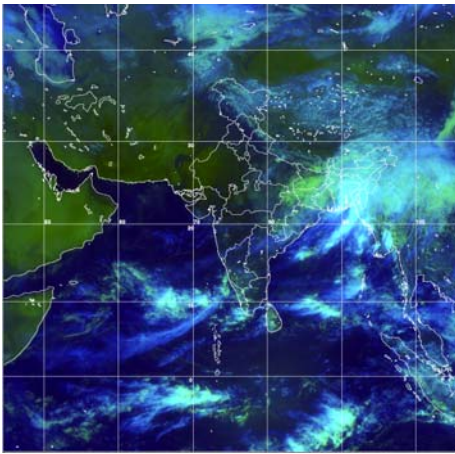




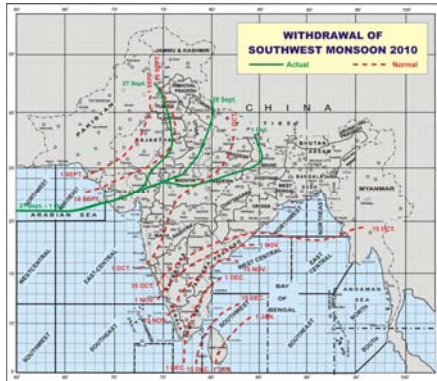
National Agromet Advisory Bulletin

Thursday, 7th October, 2010

(For the period 7th October to 11th October, 2010)



Satellite image 0600 UTC Dated
8th October, 2010



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National Agrometeorological Advisory Service Centre
Agricultural Meteorology Division
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Executive Summary

As rain is likely to occur at most places over Gangetic West Bengal and Orissa during next 48 hours due to depression formed over west central and adjoining northwest Bay of Bengal, postpone irrigation, intercultural operation, and application of plant protection measures and fertilizers to the standing crops over these regions. As heavy to very heavy rainfall would occur at a few places over Coastal Orissa and Gangetic West Bengal during next 48 hours, arrange for draining out excess water from the fields in these regions. Farmers in Gangetic West Bengal and Orissa are also advised to undertake sowing of *rabi* crops after current spells of rain. As rainfall is likely to occur at most places over the North Eastern States also, postpone irrigation, intercultural operation and application of fertilizer and plant protection measures to the standing crops. As there is possibility of rain in Bihar, farmers are advised to harvest the matured rice crop immediately. Also harvest matured maize crop.

Dry weather conditions prevailed in the northern parts of the country. Utilizing the residual soil moisture farmers in these regions are advised to sow the *rabi* crops. Harvesting of standing crops is also advised. Farmers in sub tropical zone (Jammu, Kathua and Reasi districts) are advised to undertake sowing of toria intercropped with gobi sarson. Undertake nursery sowing / sowing of cauliflower, cabbage and knolkhol, potato, radish, carrot, turnip, garlic, methi and spinach during these days. Harvest the matured crops of rice, maize and early sown bajra under the present weather conditions. Farmers in Delhi region are advised to undertake planting of potato, early mustard, sarson saag, radish, turnip, spinach, coriander, early pea and carrot. Transplanting of mature seedlings of cauliflower, cabbage and broccoli may also be done in raised bed.

As most of the districts of Gujarat region and Saurashtra and Kutch did not receive sufficient rain during last week, apply irrigation to the standing crops in these districts. As soil moisture status is favourable, undertake sowing of *rabi* jowar, sunflower, gram and safflower in Maharashtra.

Farmers in Chattisgarh Plain Zone are advised to continue land preparation for *rabi* crop so that sowing of the crops can be started by the first fortnight of October. Also farmers are advised to undertake transplanting of cabbage, tomato, brinjal, chilli etc. Farmers in Bundelkhand Zone of Madhya Pradesh are advised to complete harvesting of mature *kharif* crops and undertake land preparation for sowing of *rabi* crops.

Rain is likely to occur at most / many places in Coastal Andhra Pradesh, Kerala and Coastal and South Interior Karnataka during next three days; farmers are advised to postpone intercultural operations, application of fertilizers and pesticides and irrigation to plantation crops and vegetable crops. Arrange for drainage facilities in Kerala and Coastal Karnataka and at Coastal Andhra Pradesh.

In view of cloudy weather and rainfall during next few days, there is a chance of enhanced attack of brown spot and blast disease in rice in New Alluvial Zone of West Bengal. Apply 2 g Mancozeb per litre of water to control brown spot disease. To control blast disease, apply 1 ml Hinosan or 1 g Carbendazim per litre of water. Apply plant protection measures in this region after current spells of rain.

Present weather conditions are favourable for sucking pest in chilli, brinjal, tomato and other vegetables in Vindhya Plateau Zone of Madhya Pradesh, spray Trijophos 40 EC @800 ml / ha and Emidachloprid 17.8 SL @ 1 ml per 3 litre of water.

Overall crop situation in the country is quite satisfactory.

Distribution of rainfall (% departure from normal) for the districts of Karnataka, Kerala, Tamil Nadu and Andhra Pradesh during last five Weeks

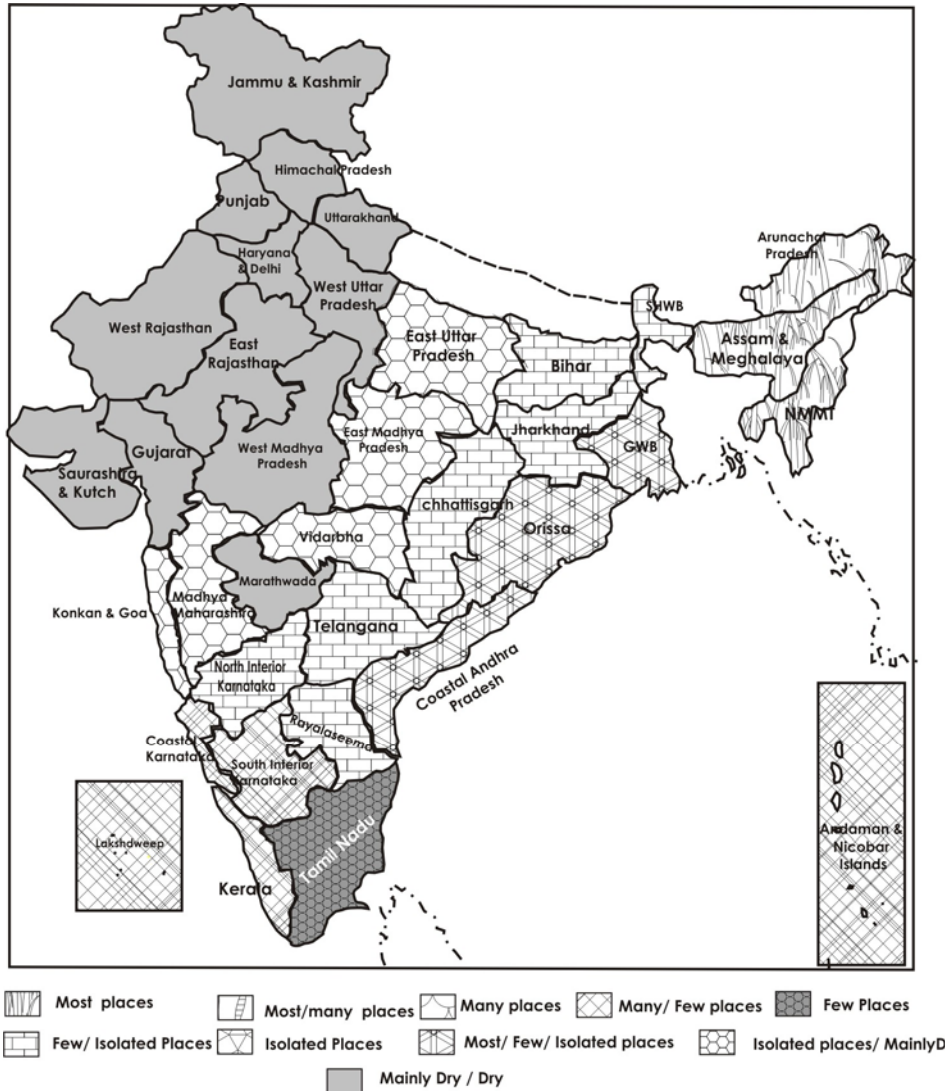
State/Districts	08.09.10	15.09.10	21.09.10	29.09.10	06.10.10
Karnataka					
Coastal Karnataka					
Dakshin Kannada	79	145	-26	98	56
Udupi	68	107	-33	46	45
Uttar Kannada	73	46	52	58	60
North Interior Karnataka					
Bagalkote	-50	-98	-66	-24	-62
Belgaum	31	-41	2	79	57
Bidar	-7	-68	13	-41	-77
Bijapur	-75	-77	-53	-18	-42
Dharwad	-26	-52	-2	42	70
Gadag	-76	-87	-46	-1	-16
Gulbarga	-8	-66	-12	-51	-51
Haveri	19	-43	-40	143	165
Koppal	-52	-81	-33	-47	-77
Raichur	1	-75	-39	-36	-67
South Interior Karnataka					
Bangalore Rural	-99	-8	-92	89	-61
Bangalore Urban	-93	16	-80	137	-48
Bellary	-19	-88	-84	5	-36
Chamarajnagar	-77	4	-48	18	82
Chickmagalur	174	229	21	108	232
Chitradurga	22	-66	-40	-5	30
Davangere	42	-58	26	48	120
Hassan	-14	-2	19	156	151
Kodagu	90	143	-10	63	56
Kolar	-100	108	-64	6	-84
Mandya	-80	0	-58	27	-5
Mysore	-48	57	-59	-22	52
Shimoga	225	99	45	280	190
Tumkur	-83	-46	-41	61	74
Kerala					
Alappuzha	-83	30	-48	54	208
Kannur	65	76	-17	-24	-6
Ernakulam	-65	54	25	163	89
-2Idukki	-53	23	-3	-5	32
Kasaragod	113	37	-35	15	-14
Kollam	-89	92	-33	106	420
Kottayam	-62	67	-2	113	191
Kozhikode	0	258	-22	-42	73
Malappuram	-3	144	-24	25	149
Palakkad	-44	83	-23	25	125
Pathanamthitta	-73	60	-36	64	301
Thiruvananthapuram	-91	-1	-21	-9	548
Thrissur	-31	43	7	66	66
Wyanad	-39	20	-33	-24	39
Tamil Nadu					
Chennai	27	170	-99	-58	-24
Coimbatore	-57	-21	96	102	153
Cuddalore	-81	182	-80	-65	-29
Dharmapuri	-100	80	-100	-83	-78
Dindigul	-99	-25	21	101	280

State/Districts	08.09.10	15.09.10	21.09.10	29.09.10	06.10.10
Erode	-90	0	57	62	64
Kanchipuram	-67	170	-68	-45	19
Kanyakumari	-100	5	-68	103	874
Karur	-24	11	-51	40	-57
Krishnagiri	-97	38	-68	-74	-30
Madurai	-88	94	-24	126	67
Nagapattinam	-53	161	-8	-30	37
Namakkal	-92	39	-46	-38	-27
Nilgiris	25	132	-11	89	139
Perambalur	-100	96	-99	-14	-39
Pondicherry	28	340	99	-65	72
Pudukottai	-71	256	6	3	-29
Ramanathapuram	-100	160	21	279	300
Salem	-99	22	-39	-7	-2
Sivaganga	-50	312	50	270	76
Thanjavur	-84	212	23	63	41
Theni	-84	-26	48	146	169
Tirunelveli	-100	-55	145	410	459
Tiruvallur	-32	269	-82	8	-12
Tiruvannamalai	-100	228	-93	-33	-59
Tiruvarur	-58	322	35	56	107
Tuticorin	-87	-32	-12	209	182
Trichy	-99	85	-39	41	-49
Vellore	-98	170	-81	-23	-71
Villupuram	-78	405	-94	-74	-42
Virudhunagar	-100	-27	80	97	28
Andhra Pradesh					
Coastal Andhra Pradesh					
East Godavari	52	73	-62	-59	-28
Guntur	175	78	53	-52	-34
Krishna	295	100	3	-6	11
Nellore	-28	196	-56	-3	-24
Prakasam	28	273	-83	-57	35
Sirkakulam	109	-38	8	-38	-16
Visakhapatnam	23	0	21	-66	-5
Vizianagram	38	29	23	-62	-5
West Godavari	199	59	-32	-3	-4
Telangana					
Adilabad	256	-18	30	-46	-59
Hyderabad	50	-31	77	45	-25
Karimnagar	254	57	74	-46	-47
Khammam	373	12	10	-76	-21
Mehabubnagar	64	-31	-15	-48	-68
Medak	136	-37	-56	6	-73
Nalgonda	78	140	14	-28	-34
Nizamabad	152	-33	55	-46	-30
Rangareddy	42	-23	54	-38	-39
Warangal	326	19	-17	-62	-64
Rayalaseema					
Anantapur	-55	-81	-58	33	-87
Chittoor	-86	149	-77	47	-58
Cuddapah	9	-1	-49	-67	-33
Kurnool	88	-62	-35	-4	-62

LEGEND

- EXCESS 20% OR MORE
- NORMAL +19% TO - 19%
- DEFICIENT - 20% TO - 59%
- SCANTY - 60% TO - 99%
- NO RAIN - 100%
- DATA NOT AVAILABLE

Weather Forecast (Valid upto 0830 hours of 10th October, 2010)



Weather Warnings

- Heavy to very heavy rainfall would occur at a few places over Coastal Orissa, West Bengal & Sikkim and northeastern states during next 48 hours.
- Isolated heavy rainfall would occur over Lakshdweep, Kerala, Coastal Karnataka and Andaman & Nicobar Islands during next 48 hours and over Coastal Andhra Pradesh during next 24 hours.
- Fishermen are advised not to venture into the sea along and off north Andhra Pradesh, Orissa and West Bengal coasts during next 48 hours.

Weather Outlook (upto 0830 hours IST of 12th October, 2010)

- A fresh low pressure area may develop over central Bay of Bengal, which may become more marked.

Zonewise Agromet Advisories

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

- **Realised Rainfall:** Most of the districts of Bihar, Jharkhand (except Chatra and Lohardagga), Orissa (Kendrapara, Khurda and Puri), West Bengal and Sikkim received no significant rain during last week.
- **Rainfall Forecast:** Rain is likely to occur at most places over Gangetic West Bengal and Orissa during next 48 hours and decrease thereafter. Rain is likely to occur at a few places over Bihar, Jharkhand, Sub Himalayan West Bengal and Sikkim during next 48 hours and decrease thereafter. Heavy to very heavy rainfall would occur at a few places over Coastal Orissa and Gangetic West Bengal during next 48 hours.
- **Major Crops:**
 - Early sown rice (grain formation / maturity), late sown rice (tillering / panicle initiation), maize (cob formation / maturity), sesamum (flowering / pod formation / maturity), groundnut (pod formation / maturity), soybean, green gram (pod formation / maturity), black gram, kulthi (vegetative), tori (sowing), vegetables like cauliflower, brinjal etc. (sowing / early vegetative / vegetative) in Bihar.
 - Early sown rice (grain formation / maturity), late sown rice (tillering / panicle initiation), early sown maize (cob formation / maturity), sesamum (flowering / pod formation / maturity), groundnut (pod formation / maturity), urd, green gram, pignon pea, niger and short duration maize (flowering / pod formation), kulthi (vegetative) and potato, toria and early mustard (sowing), tomato, cabbage and cauliflower (nursery sowing / transplanting), chilli and brinjal (nursery sowing) in Jharkhand.
 - Rice (tillering / flowering / grain formation / early maturity / maturity) and maize (cob formation / maturity), groundnut (pod formation / maturity), pulses, soybean, sesamum and ragi (flowering / pod formation / maturity), vegetable crops (vegetative / flowering / fruiting) in Orissa.
 - Sugarcane (cane development), vegetable crops (sowing / germination / early vegetative / vegetative / flowering / fruiting / harvesting), *aus* rice (maturity / harvesting), *aman* rice (tillering / panicle initiation), pulses (vegetative / flowering / pod formation), arhar (early vegetative / vegetative), sesame (flowering / pod formation / maturity) and groundnut (pod formation / early maturity) in West Bengal.
 - Large cardamom (capsule / grain maturity / harvesting), orange (fruit maturity), wheat (sowing / germination), summer potato (harvesting), ginger (vegetative), rice (flag leaf initiation / flowering / milk and grain formation), *rabi* vegetable (transplanting / vegetative) in Sikkim.
- **Advisories:**
 - As rain is likely to occur at most places over Gangetic West Bengal and Orissa during next 48 hours, postpone irrigation, intercultural operation, application of plant protection measures and fertilizers to the standing crops over these regions. As heavy to very heavy rainfall would occur at a few places over Coastal Orissa and Gangetic West Bengal during next 48 hours, arrange for draining out excess water from the fields from these regions. Apply irrigation to the standing crops in Bihar and Jharkhand.
 - Farmers in Gangetic West Bengal and Orissa are also advised to undertake sowing of *rabi* crops after current spells of rain.
 - In Gangetic West Bengal, farmers are advised to sow *rabi* crops like tori and also vegetables like tomato, okra, brinjal, cauliflower, radish, capsicum etc. Farmers are also advised to sow mustard and sugarcane in this region.
 - Farmers are advised to undertake sowing of *rabi* crops like gram, lentil, peas and oilseed crops like tori, mustard, sarson etc. and also nursery sowing of tomato, cauliflower and cabbage in North East Alluvial Zone and South Bihar Alluvial Zone and also sowing of rapeseed and mustard, cauliflower and cabbage in North West Alluvial Plain Zone in Bihar.
 - As there is possibility of rain in Bihar, farmers are advised to harvest the matured rice crops immediately. Also harvest matured maize crop.
 - Farmers in Jharkhand are advised to undertake land preparation and sowing of peas and mustard, planting of potato and sowing of vegetables like brinjal, cauliflower and cabbage during this period.

- Farmers in Orissa are advised to undertake land preparation and sowing of groundnut, green pea, mustard etc.
- Recommended varieties of crops to be sown in different States of the region are mentioned in Annexure I.
- In view of cloudy weather and rainfall during next few days, there is a chance of enhanced attack of brown spot and blast disease in rice in New Alluvial Zone of West Bengal. Apply 2 g Mancozeb per litre of water to control brown spot disease. To control blast disease, apply 1 ml Hinosan or 1 g Carbendazim per litre of water.
- Under prevailing weather, there is possibility of attack of black rot of crucifer in cabbage and cauliflower in New Alluvial Zone of West Bengal. Apply 1 g Streptocycline in 10 litres of water and spray thoroughly.
- Due to high humidity, low temperature and cloudy weather, there is possibility of infestation of blast in *kharif* groundnut in Cuttack, Kendrapara and Khurda districts in Orissa; spray 1 g Beam and 1.5 g Hinosan in 2 litres twice at 15 days interval.
- Due to use of overaged seedlings and high humidity in North Eastern Coastal Plain Zone in Orissa, blast and sheath blight diseases are now appearing in the rice fields. In case of appearance of any disease problem, drain out excess water from the fields and apply MOP @ 10-12 kg per acre.
- Apply plant protection measures after current spells of rain in Gangetic West Bengal and Orissa and on a non-rainy day in Bihar, Jharkhand, Sub Himalayan West Bengal and Sikkim.

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

- **Realised Rainfall:** Most of the districts of Assam and Arunachal Pradesh received no significant rainfall during last week.
- **Rainfall Forecast:** Rain is likely to occur at most places over the region during the period. Heavy to very heavy rainfall would occur at a few places over northeastern states during next 48 hours.
- **Major Crops:**
 - Vegetables (flowering / fruiting / harvesting), sugarcane (cane development), maize (maturity), *sali* rice (tillering / panicle initiation / flowering), *ahu* rice (transplanted summer rice) (early maturity / maturity), arhar (flowering / pod formation), sesamum (flowering / pod formation) and black gram and green gram (early vegetative / vegetative) in Assam.
 - Rice (milk / maturity), vegetables (vegetative / flowering / fruiting), *rabi* vegetables (nursery sowing), maize (cob maturity / harvesting), orange (fruiting) and ginger and turmeric (vegetative) in Arunachal Pradesh.
 - Upland rice (early maturity / maturity / harvesting), *aman* rice (tillering / panicle initiation) and vegetables (sowing / early vegetative / vegetative / flowering / fruiting) in Tripura.
 - *Sali* rice (tillering / panicle initiation), potato (planting / early vegetative / vegetative), vegetables (sowing / germination / early vegetative / vegetative / flowering / fruiting), maize (cob maturity) in Meghalaya.
- **Advisory:**
 - As rainfall is likely to occur at most places over the States of this region, postpone irrigation, intercultural operation and application of fertilizer and plant protection measures to the standing crops. As there is possibility of heavy to very heavy rainfall at a few places during next 48 hours, also arrange for draining out excess water from the fields to protect the crops from water logging. Farmers are also advised to postpone sowing under prevailing weather and resume after current spells of rain.
 - Farmers in Assam are advised to undertake sowing of toria in Hills Zone, planting of potato and sowing of rapeseed of mustard in Lower Bramhaputra Valley Zone, sowing of cauliflower and early maturing cabbage, tomato, knolkhol and brinjal in Upper Bramhaputra Valley Zone, sowing of tomato in Barak Valley Zone, sowing of early vegetables like early cauliflower and radish in Central Bramhaputra Valley

Zone and sowing of vegetables like cauliflower, cabbage, knolkhol, radish and tomato in North Bank Plain Zone.

- Farmers in Arunachal Pradesh are advised to raise nursery of hybrid tomato, cauliflower and cabbage in present weather conditions. Farmers are also advised for preparation of field for potato.
- Under prevailing rainy weather condition, farmers are advised not to undertake harvesting of sugarcane in Meghalaya.
- It is also optimum time for planting of potato in mid hills region of Ri-Bhoi, East Khasi and West Khasi hill Districts of Meghalaya. Farmers are also advised to transplant brinjal and chilli in East Garo, West Garo, South Garo and Ri-Bhoi Districts.
- Undertake field preparation and nursery sowing of tomato and onion in Manipur.
- Prepare land and undertake sowing of mustard and winter season vegetables like pea, French bean etc. in Nagaland.
- Seedbed may be prepared for sowing of winter vegetable such as cabbage, cauliflower, tomato etc. in Tripura. For transplanting of seedlings main field may also be prepared.
- Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
- There may be possibility of infestation of sheath and seedling blight in lowland rice in North Tripura. To protect the plant from the disease Bavistan or Saaf @ 1g per liter of water may be applied at bottom and leaves of the plant.
- As there is chance of rain at most places over the region, farmers are advised to apply plant protection measures after current spells of rain.
- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals in Arunachal Pradesh. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised.
- As heavy rain is likely to occur, nylon nets should be erected around the ponds in low lying areas to avoid free movement of fishes from insides and out side the ponds.

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

- **Realised Rainfall:** Either dry weather or no significant rainfall prevailed / occurred in the region.
- **Rainfall Forecast:** Either mainly dry or dry weather is likely over the region except in East Uttar Pradesh, where isolated rain is likely during next 48 hours.
- **Major Crops:**
 - Rice (grain formation / development), jowar and maize (grain formation / development), pigeon pea (flowering), vegetable crops (flowering/fruitletting), early mustard and sarson (sowing) in Delhi
 - Rice (flowering), vegetables (vegetative / flowering) in Himachal Pradesh.
 - Vegetable crops (flowering / fruiting / harvesting), rice (grain formation/ maturity), maize (grain development / maturity), mung (pod formation/ maturity), groundnut (pegging), sunflower (vegetative / flowering) in Jammu & Kashmir.
 - Sugarcane (grand growth), rice (maturity), toria, mustard (sowing) in Uttarakhand.
 - Sugarcane (vegetative), cotton (vegetative/flowering), maize (vegetative), rice (grain formation), mung, mash (flowering/pod formation) in Punjab.
 - Sugarcane (vegetative), cotton (vegetative), rice (flowering/grain formation), guar and bajra (harvesting) in Haryana.
 - Rice (flowering), sugarcane (grand growth), vegetable crops (transplanting / vegetative / flowering) in Uttar Pradesh.
 - Sugarcane (grand growth), vegetable crops (flowering / fruiting / harvesting), soybean, mung, cluster bean, sesamum and groundnut (grain development / maturity).

- This is proper time for land preparation and sowing of rabi crops like mustard, taramira and rapeseed in the region.

- **Advisory:**

- Dry weather conditions prevailed in the region during last week and likely to prevail during next three days. Utilizing this favourable weather condition, farmers are advised to complete harvesting of kharif crops and undertake post-harvesting operations. Land preparation and sowing of rabi crops like mustard, taramira and rapeseed may also be undertaken utilizing the residual soil moisture.
- Farmers in flood affected districts of Central Plain Zone, Bundelkhand and Western Plain Zone in Uttar Pradesh are advised to undertake field preparation and sowing of toria and early *rabi* vegetables utilizing the residual soil moisture.
- Farmers in Delhi region are advised to undertake planting of potato, early mustard, sarson saag, radish, turnip, spinach, coriander, early pea and carrot (varieties are given in Annexure I). Transplanting of mature seedlings of cauliflower, cabbage and broccoli may also be done in raised bed.
- Farmers in Bhabar and Tarai zone (high hills in Nainital district) in Uttarakhand are advised to undertake sowing of early vegetable pea and field preparation for sowing of garlic and undertake sowing of toria, mustard (Uttam Singh Nagar). Complete harvesting of rice crop utilizing the favourable weather conditions.
- Farmers in sub tropical zone (Jammu, Kathua and Reasi district) are advised to undertake sowing of toria intercropped with gobi sarson. Undertake nursery sowing/sowing of cauliflower, cabbage and knol–khol, potato, radish, carrot, turnip, garlic, methi and spinach during these days. Harvest the matured crops of rice, maize and early sown bajra under the present weather conditions.
- Farmers in Valley Temperate Zone (Srinagar) are advised to undertake sowing of brown sarson and wheat utilizing the residual soil moisture.
- Farmers in Flood Prone Eastern Plain Zone (Alwar, Bharatpur, Dholpur, Karauli, Sawai, Madhopur), Sub humid Southern Plain and Aravalli hill zone and Irrigated North Western Plain Zone (Sriganganagar, Hanumangarh) in Rajasthan are advised to undertake sowing of mustard, taramira and rapeseed utilizing the residual soil moisture.
- Farmers in Semi Arid Eastern Plain Zone (Dausa, Ajmer, Tonk, Jaipur districts) in Rajasthan are advised to undertake sowing of early pea utilizing the residual soil moisture.
- Farmers in Eastern zone (Bhiwani, Fatehabad, Hissar, Jhajjar, Mahendgarh, Mewat, Rewari, Rohtak and Sirsa districts) in Haryana are advised to undertake transplanting of fruit crops and land preparation for sowing of mustard and barseem.
- Farmers in Western Plain Zone (Firozpur and Faridkot districts) and Western zone (Bathinda, Moga, Muktsar, Mansa, Sangrur districts) of Punjab are advised to undertake sowing of radish, carrot and turnip utilizing the residual soil moisture. Complete sowing of toria alone or intercropping with gobi sarson in Central Plain Zone (Amritsar, Kapurthala, Fatehgarh Sahib, Ludhiana, and Jalandhar).
- Weather conditions in Mid Hills Zone of Himachal Pradesh are congenial for spread of fruit rot in tomato, chilli and Shimla mirchi, fruit borer in brinjal, okra and tomato, white fly in cucurbits, tomato and French bean. Farmers are advised to undertake plant protection measures to control the pests and diseases.

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

- **Realised Rainfall:** All the districts in Coastal Karnataka, Belgaum, Dharwad, Gadag and Haveri districts; all the districts in South Interior Karnataka except Bangalore, Bellary and Kolar districts, all the districts in Kerala, all the districts in Tamil Nadu except Cuddalore, Dharmapuri, Karur, Namakkal, Pudukkottai, Thiruvannamalai, Trichyu, Vellore and Villupuram districts and all the districts in Coastal Andhra Pradesh except Guntur and Nellore.

- **Rainfall Forecast:** Rain is likely to occur at most / many places in Coastal Andhra Pradesh, Kerala and Coastal and South Interior Karnataka during next three days and at isolated / a few places over remaining region. Isolated heavy rain is likely over Kerala and Coastal Karnataka during next 48 hours and at Coastal Andhra Pradesh during next 24 hours
- **Major Crops:**
 - Rice is at maturity stage. Pepper is at berry development / maturity stage and arecanut is at nut development stage in Kerala. New planting is continued for coconut, black pepper, cocoa, cashew, nutmeg, mangosteen, rambutan etc.
 - *Kuruvai* rice (grain maturity), groundnut (pod development / maturity), sugarcane (cane development), banana (fruit bearing stage) in Tamil Nadu. This is proper time for sowing or rainfed crops.
 - *Kharif* crops viz., maize is at maturity stage, paddy crop is at flowering / grain formation stage and groundnut is at pegging in Andhra Pradesh.
 - *Kharif* crops viz., green gram and black gram (maturity), pigeon pea (late vegetative) and sugarcane (cane development) in Karnataka.
- **Advisories:**
 - Due to continuous rains in Krishna Godavari Zone during August-September 2010, green gram and black gram crops were completely damaged. Waterlogging is reported in sugarcane and maize crops fields in Srikakulam, Vizianagaram and Visakhapatnam districts. There are also chances of rain in next three days. Hence harvesting of crops may be undertaken after spells of rain with proper storage facilities for the grains.
 - Waterlogging is reported in the Coastal Zone of Karnataka. As there are chances for further rains in the next three days, farmers are advised to arrange for drainage facilities from the fields of plantation crops.
 - Rain is likely to occur at most / many places in Coastal Andhra Pradesh, Kerala and Coastal and South Interior Karnataka during next three days; farmers are advised to postpone intercultural operations, application of fertilizers and pesticides and irrigation to plantation crops and vegetable crops. Arrange for drainage facilities Kerala and Coastal Karnataka during next 48 hours and at Coastal Andhra Pradesh
 - Farmers in Southern Zone of Andhra Pradesh are advised to undertake sowing of rice and black gram. Farmers in Kurnool are advised to undertake land preparation and sowing of gram utilizing residual soil moisture.
 - As there is sufficient moisture in the soil in North Dry Zone (Bijapur) in Karnataka with a possibility of rainfall during next three days, farmers are advised to continue sowing of sunflower, desi cotton (Jayadhar and Suyodhar) and start sowing of rabi sorghum and safflower.
 - Farmers in Hill zone (Devangere, Chitradurg and Tumkur) of Karnataka are advised to undertake land preparation and sowing of ragi, jowar and Bengal gram (varieties are given in Annexure I)
 - Farmers in Southern Zone of Kerala are advised to undertake transplanting of *mundakan* rice.
 - Prevailing weather conditions in Hill zone (Devangere, Tumkur and Chitradurga) in Karnataka are congenial for the incidence of leaf roller in rice, stem borer in maize and jowar and leaf webber in red gram. Farmers are advised to undertake plant protection measures to control the pests.
 - Present weather condition in Central Zone of Kerala may favour the incidence of leaf folder and stem borer in rice, bud rot in coconut and yellowing in arecanut and rhizome rot in ginger and turmeric. Farmers are advised to undertake plant protection measures to control the pests and diseases.
 - Present weather condition in Kurnool in Scarce Rainfall Zone of Rayalaseema is congenial for the incidence of late leaf spot in groundnut, leaf folder in rice, root rot in and sucking pests in cotton. Heavy rains occurred during last month coupled with present high relative humid conditions are favourable for the incidence of powdery mildew in ber and green chillies. Farmers are advised to undertake plant protection measures to control the pests and diseases.

- Plant protection measures may be undertaken after spells of rain in Coastal Andhra Pradesh, Kerala and Coastal and South Interior Karnataka and on a non rainy day in Telangana, Rayalaseema, Tamil Nadu and North Interior Karnataka.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Most of the districts of Konkan (except Thane district), Madhya Maharashtra (except Ahmednagar, Dhule, Jalgaon, Nandurbar and Nasik districts) and Usmanabad district of Marathwada received good rain during last week. Most of the remaining districts of the States of the region received no significant rain during last week.
- **Rainfall Forecast:** Isolated rain is likely to occur in Konkan and Goa and Madhya Maharashtra during next 48 hours and decrease thereafter. Either dry or mainly dry weather will prevail over remaining parts of the region during the period.
- **Major Crops:**
 - *Kharif* rice (panicle initiation in East Vidarbha and flowering / grain formation (grain maturity in early variety) in Konkan, Kolhapur, Nashik and Pune (western parts) divisions), *kharif* jowar (flowering / grain formation), soyabean (pod maturity / harvesting), bajra (grain maturity / harvesting), cotton (flowering / boll formation), sunflower (seed development / seed maturity), groundnut (pod maturity / harvesting), red gram (secondary branching) and irrigated cotton (flowering / boll formation) in Maharashtra.
 - Rice (flowering / grain formation), groundnut (pod formation / maturity), cotton (flowering / boll formation), maize (cob formation / maturity), bajra (grain formation / maturity), pigeon pea (flowering / pod formation), sesamum (flowering / pod formation / maturity), soybean, green gram and black gram (pod formation / maturity) and castor (spike formation) in Gujarat.
- **Advisory:**
 - As Ahmednagar, Dhule, Jalgaon, Nandurbar and Nasik districts of Madhya Maharashtra, most of the districts of Marathwada and Vidarbha did not receive sufficient rain during last week, apply irrigation to the standing crops in these districts.
 - As most of the districts of Gujarat region and Saurashtra and Kutch did not receive sufficient rain during last week, apply irrigation to the standing crops in these districts.
 - Undertake harvesting of already matured groundnut, bajra and soyabean and start harvesting of already matured early maturing rice (in south Konkan) in Maharashtra taking the advantage of dry weather.
 - As soil moisture status is favourable, undertake sowing of *rabi* jowar, sunflower, gram and safflower and planting of sugarcane in Maharashtra.
 - As there is possibility of clear sky during the period, farmers of Gujarat State are advised to harvest *kharif* crops like maize, bajra, groundnut, pearl millet, green gram, black gram and sesamum.
 - Undertake sowing of rapeseed and transplanting of vegetables like cauliflower and cabbage in Gujarat State during this period.
 - Due to humid weather in Maharashtra, there is possibility of attack of pod borer in arhar, spray 5% nimark at the time of flowering. After 12 to 15 days of first spraying, spray 500 ml Heliokil (H.N.P.V.) in 500 liters of water. If there is more infestation, spray Chloropyriphos @ 25 ml or Polytrin-C @ 20 ml or Prophanophos 50% @ 1.5 ml per liter water.
 - Due to rainy and humid weather there is infestation of white fly, aphids and thrips in *kharif* cotton in Maharashtra; spray Trizophos @ 20 ml or Acetamiprid SP @ 3 g or Carbosulfan 25 EC @ 20 ml in 10 liters of water.
 - The incidence of rice leaf folder is noticed on rice in some part of the Nagpur division; spray the crop with Carbaryl 50 WP @ 20 g / 10 litres of water and Monocrotophos 36 WSC @ 11 ml / 10 litres of water.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** No significant rainfall occurred during the period.
- **Rainfall Forecast:** Mainly dry weather or isolated rainfall is likely over Madhya Pradesh. Rain is likely at a few / isolated places over Chhattisgarh during the next three days.
- **Major Crops:**
 - *Kharif* crops like soyabean, maize, sorghum, sesame (maturity / harvesting), green gram and black gram (maturity) in Madhya Pradesh.
 - *Kharif* crops like soyabean, maize, green gram etc (maturity), and sugarcane (cane development) in Chhattisgarh.
 - This is proper time for sowing of early rabi crops.
- **Advisory:**
 - Farmers in Bundekhand Zone of Madhya Pradesh are advised to complete harvesting of mature *kharif* crops and undertake land preparation for sowing of *rabi* crops.
 - Farmers in Kymore Plateau and Satpura Hill Zone region are advised to prepare nursery for medium duration crop of cauliflower and cabbage and transplanting of seedling in main field at optimum moisture level in the field.
 - Farmers in Gird zone of Madhya Pradesh are advised to start land preparation for sowing of mustard crop utilizing residual soil moisture.
 - Farmers in Chattisgarh Plain Zone (Bilaspur, Dhamtari, Durg, Janjgir, Kabirdham, Kanker, Kawardha, Korba, Mahasamund, Raigarh, Raipur and Rajnandangaon districts) are advised to continue land preparation for rabi crop so that sowing of the crops can be started by the first fortnight of the October. Also farmers are advised to undertake transplanting of cabbage, tomato, brinjal, chilli etc.
 - Due to moisture stress condition at pod filling stage in Jhabua Hill Zone for late sown soybean, farmers are advised to irrigate their crops.
 - Farmers in upland region of Bastar Plateau Zone are advised to undertake sowing of castor, niger, kulthi and toria crops (varieties given in Annexure I).
 - Farmers in North Hill Zone (Jashpur, Koriya and Sarguja districts) are advised to undertake transplanting of chilli, tomato, brinjal, cabbage and cauliflower immediately in upland areas.
 - As the relative humidity is found to be high and also high moisture contents in the air in Bundelkhand Zone of Madhya Pradesh, incidences of pests attack may increase in the vegetables crops. So farmers are advised to keep a watch on the vegetables crops and if any insect is found, pick up the insect manually and put in pits.
 - Present weather conditions are favourable for sucking pest in chilli, brinjal, tomato and other vegetables in Vindhya Plateau Zone of Madhya Pradesh, spray Trijophos 40 EC 800 ml / ha and Emidachloprid 17.8 SL 1 ml per 3 litre of water.

Annexure I List of Varieties

Assam :

Cauliflower: Improved Japanese, Pusa Synthetic, Pusa Snowhall etc.

Early cabbage: Golden Acar, Pride of India, Pusa Mukta etc.

Early raddish: Pusa Desi, Pusa Chetki and Pusa Himani.

Brinjal: Pusa Kranti, Cluster, JC-1, Kuchia, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, JC-2, BWR-12 etc.

Knolkhol: White Vienna.

Toria: TS -27, TS- 29 etc.

Potato: Kufri Jyoti, Kufri Chandramukhi, Kufri Sindhuri, Kufri Megha etc.

Rapeseed: TS-38, M-27, TS-29, TS-36 etc.

Mustard: TM-2, TM-4, Varuna etc.

Tomato: Punjab Chhuhara, Arka Alok, Pusa Rubi, Sioux, Punjab Keshri, Arka Abhijit, BT-1 etc.

Bihar :

Tori: RAUTS-17, PT-303, Bhawani and Panchali.

Cauliflower: Kuwari, Patna Early, Pusa Katki, Pusa Deepali and Hajipur Agat.

Brinjal: Rajendra Baigan-2, Rajendra Annapura, Pant Rituraj, Pant Samrat, Swarn Pratibha and Arka Navnit.

Jharkhand :

Mustard: Shivani, Varuna, Pusa Bold, Kranti etc.

Vegetable pea: Arkel, Azad Pea-1.

Potato: Kufri Chandramukhi, Kufri Ashoka, Kufri Kanchan.

Peas: Arkel, Azad Pea etc.

Brinjal: Pusa Purple Long, Swarn Pratibha, Pusa Hybrid-5, Pusa Hybrid-6, Swarn Shakti.

Cabbage: Late Drumhead.

Cauliflower: Snowball-6, Pusa Snowball-21.

West Bengal :

Radish: Contayl Lal, Red Bombai, Japanese White.

Tori: Agrani, Panchali etc.

White mustard: Binoy, Subinoy etc.

Sugarcane: CO-7218, CO-527, CO-1148, CO-6203, etc.

Orissa :

Groundnut: Smruti, TAG-27, TAG – 24 and JL-24 etc.

Green pea: Rachana, Arkel and T -163 etc.

Mustard: Parbhati, Anuradha, TS-29 & M-27 etc.

Jammu & Kashmir :

Cabbage: Golden Acre, Pride of India.

Cauliflower: Giant Snow Ball, Pusa Synthetic.

knol khol: White Vienna and Purple Vienna.

Toria: RSPT-1, RSPT-2, RSPR-3

Gobi sarson: GSS-1

Potato: K.Badshah, K.Sinduri, K.Chipsona & K.Sona

Radish: P. Reshmi

Carrot: Pusa Kesar, P.Yamdagani

Turnip: PTWG

Garlic: local, yamuna safed, agrifound, parvati

Methi: pusa early bunching and kasuri methi

Spinach: all green

Barseem: mascavi, pusa giant, BL-1

Punjab :

Radish: Asiatic (Desi) varieties -Pusa Chetki,

Carrot: PC-34

Turnip: L-1, Desi varieties

Rajasthan :

Radish: Pusa Rasmi

Carrot: Pusa Keshar

Early pea: Arkil, Hara bona, VL-3, Jawahar Matar-4, Matar Ageti-6

Mustard: Early sown(irrigated) (15Sep-10Oct) : EJ17, Pusa Mahak, Kanti,

Normal sown (irrigated) (October): Maya, Rohini, Pusa Jai Kisan, Varuna, RGN 13, RGN73, NRCDR-2, NRCHB 506(hybrid)

Normal sown (rainfed): Arawali, RGN48, Geeta, PBR 97

Late sown (irrigated) (November sowing): NRCHB101, SwarnaJyoti, Ashirwad, Vardan

Saline sodic soils: CS-52, CS-54, CS-56, Narendra Rai 1

Taramira: Karan Tara, Narendra Tara, T-27, RTM-314

Yellow Sarson: NRCYS-05-02, YSH-40 Beej Pakhwara

Rapeseed- mustard: Rohini, Pusa Jaikisan, Maya, NRCDR-2, Lakhmi, NRCHB 101 and hybrid NRCHB506

Potato: Kufri-Ashok and Chandramukhi for early sowing, Kufri-Anand, Chipsona-1, 2, Jyoti and Pukhraj, for mid sowing and Kufri-Lalima, Sinduri and Satluj for late sown conditions.

Toria : T-9, Sangam, TL-15

Uttarakhand :

Vegetable pea: VL Ageti Mater-7, Vivel Mater-10, Pant Subjee Mater-3, Azad Mater-3 and Arkel

Garlic: VL-Garlic or DARL-52

Toria: Toria 303, Pant toria-507

New Delhi :

Carrot: Pusa Rudhira and Pusa Kesar.

Early pea: Pusa Pragati.

Sarson saag: Pusa saag-1;

Radish Pusa chatki, Versa kee Rani, summer long, long chetaki;

Spinach: All green;

Coriander: Pant Haritama, hybrids;

Turnip: Pusa swati, local red variety.

Early mustard: Pusa Agrni, Pusa Taraka, Pusa Mahak

Karnataka:

Jowar: variety M-35-1 and Hybrid CSH-10

Bengal gram: A-1, JG-11, KAK-2 and Vishal.

Ragi: GPU-45,48 and 26

Maharashtra :

Rabi jowar: Selection -3, Phule Mauli, Phule Anuradha etc. for low fertile soil, Phule Chitra, Phule Mauli, Maldandi 35 - 1 etc. for medium fertile soil & Phule Vasudha, Phule Yashoda, CSV-22 etc. for black soil.

Sunflower: Modern, Bhanu, EC-68414, Phule Raviraj, K.B.S.H.-1, K.B.S.H.-44 and M.S.F.H.-17.

Safflower: Bhima, Phule Kusuma, Girna, Nari-6, Sharada, Nari-NH-1 and DSH-129.

Gram: Vijay, Vishal, Virat and Dig Vijay.

Sugarcane: COM -88121, CO-0265 (Phule-265), CO -8014, CO -86032 and CO 94012.

Gujarat :

Rapeseed: Guj. Rapeseed-1 or 2.

Chhattisgarh :

Niger: JNC-1, JNC-6, JNC-9, GA-10, Ootakmund, KGN-2

Kulthi: AK-21, AK-42, Bastar Kulthi, Birsa Kulthi, VLG-9

Castor: DCS-9, DCH-177, DCH-4, DCH-5

Annexure II Contour maps for the week ending 06.10.10

