

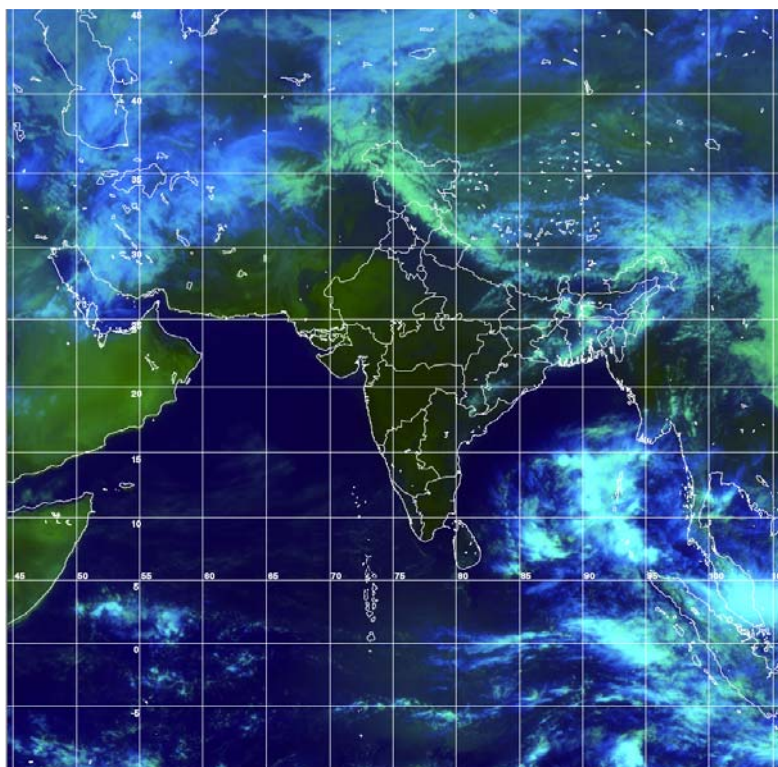


National Agromet Advisory Bulletin

Thursday, 10th March, 2011

(For the period 10th to 14th March, 2011)

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11th March, 2011



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National Agrometeorological Advisory Service Centre
Agricultural Meteorology Division
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Executive Summary

Rainfall has occurred at some places over Himachal Pradesh and Jammu & Kashmir during last week. Minimum and maximum temperatures in North West India were near normal during last week and also congenial for wheat crop. Gradually slight rise in maximum and minimum temperatures over many parts of the country during next 2-3 days.

As dry weather is likely to prevail over most parts of the country, farmers are advised to undertake intercultural operations in standing summer crops. Surface mulching with crop residues may be undertaken in order to conserve soil moisture through reduction of loss of water due to evaporation. Mulching of basins of coconut in Kerala using husks may be carried out to reduce evapotranspiration. Protect young seedlings of coconut by providing shade towards south western side. Taking the advantage of dry weather, harvesting of early sown wheat in Uttarakhand, early sown barley, mustard, taramira and potato in Rajasthan, potato in Delhi, red gram in Andhra Pradesh, maize, jowar, gram, cotton, sunflower and safflower in Karnataka, jowar, gram, sunflower and safflower in Maharashtra and maize, gram and early sown wheat in Madhya Pradesh may be undertaken. Farmers are advised to undertake summer ploughing after harvesting of *rabi* crops to destroy the weeds and soil borne diseases.

Weather condition is favourable for sowing of bhindi and transplanting of chillies, planting of spring sugarcane in Punjab, spring sugarcane in Haryana, sowing of green gram, black gram, vegetable pea, French bean, tomato and planting of sugarcane in Uttarakhand, sowing of pea, cauliflower, cabbage, tomato, capsicum, cucumber, summer squash, lettuce, broccoli in Himachal Pradesh, bhindi, beans and cucurbits in Jammu region, summer green gram, black gram and sunflower in Uttar Pradesh, sowing *zaid* pearl millet, sorghum (fodder), *zaid* green gram, groundnut, okra, cucurbitaceous vegetables like melon, bottle gourd, ridge gourd, bitter gourd and pumpkin in Rajasthan, sowing of French bean, cluster bean, summer radish, cluster bean, maize and baby corn in Delhi and sowing of summer green gram, black gram, sunflower and transplanting of onion in Madhya Pradesh with assured irrigation facilities.

Due to congenial weather conditions there is report of incidences of stem borer and blast in rice, early shoot borer in sugarcane and thrips, mites and blight in chillies in Andhra Pradesh, bacterial leaf blight in rice, shoot and fruit borer in brinjal in Karnataka, blast in rice in North East Zone and red spider mite in tapioca in North West Zone of Tamil Nadu, wilt disease in lentil crop in some areas of Central Brahmaputra Valley Zone in Assam and brown plant hopper in rice in Coastal Saline Zone of West Bengal. Farmers are advised to adopt appropriate plant protection measures to avoid severe crop damage.

Distribution of rainfall for the districts of Himachal Pradesh, Punjab, Haryana, Jammu & Kashmir, East Uttar Pradesh, West Uttar Pradesh, Uttarakhand during last Week

State/Districts	Actual (mm)	09.03.11 (% Dep.)
Himachal Pradesh		
Bilaspur	42.0	223
Chamba	49.9	46
Hamirpur	25.2	137
Kangra	20.0	10
Kinnaur	36.2	100
Kullu	95.8	522
Lahaul and Spiti	18.9	-47
Mandi	41.2	203
Shimla	18.3	23
Sirmaur	2.6	-66
Solan	4.5	-62
Una	20.7	89
Punjab		
Amritsar	5.4	-24
Bhatinda	0.4	-83
Faridkot	0.6	-85
Fatehgarh Sahib	0.0	-100
Ferozpur	0.8	-80
Gurdaspur	11.3	3
Hoshiarpur	9.1	-7
Jalandhar	5.1	-29
Kapurthala	4.0	14
Ludhiana	1.7	-69
Moga	1.2	-67
Muktesar	0.0	-100
Nawashahar	0.0	-100
Patiala	5.2	11
Ropar	12.0	167
Sangrur	6.5	71
Haryana		
Ambala	0.4	-90
Bhiwani	2.2	80
Chandigarh	2.2	-58
Faridabad	0.0	-100
Fatehabad	3.0	100
Gurgaon	0.3	-86
Hissar	1.9	76
Jhajar	0.0	-100
Jind	2.8	54
Katihah	2.7	-11
Karnal	0.5	-86
Kurukshetra	1.2	-63
Mahendragarh	0.0	-100
Panchkula	4.0	-31
Panipat	7.8	454
Rewari	0.0	-100

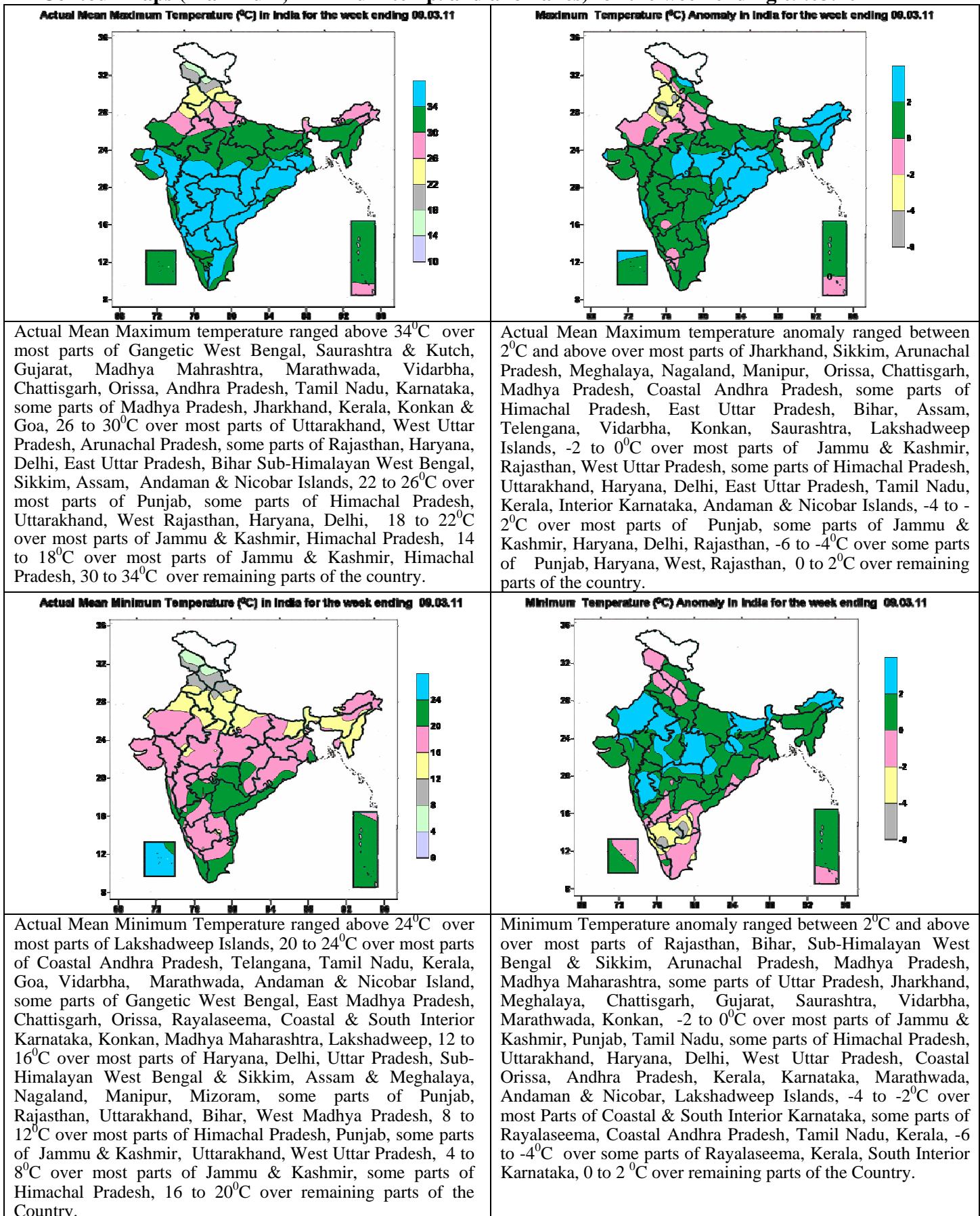
State/Districts	Actual (mm)	09.03.11 (% Dep.)
Rohtak	1.4	-53
Sirsa	0.1	-94
Sonepat	7.2	213
Yamunanagar	2.2	-43
New Delhi	3.8	31
Jammu & Kashmir		
Anantnag	27.6	-23
Badgam	7.8	-68
Doda	23	-49
Jammu	18.3	33
Kathua	14.6	-28
Kupwara	42.7	-16
Ladakh(Leh)	0.8	-74
Pulwama	12.8	-47
Srinagar	13.5	-34
Udhampur	26	0
East Uttar Pradesh		
Allahabad	0.0	-100
Ambedkar Nagar	2.0	54
Azamgarh	0.0	-100
Bahraich	1.0	-64
Ballia	0.0	-100
Balrampur	0.0	-100
Banda	0.0	-100
Barabanki	5.4	184
Basti	2.1	24
Deoria	1.0	-38
Faizabad	6.9	283
Farrukhabad	0.4	-80
Fatehpur	0.0	-100
Gazipur	0.0	-100
Gonda	5.5	244
Gorakhpur	5.1	216
Hardoi	1.3	-50
Jaunpur	0.0	-100
Kanpur City	1.3	3
Kanpur Dehat	0.0	-100
Kheri	0.6	-81
Kushi nagar	1.5	-29
Lucknow	4.1	143
Maharajanj	0.5	-64
Mau	0.0	-100
Mirzapur	0.0	-100
Pratapgarh	0.0	-100
RaiBareilly	0.0	-100
Sant Ravidas Nagar	0.0	-100
Shrawasti	0.4	-86

State/Districts	Actual (mm)	09.03.11 (% Dep.)
Sidharthnagar	1.0	-58
Sitapur	0.0	-100
Sonbhadra	0.0	-100
Sultanpur	0.3	-72
Unnao	2.3	94
Varanasi	0.0	-100
West Uttar Pradesh		
Agra	0.3	-85
Aligarh	0.8	-51
Auraiya	1.0	-33
Badaun	3.0	36
Baghpat	7.6	347
Bareilly	2.3	-10
Bijnor	1.7	-60
Bulandsahar	3.0	131
Etah	0.0	-100
Etawah	0.0	-100
Firozabad	0.5	-69
Ghaziabad	1.0	-47
Hamirpur	0.0	-100
Jalaun	0.0	-100
Jhansi	0.0	-100
Jotirba Phule Nagar	1.0	-60
Lalitpur	0.0	-100
Mahamaya Nagar	1.5	-6
Mainpuri	0.5	-71
Mathura	0.0	-100
Meerut	1.7	-50
Moradabad	3.0	38
Muzzaffarnagar	7.7	206
Pilibhit	0.3	-88
Rampur	10.2	263
Saharanpur	7.3	88
Shahjahanpur	0.0	-100
UttaraKhand		
Almora	14.8	57
Chamoli	15.5	-12
Champawat	3.7	-54
Dehradun	7.0	-6
Garhwal Pauri	3.1	-48
Garhwal Tehri	8.3	-37
Haridwar	1.6	-66
Nainital	10.5	22
Pithoragarh	15.1	-4
Rudraprayag	7.1	-60
Udham Sing Nagar	0.0	-100
Uttarkashi	12.5	-32

LEGEND

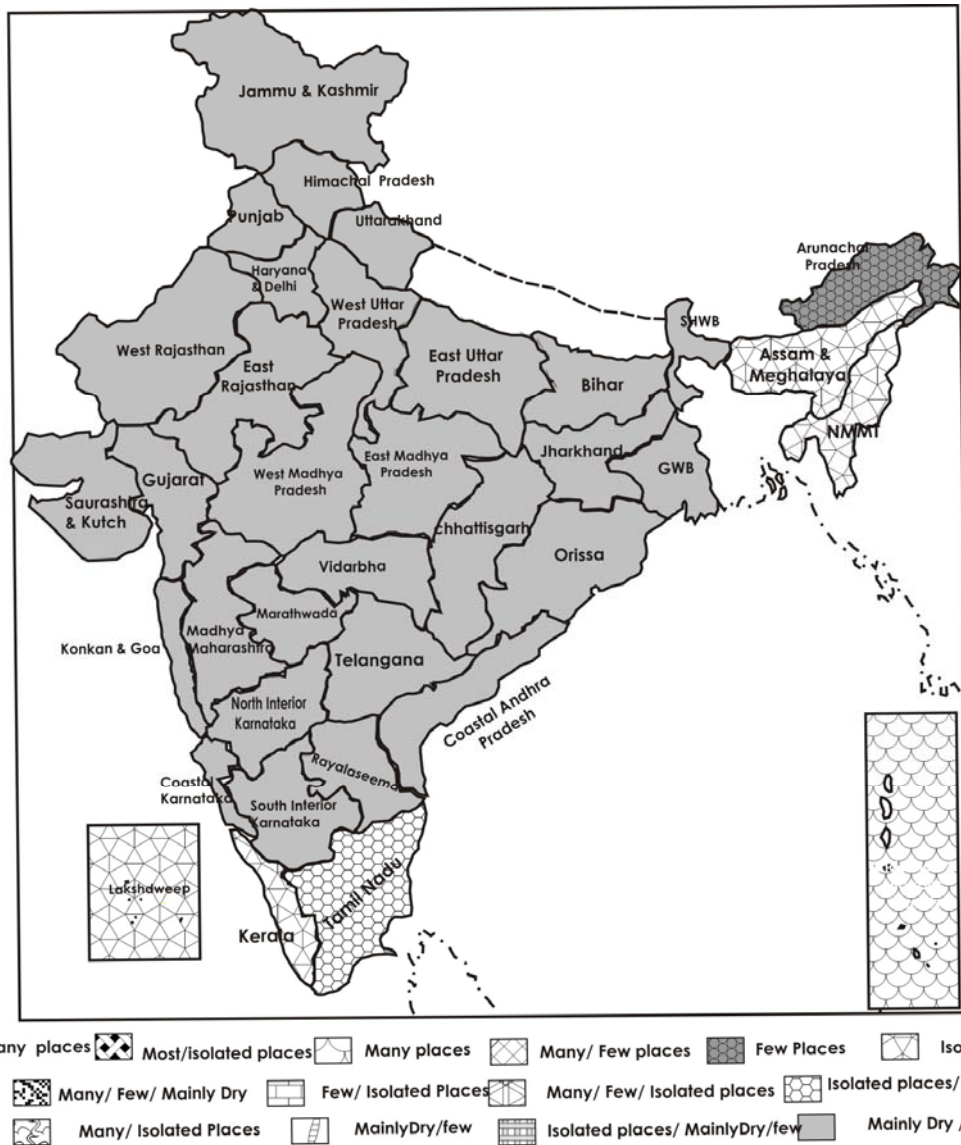
- EXCESS 20% OR MORE
- NORMAL +19% TO - 19%
- DEFICIENT - 20% TO - 59%
- SCANTY - 60% TO - 99%
- NO RAIN - 100%
- DATA NOT AVAILABLE

Contour maps (Maximum, Minimum temp. and anomalies) for the week ending 09.03.2011



Weather Forecast

(Valid upto 1430 hours of 13th March, 2011)



Major Feature of Weather Forecast (upto 1430 hours IST of 13th March, 2011)

- Fairly widespread rain/thundershowers would occur over Andaman & Nicobar Islands.
- Scattered rain/thundershowers would occur over Arunachal Pradesh and isolated over Sub-Himalayan
- West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- Gradually slight rise in maximum and minimum temperatures over many parts of the country during next 2-3 days.

Weather Outlook (upto 1430 hours IST of 15th March, 2011)

- Fairly widespread rain/thundershowers would continue over Andaman & Nicobar Islands.
- Scattered rain/thundershowers would occur over extreme south peninsular India.

Zonewise Agromet Advisories

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

- **Realised Rainfall:** Weather remained mainly dry over the States of the region during the period.
- **Rainfall Forecast:** Dry or mainly dry weather is likely to prevail or isolated rain will occur during the period over the States of the region.
- **Advisories:**
 - As there was no significant rainfall during last week over the States of the region and no significant rainfall is likely during next three days, farmers are advised to apply irrigation to wheat at milk / dough stage and also to the summer vegetables and other summer crops like green gram, sesame, ground nut, sunflower etc.
 - Taking the advantage of dry weather, harvest already matured crops of mustard, potato, pulses etc. in Bihar. Apply irrigation during tasseling and silking stage in maize and at milk / dough stage of wheat. Also undertake intercultural operations and apply fertilizers in standing onion crop before applying irrigation.
 - Apply irrigation during milk / dough stage of wheat in Jharkhand.
 - As humidity is low and no rainfall is expected in North Eastern Coastal Plain Zone and West Central Table land Zone of Orissa, irrigate the groundnut crop.
 - Due to dry weather, fruit drop is appeared as a common problem in mango in North Eastern Coastal Plain Zone of Orissa. Spray water by pedal sprayer during forenoon hours to prevent fruit drop.
 - In Orissa, the weather is optimum for planting of papaya, marigold etc. and sowing of summer groundnut and sunflower with assured irrigation. Increased temperature may lead to moisture stress. Apply irrigation to sugarcane.
 - Prepare the field and undertake sowing of green gram, planting of sugarcane and sowing of summer vegetable crops like bhindi, bitter gourd, sponge gourd, pumpkin, cucumber etc. in Bihar.
 - Farmers in West Bengal are advised to undertake field preparation and sowing of green gram, sesame and sunflower and also planting of Gladiolus. Adopt seed rate of 3.5 kg per bigha for green gram and 1 kg per bigha for sesame.
 - Prepare the field and undertake sowing of summer vegetable crops like long gourd, round gourd, ridge gourd, bitter gourd, sponge gourd, cucumber, water melon and musk melon, *okra*, brinjal and shimla mirch in Jharkhand.
 - After potato crops, summer green gram may be sown in case of limited irrigation facility in Western Plateau Zone of Jharkhand. Summer vegetables like bhindi, tomato, brinjal etc. may be grown in the same field if sufficient irrigation facilities are available. Farmers having at least 2 irrigation facilities may sow summer green gram after harvesting of mustard or other *rabi* crops. Farmers are advised to undertake harvesting of already matured *rabi* crops, otherwise high temperature and wind speed may cause shattering of pods, resulting in low yield. The field should also be ploughed without planking after harvesting of different *rabi* crops. This operation minimizes / destroys the existing weeds and pests of the field due to excessive solar heating.
 - Prepare the field and undertake sowing of *kharif* maize, summer potato and *kharif* vegetables in Sikkim.
 - Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
 - High differential temperature between day and night in Cuttack and Khurda districts of Orissa may favour the infestation of blast in rice; spray 0.6 g Tricyclazole or 1 ml Ediphenphos per litre of water. Withhold top dressing of urea for five days after the spraying. Increased temperature may favour the egg laying of stem borer in rice in the main field. To attract the adult stem borer, place 4 Pheromone Traps / acre. Collect the adults and destroy them by burying them under soil or by burning. Spray 2 ml Prophenophos per litre of water.
 - Due to rise in temperature and dry soil condition in Jagatsinghpur and Kendrapara district of Orissa, insects like white grubs may pose serious problems in groundnut. Monitor the crop regularly and take appropriate plant protection measures if infestation increases.
 - Current moderate temperature in Khurda district of Orissa may favour thrips infestation; spray 400 ml Dimethoate or Endosulphan in 200 litres of water per acre.

- Due to increase of temperature in Coastal Saline Zone of West Bengal, brown plant hopper infestation has been reported in rice; spray Monocrotophos or Methyl Demeton @ 1.5 ml / litre or carbaryl WP @ 2 g / litre.
- Under prevailing weather condition, there is chance of the attack of stem borer in New Alluvial Zone of West Bengal. If the infestation is more than 10%, apply control measures.
- Under present weather condition, there is chance of leaf blight and collar rot in pointed gourd in New Alluvial Zone of West Bengal. To prevent the disease, apply 1 ml Ridomil or Indofil-M-85 per litre of water at an interval of three weeks. There is also possibility of infestation of mites in mango. Apply 1-2 g sulphur pesticide per litre of water as control measure.
- Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
- This is the congenial time for the growth of fish in South Eastern Plateau Zone and Western Plateau Zone of Jharkhand; feeding should be supplemented with rice husk and cakes of mustard @ 5 kg each per day per acre. Apply cow dung from one side along with uniform distribution of lime in the ponds.
- Birds should be provided with lasota preventive vaccine & IBD vaccine in West Central Table land Zone of Orissa. Affected birds with Ranikhet should be provided with 0.5 g Furasol in 1 litre water continuously for 3 days or should be provided with medicine after consultation with veterinary doctors.

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

- **Realised Rainfall:** No significant rain occurred in most of the districts of the States of the region during last week.
- **Rainfall Forecast:** Scattered rain / thundershowers would occur over Arunachal Pradesh and isolated over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- **Advisory:**
 - As there was no significant rain in most of the districts of the States of this region except some districts of Arunachal Pradesh and no significant rain is likely to occur over all the States except Arunachal Pradesh during the period, farmers are advised to apply irrigation to the standing crops.
 - Undertake intercultural operation and apply fertilizers and plant protection measures in Arunachal Pradesh on a non-rainy day.
 - In view of prevailing mainly dry weather, apply irrigation to wheat at milk / dough stage in Assam.
 - Irrigate the *boro* rice to maintain 3-5 cm standing water in the fields as there is prediction of no significant rain in Assam, Meghalaya, Tripura and Manipur.
 - In Barak Valley Zone in Assam, as partially cloudy weather is expected to prevail during the coming week, farmers are advised to postpone harvesting of already matured wheat crop.
 - Undertake nursery sowing of early *ahu* rice and also sowing of green gram, black gram, jute and early summer vegetables in Assam.
 - Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
 - Soil and air temperatures are favourable for the attack of stem borer in *boro* rice in Upper Bramhaputra Valley Zone in Assam; apply Darsban or Monocrotophos @ 2 tea spoon full per 5 litres of water in the field.
 - Wilt disease in lentil crop is observed in some areas of Central Bramhaputra Valley Zone in Assam; farmers are advised to protect their crops by soil drenching with Bavistin @ 1 g / litre of water. Rust in field pea has also been observed in some locality. To prevent the spread of this disease spray Calixin @ 1-2 ml / litre of water.
 - Under the prevailing weather condition in Manipur, there is likely occurrence of early blight in tomato; spray Dithane M-45 (Mancozeb) @ 2 g / litre of water twice at 7 days interval.
 - Due to continuous increase in temperature, there is possibility of infestation of purple blotch in onion in Mizoram. To control purple blotch, spray the crop with 1.3 kg of Indofil M 45 mixed with 400 ml of linseed oil as sticker in 600 liters of water / ha.
 - In Temperate Sub Alpine Zone in Meghalaya, to control late blight in potato, spraying of Chloropyriphos 20 EC @ 1 ml / litre of water may be done and during cloudy weather spray Dithane M-45 @ 25% solution against late blight.

- Stages of major crops are mentioned in Annexure I.

Animal Husbandry:

- In Mizoram, change in weather may lead to viral diseases in animals. Farmers are advised to maintain clean sanitary conditions of poultry sheds and equipment, provide balanced feed, fresh clean water; healthy chicks are essential to prevent diseases. Vaccination is advised against Ranikhet disease with R2B @ 0.5 ml through eye drop route.
- In Nagaland, proper monitoring should be done in case of poultry as many losses occurred in poultry breed due to breakout of many diseases and hot weather. Temperature between 10⁰C and 16⁰C is found to be optimum for egg production but if the nutrition is not a limiting factor, then the egg production is not affected even upto 25⁰C.

NORTHWEST INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- **Realised Rainfall:** Rain occurred in most of the districts of Himachal Pradesh, few districts of Jammu & Kashmir, Uttarakhand, light rainfall in many districts of remaining States except Rajasthan where mainly dry weather prevailed during last week.
- **Rainfall Forecast:** Mainly dry / dry weather is likely to occur over the region.
- **Advisory:**
 - As mainly dry or dry weather is likely in the region and gradually slight rise in maximum temperature is likely during next 2-3 days, farmers are advised to apply irrigation to wheat crop.
 - Farmers in Sub Tropical Zone of Jammu & Kashmir are advised to undertake sowing of bhindi utilising realised rainfall during last week. Undertake planting of evergreen fruit crops as well as deciduous fruits like mango, guava, logoot, litchi, citrus, peach, plum and grapevine etc.
 - Farmers in Punjab and Haryana are advised to complete sowing of spring sugarcane.
 - In Mid Hills Sub-Humid zone of Himachal Pradesh, farmers are advised to prepare nursery beds and undertake sowing of tomato, capsicum, chilli, brinjal utilizing realized rainfall during last week. Apply first dose of urea along with earthing up operation to remove from weeds in cole crops.
 - Farmers in Bhabar and Terai Zone (Nainital and Udamsingh Nagar districts) of Uttarakhand are advised to start harvesting of timely sown matured wheat and sugarcane as dry weather is likely during next three days. Undertake sowing of Chiatee Dhan in nursery, sowing of mung, urd, vegetable pea, french bean, tomato and planting of sugarcane and intercropping of moong or urd with sugarcane.
 - Farmers in Delhi are advised to undertake field preparation and undertake sowing of maize, hybrid cluster bean, hybrid cultivar of baby corn and transplanting of tomato, chilli and cole crops. Undertake harvesting of matured mustard immediately as overmaturity of the crop will cause loss of grains due to shattering.
 - Farmers in Rajasthan are advised to prepare field and undertake sowing of *zaid* pearl millet, sorghum(fodder), *zaid* green gram, groundnut, okra, cucurbitaceous vegetables like melon, bottle gourd, ridgegourd, bittergourd, pumpkin. They are also advised to undertake harvesting of matured mustard, gram, taramira, barley and potato. Due to rise in temperature irrigation may be given to wheat, barley, gram and vegetables.
 - Farmers in Uttar Pradesh are advised to undertake timely harvesting of mustard, gram, pea to avoid grain shattering. Prepare the land for sowing of *zaid* maize, urd or moong, lady's finger, cucubits and planting of sugarcane.
 - Due to favourable weather conditions, methi, pea, cumin, and coriander are likely to be affected by powdery mildew in Rajasthan. Spray Karathane @ 1.0 ml or Calyxin @ 1.0 ml per litre water or dust sulphur @ 25 kg per hectare.
 - In Delhi, constant monitoring of the wheat crop against rust disease is advised. If symptoms of black, brown or yellow rust appear, spraying with Dithane M 45 @ 2.5 grams per litre of water should be done.
 - In Sub Tropical Zone of Jammu & Kashmir, weather is favourable for loose smut/ flag smut in wheat and barley. Farmers are advised to rouge out the loose smut/ flag smut affected plants from wheat & barley crops immediately in order to avoid further dispersal. Weather is favourable for aphid attack in

late sown mustard crop under such situation spray Chloropyriphos 20EC @0.05% or Phosphamidon@ 0.03% or Metasystox@ 0.03%, if 50-60 aphids per 10cm terminal shoot are infested.

- In Gurudasapur region of Punjab(Undulating Plain Zone), weather conditions are favorable for the incidence of yellow rust in wheat. Farmers are advised to monitor for the symptoms of the disease and spray Propiconazole 25 EC @ 200ml in 200 liter water/acre.

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

- **Realised Rainfall:** Mainly dry weather prevailed during last week in all the States.
- **Rainfall Forecast:** : Dry weather is likely to prevail over the region
- **Advisories:**
 - As there was no significant rainfall in the region during last week and dry weather is likely during next three days, farmers are advised to apply irrigation to the standing crops.
 - Farmers in Karnataka are advised to undertake harvesting of maize, jowar, gram, cotton, sunflower and safflower as dry weather is likely during next three days.
 - As weather will be dry with bright sunshine during the next three days farmers are advised to continue the summer ploughing in Karnataka.
 - Due to prevailing favourable temperature and relative humidity raisin making of grapes may be undertaken immediately in North Dry Zone of Karnataka.
 - Due to dry weather conditions, farmers in Southern Dry Zone of Karnataka may apply irrigation to dry land horticultural crops and other field crops depending on soil and crop condition.
 - Farmers in High Altitude Zone of Tamil Nadu are advised to undertake planting of potato and undertake harvesting of carrot.
 - Air temperature may rise in High Rainfall Zone of Tamil Nadu. It is advised to apply irrigation and mulching to avoid heat injury to the standing crops. Banana bunches may covered with dried leaves to avoid damage due to heat. Rice fallow pulses may be sown in rice field one week before harvesting of rice.
 - Farmers of Scarce Rainfall Zone of Rayalaseema of Andhra Pradesh are advised to apply neem coated urea to rice at tillering stage which will reduce the nitrogen losses and also incidence of pests.
 - Present weather conditions are favourable for the incidence of hoppers and powdery mildew in mango orchards in Scarce Rainfall Zone of Rayalaseema. Spray Confidor @ 0.4 ml + Bavistin @ 1g per litre of water. Prevailing dry weather conditions are favourable for the incidence of mites in sweet orange. Spray Wettable Sulphur @ 3 g or Dicofol @ 3.0 ml per litre of water.
 - Incidence of stem borer and blast is noticed in paddy in Southern Telangana Zone of Andhra Pradesh. Farmers are advised not to apply high dose of nitrogen fertilizers. Arrange 4 pheromone traps per acre to monitor the pest and spray Cartap hydrochloride @ 2 g or Phosphomidon @ 2 ml per litre of water if 5 % dead hearts or 1 adult or egg mass is noticed per square meter area. To control blast spray Tricyclazole @ 0.6 g per litre of water.
 - Fungal and bacterial wilt may attack rice fallow maize in Krishna Godavari Zone of Andhra Pradesh, it can be managed by giving timely irrigation. Corinospora leaf spot may appear in rice fallow pulses due to change in weather conditions and it can managed by spray with 3 g of Copper oxychloride or 2.5 g of Mancozeb per liter of water.
 - Rice blast incidences are observed in rice in North Eastern Zone of Tamil Nadu. Farmers are advised to spray Propiconazole (Tilt) @ 2ml per liter of water.
 - In the rice fallow blackgram, due to increase in temperature in Cauvery Delta Zone of Tamil Nadu, incidence of thrips may occur and spread leaf curl virus. Spray Profenophos @ 2 ml/lit of water by using hand sprayer in the morning or evening hours.
 - Due to increase in humidity in High Altitude Zone of Kerala, there are chances of incidences of blast, brown spot, sheath rot, thrips, stem borer in rice, stem bleeding, red palm weevil, rhinoceros beetle and mealy bugs in coconut. Farmers are advised to undertake plant protection measures to control the pests and diseases.
 - Dry weather may increase the attack of insect vector in vegetables in Southern Zone of Kerala which spread virus diseases. Apply Rogor (dimethoate) @ 1.5 ml / litre of water to control vectors.
 - Due to congenial weather conditions there is report of incidences of bacterial blight in rice, shoot and fruit borer in brinjal in Karnataka. Spray Streptocyclene(0.5 to 1.0g) + Copper Sulphate @ 0.5 to 1.0 g /10 lit of

water or Agrimycin-100 @ 3.0g + Copper Oxochloride @ 1.0g /10 litre of water or Bromopal @ 3.0g + Copper oxy chloride @ 1.0g /10 lit of water.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised rainfall:** Mainly dry weather prevailed in the States of the region during the period.
- **Rainfall forecast:** Dry weather is likely to prevail over the States of the region during the period.
- **Advisory:**
 - As mainly dry weather prevailed over the States during last few weeks and dry weather is likely to prevail during the period, farmers are advised to apply irrigation to the standing crops.
 - As dry weather is persisting, farmers in Maharashtra are advised to complete the harvesting of the already matured jowar, gram, sunflower and safflower.
 - Taking advantage of prevailing weather farmers in Central Vidarbha Zone are advised to undertake planting of watermelon and summer ladies finger.
 - Present dry weather is congenial for application of fourth dose of Nitrogen @136 kg and Phosphorous and Potash 85 kg each / ha to pre-seasonal sugarcane after 12 to 16 weeks from planting and second dose of Nitrogen @ 100 kg along with neem powder after 6 to 8 weeks from planting to *Suru* sugarcane followed by irrigation in Madhya Maharashtra. Farmers are also advised to spray 1% Urea and 1% Potassium Nitrate as pea stage i.e. marble stage and areca nut size stage to increase the production and quality improvement of mango fruits.
 - As dry condition prevailed during last few weeks and is likely to prevail, farmers in Gujarat state are advised to irrigate wheat and vegetable crops like brinjal, tomato etc.
 - The farmers in middle Gujarat and North Gujarat region are advised to undertake sowing of green gram and cowpea and continue sowing of summer groundnut.
 - Taking advantage of favourable weather, farmers in south Gujarat heavy rainfall region are advised to undertake planting of summer sunflower.
 - Suitable varieties of the crops are mentioned in Annexure II.
 - Due to favourable weather condition, infestation of aphids, thrips and blight is likely to be increased in onion in Pune Division of Maharashtra; spray Neon @ 2 ml or Aciphate 0.5 g plus Diathane M-45 @ 2.5 g or Chlorothalonil @ 2 g and sticker @ 0.5 g / litre of water.
 - Due to cloudy weather prevailed during last week, there is chance of attack of powdery mildew on mango blossom in Central Vidarbha zone of Maharashtra; spray Sulphur WS @ 30 g or Dinocap @ 10 ml or Tridemorph @ 5 ml in 10 liters of water.
 - There may be possibility of attack of sap sucking pests in summer groundnut in Central Maharashtra Plateau Zone; spray Rogar @ 10 ml in 10 liters of water.
 - Weather conditions are favourable for infestation of sucking pests in vegetables in North Gujarat region; spray Dimethoate 30EC 0.1% to control sucking pests in the crop.
 - Stages of major crops are mentioned in Annexure I.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Weather remained dry during last week in the region.
- **Rainfall Forecast:** Dry weather is likely to prevail over the region.
- **Advisory:**
 - As there was no significant rainfall during last week in the region and dry weather is likely during next three days, farmers are advised to apply irrigation to the standing wheat and other *rabi* crops.
 - Farmers in Jhabua Hill Zone of Madhya Pradesh are advised to sow summer moong, urd and transplanting of onion. Undertake harvesting of mature crop of early sown wheat, maize and gram.
 - Farmers in Kymore Plateau and Satpura Hill Zone of Madhya Pradesh are advised to sow mung, urd, sunflower and vegetables like lady's finger, cowpea and cucurbitaceous crops in irrigated condition after harvesting of *rabi* crops.
 - Farmers in Vindhya Plateau Zone are advised to undertake sowing short duration varieties of carrot and radish and transplanting of vegetables. Also farmers are advised to undertake planting of sugarcane.

- Farmers in Nimar Valley Zone are advised to undertake sowing of cucurbitaceous crops, transplanting of brinjal and chilli and planting of sugarcane and fodder crops. Farmers in Gird Zone are advised to undertake transplanting of tomato, chilly and cucurbit crops.
- Due to increase in temperature the evaporation rates has increased (5-6 mm/day) in Chhatisgarh plain Zone. Therefore, it advised to reduce the interval between two irrigations (particularly in wheat crop) to maintain proper soil moisture and microclimate within the crop canopy to minimise the adverse effect of high temperature or thermal stress. Farmers who have drip irrigation system for vegetables and plantation crops should regulate the water discharge rate accordingly to maintain proper soil moisture around root zone.
- As present weather conditions are suitable for proper germination of sugarcane and summer vegetables like pumpkin, bitter gourd, bottle gourd, okra and also carrot and radish etc. in Chhatisgarh plain Zone. Hence undertake sowing of these vegetables and planting of sugarcane at the earliest in the well pulverized fields. Farmers in Northern Hill Zone in Chhatisgarh are advised to prepare land for planting of sugarcane and sowing of *rabi* vegetables and cucurbitaceous crops.
- Farmers are advised to undertake weeding and intercultural operations in winter vegetables and weeding should be done in Bastar plateau Zone and after that fertilizer application should be done.
- Weather is congenial for stem borer in sugarcane in Nimar Valley Zone in Madhya Pradesh, farmers are advised to apply Phorate 10 kg per hectare.
- In Powerkheda region of Madhya Pradesh, apply Phorate 10G @ 3.0 kg per acre as wheat crop is infected by Mahu and also infected by Dimak, spray Chlorpyrifos 20 EC at recommended dose after irrigation.
- Weather is congenial for leaf curl disease in tomato and chilli in Gird and Bundelkhand Zone of Madhya Pradesh, farmers are advised to spray Methyl dimeton 25 E.C @ 2.0 ml or Emidachlopid @ 0.5 ml per litre of water.
- Weather conditions prevailing are favourable for incidence of stem borer in summer rice in Chhatisgarh plain zone, hence it is advised to monitor the crop and if the damage is above ETL apply granular insecticides Cartap or Fipronil @ 25 kg/ha in the fields. About 5 cm standing water should be maintained in the fields while applying the granular insecticides and do not allow the water to out of the field at least for 24 hours.

Animal Husbandry & Poultry

- As there is possibility of partial cloudy conditions during next five days in Gird Zone, hence sheep farmers are advised to apply pesticides in sunny hours to control parasites. Cattle should be provided with balanced and nutrient rich feed having protein, carbohydrate, fat, vitamins and antibiotics.
- At present, due to large variations in day temperature in Bundelkhand Zone of Madhya Pradesh which may decrease in disease resistance in chicken, hence it is advised to add antibiotic in their feed.

Annexure I Major Crops

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

- Gram (pod maturity / harvesting), mustard and sarson (pod maturity / harvesting), wheat (milk / dough), maize (tasseling / silking / cob formation), potato (tuber maturity / harvesting), vegetables like cauliflower, cabbage (head formation / maturity), chillies, tomato (fruiting / harvesting), palak, carrot, radish etc. (harvesting), barseem, lucerne, oat (vegetative), sugarcane (planting), *boro* rice (tillering), green gram, maize (sowing / early vegetative), summer vegetables like bhindi, bitter gourd, sponge gourd, pumpkin, cucumber etc. (sowing), summer moong and urd (sowing) in Bihar.
- Arhar and green pea (pod maturity / harvesting), wheat (milk / dough), potato (tuber maturity / harvesting), mustard (pod maturity / harvesting), pea, lentil and gram (pod maturity / harvesting), onion (bulb enlargement / maturity), tomato (fruiting / harvesting), cabbage and cauliflower (head formation / harvesting), chilli and brinjal (transplanting / early vegetative), summer rice (tillering), summer vegetables (sowing / transplanting / vegetative), summer green gram (sowing), sugarcane (planting), mango and litchi (flowering), papaya (transplanting) in Jharkhand.

- *Rabi* vegetables (fruiting / harvesting), *rabi* oilseeds like groundnut (pod maturity / harvesting), mustard and sunflower (pod maturity / harvesting), arhar (pod maturity / harvesting), wheat (milk / dough), potato (tuber maturity / harvesting), *rabi* pulses like gram, lentil and field pea (pod maturity / harvesting), sugarcane (harvesting), *boro* rice (tillering), maize (sowing / vegetative), black gram, green gram, groundnut, garlic, sesame, sunflower (sowing / early vegetative), mango, papaya, summer marigold (planting), summer cow pea (sowing / early vegetative), summer vegetables (sowing / early vegetative) and sugarcane (sprouting / vegetative / tillering) in Orissa.
- *Boro* rice (tillering), wheat (milk / dough), arhar (pod maturity / harvesting), mustard (pod maturity / harvesting), potato (tuber maturity / harvesting), lentil, pea, Bengal gram (pod maturity / harvesting), mango (flowering), *rabi* vegetables like cabbage and cauliflower (head formation / harvesting), groundnut, sesame, sunflower (sowing / early vegetative) and summer vegetables like ladies finger, *Kakrol*, amaranthus, spinach, various leafy vegetables, brinjal, chili (sowing / early vegetative) in West Bengal.
- Large cardamom (vegetative lag phase), orange (end harvesting), wheat (flowering / milk / dough / harvesting), *rabi* potato (tuberization / early maturity), ginger (harvesting), *rabi* vegetables (flowering / fruiting / harvesting), mustard (seed maturity / harvesting), seed potato, maize (sowing / germination / early vegetative), summer potato (sowing / germination), *kharif* vegetable (sowing / nursery sowing) in Sikkim.

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

- Sugarcane (planting / cane development), potato (late planted) (tuber maturity), *boro* rice (tillering), wheat (early sown) (harvesting), wheat (grain formation), early *ahu* rice (sowing / seedling / transplanting), jute (sowing / seedling), summer vegetables (sowing), summer sesame (sowing / germination / early vegetative) and maize (sowing) in Assam.
- Tomato (maturity / harvesting), pea (pod maturity), maize (vegetative), potato (harvesting), mustard (harvesting) and orange (maturity) in Arunachal Pradesh.
- Summer vegetables (sowing / early vegetative), *boro* rice (tillering) and potato (harvesting) in Tripura.
- *Boro* rice (tillering), *ahu* rice (nursery sowing / seedling / transplanting), rapeseed and mustard (pod maturity / harvesting), *rabi* maize (vegetative), wheat (flowering / grain formation), winter potato (tuber formation / maturity), winter potato at high altitude (harvesting) and summer vegetables (sowing / early vegetative) in Meghalaya.
- Rice (sowing), *rabi* maize (vegetative / pre-flowering), mustard and rapeseed (pod maturity / harvesting), field pea (pod formation / maturity), onion (vegetative / bulb formation), cauliflower and cabbage (head formation / harvesting), tomato (vegetative) and potato (tuber maturity / harvesting) in Manipur.
- *Khasi* Mandarin (Vegetative / newflush stage), banana (vegetative / fruiting / maturity), onion (vegetative), pea (pod formation / maturity / harvesting), beans (pod formation / harvesting), carrot and radish (harvesting), tomato, chilli and capsicum (flowering / fruiting / harvesting), cole crops (head formation / harvesting), ginger, turmeric (harvesting) and maize (cob formation / maturity) in Mizoram.
- Cabbage (heading / harvesting), pea (harvesting), mustard (pod maturity / harvesting) and papaya and tomato (fruiting) in Nagaland.

NORTHWEST INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- Wheat (flag leaf / flowering), mustard (pod formation / maturity / harvesting), pea and gram (pod formation), broccoli, cauliflower, cabbage and onion (early vegetative / vegetative), tomato, chilli (transplanting), brinjal & cucurbits crops (nursery sowing), lentil (pod formation), maize, baby corn (sowing), green gram and black gram (sowing) in Delhi.
- Wheat (flowering), potato (vegetative / tuber initiation / tuber formation), vegetables (flowering / fruiting / harvesting), garlic (planting), pea (sowing) in Himachal Pradesh.
- Gram (flowering/grain formation), berseem (vegetative), oats (flowering), wheat, barley (jointing / flag leaf stage / ear head formation), very late sown wheat (jointing stage), lentil (pod formation), field pea (flowering/pod formation), toria (maturity / harvesting), mustard (pod formation), late sown mustard

(pod formation / flowering), vegetable crops like tomato, chilli, brinjal, cucurbits (vegetative / flowering), onion (vegetative), cauliflower, cabbage, carrot (fruiting), onion and tomato (sowing/transplanting) in Jammu & Kashmir.

- Sugarcane (maturity / harvesting), wheat (ear head emergence / flowering / maturity / harvesting), potato (tuber initiation / maturity / harvesting), toria (maturity / harvesting), mustard (flowering / pod formation / maturity), chickpea (flowering / pod formation), barley (tillering), garlic, seasonal vegetables (vegetative / flowering), onion (vegetative), pea (harvesting), chilli, tomato (sowing / transplanting) and lahi (flowering / fruiting) in Uttarakhand.
- Sugarcane (maturity/harvesting), spring sugarcane (germination), berseem (vegetative), wheat (heading / flowering / grain filling), barley (heading), lentil, gram (flowering / head formation), African sarson (flowering / pod formation), radish (vegetative), ghobi sarson (vegetative), oilseeds (raya, taramira) (pod formation/ maturity), papaya, onion (transplanting), vegetables, sugarcane (sowing) in Punjab.
- Sugarcane (spring season) (sowing), wheat (flag leaf), berseem (vegetative), gram (pod formation / seed formation), rapeseed and mustard (maturity) in Haryana.
- Wheat (flowering/ grain formation), barley, oats (tillering/flowering), toria (pod formation / maturity), arhar (flowering / pod formation / grain formation), mustard, sarson, (flowering / pod formation / maturity / harvesting), potato (vegetative / tuber formation / digging), field pea, chick pea, lentil, linseed (late vegetative / flowering), winter sugarcane (vegetative), winter vegetables like carrot, garlic, onion (vegetative), tomato, brinjal (flowering / fruiting), cabbage, cauliflower (flowering / fruiting / maturity / harvesting) and vegetable pea (flowering / pod formation) etc. in Uttar Pradesh.
- Sugarcane (maturity / harvesting), winter sugarcane (initial growth), wheat (ear head emergence / grain formation / maturity / harvesting), oats, barley (tillering / ear head emergence), taramira, mustard (flowering / pod formation / maturity / harvesting), gram (pod formation / maturity / harvesting), lentil (vegetative / flowering), ajwain, fenugreek and isabgol (vegetative), potato (tuberization / maturity), cabbage, cauliflower (late vegetative / head formation) and tomato (flowering/ fruiting) in Rajasthan.

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

- Rice (grain development/maturity), pulses (pod initiation / development), rice fallow black gram (flowering), maize (harvesting), sorghum (harvesting), groundnut (late vegetative), cotton (boll development), sugarcane (vegetative) in Tamil Nadu.
- Sugarcane (ratooning), pigeon pea (harvesting), Bengal gram (pod formation/ maturity/harvesting), bitter gourd (fruiting), cotton (boll formation/ picking), sunflower (head filling), safflower (flowering), wheat (earhead emergence / maturity), jowar (maturity), mango (flowering/fruiting) in Karnataka.
- Vegetables (flowering / fruiting), rice (seedling), pepper, ginger, coconut (harvesting) in Kerala.
- Bengal gram (pod development to maturity), rice (panicle initiation), red gram (pod development), sunflower (seed development), groundnut (pod development) in Andhra Pradesh.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Jowar, safflower, gram, *rabi* sunflower, maize (maturity / harvesting), irrigated wheat (dough / maturity / harvesting), sugarcane-*Adsali* (active tillering), Sugarcane-pre seasonal (early growth), sugar cane-*Suru* (planting / sprouting), summer rice (tillering in Konkan and East Vidarbha), groundnut (early vegetative / vegetative in Konkan and germination / early vegetative in other divisions), summer sunflower (sowing / germination), summer maize (sowing / germination), bajra (early vegetative / vegetative) in Maharashtra.
- Mustard (pod maturity / harvesting), pigeon pea (seed maturity / harvesting), gram (pod maturity / harvesting), potato (tuber maturity / harvesting), brinjal and tomato (fruiting / harvesting), cumin (seed formation / maturity), early sown wheat and timely sown wheat (dough / early maturity), late sown wheat (milk / dough), sugarcane (sprouting / early vegetative) and summer groundnut (sowing / early vegetative) in Gujarat.

CENTRAL INDIA [M.P., CHHATTISGARH]

- Wheat (grain formation), mustard (maturity), chickpea (pod formation), pigeon pea (pod formation), sugarcane (planting / early vegetative), cotton (boll formation), maize (milky / dough), onion (transplanting), gram / linseed (fruiting / harvest), okra (sowing) in Madhya Pradesh.
- Pigeon pea (pod development), gram (pod development), wheat (grain formation / milky), mustard (maturity /early harvest), sunflower (sowing), sugarcane (vegetative) in Chhattisgarh.

Annexure II

List of Varieties

Bihar

Bhindi: Parvani Kranti, Arka Abhay, Arka Anamika, KS 312 and hybrid varieties such as Bhawani, Krishna, Lam Hybrid, Hybrid 6, Hybrid 8, Indranil.

Green gram: Pusa Baishakhi, T-9.

Summer moong: Pusa Vishal, Samrat, Sona, PS 16, SML 668.

Urd: Type 9.

Orissa

Summer maize: Dhabal and Navjot and Hybrid varieties like Ganga, Deccan 105, Kargil 900-M, PRO 345, Kargil 633.

Summer groundnut: Smruti (OG 52-1), Phule Pragati, ICGS-44, TAG-24, TG-3, TMV-2 and TG 38.

Summer Sunflower: High yielding variety like Modern and hybrid varieties like PAC 36, KBSH, MSFH-8 and MSFH 17.

Green gram: PDM 11, PDM-54, Pusa Baisakhi, SML-668, PDM-54, HUM 2, Durga and Samrat

Black gram: Sarala, T-9, B-3-8-8, Pant-U-19, Pant-U-30.

Sesame: Uma, Kalika, Nirmala, Prachi and Usha.

Papaya: Honey Dew, Kurg Honey Dew, Coombatore-1, Coombatore-2, Pusa Delicious, Pusa Majestic, Pusa Dwarf and Pusa Giant.

Summer cow pea: Bush type – Pusa Phalguni, Pusa Komal; runner type – American Long and Banarasi Long; other improved varieties like Russian Giant, EC-4316, NP-3, C-152, UPC-286, UPC-5286 and IGFI-450.

West Bengal

Sunflower: Morden, Surya (90-95 days duration), Pack 36 (hybrid variety, 104 days duration), KBSH (90-95 days duration).

Green gram: Sonali (B-1), Panna (B-105), Pusa Baishakhi etc.

Sesame: Tilottama (B 67), Rama, Krisna.

Groundnut: JL-24, J-11, AKG-12-24.

Jharkhand

Green gram: Pusa Vishal, SML-668 and PDM-11.

Sugarcane: High yielding variety – BO147 (red rot resistant and high sugar content-10.7%).

Bhindi: High yielding varieties – Pusa A-4, Parvani Kranti, Arka Anamika etc. and hybrid varieties – Sonal and Sharita.

Assam

Early Ahu Rice: Banglami, Puthichapali, Nilajee, Hasakumra, Lachit, Chilarai, Gopinath, Luit, Kapilee, Dichang, Dikhow and Kalong, Maguri, Panikekua, Amona, Negheri, Gobind and IR-36.

Green gram: T44, AAU 34, AAU 39, Pratap, SG1.

Black gram: T 9, Pant U 19, JU 78 etc.

Cucumber: Chinese Green, Pusa Sanyog, Poinsette.

Bitter Gourd: Long Green, Extra Long, Pussa Do Mausmi.

Ridge Gourd: Pusa Nasdar, AAUJ-2, AAUC-3.

Okra: Pusa Sawani, Arka Anamika, Parbhdani Kranti.

Jute: JRC 321 (Sonali), UPC 94 (Reshma), JRC 321, JRC 7447, UPC 94, JRO 524, JRO 7835, JRO 632 etc.

Lady's Finger: Parvani Kranti, Arka Anamika.

Ridged gourd: Pusa Nasdur.

Summer sesame: TC 25 and Binayak.

Punjab

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), CoS-8436 & CoJ 88 for mid season and Co- 1148 & CoJ 89

Himachal Pradesh

Pea: Azad Pea

Uttar Pradesh

Sunflower : Modern KBSH-1

Lady Finger : VRO-6, 5, IIVR-10, P-Kanti, (Late sowing -Arka Anamika, Arka Abhay)

Gourd : Swarna Purna, Swarna Sweta, Swarna Ageti and hybrid varieties like Aman and Priya.

Maize : Navin, Sweta, Azad, Uttam, Kanchan, Gourav, Mithi Makka Madhuri, Sankar Makka Ganga-11 for green Bhutta, Prakash for Baby corn, Pusa Ageti.

Moong : K-851, JM-721, P.D.M.-11, 54, Narendra Moong-1, Pant Moong-2, Malaviya Jagruti, Samrat, Moong Janpriya, Pusa Vaishakhi, Ta-44, Pant Moong-12.

Urad : Azad Urad 1, 2, Shekhar 1,2, Narendra Urad 1, Ta- 9, P.U.-19, 35, Uttara, Pant U-19, Pant U-35 Type-9,

Sugarcane: CoJ-85, CoJ-83, CoJ-64, Co.Sh.88230, 96268 (early maturing), CoJ-88, CoS-8436 for mid season and CoJ-89 and Co-1148 (late maturing variety), Co.S.-98231, 94536

Uttarakhand:

Rice (Chiatee Dhan): VL-Dhan 207, VL-Dhan 208 & VL-Dhan 209, VL-Dhan 206, Pant Mazeda-7

Jammu & Kashmir

Tomato : Pusa ruby & Pb. Chuhara

Chillies : NP-46A & Pusa Ruby

Brinjal : PPL, PPG,PPR & PK

Bhindi : Pusa sawani

Harayna

Sugarcane : COH-92, CO-7717, COH-99, COS-8436, COH-119, CO-1148, COS-767 and COS-110.

Gujarat

Greengram: GM-3, GM-4.

Cowpea: Guj. Cowpea-1, 2, 4 or Pusa Falguni.

Summer groundnut: GG-2, 5 and 7 for Bhal and Coastal region and GG-2 or GG 20 for North Gujarat region.

Maharashtra

Water Melon: Sugar Baby, Arka Manik, Arka Jyoti.

Ladies finger: Arka Anamika, Parbhani Kranti, Akola Bahar and Phule Utkarsha.

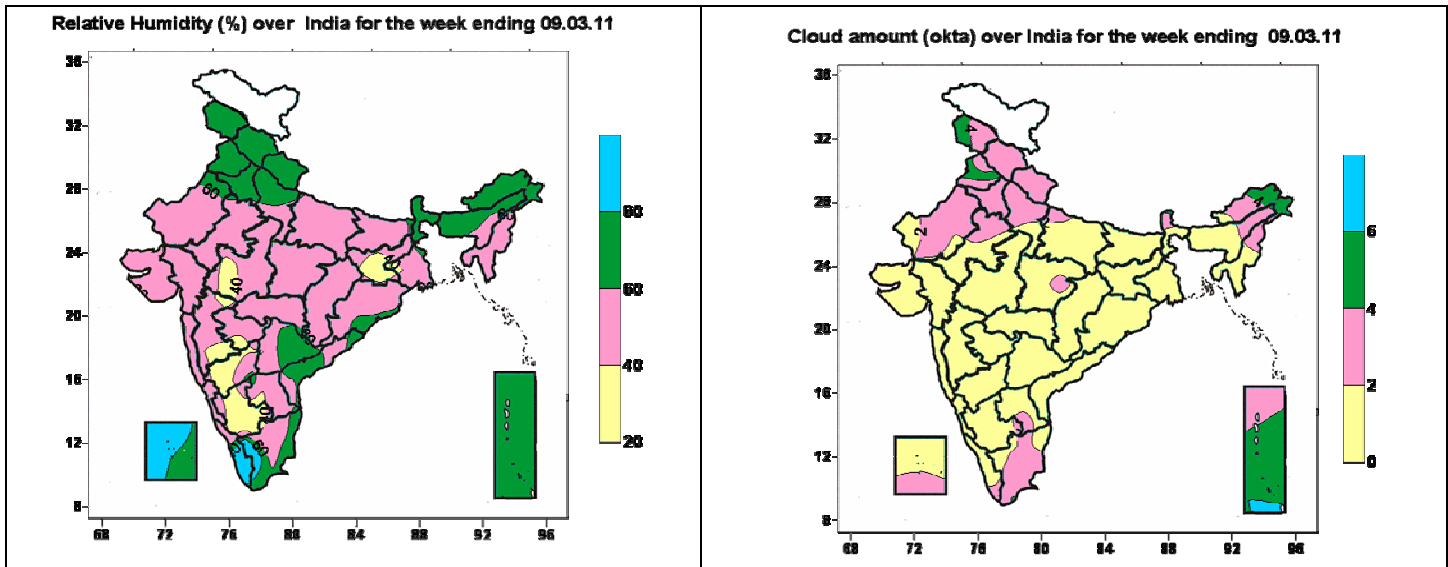
Madhya Pradesh

Sugarcane: Jawahar 86141, Ko Jawahar-86572, Ko Jawahar-86600, Ko-Jawahar-86032

Moong: PDM-11 JM-721, TJM-1

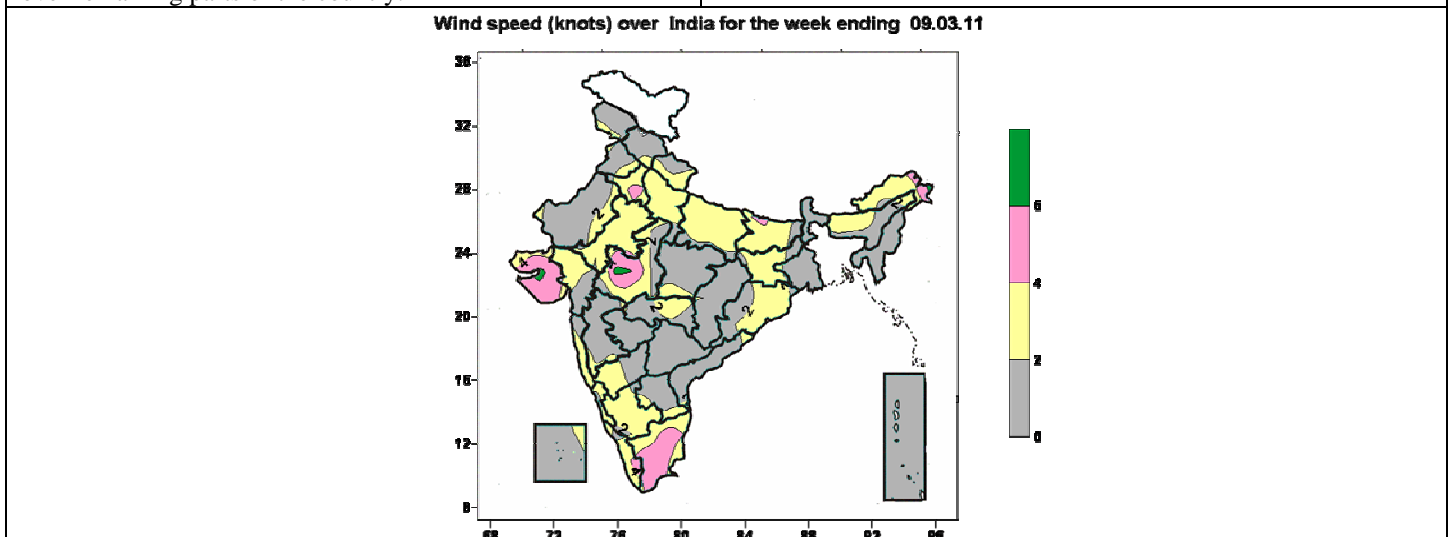
Urad: Urad-2, PDU-1, TPU-4

Annexure III
Contour maps (Relative humidity, Cloud amount and Wind Speed) for the week ending
09.03.2011



Relative humidity between 80% and above over most parts of Kerala, Lakshadweep, some parts Tamil Nadu, 60 to 80% most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Telangana, Andaman & Nicobar Islands, some parts of Rajasthan, Coastal Orissa, Coastal Andhra Pradesh, Tamil Nadu, Kerala, Lakshadweep islands, 20 to 40% over most parts of South & North Interior Karnataka, some parts of Jharkhand, West Madhya Pradesh, Rayalaseema, Madhya Maharashtra, Marathwada, 40 to 60% over remaining parts of the country.

Cloud amount 6 okta and above over some parts of Andaman & Nicobar Islands, 4 to 6 okta over some parts of Jammu & Kashmir, Punjab, Arunachal Pradesh, 2 to 4 okta over most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, West Rajasthan, Haryana, Delhi, West Uttar Pradesh, Tamil Nadu, some parts of Punjab, East Rajasthan, Arunachal Pradesh, Assam, Nagaland, East Madhya Pradesh, Raylaseema, Kerala, Lakshadweep, Andaman & Nicobar Islands Island, 0 to 2 okta over remaining parts of the country.



Wind speed ranged between 6 knots and above over some parts of Saurashtra & Kutch, West Madhya Pradesh, 4 to 6 knots over most parts of Saurashtra & Kutch, Coastal Tamil Nadu some parts of Haryana, Delhi, Arunachal Pradesh, West Madhya Pradesh, Kerala, 2 to 4 knots over most parts of Haryana, Delhi, East Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Arunachal Pradesh, Coastal Orissa, Gujarat, Konkan & Goa, Kerala, Karnataka, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, West Rajasthan, Assam, Coastal Andhra Pradesh, Rayalaseema, Madhya Pradesh, Vidarbha, Madhya Maharashtra, Saurashtra & Kutch, Lakshadweep Islands, 0 to 2 knots over remaining parts of the country.