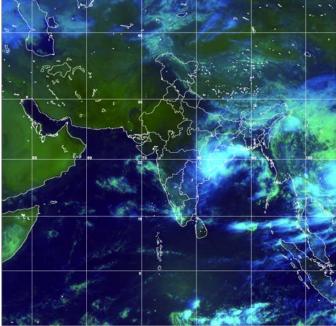


National Agromet Advisory Bulletin Thursday, 14thOctober, 2010 (For the period 14th October to 18th October, 2010)



Satellite image 0600 UTC Dated 15th October, 2010





Issued by National Agrometeorological Advisory Service Centre Agricultural Meteorology Division India Meteorological Department Shivajinagar

Pune.

The bulletin is also displayed in the website (http://www.imdagrimet.gov.in) of the Division

Significant rainfall occurred over Coastal Andhra Pradesh, Kerala and Coastal Karnataka and scattered rainfall occurred over Tamil Nadu during last week. These rains are favourable for sowing of crops like rice, black gram, sunflower, *desi* cotton, gram, safflower, ragi and jowar in these States. Rains are also useful for undertaking transplanting of *mundakan* rice in Kerala. Farmers in Tamil Nadu are advised to undertake sowing of sorghum, cotton, pearl millet and pulse crops and transplanting of chilli. Transplanting of *late samba / thaladi* rice may also be undertaken in Cauvery Delta Zone of Tamil Nadu.

Utilizing the residual soil moisture farmers are advised to sow the *rabi* crops like toria, potato in Uttar Pradesh, mustard, rai, toria, vegetable pea, potato, berseem, lentil and horsegram in Uttarakhand, flower crops like lilium in Himachal Pradesh, mustard, gram, field pea, wheat and barley in Jammu, gram, raya, barseem, sugarcane and transplanting of vegetables in Punjab, mustard and berseem in Haryana, sarson, early pea, carrot, potato, cauliflower, cabbage, onion and broccoli in Delhi, niger, potato, vegetables, rapeseed and mustard in Assam, transplanting of vegetables in Arunachal Pradesh, gram, lentil, pea, rapeseed, mustard, sarson and urd in Bihar, nursery sowing of vegetables and sowing of mustard and pea in Orissa and mustard in West Bengal.

Farmers in Gird zone of Madhya Pradesh are advised to start land preparation for sowing of mustard crop. Farmers are also advised to undertake sowing of castor, niger, kulthi and toria crops in upland region of Bastar Plateau Zone in Chhattisgarh, brown sarson and wheat in Kashmir and also mustard, taramira and rapeseed in Rajasthan utilizing the residual soil moisture.

Dry weather conditions continue to prevail over most of the states in northwest and western parts of the country. As there is less possibility of rain during next five days and bright sunshine is likely to prevail, farmers are advised to utilize favourable dry weather condition for harvesting of rice, maize, urd, moong, til, soybean, groundnut, jowar and bajra in Uttar Pradesh, late transplanted rice, potato, apple etc. in Himachal Pradesh, cotton, rice, moon and mash in Punjab. Harvesting of rice, nagli, groundnut, udid and niger may also be undertaken in Konkal region of Maharashtra.

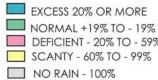
Severe incidences of citrus leaf miner is reported in Dimapur district of Nagaland. Damage of tender leaves by the caterpillars is reported. No other major pest incidence is reported from remaining parts of the country.

By and large, *kharif* crop production is likely to be quite good during this year.

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

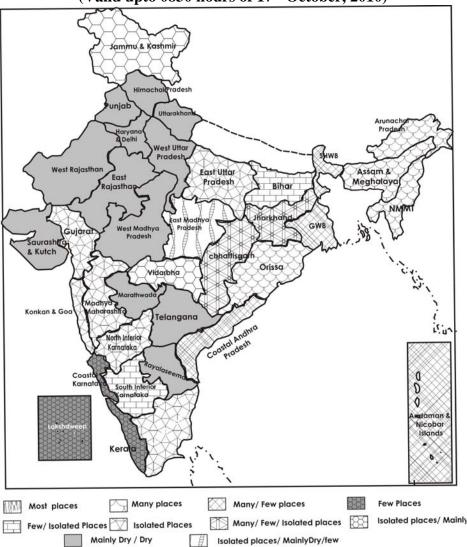
State / Districts	15.09.10	21.09.10	29.09.10	06.10.10	13.10.10	Erode	0	57	62	64	-81
State / Districts	13.07.10			00.10.10	13.10.10	Kanchipuram	170	-68	-45	19	-26
Karnataka						Kanyakumari	5	-68	103	874	250
Coastal Karnataka	145	21	00	-	24	Karur	11	-51	40	-57	-84
Dakshin Kannada	145	-26	98	56	-34	Krishnagiri	38	-68	-74	-30	-52
Udupi Uttan Kanna da	107	-33	46	45	-50	Madurai	94	-24	126	67	-22
Uttar Kannada	46	52	58	60	-21	Nagapattinam	161	-8	-30	37	-79
North Interior Karn			24	(2)	00	Namakkal	39	-46	-38	-27	-65
Bagalkote	-98 -41	-66 2	-24 79	-62 57	-99 -96	Nilgiris	132	-11	89	139	38
Belgaum	-41				-90 -99	Perambalur	96	-99	-14	-39	-58
Bidar	-08 -77	13 -53	-41 -18	-77 -42	-100	Pondicherry	340	99	-65	72	-81
Bijapur Dharwad	-77	-53	-18 42	-42	-100	Pudukottai	256	6	3	-29	-42
	-52		-1		-35	Ramanathapuram	160	21	279	300	-29
Gadag Gulbarga	-87	-46 -12	-1 -51	-16	-91	Salem	22	-39	-7	-2	-71
0	-00 -43		-51	-51 165	-93	Sivaganga	312	50	270	76	30
Haveri	-43 -81	-40	-47		-51	Thanjavur	212	23	63	41	30
Koppal Raichur	-81	-33 -39	-47	-77 -67	-92	Theni	-26	48	146	169	-63
		-39	-30	-07	-100	Tirunelveli	-55	145	410	459	-18
South Interior Karnataka					Tiruvallur	269	-82	8	-12	-85	
Bangalore Rural	-8	-92 -80	89	<u>-61</u> -48	-56	Tiruvannamalai	228	-93	-33	-59	-56
Bangalore Urban Bellary	16		137 5		-16	Tiruvarur	322	35	56	107	-98
Chamarajnagar	-88 4	-84	5 18	-36 82	-92 -41	Tuticorin	-32	-12	209	182	-92
, ,	229	-48 21		232	-41 -69	Trichy	85	-39	41	-49	-21
Chickmagalur Chitradurga	-66	-40	<u>108</u> -5	30	-69 -73	Vellore	170	-81	-23	-71	-53
U	-58	-40	5 48	120	-75	Villupuram	405	-94	-74	-42	-71
Davangere Hassan	-38	19	156	120	-00	Virudhunagar	-27	80	97	28	-77
	-2	-10	63	56	-45			Andhra Prad	lesh	•	
Kodagu Kolar	143	-10 -64	6	-84	-40 -96	Coastal Andhra Pra	adesh				
Mandva	0	-04	27	-64	-90 -61	East Godavari	73	-62	-59	-28	-67
Mysore	57	-58	-22	52	-50	Guntur	78	53	-52	-34	-44
Shimoga	<u> </u>	45	280	190	-30	Krishna	100	3	-6	11	-62
Tumkur	-46	-41	61	74	-62	Nellore	196	-56	-3	-24	-92
Kerala				Prakasam	273	-83	-57	35	-59		
Alappuzha 30 -48 54 208 127					Sirkakulam	-38	8	-38	-16	35	
Kannur	76	-40	-24	-6	34	Visakhapatnam	0	21	-66	-5	-23
Ernakulam	54	25	163	89	148	Vizianagram	29	23	-62	-5	-34
-2Idukki	23	-3	-5	32	40	West Godavari	59	-32	-3	-4	-86
Kasaragod	37	-35	15	-14	-79	Telangana					
Kollam	<u>92</u>	-33	106	420	102	Adilabad	-18	30	-46	-59	-98
Kottayam	67	-2	113	191	102	Hyderabad	-31	77	45	-25	-100
Kozhikode	258	-22	-42	73	8	Karimnagar	57	74	-46	-47	-99
Malappuram	144	-22	25	149	-3	Khammam	12	10	-76	-21	-94
Palakkad	83	-24	25	125	28	Mehabubnagar	-31	-15	-48	-68	-75
Pathanamthitta	60 60	-23	<u> </u>	301	36	Medak	-37	-56	6	-73	-100
Thiruvanantapuram	-1	-30	-9	548	147	Nalgonda	140	14	-28	-34	-87
Thrissur	43	-21	-9	66	239	Nizamabad	-33	55	-46	-30	-58
Wyanad	20	-33	-24	39	-28	Rangareddy	-23	54	-38	-39	-98
,, yanaa	40	Tamil Nad			-20	Warangal	19	-17	-62	-64	-92
Chennai	-99	-58	-24	-96	Rayalaseema						
Coimbatore	170 -21	<u>-99</u>	102	153	-90	Anantapur	-81	-58	33	-87	-76
Cuddalore	182	-80	-65	-29	-93	Chittoor	149	-77	47	-58	-96
Dharmapuri	80	-100	-03	-29	-59	Cuddapah	-1	-49	-67	-33	-87
Dindigul	-25	-100	101	280	-6	Kurnool	-62	-35	-4	-62	-83
Dinuigui	-23	- 21	101	200	-0	·					

LEGEND



DEFICIENT - 20% TO - 59% SCANTY - 60% TO - 99% NO RAIN - 100% •• DATA NOT AVAILABLE

Weather Forecast (Valid upto 0830 hours of 17th October, 2010)



Weather Warnings

- Scattered heavy to very heavy rainfall would occur over coastal Orissa and Isolated heavy over interior Orissa and coastal areas of West Bengal and north Coastal Andhra Pradesh during next 48 hours.
- Squally winds with speed reaching 45-55 kmph would prevail along and off north Andhra Pradesh, Orissa and West Bengal coasts during next 48 hours. Sea condition will be rough to very rough along and off these coasts during this period. Fisherman are advised not to venture into the sea off these coasts.

Weather Outlook (upto 0830 hours IST of 19th October, 2010)

• Fairly widespread rainfall would occur over Andaman & Nicobar Islands, Maharashtra, West Madhya Pradesh and northeast India.

Zonewise Agromet Advisories

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

- **Realised Rainfall**: Most of the districts of West Bengal(except Bankura, Hoogly and Purulia districts), Jharkhand (except Chatra and Lohardagga) and Orissa (except Angul, Bargarh, Bolangir, Deogarh, Jharsuguda, Kandhamal, Malkangiri, Mayurbhanj, Nawapara, Sambalpur, Sonepur, Sundargarh) received rainfall during last week. Most of the districts of Bihar and Jharkhand received no significant rain during last week.
- **Rainfall Forecast:** Rain is likely to occur at many places over Sub-Himalayan West Bengal and Sikkim, Gangetic West Bengal and Orissa during next 2-3 days and rain is likely to occur at a few/isolated places over Bihar and Jharkhand during next 2-3 days.

• 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, pegion 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 many places over Sub-Himalayan West Bengal and Sikkim, Gangetic West Bengal and Orissa during next 2-3 days, postpone irrigation standing crops and withhold harvesting of matured crops. Apply irrigation to the standing crops in Bihar and Jharkhand.
- Farmers in Gangetic West Bengal, Jharkhand and Orissa are also advised to undertake sowing of *rabi* crops.
- ➢ 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.
- Farmers in Bihar 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 Sub-Himalayan West Bengal and Sikkim, Gangetic West Bengal and Orissa and on a non-rainy day in Bihar and Jharkhand.

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

- **Realised Rainfall:** Cachar, Goalpara, Golghat, Hailakandi, Jorhat, Karbi Analog, Karimganj, Morigaon, Nowgong, Nalbari and Sibsagar districts of Assam and Upper Siang district of Arunachal Pradesh received significant rainfall during last week.
- **Rainfall Forecast:** Rain is likely to occur at many places over the region during the period.
- Major Crops:
 - Vegetables (flowering / fruiting / harvesting), *rabi* vegetables (nursery sowing / transplanting / germination / early vegetative), sugarcane (cane development), maize (maturity), *sali* rice (panicle initiation / flowering / grain formation), *ahu* rice (transplanted summer rice) (maturity), arhar (flowering / pod formation), sesamum (pod formation / maturity) and black gram and green gram (vegetative) in Assam.
 - Rice (milk / maturity), vegetables (vegetative / flowering / fruiting), *rabi* vegetables like cauliflower, cabbage, tomato etc. (nursery sowing), pea and carrot (sowing), maize (cob maturity / harvesting), orange (fruiting) and ginger and turmeric (vegetative) in Arunachal Pradesh.
 - Upland rice (maturity / harvesting), aman rice (panicle initiation / flowering) and vegetables (sowing / germination / transplanting / early vegetative / vegetative / flowering / fruiting) in Tripura.
 - Sali rice (panicle initiation / flowering), 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 many places over the States of this region, postpone irrigation, intercultural operation and application of fertilizer and plant protection measures to the standing crops and withhold harvesting of matured crops.
 - Farmers in Assam are advised to undertake sowing of toria in Hills Zone, planting of potato and sowing of rapeseed of mustard and niger in Lower Bramhaputra Valley Zone, sowing of cauliflower and early maturing cabbage, tomato, knolkhol, brinjal and rajmah in Upper Bramhaputra Valley Zone, nursery sowing of tomato, brinjal, cabbage, cauliflower, chili etc. in Barak Valley Zone, sowing of early

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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 and also to undertake sowing of maize, carrot and pea. Farmers are also advised to prepare field for potato and undertake planting.
- > Undertake field preparation and nursery sowing of tomato and capcicum in Manipur.
- Prepare land and undertake sowing of gram and winter season vegetables like pea, beans, cabbage, palak etc. and planting of potato in Nagaland.
- Farmers in Tripura are advised to undertake sowing of green gram, black gram, groundnut etc. Farmers are also advised to undertake nursery sowing of winter vegetable such as cabbage, cauliflower, tomato etc. If the seedlings of these crops are already ready, transplanting may also be undertaken.
- Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
- Infestation of stem borer and case worm in *Sali* rice and shoot borer in sugarcane is reported in Barak Valley Zone of Assam. Apply the plant protection measures to control the same.
- There is possibility of attack of ear cutting caterpillar in rice in Tripura. Cloudy weather may enhance the attack. Endosulfan @ 2 ml or Malathion @ 1.5 ml per litre of water may be applied to the rice plants and weeds on the bund to control the pests.
- Prevailing weather condition is congenial for fruit fly infestation in guava in Mizoram. Farmers are advised to spray Dimethoate @ 0.03%.
- In present weather condition, fruit fly infestation is also likely in Cucurbitaceous vegetables in Mizoram. Spray Quinolphos (0.5%) in bottle gourd, sponge gourd pumpkin etc. more effectively.
- Weather conditions are congenial for mild attack of aphid and cut worm in cole crops in Mizoram. Spray Malathion and Chloropyriphos @ 1 ml / litre of water, respectively to control these pests.
- As there is chance of rain at many places over the region, farmers are advised to apply plant protection measures after current spells of rain.
- In Poultry houses in Mizoram, if there will be any wet and caked litters, due to leakage of roof, rain from faulty design walls / spillage of water on the litter etc. the same must be replaced with well-treated fresh litter materials.

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 and Jammu & Kashmir, where isolated rain is likely during next 2-3 days.
- Major Crops:
 - Rice (grain formation / development), jowar and maize (grain formation / development), pigeon pea (flowering), vegetable crops (flowering/fruiting), early mustard and sarson (sowing) in Delhi
 - Rice (grain formation/maturity), apple(harvesting), vegetables (vegetative / flowering) in Himachal Pradesh.
 - Vegetable crops (flowering / fruiting / harvesting), rice (grain formation/ maturity), maize (grain development / maturity), mung (pod formation/ maturity), sunflower (vegetative / flowering), gobi sarson(early vegetative), toria(vegetative) in Jammu & Kashmir.
 - Sugarcane (grand growth), rice (maturity), toria, mustard (sowing) in Uttarakhand.
 - Sugarcane (vegetative), cotton (vegetative/flowering), rice (grain formation/maturity), maize(grain formation/maturity), mung, mash (pod formation/maturity) in Punjab.
 - Sugarcane (vegetative), cotton (vegetative), rice (grain formation), guar and bajra (harvesting) in Haryana.

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- Rice (grain formation/maturity), maize, urd, moong, til, soybean, groundnut, jowar and bajra(grain formation/maturity), 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) in Rajasthan.
- 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 toria, potato, mustard, rai, vegetable pea, potato, berseem, gram and sarson may also be undertaken utilizing the residual soil moisture.
 - Farmers in North Eastern Plain Zone, 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 sowing of sarson, early pea, carrot, radish, spinach and coriander in Delhi. Transplanting of mature seedlings of cauliflower, cabbage and broccoli may also be done in raised bed.
 - ➢ Farmers in Uttarakhand are advised to undertake sowing of mustard, rai, early vegetable pea, potato, berseem, lentil and horsegram. 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 gram, field pea and also sowing of wheat under rainfed conditions. Undertake sowing of brown sarson and wheat in Kashmir valley zone(Anantanag, Badgam, Kupwara and Srinagar districts). Harvest the matured crops of rice, maize and early sown bajra under the present weather conditions.
 - 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 irrigated mustard and gram and also undertake sowing of pea.
 - Farmers in Eastern zone (Bhiwani, Fatehabad, Hissar, Jhajjar, Mahendrgarh, Mewat, Rewari, Rohtak and Sirsa districts) in Haryana are advised to undertake land preparation and sowing of raya, mustard and barseem.
 - Farmers in Western Plain Zone (Firozepur and Faridkot districts), Western zone (Bathinda, Moga, Muktsar, Mansa, Sangrur districts) and Central Plain Zone (Amritsar, Kapurthala, Fatehgarh Sahib, Ludhiana, Jalandhar) of Punjab are advised to undertake sowing of raya, gram and complete planting of sugarcane with intercropping of wheat, raya, toria, gobhi sarson, pea, gram and potato etc. utilizing the residual soil moisture.
 - Farmers are advised to undertake sowing of flower crops like Lilium in High Hills Temperate(Kukumsheri, Lahaul and Spiti districts) and barseem, shaftol, wheat, gram, lentil and oat in Sub-Montane & Low Hills Sub-Tropical Zone(Palampur, Hamirpur, Kangra and Una Chamba).

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

- **Realised Rainfall:** All the districts in Kerala except Kasargod, Dakshin Kannada in Karnataka and Kanyakumari, Nilgiris, Sivagangai and Thanjavur districts in Tamil Nadu.
- **Rainfall Forecast:** Rain is likely to occur at a few / many places in Coastal Andhra Pradesh and at isolated / a few places over remaining region during next three days except over Telangana and Rayalaseema where mainly dry weather is likely to prevail. Isolated heavy rain is likely over North Coastal Andhra Pradesh during next 48 hours
- Major Crops:
 - Rice is at maturity / harvesting stage. Pepper is at maturity stage and arecanut is at nut development stage in Kerala. New planting is continued for coconut, black pepper, cocoa, cashew, nutmeg, mangosteen, rhambutan etc. This is proper time for transplanting of *mundakan* rice.
 - *Kuruvai* rice (grain maturity / harvesting), groundnut (pod development / maturity), sugarcane (cane development), banana (fruit bearing stage) in Tamil Nadu. This is proper time for sowing or rainfed crops and transplanting of *late samba / thaladi* rice..
 - *Kharif* crops *viz.*, maize is at maturity / harvesting stage, paddy crop is at grain formation / development stage and groundnut is at pod formation / development in Andhra Pradesh.
 - *Kharif* crops *viz.*, green gram and black gram (harvesting), pigeon pea flowering / grain formation) and sugarcane (cane development) in Karnataka.
- Advisories:
 - Due to continuous rains in North Coastal Zone during September 2010, waterlogging is reported in sugarcane and maize crops fields. 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. There are also chances of squall / high winds during next 48 hours. Provide mechanical support to sugarcane to prevent from lodging.
 - Rain is likely to occur at a few / many places in Coastal Andhra Pradesh 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 over Coastal Andhra Pradesh as there are chances for isolated heavy rainfall during next 48 hours and at
 - Farmers in Southern Zone of Andhra Pradesh are advised to continue 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. Complete harvesting of bajra. Farmers in North Transition Zone (Dharwad, Haveri, Belgaum) are advised to undertake sowing of rabi sorghum, wheat, Bengal gram and safflower from authorized dealers.
 - Farmers in Hill zone (Devangere, Chitradurg and Tumkur) of Karnataka are advised to complete sowing of ragi, jowar and Bengal gram (varieties are given in Annexure I)
 - Farmers in Problem Areas Zone (Kottayam) of Kerala are advised to undertake sowing of bitter gourd, snake gourd, ash gourd, pumpkin and planting of banana
 - Farmers in Southern, Central and Northern Zones of Kerala are advised to undertake transplanting of mundakan rice.
 - Farmers in Southern Zone of Tamil Nadu are advised to undertake sowing of sorghum, cotton, pearl millet and pulse crops and transplanting of chilli. Transplanting of *late samba / thaladi* rice may also be undertaken in Cauvery Delta Zone of Tamil Nadu.

Prevailing cloudy weather conditions in North Transition Zone (Dharwad, Haveri, Belgaum) of Karnataka are favourable for the incidences of wooly aphid in sugarcane crop, root grub in tomato and brinjal, diamond black moth and black rot in cabbage, sucking pests and boll worm in cotton and murda disease in chili. Farmers are advised to undertake plant protection measures to control the pests and diseases.

- 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 Maharashtra and Gujarat received no significant rain during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the region except in Konkan and Goa and Gujarat region, where isolated rain is likely during next 3 days.
- Major Crops:
 - *Kharif* rice (panicle initiation/flowering in East Vidarbha and flowering / grain formation (grain maturity in early variety) in Konkan, Kolhapur, Nashik and Pune (western parts) divisions), *kharif* jowar (grain formation/maturity), soyabean (harvesting), bajra (grain maturity / harvesting), cotton (boll formation/maturity), sunflower (seed maturity/harvesting), groundnut (pod maturity / harvesting), red gram (secondary branching/flowering) and irrigated cotton (boll formation/amturity) 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 most of the districts of Konkan, Madhya Maharashtra, 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 and soyabean and continue 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, gram, sunflower, gram, safflower and rainfed wheat and also 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.)

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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.
- Prevailing weather is favorable for attack of blast in paddy Pune division, spray Copper oxychloride 1250 g + Streptocyclin 75 g per ha in 500 liters of water. For control of brown hopper and leaf rolling caterpillar, spray Malathion 1000 ml per ha in 500 liters of water.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** No significant rainfall occurred during the period.
- **Rainfall Forecast:** Mainly dry weather is likely over West Madhya Pradesh. Rain is likely at a few / isolated places over East Madhya Pradesh and 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 Gird zone of Madhya Pradesh are advised to undertake land preparation and sowing of rabi crop utilizing residual soil moisture.
 - Farmers in Kymore Plateau and Satpura Hill Zones of Madhya Pradesh are advised to prepare nursery for medium duration crop of cauliflower and cabbage and transplanting of seedling in mainfield at optimum moisture level in the field.
 - Farmers in Central Narmada Valley Zone of Madhya Pradesh are advised to start preparation of sowing of masoor, gram and mustard.
 - > Prepare nursery for onion and garlic in Vindhya Plateau Zone of Madhya Pradesh.
 - Farmers in Chattisgarh Plain Zone are advised to undertake transplanting of vegetables viz, tomato, brinjal, chilli, cole crops etc in the afternoon hours and sowing of leafy vegetables viz, palak, methi, dhaniya etc. Weeding followed by top dressing of nitrogen is advised in the vegetables sown in the month of July as well as in the fruit trees.
 - Farmers in Chattisgarh Plain Zone are advised for the ploughing of field so that soil moisture can be conserved and sowing of the rabi crops can be started by the second fortnight of the October.
 - 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).
 - Present weather conditions viz, high humidity and clear weather, are favourable for the incidence of blast in rice in Chattisgarh Plain Zone; spray hinosan @ 1.0 m.l. per liter water or Tricyclozol @ 6g per 10 liter water solution.

Annexure I List of Varieties

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 Annapurna, 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.

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.

Jammu & Kashmir

Barseem: mascavi, pusa giant, BL-1 **Mustard:** RLM-514, RLM-619, Kranti, Varuna and RH -30 **Gram:** C-235, K-468, Gourav and PBG-1 **Field pea:** T-163, PG-2, Rachna, HFP-3

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
Mustard: Rohini, Kranti, Krashna, Vardan
Potato: Kufri Jyoti, Kufri Ashok or Kufri Anand

New Delhi

Carrot: Pusa Rudhira and Pusa Kesar.
Early pea: Pusa Pragati, Arkel.
Sarson: 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

Haryana

Barseem: Mescavi. **Raya:** PBR-210 and PBR 91 **Gram:**PDG 3 and PDG 4

Punjab Raya: PBR-210, RLM-619, PBR-91 under irrigated conditions and PBR-97 under rainfed conditions

Himachal Pradesh

Wheat: HPW-89,147 VL-738 and HS-240 Barley: HBL-316 and Dolma and oat (Palampur-1)

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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. Rapseed-1 or 2.

Madhya Pradesh

Onion: Udaipur 102, Pusa White, Nasik Red, Agri found dark red or Nasik Roja, Agri, found light red Garlic: G 283, G 1, G 41 or G 323

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 13.10.10

