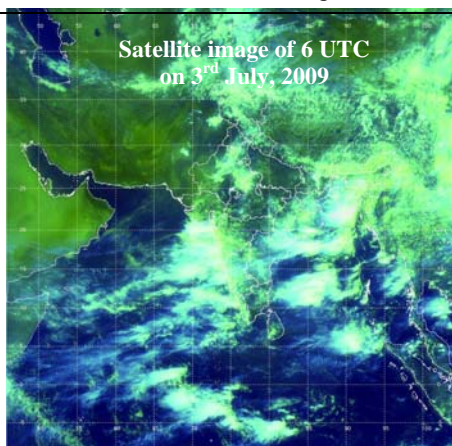


National Agromet Advisory Bulletin

Thursday, 2nd July, 2009 (For the period 2nd to 6th July, 2009)

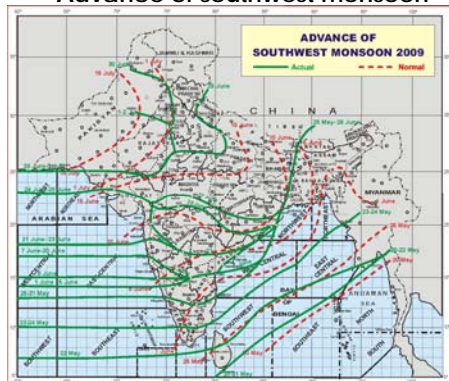


Satellite image of 6 UTC
on 3rd July, 2009

Chief Synoptic Feature (Based on 1430 hours IST observations of 2nd July 2009)

- Under the influence of an off-shore trough extending from Konkan coast to Kerala coast, widespread rainfall activity with heavy to very heavy falls at a few places is likely along west coast during next 3-4 days.
- Current Meteorological analysis and numerical weather prediction models suggests widespread rainfall activity with heavy to very heavy falls at a few places over Bihar and Sub-Himalayan West Bengal & Sikkim during next 48 hours and over northeastern states during next 3-4 days with isolated extremely heavy falls ($\geq 25\text{cm.}$) over Assam & Meghalaya and Arunachal Pradesh.
- KALPANA – 1 Cloud Imagery at 1430 hours IST shows convective clouds over Orissa, Chhattisgarh, Vidarbha, south and eastcentral Arabian Sea and parts of north Bay of Bengal, Andaman Sea. Low/medium clouds are seen over parts of east, northeast, Peninsular and northwest India.

Advance of southwest monsoon



The northern limit of southwest monsoon passes through Lat. 25.0°N / Long. 60.0°E and Lat. 25.0°N / Long. 65.0°E, Udaipur, Jaipur, Pilani, Hissar and Ganganagar.

Salient Agromet Advisories for Farmers

Compared to the week ending 24.6.09, crop situation in many parts of the country has improved, except Gujarat region, Madhya Maharashtra, Marathwada, South Interior Karnataka and South Telangana due to well distributed rainfall.

Based on the realized rainfall and forecast rainfall Agromet Advisory in different sub-Divisions of the country is given below

Sub-Divisions

Kerala, Konkan, Coastal Karnataka, Rayalaseema, North Coastal Andhra Pradesh, West Bengal and North-eastern States

- As good amount of rainfall was received in the last week and rainfall is expected in the next five days in the above mentioned sub-divisions, 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:
- Rice in Kerala, rice and ragi in Konkan, rice in coastal Karnataka, rice, vegetables in Rayalaseema, red gram, green gram, black gram, ragi, maize in North coastal Andhra Pradesh and ahu and sali rice in Assam, aus and aman rice in West Bengal.

Sub-Divisions

Gujarat region, Madhya Maharashtra, Marathwada, South Interior Karnataka and South Telangana

- With the recent advance of monsoon followed by insufficient amount of rain, farmers in these sub-divisions are advised to :
- Give life saving irrigation to already sown kharif crops and wait for fresh sowing of kharif crop till 15th July in Gujarat region.
- 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 of Marathwada where sufficient rains received may be taken up. Farmers in other districts with insufficient rain may wait upto 12th July.
- Sowing of short duration kharif crops like jowar, maize, bajra, redgram, greengram, blackgram, cowpea, sesamum, groundnut, sunflower, soyabean and cotton in Bellary and Haveri in South Interior Karnataka may be taken up
- Sowing of pearl millet and finger millet in Hyderabad, Khammam, Mehabubnagar, Medak, Nalgonda, Nizamabad in south Telangana may be taken up.

Sub-Divisions

West Rajasthan

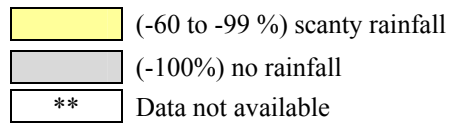
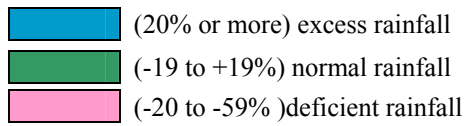
- Farmers in west Rajasthan are advised to arrange inputs and undertake sowing of kharif crops like pearl millet, sorghum and maize as soon as monsoon arrives over the region.

**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

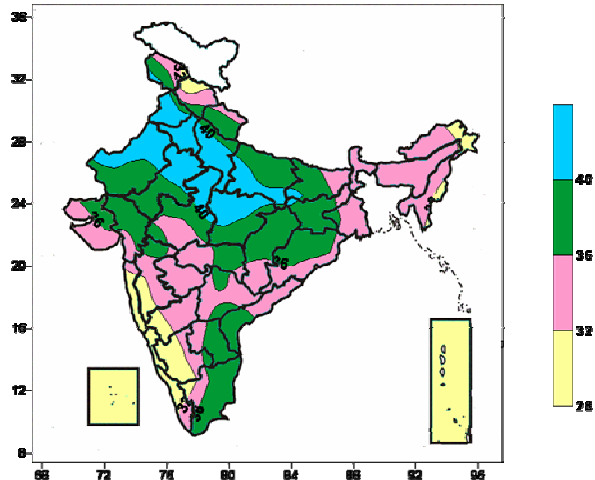
Sub-division	Cumulative Rainfall for the period									
	3 rd June		10 th June		17 th June		24 th June		1 st July	
	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.
A & N Islands	121.1	-3	136.6	-11	100.3	117	108.4	80	96.1	-20
Arunachal Pradesh	87.2	-50	98.6	-38	121.9	-29	128.9	-61	132.5	15
Assam and Meghalaya	101.5	-63	128.3	-62	143.6	-30	142.1	-67	131.3	-14
NMMT	66.2	-36	85.6	-9	100.1	-77	82.1	-50	77.4	29
SH West Bengal & Sikkim	76.5	-46	88.3	-36	124.2	-22	138.0	-42	130.5	9
Gangetic West Bengal	30.6	8	46.6	-78	52.3	-78	59.5	-92	76.7	-32
Orissa	20.0	-11	31.0	2	43.8	-70	58.9	-90	71.4	-28
Jharkhand	14.9	9	29.1	-81	45.3	-52	50.3	-99	70.2	-23
Bihar	17.5	120	27.3	-55	41.6	-82	45.3	-78	63.1	2
East Uttar Pradesh	7.2	111	14.0	-67	18.2	-99	26.6	-100	51.5	-33
West Uttar Pradesh	5.5	1	9.2	-68	11.8	-97	15.1	-100	35.5	-53
Uttarakhand	18.8	54	23.1	-67	31.2	-90	47.1	-99	64.9	-7
Haryana, Chandigarh & Delhi	3.3	116	6.8	-99	8.1	-42	10.7	-100	19.7	11
Punjab	3.1	8	5.6	-92	8.7	-67	9.5	-100	20.8	13
Himachal Pradesh	12.6	-29	13.7	-43	18.5	-17	22.1	-93	37.4	-53
J & K	11.7	-79	12.0	91	15.7	72	11.2	-67	18.4	-82
West Rajasthan	3.8	18	3.1	-100	5.0	91	6.4	-50	13.0	-67
East Rajasthan	5.1	-86	6.6	-100	10.9	-7	15.1	-61	30.6	-24
West M. P.	5.9	-81	11.1	-99	19.8	-90	30.4	-94	52.1	-35
East M. P.	6.4	-55	14.9	-80	21.1	-89	41.3	-99	73.1	-61
Gujarat region	5.6	-100	14.6	-100	22.3	-90	33.9	-79	59.8	-88
Saurashtra & Kutch	2.4	-100	7.7	-100	13.0	-100	27.9	-32	37.1	35
Konkan and Goa	35.0	-95	88.7	-14	152.2	-90	198.1	-67	255.7	-29
Madhya Maharashtra	11.3	-97	25.1	-38	29.7	-92	33.5	0	47.5	-73
Marathwada	11.9	-84	25.1	-78	32.8	-87	41.4	-43	42.8	-44
Vidarbha	7.5	-68	17.7	-40	31.9	-94	51.5	-85	73.9	-14
Chhattisgarh	9.1	-37	22.0	-95	35.2	-89	56.3	-99	82.1	-53
Coastal A. P.	14.9	-5	17.6	-56	22.3	-31	24.1	-68	32.4	-25
Telangana	11.2	-10	20.6	-22	28.9	-60	38.2	-78	46.7	-49
Rayalseema	15.5	55	15.4	-77	13.5	119	12.8	8	12.8	-22
TamilNadu & Pondicherry	12.7	21	9.8	-19	9.3	34	9.5	-56	8.6	-4
Coastal Karnataka	78.7	-56	168.8	31	218.5	-77	249.0	-58	271.1	-47
N. I. Karnataka	17.1	-77	22.2	13	24.0	43	21.5	52	25.6	-77
S. I. Karnataka	22.7	-7	25.9	-19	27.9	13	31.6	-58	45.1	-72
Kerala	102.0	-78	151.8	17	150.8	-69	161.0	-41	194.5	-8
Lakshadweep	79.3	-31	88.7	3	67.4	-15	80.6	49	64.8	82

The subdivisions like Madhya Pradesh, Gujarat, Marathwada and Chhattisgarh received scanty / deficient rain in all the 5 weeks; Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Jharkhand, Uttar Pradesh, Himachal Pradesh, East Rajasthan, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, Vidarbha, Coastal Andhra Pradesh, Telangana and Coastal Karnataka received scanty / deficient rain in 4 out of last 5 weeks; Uttarakhand, Nagaland, Manipur, Mizoram, Tripura, Orissa, Bihar, Haryana, Chandigarh & Delhi, Punjab, Jammu & Kashmir, West Rajasthan, and Kerala received scanty / deficient rain in 3 out of last 5 weeks. Remaining States received normal / excess rain in 2 or more weeks during last 5 weeks.



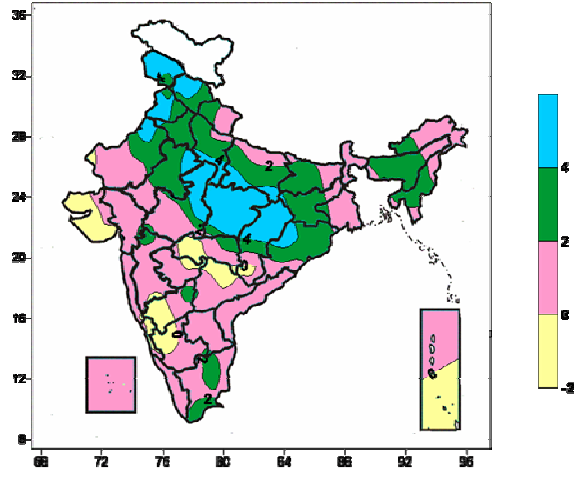
Contour maps for the week ending 01.07.09

Actual Mean Maximum Temperature (°C) in India for the week ending 01.07.09



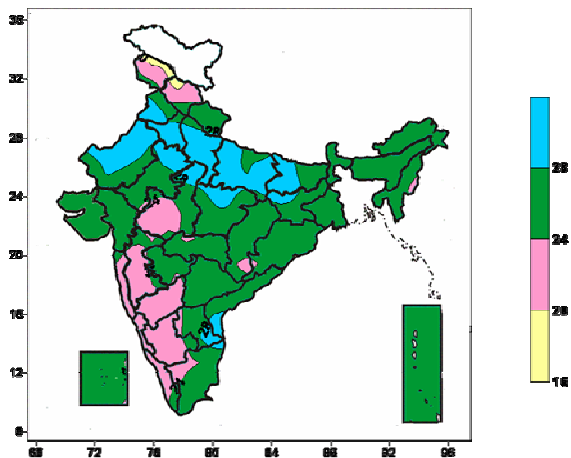
Actual Mean Maximum temperature ranged between 40°C and above over most parts of Punjab, Haryana, Delhi, West Uttar Pradesh, some parts of Rajasthan, East Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, 36 to 40°C over most parts of Uttarakhand, Gujarat, Bihar, Jharkhand, Orissa, Chhattisgarh, Rayalaseema, Tamil Nadu, some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, Rajasthan, Saurashtra & Kutch, Madhya Pradesh, Gangetic West Bengal, Madhya Maharashtra, Vidarbha, Coastal Andhra Pradesh, Telangana, 28 to 32°C over most parts of Konkan & Goa, Coastal Karnataka, Andaman & Nicobar Islands, Lakshdweep, some parts of Jammu & Kashmir, Himachal Pradesh, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Interior Karnataka, Kerala, Tamil Nadu, 32 to 36°C over remaining parts of the country.

Maximum Temperature (°C) Anomaly in India for the week ending 01.07.09



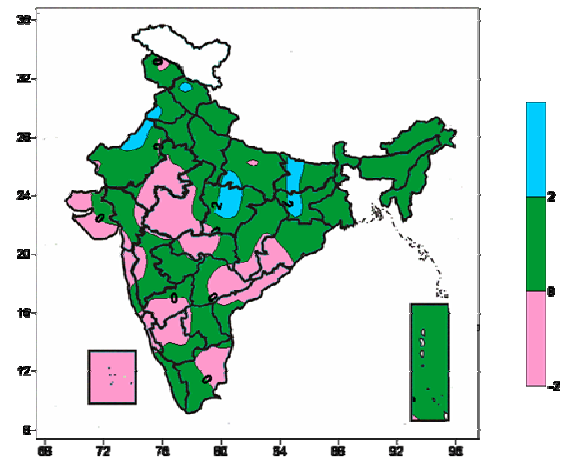
Actual Mean Maximum temperature anomaly ranged between 4°C and above over most parts of East Madhya Pradesh, North Chattisgarh, some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Rajasthan, Uttar Pradesh, West Madhya Pradesh, Orissa, 2 to 4°C over most parts of Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Orissa, Assam & Meghalaya, Manipur, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Mizoram, Tripura, Chattisgarh, Madhya Pradesh, Vidarbha, Madhya Maharashtra, Interior Karnataka, Tamil Nadu, -2 to 0°C most parts of Saurashtra & Kutch, some parts of West Rajasthan, Madhya Maharashtra, Marathwada, Vidarbha, Telangana, Chattisgarh, Karnataka, Andaman & Nicobar Island, 0 to 2°C over remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 01.07.09



Actual Mean Minimum Temperature ranged between 28°C and above over most parts of Haryana, Delhi, Uttar Pradesh, some parts of Bihar, Jharkhand, Rajasthan,

Minimum Temperature (°C) Anomaly in India for the week ending 01.07.09

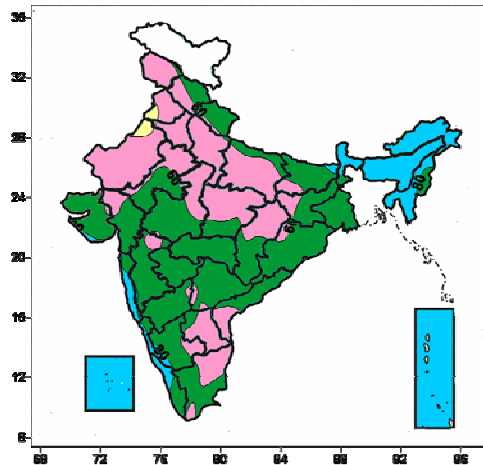


Minimum Temperature anomaly ranged between 2°C and above over some parts of Himachal Pradesh, Punjab, West Rajasthan, East Uttar Pradesh, Bihar, Jharkhand, East

Madhya Pradesh, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, 20 to 24°C over most parts of Himachal Pradesh, Konkan & Goa, Madhya Maharashtra, Karnataka, Kerala, some parts of Jammu & Kashmir, West Madhya Pradesh, Marathwada, Vidarbha, Chhattisgarh, Orissa, Manipur, Tamil Nadu, 16 to 20°C over some parts of Jammu & Kashmir, Himachal Pradesh, 24°C to 28°C over remaining parts of the country.

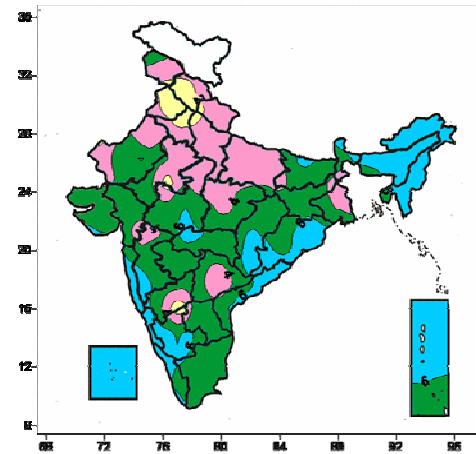
Madhya Pradesh, -2 to 0°C over most parts of East Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, North Konkan, Karnataka, North Coastal Andhra Pradesh, Telangana, North Tamil Nadu, Lakshdweep, some parts of Jammu & Kashmir, East Uttar Pradesh, West Rajasthan, Gujarat, East Madhya Pradesh, Chhattisgarh, Orissa, Madhya Maharashtra, Vidarbha, Rayalaseema, 0 to 2°C over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 01.07.09



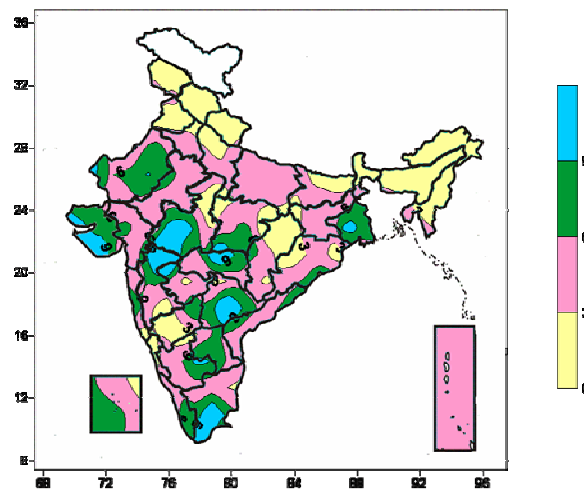
Relative humidity more than 80% over most parts of Sub-Himalayan West Bengal & Sikkim, Northeast India, Konkan & Goa, Lakshdweep, Andaman & Nicobar Islands, 40 to 60% over most parts of Jammu & Kashmir, Punjab, Haryana, Delhi, West Rajasthan, Uttar Pradesh, North Madhya Pradesh, North Chattisgarh, Rayalaseema, some parts of Himachal Pradesh, Uttarakhand, East Rajasthan, Bihar, Jharkhand, Orissa, Gujarat, Saurashtra & Kutch, Madhya Maharashtra, Interior Karnataka, Coastal Andhra Pradesh, Telangana, Tamil Nadu, 20 to 40% over some parts of Punjab, West Rajasthan, 60 to 80 % over remaining parts of the country.

Cloud amount (okta) over India for the week ending 01.07.09



Cloud amount ranged from 6 to 8 okta over most parts of Northeast India, Coastal Orissa, Konkan & Goa, Coastal Karnataka, South Interior Karnataka, Andaman & Nicobar Islands, Lakshadweep, some parts of Bihar, Sub-Himalayan West Bengal, Sikkim, Saurashtra & Kutch, West Madhya Pradesh, Chattisgarh, Madhya Maharashtra, Vidarbha, Coastal Andhra Pradesh, Kerala, Tamil Nadu, 2 to 4 okta over most parts of Haryana, Uttarakhand, Uttar Pradesh, East Rajasthan, some parts of Jammu & Kashmir, Punjab, Himachal Pradesh, West Rajasthan, Bihar, Jharkhand, West Bengal, Gujarat, Madhya Pradesh, Madhya Maharashtra, Telangana, Rayalaseema, North & south Interior Karnataka, 0 to 2 okta over most parts of Punjab, Himachal Pradesh, some parts of Jammu & Kashmir, Haryana, Uttarakhand, West Uttar Pradesh, East Rajasthan, Interior Karnataka, 4 to 6 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 01.07.09



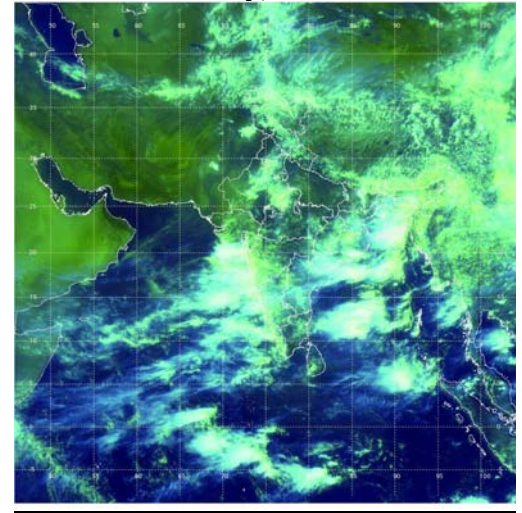
Wind speed ranged between 9 knots and above over some parts of West Rajasthan, Gangetic West Bengal, Saurashtra & Kutch, Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha, Telangana, South Interior Karnataka, Tamil Nadu,

6 to 9 knots over most parts of the West Rajasthan, Gangetic West Bengal, Saurashtra & Kutch, Telengana, Rayalaseema, some parts of East Rajasthan, Gujarat, Madhya Pradesh, Chattisgarh, Maharashtra, Karnataka, Kerala, Tamil Nadu, Coastal Andhra Pradesh, Lakshdweep Islands, 0 to 2 knots over most parts of Jammu & Kashmir, Punjab, Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal, Sikkim, Northeast India, some parts of Haryana, Uttar Pradesh, Bihar, Jharkhand, Orissa, Madhya Pradesh, Chattisgarh, Madhya Maharashtra, Marathwada, Karnataka, Tamil Nadu, Lakshdweep Islands, 3 to 6 knots over remaining parts of the country.

Chief Synoptic Feature (Based on 1430 hours IST observations of 2nd July, 2009)

- Under the influence of an off-shore trough extending from Konkan coast to Kerala coast, widespread rainfall activity with heavy to very heavy falls at a few places is likely along west coast during next 3-4 days.
- Current Meteorological analysis and numerical weather prediction models suggests widespread rainfall activity with heavy to very heavy falls at a few places over Bihar and Sub-Himalayan West Bengal & Sikkim during next 48 hours and over northeastern states during next 3-4 days with isolated extremely heavy falls ($\geq 25\text{cm.}$) over Assam & Meghalaya and Arunachal Pradesh.
- KALPANA – 1 Cloud Imagery at 1430 hours IST shows convective clouds over Orissa, Chhattisgarh, Vidarbha, south and eastcentral Arabian Sea and parts of north Bay of Bengal, Andaman Sea. Low/medium clouds are seen over parts of east, northeast, Peninsular and northwest India.

Satellite image of 6 UTC on 3rd July, 2009



Zone-wise Forecast (Forecast valid upto 1430 hours IST of 5th July, 2009)

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

- Rain/thundershowers at many places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand and east Uttar Pradesh during next 24 hours and at a few places thereafter.
- Rain/thundershowers at a few places over Punjab, Haryana and east Rajasthan.
- Isolated rain/thundershowers over west Rajasthan.

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

- Rain/thundershowers at most places West Bengal & Sikkim.
- Rain/thundershowers at many places over the rest region.

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

- Rain/thundershowers at most places over Arunachal Pradesh, Assam and Meghalaya.
- Rain/thundershowers at many places over the rest region.

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

- Rain/thundershowers at most places over Coastal Karnataka, Kerala and Lakshadweep.
- Rain/thundershowers at many places over Coastal Andhra Pradesh, Telengana and Andaman & Nicobar Islands.
- Rain/thundershowers at a few places over the rest region.

WEST INDIA [GOA, MAHARASHTRA (OTHER THAN VIDARBHA), GUJARAT REGION,

SAURASHTRA & KUTCH]

- Rain/thundershowers at most places over Konkan & Goa
- Rain/thundershowers at many places over Madhya Maharashtra, Saurashtra and south Gujarat region.
- Rain/thundershowers at a few places over the rest region.

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 with isolated extremely heavy ($\geq 25\text{cm.}$) falls over Assam, Meghalaya and Arunachal Pradesh.
- Heavy to very heavy rainfall at a few places over Konkan & Goa, coastal Karnataka, Kerala, Sub-Himalayan West Bengal & Sikkim.
- Isolated heavy rainfall over Nagaland, Manipur, Mizoram & Tripura, Gangetic west Bengal, Bihar and Lakshadweep.

Weather Outlook from 1430 IST of 5th July, 2009 to 1430 IST of 7th July, 2009 (Based on numerical weather products):

- Fairly widespread to widespread rainfall activity with isolated heavy to very heavy falls over west coast and northeastern states.
- Increase in rainfall activity over central India.

Zonewise Agromet Advisories

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

Himachal Pradesh

- **Major Standing crops:** Vegetables (vegetative / flowering / fruiting / harvesting), potato (vegetative), *kharif* vegetables (sowing / transplanting / early vegetative / vegetative), apricot, peach, pear and plum (fruit development).
- As rainfall is likely at many places in the State during next five days, postpone irrigation, weeding, intercultural operations and top dressing of fertilizers.
- As the weather is clearing 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 *age*ti 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.

- 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 after current spells of rain.

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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Himachal Pradesh										
Bilaspur	2.1	-82	4.7	-64	13.3	-44	0.0	-100	20.0	-59
Chamba	0.0	-100	0.0	-100	5.1	-79	4.5	-80	2.4	-94
Hamirpur	24.3	183	4.8	-71	22.2	3	0.0	-100	18.9	-69
Kangra	23.2	109	2.9	-81	13.2	-43	0.0	-100	37.9	-45
Kinnaur	3.0	-61	13.6	157	0.7	-91	7.7	-7	8.3	4
Kullu	9.7	-21	14.0	3	23.1	20	1.3	-93	8.9	-72
Lahaul and Spiti	0.0	-100	8.6	-26	30.2	148	0.0	-100	0.3	-98
Mandi	27.4	64	10.2	-57	14.9	-47	0.0	-100	55.7	-18
Shimla	13.1	-19	7.4	-58	10.0	-59	0.0	-100	28.4	-29
Sirmaur	13.2	60	5.8	-64	2.8	-87	0.0	-100	29.7	-56
Solan	12.3	-1	9.5	-50	6.7	-75	0.0	-100	49.4	-16
Una	13.6	152	6.6	-49	14.4	28	0.0	-100	29.6	1

Uttarakhand

- **Major Standing Crops:** Sugarcane ratoon (early vegetative), cabbage, garlic, tomato (vegetative), maize, french bean (early vegetative), rice(nursery seedling/transplanting)
- Farmers are advised to continue sowing of rice, soybean, ragi and bhindi in Nainital district, rice and maize in Uttam singh nagar district and sowing of rice in Haridwar, Dehradun and Pauri districts. Continue transplanting of rice utilizing the realized rainfall during last week in Nainital and Uttam singh nagar districts. Ensure shallow water level for few days for better establishment of seedling in the field. Farmers can also go for direct seeding of rice for sowing of recommended varieties.

- Undertake sowing of pigeon pea, sorghum, groundnut, cotton, fodder crops and soybean utilizing the realized rainfall during last week in rainfed areas of the State.
- As rain/thundershowers are likely at many places over the State during next 24 hrs., postpone irrigation, weeding and intercultural operations after current spells of rain 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 after current spells of rain.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Uttrakhand										
Almora	**	**	0.0	-100	**	**	**	**	0.0	-100
Chamoli	**	**	10.0	-18	8.2	-84	4.0	-87	15.6	-59
Champawat	**	**	0.0	-100	0.0	-100	0.0	-100	205.4	196
Dehradun	63.8	265	1.6	-92	0.0	-100	0.0	-100	33.4	-57
Garhwal Pauri	**	**	0.0	-100	0.0	-100	0.0	-100	44.8	-37
Garhwal Tehri	**	**	1.2	-95	2.0	-89	0.0	-100	19.2	-66
Haridwar	**	**	0.0	-100	0.0	-100	0.0	-100	67.3	84
Nainital	15.6	-39	17.4	-32	0.2	-76	0.0	-100	32.7	-63
Pithorgarh	**	**	19.5	-52	4.9	-92	0.0	-100	8.1	-90
Rudraprayag	**	**	0.0	-100	1.2	-98	0.0	-100	17.1	-80
Udham Sing Nagar	**	**	1.3	-81	**	**	0.0	-100	0.0	-100
Uttarkashi	**	**	**	**	0.0	-100	0.0	-100	224.1	282

Punjab

- **Major Standing Crops:** Spring sugarcane (early vegetative/vegetative), vegetable crops like chilli, tomato, brinjal(vegetative), bhindi(early vegetative) and onion (vegetative/bulb formation), *kharif* groundnut and maize (seedling/early vegetative), cotton and berseem (early vegetative), *Kharif* rice(nursery seedling/transplanting), fruit crops(flowering/fruited)
- Continue preparation of the main field and transplanting of rice seedlings.
- Undertake weeding, intercultural operations in sugarcane on a non rainy day.
- Undertake sowing of hybrid maize as sufficient rainfall received in the State during last week.
- Protect young and tender fruit plants from hot weather by giving frequent irrigation. To protect the fruit trees from scorching effect, lower portion of the exposed trunks should be white washed.
- 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 –
- 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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Punjab										
Amritsar	0.8	-35	0.1	-99	0.0	-100	0.0	-100	9.7	-44
Bhatinda	0.0	-100	0.0	-100	5.6	-33	0.0	-100	36.9	165
Faridkot	5.2	1200	0.0	-100	0.0	-100	0.0	-100	13.5	-9
Fatehgarh Sahib	6.0	253	0.0	-100	8.2	-25	0.0	-100	31.0	34
Ferozpur	0.0	-100	0.0	-100	2.0	-62	0.0	-100	2.8	-80
Gurdaspur	4.8	179	2.4	-58	2.2	-80	0.0	-100	17.8	-31
Hoshiarpur	2.0	-64	1.0	-89	0.8	-95	0.0	-100	**	**
Jalandhar	0.7	-56	0.0	-100	0.3	-97	0.0	-100	34.9	45
Kapurthala	**	**	0.0	-100	1.0	-82	0.0	-100	30.0	58

Ludhiana	6.4	37	0.0	-100	9.0	-2	0.0	-100	47.7	137
Moga	3.2	39	0.0	-100	0.0	-100	0.0	-100	4.0	-63
Muktesar	1.0	-29	0.0	-100	2.3	-52	0.0	-100	13.5	31
Nawashahar	9.3	382	0.0	-100	9.3	-38	0.0	-100	39.6	23
Patiala	5.2	-100	0.0	-100	2.0	-78	0.0	-100	38.0	59
Ropar	12.3	136	4.2	-47	10.1	-6	0.0	-100	39.2	28
Sangrur	4.6	76	0.0	-100	0.8	-92	0.0	-100	12.6	-47

Haryana

- **Major Standing Crops:** Spring sugarcane (early vegetative/vegetative), vegetable crops (vegetative), cotton(early vegetative) and berseem (vegetative), *Kharif* rice(nursery seedling/transplanting)
- Farmers are advised to continue the transplanting of rice with the realized rainfall during last week.
- Farmers are advised to prepare the land and start sowing of guar and pearl millet as sufficient rain was received in most of the districts during last week.
- Undertake hoeing and weeding and apply the remaining dose of nitrogen fertilizer to the sugarcane on a non rainy day.
- 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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Haryana										
Ambala	21.0	200	0.0	-100	0.5	-96	0.0	-100	85.9	127
Bhiwani	13.2	408	0.0	-100	4.7	-17	0.0	-100	16.0	18
Chandigarh	17.0	81	1.2	-91	9.8	-58	0.0	-100	43.0	-7
Faridabad	1.0	-9	0.0	-100	5.5	-4	0.0	-100	4.6	-76
Fatehabad	0.0	-100	0.0	-100	0.0	-100	0.0	-100	8.3	-38
Gurgaon	0.0	-100	0.0	-100	5.0	-19	0.0	-100	18.1	-18
Hissar	22.3	758	0.0	-100	14.0	154	0.0	-100	9.4	-37
Jhajar	0.0	-100	**	**	**	**	**	**	20.0	2
Jind	9.5	150	0.0	-100	6.0	-8	0.0	-100	32.4	60
Katihah	**	**	**	**	**	**	**	**	15.0	-23
Karnal	0.0	-100	0.0	-100	0.0	-100	0.0	-100	32.9	48
Kurukshetra	0.0	-100	**	**	**	**	**	**	20.7	-11
Mahendragarh	14.0	192	0.0	-100	6.0	2	0.0	-100	67.8	223
Panchkula	3.5	-52	0.5	-94	0.0	-100	0.0	-100	8.5	-81
Panipat	**	**	0.0	-100	**	**	**	**	45.8	144
Rewari	**	**	**	**	**	**	**	**	26.6	30
Rohtak	3.1	-45	0.0	-100	14.0	79	0.0	-100	17.9	-20
Sirsa	3.6	125	0.0	-100	3.2	-34	0.0	-100	0.2	-97
Sonepat	0.0	-100	0.0	-100	0.0	-100	0.0	-100	40.0	120
Yamunanagar	0.0	-100	0.0	-100	1.5	-91	0.0	-100	14.3	-64

Delhi

- **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).
- Farmers whose nursery is around 25 days old are advised to undertake transplanting of rice seedlings in the main field. Farmers whose nursery is around 30 days old are advised to discard it and to start preparing a fresh nursery as monsoon is likely to be delayed. Transplanting of seedlings in present nurseries will result in poor tillering. Farmers, who have already transplanted rice, are advised to maintain 2-5 cm of water in the crop.

- Those farmers who have not yet sown pigeon pea are advised to complete sowing within this week in view of highly favourable weather conditions of low temperature, high humidity and high moisture in soil.
- Details of varieties are given in Annexure I.
- Undertake transplanting of cauliflower, tomato, brinjal and chilli due to favourable weather conditions prevailing during these days.
- Farmers are advised to irrigate their orchards.
- Irrigation is also advised in cotton, jowar, maize and all vegetable crops.
- In the prevailing weather conditions, farmers are advised to monitor the seedlings against attack of damping off. They are advised to drench with Captop @ 2 g / litre of water.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
New Delhi	18.7	335	0.1	-98	4.0	13.7	0.0	-100	14.0	-48

Uttar Pradesh

- **Major Standing crops:** Sugarcane (vegetative) and vegetables (vegetative/fruited), mango (fruit setting)
- Continue field preparation and nursery sowing of rice and vegetables with the realized rainfall during last week. Also undertake direct sowing of rice under rainfed condition.
- 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.
- Undertake weeding, intercultural operations and application of fertilizers in the standing crops like sugarcane, vegetables and mentha after current spells of rain.
- 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 after current spells of rain.
- Monitor the crops for the pests and undertake plant protection measures to control the pests.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
East Uttar Pradesh										
Allahabad	18.1	364	1.3	-81	1.4	89	0.0	-100	28.3	-42
Ambedkar Nagar	**	**	**	**	0.0	-100	0.0	-100	13.0	-70
Azamgarh	**	**	0.0	-100	0.0	-100	0.0	-100	18.0	-62
Bahraich	49.9	334	13.8	-26	0.0	-100	0.0	-100	84.2	38
Ballia	**	**	**	**	0.0	-100	0.0	-100	32.6	-36
Balrampur	**	**	8.0	-59	0.0	-100	0.0	-100	34.1	-37
Banda	**	**	**	**	0.0	-100	0.0	-100	16.0	-65
Barabanki	**	**	**	**	0.0	-100	0.0	-100	53.3	-8
Basti	**	**	**	**	0.0	-100	0.0	-100	36.6	-34
Deoria	**	**	**	**	0.0	-100	0.0	-100	24.5	-58
Faizabad	**	**	**	**	0.0	-100	0.0	-100	51.5	18
Farrukhabad	7.2	33	0.0	-100	0.0	-100	0.0	-100	4.3	-88
Fatehpur	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Gazipur	2.6	-59	4.6	-56	0.0	-100	0.0	-100	2.6	-96
Gonda	**	**	**	**	0.0	-100	0.0	-100	81.8	47
Gorakhpur	27.6	97	30.4	12	0.0	-100	0.0	-100	20.0	-67
Hardoi	1.0	-80	0.0	-100	0.0	-100	0.0	-100	28.0	-40
Jaunpur	**	**	**	**	0.0	-100	0.0	-100	5.5	-90
Kanpur City	25.6	540	0.0	-100	0.0	-100	0.0	-100	4.7	-87
Kanpur Dehat	**	**	**	**	0.0	-100	0.0	-100	25.9	-47
Kheri	**	**	**	**	0.0	-100	0.0	-100	120.8	137
Kushi nagar	**	**	**	**	0.0	-100	0.0	-100	42.1	-32
Lucknow	2.8	-62	10.5	9	0.0	-100	0.0	-100	23.9	-55

Maharajganj	**	**	0.0	-100	0.0	-100	0.0	-100	71.2	14
Mau	**	**	**	**	0.0	-100	0.0	-100	1.3	-97
Mirzapur	**	**	**	**	0.0	-100	0.0	-100	3.8	-92
Pratapgarh	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
RaiBareilly	**	**	**	**	0.0	-100	0.0	-100	1.8	-96
Sant Ravidas Nagar	**	**	**	**	0.0	-100	0.0	-100	66.0	43
Shrawasti	**	**	**	**	0.0	-100	0.0	-100	155.6	156
Sidharthnagar	**	**	**	**	0.0	-100	0.0	-100	63.6	16
Sitapur	**	**	**	**	0.0	-100	0.0	-100	59.9	17
Sonbhadra	4.0	-11	0.0	-100	0.0	-100	0.0	-100	12.9	-79
Sultanpur	17.0	162	5.0	-55	0.0	-100	0.0	-100	17.5	-59
Unnao	**	**	0.0	-100	0.0	-100	0.0	-100	0.0	-100
Varanasi	9.3	302	3.1	-70	0.0	-100	0.0	-100	13.7	-72

West Uttar Pradesh

Agra	11.6	190	0.0	-100	1.2	-84	0.0	-100	14.8	-58
Aligarh	**	**	**	**	0.0	-100	0.0	-100	22.4	-3
Auraiya	**	**	**	**	0.0	-100	0.0	-100	0.5	-98
Badaun	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Baghpat	**	**	**	**	0.0	-100	0.0	-100	54.2	158
Bareilly	4.8	-37	15.8	25	0.1	-99	0.0	-100	34.1	-17
Bijnor	6.0	-24	0.0	-100	0.0	-100	0.0	-100	39.1	-3
Bulandsahar	**	**	**	**	0.0	-100	0.0	-100	17.9	-36
Etah	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Etawah	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Firozabad	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Hamirpur	3.0	-25	0.0	-100	2.5	-67	0.0	-100	11.0	-71
Jalaun	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Jhansi	6.6	35	0.0	-100	0.4	-96	0.0	-100	8.6	-82
Jotirba Phule Nagar	**	**	**	**	1.3	-89	0.0	-100	0.0	-100
Lalitpur	**	**	**	**	0.0	-100	0.0	-100	43.0	-68
Mahamaya Nagar	**	**	**	**	0.0	-100	0.0	-100	6.2	-79
Mainpuri	**	**	**	**	0.0	-100	0.0	-100	0.0	-100
Mathura	20.0	567	0.0	-100	2.0	-82	0.0	-100	5.0	-74
Meerut	0.0	-100	0.0	-100	0.0	-100	0.0	-100	25.4	-7
Moradabad	0.0	-100	2.0	-84	0.0	-100	0.0	-100	12.5	-59
Muzzaffarnagar	3.0	-19	0.0	-100	0.0	-100	0.0	-100	35.4	30
Pilibhit	**	**	**	**	0.0	-100	0.0	-100	19.1	-62
Rampur	**	**	**	**	0.0	-100	0.0	-100	2.7	-94
Saharanpur	**	**	**	**	0.0	-100	0.0	-100	8.8	-77
Shahjahanpur	1.0	-89	9.4	-36	0.0	-100	0.0	-100	61.2	55

J & K

- **Major Standing Crops:** This is proper time for transplanting of rice and transplanting of solanaceous 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, start sowing of maize crop in rainfed areas.
- Undertake sowing of kharif crops like pulses, groundnut, bajra, til 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

- **Major Standing Crops:** Sugarcane (vegetative/grand growth), fodder maize, jowar, lobia and sudan grass (vegetative), *Kharif* rice(nursery seedling).
- Continue field preparation and 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. Details of crop varieties are mentioned in Annexure I.
- If the sowing of medium and long duration rice varieties have not been done for any reason, may be done immediately considering that late maturing wheat varieties can be sown after harvesting of rice.
- Transplanting of rice may be started with Rohin variety sown nursery with the support of irrigation. At the time of transplanting a basal dose of 40:40:20 NPK kg/ha may be applied.
- 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 rainfall during last two weeks.
- As rain/thundershowers are likely at many places over the State for the next five days, continue irrigation, weeding and intercultural operations after current spells of rain.
- Undertake intercultural operations, application of fertilizers and pesticides in summer vegetables like tomato, brinjal, cauliflower, cabbage and sugarcane after current spells of rain.
- Farmers are advised to prepare the nursery for flower cultivation utilizing the realized rainfall during last two weeks.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Bihar										
Araria	17.4	-57	8.4	-84	**	**	69.7	40	71.3	-17
Aurangabad	**	**	**	**	**	**	0.0	-100	20.6	-64
Bhagalpur	69.8	258	0.0	-100	**	**	2.5	-96	70.4	12
Bhojpur	**	**	**	**	**	**	0.0	-100	43.2	-14
Buxar	**	**	**	**	**	**	0.0	-100	12.8	-71
Darbhanga	**	**	**	**	**	**	0.9	-98	60.3	12
East Champaran	47.8	203	1.8	-94	**	**	10.0	-78	51.6	-12
Gaya	21.2	316	11.4	-9	**	**	0.0	-100	49.4	-17
Kathihar	**	**	**	**	**	**	0.5	-99	41.1	-43
Khagadia	**	**	**	**	**	**	10.0	-80	59.1	-14
Madhubani	**	**	**	**	**	**	39.1	-18	46.5	-24
Monghyar	**	**	**	**	**	**	10.0	-75	64.1	2
Muzaffarpur	36.7	132	21.8	-27	**	**	2.0	-95	63.5	11
Patna	11.2	-18	45.3	162	**	**	0.0	-100	45.0	-19
Purnea	94.6	120	14.2	-69	**	**	45.5	-24	143.9	103
Rohtas	23.2	495	0.0	-100	**	**	0.0	-100	35.4	-37

Saharsha	**	**	**	**	**	**	15.6	-72	128.5	171
Samstipur	**	**	**	**	**	**	0.0	-100	33.3	-40
Sitamarhi	**	**	**	**	**	**	9.0	-80	15.8	-82
Siwan	**	**	**	**	**	**	0.0	-100	5.6	-89
Vaishali	**	**	**	**	**	**	0.0	-100	80.3	37
West Champaran	**	**	**	**	**	**	0.0	-100	224.0	154

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 after current spells of rain.
- 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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Jharkhand										
Bokaro	**	**	9.7	-63	**	**	0.0	-100	72.0	-1
Dhanbad	**	**	9.7	-67	**	**	0.0	-100	56.7	-23
East Singbhum	0.9	-96	4.1	-90	**	**	0.0	-100	12.2	-84
Giridih	**	**	5.9	-77	**	**	0.0	-100	55.6	-23
Hazaribagh	**	**	11.9	-53	**	**	0.0	-100	64.3	-14
Palamau	9.8	8	0.8	-96	**	**	0.0	-100	65.4	3
Ranchi	30.3	166	5.9	-82	**	**	0.0	-100	48.7	-33
Santhal Parganas	**	**	1.1	-96	**	**	2.8	-95	45.9	-36

Orissa

- **Major Standing crops:** Sugarcane (early vegetative), vegetables (fruiting / harvesting), onion (vegetative), jute (early vegetative), rice(nursery seedling).
- Farmers are advised to prepare dry bed nursery in rainfed medium land and wet bed nursery in irrigated land and in rainfed low land. Choose variety not more than 120 days. Farmers are also advised to raise community nursery of rice for transplanting at a reliable water source to save time avoiding further delay.
- Low lands in the coastal areas might be too wet to go for direct seeding. Go for nursery raising for transplanting. However, in western Orissa direct seeding is possible at some places. In upland sow cotton and groundnut only where soaking rain has occurred during last week. However, ragi, arhar, maize, green gram, blackgram, etc. could be sown even with low rainfall.
- As rain/thundershowers are likely at many places over the State for the next five days, continue irrigation, weeding and intercultural operations after current spells of rain.
- 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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Orissa										
Angul	19.5	-5	21.3	-35	27.9	-35	0.8	-99	33.0	-45
Balasore	8.6	-71	17.0	-67	7.7	-85	3.1	-95	57.5	-15
Bargarh	0.4	-95	1.8	-86	0.0	-100	0.0	-100	45.3	-35
Bhadrak	17.3	-27	64.2	61	17.1	-65	10.8	-79	45.3	-20
Bolangir	6.3	-70	31.9	27	4.0	-91	2.3	-95	24.2	-65
Boudh	8.9	-22	34.3	48	3.0	-92	0.2	-99	64.1	-24
Cuttack	8.0	-66	29.8	-28	11.0	-76	1.4	-97	68.0	26
Deogarh	18.4	92	21.4	-29	8.4	-79	0.0	-100	37.5	-55
Dhenkanal	21	20	22.5	-35	21.9	-56	0.0	-100	26.8	-60
Gajapati	9.3	-51	20.3	-9	42.2	-9	24.0	-55	54.3	14
Ganjam	36.6	94	49.4	121	6.0	-87	18.2	-66	33.7	-29
Jagatsingpur	0.0	-100	21.9	-47	6.8	-85	9.5	-82	18.7	-66
Jajpur	51.4	112	27.8	-37	8.7	-81	0.0	-100	69.3	14
Jharsuguda	31.3	147	19.0	-42	0.8	-98	0.0	-100	32.3	-56
Kalahandi	4.4	-75	42.9	81	3.5	-93	3.7	-95	50.6	-47
Kandhamal	10.3	-52	56.5	125	4.2	-91	5.4	-89	69.2	-1
Kendrapara	12.3	-37	21.3	-49	14.0	-72	4.3	-93	27.5	-57
Keonjhar	34.3	61	31.9	-18	23.3	-48	0.3	-99	31.2	-42
Khurda	5.7	-72	36.9	31	32.0	-34	3.3	-94	67.9	39
Koraput	2.5	-90	30.8	20	23.0	-40	10.0	-81	37.4	-49
Malkangiri	17.4	-18	19.0	-19	4.2	-88	7.2	-87	26.4	-70
Mayurbhanj	25.3	-28	19.7	-63	17.8	-65	2.0	-97	63.5	-3
Nawapara	35.5	262	25.5	132	2.8	-94	0.0	-100	35.1	-64
Nawarangpur	5.0	-84	90.0	171	25.8	-51	18.0	-68	114.2	24
Nayagarh	30.9	89	24.7	8	20.6	-44	9.8	-80	86.2	53
Puri	0.3	-99	29.9	12	6.3	-83	4.4	-92	49.3	-2
Rayagada	15.6	-39	26.8	4	26.1	-32	28.7	-45	83.5	13
Sambalpur	25.6	166	20.6	-31	11.0	-73	0.1	-99	25.2	-70
Sonepur	0.7	-94	51.0	120	6.3	-84	4.5	-93	61.7	-27
Sundargarh	34.9	161	31.5	-19	6.0	-87	0.0	-100	77.4	-18

West Bengal

- **Major Standing Crops:** Sugarcane (vegetative), jute (vegetative) and *aus* rice (direct sowing / transplanting / early tillering), *aman* rice (nursery sowing), vegetables (sowing).
- As there was sufficient rain in most of the districts over the State, postpone irrigation to already sown *aus* and *aman* rice, jute etc. Arrange for drainage facilities as heavy to very heavy rainfall is likely to occur at a few places during next 48 hours.
- 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 bihga 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 Copperoxychloride 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.
- High humidity and temperature may lead to wilting of betel vine plants in coastal saline Zone. Bordeaux mixture as soil drench (1%) or spraying (0.5%) or Blitox-50 or Blue copper @ 4gm/litre of water may be used.
- In this hot and humid condition mite infestation is becoming a serious problem in Coastal saline Zone. Apply Diafenthiuron @ 1.5 ml per litre of water.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
West Bengal										
GWB										
Bankura	63.3	200	10.9	-74	6.9	-86	0.0	-100	26.0	-65
Birbhum	34.8	37	0.0	-99	16.2	-68	4.0	-94	47.4	-34
Burdwan	9.9	-51	0.0	-100	17.4	-62	0.0	-100	57.8	-36
Hooghly	34.4	4	0.0	-100	3.2	-94	3.1	-91	61.4	-23
Howrah	30.2	-8	0.0	-100	18.6	-58	10.3	-84	82.0	-6
Midnapore	34.5	-15	19.8	-57	0.5	-99	5.9	-91	41.5	-45
Murshidabad	33.0	22	0.0	-100	20.0	-63	0.2	-99	78.8	22
Nadia	7.2	-75	48.8	32	21.9	-58	6.2	-89	73.5	7
24 Pargana (N)	50.4	9	16.3	-71	0.5	-99	13.0	-80	39.1	-52
Purulia	24.7	51	3.9	-92	25.6	-45	0.0	-100	31.9	-55
24 Pargana (S)	35.0	-6	4.5	-92	10.7	-82	10.9	-83	74.1	-10
SHWB										
Coochbehar	49.5	-62	32.8	-75	206.1	22	11.2	-42	223.2	31
Darjeeling	31.4	-46	35.0	-58	92.8	-25	85.3	-37	152.6	-8
Jalpaiguri	62.0	-33	42.4	-61	127.4	-16	163.9	-6	346.0	88
Malda	20.6	-35	0.9	-97	6.7	-87	0.0	-100	43.7	-35
Dinajpur (N)	**	**	**	**	**	**	**	**	61.2	-11
Dinajpur (S)	3.5	-93	0.0	-100	0.0	-34	96.5	-67	0.0	-100

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.
- There was sufficient rainfall during last week. Farmers are advised to continue preparation of land and transplanting of paddy seedlings in the low hills and medium hills.
- Arrange for drainage facilities as heavy to very heavy rainfall is likely to occur at a few places during next 48 hours.
- 2nd round of weeding of maize crop in middle and low hills may be done after current spells of rain. Earthing up should be done thereafter so that plants do not fall during strong wind. Top dressing with FYM/compost may be continued after current spells of rain.

- Transplanting of orange seedling may 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.
- Top dressing of ginger with organic manures and mulching to be done after current spells of rain on monthly basis. Proper drainage to be maintained and weeding to be done after current spells of rain. As there are chances of scattered thundershowers in high hills, the seedlings of off-season vegetable crops may be protected from onslaught of hail stone showers.
- Off-season vegetable and other organic vegetable crops may be grown inside poly-houses to protect the crops from onslaught of hail stone showers and to maintain optimum temperature, soil moisture contents and plant nutrients for better yield.
- Replanting/gap filling operation in the large cardamom plantation, if not done, may be completed immediately.
- 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.

State/ Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Sikkim	45.7	-50	135.5	35	96.7	-100	56.5	-67	55.0	-57

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

Assam

- **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).
- As rain/thundershowers are likely at most places over the State with heavy to very heavy rainfall at a few places with isolated extremely heavy falls for the next two 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. Undertake land preparation and sowing of arhar and cotton utilising the realised rainfall during previous weeks.
- 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 collect the seeds of recommended varieties of *Sali* rice for better production. Prepare nursery beds of dimensions 10 m x 1.25 m x 0.10 m. Separation of two beds should be about 30 cm. Sow the seeds of early varieties of *sali* rice. 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.
- 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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Assam										
Barpeta	68.7	6	**	**	247.3	213	47.1	-54	150.9	103
Bongaigaon	42.2	-64	**	**	236.9	41	101	-37	76.0	-55
Cachar	63.5	-49	**	**	83.3	-50	77.6	-49	189.6	46
Darrang	32.2	-62	**	**	134.3	19	00.0	-100	41.7	-51
Dhubri	31.3	-77	**	**	283.9	97	124.3	-25	30.0	-75
Dibrugarh	36.2	-51	**	**	70.6	-28	58.3	-47	113.6	-2
East Garo Hills	15.6	-88	**	**	78.1	-44	4.4	-97	495.4	286
East Khasi Hills	72.2	-59	**	**	141.2	-53	120.3	-59	681.4	132
Goalpara	15.2	-87	**	**	202.0	49	31.2	-80	107.4	-12
Golghat	16.6	-63	**	**	36.2	-49	41.3	-17	16.1	-75
Hailakandi	6.7	-94	**	**	35.8	-61	2.1	-98	46.5	-51
Jaintia Hills	**	**	**	**	**	**	**	**	**	**
Jorhat	26.3	-60	**	**	31.0	-38	8.3	-90	74.9	-2
Kamrup	14.0	-82	**	**	111.4	20	12.3	-89	76.1	-9
Karbi Analog	12.6	-39	**	**	1.2	-98	232.2	-48	17.7	-60
Karimganj	98.5	-47	**	**	362.2	78	72.8	-53	96.9	-33
Kokrajhar	44.4	-62	**	**	143.2	-15	95.8	-40	161.0	-4
Lakhimpur	51.7	-61	**	**	93.3	-45	31.6	-80	133.4	-1
Morigaon	76.0	27	**	**	3.0	-96	11.6	-87	65.9	-15
Nalbari	5.8	-92	**	**	103.8	11	49.8	-54	120.3	45
Nowgong	5.2	-91	**	**	6.9	-91	14.7	-83	28.7	-63
Sibsagar	18.2	-77	**	**	80.9	-17	89.1	11	11.5	-86
Sonitpur	107.7	47	**	**	124.7	51	29.1	-66	90.8	8
Tinsukia	30.0	-49	**	**	21.5	-76	96.1	-5	95.9	11

Arunachal Pradesh

- **Major Standing crops:** Maize, millet (vegetative), ginger (vegetative), *jhum* rice (tillering/vegetative), WRC rice (tillering/vegetative).
- As rain/thundershowers are likely at most places over the State with heavy to very heavy rainfall at a few places with isolated extremely heavy falls for the next two days, postpone irrigation, weeding and intercultural operations. Also provide adequate drainage facilities to avoid waterlogging.
- Prophylactic measure for protection of seed ginger rhizome from fungal disease may be taken. Water logging in the field must also be avoided.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Arunachal Pradesh										
Changlang	12.0	-88	**	**	18.4	-88	1.0	-99	42.3	-80
Dibang Valley	**	**	**	**	**	**	**	**	**	**
East Kameng	31.0	-39	**	**	17.9	-84	5.6	-95	129.4	81
East Slang	39.3	-66	**	**	53.4	-72	18.2	-91	308.3	64
Lohit	11.3	-89	**	**	35.6	-66	68.3	-42	141.8	-3
Lower Subansiri	0.0	-100	**	**	43.6	-42	1.4	-98	20.6	-73
Papumpara	64.3	-2	**	**	133.6	77	112.6	45	184.2	138

Tawang	5.8	-89	**	**	13.4	-88	22.2	-78	34.1	-52
Tirap	38.6	-63	**	**	191.0	21	305.2	78	150.2	-30
Upper Siang	**	**	**	**	**	**	**	**	**	**
Upper Subansiri	46.8	-29	**	**	33.0	-56	121.2	56	65.6	-15
West Kameng	158.2	212	**	**	246.4	119	39.7	61	309.8	333
West Siang	67.1	-41	**	**	174.8	-7	9.5	-95	276.8	47

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

Andhra Pradesh

- **Major Standing Crops:** Sugarcane (cane development), vegetable crops (fruiting/harvesting) and chilli (fruit development/picking). This is proper time for sowing of kharif crops.
- Farmers in Warrangal are advised to undertake sowing of jowar, black gram and green gram and sowing of bajra and ragi in Khammam, Mehbubnagar, Medak, Nalgonda and Nizamabad districts.
- Farmers in Rayalaseema are advised to undertake field preparation and start sowing of rice, bajra, groundnut, sunflower and 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 15th 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

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Coastal Andhra Pradesh										
East Godavari	2.4	-80	5.2	-77	7.5	-72	1.1	-96	24.1	-49
Guntur	1.6	-81	12.8	-33	1.3	-36	2.6	-88	2.8	-90
Krishna	1.1	-88	2.0	-90	21.3	-15	0.4	-99	11.4	-72
Nellore	0.3	-93	2.9	-65	18.5	95	11.4	-7	8.5	-30
Prakasam	10.3	59	7.5	-35	20.6	26	10.6	-24	0.3	-98
Sirkakulam	0.0	-100	6.8	-66	16.6	-52	15.6	-59	63.9	49
Visakhapatnam	5.0	-48	12.5	-46	15.8	-41	8.4	-73	62.3	51
Vizianagram	4.4	-66	20.9	-14	17.8	-42	22.5	-36	84.1	82
West Godavari	4.7	-43	1.9	-90	2.5	-91	1.7	-94	18.6	-63
Telangana										
Adilabad	2.5	-51	8.9	-59	0.7	-98	8.2	-85	86.6	28
Hyderabad	5.2	18	28.5	68	23.5	6	4.1	-87	1.5	-96
Karimnagar	4.8	-30	11.5	-51	4.0	-87	19.2	-56	39.3	-29
Khammam	19.5	150	2.8	-87	5.3	-84	4.6	-89	8.3	-84
Mehabubnagar	15.2	120	18.6	4	20.2	-10	4.0	-82	0.4	-99
Medak	0.0	-100	21.3	-16	8.6	-70	18.4	-59	3.9	-91
Nalgonda	0.4	-94	25.2	33	22.8	-12	3.6	-86	0.6	-98
Nizamabad	5.1	-20	24.6	8	8.3	-74	6.8	-86	34.2	-40
Rangareddy	0.0	-100	41.7	148	19.3	-26	18.9	-38	7.2	-81

Warangal	0.4	-95	8.7	-58	14.2	-57	2.4	-94	26.8	-51
Royalaseema										
Anantapur	14.7	119	4.0	-73	26.8	10.5	4.6	-50	1.6	-83
Chittoor	5.8	-21	1.4	-89	27.2	13	19.7	71	15.3	39
Cuddapah	7.8	-5	0.0	-100	19.8	13.1	12.0	-11	25.6	103
Kurnool	19.0	138	8.2	-56	42.8	17.5	20.1	17	0.9	-95

Karnataka

- **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 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..
- 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.
- 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.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
bacterial blight in pomegranate and citrus canker in Bijapur and leaf spot in sapota in Dharwad; Undertake plant protection measures on a non rainy day.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Karnataka										
Coastal Karnataka										
Dakshin Kannada	51.5	-48	236.0	32	46.5	-79	79.5	-71	165.9	-40
Udupi	50.9	-47	293.8	36	70.7	-73	74.4	-76	224.5	-28
Uttar Kannada	21.0	-67	189.2	28	44.6	-78	125.4	-42	106.6	-58
North Interior Karnataka										
Bagalkote	0.0	-100	28.8	54	61.7	246	33.2	134	3.8	-75
Belgaum	5.0	-76	37.9	80	25.4	32	31.5	56	9.4	-73
Bidar	10.5	-32	34.8	17	16.7	-48	24.8	-41	1.5	-96
Bijapur	0.1	-99	23.1	-8	69.9	238	29.3	50	4.6	-75
Dharwad	18.9	-18	29.8	22	45.1	94	18.6	-15	17.0	-49
Gadag	9.6	-53	33.5	41	31.4	90	6.2	-55	10.3	-40
Gulbarga	0.7	-95	21.9	-6	16.7	-56	55.7	108	4.6	-85

Haveri	9.7	-45	20.7	-6	29.9	67	4.3	-80	3.9	-88
Koppal	1.0	-94	14.9	-17	28.9	71	41.1	221	1.2	-91
Raichur	0.0	-100	2.7	-84	29.7	33	27.8	35	6.0	-68
South Interior Karnataka										
Bangalore Rural	34.6	24	5.4	-71	49.6	242	2.9	-75	4.8	-45
Bangalore Urban	61.7	121	4.2	-77	61.4	245	0.3	-93	4.1	-40
Bellary	3.0	-83	12.5	-31	32.1	91	6.6	-54	0.3	-98
Chamarajnar	30.3	34	17.3	40	14.4	10	5.6	-45	1.5	-87
Chickmagalur	17.9	-29	68.6	42	18.8	-69	28.3	-64	39.3	-66
Chitradurga	31.7	98	2.4	-80	32.5	157	10.5	32	1.8	-82
Davangere	37.5	93	10.5	-34	28.2	94	12.5	-9	9.5	-52
Hassan	9.2	-60	10.4	-67	3.3	-92	11	-80	16.2	-81
Kodagu	8.3	-78	92.7	29	30.5	-64	45	-57	54.6	-66
Kolar	24.2	17	0.7	-95	50.8	271	17.3	86	4.2	-59
Mandya	13.1	-34	7.5	-43	26.1	169	6.7	-23	0.1	-99
Mysore	21.2	-3	13.9	-17	8.0	-38	1	-93	4.0	-79
Shimoga	18.7	-28	62.2	5	7.3	-89	28.7	-72	38.0	-76
Tumkur	15.4	-32	3.2	-82	73.8	416	8.5	-13	4.4	-54

Kerala

- **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 most 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 a few places during next 48 hours.
- 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.
- Weather conditions are favourable for
- the attack of bud rot, red palm weevil and rhinoceros beetle in coconut, mahali in arecanut, quick wilt and pollu beetle in pepper, Sigatoka leaf spot and rhizome weevil in banana, soft rot in ginger, rhizome rot in cardamom and leaf rust in coffee in Wyanad and aphids in cowpea in Kottayam district. Undertake plant protection measures after current spells of rain.
- leaf roller in rice, sigatoka leaf spot in banana, rhinoceros beetle, red palm weevil and bud rot in coconut in Thiruvananthapuram. Undertake plant protection measures after current spells of rain.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Kerala										
Alappuzha,	48.7	-57	184.6	16	113.4	-21	106.7	-26	212.1	47
Kannur	27.7	-76	277.5	48	17.4	-80	150.6	-30	281.1	8
Ernakulam	27.0	-81	213.4	27	93.9	-48	122.3	-30	251.4	25
Idukki	26.3	-75	196.5	27	60.1	-62	60.9	-64	225.2	-3
Kasaragod	35.1	-71	177.3	-18	55.9	-77	159.4	-40	205.7	-19
Kollam	3.3	-96	86.9	-33	19.4	-83	87.1	-18	120.6	5
Kottayam	32.7	-75	185.2	26	61.5	-59	111.2	-22	178.6	7
Kozhikode	9.3	-93	281.7	39	41.6	-80	64.5	-71	396.0	51
Malappuram	8.7	-91	126.6	-12	31.5	-78	75.9	-52	172.8	-12
Palakkad	30.0	-56	126.8	16	17.1	-84	64.0	-50	119.5	-29
Pathanamthitta	18.4	-80	164.3	19	36.1	-71	48.4	-27	134.2	4
Thiruvananthapuram	5.8	-93	59.3	-45	20.7	-76	73.2	3	58.9	-27

Thrissur	47.2	-59	238.0	45	45.3	-72	179.2	4	179.7	-13
Wyanad	0.0	-100	169.9	26	81.5	-42	39.3	-77	68.1	-75

Tamilnadu

- **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.
- Start planting of banana in Erode district
- Undertake intercultural operations in early transplanted brinjal crop in Namakkal district to keep the field clean.
- Undertake propping of sugarcane and provide support to banana crop in Thirunelveli, Thooththukkudi and Virudhunagar districts as high winds are expected during next five days.
- 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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Tamil Nadu										
Chennai	0.0	-100	4.4	-55	0.5	-96	5.2	-76	1.7	-87
Coimbatore	25.9	151	45.2	432	0.0	-100	13.7	-50	35.7	200
Cuddalore	1.4	-85	0.0	-100	15.5	125	1.5	-84	13.1	70
Dharmapuri	78.1	214	16.0	24	18.1	35	0.0	-100	0.0	-100
Dindigul	10.4	-32	1.4	-83	41.5	367	0.0	-100	13.7	219
Erode	5.7	-60	1.9	-72	6.3	25	0.2	-94	5.9	59
Kanchipuram	11.3	26	0.4	-96	0.0	-100	2.1	-89	7.6	-37
Kanyakumari	0.3	-99	59.7	45	12.1	6	50.4	79	8.1	-69
Karur	6.8	-16	0.0	-100	11.6	-50	0.6	-75	0.2	-95
Krishnagiri	55.7	133	6.4	-53	0.0	-100	2.6	-71	0.0	-100
Madurai	12.8	6	0.0	-100	18.8	88	0.0	-100	10.2	228
Nagapattinam	0.0	-100	0.0	-100	13.6	68	0.0	-100	7.3	25
Namakkal	41.2	159	2.9	-70	0.0	-100	0.4	-93	12.6	114
Nilgiris	24.1	-23	58.0	31	4.2	-63	30.1	-49	61.7	-27
Perambalur	31.0	115	0.0	-100	50.1	17	9.8	23	1.3	-83
Pondicherry	0.0	-100	0.0	-100	14.3	22	1.0	-89	4.4	52
Pudukottai	10.3	-21	0.0	-100	11.2	-13	2.3	-77	10.7	32
Ramanathapuram	0.1	-98	0.0	-100	0.4	-89	0.0	-100	0.7	-74
Salem	59.2	218	13.3	12	32.7	179	6.3	-40	1.8	-85
Sivaganga	8.2	-41	0.0	-100	4.2	-49	0.0	-100	6.7	61
Thanjavur	8.9	-16	0.0	-100	5.6	-34	0.0	-100	10.3	101
Theni	2.7	-77	27.5	555	3.1	-20	3.1	2	15.5	299
Tirunelveli	0.0	-100	14.4	156	0.0	-100	0.5	-89	1.1	-84
Tiruvallur	3.4	-71	10.8	-8	2.2	-84	20.6	15	3.0	-81
Tiruvannamalai	5.2	-72	0.0	-100	12.3	-12	0.0	-100	0.0	-100
Tiruvarur	0.8	-88	0.0	-100	3.2	-57	0.0	-100	11.8	90
Trichy	4.7	-66	0.0	-100	10.2	53	6.8	107	5.8	86
Tuticorin	0.2	-95	0.7	-67	0.3	-78	0.0	-100	0.0	-100
Vellore	22.5	5	0.1	-99	26.3	114	8.1	-39	4.1	-65

Villupuram	0.0	-100	6.5	-38	33.4	190	1.4	-90	7.2	-27
Virudhunagar	1.2	-89	0.5	8	0.0	-100	0.0	-100	0.0	-100

WEST INDIA [GOA, MAHARASHTRA, GUJARAT, RAJASTHAN]

Maharashtra

- **Major Standing Crops:** *Kharif* rice (sowing / germination in Nashik, Kolhapur and Nagpur divisions and nursery sowing / germination in South Konkan & Kolhapur division), soyabean (sowing / germination in Kolhapur division), cotton (sowing in Nashik, Kolhapur and Amravati divisions), *kharif* jowar (sowing in Sangli, Satara, Kolhapur, Jalgaon, Latur & Osmanabad districts) and bajra (western parts of Pune district).
- As there was rain in most of the districts of Konkan during last week and rainfall is likely to occur at many places over this region with heavy to very heavy rainfall at a few places during next two days, postpone irrigation, weeding, intercultural operations and top dressing of fertilizers to the standing crops. Provide adequate drainage facilities to avoid water logging. As rainfall is likely at many places in Madhya Maharashtra and Vidarbha, postpone irrigation, weeding, intercultural operations and top dressing of fertilizers. Continue irrigation, weeding, intercultural operations and top dressing of fertilizers in Marathwada.
- Land preparation may be completed and planting of fruit crops like mango, cashew, coconut, areca nut, etc. in Konkan may be started. Dig the pit for plantation of mango at the spacing of 10 x 10 m or 5 x 5 m and for cashew at 7 x 7 m.
- 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 carried out in Kolhapur & Vidarbha utilizing recent monsoon rain and also in Nashik division with irrigation facilities. 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 undertake sowing of *kharif* rice in nurseries for rice seedlings in North Konkan, Nagpur & Kolhapur division and also in Nasik division with irrigation facilities. Continue sowing of soybean in Kolhapur division & *kharif* cotton in Vidarbha with the help of recent rain and optimum soil moisture in the field. Start transplanting of rice in Konkan.
- Apply 1kg Nitrogenous dose(urea) per guntha to 10 -15 days rice seedlings in Konkan & Kolhapur divisions.
- Apply last dose of 100 kg N, 55 kg P₂O₅ & 55 kg K₂O / ha to sugarcane (*suru*) at the time of final earthing up followed by light irrigation.
- Apply first dose of N (750 gm Urea) and K (660 gm MoP) along with sufficient quantity (5Ghamela) 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 insignificant rains. Farmers are advised to select short duration crops and intercropping crop system may be adopted for sowing of *kharif* crops in 1st week of July after receiving rain. In North Madhya Maharashtra crops like bajra, rala, groundnut, castor, tur, horse gram may be selected for sowing & intercrops like bajra + tur (2:1), sunflower + tur(2:1), guar + tur(1:2) & castor + guar(1:2) may be sown. In Marathwada all planned normal *kharif* crops may be sown upto 2nd week of July.
- As monsoon has been recently advanced in Vidarbha & most of the districts received good amount of rainfall, farmers are advised to continue sowing of *kharif* crops (rice, cotton, jowar, groundnut, *tur*, soyabean, green gram, black gram etc.) in these regions with the help of recent rain. 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

- Under prevailing condition, there is chance of infestation of wilt and buck eye rot disease on tomato crop in Madhya Maharashtra. For control support may be given to tomato crop and if infestation occurs, spray Chlorothalonil @ 25 g + Sticker 10 ml per 10 litres of water after current spells of rain.
- Apply plant protection measures in Konkan and Madhya Maharashtra after current spells of rain and Marathwada on a non-rainy day.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Maharashtra										
Konkan & Goa										
Goa	7.4	-88	233.2	45	93.2	-59	100.1	-59	224.6	-21
Mumbai	0.0	-100	2.6	-95	0.0	-100	20.6	-88	220.8	11
Raigad	0.0	-100	24.7	-60	0.3	-99	53.1	-72	141.3	-50
Ratnagiri	0.7	-98	75.2	-28	1.5	-99	61.2	-72	187.4	-37
Sindhudurg	5.9	-89	188.0	37	29.9	-85	97.2	-60	377.9	54
Thane	0.0	-100	0.0	-100	0.0	-100	48.0	-66	83.8	-58
Madhya Maharashtra										
Ahmednagar	0.0	-100	22.1	-9	0.4	-99	52.2	114	1.8	-93
Dhule	0.0	-100	0.0	-100	0.0	-100	38	13	25.3	-46
Jalgaon	0.0	-100	0.0	-100	0.2	-99	25.4	-34	37.1	-26
Kolhapur	3.4	-82	25.1	-31	5.2	-90	19.4	-72	46.7	-63
Nandurbar	0.0	-100	0.1	-99	0.0	-100	20.5	-24	7.3	-87
Nasik	0.0	-100	2.5	-88	0.0	-100	31.2	15	8.8	-72
Pune	0.0	-100	30.5	3	0.0	-100	27.5	-30	2.5	-96
Sangli	0.0	-100	21.1	-8	11.0	-53	11.7	-53	0.7	-98
Satara	0.7	-95	32.4	13	0.5	-98	28.3	-27	13.4	-78
Solapur	0.0	-100	9.5	-66	7.8	-72	50.3	108	4.1	-80
Marathwada										
Aurangabad	0.0	-100	3.8	-84	0.0	-100	14.3	-62	16.2	-60
Beed	0.0	-100	10.5	-60	7.2	-79	43.8	17	23.1	-29
Jalna	0.0	-100	0.5	-98	0.0	-100	10.8	-74	22.4	-47
Latur	3.0	-76	3.7	-86	14.3	-51	21.8	-56	16.0	-64
Nanded	0.0	-100	7.5	-68	5.8	-83	11.6	-72	46.3	-14
Usmanabad	1.5	-91	9.0	-72	1.2	-97	37.5	-3	0.8	-98
Parbhani	12.2	13	0.2	-99	2.1	-94	26.5	-45	37.6	-33
Vidarbha										
Akola	0.0	-100	0.0	-100	0.0	-100	3.4	-92	84.1	62
Amraoti	4.0	-39	0.5	-97	0.0	-100	2.5	-94	62.2	13
Bhandara	19.8	305	17.0	0	0.9	-96	0.0	-100	41.9	-52
Buldhana	0.0	-100	0.5	-97	0.0	-100	28.4	-38	56.1	13
Chandrapur	1.2	-82	23.7	53	6.0	-81	0.5	-99	34.9	-62
Gadchiroli	1.4	-79	26.6	56	1.7	-95	6.0	-90	50.0	-50
Gondia	0.0	-100	5.3	-61	1.6	-95	4.6	-90	64.4	-40
Nagpur	7.3	-8	22.2	8	1.6	-95	4.2	-92	92.0	34
Wardha	0.0	-100	6.1	-66	2.3	-92	3.3	-94	81.1	31
Washim	0.0	-100	4.0	-82	0.0	-100	28.6	-47	42.9	-37
Yeotmal	0.0	-100	0.2	-99	2.9	-92	5.7	-90	86.4	27

Gujarat

- **Major Standing Crops:** Sugarcane (vegetative), vegetables (vegetative / flowering / fruiting / harvesting), *kharif* vegetables (sowing), *kharif* rice (nursery sowing), castor, pigeon pea, cotton, groundnut, bajra, sesamum, pulses etc. (sowing).

- As rain is likely to occur in many places of South Gujarat region during next five days due to arrival of monsoon, postpone irrigation, intercultural operation and application of fertilizer and plant protection measures to the standing crops. Perform the same in remaining parts of the State on a non-rainy day.
- Give life saving irrigation to already sown *kharif* crops and wait for fresh sowing of *kharif* crops like rice, maize, tur, groundnut till 15th July in Gujarat region. Sow 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.
- In view of onset of monsoon, 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.
- Farmers may sow the crops like bunch groundnut, bajra, sesamum, pulses etc. during *kharif* season due to delayed monsoon.
- 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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Gujarat Region										
Ahmedabad	0.0	-100	0.0	-100	0.1	-99	2.6	-87	1.9	-95
Anand	0.0	-100	0.0	-100	0.4	-98	0.2	-99	0.4	-99
Banaskantha	0.0	-100	0.0	-100	5.8	-38	1.4	-92	3.0	-91
Baroda	0.0	-100	0.0	-100	0.0	-100	12.6	-55	0.2	-99
Broach	0.0	-100	0.0	-100	0.0	-100	11.3	-73	2.3	-96
Dahod	0.0	-100	0.0	-100	7.4	-68	6.6	-73	4.1	-91
Dangs,	0.0	-100	0.0	-100	0.0	-100	32	-49	15.0	-86
DNH & Daman	0.0	-100	0.0	-100	0.0	-100	54.2	-51	77.2	-53
Gandhinagar	0.0	-100	0.0	-100	0.3	-98	0.8	-97	0.0	-100
Kheda	0.0	-100	0.0	-100	0.6	-97	1.8	-92	0.0	-100
Mehsana	0.0	-100	0.0	-100	1.2	-89	0	-100	0.1	-99
Narmada	0.0	-100	0.0	-100	0.0	-100	7.2	-80	3.1	-96
Navsari	0.0	-100	0.0	-100	0.2	-99	4.4	-95	35.2	-72
Panchmahal	0.0	-100	0.0	-100	6.0	-70	7.8	-69	0.7	-99
Patan	0.0	-100	0.0	-100	3.2	-66	0	-100	4.8	-86
Sabarkantha	0.0	-100	0.0	-100	5.0	-71	7.6	-65	0.5	-99
Surat	0.0	-100	0.0	-100	0.0	-100	4.4	-93	27.0	-72
Valsad	0.0	-100	0.0	-100	0.0	-100	48.3	-56	68.3	-55
Saurashtra, Kutch & Diu region										
Amreli	0.0	-100	0.0	-100	0.0	-100	34.8	-4	21.6	-42
Bhavnagar	0.0	-100	0.0	-100	0.0	-100	13.2	-55	13.0	-67
Diu	0.0	-100	0.0	-100	0.0	-100	16	-70	49.3	-27
Jamnagar	0.0	-100	0.0	-100	0.0	-100	27.7	-75	101.1	154
Junagarh	0.0	-100	0.0	-100	0.0	-100	86.5	23	118.3	41
Kutch	0.0	-100	0.0	-100	0.0	-100	3.5	-78	38.9	50
Porbandara	0.0	-100	0.0	-100	0.0	-100	84.4	8	188.8	172

Rajkot	0.0	-100	0.0	-100	0.0	-100	5.1	-83	22.3	-41
Surendranagar	0.0	-100	0.0	-100	0.0	-100	11.9	-36	20.2	-39

Rajasthan

- **Major Standing Crops:** vegetable crops (flowering / fruiting / harvesting). Sowing of crops like groundnut and transplanting of chilli is in progress.
- As there was no significant rain during last few weeks and no significant rainfall is expected during next five days over the State, apply light and frequent irrigation to the crops.
- Undertake intercultural operations to conserve moisture in bajra, jowar, sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger in Pali, Barmer, Churu, Jalore and Jodhpur.
- 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 peal millet, sorghum, maize & cluster bean etc. in Jaipur region utilizing monsoon showers.
- Details of varieties are given in Annexure I.

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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
East Rajasthan										
Ajmer	0.9	-87	0.0	-100	3.6	-36	0.0	-100	10.0	-58
Alwar	0.0	-100	0.0	-100	4.6	-63	0.0	-100	34.8	70
Banswara	0.0	-100	0.0	-100	7.7	-71	24.5	2	14.8	-72
Baran	0.0	-100	0.0	-100	4.0	-79	0.0	-100	23.0	-33
Bharatpur	0.0	-100	0.0	-100	1.2	13	0.0	-100	24.3	17
Bhilwara	0.0	-100	0.0	-100	14.8	32	0.5	-96	10.1	-66
Bundi	1.0	-80	0.0	-100	14.7	-36	0.0	-100	27.3	-13
Chittorgarh	0.2	-97	0.0	-100	9.3	-85	12.7	-32	27.1	-33
Dausa	0.0	-100	0.0	-100	0.0	-82	0.0	-100	37.6	39
Dholpur	1.0	-63	0.0	-100	1.0	-23	0.0	-100	29.3	21
Dungarpur	0.0	-100	0.0	-100	12.6	-93	14.8	-28	7.8	-80
Jaipur	2.6	-42	0.0	-100	0.3	-100	0.1	-99	34.7	28
Jhalawar	0.0	-100	0.0	-100	0.0	105	0.5	-98	38.1	-12
Jhunjhunu	1.0	-81	0.0	-100	20.1	-100	0.0	-100	27.1	49
Karauli	0.0	-100	0.0	-100	0.0	-63	0.0	-100	56.7	111
Kota	0.0	-100	0.0	-100	3.7	130	0.8	-96	30.8	-1
Rajsamand	0.0	-100	0.0	-100	21.4	-69	13.0	-24	24.7	-24
Sawai	5.4	17	0.0	-100	3.1	31	0.0	-100	30.4	-8
Sikar	3.0	-52	0.0	-100	11.1	178	0.0	-100	29.0	71
Sirohi	0.0	-100	0.0	-100	25.3	-98	13.6	-18	0.2	-99
Tonk	0.0	-100	0.0	-100	0.5	168	0.0	-100	14.4	-51
Udaipur	0.0	-100	0.0	-100	38.0	-7	32.0	-89	3.5	-91
West Rajasthan										
Barmer	0.0	-100	0.0	-100	4.1	49	3.1	-41	6.1	-53
Bikaner	21.9	508	0.0	-100	7.5	234	1.9	-67	0.0	-100
Churu	11.2	179	0.0	-100	22.0	-32	0.1	-99	3.6	-73
Hanumangarh	0.0	-100	0.0	-100	4.0	203	0.0	-100	1.9	-82
Jaisalmer	0.0	-100	0.0	-100	10.9	121	8.6	-100	3.0	-66

Jalore	0.0	-100	0.0	-100	11.5	51	0.0	-100	2.0	-91
Jodhpur	3.0	-49	0.0	-100	7.4	81	0.9	-87	5.8	-52
Nagaur	0.0	-100	0.0	-100	11.4	137	6.6	-18	8.5	-61
Pali	0.0	-100	0.0	-100	14.6	-76	1.4	-89	11.9	-38
Sri Ganganagar	1.8	-8	0.0	-100	1.5	-99	0.0	-99	0.0	-100

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Major Standing Crops:** Sugarcane (cane development), cotton (boll development/maturity) and vegetable crops (vegetative).
- 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.
- Undertake planting of sugarcane in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts.
- 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.
- **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.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
East Madhya Pradesh										
Balaghat	11.6	90	0.0	-100	4.9	-85	0.0	-100	39.3	-60
Chhatarpur	4.5	22	0.0	-100	0.0	-100	0.0	-100	49.1	-15
Chhindwara	0.0	-100	0.0	-100	8.6	-73	0.0	-100	51.3	-31
Damoh	4.5	-34	0.0	-100	0.0	-100	0.0	-100	19.0	-72
Dindori	0.0	-100	0.0	-100	0.0	-100	0.0	-100	0.0	-100
Jabalpur	0.6	-92	0.6	-96	13.8	-23	0.0	-100	39.0	-37
Katni	0.0	-100	0.0	-100	0.0	-100	0.0	-100	19.0	-72
Mandla	0.0	-100	0.0	-100	0.0	-100	0.0	-100	0.7	-99
Narsingpur	9.0	34	4.7	-59	0.0	-100	0.0	-100	13.5	-79
Panna	0.0	-100	0.0	-100	0.0	-100	0.0	-100	0.0	-100
Rewa	2.6	53	0.0	-100	0.0	-100	0.0	-100	12.0	-83
Sagar	6.2	-27	0.0	-100	6.4	-55	3.3	-91	37.8	-43
Satna	8.1	114	1.6	-82	6.7	-95	0.0	-100	20.7	-72
Seoni	0.0	-100	0.0	-100	1.2	-91	3.8	-92	44.5	-49
Shahdol	0.0	-100	0.0	-100	1.0	-95	0.0	-100	0.0	-100
Sidhi	0.0	-100	34.6	40	0.0	-100	0.0	-100	37.4	-43
Tikamgarh	4.0	-30	0.0	-100	0.0	-100	0.0	-100	23.5	-61
Umariya	0.5	-92	0.0	-100	0.0	-100	0.0	-100	91.9	31
West Madhya Pradesh										
Badwani	0.0	-100	0.0	-100	0.0	-100	0.0	-100	1.4	-97

Betul	0.0	-100	0.0	-100	0.0	-100	1.4	-97	50.2	-21
Bhind	0.0	-100	0.0	-100	0.0	-100	0.0	-100	0.5	-98
Bhopal	22.0	144	0.0	-100	32.9	-96	8.4	-77	48.6	-20
Datia	0.4	-76	0.3	-94	1.2	-84	0.0	-100	28.7	-21
Dewas	0.0	-100	0.0	-100	0.0	-100	0.0	-100	77.9	28
Dhar	0.0	-100	0.0	-100	0.0	-100	4.2	-87	21.2	-55
Guna	1.5	-74	0.0	-100	3.4	-76	0.0	-100	23.5	-57
Gwalior	0.7	-77	0.0	-100	0.1	-99	0.0	-100	10.7	-72
Harda	0.0	-100	0.0	-100	0.0	-100	0.0	-100	96.7	46
Hosangabad	6.7	-29	2.0	-86	16.9	-31	0.0	-100	45.7	-40
Indore	0.0	-100	0.0	-100	0.0	-100	8.58	-71	85.4	67
Jhabua	0.0	-100	0.0	-100	0.0	-100	0.0	-100	7.1	-84
Khandwa	0.0	-100	0.0	-100	0.0	-100	9.0	-79	41.4	-32
Khargone	0.0	-100	0.0	-100	0.0	-100	6.8	-79	52.3	7
Mandsaur	0.0	-100	0.0	-100	0.0	-100	0.0	-100	0.0	-100
Morena	0.0	-100	0.0	-100	0.0	-100	0.0	-100	32.5	-2
Neemuch	0.0	-100	0.0	-100	0.0	-100	0.0	-100	4.4	-90
Raisen	0.6	-89	0.0	-100	6.1	-65	0.8	-98	8.1	-88
Rajgarh	0.0	-100	0.0	-100	0.0	-100	1.2	-96	7.2	-85
Ratlam	0.0	-100	0.0	-100	0.0	-100	3.7	-86	23.5	-57
Sehore	1.5	-80	0.0	-100	0.0	-100	0.0	-100	55.4	-11
Shajapur	0.0	-100	0.0	-100	0.0	-100	1.7	-94	5.4	-89
Sheopur Kalani	5.0	-4	0.0	-100	1.0	-92	0.0	-100	18.9	-49
Shivpuri	1.5	-71	0.0	-100	0.0	-100	0.0	-100	47.0	13
Ujjain	0.0	-100	0.0	-100	0.1	-99	0.6	-98	59.1	28
Vidisha	0.6	-85	0.0	-100	2.0	-89	0.0	-100	49.8	-18

Chattisgarh

- **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.
- In view of delayed onset of monsoon and distribution of rainfall in the month of October over the years, there may be moisture stress for medium and long duration rice varieties at the time of maturity. Therefore, farmers are advised to undertake sowing of relatively early maturing varieties of rice (upto 125 days) in place of medium and late duration varieties under rainfed conditions to avoid drought conditions at the time of maturity. Details of crop varieties are mentioned in Annexure I.
- Undertake transplanting of vegetable crops like brinjal, chilli and tomato.
- Farmers in Jagdapur and Dantewada are advised to undertake sowing of maize and ragi and planting of Dioscoria and Colocasia and sowing of rice in the nursery.
- Intercultural operation and earthing up and also application of Nitrogen and irrigation in pre-monsoon maize are also advised before start of monsoon.

State/Districts	Actual	4.6.09	Actual	11.6.09	Actual	17.6.09	Actual	24.6.09	Actual	2.7.09
Chattisgarh										
Bastar	19.6	60	1.2	-96	2.5	-60	0.8	-99	46.9	-47
Bilaspur	25.4	248	2.0	-89	0.0	-92	0.0	-100	31.5	-63
Dantewara	0.0	-100	0.0	-100	38.2	-100	0.0	-100	14.5	-82
Dhamtari	0.0	-100	0.0	-100	0.0	12	0.4	-99	34.7	-56
Durg	0.0	-100	0.0	-100	0.0	-100	0.0	-100	29.3	-64
Janjgir	5.0	-18	0.0	-100	0.0	-100	0.0	-100	1.7	-98
Jashpurnagar	0.0	-100	0.0	-100	0.0	-100	0.0	-100	23.1	-75
Kanker	0.0	-100	0.0	-100	0.0	-100	0.0	-100	6.3	-93
Korba	0.0	-100	0.0	-100	0.0	-100	0.0	-100	5.1	-95
Koriya	0.0	-100	0.0	-100	0.0	-100	0.0	-100	57.6	-27
Kowardna	0.0	-100	0.0	-100	0.3	-90	0.0	-100	63.0	-3

Mahasumund	0.0	-100	0.0	-100	0.0	-100	0.0	-100	33.3	-52
Raigarh	0.0	-100	0.0	-100	0.0	-100	0.0	-100	39.7	-51
Raipur	0.1	-98	6.0	-71	3.6	-89	0.7	-99	31.7	-61
Rajandgaon	0.0	-100	0.0	-100	0.0	-100	1.6	-97	41.4	-46
Surguja	2.0	-74	1.4	-94	1.6	-95	0.0	-100	83.8	9

Annexure I Crop varieties

Himachal Pradesh

- **Ageti bhindi:** P-8, Prabhini kranti, Arka anamika.
- **French bean:** Kentucky Wonder.
- **Brinjal:** Arka Nidhi, PPC.
- **Capcicum:** 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
- **Ragi:** VL- Mandua-124 and VL-149, VL- Mandua-204, Pant Mandua-3, PES-176, PES-110, VL- Mandua-146
- **Maize:** Ganga-2, Gannga-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.

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, Pusa 1121, Sper Basmati
- **Bhindi :** 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

- **Red gram:** Pusa 991, Pusa 992, Pusa 2001, Manak, Paras..

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 etc.
- **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. cross.
- **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.

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

- **Groundnut:** TG-37 A, TBG-39, HNG-10, PG-1, GG-20 and Chandra.
- **Narma Cotton:** RS 2013, RS 810, RS 875 and MRT 9.
- **Pearl millet:** Composite: RCB-2, WCC-75, Raj-171, ICTP- 8203, Hybrid: RHB-90, RHB-121, ICMH-356, HHB-60, HHB-67
- **Sorghum:** CSH-6 (90-100 days), CSV-10 (100-110 days), CSV-15 (104-140 days)
- **Maize:** Bassi selected (80-85 days), Mahi Kanchan (75-80 days) & Ageti-76 (85-95 days)
- **Green gram:** RMG-62, RMG-268. RMG-492 & RMG-344
- **Cowpea:** FS-68, RC-19 and RC-101
- **Clusterbean:** RGC 936, 986, 1002, 1003, 1017, M 83 and HG 365
- **Sesamum:** Pratap, TC 25, RT 46, 54, 103, 125 and T 13

Madhya Pradesh

- **Sugarcane:** Co Jawahar-86141, Co Jawahar-86572, Co Jawahar-86600, Co 86032.
- **Paddy:**
 - Very early:** Kalinga-3, Vandana
 - Early:** JR-201, Poornima, JRH-5, JRH-8 (Hybrid)
 - Medium:** IR-36, IR-64, Pusa sugandha-5, MTU-1001, Pusa basmati-1, Mahamaya, Kranti
 - Late:** Syamla, Swarna
- **Soyabean:** JS 97-52, Ahilya-

Chattisgarh

- **Kharif rice**

- **Bhata soil:** Kalinga-3, Aditya, Vanprabha.
- **Matasi soil:** Poornima, Annanda, Tulsi, Danteshwari.
- **Dorsa & Kanhar soil:** MTU 1010, IR 36, IR 64, Mahamaya and Karma Masuri etc.