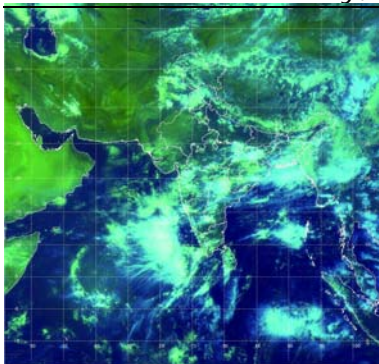




National Agromet Advisory Bulletin

Thursday, 20th August, 2009 (For the period 20th August to 24th August, 2009)



Satellite image 9 UTC Dated
21st August

Chief Synoptic Feature (Based on 1430 hours IST observations of 20th August 2009)

- The upper air cyclonic circulation over northwest Uttar Pradesh and adjoining Uttarakhand has become less marked.
- An upper air cyclonic circulation lies over Sub-Himalayan West Bengal & Sikkim and adjoining Bihar and extends upto 1.5 Km above mean sea level. Under its influence, fairly widespread rainfall activity with isolated heavy to very heavy falls is likely over Jharkhand and west Bengal & Sikkim during next 48 hours.
- The upper air cyclonic circulation over Kerala & neighbourhood now lies over Lakshadweep area and neighbourhood and extends upto mid-tropospheric levels. Under its influence, fairly widespread rainfall activity with isolated heavy to very heavy falls is likely over south Konkan & Goa, Kerala, Lakshadweep and Coastal Karnataka during next 2-3 days.
- Under the influence of an upper air cyclonic circulation over Marathwada and neighbourhood between 4.5 and 6.0 Km above mean sea level, fairly widespread rainfall activity is likely over north Maharashtra and Telengana during next 48 hours.
- Fairly widespread to widespread rainfall activity with isolated heavy to very heavy falls is also likely over northeastern states during next 2-3 days.

Salient Agromet Advisories for Farmers

In general most of the States in northeast, east and northern parts particularly Uttar Pradesh, Delhi and Uttarakhand received good amount rainfall during last week. This rainfall was beneficial for the standing crops as well as sowing/transplanting of *kharif* crops as well as crops which are at early vegetative stage in these regions. Besides there is improvement in the rainfall condition in southern part of the country particularly in Interior Karnataka as well as Rayalaseema sub-division. Because of overall improvement of rainfall condition standing crops are in good condition over the major parts of the country.

Andhra Pradesh: As the rainfall is not adequate in some districts of the State, different districtwise cropping strategies including sowing of short duration *kharif* crops is advised in many parts of the State. Farmers in Telangana and Rayalaseema are advised to take short duration alternate crop in those areas having sufficient soil moisture. In Rayalaseema farmers are advised to sow of rainfed groundnut and also sow contingent crops like greengram, pearl millet, horsegram, cowpea and sorghum.

Assam: Complete transplanting of *sali* rice. Postpone irrigation to the crops as rainfall at many places is likely along with isolated heavy to very heavy rainfall. Provide adequate drainage facilities to avoid waterlogging

Arunachal Pradesh: Postpone irrigation, weeding and intercultural operations. Maintain 3-5 cm standing water in rice field. Water logging in the field must also be avoided. Earthing up may be done after current spells of rain.

Chhattisgarh: Postpone irrigation, weeding and intercultural operations. Maintain 3-5 cm standing water in rice field. Water logging in the field must also be avoided. Earthing up may be done after current spells of rain.

Karnataka: Undertake sowing of short duration alternate *kharif* crops in Interior Karnataka utilizing the realized rainfall during last week.

Madhya Pradesh: Complete the transplanting of rice at earliest by reducing row distance and 2-3 seedlings per hill. Transplant the 14 days old seedlings in main field of rice for SRI system. Transplant the rice seedlings by lehi system if farmers couldn't follow SRI system.

Bihar: Farmers are advised to continue sowing of contingent crops like tur pigeon pea in upland areas in place of rice. Utilising the realized rainfall, farmers are advised to do paddy transplanting only in medium and low land situations with increased seedlings.

Jharkhand: Continue sowing of maize in upland, middle land. Undertake intercultural and weeding operations particularly in maize, arhar and groundnut.

Gujarat: Continue sowing of castor, tur. Undertake intercultural and weeding operations.

Maharashtra: Transplanting of rice is advised in Vidarbha. In Marathwada, west Vidarbha and Madhya Maharashtra,

East Uttar Pradesh: Direct seeding of rice is advised with improved varieties. Select short duration varieties of alternate crops like urd and pigeon pea and adopt closer spacing to compensate the yield loss.

West Uttar Pradesh: Sowing/transplanting of rice, urd, moong, groundnut and vegetables is advised.

Rajasthan: Sowing of Early maturing varieties of moth bean, cowpea and cluster bean is advised.

Punjab: Irrigation to rice crop may be applied two days after the pounded water has infiltrated into the soil.

Haryana: Complete sowing of short duration varieties of pearl millet, moong, urad, toria. Farmers are advised to conserve moisture.

New Delhi: Present weather is conducive for sowing of sweet corn and baby corn. Undertake transplanting of rice with realized rainfall.

Himachal Pradesh: Continue transplanting of vegetables and planting of horticulture crops.

Jammu & Kashmir: Continue transplanting of Basmati rice utilizing the realized and expected rainfall during next 5 days.

Nagaland Manipur Mizoram Tripura: Continue transplanting of rice. Oilseed crops like sesame, groundnut can be sown upto August end with early maturing varieties.

Sikkim: Water level of 3-4 cm should be maintained in rice field.

Tamil Nadu: Continue sowing of crops like cotton, groundnut and transplanting of rice seedlings.

Uttarakhand: Undertake sowing of urd with realized rainfall.

West Bengal: Complete transplanting of rice. Retting of jute may be continued

Orissa: Complete sowing of green gram and black gram.

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

Sub-division	Cumulative Rainfall for the period									
	22 nd July		29 th July		5 th August		12 th August		19 th August	
	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.	Normal (mm)	% Dep.
A & N Islands	97.8	-17	95.1	10	87.7	29	107	-65	95.0	-92
Arunachal Pradesh	142.1	-69	141.8	-7	99.2	-1	76	-8	95.3	85
Assam and Meghalaya	121.2	-63	125.3	-10	107.3	0	91	-32	95.1	123
NMMT	75.1	-32	76.7	29	71.3	10	71	27	75.2	-32
SH West Bengal & Sikkim	128.4	-62	137.6	4	121.6	-16	108	-16	98.6	126
Gangetic West Bengal	69.4	-9	68.9	-9	79.6	19	68	12	70.0	-4
Orissa	79.7	170	75.0	-49	91.4	-77	84	-44	89.0	-33
Jharkhand	78.8	-28	77.4	-34	81.3	-64	77	-63	72.2	34
Bihar	78.9	-71	76.8	34	73.1	-1	65	-18	62.0	92
East Uttar Pradesh	81.0	-63	66.4	10	69.0	-78	74	-67	72.3	58
West Uttar Pradesh	61.7	-51	67.2	-68	63.2	-84	73	-86	73.7	89
Uttarakhand	97.0	14	103.8	-1	107.6	-78	105	-38	106.3	17
Haryana, Chandigarh & Delhi	41.3	-85	40.3	-34	39.7	-80	42	-92	42.7	-44
Punjab	44.4	-30	45.3	40	46.7	-14	46	-74	41.7	-49
Himachal Pradesh	72.0	-38	76.6	-22	70.4	-81	69	-40	62.7	-36
J & K	47.7	-16	51.9	-15	53.4	-57	48	-37	36.4	-26
West Rajasthan	26.4	-14	24.4	18	19.4	-99	23	-99	22.5	-70
East Rajasthan	58.5	42	55.4	-20	52.3	-99	55	-85	56.6	8
West M. P.	68.4	82	77.1	-1	77.7	-99	75	-72	73.5	-31
East M. P.	83.3	61	84.1	-70	93.4	-99	95	-62	94.2	-24
Gujarat region	74.7	91	82.9	49	77.9	-98	74	-94	66.5	-93
Saurashtra & Kutch	46.3	239	41.6	289	34.2	-99	40	-97	31.2	-91
Konkan and Goa	235.8	21	232.9	-9	218.7	-85	183	-85	169.2	-70
Madhya Maharashtra	54.2	53	49.3	32	52.3	-90	44	-81	41.2	-61
Marathwada	44.9	-26	54.6	-83	47.8	-99	40	-88	43.8	-75
Vidarbha	70.3	22	74.8	-53	78.2	-99	72	-69	66.6	-72
Chhattisgarh	88.7	37	92.8	-53	96.9	-95	94	-35	92.9	-51
Coastal A. P.	36.2	-33	41.3	-93	33.5	-67	34	-59	34.8	41
Telangana	58.4	-49	64.9	-92	57.0	-99	49	-79	53.6	-54
Rayalseema	22.4	-87	25.9	-94	21.1	-67	22	-81	19.8	161
TamilNadu & Pondicherry	16.3	9	19.1	-86	14.6	68	18	-76	18.6	218
Coastal Karnataka	289.0	26	257.4	-39	230.2	-27	205	-66	189.6	-65
N. I. Karnataka	30.4	7	32.7	-82	29.3	-80	24	-77	26.4	37
S. I. Karnataka	50.2	127	48.1	-45	45.6	-3	40	-58	40.2	67
Kerala	165.3	93	157.5	-62	117.7	-22	115	-62	111.7	-58
Lakshadweep	65.5	-34	69.4	-92	45.3	-74	53	-73	49.8	-12

The subdivisions like Haryana, Chandigarh & Delhi, Himachal Pradesh, Marathwada and Telangana received scanty / deficient rain in all the 5 weeks; Orissa, Jharkhand, West Uttar Pradesh, East Madhya Pradesh, Vidarbha, Chattisgarh, Coastal Andhra Pradesh, Rayalaseema, Coastal Karnataka, Kerala and Lakshdweep received scanty / deficient rain in 4 out of last 5 weeks; East Uttar Pradesh, Punjab, Jammu & Kashmir, Rajasthan, West Madhya Pradesh, Gujarat, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and North Interior Karnataka received scanty / deficient rain in 3 out of last 5 weeks. Remaining States received normal / excess rain in 2 or more weeks during last 5 weeks.

<table border="0"> <tr><td style="width: 20px; height: 15px; background-color: #00b0f0; border: 1px solid black;"></td><td>(20% or more) excess rainfall</td></tr> <tr><td style="width: 20px; height: 15px; background-color: #008000; border: 1px solid black;"></td><td>(-19 to +19%) normal rainfall</td></tr> <tr><td style="width: 20px; height: 15px; background-color: #ff00ff; border: 1px solid black;"></td><td>(-20 to -59%) deficient rainfall</td></tr> </table>		(20% or more) excess rainfall		(-19 to +19%) normal rainfall		(-20 to -59%) deficient rainfall	<table border="0"> <tr><td style="width: 20px; height: 15px; background-color: #ffff00; border: 1px solid black;"></td><td>(-60 to -99 %) scanty rainfall</td></tr> <tr><td style="width: 20px; height: 15px; background-color: #cccccc; border: 1px solid black;"></td><td>(-100%) no rainfall</td></tr> <tr><td style="width: 20px; height: 15px; border: 1px solid black; text-align: center;">**</td><td>Data not available</td></tr> </table>		(-60 to -99 %) scanty rainfall		(-100%) no rainfall	**	Data not available
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	(-100%) no rainfall												
**	Data not available												

Zonewise Agromet Advisories

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

Himachal Pradesh

- **Major Kharif Crops:** Rice, Vegetables
- **Crop Stage:** Sowing, transplanting
- **Crop Condition:** Good.
- **Realised Rainfall:** In general, there was well distributed rainfall over the state and six districts namely Bilaspur, Hamirpur, Kullu, Mandi, Shimla and Una received normal to excess rainfall
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Chamba	-34	-80	-100	-87	-89
Kinnaur	-77	-60	-98	-92	-61
Lahaul and Spiti	-72	-68	-97	-97	-27
Sirmaur	-64	-27	-92	-77	-70
3 weeks continuously deficient to no rain					
Kangra	10	5	-73	-23	-58
Solan	-63	48	-79	-67	-54
Distribution of rainfall for remaining districts of the state for last five weeks					
Bilaspur	-11	167	-37	2	5
Hamirpur	25	62	-57	43	-13
Kullu	-39	-57	-66	15	98
Mandi	-69	-44	-73	18	-18
Shimla	-85	-35	-90	-32	-16
Una	103	187	-42	25	22

- **Rainfall Forecast:** Rain/thundershowers at an isolated places.
- **Advisory:**
 - Transplanting of rice may be completed to avoid reduction in yields. Transplanting solanaceous vegetable crops may be taken up with realized rainfall.
- **Major Seasonal Crop:** Fruit crops, Flower crops and Vegetables
 - Undertake weeding, intercultural operations and top dressing of fertilizers.
 - Farmers are also advised to arrange the staking in vegetable crops to avoid the damage.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - fruit rot in tomato, chilli and Shimla mirchi, spray Dithane M-45 @ 2-3 g per litre of water at 10-15 days interval.
 - red pumpkin beetle and fruit fly in curcubits, spray Malathion 1ml/litres +50 gram gur or sugar. For control of red pumpkin beetle spray cypermethrin @ 30ml per 30 litres water in one kanal.
 - white fly in cucurbits, tomato and French bean, for control spray acephate @ 0.05% (7 g/ litres of water) and direct the spray on lower leaves.
 - Undertake spraying after current spells of rain.

Uttarakhand

- **Realised Rainfall:** In general, there was well-distributed rainfall over the state and seven districts of Uttarakhand received normal/excess rainfall.
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Garhwal Tehri	-37	-62	-90	-75	-79
Rudraprayag	-46	-47	-91	-86	-60
3weeks continuously deficient to no rain					
Chamoli	23	14	-91	-66	-53
Distribution of rainfall for remaining districts of the state for last five weeks					
Almora	9	-66	-91	-37	-16

Champawat	70	-15	-90	26	224
Dehradun	-26	27	-63	31	-59
Garhwal Pauri	-12	44	-59	-15	-95
Haridwar	124	101	-68	-51	78
Nainital	-73	-22	-97	-7	169
Pithorgarh	2	-17	-57	-12	118
Udham Sing Nagar	-84	-45	-88	-86	74
Uttarkashi	176	29	-83	-88	-8

- **Rainfall Forecast:** Rain/thundershowers at a few places
 - **Major Kharif Crops:** Rice, Soyabean, Groundnut, Tur, mung, sesame.
 - **Crop Stage:** Transplanting
 - **Crop Condition:** Good
 - **Advisory:**
 - There was heavy rainfall during last few days hence farmers are advised not to go for irrigation in rice crop of any growth stage during thisweek. If the crop has attained age of 65-70 days, then topdress Urea @ 25 kg/acre after removing excess water from the field. Under these weather conditions, BLB is expected to occur in some varieties of Rice like PD-4 & Pusa Basmati-1. On seeing the symptoms of light yellow to white spots on leaves as more than 10 %, then farmers are advised to spray 200 g Blightox-50 & 6g streptocycline dissolved in 200 litres of water per acre. Remove excess water & stop top dressing.
 - Remove weeds from the crop. If crop has attained a height of 4 feet then start tying the plants for better growth of crop. Remove excess water
 - This week temperature conditions will be highly favourable for growth of Soybean crop. Remove weeds and maintain proper plant distance. Maintain proper drainage in all standing crops like Maize, Groundnut, Soybean, Pigeon pea etc. For control of Yellow Mosaic disease in timely sown Moong & Urd crop, spray 400 ml of Metsystox-25 dissolved in 400 litres of water per acre crop.
 - Maintain proper drainage in all vegetable crops for avoiding root routing due to excess water.
 - **Major Seasonal Crop with stage:** Sugarcane ratoon (early vegetative), cabbage, garlic, tomato (vegetative), maize, French bean (early vegetative),
 - **Crop Condition:** Good
 - **Advisory:** Apply weeding and intercultural operation after current spells of rain.
 - Undertake planting of mango, litchi, guava, citrus, loquat and amla and sowing of annual flower crops.
 - Farmers are advised to postpone irrigation to the standing crops as there was good rainfall in most of the districts during last week. Provide adequate drainage facilities to avoid water logging due to heavy rainfall.
 - **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - khaira disease in rice in valleys, if appears in the crop under irrigation, farmers are advised to spray the solution of 5 kg zink sulphate and 20 kg urea in 1000 litre of water/ per hectare for control of the said disease.
 - Undertake spraying of pesticides after current spells of rain
- Animal:** Give balanced feed to milking animals and clean properly their place of sitting in this rainy season.

Punjab

- **Realised Rainfall:** In general, there was well distributed rainfall over the state and five districts of Punjab received good rainfall
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Amritsar	-68	-52	-92	-100	-52
Bhatinda	-84	-22	-21	-100	-92
Fatehgarh Saheb	-88	-76	-68	-100	-81
Ferozpur	-100	-72	-75	-100	-80

Muktesar	-100	-84	-26	-100	-81
Sangrur	-4	49	-55	-97	-97
3 weeks continuously deficient to no rain					
Hoshiarpur	-16	190	-51	-28	-62
Sangrur	-4	49	-55	-97	-97
2 weeks continuously deficient to no rain					
Faridkot	-100	-100	147	-100	-100
Ludhiana	-26	136	91	-95	-46
Moga	-100	-17	-6	-95	-62
Distribution of rainfall for remaining districts of the state for last five weeks					
Gurdaspur	60	-13	11	-62	-14
Jalandhar	-80	245	113	-72	27
Kapurthala	127	226	-21	130	-65
Nawashahar	-20	54	100	-68	-9
Patiala	-53	34	-6	-100	-13
Ropar	91	63	-36	-6	-20

- **Rainfall Forecast:** Rain/thundershowers at an isolated.
- **Major Kharif Crops:** Rice, maize, guar, til, urd, bajra, cowpea, cotton,
- **Crop Stage:** Sowing/ Early vegetative
- **Crop Condition:** Rice crop is in satisfactory condition.
- **Advisory:** As weather will remain mainly dry with possibility of partial cloudiness/light rain/thundershowers for next 3-4 days at isolated pockets apply irrigation to rice crop two days after the pounded water has infiltrated into the soil in the districts received relatively less rainfall but the rice fields should not be allowed to develop cracks. Last dose of nitrogen through 35-40 kg urea may be applied, if already not given. In case of iron deficiency, spray 1 per cent ferrous sulphate solution 2-3 times at weekly intervals.
- **Major Seasonal Crop with stage:** Sugarcane and Vegetables
- **Advisory:** Undertake weeding, intercultural operations in sugarcane and cotton on a non rainy day.
 - Start sowing of radish, cauliflower using 250 g seed of mid season varieties like Punjab Giant 26 and Giant Snow Ball in one marla bed area and planting of *kharif* onion both with bulbsets as well as seedlings where adequate rainfall received.
 - Undertake sowing of non-legume fodders in mixture with legume fodders like maize + cowpea, sorghum + guara.
 - Farmers are advised to apply irrigation to the standing crops as there was no significant rainfall in many of the districts during last week.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - stem borer should be sprayed with either of the insecticide i.e. 350 ml of Hostathion 40 EC or 560 ml monocrotophos 36 SL or one litre of Dursban 20 EC in 100 litres of water per acre.
 - whitefly and jassid in cotton. Farmers are advised to monitor their fields regularly and check the population on economic threshold level with the recommended chemicals at recommended doses and not to go for mixtures for the control of jassid and whitefly.
 - Spray chemicals on a non rainy.

Animal Husbandry: This month is hot, humid during which flies, lice and ticks are very common. To check these, spray Asuntol 0.05%, Butox 0.02% and Tactic 0.02% on the animals as well as in the sheds and repeat the spray after 10-15 days. Due to heat, humidity and rain and lack of fodder, it is a stress period for the animals. Protect the animal from inclement weather and heat and provide alternate feed like concentrate mixed with wheat straw or silage. The animals which have not been vaccinated against H.S. (Gal Ghotu) may be got vaccinated.

Haryana

- **Realised Rainfall:** There was general improvement in the receipt of rainfall and four districts namely Ambala, Faridabad, Gurgaon, Yamunanagar received normal/excess rainfall.

- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Bhiwani	-97	-62	-88	-100	-85
Fatehabad	-61	-87	-84	-100	-88
Hissar	-96	-58	-94	-100	-82
Karnal	-100	-50	-66	-100	-24
Mahendragarh	-97	-75	-100	-95	-25
Panchkkula	-79	-33	-82	-83	-72
Panipat	-100	-72	-100	-94	-57
Rewari	-100	-98	-100	-100	-83
Rohtak	-69	-26	-99	-100	-60
Sirsa	-99	-92	-100	-100	-78
3 weeks continuously deficient to no rain					
Chandigarh	-48	94	-29	-99	-47
Jhajar	-77	18	-82	-100	-53
Jind	-100	23	-84	-94	-87
Sonepat	-87	59	-71	-97	-75
2 weeks continuously deficient to no rain					
Katihah	-33	-38	-14	-100	-89
Kurukshetra	-91	-74	-12	-100	-71
Distribution of rainfall for remaining districts of the state for last five weeks					
Ambala	-61	14	-74	-86	-14
Faridabad	-100	-61	-97	-100	71
Gurgaon	-83	-46	-96	-93	-16
Yamunanagar	-55	-45	-64	-53	64

- **Rainfall Forecast:** Rain/thundershowers at isolated places during next 24 hours and at a few places thereafter.
- **Major Kharif Crops:** Rice, maize, guar, bajra, cotton
- **Crop Stage:** Sowing/ transplanting
- **Crop Condition:** Sowing should be completed utilizing the realized rainfall. Sowing of Bajra, Pulses and Jowar is continued.
- **Advisory:** Advise to complete transplanting of basmati varieties Basmati 370 and Basmati 386 in northern part of Haryana and short duration *kharif* crops where adequate rainfall received under contingent planning based on the cut off dates of sowing (See Annexure). In the transplanted the rice, they save the crop with the available water resources. Farmers are advised to keep the rice field in saturated condition instead of maintaining stagnated water condition.
 - Farmers are advised to conserve the moisture in the already sown standing crops by intercultural operations and along with removing excess seedlings in bajra and trash mulching in sugarcane.
- **Major Seasonal Crop with stage:** Spring sugarcane (early vegetative/vegetative), vegetable crops (vegetative), cotton (early vegetative) and berseem (vegetative)
- **Crop Condition:** Good
- **Advisory:**
 - Undertake hoeing and weeding and apply the remaining dose of nitrogen fertilizer to the sugarcane.
 - Farmers are advised to apply irrigation to the standing crops as there was no significant rainfall in most of the districts during last week.
 - Farmers are advised to undertake weeding and hoeing in cotton and intercultural operations in tomato, onion and chilli after current spells of rain.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - jassid in cotton crop, spray the crop with recommended insecticide by the University if there is incidence of jassid after current spells of rain.

Delhi

- **Realised Rainfall:** The State received good amount of rainfall

- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
New Delhi	-89	84	-95	-57	-12

- **Rainfall Forecast:** Rain/thundershowers at isolated places over the state.
- **Major Kharif Crops:** Maize, vegetables and rice
- **Crop Stage:** Sowing, transplanting
- **Crop Condition: Satisfactory**
- **Advisory:** In present weather conditions farmers are advised, for sowing of mustard for green vegetable purpose, Recommended cultivar: - Pusa Sag 1. Sowing of spinach and coriander can be taken up. Intercropping of coriander with sweet corn can be done in raised bed.
 - Under present weather conditions, damage by leaf folders in paddy crop is more. To control the pest, mechanical methods, such as rope method (to dislodge the larve) is advised.
 - In present weather conditions, constant monitoring of brown plant hopper in paddy field is advised. Farmers are advised to enter into the middle of the crop field and see mosquito like insect at the basal portion of the plant.
 - Keeping in view last weeks' rainfall, farmers are advised to see that there is no water logging in pulse crop. Interculture operations to keep field free of weeds is advised. Monitoring of white flies is also advised as it is the vector of golden mosaic of pulse crop. If white fly damage is more spraying of Malathion or Endosulfan can be done.
 - Transplanting of green onion seedling can be taken up. Sowing should be done in raised bed.
 - In present weather conditions farmers are advised, for sowing of mustard for green vegetable purpose, Recommended cultivar: - Pusa Sag 1. Sowing of spinach and coriander can be taken up. Intercropping of coriander with sweet corn can be done in raised bed.
 - Due to humid weather conditions, there may be increase in population of insect pests of cotton. Farmers are advised to install pest specific pheromone traps in the fields. If population is large, spraying of insecticide is advised. Attacks of mealy bugs are also reported in cotton. Spraying of 2 % soap solution and after that spraying of Quinalphos @ 2 %, directing the nozzle of the sprayer towards stems is recommended.
 - Under the present weather situations, nursery preparation for mid-season cauliflower, early broccoli and early cabbage can be done. Farmers having mature seedlings are advised to go for raised-bed transplanting.
 - In present weather conditions farmers are advised to start sowing of marigold. Recommended cultivars:- Pusa Narangi and Pusa Basanti. Seeds are available in seed production unit of IARI.
- **Crop Condition: Good**
- **Advisory:** During this week farmers are advised to do intercultural operation in vegetable crops after spells of rain. Present weather conditions are highly favourable for nursery preparation of mid-season cauliflower and short duration radish (Pusa Desi), spinach and onion.

Uttar Pradesh

- **Realised Rainfall:** There was significant improvement in the receipt of rainfall in both East & West UP. 47 districts in the State received normal/excess rainfall.
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Allahabad	-39	-57	-95	-85	-58
Ballia	-82	-27	-78	-61	-79
Kushi nagar	-100	-50	-58	-81	-45
Maharajganj	-79	**	-41	-70	-39
Mirzapur	6	-76	-100	-100	-67
Sant Ravidas Nagar	6	-38	-100	-55	-44

3 weeks continuously deficient to no rain					
Pratapgarh	-11	55	-91	-89	-27
Sonbhadra	18	-8	-100	-95	-61
Distribution of rainfall for remaining districts of the state for last five weeks					
Ambedkar Nagar	-86	-11	-80	-69	383
Azamgarh	-94	18	-100	-71	148
Bahraich	-33	27	-32	-34	214
Balrampur	-99	136	-75	49	52
Banda	-65	-94	-97	-91	63
Barabanki	-71	139	-74	-73	23
Basti	-68	15	-72	-71	97
Deoria	-98	-64	-96	-6	-56
Faizabad	-91	65	-88	-70	216
Farrukhabad	-66	-71	-96	-83	99
Fatehpur	-98	-80	-92	-90	11
Gazipur	-67	-47	-98	12	81
Gonda	-92	47	-79	-73	234
Gorakhpur	-23	46	-77	-32	35
Hardoi	-67	84	-64	-60	117
Jaunpur	-79	45	-93	-87	24
Kanpur City	-86	-84	-97	-85	38
Kanpur Dehat	-81	-98	-89	-68	35
Kheri	-46	-7	-59	-38	186
Lucknow	-87	12	-20	-59	126
Mau	-99	-63	-86	-73	8
RaiBareilly	-75	-13	-86	-98	2
Shrawasti	-33	57	-28	-41	119
Sidharthnagar	-24	79	-7	-32	163
Sitapur	-91	66	-73	-82	146
Sultanpur	-91	169	-70	-86	53
Unnao	-91	-22	-73	-78	48
Varanasi	-30	32	-100	-86	6
West Uttar Pradesh					
More than 3 weeks continuously deficient to no rain					
Firozabad	-87	-84	-100	-20	-20
Mahamaya Nagar	-98	-96	-95	-99	-44
Meerut	-96	-66	-66	-81	-88
Muzzaffarnagar	-94	-90	-60	-98	-91
Etawah	-62	-97	-92	-87	**
3 weeks continuously deficient to no rain					
Baghpat	-20	25	-28	-97	-45
2 weeks continuously deficient to no rain					
Ghaziabad	-91	-57	-11	-81	-50
Distribution of rainfall for remaining districts of the state for last five weeks					
Agra	-58	-87	-100	-96	-6
Aligarh	-100	-56	-96	-93	19
Auraiya	-12	-99	-90	-74	128
Badaun	-86	-51	-71	-92	256
Bareilly	-89	4	-79	-92	382
Bijnor	6	-64	-79	-74	175
Bulandsahar	-90	-15	-92	-95	103
Etah	-95	-78	-98	-89	12
Hamirpur	-42	-97	-99	-93	63
Jalaun	-2	-100	-96	-96	11
Jhansi	40	-99	-100	-96	68
Jotirba Phule Nagar	-100	-84	-44	-100	167
Lalitpur	-3	-94	-100	-73	26

Mainpuri	-56	-98	-100	-61	110
Mathura	-6	-99	-100	-94	90
Moradabad	41	-68	-92	-93	111
Pilibhit	-98	-4	-71	-78	177
Rampur	-92	-72	-98	-89	71
Saharanpur	-19	-82	-79	-96	191
Shahjahanpur	-99	-34	-80	-63	198

- **Rainfall Forecast:** Rain/thundershowers at few places over the state.
- **Major Kharif Crops: East UP:** Rice, mung, jowar, bajra.
- **West UP:** Rice, groundnut, urd, mung and vegetables
- **Crop Stage:** Sowing/ early vegetative stage
- **Crop Condition:**
- **East UP:** Crop sowing has been affected due to insufficient rain in some districts
- **West UP:** Crop sowing has been affected due to insufficient rains in some districts.
- **Advisories:**
 - Sowing of early varieties of cauliflower, tomato, celeri at an elevated place may be undertaken and give support to creepers and vegetables plants.
 - Undertake weeding, intercultural operations in early sown crops after current spells of rain.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative) and vegetables (vegetative/fruited), mango (fruit setting)
- **Crop Condition: Good**
- **Advisory**
 - 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
 - Farmers are advised to postpone irrigation to the standing crops as there was significant rainfall in different districts in the State. Provide adequate drainage facilities to avoid waterlogging due to heavy rainfall.
 - Remove the second flushes of weeds from paddy field by hand weeding or paddy weeder after current spells of rain.
 - Top dressing of 1/3 amount of Urea in the paddy field after current spells of rain.
 - If zinc sulphate are not applied @25 kg /ha as basal at the time of sowing/transplanting of rice then use foliar
 - application of Zinc sulphate @5 kg/ ha or Zinc oxide @0.8 kg/ ha if khaira disease symptom appears after current spells of rain
- **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.

J & K

- **Realised Rainfall:** Most of the districts received deficient/scanty rainfall except Anantnag, Doda and Udhampur districts.
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Kupwara	72	-37	-90	-95	-76
Ladakh(Leh)	-100	-92	-100	-100	-100
3 weeks continuously deficient to no rain					
Kathua	-4	-10	-59	-29	-93
North Baramula	-61	30	-83	-95	-95
Pulwama	-86	147	-49	-50	-64
Srinagar	-74	12	-93	-66	-68
Distribution of rainfall for remaining districts of the state for last five weeks					
Anantnag	-44	76	-83	-58	90
Doda	-75	36	-78	-76	-6
Jammu	127	-55	35	18	-68

Udhampur	-31	-57	-73	-32	19
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- **Rainfall Forecast:** Rain/thundershowers at isolated places over the state.
- **Major Kharif Crops:** Rice, maize, vegetables
- **Crop Stage:** transplanting
- **Crop Condition:** Crop condition improved due to recent rainfall.
- **Advisory:** Farmers are advised to take up sowing of short duration varieties of normally sown green gram and black gram crops and transplanting of late varieties of rice using 4-5 seedlings per hill utilizing the realized and expected rainfall during next 5 days.
- **Major Seasonal Crop with stage: Vegetables** (vegetative/flowering/fruited)
- **Crop Condition:** Good
- **Advisory:** Sowing of carrot and nursery sowing of knol khol may be done. Undertake harvesting of matured vegetable crops like brinjal, tomato, bhindi.
- **Plant Protection:** Apply phorate 10G @ 10 kg/ha or carbofuron 3G @ 20 kg/ha for control of root weevil and threadworms in rice on a non rainy day.

Rajasthan

- **Realised Rainfall:** Many districts of East Rajasthan received sufficient amount of rainfall except Ajmer, Bhilwara, Jhalawar, Banswara, Chittorgarh, Dungarpur, Rajsamand, Sirohi districts. West Rajasthan received deficient/scanty rainfall except Hanumangarh.
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
East Rajasthan					
More than 3 weeks continuously deficient to no rain					
Ajmer	18	-57	-100	-74	-29
Bhilwara	53	-27	-100	-76	-60
Jhalawar	125	-29	-100	-93	-46
3 weeks continuously deficient to no rain					
Banswara	115	65	-99	-96	-71
Chittorgarh	94	37	-99	-65	-40
Dungarpur	366	121	-100	-82	-79
Rajsamand	101	56	-100	-76	-31
Sirohi	162	98	-98	-93	-87
Distribution of rainfall for remaining districts of the state for last five weeks					
Alwar	-29	-26	-97	-94	98
Baran	50	-81	-100	-99	128
Bharatpur	-16	31	-96	-71	125
Bundi	88	-87	-100	-94	-11
Dausa	4	-59	-100	-91	43
Dholpur	-43	-97	-100	-76	32
Jaipur	-25	-73	-100	-89	51
Jhunjhunu	-82	-73	-100	-94	43
Karauli	-62	-73	-100	-71	134
Kota	93	-53	-100	-93	-8
Sawai Madhopur	-37	-89	-100	-76	44
Sikar	-80	-80	-100	-95	-5
Tonk	36	-68	-100	-94	-6
Udaipur	184	142	-99	-81	-12
West Rajasthan					
More than 3 weeks continuously deficient to no rain					
Nagaur	-48	-82	-100	-95	-51
3 weeks continuously deficient to no rain					
Barmer	60	182	-100	-100	-100
Bikaner	13	2	-100	-100	-90
Jaisalmer	-53	49	-100	-100	-100
Jalore	44	19	-99	-100	-100

Jodhpur	-4	2	-100	-100	-93
Pali	83	20	-99	-93	-59
Sri Ganganagar	-92	10	-100	-100	-67
Distribution of rainfall for remaining districts of the state for last five weeks					
Hanumangarh	-92	-44	-100	-100	53

Rainfall Forecast: Isolated rain/thundershowers over north Rajasthan during next 24 hours and at a few places thereafter. Isolated rain / thundershowers are likely over South Rajasthan.

Major Kharif Crops:

- **East Rajasthan:** Cowpea, bajra, maize
- **West Rajasthan:** Pearl millet, sorghum, maize, cluster bean, Sesamum, Pigeonpea, Groundnut
- **Crop Stage:** Sowing
- **Crop Condition: Satisfactory**
- **Advisory: East Rajasthan:** Continue sowing of cowpea, sesame and bajra. Sow early maturing improved sesame varieties like RT125, RT 127 and RT 46. In case of late sowing prefer early maturing varieties of green gram, moth bean, cowpea, clusterbean and sesame instead of millets. Intercrop early maturing varieties of pearl millet with early maturing varieties of greengram, mothbean, cowpea, clusterbean and sesame. Arrange top dressing on maize.
- Arrange for drainage facilities to avoid water stagnation in East Rajasthan.
- **West Rajasthan:** Continue sowing of *kharif* crops (Pearl millet, sorghum, cowpea, soybean, urd, Sesamum, Pigeonpea, Groundnut).
- **Major Seasonal Crop with stage:** vegetable crops (flowering / fruiting / harvesting)
- **Crop Condition: Good**
- **Advisory:** Undertake intercultural operations in bajra, jowar, sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger.
- Apply irrigation to already sown crop.
- **Plant Protection:**
 - Spray Malathion 50 EC @ 1.0 ml or Endosulfan 35 EC @ 1.5 ml per litre water to control mango hopper in mango tree
 - Spray Karathane @ 1 ml or Sulphur Fungicide @ 2.5 g / litre of water to control powdery mildew in mango and vegetables
 - Spray Endosulphan @ 2 ml per litre of water to control fruit borer in tomato, brinjal and bhindi in Banswara.
 - Spray chemicals after spells of rain in East Rajasthan and on a non rainy day in West Rajasthan.

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

Bihar

- **Realised Rainfall:** All the districts of Bihar except Bhabua received normal/excess rainfall.
- **Rainfall distribution for last 5 weeks**

Bihar	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
3 weeks continuously deficient to no rain					
Bhabua	-49	90	-100	-78	-93
Distribution of rainfall for remaining districts of the state for last five weeks					
Araria	-72	-20	72	49	62
Aurangabad	16	7	-98	-78	418
Begusarai	-41	27	-77	-65	6
Bhagalpur	-54	183	72	-17	422
Bhojpur	-96	-48	-98	-60	34
Buxar	61	-14	-99	115	122
Darbhanga	-84	123	133	-32	3
East Champaran	-96	123	60	105	88
Gaya	-78	2	-98	-69	29
Gopalganj	-89	116	-53	40	-7
Jhanabad	-49	9	-100	-86	20

Jamui	-73	40	-98	-4	163
Kathihar	-84	-5	88	-28	129
Khagadia	-14	40	-29	8	58
Kishanganj	-96	-70	-68	-99	33
Madhepura	-94	-37	212	-77	-5
Madhubani	-65	191	121	-64	66
Monghyar	53	32	-53	-40	16
Muzaffarpur	-92	6	-8	-52	64
Nalanda	-46	-49	-92	-65	4
Patna	-85	-41	-88	81	1
Purnea	-76	86	64	87	299
Rohtas	-72	16	-95	-32	160
Saharsha	-76	39	251	64	56
Samstipur	-61	34	-18	1	35
Saran	-96	9	-93	-71	81
Sitamarhi	-99	26	141	-70	115
Siwan	-87	-50	-73	-22	47
Supaul	-74	88	110	-72	43
Vaishali	-97	-86	-100	34	18
West Champaran	-88	68	107	58	138

- **Rainfall Forecast:** Rain/thundershowers at many places over the state.
- **Major Kharif Crops:** urd, sunflower, maize and pigeon pea
- **Crop Stage:** Sowing/transplanting
- **Crop Condition: Good**
- **Advisory**
 - Farmers are advised to continue sowing of contingent crops like tur pigeon pea in upland areas in place of rice. Utilising the realized rainfall, farmers are advised to do paddy transplanting only in medium and low land situations with increased seedlings.
 - Apply fertilizer after the current spell of rain.
 - Farmers are advised to prepare the nursery for sowing of tobacco crop. Farmers are also advised to do the transplanting of early varieties of cauliflower.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative/grand growth), fodder maize, jowar, lobia and sudan grass (vegetative)
- **Crop Condition:** Satisfactory
- **Advisory:**
 - Undertake intercultural operations, application of fertilizers after current spells of rain.
 - Postpone irrigation to the standing crops as there was good rainfall in most of the districts during last week and more rainfall along with isolated heavy to very heavy rainfall is likely. Provide adequate drainage facilities to avoid waterlogging due to heavy rainfall.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
 - diseases in poultry birds. Care should be taken to ensure that poultry feeds and bed of the poultry house do not get wet from rain water.

Jharkhand

- **Realised Rainfall:** In general there was well-distributed rainfall and seven districts received normal/excess rainfall.
- **Rainfall distribution for last 5 weeks**

Jharkhand	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Lohardagga	1	-60	-96	-77	-87
Ranchi	-23	-72	-29	-60	-31
3 weeks continuously deficient to no rain					
East Singbhum	-25	32	-64	-59	-38

Godda	-31	-63	-100	-100	**
Gumla	-13	-8	-85	-74	-99
Palamau	-15	-15	-99	-79	-49
Distribution of rainfall for remaining districts of the state for last five weeks					
Bokaro	-66	-33	-95	-74	-8
Dhanbad	-19	-29	-35	-71	-15
Giridih	-43	-66	38	-33	81
Hazaribagh	24	-62	-98	-97	76
Koderna	-28	-76	-100	-86	43
Santhal Parganas	-75	-38	-10	-65	3
West Singhbhum	-22	-7	-74	-9	337

- **Rainfall Forecast:** Rain/thundershowers at many places over the state.
- **Major Kharif Crops:** Maize, Arhar, Til, Ragi, Vegetables
- **Crop Stage: Sowing**
- **Crop Condition:** Crop condition is improving.
- **Advisory:** Continue sowing of maize in upland, middle land.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative/grand growth),
- **Crop Condition: Good**
- **Advisory:** Farmers are advised to undertake weeding, intercultural operations in sugarcane after current spells of rain.
 - Undertake planting of mango variety like Mallika, Amrapali, Langra, Himsagar in the pits already filled with soil and manures.
 - Undertake transplanting of brinjal, chilly, tomato utilizing the realized rainfall.

Orissa

- **Realised Rainfall:** Most of the districts received deficient/scanty rainfall except Bolangir, Gajapati, Jagatsingpur, Jaipur, Jharsaguda, Kandhamal, Koraput, Puri, Sambalpur, Sundergarh.

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
Orissa					
Angul	244	-94	-90	**	-24
Balasore	112	-32	-59	**	-58
Bargarh	325	-66	-99	**	-94
Bhadrak	310	-52	-51	**	-21
Bolangir	213	-88	-94	**	16
Boudh	218	-62	-96	**	-45
Cuttack	204	-28	-83	**	-41
Deogarh	91	-94	-88	**	-45
Dhenkanal	315	-89	-93	**	-65
Gajapati	149	-90	-75	**	29
Ganjam	146	-81	-61	**	-45
Jagatsingpur	315	-87	-26	**	-14
Jaipur	178	-66	-84	**	-10
Jharsuguda	101	-50	-80	**	6
Kalahandi	257	102	-55	**	-39
Kandhamal	309	-61	-94	**	43
Kendrapara	535	-55	-59	**	-66
Keonjhar	142	-80	-60	**	-55
Khurda	172	-91	-83	**	-29
Koraput	87	-25	-84	**	2
Malkangiri	10	-54	-82	**	-58
Mayurbhanj	38	-46	-72	**	-62
Nawapara	304	-32	-96	**	-69
Nawarangpur	33	71	-38	**	-77
Nayagarh	369	-59	-65	**	-23
Puri	319	-75	-75	**	-17
Rayagada	77	-45	-91	**	-30

Sambalpur	154	-89	-96	**	1
Sonepur	351	-84	-91	**	-29
Sundargarh	78	-51	-67	**	-15

- **Rainfall Forecast:** Rain/thundershowers at many places with isolated heavy rainfall during next 48 hours.
- **Major Kharif Crops:** Rice, ragi, arhar, maize, green gram, blackgram
- **Crop Stage:** Satisfactory
- **Crop Condition:** Transplanting is continued.
- **Advisory:** Complete transplanting of rice.
 - Go for bushening of direct sown paddy in medium and low land at 21 days stage. Apply 16 kg nitrogen per acre at bushening followed by weeding and gap filling. If basal dose fertilizer not applied, apply 18 kg Urea, 100 kg SSP and 26 kg MOP while bushening followed by top dressing of 35 kg Urea after 7 to 10 days.
 - Complete sowing of sesame, greengram and blackgram and vegetables like lady's finger, cowpea and cluster bean and raise vegetable nurseries for cauliflower, brinjal, tomato and chillies in uplands.
 - Undertake sowing of niger after 15th August in fallow upland. Grow high yielding varieties suitable for Orissa climate such as Deomali and IGP-76
- **Major Seasonal Crop with stage:** Sugarcane (early vegetative), vegetables (fruiting / harvesting), onion (vegetative), jute (vegetative),
- **Crop Condition: Good**
- **Advisory:** Undertake weeding, intercultural operations and application of fertilizers after current spells of rain.
- **Plant Protection:** Weather conditions are favourable for aphid in the maize crop. Apply 300 ml Metasystox in 200 litre of water per acre as foliar spray after current spells of rain.
 - Present weather favours wilting in brinjal and off season tomato. Spray 200 g Carbendazim + 200g Plantomycine in
 - 200 litre water/acre. Use 15 poison baits per acre prepared by adding 2 ml Malathion + 30g gur in 1 litre water to
 - control Fruit fly in cucurbits

West Bengal

- **Realised Rainfall:** Most of the districts of West Bengal received good rainfall except Midnapore and south 24 Praraganas of Gangetic West Bengal.
- **Rainfall distribution for last 5 weeks:**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
GWB					
More than 3 weeks continuously deficient to no rain					
Midnapore	17	-21	-21	-28	-34
Distribution of rainfall for remaining districts of the state for last five weeks					
Bankura	-15	-1	101	-24	62
Birbhum	-14	-55	103	-36	-4
Burdwan	-59	-26	105	-17	28
Hooghly	-34	-3	38	49	31
Howrah	102	48	-73	-38	2
Murshidabad	-77	34	6	155	18
Nadia	-43	-50	127	120	-4
24 Pargana (N)	-5	-17	7	200	6
Purulia	-35	8	28	-24	-6
24 Pargana (S)	52	8	-56	7	-37
SHWB					
Coochbehar	-89	-31	-41	-32	174
Darjeeling	-52	22	-6	-35	93
Jalpaiguri	-70	12	-6	10	116
Malda	1	-8	-12	-3	216
Dinajpur (N)	-83	12	59	97	336
Dinajpur (S)	-98	77	146	55	203

- **Rainfall Forecast:** Rain/thundershowers at many places with isolated heavy to very heavy rainfall over Sub-Himalayan West Bengal and isolated heavy rainfall over Gangetic West Bengal during next 48 hours.

- **Major Kharif Crops:** Rice, vegetables
- **Crop Stage:** Transplanting
- **Crop Condition: Good**
- **Advisory:** Complete transplanting of rice seedlings.
 - Undertake transplanting of vegetable with the realized rainfall
 - Removal of excess water from the seedbed is advised.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), jute (harvesting)
- **Crop Condition: Good**
- **Advisory:**
 - Undertake retting of jute crop.
 - As rain/thundershowers are likely at many places over the State, postpone irrigation and intercultural operations and provide drainage facilities to remove excess water.
- **Plant protection:** In bitter gourd, cucumber mite is becoming severe in many places. To control, it apply Fenazaquin 10 EC @ 1.5 ml per litre of water. In pointed gourd, fruit and vine rot is in severe condition. Remove the infected fruits and vine from the land. Spray Metalaxyl + Mancozeb @ 2.5 gm per litre of water. Reapply it after 10 to 15 days depending upon the disease condition.
 - Spray chemicals after current spells of rain.

Sikkim

- **Realised Rainfall:** The state received good amount of rainfall.
- **Rainfall distribution for last 5 weeks:**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
Sikkim	-51	-14	-55	-53	47

- **Rainfall Forecast:** Rain/thundershowers at many places with isolated heavy to very heavy rainfall.
- **Major Seasonal Crop with stage: Very High hills: Summer Potato:** Tuberization/Tuber Maturity/Early Harvesting; **High Altitude Maize:** Late Vegetative/Flowering (b) **High hills: Off-Season Vegetable crops:** Vegetative/Late Vegetative; **Seed Potatoes:** Tuberization/Tuber-Maturity/Early-Harvesting; (c) **High/ Medium/ Low hills: Maize:** Flowering/ Cob Maturity/ Early Harvesting; **Kharif Vegetables:** Vegetative/Late Vegetative; **Large Cardamom:** Transplanting of Seedlings/ Secondary Flowering/Primary Capsule Formation/Capsule formation & maturity (**low hills**) (d) **Medium & Low Hills: Rice:** tillering **Ginger:** Early Vegetative/Vegetative; **Orange:** Nursery Transplanting of Seedlings/ Flowering/ Early Fruiting/Fruiting.
- **Crop Condition: Good**
- **Advisory:** Deshooting/debugging of newly planted to 1 – 4 years old trees, upto a basal height of 40 – 50 cm should be done on monthly basis.
 - Nursery beds of large cardamom suckers may be mulched properly with dried forest leaves in order to prevent soil erosion and weed growth.
 - Inter-cultivate in the transplanted paddy as per usual practice in order to incorporate FYM/compost and to break and scratch the compact soil. This would make the soil loose and aerate it.
 - Water level of 5 cm to at least 3/2.5 cm should be maintained in transplanted paddy fields for better yield. During the tillering stage, in the medium hills, water level of 3-4 cm should be maintained to enable maximum tillering as in case of insufficient water, tillering will be less and facilitate excess growth of weeds.
 - Top dressing of ginger with organic manures and mulching to be done after current spells of rain and on monthly basis. Proper drainage to be maintained and weeding to be done after spells of rain.
 - Diseased/pest infested suckers may be removed and destroyed.
 - Chirke and Foorkey infected cardamom plants may be destroyed by uprooting and buried in the pits at regular intervals.

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

Assam

- **Realised Rainfall:** Twenty districts received good rainfall during last week except Golaghat, Haikandi, Nowgong districts.

- **Rainfall distribution for last 5 weeks:**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
2 weeks continuously deficient to no rain					
Golghat	-60	87	44	-64	-28
Hailakandi	-66	-68	-6	-40	-62
Nowgong	-41	-63	-74	-63	-72
Distribution of rainfall for remaining districts of the state for last five weeks					
Barpeta	-64	42	344	-9	625
Bongaigaon	-84	19	110	-34	455
Cachar	-65	48	120	32	33
Darrang	-79	171	106	-60	17
Dhubri	-93	-29	-52	-63	205
Dibrugarh	-20	-55	56	71	8
East Garo Hills	-100	-46	-17	-80	921
East Khasi Hills	-67	57	-10	-10	444
Goalpara	-51	25	166	-62	385
Jorhat	-42	16	-20	-56	55
Kamrup	-44	99	59	-45	47
Karbi Analog	9	72	-31	-29	148
Karimganj	-59	-58	91	84	62
Kokrajhar	-95	-35	71	8	688
Lakhimpur	-19	-48	58	31	114
Morigaon	-5	6	-81	7	42
Nalbari	-59	37	-3	7	91
Sibsagar	-23	-33	-4	-36	62
Sonitpur	-46	-3	4	-70	140
Tinsukia	-42	-48	19	16	115

- **Rainfall Forecast:** Rain/thundershowers at most places with isolated heavy to very heavy rainfall
- **Major Kharif Crops: Sali paddy**
- **Crop Stage: Transplanting**
- **Crop Condition:** Transplanting of sali rice is continued.
Advisory: Transplanting of sali paddy may be continued with 21-25 days old seedlings in case of semi dwarf and short duration varieties and 30-40 days in case of long duration and local variety Pusa Ketki, Pusa Dipali etc. in the 1st fortnight of August. High yielding varieties of green gram such as T-44, K-801 etc. and black gram(T-9, T-27 etc.) may be sown under the prevailing weather conditions.
- Postpone irrigation to the crops as rainfall at many places is likely along with isolated heavy to very heavy rainfall. Provide adequate drainage facilities to avoid waterlogging.
- In lower Brahmaputra valley, aged seedlings of late rice varieties like Manohar Sali, Mainagiri, etc may be used for late planting condition. Sowing of Sesamum and Black gram should be started immediately in upland situation. Seed rate of black gram is 2-3 kg/bigha
- **Major Seasonal Crop with stage:** Vegetables (vegetative / flowering / fruiting / harvesting), early *ahu* rice (tillering / panicle initiation), *Capsularis* jute (vegetative / harvesting), *Olitorius* jute (vegetative), maize (vegetative) and sugarcane (vegetative),
- **Crop Condition:** Good
- **Advisory:**
 - As rain/thundershowers are likely at many places over the State, postpone irrigation.
- **Plant protection:** Weather conditions are favourable for mild incidences of –
 - pollu beetle in pepper, farmers are advised to apply Endosulfan 35EC or Dimethoate 30EC @ 1ml/ lit of water against grubs after current spells of rain.
 - stem bleeding in coconut tree. In case of infected plant, infected portion of stem should be scraped out completely and apply Bordeaux paste or coal tar after current spells of rain.

- **Realised Rainfall:** All the districts except Tawang received normal/excess rainfall during last week.
- **Rainfall distribution for last 5 weeks:**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
Distribution of rainfall for remaining districts of the state for last five weeks					
Changlang	-82	-93	-65	-90	9
East Kameng	-41	78	54	-14	-6
East Slang	-99	-27	-2	-38	109
Lohit	-84	-50	-6	124	135
Lower Subansiri	-46	-28	-40	40	-6
Papumpara	96	146	40	-9	271
Tawang	-92	-9	-27	16	-33
Tirap	-61	15	67	28	133
Upper Subansiri	-77	47	71	15	250
West Kameng	33	229	96	-63	328

- **Rainfall Forecast:** Rain/thundershowers at most places with isolated heavy to very heavy rainfall
- **Major Kharif Crops:** *Jhum* rice, WRC rice, millets
- **Crop Stage:** vegetative
- **Crop Condition:** Good.
- **Advisory:** Postpone irrigation, weeding and intercultural operations. Maintain 3-5 cm standing water in rice field. Water logging in the field must also be avoided. Earthing up may be done after current spells of rain.
- **Major Seasonal Crop:** Vegetables
- Harvest the matured vegetable crops.
- **Plant Protection:** Prophylactic measure for protection of seed ginger rhizome from fungal disease may be taken.

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

- **Realised Rainfall:** Six districts of Coastal Andhra Pradesh, Three district of Telangana and all the districts of Rayalaseema received normal/excess rainfall during last week.
- **Rainfall distribution for last 5 weeks**

Coastal Andhra Pradesh					
More than 3 weeks continuously deficient to no rain					
East Godavari	-15	-91	-72	-69	-48
Visakhapatnam	-19	-83	-71	-79	-30
West Godavari	9	-93	-66	-51	-63
Distribution of rainfall for remaining districts of the state for last five weeks					
Guntur	-86	-94	-91	-85	184
Krishna	-47	-97	-87	-83	14
Nellore	-83	-85	-23	-66	202
Prakasam	-87	-100	-89	-80	111
Sirkakulam	42	-95	-32	-54	-18
Vizianagram	54	-92	-19	94	39
Telangana					
More than 3 weeks continuously deficient to no rain					
Adilabad	-66	-81	-99	-60	-82
Karimnagar	-55	-90	-100	-72	-79
Khammam	-8	-92	-95	-75	-57
Mehabubnagar	-57	-98	-99	-86	-37
Medak	-56	-94	-100	-70	-63
Nizamabad	-51	-88	-100	-80	-76
Warangal	-41	-97	-98	-98	-67
Distribution of rainfall for remaining districts of the state for last five weeks					
Hyderabad	-45	-99	-100	-78	96

Nalgonda	-68	-99	-100	-96	6
Rangareddy	-54	-96	-100	-87	36
Rayalaseema					
Distribution of rainfall for remaining districts of the state for last five weeks					
Anantapur	-84	-91	-85	-81	35
Chittoor	-93	-86	-11	-89	419
Cuddapah	-92	-99	-73	-86	263
Kurnool	-81	-96	-84	-72	11

- **Rainfall Forecast:** Rain/thundershowers at many places in Telangana, few places in Rayalaseema and coastal Andhra Pradesh
- **Major Kharif Crops:** Cotton, soybean, jowar, black gram, green gram, pearl millet, finger millet, jowar, green gram, groundnut, sunflower, rice, brinjal, tomato and chillies.
- **Crop Stage:** Sowing
- **Crop Condition:** Satisfactory. Sowing of crops like ground nut, jowar, maize, pulses, sesame, sunflower and cotton is affected in Rayalaseema and Telangana. Rainfed crops are under moisture stress condition in the State.
- **Advisory:** As the rainfall is not adequate in the State, different districtwise cropping strategies including sowing of short duration *kharif* crops is advised in many parts of the State. Farmers in Rayalaseema are advised to sow short duration rainfed groundnut. Take up sowings of rainfed crops like groundnut, cotton, redgram, castor etc. in those areas having sufficient soil moisture in Telangana.
- **Major Seasonal Crop:** Sugarcane and Vegetables
 - Farmers are advised to undertake intercultural operations in sugarcane, vegetables, early sown crops to keep the fields weed free in Telangana.
 - Harvesting of the muskmelon should be completed on bright sunny day.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - aphids in groundnut crop in Rayalaseema. To control spray monocrotophos @ 1.6 ml/lit. or dimethoate @ 2.0 ml/litre.
 - sucking pests in cotton. Apply Monocrotophos solution (Monocrotophos @ 25 ml in 100 ml of water) with soft brush on tender part of the stem at 20, 40 and 60 days after sowing.
 - rice thrips and hispa.
 - Incidence of Red pumpkin beetle is noticed gourds like bottle gourd, ridge gourd, snake gourd and cucurbits. Control it by spraying Carbaryl 50 WP @ 3 g per litre of water.

Karnataka

- **Realised- Rainfall:** There was improving of rainfall condition particularly in the Interior Karnataka. Seven districts of north Interior Karnataka, Twelve districts of South Interior Karnataka received normal/excess rainfall during last week.
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Coastal Karnataka					
Uttar Kannada	8	-43	-54	-77	-75
2 weeks continuously deficient to no rain					
Dakshin Kannada	48	-47	-3	-51	-46
Udupi	43	-20	6	-57	-66
North Interior Karnataka					
More than 3 weeks continuously deficient to no rain					
Bidar	-63	-91	-100	-69	-23
Dharwad	48	-73	-58	-89	-39
Gulbarga	-63	-94	-99	-81	-29
Distribution of rainfall for remaining districts of the state for last five weeks					
Bagalkote	-35	-89	-79	-98	231
Belgaum	200	-56	-53	-62	35
Bijapur	-78	-92	-98	-94	142
Gadag	7	-95	-89	-87	325
Haveri	150	-7	-3	-72	28

Koppal	-85	-98	-84	-97	140
Raichur	-91	-99	-88	-48	30
South Interior Karnataka					
2 weeks continuously deficient to no rain					
Kodagu	247	-48	-14	-43	-42
Shimoga	182	17	-15	-45	-41
Distribution of rainfall for remaining districts of the state for last five weeks					
Bangalore Rural	-68	-97	8	-4	25
Bangalore Urban	-88	-100	6	-33	202
Bellary	-38	-93	-76	-70	229
Chamarajnaragar	235	-100	-55	-81	514
Chickmagalur	169	-54	-26	-74	-12
Chitradurga	2	-81	-86	-24	374
Davangere	111	-57	-38	-7	332
Hassan	50	-54	-88	-92	14
Kolar	-84	-92	-54	-80	192
Mandya	16	-88	-26	-97	794
Mysore	263	-89	6	-54	420
Tumkur	-35	-98	-21	-57	92

- **Rainfall Forecast:** Rain/thundershower at many places with isolated heavy to very heavy rainfall over coastal Karnataka and few places over Interior Karnataka.
- **Major Kharif Crops:** Jowar, Maize, Bajra, Redgram, Ragi, Greengram, Blackgram, Cowpea, Sesamum, Groundnut, Sunflower, Soyabean, Cotton.
- **Crop Stage:** Sowing/ transplanting. Early sown crops are at early vegetative/vegetative stage.
- **Crop Condition:** Satisfactory. There is improvement in crop condition north/south interior Karnataka, due to good amount of rainfall during last week.
- **Advisory:** Continue transplanting of rice in coastal Karnataka. Undertake sowing of short duration alternate *kharif* crops in Interior Karnataka (See Annexure I).
- **Major Seasonal Crop:** Sugarcane and Vegetables
- Undertake ratooning in sugarcane. Undertake intercultural operations in sugarcane and early sown crops to keep the field weed free after current spells of rain in Interior Karnataka.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - powdery mildew disease in green gram, spray Carbendazim 0.1%.
 - thrips, mites and murda-complex disease in chilli, spray 1.7 ml Rogar or 1.5 ml Metasystox +2.5ml Dicofol per litre of water.
 - Undertake spraying on a non rainy day in South Interior Karnataka and after current spells of rain in coastal Karnataka.

Kerala

- **Realised Rainfall:** All the districts of the state received sufficient deficient/scanty rainfall
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Ernakulam	49	-49	-20	-75	-41
Idukki	82	-74	-37	-42	-46
Kollam	95	-76	-51	-67	-30
Malappuram	119	-59	-40	-59	-91
Palakkad	177	-60	-34	-77	-56
Thiruvananthapuram	74	-90	-42	-95	-79
Wyanad	110	-84	-67	-82	-70
2 weeks continuously deficient to no rain					
Alappuzha,	46	-66	-16	-86	-39
Kannur	96	-40	-5	-40	-85
Kasaragod	21	-50	-2	-55	-49
Kottayam	25	-81	25	-71	-59
Kozhikode	151	-44	-6	-60	-88

Pathanamthitta	16	-65	**	-56	-36
Thrissur	119	-67	-2	-74	-28

- **Rainfall Forecast:** Rain/thundershowers at many places with isolated heavy to very heavy rainfall
- **Major Kharif Crops:** Rice
- **Crop Stage:** Tillering in problem area zone.
- **Crop Condition:** Good.
- **Advisory:** Intercultural operations, application of fertilizers and pesticides may be continued after current spells of rain.
- **Major Seasonal Crop:** Vegetables and plantation crops (coconut, arecanut, pepper and cashew).
- Intercultural operations, application of fertilizers and pesticides may be continued after current spells of rain
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - leaf folder and stem borer in paddy fields. Farmers may go for Tricho cards (Trichogramma chilonis against leaf folder and Trichogramma japonicum against stem borer) if their incidence noticed.
 - thrips in broadcasted rice field, spray carbaryl or dimethoate @250ml/ha.
 - Undertake spraying current spells of rain.

Tamilnadu

- **Realised Rainfall:** Most of the districts of the state except Kanyakumari received normal/excess rainfall.
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Kanyakumari	204	-100	-61	-95	-83
Distribution of rainfall for remaining districts of the state for last five weeks					
Chennai	-91	-25	-12	-29	4
Coimbatore	1127	-7	162	24	328
Cuddalore	-75	-100	247	-96	169
Dharmapuri	-86	-100	-93	-100	381
Dindigul	-46	-99	-16	-83	453
Erode	19	-100	-11	-93	435
Kanchipuram	-98	-37	154	-90	34
Karur	-99	-100	-95	-24	305
Krishnagiri	-94	-100	-36	-86	331
Madurai	-99	-98	220	-59	260
Nagapattinam	-96	-100	306	-33	153
Namakkal	-89	-93	-69	-80	273
Nilgiris	189	-71	-42	-57	23
Perambalur	-92	-100	29	-97	261
Pondicherry	-93	-100	129	-61	137
Pudukottai	-63	-97	-2	-98	**
Ramanathapuram	-99	-100	-44	-91	375
Salem	-15	-91	85	-93	377
Sivaganga	-97	-78	167	9	355
Thanjavur	-79	-100	-60	-65	292
Theni	358	-87	36	-66	283
Tirunelveli	687	-100	-96	-97	238
Tiruvallur	-93	-31	63	-67	144
Tiruvannamalai	-100	-100	171	-96	99
Tiruvarur	-100	-100	-2	5	200
Trichy	-100	-100	5	-100	532
Tuticorin	-81	-100	12	-100	241
Vellore	-99	-94	29	-100	203
Villupuram	-93	-100	286	-89	195
Virudhunagar	-100	-100	-100	-89	29

- **Rainfall Forecast:** Rain/thundershowers at a few places over the places.
- **Major Kharif Crops:** Groundnut, pulses and rice

- **Crop Stage:** Sowing/transplanting
- **Crop Condition:** Good
- **Advisory:** Continue sowing of crops like pulses, groundnut and transplanting of rice seedlings wherever sufficient rainfall received during last week.
- **Major Seasonal Crop:** Sugarcane, banana and vegetables.
 - Intercultural operations, application of fertilizers may be continued in vegetables and sugarcane
 - Do not apply irrigation as there is sufficient soil moisture due to significant rainfall during last week.
 - Due to the forecast of high wind speed for coming days, provide staking for banana in Virudhunagar and rubber and banana in Kanyakumari.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - sheath blight in rice, spray edifenphos at 1 l / ha to control the disease.
 - cigatago leaf spot in banana. If incidence is noticed, spray carbendazim @ 1 g / l.
 - mealy bug incidence in papaya, cotton and mulberry crops. Look out for the incidence and spray Neem oil 3% to avoid the spread of the pest incidence to other crops.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT, RAJASTHAN]

Maharashtra

- **Realised Rainfall:** Most of the districts except Sindhudurga and Ahmednagar received deficient/scanty rainfall during last week.
- **Rainfall distribution for last five weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
Konkan & Goa					
More than 3 weeks continuously deficient to no rain					
Goa	-1	-66	-73	-88	-48
Mumbai	-41	-46	-98	-92	-91
Raigad	**	-25	-91	-86	-85
Ratnagiri	-22	-34	-81	-84	-72
3 weeks continuously deficient to no rain					
Thane	113	81	-93	-85	-85
Distribution of rainfall for remaining districts of the state for last five weeks					
Sindhudurg	-7	-42	-76	-80	-17
Madhya Maharashtra					
More than 3 weeks continuously deficient to no rain					
Dhule	-30	-56	-100	-82	-99
Jalgaon	53	-41	-99	-93	-93
Sangli	15	-30	-92	-77	-32
Solapur	-53	-85	-100	-99	-39
3 weeks continuously deficient to no rain					
Satara	70	81	-84	-65	-36
Kolhapur	104	59	-71	-72	-53
Nandurbar	69	3	-95	-64	-99
Nasik	252	269	-90	-61	-72
Pune	-1	-1	-94	-91	-75
Distribution of rainfall for remaining districts of the state for last five weeks					
Ahmednagar	-1	-1	-99	-99	3
Marathwada					
More than 3 weeks continuously deficient to no rain					
Aurangabad	39	-55	-99	-90	-88
Beed	-38	-93	-100	-96	-69
Jalna	31	-68	-100	-88	-93
Latur	-44	-96	-99	-81	-90
Nanded	-71	-97	-100	-81	-91
Usmanabad	-56	-67	-100	-100	-34
Parbhani	-17	-89	-100	-85	-47
Vidarbha					

More than 3 weeks continuously deficient to no rain					
Akola	29	-50	-100	-70	-99
Amraoti	59	-50	-100	-93	-97
Bhandara	32	-62	-93	-68	-50
Buldhana	42	-43	-100	-78	-99
Chandrapur	28	-62	-99	-68	-80
Gadchiroli	14	-44	-99	-41	-43
Gondia	55	-60	-98	-70	-42
Nagpur	49	-30	-99	-63	-85
Wardha	28	-51	-100	-87	-70
Washim	-25	-73	-100	-96	-98
Yeotmal	-36	-73	-100	-79	-84

- **Rainfall Forecast:** Rain/thundershowers at many places over the state but decreases after 24 hours in Vidarbha and isolated heavy to very heavy rainfall over south Konkan & Goa.
- **Major Kharif Crops:** Rice, ragi, cotton, Vegetables, Pulses, bajra, groundnut, tur, horse gram, soybean, jowar
- **Crop Stage:** Rice in seedlings/ transplanting in Nagpur division and early tillering in Konkan, Kolhapur, Nashik & Pune divisions and other *kharif* crops are in early vegetative stage/ vegetative growth stage. Irrigated cotton is at vegetative/ floral bud formation and early sown green gram & black gram are at flowering stage.
- **Crop Condition:** Good in Konkan and Satisfactory in other areas.
- **Advisory:** Complete transplanting of rice in Vidarbha. For one month old seedlings, 4 to 5 seedlings per hill may be transplanted.
 - Transplanting of rice is advised in Vidarbha.
 - Rainfall is low. Therefore water from naturally available sources like ponds, wells, rivers utilised as supplementary irrigation for transplanted rice. Water level of 5.0 mm be kept in transplanted field.
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables
 - Apply second dose of nitrogenous fertilizers to *kharif* rice in Konkan, Kolhapur, Nashik & Pune divisions divisions.
 - Spray 2 % Urea in soyabean at flowering stage.
 - Apply final dose of Nitrogen @ 50 kg Urea /acre to cotton after 45 to 60 days from sowing. Also spray 2 % DAPS for ball development.
 - Undertake intercultural operation, fertilizer application in standing *kharif* crops, sugarcane and vegetables after current spells of rain in Konkan.
 - **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - blast in cotton in central vidarbha zone & sap sucking pests in Central Maharashtra plateau zone. Spray copper oxy chloride @ 25 gm + Streptocyclin @ 1 gm in 10 liters of water against blast and spray Dimethoate 30 % @ 10 ml in 10 liters of water against sap sucking pests.
 - powdery mildew in green gram & black gram in Central Mahaarashtra zone. Spray water soluble Sulphur 80 % @ 25 gm in 10 liters of water.
 - blue beetle and leaf folding caterpillar & blast in *kharif* paddy. For control of blue beetle and leaf folding caterpillar, spray Carbaril powder @ 2gm / lit of water with 1 ml sticker and for control of blast disease in transplanted rice field, spraying of Carbendazim @ 1gm / liter or copper-oxy-chloride @ 2.5gm/liter of water with 1 ml. sticker may be done.
 - There is attack of green semilooper in soyabean in Amravati and Nagpur division, spray Endosulfan 35% @17ml per 10 liters of water. There is also attack of girdle beetle pests in Central Mahaarashtra zone. For control spray Dimethoate 30 % @ 10 ml in 10 liters of water.
 - Undertake spraying after current spells of rain in Konkan & Goa and Madhya Maharashtra, on a non rainy day over Vidarbha.

Gujarat

- **Realised Rainfall:** Most of the districts of the state received scanty/no rain.

- **Rainfall distribution for last five weeks**

State/Districts	22.07.09	29.07.09	05.08.09	19.08.09
Gujarat Region				
Anand	34	-36	-99	-94
Panchmahal	16	-21	-99	-87
Broach	49	-46	-99	-97
2 weeks continuously deficient to no rain				
Ahmedabad	38	24	-100	-99
Banaskantha	63	89	-99	-99
Dahod	21	-18	-99	-86
Dangs,	109	33	-98	-86
DNH & Daman	147	174	-97	-93
Gandhinagar	-14	201	-99	-96
Kheda	59	3	-99	-72
Mehsana	102	39	-99	-97
Narmada	131	12	-99	-99
Navsari	182	76	-95	-83
Patan	51	18	-100	-100
Sabarkantha	103	111	-99	-98
Surat	210	77	-96	-92
Valsad	144	163	-95	-95
Saurashtra, Kutch & Diu region				
2 weeks continuously deficient to no rain				
Amreli	200	30	-100	-100
Bhavnagar	187	-15	-96	-91
Jamnagar	353	421	-100	-84
Junagarh	428	488	-99	-94
Kutch	184	353	-99	-90
Porbandara	744	794	-100	-92
Rajkot	143	185	-100	-88
Surendranagar	-18	21	-100	-95

- **Rainfall Forecast:** Rain/thundershowers at isolated places over the state.
- **Major Kharif Crops:** Rice, castor, pigeon pea, cotton, groundnut, bajra, sesamum, cluster bean, pulses
- **Crop Stage:** Sowing
- **Crop Condition:** Crop condition is satisfactory
- **Advisory:** Continue sowing of castor, tur
- **Because of dry spell in last consecutive week and as isolated rainfall is expected during next five days, apply irrigation to the crops.**
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables
 - Undertake intercultural operation and application of fertilizer and plant protection measures to the early sown standing crops.
 - Undertake planting of different fruit crops like mango, sapota, pomegranate, lemon, guava, custard apple etc.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - seedling rot in vegetable nursery, drench nursery with Bordeaux mixture @ 0.6% or Ridomil MZ @ 0.05% on a non rainy day.
 - collar rot and root rot diseases are observed in cotton and groundnut. Spray carbandezim @ 10 gm + mencozeb @ 20 gm in 10 liters of water on a non rainy day.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Realised Rainfall:** Thirteen districts of west MP and five districts of east MP received normal/excess rainfall
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
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East Madhya Pradesh					
More than 3 weeks continuously deficient to no rain					
Balaghat	108	-59	-95	-48	-56
Damoh	-9	-83	-100	-39	-72
Dindori	26	-71	-100	-78	-38
Katni	-69	-89	-100	-76	-21
Mandla	39	-47	-100	-63	-41
Narsingpur	187	-59	-100	-22	-55
Seoni	145	-29	-100	-49	-55
Shahdol	53	-92	-100	-77	-68
Sidhi	34	-96	-100	-99	-26
Umaria	-35	-44	-100	-88	-73
3 weeks continuously deficient to no rain					
Chindwara	275	-14	-100	-96	-84
Distribution of rainfall for remaining districts of the state for last five weeks					
Chhatarpur	-23	-94	-100	-89	43
Jabalpur	225	-79	-100	13	-73
Panna	-30	-97	-100	-92	173
Rewa	-14	-90	-100	-61	-7
Sagar	44	-72	-100	25	-40
Satna	-25	-90	-100	-96	92
Tikamgarh	12	-97	-100	-83	50
West Madhya Pradesh					
More than 3 weeks continuously deficient to no rain					
Badwani	-57	-32	-100	-86	-100
Bhopal	368	-21	-100	-63	-85
Gwalior	-11	-93	-96	-91	-25
Mandsaur	201	-24	-99	-54	-54
Raisen	90	-37	-99	-56	-55
Rajgarh	282	-23	-100	-92	-65
Sehore	146	-20	-99	-88	-44
3 weeks continuously deficient to no rain					
Betul	223	-15	-100	-98	-87
Dewas	45	24	-99	-65	-74
Dhar	1	66	-99	-80	-82
Harda	62	190	-100	-100	-81
Indore	97	188	-99	-96	-75
Jhabua	15	98	-97	-94	-81
Khandwa	87	36	-100	-96	-92
Khargone	7	123	-98	-94	-82
Ratlam	35	91	-99	-68	-24
Shajapur	121	14	-100	-67	-57
Ujjain	155	58	-99	-75	-63
Distribution of rainfall for remaining districts of the state for last five weeks					
Bhind	-51	-95	-97	-75	58
Datia	31	-99	-98	-86	39
Guna	21	-71	-100	-20	-9
Hosangabad	194	70	-99	-88	22
Morena	-79	-97	-100	-87	162
Neemuch	27	-44	-100	-91	12
Sheopur Kalani	-7	-97	-100	-55	21
Shivpuri	71	-80	-100	-48	53
Vidisha	12	-55	-100	-41	-5
Bhind	-51	-95	-97	-75	58
Datia	31	-99	-98	-86	39
Guna	21	-71	-100	-20	-9
Vidisha	12	-55	-100	-41	-5

- **Rainfall Forecast:** Rain/thundershowers at many places over south Madhya Pradesh during next 24 hours and decrease thereafter and at a few places over north Madhya Pradesh
- **Major Kharif Crops:** Rice, jowar, sunflower, maize, jowar and soybean
- **Crop Stage:** Sowing/transplanting. Early sown crops in early vegetative stage.
- **Crop Condition:** Good. However in Gwalior and Chambal divisions soybean and rice crops are under water stress conditions
- **Advisory:** Complete the transplanting of rice at earliest by reducing row distance and 2-3 seedlings per hill. Transplant the 14 days old seedlings in main field of rice for SRI system. Transplant the rice seedlings by lehi system if farmers couldn't follow SRI system.
- **Apply irrigation on the standing crops in the stress districts**
 - Continue sowing of short duration *kharif* crops like rice, jowar, sunflower, maize, jowar and soybean.
 - Manage proper drainage facilities in the field. Follow inter cropping of maize and mung with soybean.
 - During stress period farmers could perform the intercultural operation, such as weeding, and soil mulching etc.
 - Destroy YMV affected plants from soybean field and spraying of Methyle Demeton for controlling of vector.
 - For control of stem borer in maize crop use Foret 10G @ 1.5 kg/ha (drop 2-4 granules in foliage).
 - To control pests in paddy crop use 10 Kg Carbofuron per hectare.
 - Prepare /Repair bunds for soil and water conservation.
- **Major Seasonal Crop with stage:** Sugarcane (cane development), cotton (boll development/ maturity) and vegetable crops (vegetative)
- **Crop Condition: Good**
- **Advisory:** Undertake intercultural operations after spells of rain in the seasonal crop in south MP.
- **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 soybean in Bhopal, Sehore, Damoh, Vidisha, Raisen, Sagar, Sehore.
 - Application of pesticides may be undertaken after spells of rain.
- **Animal Husbandry:** To control ticks and mite in cattle, sheep and goat, apply butox / deltox @ 4 ml / litre of water on the body in Jhabua and Dhar districts.
- Arrange vaccination for animals to protect from the disease Galgotu, Langadi and Anthrex in Sagar, Bhopal, Vidisha, Damoh, Raisen, Sehore.

Chattisgarh

- **Realised Rainfall:** Bilaspur, Jashpurnagar, Koriya received excess/normal rainfall. There is a slight improvement in rainfall activity during last two weeks.
- **Rainfall distribution for last 5 weeks**

State/Districts	22.07.09	29.07.09	05.08.09	12.08.09	19.08.09
More than 3 weeks continuously deficient to no rain					
Chattisgarh					
Dantewara	-37	-74	-87	-69	-80
Durg	71	-70	-99	-26	-53
Janjgir	41	-86	-100	-42	-72
Raigarh	166	-73	-99	-55	-56
Rajandgaon	42	-43	-99	-43	-68
Surguja	-21	-81	-95	-57	-49
3 weeks continuously deficient to no rain					
Bastar	6	-3	-96	-47	-65
Kanker	-9	-14	-100	-41	-30
Korba	-3	-17	-98	-21	-63

Distribution of rainfall for remaining districts of the state for last five weeks					
Bilaspur	16	-70	-97	24	-12
Dhamtari	29	-47	-100	23	-96
Jashpurnagar	32	-23	-70	-9	-16
Koriya	90	-92	-99	-63	75
Kowardna	15	-89	-100	42	-69
Mahasumund	480	-58	-100	14	-74
Raipur	147	-71	-97	-4	-51

- **Rainfall Forecast:** Rain/thundershowers at many places over the state during next 24 hours and decrease thereafter.
- **Major Kharif Crops:** Rice, soybean, maize, sesamum, tur.
- **Crop Stage:** Sowing/transplanting
- **Crop Condition:** Good
- **Advisory:** Based on the realized rainfall and forecast of rainfall in many places over the State, farmers are advised to undertake transplanting of rice. In case of older seedlings transplant two to three plants per hill. Where the nursery of rice is not raised, farmers are advised for *lehi* cultivation or line sowing. Apply top dressing where the rice is in early tillering state
 - Undertake sowing of soybean, pigeonpea with soybean.
 - Conditions are favourable for biasi of direct seeded rice. Hence, wherever direct seeded dry sown rice is of about 25-30 days old, biasi operation can be performed. After biasi operation Saghan Chalai should be done at the earliest.
 - Undertake sowing of maize, groundnut and black gram (in light soils of transmahanadi belt of Chhattisgarh).
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), vegetables (flowering / fruiting / harvesting), irrigated maize (vegetative)
- **Crop Condition:** Good
- **Advisory:** Intercultural operation and earthing up and also application of fertilizers may be continued on after current spells of rain

Annexure I

Bangalore (urban) and Tumkur

- Farmers are advised to raise nursery of Fingermillet (ragi). Short duration varieties for direct sowings can be taken up (Indaf-8, Indaf-9, HR-911, PR-202 and MR-10). In the tank fed area, farmers are advised to go for preparation of paddy nursery. The Medium duration varieties recommended are: IR-3864, Pusa, IR-20 & Hybrid KRH-1 KRH-2 Short duration Rasi (IET-1444), Tellahamsa, Mangala, Mukthi (CTH-3)

Bidar

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

Technology Tips for Mitigating Drought in Sugarcane

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

Bijapur

- Contingency crops for August first fortnight sowing in red and shallow black soils: In places where sowing was not taken up during June and July due to non receipt of rainfall, sowing of bajra, sunflower, Navane, Horsegram and intercropping of Sunflower + Castor in 4:2 row proportion is advised.
- Contingency crops for August first fortnight sowing in medium to deep black soils : Sowing of bajra, sunflower, horsegram, *herbacious* cotton (Jayadhar, Suyodhar), intercropping of Sunflower + Castor in 4:2 row proportion, and cotton as relay crop in Ground nut crop can be taken up.
- To conserve moisture in the lands where *kharif* sowing is not done and that land is spared for *rabi* sowing, compartment bunds/contour bunds can be made and/or repeated intercultivation to conserve water can be practiced.
- Due to low rainfall during July in the district, some area has not been sown. This may result in shortage of fodder to animals. So, sowing of fodder crops like fodder sorghum and maize, cowpea, horse gram can be given preference in the land where the *kharif* crops have not been sown and also on lands which are spared for sowing of *rabi* crops.

Raichur and Gulbarga

- In areas left unsown due to lack of rainfall and land areas sown by early season *kharif* crops like greengram, blackgram etc., and harrowed due to lack of soil moisture are to be kept ready for late sowing of late kharif crops like Sunflower, Navane, Horsegram and Bajra (even for fodder)and Medium to Long duration Tur crop(2/3 increased seed rate) sowings after receiving sufficient rain.
- Avoid inter culturing after 40 DAS of greengram.
- Inter cultivation is to be done in tur crops for moisture conservation and weed removal.
- Irrigated Cotton sowing/dibbling can be done wherever sufficient rainfall is received with varieties/Hybrids like Bunny, Neeraja, Bhakti, Kanaka etc. for sowing with proper spacing.