorsa soil -** MTU 1010, IR 36, IR 64,
  - **Kanhar soil -** Mahamaya Karma Masuri, MTU-1001 etc.

Annexure II					
State/Districts	11.06.09	17.06.09	24.06.09	01.07.09	08.07.09
<b>Arunachal Pradesh</b>					
East Kameng	**	-84	-95	81	92
East Slang	**	-72	-91	64	10
Lohit	**	-66	-42	-3	95
Papumpara	**	77	45	138	22
Tawang	**	-88	-78	-52	-12
Tirap	**	21	78	-30	-1
Upper Subansiri	**	-56	56	-15	-70
West Kameng	**	119	61	333	449
West Siang	**	-7	-95	47	81
<b>Assam</b>					
Barpeta	**	213	-54	103	-32
Cachar	**	-50	-49	46	-25
Darrang	**	19	-100	-51	156
Dibrugarh	**	-28	-47	-2	38
East Garo Hills	**	-44	-97	286	88
East Khasi Hills	**	-53	-59	132	113
Goalpara	**	49	-80	-12	46
Golghat	**	-49	-17	-75	1
Jorhat	**	-38	-90	-2	-20
Kamrup	**	20	-89	-9	4
Karbi Analog	**	-98	-48	-60	-14
Karimganj	**	78	-53	-33	36
Kokrajhar	**	-15	-40	-4	-29
Lakhimpur	**	-45	-80	-1	-27
Morigaon	**	-96	-87	-15	-16
Nalbari	**	11	-54	45	-2
Sibsagar	**	-17	11	-86	-32
Sonitpur	**	51	-66	8	-46
Tinsukia	**	-76	-5	11	54
<b>Himachal Pradesh</b>					
Kinnaur	157	-91	-7	4	-86
Mandi	-57	-47	-100	-18	-84
Solan	-50	-75	-100	-16	-96
Una	-49	28	-100	1	-100
<b>Punjab</b>					
Bhatinda	-100	-33	-100	165	-88
Faridkot	-100	-100	-100	-9	-100
Fatehgarh Sahib	-100	-25	-100	34	-100

Jalandhar	-100	-97	-100	45	-95
Kapurthala	-100	-82	-100	58	-92
Ludhiana	-100	-2	-100	137	-61
Muktesar	-100	-52	-100	31	-69
Nawashahar	-100	-38	-100	23	-95
Patiala	-100	-78	-100	59	-95
Ropar	-47	-6	-100	28	-98
<b>Haryana</b>					
Ambala	-100	-96	-100	127	-80
Bhiwani	-100	-17	-100	18	-68
Chandigarh	-91	-58	-100	-7	-97
Gurgaon	-100	-19	-100	-18	-21
Jind	-100	-8	-100	60	-75
Karnal	-100	-100	-100	48	-88
Kurukshetra	**	**	**	-11	-90
Mahendragarh	-100	2	-100	223	-96
Panipat	-100	**	**	144	-89
Rewari	**	**	**	30	-44
Sonepat	-100	-100	-100	120	-95
<b>East Madhya Pradesh</b>					
Balaghat	-100	-85	-100	-60	4
Chhatarpur	-100	-100	-100	-15	-24
Chindwara	-100	-73	-100	-31	138
Damoh	-100	-100	-100	-72	-15
Dindori	-100	-100	-100	-100	13
Katni	-100	-100	-100	-72	12
Rewa	-100	-100	-100	-83	-12
Satna	-82	-95	-100	-72	3
Sidhi	40	-100	-100	-43	-10
<b>West Madhya Pradesh</b>					
Betul	-100	-100	-97	-21	96
Datia	-94	-84	-100	-21	14
Dewas	-100	-100	-100	28	-32
Harda	-100	-100	-100	46	-1
Indore	-100	-100	-71	67	-77
Jhabua	-100	-100	-100	-84	81
Khargone	-100	-100	-79	7	26
Morena	-100	-100	-100	-2	-99
Neemuch	-100	-100	-100	-90	119
Sehore	-100	-100	-100	-11	-59
Shivpuri	-100	-100	-100	13	-63
Ujjain	-100	-99	-98	28	-52
Vidisha	-100	-89	-100	-18	-68

<b>Chattisgarh</b>					
Bastar	-96	-60	-99	-47	-16
Bilaspur	-89	-92	-100	-63	22
Dantewara	-100	-100	-100	-82	3
Dhamtari	-100	12	-99	-56	-4
Jashpurnagar	-100	-100	-100	-75	-6
Kanker	-100	-100	-100	-93	-5
Korba	-100	-100	-100	-95	-10
Koriya	-100	-100	-100	-27	-12
Kowardna	-100	-90	-100	-3	-40
Mahasumund	-100	-100	-100	-52	237
Raigarh	-100	-100	-100	-51	37
Raipur	-71	-89	-99	-61	-1
Surguja	-94	-95	-100	9	-65
<b>East Uttar Pradesh</b>					
Azamgarh	-100	-100	-100	-62	7
Bahraich	-26	-100	-100	38	-59
Barabanki	**	-100	-100	-8	-96
Deoria	**	-100	-100	-58	-17
Faizabad	**	-100	-100	18	-27
Gazipur	-56	-100	-100	-96	-5
Gonda	**	-100	-100	47	-15
Gorakhpur	12	-100	-100	-67	264
Kheri	**	-100	-100	137	-87
Lucknow	9	-100	-100	-55	-18
Maharajganj	-100	-100	-100	14	-31
Pratapgarh	**	-100	-100	-100	-3
Sant Ravidas Nagar	**	-100	-100	43	89
Shrawasti	**	-100	-100	156	-99
Sidharthnagar	**	-100	-100	16	-54
Sitapur	**	-100	-100	17	-90
Sonbhadra	-100	-100	-100	-79	20
<b>West Uttar Pradesh</b>					
Aligarh	**	-100	-100	-3	-99
Baghpat	**	-100	-100	158	-89
Bareilly	25	-99	-100	-17	-99
Bijnor	-100	-100	-100	-3	-100
Meerut	-100	-100	-100	-7	-81
Muzzaffarnagar	-100	-100	-100	30	-100
Shahjahanpur	-36	-100	-100	55	-100

<b>UttaraKhand</b>					
Champawat	-100	-100	-100	196	-95
Haridwar	-100	-100	-100	84	-98
Uttarkashi	**	-100	-100	282	-61
<b>Bihar</b>					
Araria	-84	**	40	-17	9
Bhagalpur	-100	**	-96	12	-28
Bhojpur	**	**	-100	-14	-55
Darbhanga	**	**	-98	12	-37
East Champaran	-94	**	-78	-12	-33
Gaya	-9	**	-100	-17	29
Khagadia	**	**	-80	-14	-60
Kishanganj	**	**	**	**	-94
Monghyar	**	**	-75	2	36
Muzaffarpur	-27	**	-95	11	-13
Nalanda	**	**	**	**	-60
Patna	162	**	-100	-19	18
Purnea	-69	**	-24	103	35
Rohtas	-100	**	-100	-37	**
Saharsha	**	**	-72	171	-49
Vaishali	**	**	-100	37	-75
West Champaran	**	**	-100	154	21
<b>Jharkhand</b>					
Bokaro	-63	**	-100	-1	-40
Dhanbad	-67	**	-100	-23	26
East Singbhum	-90	**	-100	-84	25
Hazaribagh	-53	**	-100	-14	-19
Palamau	-96	**	-100	3	-5
Ranchi	-82	**	-100	-33	29
Santhal Parganas	-96	**	-95	-36	-17
<b>East Rajasthan</b>					
Ajmer	-100	-36	-100	-58	-10
Alwar	-100	-63	-100	70	-19
Baran	-100	-79	-100	-33	10
Bharatpur	-100	13	-100	17	-6
Bundi	-100	-36	-100	-13	-46
Chittorgarh	-100	-85	-32	-33	34
Dausa	-100	-82	-100	39	-73
Dholpur	-100	-23	-100	21	-76
Jaipur	-100	-100	-99	28	-58
Jhalawar	-100	105	-98	-12	-48

Jhunjhunu	-100	-100	-100	49	-53
Karauli	-100	-63	-100	111	-91
Kota	-100	130	-96	-1	55
Sawai Madhopur	-100	31	-100	-8	-74
Sikar	-100	178	-100	71	-64
<b>West Rajasthan</b>					
Bikaner	-100	234	-67	-100	87
Churu	-100	-32	-99	-73	-1
Hanumangarh	-100	203	-100	-82	-17
Sri Ganganagar	-100	-99	-99	-100	140
<b>Gujarat Region</b>					
Broach	-100	-100	-73	-96	2
DNH & Daman	-100	-100	-51	-53	-10
<b>Saurashtra, Kutch &amp; Diu region</b>					
Amreli	-100	-100	-4	-42	14
Jamnagar	-100	-100	-75	154	-76
Junagarh	-100	-100	23	41	-5
Kutch	-100	-100	-78	50	-92
Porbandara	-100	-100	8	172	-88
Rajkot	-100	-100	-83	-41	14
<b>Maharashtra</b>					
<b>Konkan &amp; Goa</b>					
Goa	45	-59	-59	-21	199
Mumbai	-95	-100	-88	11	55
Raigad	-60	-99	-72	-50	-17
Ratnagiri	-28	-99	-72	-37	115
Sindhudurg	37	-85	-60	54	247
<b>Madhya Maharashtra</b>					
Ahmednagar	-9	-99	114	-93	101
Dhule	-100	-100	13	-46	33
Jalgaon	-100	-99	-34	-26	65
Kolhapur	-31	-90	-72	-63	46
Nasik	-88	-100	15	-72	133
Sangli	-8	-53	-53	-98	12
Satara	13	-98	-27	-78	5
<b>Marathwada</b>					
Aurangabad	-84	-100	-62	-60	93
Beed	-60	-79	17	-29	227
Jalna	-98	-100	-74	-47	131

Latur	-86	-51	-56	-64	**
Nanded	-68	-83	-72	-14	-28
Usmanabad	-72	-97	-3	-98	-14
Parbhani	-99	-94	-45	-33	25
Vidarbha					
Akola	-100	-100	-92	62	85
Amraoti	-97	-100	-94	13	118
Buldhana	-97	-100	-38	13	127
Chandrapur	53	-81	-99	-62	11
Nagpur	8	-95	-92	34	43
Wardha	-66	-92	-94	31	30
Yeotmal	-99	-92	-90	27	-17
<b>Orissa</b>					
Angul	-35	-35	-99	-45	70
Balasore	-67	-85	-95	-15	-77
Bargarh	-86	-100	-100	-35	155
Bolangir	27	-91	-95	-65	9
Boudh	48	-92	-99	-24	107
Cuttack	-28	-76	-97	26	159
Deogarh	-29	-79	-100	-55	33
Dhenkanal	-35	-56	-100	-60	69
Gajapati	-9	-9	-55	14	26
Ganjam	121	-87	-66	-29	15
Jagatsingpur	-47	-85	-82	-66	205
Jajpur	-37	-81	-100	14	-3
Jharsuguda	-42	-98	-100	-56	115
Kandhamal	125	-91	-89	-1	-3
Kendrapara	-49	-72	-93	-57	39
Keonjhar	-18	-48	-99	-42	-5
Khurda	31	-34	-94	39	29
Mayurbhanj	-63	-65	-97	-3	21
Nawapara	132	-94	-100	-64	33
Nawarangpur	171	-51	-68	24	-21
Nayagarh	8	-44	-80	53	-6
Puri	12	-83	-92	-2	45
Rayagada	4	-32	-45	13	37
Sambalpur	-31	-73	-99	-70	-12
Sonepur	120	-84	-93	-27	127
Sundargarh	-19	-87	-100	-18	8
<b>West Bengal</b>					
GWB					
Bankura	-74	-86	-100	-65	-1



Birbhum	-99	-68	-94	-34	-5
Burdwan	-100	-62	-100	-36	27
Howrah	-100	-58	-84	-6	-85
Midnapore	-57	-99	-91	-45	-15
Murshidabad	-100	-63	-99	22	-51
Nadia	32	-58	-89	7	-2
Purulia	-92	-45	-100	-55	22
24 Pargana (S)	-92	-82	-83	-10	30
SHWB					
Coochbehar	-75	22	-42	31	-41
Darjeeling	-58	-25	-37	-8	62
Jalpaiguri	-61	-16	-6	88	39
Dinajpur (N)	**	**	**	-11	9
<b>Sikkim</b>	35	-100	-67	-57	-2
<b>Karnataka</b>					
<b>Coastal Karnataka</b>					
Dakshin Kannada	32	-79	-71	-40	122
Udupi	36	-73	-76	-28	148
Uttar Kannada	28	-78	-42	-58	115
<b>North Interior Karnataka</b>					
Belgaum	80	32	56	-73	3
Bidar	17	-48	-41	-96	-53
Dharwad	22	94	-15	-49	33
Gadag	41	90	-55	-40	16
Haveri	-6	67	-80	-88	118
<b>South Interior Karnataka</b>					
Bangalore Urban	-77	245	-93	-40	5
Chamarajnaragar	40	10	-45	-87	29
Chickmagalur	42	-69	-64	-66	108
Chitradurga	-80	157	32	-82	74
Davangere	-34	94	-9	-52	85
Kodagu	29	-64	-57	-66	86
Mandya	-43	169	-23	-99	19
Mysore	-17	-38	-93	-79	57
Shimoga	5	-89	-72	-76	115
Tumkur	-82	416	-13	-54	17
<b>Kerala</b>					
Alappuzha,	16	-21	-26	47	-3
Kannur	48	-80	-30	8	52
Ernakulam	27	-48	-30	25	18

Idukki	27	-62	-64	-3	9
Kasaragod	-18	-77	-40	-19	65
Kollam	-33	-83	-18	5	-42
Kottayam	26	-59	-22	7	-7
0Kozhikode	39	-80	-71	51	95
Malappuram	-12	-78	-52	-12	18
Palakkad	16	-84	-50	-29	38
Pathanamthitta	19	-71	-27	4	7
Thrissur	45	-72	4	-13	37
Wyanad	26	-42	-77	-75	-15
<b>Tamil Nadu</b>					
Coimbatore	432	-100	-50	200	579
Cuddalore	-100	125	-84	70	-65
Dindigul	-83	367	-100	219	-92
Erode	-72	25	-94	59	-2
Madurai	-100	88	-100	228	-99
Nagapattinam	-100	68	-100	25	-100
Namakkal	-70	-100	-93	114	-43
Nilgiris	31	-63	-49	-27	36
Pondicherry	-100	22	-89	52	-39
Pudukottai	-100	-13	-77	32	-66
Salem	12	179	-40	-85	95
Sivaganga	-100	-49	-100	61	-84
Thanjavur	-100	-34	-100	101	-81
Theni	555	-20	2	299	471
Tiruvarur	-100	-57	-100	90	-100
Trichy	-100	53	107	86	-55
<b>Andhra Pradesh</b>					
<b>Coastal Andhra Pradesh</b>					
East Godavari	-77	-72	-96	-49	62
Sirkakulam	-66	-52	-59	49	37
Visakhapatnam	-46	-41	-73	51	-42
Vizianagram	-14	-42	-36	82	-28
West Godavari	-90	-91	-94	-63	19
<b>Telangana</b>					
Adilabad	-59	-98	-85	28	-35
Nizamabad	8	-74	-86	-40	-10
<b>Royalaseema</b>					
Chittoor	-89	13	71	39	-72
Cuddapah	-100	13.1	-11	103	-90