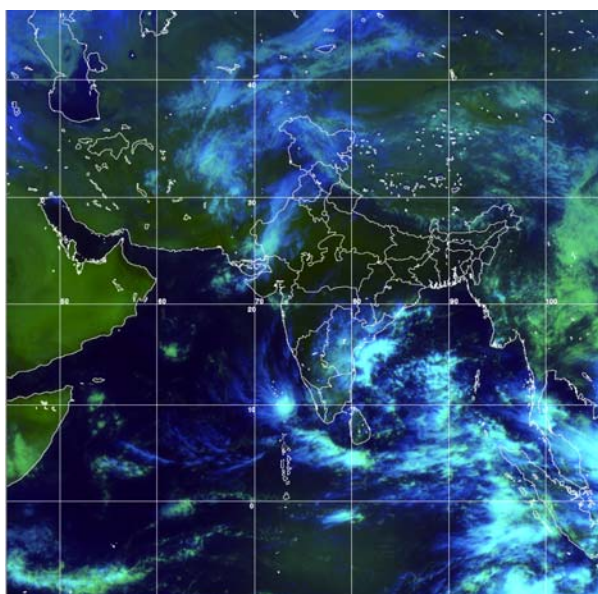




National Agromet Advisory Bulletin

Thursday, 28th October, 2010

(For the period 28th October to 1st November, 2010)



Satellite image 0600 UTC Dated
29th October, 2010



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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

Executive Summary

Almost dry condition is likely to prevail during next few days over most parts of the country except Coastal Andhra Pradesh, Kerala and Tamil Nadu. Farmers are advised to undertake harvesting of rice, maize, urd, moong, til, soybean and groundnut in Uttar Pradesh, apple in Himachal Pradesh, cotton, rice, moong, sesamum and mash in Punjab, rice, cotton and bajra in Haryana, maize, bajra, moong, cowpea, sesamum and groundnut in Rajasthan, rice, maize, sesamum, groundnut, soybean, green gram etc. in Bihar, maize and groundnut in Jharkhand, rice, sesamum, green gram, black gram etc. in West Bengal, *Sali* rice in Assam and *Kharif* rice, *kharif* jowar, soyabean, sunflower and groundnut in Maharashtra utilizing relatively dry condition. In view of occurrence of rain at many places in Coastal Andhra Pradesh, Kerala and Tamil Nadu, harvesting of matured *kharif* crops may be postponed.

As north east monsoon rain is likely to occur within 48 hours in Tamil Nadu, farmers are advised to undertake sowing of pearl millet, groundnut, sunflower and coriander in Tamil Nadu taking the advantage of rainfall.

In remaining parts of the country farmers are advised to undertake sowing of *rabi* crops like potato, maize, gram, lentil, peas, oilseed crops like mustard, sarson and vegetables like radish, carrot, spanich, khnol khol, turnip, beet etc. and transplanting of seedlings of tomato, cauliflower and cabbage in Bihar and Jharkhand, sowing of potato, mustard, pulses like gram, lentil etc. and transplanting of vegetables like cabbage, cauliflower, chilli, tomato etc. in West Bengal, sowing of groundnut, mustard, sunflower, nursery sowing of vegetables like garden pea, carrot, radish etc. and nursery sowing and transplanting of vegetables like tomato, brinjal, cabbage, cauliflower etc. in Orissa, niger, potato, vegetables, rapeseed and mustard in Assam and transplanting of vegetables in Arunachal Pradesh, toria, potato in Uttar Pradesh, mustard, rai, toria, vegetable pea, potato, berseem, lentil and horsegram in Uttarakhand, flower crops like liliun 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 and sarson, jowar, gram, sunflower, linseed, safflower and rainfed wheat in Maharashtra utilizing recent rain and residual soil moisture.

No major pest incidence is reported during this week from different parts of the country.

By and large, good *kharif* production is expected during this year due to good and evenly distributed rainfall. Due to good residual soil moisture, *rabi* sowing is also expected to be normal.

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

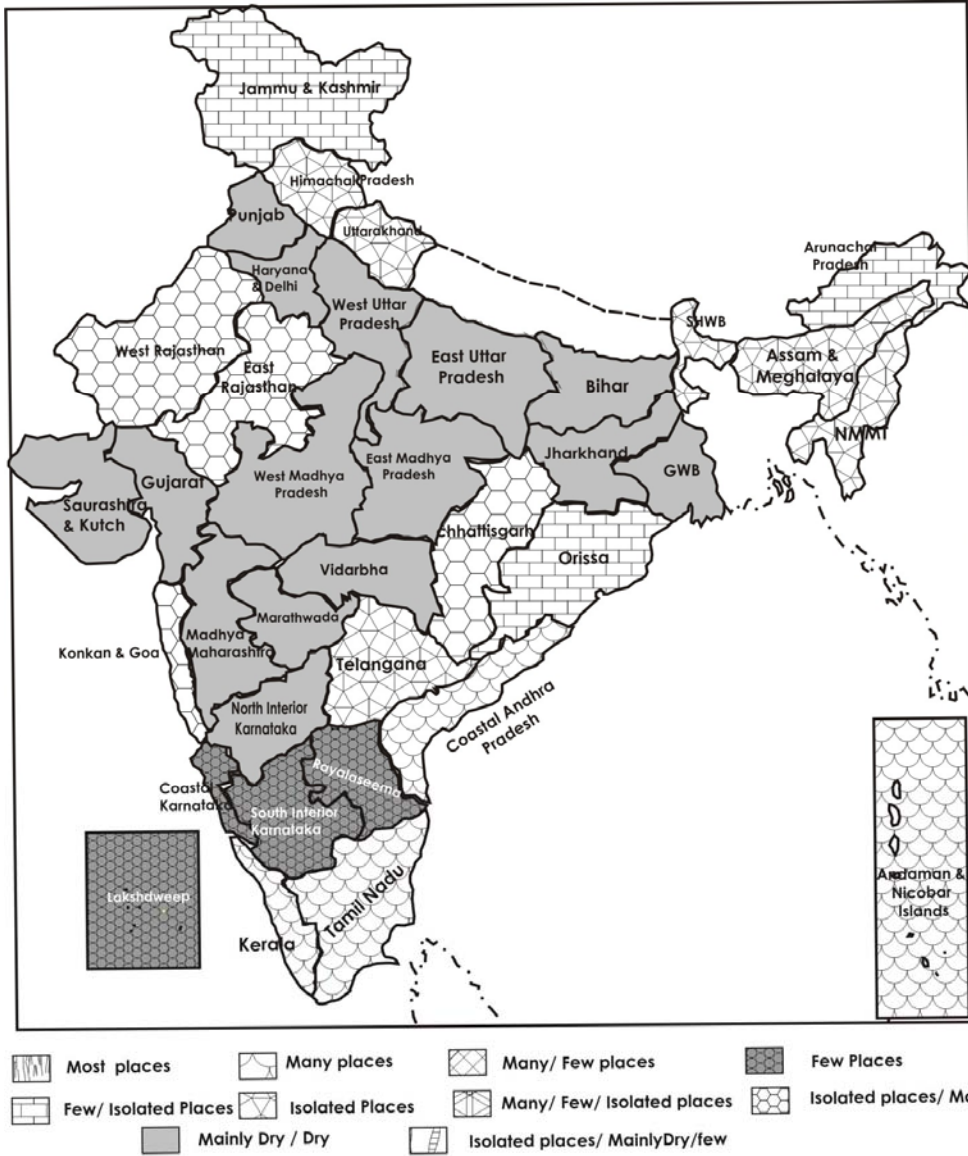
State/Districts	29.09.10	06.10.10	13.10.10	20.10.10	27.10.10
Karnataka					
Coastal Karnataka					
Dakshin Kannada	98	56	-34	22	403
Udupi	46	45	-50	159	441
Uttar Kannada	58	60	-21	187	125
North Interior Karnataka					
Bagalkote	-24	-62	-99	87	4
Belgaum	79	57	-96	54	19
Bidar	-41	-77	-99	100	133
Bijapur	-18	-42	-100	164	-46
Dharwad	42	70	-35	-23	-9
Gadag	-1	-16	-91	44	-44
Gulbarga	-51	-51	-93	287	11
Haveri	143	165	-51	-61	-51
Koppal	-47	-77	-92	-32	-7
Raichur	-36	-67	-100	6	-48
South Interior Karnataka					
Bangalore Rural	89	-61	-56	23	-87
Bangalore Urban	137	-48	-16	9	-84
Bellary	5	-36	-92	58	34
Chamarajnanagar	18	82	-41	-78	-91
Chickmagalur	108	232	-69	-23	62
Chitradurga	-5	30	-73	21	-14
Davangere	48	120	-66	-20	39
Hassan	156	151	-45	-53	59
Kodagu	63	56	-40	-42	63
Kolar	6	-84	-96	-43	-42
Mandya	27	-5	-61	-53	-93
Mysore	-22	52	-50	-75	-55
Shimoga	280	190	-1	-23	70
Tumkur	61	74	-62	-12	-90
Kerala					
Alappuzha	54	208	127	44	-28
Kannur	-24	-6	34	112	122
Ernakulam	163	89	148	68	-13
-2Idukki	-5	32	40	-25	-53
Kasaragod	15	-14	-79	8	296
Kollam	106	420	102	-26	-68
Kottayam	113	191	120	32	-43
Kozhikode	-42	73	8	6	207
Malappuram	25	149	-3	-30	42
Palakkad	25	125	28	5	-12
Pathanamthitta	64	301	36	-10	-74
Thiruvananthapuram	-9	548	147	-77	-93
Thrissur	66	66	239	78	10
Wyanad	-24	39	-28	-76	-54
Tamil Nadu					
Chennai	-58	-24	-96	-44	-98
Coimbatore	102	153	-93	-99	-69
Cuddalore	-65	-29	-85	-79	-71
Dharmapuri	-83	-78	-59	-13	-33
Dindigul	101	280	-6	-83	-9

State/Districts	29.09.10	06.10.10	13.10.10	20.10.10	27.10.10
Erode	62	64	-81	-93	-53
Kanchipuram	-45	19	-26	-91	-27
Kanyakumari	103	874	250	-92	-96
Karur	40	-57	-84	-90	-41
Krishnagiri	-74	-30	-52	-24	-50
Madurai	126	67	-22	-74	-18
Nagapattinam	-30	37	-79	-74	-99
Namakkal	-38	-27	-65	-72	-64
Nilgiris	89	139	38	-71	-30
Perambalur	-14	-39	-58	-17	-71
Pondicherry	-65	72	-81	-48	-26
Pudukottai	3	-29	-42	-37	-67
Ramanathapuram	279	300	-29	-92	-67
Salem	-7	-2	-71	-54	-41
Sivaganga	270	76	30	-73	-85
Thanjavur	63	41	30	-35	-70
Theni	146	169	-63	-93	-74
Tirunelveli	410	459	-18	-99	-92
Tiruvallur	8	-12	-85	-85	-72
Tiruvannamalai	-33	-59	-56	-67	-10
Tiruvarur	56	107	-98	-67	-85
Tuticorin	209	182	-92	-94	-81
Trichy	41	-49	-21	-56	-59
Vellore	-23	-71	-53	-26	-53
Villupuram	-74	-42	-71	-57	-41
Virudhunagar	97	28	-77	-91	-80
Andhra Pradesh					
Coastal Andhra Pradesh					
East Godavari	-59	-28	-67	-68	-28
Guntur	-52	-34	-44	-36	10
Krishna	-6	11	-62	-34	98
Nellore	-3	-24	-92	-91	-53
Prakasam	-57	35	-59	-61	-33
Sirkakulam	-38	-16	35	77	0
Visakhapatnam	-66	-5	-23	-67	-28
Vizianagram	-62	-5	-34	-21	39
West Godavari	-3	-4	-86	-52	-9
Telangana					
Adilabad	-46	-59	-98	375	286
Hyderabad	45	-25	-100	72	-20
Karimnagar	-46	-47	-99	263	349
Khammam	-76	-21	-94	54	214
Mehabubnagar	-48	-68	-75	63	-56
Medak	6	-73	-100	321	70
Nalgonda	-28	-34	-87	-5	110
Nizamabad	-46	-30	-58	556	277
Rangareddy	-38	-39	-98	80	148
Warangal	-62	-64	-92	95	193
Rajalaseema					
Anantapur	33	-87	-76	23	54
Chittoor	47	-58	-96	-25	-48
Cuddapah	-67	-33	-87	-72	-21
Kurnool	-4	-62	-83	-80	208

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 31st October, 2010)



Weather Warnings

Isolated heavy rainfall would occur over Tamilnadu and Kerala during next 48 hours.

Weather Outlook (upto 0830 hours IST of 2nd November, 2010)

Fairly widespread rainfall activity would occur over Orissa, Chhattisgarh, Andhra Pradesh, Tamilnadu, Kerala and Andaman & Nicobar Islands.

Zonewise Agromet Advisories

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

- **Realised Rainfall:** Bhojpur, Buxar, East Champaran, Gaya, Saharsha districts of Bihar, Bokaro, Gumla and Ranchi districts of Jharkhand, Purulia and Darjeeling districts of West Bengal, North Sikkim district of Sikkim and most of the districts of Orissa received good rain during last week.
- **Rainfall Forecast:** Isolated rain will occur in Sub Himalayan West Bengal and Sikkim and mainly dry weather will prevail over Gangetic West Bengal, Bihar and Jharkhand. Rain is likely to occur at isolated places over Orissa during the period and will increase thereafter.
- **Major Crops:**
 - Early sown rice (grain formation / maturity / harvesting), late sown rice (grain formation), maize (early maturity / maturity), sesamum (early maturity / maturity), groundnut (early maturity / maturity), soybean, green gram (early maturity / maturity), black gram, kulthi (flowering / pod formation), tori (sowing / early vegetative), vegetables like cauliflower, brinjal etc. (sowing / early vegetative / vegetative) in Bihar.
 - Early sown rice (grain formation / maturity / harvesting), late sown rice (grain formation), early sown maize (early maturity / maturity), sesamum (early maturity / maturity), groundnut (early maturity / maturity), urd, green gram, pignon pea, niger and short duration maize (flowering / pod formation), kulthi (flowering / pod formation) and potato, toria and early mustard (sowing / early vegetative), tomato, cabbage and cauliflower (nursery sowing / transplanting / early vegetative), chilli and brinjal (nursery sowing / transplanting) in Jharkhand.
 - Rice (flowering / grain formation / early maturity / maturity / harvesting) and maize (cob maturity / harvesting), *kharif* groundnut (early maturity / maturity / harvesting), pulses, soybean, sesamum and ragi (early maturity / maturity / harvesting), vegetable crops (vegetative / flowering / fruiting), cotton (flowering / boll formation) in Orissa.
 - Sugarcane (cane development), *rabi* vegetable crops (sowing / germination / early vegetative / vegetative), *aus* rice (harvesting), *aman* rice (flowering / grain formation), pulses (pod formation / early maturity / maturity), arhar (vegetative / flowering), sesame (early maturity / maturity / harvesting) and groundnut (early maturity / maturity) in West Bengal.
 - Large cardamom (capsule / grain maturity / harvesting), orange (fruit maturity / harvesting), wheat (sowing / germination / seedling), summer potato (harvesting), ginger (late vegetative / maturity / harvesting), rice (flowering / milk and grain formation / maturity), *rabi* vegetable (transplanting / vegetative) and mustard (sowing & germination) in Sikkim.
- **Advisories:**
 - As Bhojpur, Buxar, East Champaran, Gaya, Saharsha districts of Bihar, Bokaro, Gumla and Ranchi districts of Jharkhand, Purulia and Darjeeling districts of West Bengal, North Sikkim district of Sikkim and most of the districts of Orissa received good rain during last week received good rain during last week and rain is likely to occur in Orissa after two days, postpone irrigation to the standing crops in these districts.
 - In West Bengal, farmers are advised to undertake sowing of potato, mustard, pulses like gram, lentil etc., sowing of vegetables like radish and transplanting of vegetables like cabbage, cauliflower, chilli, tomato etc.
 - Farmers are advised to undertake sowing of *rabi* crops like maize and also sowing of vegetables like tomato, cauliflower and cabbage in North East Alluvial Zone, planting of potato and sowing of maize, gram, lentil, peas, oilseeds crop like mustard, sarson, sunflower and vegetables like radish, carrot, turnip, beet etc. and transplanting of seedlings of tomato, chilli, knolkhol, cauliflower and cabbage in South Bihar Alluvial Zone and also sowing of gram, lentil and pea 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, toria, mustard, gram, lentil and linseed planting of potato and sowing for raising seedlings of vegetables like tomato, chilli, cauliflower and cabbage during this period.
- Farmers in Orissa are advised to undertake sowing of groundnut, mustard, sunflower, green pea, nursery sowing of onion and vegetables like garden pea, carrot, radish etc. and nursery sowing and transplanting of vegetables like tomato, brinjal, cabbage, cauliflower etc.
- Recommended varieties of crops in different States of the region are mentioned in Annexure I.
- Taking the advantage of dry weather during next few days over the region, undertake harvesting of crops.
- Due to cloudy weather condition, root rot and sheath blight attack may get enhanced in late sown rice in New Alluvial Zone of West Bengal. Drain out the excess water from the field and apply Bavistin at the collar region of the plants.
- Attack of seedling blight and root rot disease may be more in winter vegetables in New Alluvial Zone of West Bengal and to control these diseases apply 2 to 3 g Mancogeb or Carbendazim per litre of water. In cucumber and ridge gourd, downy mildew may be prevalent, for this apply 2 to 3 g Mancogeb or Metalaxyl at seven days interval.
- Apply plant protection measures on a non-rainy day in Orissa.

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

- **Realised Rainfall:** Upper Siang district of Arunachal Pradesh and Cachar, Goalpara and Sibsagar districts of Assam received good rainfall during last week.
- **Rainfall Forecast:** Rain is likely to occur at a few places over Arunachal Pradesh during next 24 hours and at isolated places thereafter. Isolated rainfall is likely to occur over remaining parts of 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 (grain formation/ maturity / harvesting), arhar (flowering / pod formation), sesamum (pod formation / maturity) and black gram and green gram (pod formation) rapeseed and mustard (sowing / seedling) in Assam.
 - Rice (maturity / harvesting), vegetables (vegetative / flowering / fruiting), *rabi* vegetables like cauliflower, cabbage, tomato etc. (nursery sowing / transplanting), pea and carrot (sowing), orange (fruiting) and ginger and turmeric (vegetative) in Arunachal Pradesh.
 - Upland rice (harvesting), *aman* rice (grain formation) and vegetables (sowing / germination / transplanting / early vegetative / vegetative / flowering / fruiting) in Tripura.
 - *Sali* rice (flowering / grain formation), potato (planting / early vegetative / vegetative), vegetables (sowing / germination / early vegetative / vegetative / flowering / fruiting) in Meghalaya.
- **Advisory:**
 - As Upper Siang district of Arunachal Pradesh and Cachar, Goalpara and Sibsagar districts of Assam received good rainfall during last week, postpone irrigation to the crops in these districts.
 - Taking the advantage of relatively dry weather, farmers are advised to harvest the matured *kharif* crops like rice, maize etc. in the States of this region.
 - Farmers in Assam are advised to undertake sowing of toria in Hills Zone, planting of potato and sowing of rapeseed of mustard, niger, lentil and pea in Lower Bramhaputra Valley Zone, sowing of cauliflower and early maturing cabbage, tomato, knolkhol, brinjal and rajmah in Upper Bramhaputra Valley Zone, sowing of rapeseed and mustard and nursery sowing of tomato in Barak Valley Zone, sowing of *rabi* pulses like lentil, rajmah, pea, lathyrus etc. and oilseeds like rapeseed, mustard, linseed and niger etc., vegetables like cauliflower, cabbage, brinjal and carrot and planting of potato in Central Bramhaputra Valley Zone and sowing of rapeseed and mustard and vegetables like knolkhol, radish, brinjal, carrot and tomato in North Bank Plain Zone.

- Farmers in Arunachal Pradesh are advised to undertake nursery sowing and transplanting of hybrid tomato, cauliflower and cabbage and also to undertake sowing of carrot and pea. Farmers are also advised to prepare field for potato and undertake planting.
- Undertake field preparation and nursery sowing of onion, tomato, cauliflower, cabbage and capsicum and also sowing of pea in Manipur.
- Prepare land and undertake sowing of gram and peas and winter season vegetables like French bean, pea, beans, tomato, cabbage, palak etc. and planting of potato in Nagaland.
- Farmers in Mizoram are advised to undertake sowing of crops like carrot, raddish and transplanting of other vegetables crops like cauliflower, cabbage, capsicum and tomato.
- Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
- Infestation of stem borer in *Sali* rice and shoot borer in sugarcane is reported in Barak Valley Zone of Assam. To control stem borer in *sali* rice spray Dichlorvas100 EC @ 1 ml / litre or Phosphamidon 100 EC @ 1 ml / litre or Chloropyrivivas @ 3 ml / litre of water.
- In citrus nursery, there is chance of incidence of leaf miner, leaf eating caterpillar and thrips in Manipur; spray Prophenomus + Cypermethrin (Rocket) @ 1 ml / litre of water to control the insects.
- Partly cloudy weather is favourable for the incidence of potato blight in Nagaland. Calm to light wind, intermittent rainfall, rainy days followed by clear days with bright sunshine and again rainy days with high humidity are also favorable for the rapid spread of the blast disease in rice. Farmers advised to take appropriate plant protection measures.
- High relative humidity and cloudy weather are favourable for infestation of leaf miner severely both in nursery and in fields of Khasi mandarin in Mizoram; spray imidacloprid @ 0.05% to control the insects.
- Nylon net should be erected around the ponds in low lying areas of Assam to avoid free movement of fishes from insides and outside the ponds.

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

- **Realised Rainfall:** Most of the districts in Himachal Pradesh, Jammu & Kashmir, East Uttar Pradesh and Uttarakhand, some districts in East Madhya Pradesh and Hoshiarpur district in Punjab received rainfall during last week. Dry weather prevailed over remaining states in the region.
- **Rainfall Forecast:** Either mainly dry or dry weather is likely over the region during next 3 days except in Jammu & Kashmir where rain is likely at a few places after 48 hours.
- **Major Crops:**
 - Rice (grain development), jowar and maize (grain development / maturity), pigeon pea (grain formation), vegetable crops (flowering / fruiting), early mustard and sarson (sowing) in Delhi
 - Rice (grain maturity), apple (harvesting), vegetables (vegetative / flowering) in Himachal Pradesh.
 - Vegetable crops (flowering / fruiting / harvesting), rice (harvesting), maize (harvesting), mung (pod maturity / harvesting), sunflower (flowering), gobi sarson (early vegetative), toria (vegetative) in Jammu & Kashmir.
 - Sugarcane (grand growth), rice, ragi (harvesting), toria, mustard (sowing / early vegetative) in Uttarakhand.
 - Sugarcane (vegetative), cotton (boll maturity / picking), rice (maturity), maize (grain maturity / picking), mung, mash (pod maturity / picking) in Punjab.
 - Sugarcane (vegetative), cotton (boll maturity / picking), rice (maturity), guar and bajra (harvesting) in Haryana.
 - Rice (grain maturity / harvesting), maize, urd, moong, til, soybean, groundnut, jowar and bajra (grain maturity / harvesting), sugarcane (grand growth), vegetable crops (vegetative / flowering) in Uttar Pradesh.
 - Sugarcane (grand growth), vegetable crops (flowering / fruiting / harvesting), soybean, mung, cluster

bean, sesamum and groundnut (grain maturity / harvesting) in Rajasthan.

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

- **Advisory:**

- Most of the districts in Himachal Pradesh, Jammu & Kashmir, East Uttar Pradesh and Uttarakhand, some districts in East Madhya Pradesh and Hoshiarpur district in Punjab received rainfall during last week. Land preparation and sowing of rabi crops like toria, potato, mustard, rai, vegetable pea, berseem, gram and sarson may be undertaken utilizing the rainfall in these States. Farmers are advised to complete harvesting of kharif crops and undertake post-harvesting operations. Arrange for proper storage facilities for the harvested produce.
- Farmers in Uttar Pradesh are advised to harvest matured crops of rice, maize, black gram, green gram, til, soyabean and groundnut. Undertake field preparation and sowing of toria and early rabi vegetables utilizing the residual soil moisture.
- Good rainfall received in last week may be utilized for preparation of field and sowing of crops and vegetables and preparation of basins in the orchards. Farmers in Mid Hills Sub-Humid (Solan, Shimla, Sirmaur) of Himachal Pradesh are advised to undertake sowing of wheat, barley and oat. Complete sowing of gobhi sarson. The sowing of gram and lentil in lower belt may also be completed. Also undertake sowing of raddish coriander, cabbage, knoll-khol, broccoli, parsley, lettuce, fennel, cauliflower, onion and peas. Garlic can also be planted in the field. New planting of tea seedlings and gap filling in the early planted tea orchards may be continued
- As the weather is likely to remain dry in High Hills Temperate Zone in Himachal Pradesh (Kukumsheri, Lahaul, Spity) during next three days, complete harvesting of apples or and other crop in fields immediately. Undertake planting of new apple saplings.
- Farmers in Delhi region are advised to undertake sowing of gram in this week. Start land preparation for sowing mustard. Present weather conditions are suitable for sowing of Sarson saag (Pusa saag-1), Radish, Spinach (All green), Turnip (Pusa swati) and Coriander (Pant Haritama, and Azad Dhan 1). Undertake planting of potato. Transplanting of mature seedlings of cauliflower, cabbage, onion and broccoli may also be done in raised bed.
- Farmers in Uttarakhand are advised to undertake sowing of wheat (varieties in Annexure I).
- Farmers in sub tropical zone (Jammu, Kathua and Reasi district) are advised to undertake sowing of mustard, gram, field pea and also sowing of wheat under rainfed conditions. Undertake sowing of brown sarson, lentil 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 land preparation and sowing of wheat, gram, mustard, potato and carrot 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 rainfed wheat, mustard and barley and also undertake sowing of pea.
- Farmers in Eastern zone (Bhiwani, Fatehabad, Hissar, Jhajjar, Mahendgarh, Mewat, Rewari, Rohtak and Sirsa districts) in Haryana are advised to undertake land preparation and sowing of gram, raya, mustard and barseem.
- Farmers in Western Plain Zone (Firozpur 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 wheat from last week of October (varieties in Annexure I). This is optimum time for sowing of Gobhi sarson (GSC-5, GSL-1, GSL-2, PGSH-51, Hyola (PAC-401), African sarson PC-5 and raya. Continue sowing of raya, gram and complete planting of sugarcane and transplanting of cabbage, mid season cauliflower, mid season pea for green pods and Mithi *Phali* (edible pod) utilizing the residual soil moisture.

- Prevailing weather conditions are favourable for the incidences of leaf minor in citrus, leaf curl and gum in peach and blister blight and mealy bug in tea in Mid Hills Sub-Humid (Solan, Shimla, Sirmaur) of Himachal Pradesh. Undertake plant protection measures to control the pest and diseases.

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

- **Realised Rainfall:** All the districts in Kerala except Kollam, Pathanamthitta, Wyanad and Thiruvanthapuram districts, coastal Karnataka, Bidar, Bellary, Hassan, Kodagu and Shimoga districts in North and South Interior Karnataka, Dindigul, Kanchipuram, Madurai and Thiruvannamali districts in Tamil Nadu, all districts in Andhra Pradesh except Mehbubnagar.
- **Rainfall Forecast:** Rain is likely to occur at many places in Tamil Nadu, Coastal Karnataka and Kerala and at a few places over remaining region during next three days except in North Interior Karnataka where mainly dry weather is likely to prevail. Isolated heavy rainfall is likely to occur over Tamil Nadu and Kerala during next 48 hours
- **Major Crops:**
 - Pepper is at maturity stage and arecanut is at nut development / maturity stage in Kerala. New planting is continued for coconut, black pepper, cocoa, cashew, nutmeg, mangosteen, rambutan etc. Transplanting of *mundakan* rice is completed.
 - *Kuruvai* rice (end harvesting), groundnut (maturity / harvesting), 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, *rabi* vegetables (nursery) in Andhra Pradesh.
 - *Kharif* crops viz., green gram and black gram (harvesting), pigeon pea (grain formation) and sugarcane (cane development). This is proper time for sowing of gram, safflower, *rabi* sorghum and sunflower in Karnataka.
- **Advisories:**
 - Rain is likely to occur at many places in Coastal Karnataka, Kerala and Tamil Nadu 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 Tamil Nadu as isolated heavy rainfall is likely to occur during next 48 hours
 - Due to intermittent rains in Eastern Dry Zone of Karnataka take precautionary measures for harvesting of early sown crops and vegetable crops
 - Waterlogging is reported in sugarcane and maize fields in North Coastal Zone (Srikakulam, Visakhapatnam, Vizainagaram) in Andhra Pradesh due to rain during last week. This also leads to the attack of whitefly. As there are chances for rainfall during next five days, drain out excess water from the fields.
 - Sufficient rainfall received in High Altitude and Krishna Godavari Zones of Andhra Pradesh. Farmers are advised to undertake land preparation and sowing of black gram, green gram, maize and sunflower in uplands as *rabi* crops
 - 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.
 - Farmers in North Transition Zone (Dharwad, Haveri, Belgaum) and North East Transition Zone (Bidar) are advised to undertake sowing of *rabi* sorghum and Bengal gram.
 - 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 planting of coconut, black pepper, cocoa, cashew, nutmeg, mangosteen and rambutan in South Zone of Kerala.
- Farmers in Southern Zone of Tamil Nadu are advised to undertake sowing of pearl millet, sunflower and coriander. Transplanting of late samba / thaladi rice may also be undertaken in Cauvery Delta Zone (Thanjavur, Nagapattinam, Thiruvarur, Karur, Perambalur and Tiruchirapalli) of Tamil Nadu.
- Prevailing weather conditions are favourable for the incidences of blast, sheath rot, sheath blight, bacterial leaf blight, rice bug in rice, rhinoceros beetle, red palm weevil, bud rot disease and stem bleeding in coconut, spindle bug and yellow leaf disease in arecanut, pollu beetle, quick wilt and burrowing nematode in pepper, Sigatoka leaf spot, burrowing nematode and pseudo stem borer in banana, rhizome rot disease in cardamom and berry borer in coffee in Kerala. Farmers are advised to undertake plant protection measures to control the pests and diseases.
- Present weather condition in Western Zone of Tamil Nadu is congenial for the incidence of brown spot and stem borer of rice. 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 Tamil Nadu, Coastal Karnataka and Kerala
- **Animal husbandry:**
 - Care should be taken against the decrease in day temperature in Karnataka for silk worm and poultry and dairy rearing houses by maintaining optimum room temperature and hygiene condition. Vaccination for cattle's to be taken up against the out break foot and mouth and rinder pest
 - Prevailing weather conditions are congenial for the occurrence of Hemorrhagic Septicemia and Black Quarter in cattle and ET and sheep pox in sheep in Andhra Pradesh. Undertake vaccination to prevent from infection.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Most of the districts of Maharashtra received good rain during last week.
- **Rainfall Forecast:** Dry or mainly dry weather is likely to prevail over the region during the period.
- **Major Crops:**
 - *Kharif* rice (maturity / harvesting in East Vidarbha and grain formation in late varieties and grain maturity / harvesting in early and medium maturing varieties in Konkan, Kolhapur, Nashik & Pune (western parts) divisions), *kharif* jowar (grain maturity / harvesting), soyabean (harvesting), cotton (boll formation / picking), sunflower (seed maturity / harvesting), groundnut (pod maturity / harvesting), red gram (secondary branching / flowering), irrigated cotton (boll formation / boll maturity / picking), *rabi* jowar & safflower (sowing / germination), gram, linseed and maize (sowing), rainfed wheat (sowing) in Maharashtra.
 - Rice (early maturity / maturity / harvesting), groundnut (early maturity / maturity / harvesting), cotton (boll formation / boll maturity / picking), maize (early maturity / maturity / harvesting), bajra (early maturity / maturity / harvesting), pigeon pea (flowering / pod formation), sesamum (early maturity / maturity / harvesting), soybean, green gram and black gram (early maturity / maturity / harvesting) and castor (spike formation), garlic, wheat. Gram, mustard, *rabi* fennel (sowing), sugarcane (planting) and cauliflower (transplanting) in Gujarat.
- **Advisory:**
 - As most of the districts of Gujarat State received no significant rain during last couple of weeks and weather is likely to be dry during next few days, farmers are advised to apply irrigation to the standing

crops.

- Continue harvesting of already matured crops like *Kharif* rice, *kharif* jowar, soyabean, sunflower and groundnut and picking of cotton in Maharashtra, as mainly dry weather is likely to prevail during the period.
- As soil moisture status is favourable, undertake sowing of *rabi* jowar, 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 rice, groundnut, maize, bajra, green gram, black gram and sesamum.
- Undertake sowing of crops like rapeseed, mustard, garlic, wheat, gram, *rabi* fennel and vegetables like carrot, onion, radish, brinjal and transplanting of vegetables like cauliflower and cabbage and also planting of sugarcane in Gujarat State during this period.
- Taking the advantage of dry condition, intercultural operation and weeding may be carried out in standing crops in The States of this region.
- Prevailing weather is favorable for attack of blast in rice in Pune division of Maharashtra; spray Copper oxychloride 1250 g + Streptocyclin 75 g per ha in 500 liters of water.
- There is possibility of attack of buck eye rot on tomato fruit and downey mildew on cucurbitaceous crop in Maharashtra due to cloudy weather, recent rainfall and favourable temperature. For controlling the same, spray Metalaxyl 8% @ 200 g per 100 litres of water.
- There is attack of sucking pests like jassids, thrips and white fly on cotton in Maharashtra. For control of jassids and leaf eating caterpillar, spray Dimethoate @ 10 ml or Imidachloprid @ 3 to 4 ml or Acetamiprid @ 3 to 4 g per 10 litres of water.
- The weather is favourable for infestation of mealy bug in cotton in south Gujarat region. Farmers are advised to apply Profenphos 50EC @ 10 ml or Quinalphos 20 EC @ 20ml with 10 g detergent powder in 10 liters of water.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Some districts in East Madhya Pradesh and Chattishgarh received rain during the week.
- **Rainfall Forecast:** Mainly dry weather is likely to prevail over the region.
- **Major Crops:**
 - *Kharif* crops like soyabean, maize, sorghum, sesame, green gram and black gram (harvesting) in Madhya Pradesh.
 - *Kharif* crops like soyabean, maize, green gram etc (harvesting), and sugarcane (cane development) in Chhattisgarh.
 - This is proper time for sowing of *rabi* crops.
- **Advisory:**
 - Farmers in Bundekhand Zone of Madhya Pradesh are advised to complete sowing of *rabi* crops like wheat, *rabi* vegetables, mustard and wheat.
 - 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 main field at optimum moisture level in the field. Farmers are also advised to sow the crops like gram, mustard, linseed and lentil.
 - Farmers in Malwa Plateau zone are advised for sowing of winter season sugarcane and garlic.
 - As the rain is expected in Jhabua Hill Zone and Bundelkhand zone therefore farmers are advised to use this moisture for sowing of early sown variety of wheat.
 - Farmers in Vindhya Plateau zone are advised for sowing of desi gram and *rabi* vegetables.
 - Farmers in Central Narmada Valley Zone of Madhya Pradesh are advised to start preparation of sowing of lentil, gram and mustard and planting of sugarcane.
 - Farmers in Northern Hill Zone are advised for sowing of potato, gram, masoor
 - 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.

- Looking to the withdrawal of the monsoon in Chattisgarh Plain Zone in Chattisgarh, farmers 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 vegetable crops in the nursery.
- 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 ml per liter water or Tricyclozol @ 6g per 10 liter water solution.
- Present weather conditions are favourable for painted bug (Bagrada) in mustard crop in Gird Zone in Madhya Pradesh in recently sown crop, to control this insect, spray of Dimetheat @ 1 ml /litre of water is effective or dust methyl parathion @12-16 kg/ ha.
- Present weather conditions are favourable for leaf folder in Bundelkhand Zone in Madhya Pradesh, spray Methyl Demeton 2 ml per litre of water.
- Present weather conditions are favourable for stem borer in rice in Northern Hills Zone in Chattisgarh, spray chloropyriphos 0.5 kg or Carbofuran 3G 20 Kg

Annexure I List of Varieties

Assam

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

Cabbage: Golden Acar, Pride of India, Pusa Mukta etc.

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, TS-46 etc.

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

Tomato: Punjab Chhuhara, Arka Alok, Pusa Rubi, Sioux, Punjab Keshri, Arka Abhijit, BT-1, VC-48-1 etc.

Lentil: B-77, L-9-12, PL406 and PL81-4.

Pea: T-163, Boneville, HUP-2, Rachna and Pant 14.

Carrot: Nuntez.

Bihar

Potato: Kufri Lalima, Kufri Kuber and Kufri Alankar, Kufri Jyoti, Kufri Chandramukhi, Ranjendra Aloo 1, 2 and 3, Kufri Badshah.

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.

Gram: Rajendra Chana, K.P.G. 59, Pusa 256, RAU 52, KWR 108, Uday, SG2.

Lentil: Pusa 25, Pant L 406, Mallika, Arun, Pant L 639, BR 25.

Peas: Ratna, Aprna, Harbhajan.

Mustard: Baruna, Pusa Bold and Kranti.

Sarson: Rajendra Sarson-1, Swarna etc.

Sunflower: Morden, Surya, Paradovic, KBSH 1, 44.

Maize: Saktiman 1, 2, 3, 4, Laxmi, Rajendra Shankar Makka 1 and 2.

Jharkhand

Toria: PT-303, Panchali, Bhavani etc.

Mustard: Pusa Jaikisan, Siwani, Varuna and Kranti, Pusa Bold.

Potato: Kufari Chandramukhi, Kufari Ashoka and Kufari Kanchan.

Pea: Arkel and Azad P-1 for vegetable and D.D.R 23 and swarn Rekha for grain.

Gram: Birsa Chana-3, BG-372, BG-256, KWR-108, Pant G-186, Pant G-114 and BG-1053, BG-1003, KAK-2.

Lentil: P.L.-406, P.L.-639, D.P.L.-15, D.P.I.-62.

Linseed: Shubhra, T-397, Sweta 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.

White mustard: Binoy, Subinoy etc.

Mustard: Sita, vagirathi, baruna, Agrani, Panchali, Sarama etc.

Orissa

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

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

Mustard: Parbhathi, Anuradha, PT-303, PT 507, TS-29 & M-27 etc.

Onion: Nasik Red, Patna Red, Pune Red, Bellary Red, Pusa Ratnar, Pusa Madhavi, Arka Niketan, Arka Pragati, Agrifound Light Red, Agrifound Dark, Punjab Selection, Patna White, Bombay White, Pusa White Round 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

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.

Gram: GNG-469, GNG-663, RSG-44, RSG-888 and for rainfed C-235

Mustard T-59, Pusa bold, Bio-902, RGN-73 and for rain fed RGN-48

Uttarakhand

Wheat: Under irrigated conditions: UP-1109, VL-804, VL-738, VL-421, HS-240; un-irrigated conditions: VL-616, HS-277, VL-829 etc

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.

Gram: Kabuli type - Pusa 267, Pusa 1003, Pusa Chamatkar; local type – C235, Pusa 246, P.B.G. 1, Pusa 372

Mustard:- for irrigated conditions- Rohini, Pusa Jaikisan, Pusa Bold, Vardan, Jaggannath, Jawahar and for rainfed conditions: Pusa Barani, Pusa Aghrani, RH 10.

Potato:- Kufri Badshah (Late blight tolerant), Kufri Jyoti (Short duration), Kufri Alankar, Kufri Chandramukhi.

Haryana

Barseem: Mescavi.

Raya: PBR-210 and PBR 91

Gram: PDG 3 and PDG 4

Punjab

Wheat: DBW-17, PBW-502, PBW-343, WH-542, and durum wheat PDW 291, PDW-274 and PDW-233 under irrigated conditions and PBW-527, PBW-175 under rainfed conditions.

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)**Raddish:** Japani White, Early Mino White,**Cabbage** Snow ball K-1 Palam Uphar, Golden Acre,**Knol khol** White Bina,**Broccoli** Palm Kanchan, Palam Vichtrta, Palam Samridhi,**Cauliflower** Pride of India,**Peas:** Lincoln, Priya**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:** Vishwas, Phule G-12, Vijay, Vishal, Dig Vijay.**Sugarcane:** COM -88121, CO-0265 (Phule-265), CO -8014, CO -86032 and CO 94012.**Gujarat****Wheat:** Arnej - 206, GW-1 & 2.**Rapeseed:** Guj. Rapeseed-1 or 2.**Gram (rainfed):** Gujarat Chickpea – 1 & 2.**Gram (irrigated):** Gujarat Gram-1 or ICC-4.**Garlic:** Gujarat Garlic 1, 2 & 10.**Cabbage:** Kranti, Golden Acre, Pride of India, Copen Market etc.**Cauliflower:** Early maturing varieties like Pusa Early, Pusa Dipali, Pusa Kartiki, Early Kuvvari etc. and for medium duration varieties like Pusa synthetic, Early Snowball, Snowball etc.**Carrot:** Pusa Kesar, Pusa Yamadgani & Hissar Gairic etc.**Onion:** Pusa Red, Nashik Lal, N 53 & H 48 etc.**Reddish:** Pusa Hemadri, White ICL, Japanees White, Pusa Rashmi , Pusa Chetaki etc.**Brinjal:** Guj. Brinjal – 6, P.L.R. 1, Junagadh Lambagoal, Mahicco – 11, 16 etc.**Madhya Pradesh****Gram:** JG-14, JG-06, JG-63, JG-11, JG-11, JG-130, JG-16, JG-322 and JG-01.**Mustard:** Pusa Mahak, Pusa Agrani, Pusa Jaikisan, Pusa Bold, Jaggannath etc.**Linseed:** PKDL-21.**Lentil:** JLS-03.**Sugarcane:** Ko. 86032, Ko-J-N 86600 or 86141.**Onion:** Udaipur 102, Pusa White, Nasik Red, Nasik Roja etc.**Garlic:** G 283, G 1, G 41 and G 323.**Wheat:** Amar, Amrita, Harshita and gram JG 130, JG 226, Vshal, Vijay etc in rainfed and semi irrigated condition and rabi Maize cv.: JM- 421, JM- 8, JM- 12, Chandan makka- 3, Ganga- 3, Ganga- 4, HPQM – 1 in irrigated condition.

Annexure II Contour maps for the week ending 27.10.10

