

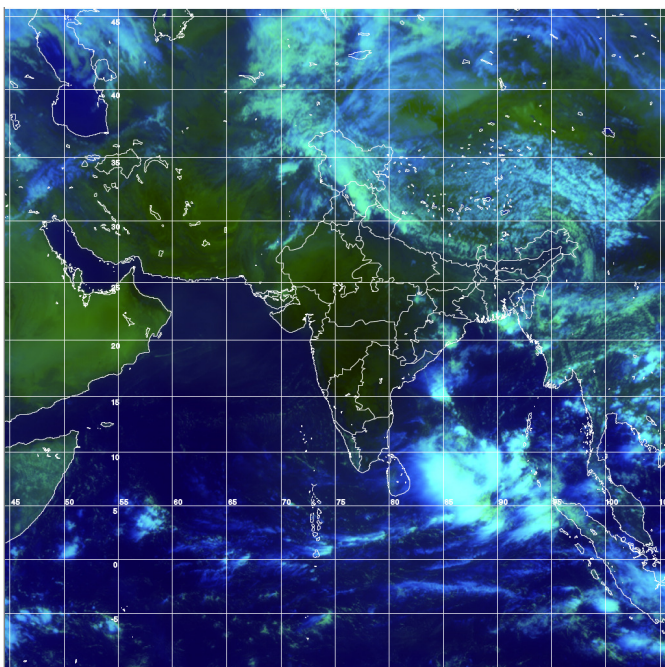


National Agromet Advisory Bulletin

Thursday, 5th May, 2011

(For the period 5th to 9th May, 2011)

Satellite image 1130 UTC Dated
6th May, 2011



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Agricultural Meteorology Division
India Meteorological Department
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Executive Summary

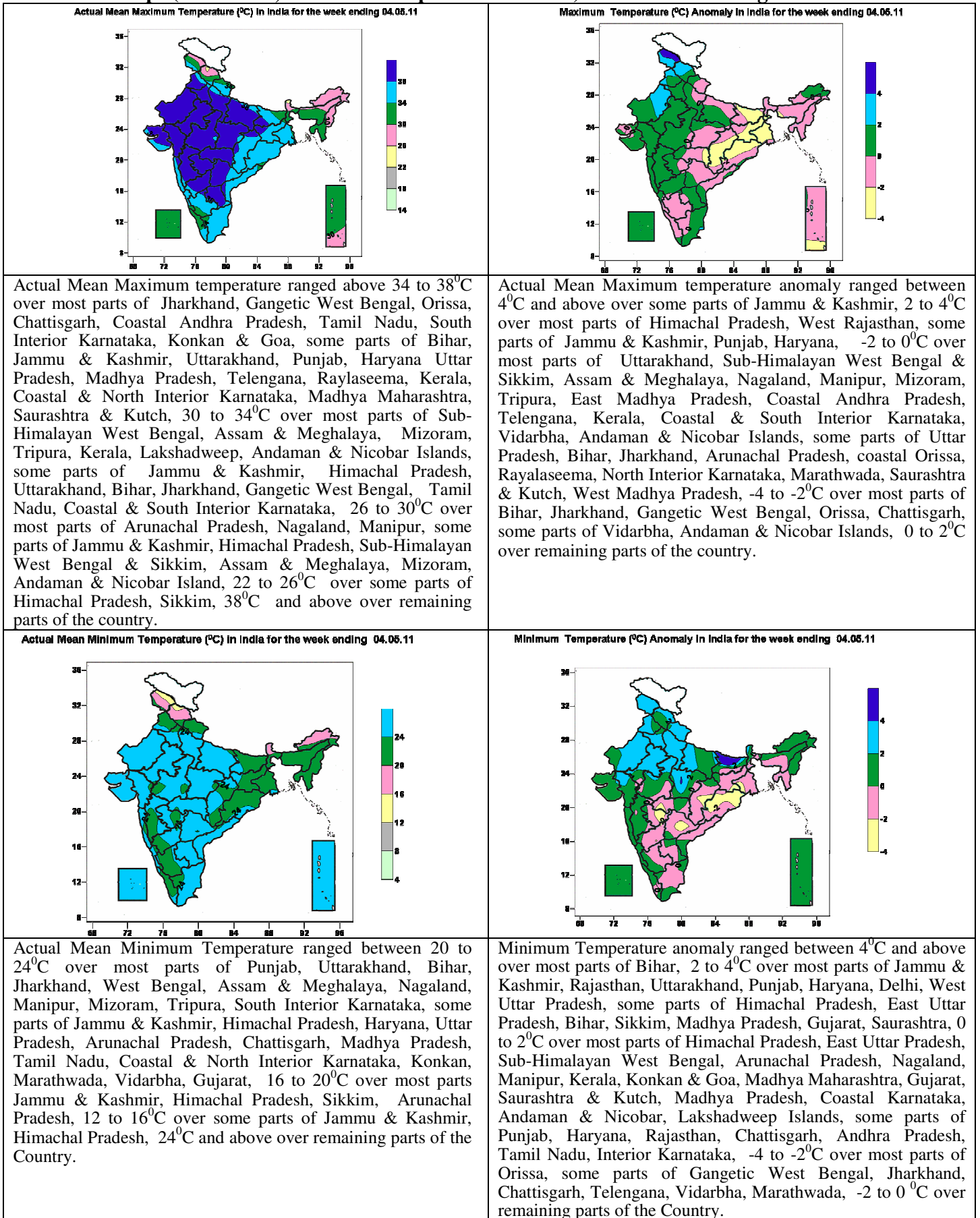
Rainfall occurred in most of the districts of Assam and Arunachal Pradesh and some districts of Bihar, Gangetic West Bengal, Sub Himalayan West Bengal, Kerala, Tamil Nadu and Coastal Andhra Pradesh during last week. Maximum temperature ranged above 38⁰C over most parts of Rajasthan, Gujarat, Maharashtra, Telangana, Rayalaseema, North Interior Karnataka, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Punjab, Haryana and Uttarakhand. Farmers are advised to undertake harvesting of wheat and other *rabi* crops and store it at safer places as isolated thunder squalls would occur over these States during next two days.

As fairly widespread rainfall is likely to occur over Jammu & Kashmir, Himachal Pradesh, Sub Himalayan West Bengal, Gangetic West Bengal and North Eastern States during next three days, postpone irrigation, intercultural operation, application of fertilizer and plant protection measures to the standing crops.

Farmers are advised to undertake transplanting of rice, sowing of maize in Tamil Nadu, sowing of cowpea, green gram, black gram, sesame, sorghum and cotton in Karnataka, sowing of rice in Kerala, sowing of French bean, bhindi, cucurbitaceous vegetables and transplanting of tomato, brinjal, chillies in Himachal Pradesh, sowing of rice, bhindi and cucurbitaceous vegetables in Uttarakhand, sowing of baby corn in Delhi, sowing of irrigated cotton in Rajasthan, sowing of rice in nursery, maize, green gram etc. in Jammu & Kashmir, sowing of French bean, green gram, black gram etc. in Arunachal Pradesh and sowing of summer green gram, black gram, soybean, sesame, jute and planting of sugarcane in Assam, sowing of maize and summer vegetables in Meghalaya, sowing of groundnut, soybean etc. in Mizoram and sowing of *aus* rice, ginger and turmeric in West Bengal.

Due to high temperature conditions, there are incidences of *Spodoptera* and *Heliothis* in summer groundnut in Andhra Pradesh, powdery mildew in pulses, thrips in chillies, fruit borer in tomato in Karnataka, powdery mildew in bhindi, cucurbits in Maharashtra, boll worm in rice fallow cotton in Tamil Nadu, smut disease in rice in Kerala and stem borer in rice in Chhattisgarh. Farmers are advised to undertake appropriate plant protection measures to control the pests and diseases.

Contour maps (Maximum, Minimum temp. and anomalies) for the week ending 04.05.2011



Distribution of rainfall (% departure from normal) for the districts of Assam, Arunachal Pradesh, Bihar, West Bengal, Kerala, Tamil Nadu and Coastal Andhra Pradesh during last week.

State/Districts	Actual	04.05.11
Arunachal Pradesh		
Changlang	1.0	-99
East Siang	106.3	47
Lohit	34.3	-56
Lower Subansiri	27.0	-52
Papumpara	122.5	108
Tawang	26.0	-53
Tirap	27.0	-71
Upper Siang	69.0	-30
Upper Subansiri	35.4	20
West Kameng	34.0	-38
West Siang	77.9	46
Assam		
Barpeta	108.2	39
Bongaigaon	71.4	-15
Cachar	74.7	-4
Dhubri	70.7	4
Dibrugarh	60.6	-8
East Garo Hills	88.0	-1
East Khasi Hills	151.0	0
Goalpara	64.2	-27
Golghat	84.8	59
Hailakandi	29.0	-69
Jaintia Hills	75.0	-48
Jorhat	79.7	17
Kamrup	23.3	-68
Karbi Analog	41.3	27
Karimganj	7.0	-94
Kokrajhar	115.5	68
Lakhimpur	100.6	66
Morigaon	56.0	16
N.C.Hills	45.9	0
Nowgong	44.0	-9
Nalbari	103.4	-12
Sonitpur	126.0	99
Tinsukia	107.5	91
Bihar		
Araria	124.4	329
Aurangabad	0.0	-100
Begusarai	0.0	-100
Bhabua	**	**
Bhagalpur	24.9	117
Darbhanga	34.2	169
East Champaran	89.8	944
Gaya	0.0	-100
Gopalganj	0.0	-100
Jahanabad	0.0	-100
Kathihar	8.2	-40
Khagadia	10.9	23
Kishanganj	30.8	-11
Madhepura	13.2	-14
Madhubani	72.6	619
Monghyar	0.4	-95
Muzaffarpur	5.5	-13
Nalanda	0.0	-100
Patna	0.0	-100
Purnea	49.5	125
Rohtas	0.0	-100
Saharsha	38.4	110
Samstipur	7.6	25

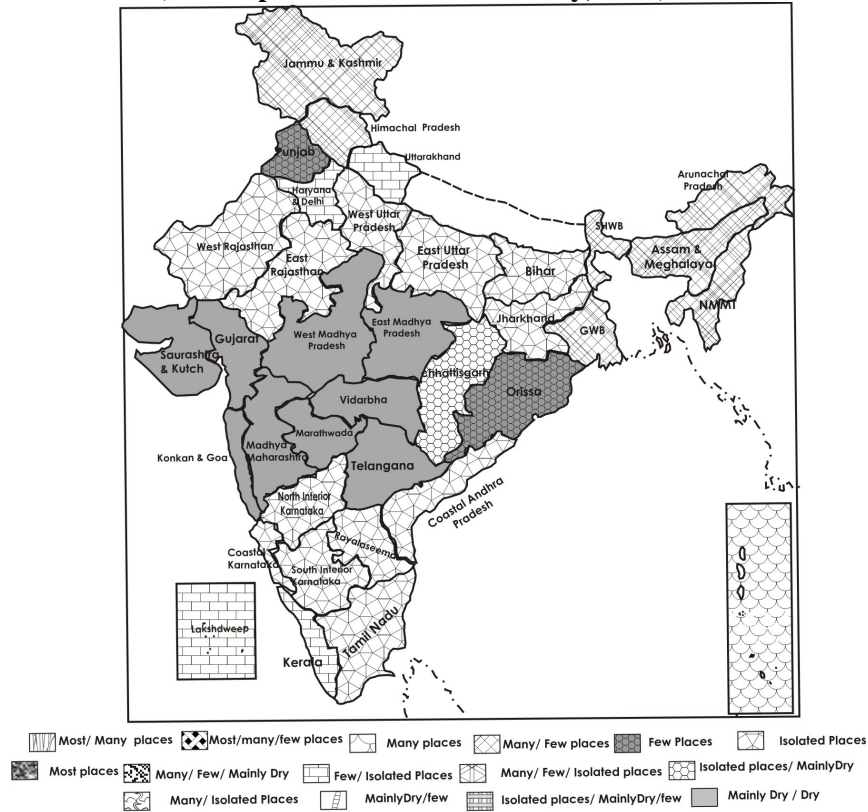
Saran	0.0	-100
Siwan	0.0	-100
Supaul	42.7	134
West Champaran	39.5	287
Orissa		
Angul	6.1	-38
Balasore	21.4	42
Bargarh	8.0	105
Bhadrak	11.7	-26
Bolangir	2.8	-42
Boudh	0.0	-100
Cuttack	9.8	-55
Deogarh	8.8	27
Dhenkanal	26.6	82
Gajapati	64.8	178
Ganjam	35.1	234
Jagatsingpur	2.5	-87
Jajpur	7.1	-64
Jharsuguda	0.2	-97
Kalahandi	10.2	50
Kandhamal	2.8	-81
Kendrapara	0.0	-100
Keonjhar	16.6	-21
Khurda	13.9	46
Koraput	10.3	-42
Malkangiri	7.2	-47
Mayurbhanj	27.9	38
Nawapara	7.0	-16
Nawarangpur	25.3	75
Nayagarh	6.8	-51
Puri	2.6	-76
Rayagada	23.7	101
Sambalpur	5.6	-18
Sonepur	7.3	46
Sundargarh	10.2	85
West Bengal		
GWB		
Bankura	18.5	35
Birbhum	8.7	-27
Burdwan	29.3	83
Hooghly	16.8	-11
Howrah	85.0	303
East Midnapore	39.1	77
Murshidabad	5.0	-58
Nadia	13.0	-33
24 Pargana (N)	11.8	-56
Purulia	5.4	-54
24 Pargana (S)	45.4	128
West Midnapore	6.9	-59
SHWB		
Coochbehar	92.7	65
Darjeeling	32.0	-38
Jalpaiguri	73.1	26
Malda	17.3	-10
Dinajpur (S)	13.7	-58
North Sikkim	33.7	-54
South Sikkim	22.6	-62
Tamil Nadu		
Chennai	0.0	-100
Coimbatore	27.6	45
Cuddalore	10.7	26

Dharmapuri	55.5	262
Dindigul	36.3	99
Erode	52.8	213
Kanchipuram	1.9	-61
Kanyakumari	14.4	-55
Karur	37.1	177
Krishnagiri	27.8	58
Madurai	37.5	220
Nagapattinam	0.0	-100
Namakkal	50.5	206
Nilgiris	62.5	190
Perambalur	28.0	148
Puducherry	0.0	-100
Pudukottai	3.6	-66
Ramanathapuram	2.9	-70
Salem	58.6	182
Sivaganga	6.9	-35
Thanjavur	5.9	-48
Theni	8.1	-58
Tirunelveli	1.5	-91
Tiruvallur	0.0	-100
Tiruvannamalai	4.7	-43
Tiruvarur	0.5	-94
Toothukudi	4.2	-52
Trichy	13.7	2
Vellore	0.0	-100
Villupuram	1.3	-85
Virudhunagar	15.8	9
Andhra Pradesh		
Coastal Andhra Pradesh		
East Godavari	6.2	-32
Guntur	1.8	-59
Krishna	3.3	-49
Nellore	0.3	-96
Prakasam	2.9	-55
Sirkakulam	33.3	262
Visakhapatnam	38.5	141
Vizianagram	51.8	301
West Godavari	7.2	15
Kerala		
Alappuzha	46.8	42
Kannur	52.0	306
Ernakulam	49.7	86
Idukki	129.8	232
Kasaragod	133.2	851
Kollam	84.8	84
Kottayam	39.9	53
Kozhikode	70.0	204
Malappuram	104.9	381
Palakkad	99.8	251
Pathanamthitta	101.3	103
Thiruvananthapuram	63.0	129
Thrissur	58.8	194
Wyanad	110.3	365

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 1430 hours of 8th May, 2011)



Major Feature of Weather Forecast upto 1430 hours IST of 8th May, 2011

- Fairly widespread rain/thundershowers would occur over Andaman & Nicobar Islands and Gangetic West Bengal; scattered over SubHimalayan West Bengal & Sikkim, northeastern states and Orissa and isolated over rest east India and increase over SubHimalayan West Bengal & Sikkim and northeastern states after next 24 hours.
- Scattered rain/thundershowers would over western Himalayan region and Isolated over plains of northwest India during next 24 hours and increase thereafter.
- Scattered rain/thundershowers would occur over Kerala and Lakshadweep and isolated over rest peninsular India and decrease over Kerala and Lakshadweep after next 48 hours.
- Decrease in maximum temperatures by 2 - 3°C over northwest, west and central India during next 2 – 3 days.

Weather Warning

- Isolated thundersqualls would occur over Punjab, Haryana, Delhi, Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Orissa, West Bengal & Sikkim during next 48 hours.

Weather Outlook up to 1430 hours IST of 10th May, 2011

- A fresh western disturbance may approach northwest India.
- Fairly widespread rain/thundershowers would occur over northeastern states and scattered over adjoining east India.

Zonewise Agromet Advisories

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

- **Realised Rainfall:** Araria, Darbhanga, East Champaran, Kishanganj, Madhubani, Purnea, Saharsha, Supaul and West Champaran districts of Bihar, Gajapati and Ganjam districts of Orissa, Burdwan, Howrah, East Midnapore and 24 Pargana (S) districts of Gangetic West Bengal, Coochbehar, Darjeeling and Jalpaiguri districts of Sub Himalayan West Bengal and most of the districts of Sikkim received rain during last week.
- **Rainfall Forecast:** Fairly widespread rain / thundershowers would occur over Gangetic West Bengal, scattered over Sub Himalayan West Bengal & Sikkim and Orissa and isolated over rest east India and increase over SubHimalayan West Bengal & Sikkim after next 24 hours. Isolated thundersqualls would occur over Bihar, Jharkhand, Orissa, West Bengal & Sikkim during next 48 hours.
- **Advisories:**
 - As there is possibility of rain during next few days in Gangetic West Bengal, Sub Himalayan West Bengal & Sikkim, farmers are advised to postpone irrigation, intercultural operation, application of plant protection measures and fertilizers to the standing crops. As Araria, Darbhanga, East Champaran, Kishanganj, Madhubani, Purnea, Saharsha, Supaul and West Champaran districts of Bihar, Gajapati and Ganjam districts of Orissa received rain during last week, postpone irrigation to the crops in these districts. As remaining districts of the States of the region received no significant rain and also are not likely to receive significant rain during next few days, apply irrigation to the standing crops in these districts.
 - In Orissa, the weather is optimum for planting of turmeric, papaya, marigold etc. and sowing of jute, summer vegetables like *okra*, bitter gourd, cluster bean, cow pea and ridge gourd and also sowing of mixed green fodder like fodder maize and cow pea.
 - Farmers in West Bengal are advised to undertake field preparation and sowing of jute, elephant foot yam, ginger and turmeric.
 - Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
 - Farmers in Bihar, Jharkhand and Orissa are advised to harvest already matured summer crops and to protect at a safe place in view of occurrence of isolated thunder squall.
 - In Coastal Saline Zone of West Bengal, due to high temperature and humidity, mites may cause serious damage in chillies causing longitudinal crinkling, curling, sometimes severe defoliation. Spray any of the acaricide like Ethion 50 EC @ 1.5 ml / litre or Dicofol 18.5 EC @ 3 ml / litre or Propenophos @ 1.5 ml / litre of water at 10 days intervals.
 - Fruit and shoot borer in brinjal has been observed in vegetables in Cuttack and Puri districts of Orissa; install Pheromone traps, spray Sevin WP @ 4 g or Malathion @ 2 ml in 1 litre of water.
 - Infestation of thrips has been noticed in groundnut in Jagatsinghpur and Puri districts in Orissa; spray 2 ml Endosulphan in 1 litre of water.
 - In this weather condition, post emergence damping off may be found in jute field in Terai Zone of West Bengal; spray Carbendazim 12% + Mancozeb 64% (Saaf) @ 2 g / litre of water.
 - In New Alluvial Zone in West Bengal, due to temperature increase there is the possibility of mite attack on pointed gourd. To prevent mite attack, apply kelthane @ 2 ml / litre of water.
 - In South Eastern Plateau Zone of Jharkhand, there is incidence of gundhi bug, caseworm and brown plant hopper in rice and it may increase due to the temperature difference; apply 4% Endosulfun or 1.5% Quinalphos or Monocrotophos.
 - Apply plant protection measures in Gangetic West Bengal and Sub Himalayan West Bengal & Sikkim after current spells of rain and in Orissa on a non-rainy day.
 - Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
 - As the temperature is quite high in Jharkhand, animals should be protected against heat. To keep their rooms cool, gunny bags may be hung as curtain in the windows and water should be poured time to

time. Do not allow animals to be exposed in sunlight during noon and avail fresh and plenty of water for drinking.

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

- **Realised Rainfall:** Most of the districts of Arunachal Pradesh and Assam received rain during last week.
- **Rainfall Forecast:** Scattered rain/thundershowers would occur over the states of the region and increase after next 24 hours.
 - As most of the districts of Arunachal Pradesh and Assam received rain during last week and rain is likely to occur also during next few days, postpone irrigation, intercultural operation and application of fertilizer and plant protection measures to the standing crops and also harvesting operation.
 - In Assam, sowing of jute, summer vegetables, summer green gram and black gram, transplanting of *ahu* rice and planting of sugarcane may be carried out.
 - Farmers are advised to sow maize, ladies finger, bottle gourd, ridge gourd etc. in Ri-Bhoi, West Khasi, East Khasi, East Garo and West Garo Hill district in Meghalaya, Mild Tropical Hill Zone in Nagaland and Aus or Pre Kharif Rice in Tripura.
 - Farmers in Manipur are advised to undertake sowing of ginger, turmeric and cucurbitaceous vegetables after current spells of rain.
 - In Nagaland, support should be given to the banana with the help of bamboo so as to protect the plants from bending or falling down due to heavy wind speed.
 - Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
 - In Upper and Central Brahmaputra Valley Zone of Assam, due to increase in RH and probable increase in temperature in the coming days, the condition may be suitable for the attack of blast disease in *ahu* rice. Farmers are advised to spray Bavistin @ 1 g per litre of water when the symptoms appear.
 - In Temperate Sub Alpine Zone in Meghalaya, soil and air temperatures are favourable for the attack of stem borer in *boro* rice. If eggs of the pests are noticed, apply Monocrotophos @ 2 teaspoon full per 5 litres of water in the field. As there is a rise in temperature in Ri-Bhoi, East Khasi and South Garo Districts, there is possibility of late blight in potato, which may be controlled by prophylactic spray of Dithane M-45 (2.5 ml / litre) or Curzate (3 ml / litre).
 - Apply plant protection measures after current spells of rain.
 - Stages of major crops are mentioned in Annexure I.

Animal Husbandry:

- In Tripura and Mizoram, due to the weather change, some viral / bacterial diseases may outbreak in Poultry birds and cattle. Vaccination like FMD, Black Quarter and Hemorrhagic septicemia (HS) in cattle and Ranikhet in poultry may be undertaken. Keep sanitary conditions in poultry sheds and also keep the equipment clean. Provide balanced feed and fresh clean water to the cattle.
- In Tripura, due to heat wave and humid weather animals may be under environmental stress followed by dehydration, heat stroke. Animal thus advised to keep in shade, get water-splashing 2 to 3 times in a day. Cattle may also be provided with succulent product. Animals and birds may be provided with plenty of water with 1% salt, mineral mixture.

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

- **Realised Rainfall:** Dry weather prevailed over the region during last week.
- **Rainfall Forecast:** Fairly widespread rain/thundershowers would occur over Jammu & Kashmir, Himachal Pradesh after 24 hours and decrease thereafter. Scattered rainfall is likely over Punjab, Haryana and Uttarakhand during next three days. Isolated rainfall is likely in the remaining region. Isolated thundersqualls would occur during next two days in Punjab, Haryana, Delhi, Rajasthan and Uttar Pradesh
- **Advisory:**

- As fairly widespread rain/thundershowers would occur over Jammu & Kashmir, Himachal Pradesh after 24 hours, farmers are advised to postpone irrigation to standing crops.
- As high temperature is likely to be continuing in the region, the evaporative demand increases so farmers are advised to apply frequent irrigation in summer crops, vegetables, horticultural plants and cover the tree sapling with thatching material to protect against high temperature.
- Farmers are advised to undertake harvesting of wheat and other *rabi* crops and store it at safer places in Punjab, Haryana, Delhi, Rajasthan and Uttar Pradesh as isolated thundersqualls would occur over these States during next two days.
- Considering the prevailing dry weather, farmers in Delhi are advised to maintain optimum moisture level in cucurbitaceous crops and onion by light and frequent irrigation as dry conditions may lead to poor pollination in cucurbits and drop in yield of the crop.
- Farmers in Delhi are advised to sow maize, bajra as fodder crops may and dhaicha and senai as green manure crop. Sowing of baby corn and sweet corn may also be done.
- Farmers are advised to undertake sowing of pea, bhindi, frenchbean and nursery sowing of khira, summer squash, bitter gourd, gladiolus, liliun and China aster, glardia, rudevekia, Kochia, African Marigold, French Marigold, Partulaca, Tithinia, Torinia and cleome, red and white clover, fodder maize, fodder maize + legume, moong, mash, nursery sowing of vegetables like cauliflower, cabbage, tomato, capsicum, cucumber, lettuce and broccoli in Himachal Pradesh.
- Due to presence of sufficient moisture farmers in Jammu & Kashmir are advised to undertake nursery sowing of rice, sowing of jowar, maize, beans, bottle gourd, sponge gourd, bittergourd, cucumber, pumpkin, bhindi, okra, sowing of cowpea as intercrop in between the fruit plants, planting of potato, transplanting of tomato, chillies, brinjal, cabbage, knol-khol, pear, peach, plum and grapevine, mango, guava, litchi, citrus. Undertake harvesting of early sown wheat and oilseed crops (mustard). Sowing of fodders like maize, jowar, bajra, cowpea etc. may be started in Srinagar.
- Farmers in Rajasthan are advised to undertake sowing cotton, cucurbitaceous vegetables like melon, bottlegourd, ridgegourd, bittergourd, pumpkin and smoothgourd, leafy vegetables like spinach and amaranthus and transplanting of tomato and brinjal, nursery planting of papaya and also advised to undertake harvesting of matured mustard, gram, taramira, barley and potato and *rabi* onion.
- Farmers in Uttarakhand are advised to undertake sowing of foxtail millet, potato (7000 – 8000 feet height areas), maize, okra, bottle gourd, bitter gourd, ginger, turmeric etc., nursery sowing of Chiatee Dhan and transplanting of tomato, pumpkin (mid-hills), chilly, brinjal (irrigated hilly areas). Farmers in Bhabar and Terai Zone (Nainital and Udamsingh Nagar districts) having irrigation facilities should start sowing of green fodder crops like makchary, lobia or maize during this week.
- Farmers in Punjab and Haryana State are advised to complete the sowing of Sathi moong and Sathi Mash during this week and give need based irrigation to the crop. Also complete the sowing of *Baisakhi* mung, arhar and turmeric crop.
- Farmers in Uttar Pradesh are advised to undertake sowing of turmeric, ginger, maize / fodder maize, summer sugarcane with intercropping of moong and urd crops.
- Farmers in Uttar Pradesh are advised to undertake sowing of recommended varieties of sanai & dhaincha for green manure in sufficient moisture.
- Weather is favourable for attack of yellow mosaic disease in urd & moong in Uttar Pradesh, uproot affected plants carefully and destroy it and spray the solution of Dimethoate, 30 E.C. @ 1 Litre/hectare.
- Weather is favourable for attack of hairy caterpillar on moong and mash, gram caterpillar on barseem, red pumpkin beetle on cucurbits, blight disease in tomato in Punjab are advised to monitor the crops for above pest and disease and take proper plant protection measures.
- Weather is congenial for attack of mites on chilli and hopper on mango in Delhi. Farmers are advised to monitor the crop for above pest and take proper plant protection measures.
- During the crop maturity rodent damage is severe in threshing yard in Rajasthan. Farmers are advised to rodents prepare poison bait by using 1 part zinc phosphide, 47 part flour and two parts edible oil and keep 6 gram bait on each live entry of rodents.
- Stages of major crops are mentioned in Annexure I.

Animal Husbandry

- In Rajasthan, farmers are advised to adopt adequate measures to protect animal from heat stroke. Keep them in cool & shade area and give them cold water for drinking. Do not bath them in midday.

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

- **Realised Rainfall:** Bangalore Urban and Chamarajnar in South Interior Karnataka, Srikakulam, Vishakhapatnam and Vizianagram in Coastal Andhra Pradesh, Alappuzha, Ernakulam, Kottayam, Pathanamthitta and Thrissur in Kerala and Dharmapuri, Dindigul, Erode, Karur, Madurai, Namakkal, Nilgiris and Salem in Tamil Nadu received good rainfall. No significant rainfall occurred in remaining parts of the region.
- **Rainfall Forecast:** Rainfall is likely at a few places during next three days in Kerala, Coastal Karnataka and South Interior Karnataka and either isolated rain or mainly dry weather is likely in the remaining region.
- **Advisories:**
 - As there was sufficient rainfall in Bangalore Urban and Chamarajnar in South Interior Karnataka, Srikakulam, Vishakhapatnam and Vizianagram in Coastal Andhra Pradesh, Alappuzha, Ernakulam, Kottayam, Pathanamthitta and Thrissur in Kerala and Dharmapuri, Dindigul, Erode, Karur, Madurai, Namakkal, Nilgiris and Salem in Tamil Nadu, postpone irrigation to the standing crops in these districts/States. Apply irrigation in the remaining states as there was no sufficient rainfall.
 - Farmers in North East dry zone of Karnataka are advised to give temporary protection to summer vegetables to reduce the damage due to increasing temperature.
 - Due to sufficient moisture in the soil, farmers in Southern dry zone of Karnataka are advised to take up sowing of important crops like pulses viz., cowpea, green gram, black gram, oil seed crop like sesamum, sorghum and cotton.
 - Farmers in North dry zone of Karnataka are advised to take up plant protection measures in horticultural crops, considering the present weather conditions.
 - Farmers in Scarce rainfall of Rayalseema of Andhra Pradesh are advised to take up deep summer ploughing after recent rains.
 - Postpone irrigation for summer irrigated black gram, groundnut and gingelly crops as there are chances of rainfall for the next two days in Cauvery Delta Zone of Tamil Nadu.
 - Farmers in North Western zone of Tamil Nadu are advised to go for planting of maize utilizing recent rains and keep their land ready with preliminary ploughing.
 - Since moderate rainfall is expected in next five days in the High Altitude Hill zone of Tamil Nadu, irrigation can be avoided. Spraying of chemicals can be delayed and sowing of rainfed crops can be taken up immediately.
 - Planting of spice crops, plantation crops and medicinal plants can be undertaken in the High Rainfall zone of Tamil Nadu with the available rainfall.
 - Present weather conditions are favourable for the incidence of blight and fruit rot in chillies and spodoptera and heliothes in summer groundnut in Scarce rainfall of Rayalseema of Andhra Pradesh. Spray Propiconazole@1 ml or Difenconazole @ 0.5 ml per liter of water to control blight and fruit rot tracer @ 2.5 ml per liter of water to control spodoptera and larvin @ 1.5 g per liter of water to control heliothis.
 - Preventive measures may be undertaken to prevent attack of mango hoppers in mango and stem borer in sugarcane in Scarce rainfall of Rayalseema of Andhra Pradesh.
 - Incidence of early shoot borer, thrips, mites, Tomato Spotted Wilt Virus (TSWV) is noticed in the Southern Telangana zone of Andhra Pradesh. Farmers are advised to use preventive measures to prevent the attack of these pests.
 - Incidence of fruit borer in tomato and Shoot and fruit borer and mites in brinjal and bhendi is noticed in North East dry zone of Karnataka. Clip the infested shoots and destroy to control shoot borer, spray Profenophos @ 2 ml per liter of water to control fruit borer, and Dicofol @ 5ml per liter of water for control of Mites .

- In Hill zone of Karnataka, there is a severity of leaf spot in Banana and farmers are advised to go for spray with Carbendazim (1gm/lit).
- Capsicum crop is severely affected by thrips in Southern dry zone of Karnataka. This pest can be controlled by spraying of nimbecidin @ 5ml or nuvocron @ 2ml/lit. of water.
- In rice fallow cotton, bollworm incidence is being noticed in Cauvery Delta Zone of Tamil Nadu. Spray profenophos at 2 ml/lit of water during morning or evening hours to it.
- Red spider mite is seen in tapioca plant in North Western Zone of Tamil Nadu. To control, spray 2.5 ml of Omag per litre of water.
- Fairly high humidity and temperature can favour the attack of mealy bugs in Southern zone of Kerala. Spray Quinalphos (Ekalux) @ 2ml/litre
- **Animal Husbandry**
- Care should be taken against the maximum and minimum diurnal temperature variation for silk worms, poultry and dairy rearing houses by maintaining optimum room temperature and hygienic condition.
- Vaccinate desi chicken against New Castle (Ranikhet) disease which is very important during summer season like this
- Protect dairy animals from direct sunlight. Give plenty of water frequently and shade is must for them.
- Prevailing weather conditions may lead the occurrence of Hemorrhagic Septicemia, Black Quarter, Foot and mouth disease in cattle, ET and sheep pox in sheep, Ranikhet disease in poultry. To prevent the diseases, vaccinate the animals.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised rainfall:** Mainly dry weather prevailed over the States of the region during the period.
- **Rainfall forecast:** Dry or mainly dry weather would prevail over the region during the period.
- **Advisory:**
 - As weather was mainly dry during last week and mainly dry weather is likely during next few days, farmers in the States of the region are advised to apply irrigation to the standing crops.
 - As mainly dry weather is likely to prevail during the period, farmers in Sindhurg district of Maharashtra are advised to undertake harvesting of early maturing rice varieties. Before harvesting drain out water at least 8–10 days from main field.
 - Taking the advantage of dry weather, apply last dose of Nitrogen @ 100 kg (217 kg Urea), 55 kg Phosphorous (344 kg SSP) and 55 kg Potash (92 kg MOP) / ha at the time of final earthing up to *suru* sugarcane in Madhya Maharashtra and Marathwada followed by irrigation.
 - Due to increase in temperature and decrease in relative humidity, dropping of fruits in mango are observed in some parts of the south Konkan; farmers are advised to apply irrigation to the plants upto arecanut size stage.
 - For sowing of green fodder select African Tall variety of maize, Maldandi for jowar and Samrudhi of bajra.
 - As there is no possibility of rain, farmers in Gujarat state are advised to apply third dose of nitrogen @ 87 kg / ha to sugarcane at evening time assuring that sufficient moisture is available in the soil.
 - For planting of new orchard of mango, sapota, pomegranate, lemon, ber etc, farmers in North Saurashtra Zone are advised to dig the recommended size of pit at recommended distance and keep it for drying in sunlight. Fruits of papaya may be covered with gunny bag under high temperature condition to maintain its quality.
 - Due to increase in temperature there is more evaporation from sugarcane field; farmers in Gujarat state are advised to spread dry leaves of sugarcane in between two rows of the crop to reduce moisture loss.
 - Under prevailing weather condition there is chance of incidence of mealy bugs and fruit borer in mango in South Konkan; spray Dimethoate @ 10 ml and Quinolphos @ 10 ml respectively per 10 litres of water. Do not spray insecticides 20-25 days before maturity of fruits.
 - As present weather is favourable for the incidence of rust and blight in summer groundnut in Sub Montane Zone of Maharashtra, spray Diathane M-45 @ 2 g / liter water.

- Due to prevailing weather condition there is more infestation of powdery mildew in ladies finger in Western Maharashtra Scarcity Zone; spray WS Sulphur @ 25 g or Dinocap or Tridemarf @ 5 ml in 10 liters of water for 2-3 times at 10 days interval.
- Due to prevailing high temperature there may be incidence of shoot borer in sugarcane in Madhya Maharashtra and Marathwada; spray Endosulfan 35 EC @ 15 ml in 10 liters of water.
- Weather condition are favourable for out break of mango hopper in mango tree in North Gujarat Zone; spray solution of Endosulphan 35 EC @ 20 ml or Carbaryl 50% wettable powder @ 40 g in 10litres of water to the pest.

Animal Husbandry

- Due to high temperature forecast keep animals under shade during noon hours and provide clean drinking water. Vaccinate animals against FMD and BQ to avoid disease outbreak during ensuing monsoon season. Avoid transportation of poultry birds during noon time. Put curtains on west side of poultry house and sprinkle water on curtains during noon time.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** No significant rainfall occurred except Bastar, Jashpurnagar Raipur district in Chhattisgarh.
- **Rainfall Forecast:** Mainly dry weather is likely over Madhya Pradesh and Chhattisgarh.
- **Advisory:**
 - As per present weather conditions farmers are advised to harvest the *rabi* crops as early as possible. Weather conditions are suitable for proper germination of summer maize and summer vegetables; hence it is advised to complete the sowing of these crops in well pulverized fields at the earliest in Chattisgarh Plain Zone
 - Due to prevailing dry weather conditions and increase in evaporation rate in Chattisgarh Plain and Kymore plateau zone of Chattisgarh, farmers are advised apply irrigation in summer vegetables, rice, groundnut, mung, urd, soybean and sunflower.
 - Farmers in Northern Hill Zone of Chattisgarh are advised to prepare land for planting of sugarcane and sow moong, urad, fodder crops like maize, jowar, bajra crops etc.
 - Farmers in Kymore plateau and Satpura hill zone of Madhya Pradesh are advised to harvest wheat immediately and store the produce in covered place.
 - Farmers in Satpura Plateau Zone and Nimar Valley Zone of Madhya Pradesh are advised to undertake planting / sowing of summer sugarcane, fodder maize, fodder jowar, fodder bajra and other summer vegetables.
 - In Vindhya Plateau Zone and Jhabua hill zone of Madhya Pradesh, farmers are advised to sow moong and urad and nursery sowing of tomato, brinjal and chilli. Undertake propping of sugarcane and also apply mulching.
 - As weather is congenial for sucking pests in vegetables in Nimar Valley Zone of Madhya Pradesh, spray Metasystox or Dimethoate @ 1 ml per litre of water.
 - Due to dry weather, farmers in Gird Zone in Madhya Pradesh advised to keep watch for thrips attack in onion, if found spray Carbaryl @ 2gram/ liter of water. 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 Imidachloprid @ 0.5 ml per litre of water.
 - As weather is congenial for stem borer in sugarcane in Vindhya Plateau Zone of Madhya Pradesh, farmers are advised to spray Phorate@ 10 kg per hectare.
 - Infestation of stem borer is observed in trace at few places Chhattisgarh plain zone. Hence, farmers are advised to keep watch over the crop and if the damage is above ETL apply granular insecticides Cartep 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 clear sky conditions during next 5 days, cattle should be kept in dry place, provide balanced and nutrient rich feed having protein, carbohydrate, fat vitamins and antibiotics in Gird Zone of Madhya Pradesh.
 - At present, due to increase in day temperature in Bundelkhand Zone of Madhya Pradesh, farmers are advised to wash their body with water twice in a day to keep their body temperature cool.

Annexure I Major Crops

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

- Maize (tasseling / silking / cob formation), chillies, tomato (fruiting / harvesting), palak, carrot, radish etc. (harvesting), barseem, lucerne, oat (vegetative), sugarcane (early vegetative / vegetative), *boro* rice (grain formation), green gram and black gram (vegetative / flowering) and summer vegetables like bhindi, bitter gourd, sponge gourd, pumpkin, cucumber etc. (sowing / early vegetative / vegetative / flowering / fruiting) in Bihar.
- Chilli and brinjal (transplanting / early vegetative), summer rice (grain formation), summer vegetables (vegetative / flowering / fruiting), green gram (vegetative / flowering), sugarcane (early vegetative / vegetative), mango and litchi (flowering / fruiting), papaya (transplanting) in Jharkhand.
- *Boro* rice (grain formation), black gram, green gram (vegetative / flowering), sunflower (vegetative / flowering), sesame (vegetative / flowering / pod formation), groundnut (pegging / pod formation), mango, papaya, summer marigold, tuberose (planting), cow pea (sowing / early vegetative), summer vegetables (sowing / early vegetative / vegetative / flowering / fruiting) and sugarcane (sprouting / vegetative / tillering), jute and ginger (sowing) in Orissa.
- *Boro* rice (grain formation), mango (flowering / fruiting), sunflower (vegetative / bud initiation / flowering), green gram (flowering / pod formation / harvesting), groundnut (pegging / pod formation), sesame (vegetative / flowering / pod formation) and *aus* rice, maize, ginger, jute, summer vegetables like ladies finger, *kakrol*, *amaranthus*, spinach, various leafy vegetables, brinjal, bitter gourd (sowing / vegetative / flowering / fruiting), chilli (flowering / fruiting) in West Bengal.
- Large cardamom (vegetative lag phase / primary flowering / secondary flowering), *rabi* potato (maturity / harvesting), *kharif* vegetables (transplanting / vegetative), orange (flowering / transplanting of Seedlings from nursery), maize (early vegetative / vegetative / late vegetative / tasseling / silking / cob formation), ginger (sowing / germination) in Sikkim.

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

- Sugarcane (planting / cane development), *boro* rice (grain formation / early maturity), *bau* rice (sowing / early vegetative), normal *ahu* rice (transplanting / early growth), early *ahu* rice (panicle initiation / flowering), summer green gram and black gram (sowing / early vegetative / vegetative), jute (sowing / seedling / early vegetative / vegetative), summer vegetables (sowing / vegetative / flowering / fruiting), summer sesame (vegetative / flowering / pod formation) and maize (tasseling / silking) in Assam.
- Rice (nursery preparation / transplanting), French bean (sowing / germination), *okra* (sowing), maize (sowing / vegetative) and ginger / turmeric (sowing), summer vegetables, millet (sowing / germination / vegetative) in Arunachal Pradesh.
- *Rabi* maize (flowering / grain formation / maturity), Rice (tillering), French bean (Fruiting / fruit maturity / harvesting), onion (bulb formation) and ginger and turmeric (sowing) in Manipur.
- Khasi mandarin (fruit bearing), banana (vegetative / fruiting / maturity), maize (harvesting), *kharif* maize (sowing), onion (bulb formation / cutting), beans (sowing), cole crops (head formation / harvesting) and summer vegetables (early vegetative / vegetative) in Mizoram.
- *Aus* or pre *kharif* rice (sowing), sesame (vegetative / flowering / pod formation), summer vegetables (early vegetative / vegetative / flowering) and *boro* rice (grain formation) in Tripura.
- *Boro* rice (grain formation), *ahu* rice (nursery sowing / seedling / transplanting / early tillering), *rabi* maize (tasseling / silking / cob formation), winter potato (tuber maturity), winter potato at high altitude (harvesting) and summer vegetables (sowing / vegetative / flowering) in Meghalaya.

- Maize, summer crops (vegetative / flowering), *okra* (vegetative), tomato (planting) and banana (fruiting) in Nagaland.

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

- Wheat (harvesting), mustard (pod maturity / harvesting), pea and gram (pod maturity/harvesting), broccoli, cauliflower, cabbage and onion (early vegetative / vegetative), tomato, chilli (transplanting), brinjal & cucurbits crops (flowering/fruiting), lentil (pod formation), maize, hybrid cluster bean, baby corn (sowing/vegetative), green gram and black gram (sowing), Sugarcane(sowing) in Delhi.
- Wheat (grain maturity), potato (tuber formation/harvesting), vegetables (flowering / fruiting / harvesting), garlic (planting), pea, potato (sowing), cucurbits (transplanting), Khira, summer squash, bitter gourd, tur, brinjal, Shimla mirch, pepper and tomato (nursery sowing) in Himachal Pradesh.
- Gram (maturity), berseem (vegetative), oats (flowering), wheat, barley (Early sown – maturity, Normal sown – Hard dough, Late sown – Dough stage), lentil (maturity/harvesting), field pea (pod formation), toria (harvesting), mustard (pod maturity/harvesting), vegetable crops like tomato, chilli, brinjal, cucurbits (vegetative / flowering), onion (vegetative), cauliflower, cabbage, carrot (fruiting/harvesting), onion, tomato, brinjal and chilly (transplanting), summer pulses, cowpea, okra, maize, jowar (sowing), rice (nursery sowing), Summer moong & mash(sowing) in Jammu & Kashmir.
- Wheat (harvesting), potato (7000-800-ft a.s.l.) (sowing), toria (maturity / harvesting), mustard (maturity / harvesting), chickpea, moong, urd (flowering / pod formation), barley (tillering), garlic, seasonal vegetables (vegetative / flowering/ harvesting), onion (vegetative), pea (harvesting), chilli, tomato (sowing / transplanting) and lahi (flowering / fruiting), sugarcane (planting), rice (nursery sowing), mango (flowering / fruiting), foxtail millet, maize, okra, bottle gourd, bitter gourd, ginger, turmeric (sowing) in Uttarakhand.
- Spring sugarcane (germination), berseem (vegetative), wheat (harvesting), barley (harvesting), lentil, gram (harvesting), African sarson (pod formation/maturity), radish (vegetative), ghobi sarson (vegetative), oilseeds (raya, taramira) (maturity/harvesting), papaya, onion (harvesting), vegetables, sugarcane (sowing/ germination), summer pulses (sowing) in Punjab.
- Sugarcane (spring season) (planting/emergence/early vegetative), wheat (flag leaf/grain development), berseem (vegetative), gram (pod maturity/harvesting), rapeseed and mustard (harvesting), summer pulses, moong, mash, pigeon pea (sowing) in Haryana.
- Wheat (maturity/ harvesting), barley, oats (tillering/flowering), toria (pod maturity), arhar (grain formation / maturity / harvesting), mustard, sarson (pod maturity / harvesting), field pea, chick pea, lentil, linseed (maturity / harvesting), winter sugarcane (vegetative), summer sugarcane (planting), winter vegetables like carrot, garlic, onion tomato, brinjal (vegetative / flowering / fruiting), cabbage, cauliflower (fruiting / maturity / harvesting) and moong, urd, black gram, maize / fodder maize, vegetables (sowing) in Uttar Pradesh.
- Winter sugarcane (initial growth), wheat (maturity / harvesting), oats, barley (maturity/harvesting), taramira, mustard (maturity / harvesting), gram (pod maturity / harvesting), lentil (flowering/maturity), ajwain, fenugreek and isabgol (vegetative), potato (tuberization / maturity), cabbage, cauliflower (late vegetative / head formation) and tomato (flowering/ fruiting), fodder jowar & bajra (sowing), cotton (sowing) in Rajasthan.

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

- Rice (transplanting/harvesting), rice fallow cotton (vegetative / flowering), rice fallow pulses (harvesting), maize (harvesting), sorghum (harvesting), groundnut (harvesting), cotton (vegetative/ boll formation/ boll maturity), vegetables (vegetative/fruited), sugarcane (vegetative/ grand growth phase) in Tamil Nadu.
- Sugarcane (ratooning/vegetative), groundnut (pod maturity), cotton (boll development/ picking), safflower (flowering), rice (tillering), mango (fruiting/maturity) in Karnataka.
- Bengal gram (maturity), rice (panicle initiation to flowering stage /grain formation/ maturity), red gram (maturity), sunflower (seed development), groundnut (pod development / maturity) in Andhra Pradesh.
- Rice (sowing/harvesting), arecanut (maturity), ginger (planting), coconut (seed nut collection), pepper (harvesting/new planting) in Kerala.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Sugarcane (*Adsali*) (active tillering), Sugarcane (pre seasonal) (vegetative), Sugarcane(*suru*) (sprouting / early vegetative), summer rice (grain formation / maturity in Konkan and flowering / grain formation in East Vidarbha), groundnut (pod development / pod maturity in Konkan and pegging / pod formation in other divisions), sunflower (head formation), maize (tasseling and silking / cob initiation), bajra (grain formation / grain maturity in early sown crop).
- Summer bajra (ear head emergence / grain filling), brinjal and tomato (fruiting / harvesting), green gram (pod maturity), sugarcane (vegetative), summer groundnut (pod filling / pod maturity), summer pulses (flowering / seed development) in Gujarat.

CENTRAL INDIA [M.P., CHHATTISGARH]

- Wheat (grain maturity/ harvesting), pigeon pea (maturity/harvesting), sugarcane (planting / vegetative), cotton (boll formation), maize (maturity), onion (transplanting), gram / linseed (fruiting / harvesting), okra (sowing) in Madhya Pradesh.
- Pigeon pea (pod development/maturity), wheat (grain maturity/harvesting), rice (seedling / tillering), sunflower (sowing), sugarcane (sowing), linseed (flowering), maize, green gram and sesame (sowing), groundnut and sunflower (pod/grain filling stage) 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.

Orissa

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

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.

Jute: JRO-524 (Naveen).

Okra: Improved high yielding varieties like Utkal Gourav, Arka Anamika, Uphar, Parvani Kranti and hybrid varieties like Varsa, Vijay, Vishal, Tara, Adhunik, Atyadhunik, and Supriy.

Bitter gourd: Pusa Domousumi, Coimbatore long green, and Arka Harit.

Ridge gourd: Pusa Najdar, Jaypur long, and any local variety.

Cluster bean: Pusa Naubahar.

Ginger: Suprava, Suruchi, Surabhi.

Turmeric: Roma, Surama, Rang, Rashmi etc.

Fodder maize: African Tall.

Fodder Cowpea: EC-4216.

West Bengal

Jute: Chaitali, Basudev, Naveen, Sonali, Sobuj Sona.

Jharkhand

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

Assam

Bau rice: Maguri, Panikekua, Amona, Negheri.

Normal ahu rice: Dimru, Maibi, Jaya, IR-50, Gobind, IR-36, Lachit, Chilarai.

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, Parbhani Kranti.

Jute: Tarun, JRC 321 (Sonali), UPC 94 (Reshma), JRC 321, JRC 7447, UPC 94, JRO 524, JRO 7835, JRO 632, JRC 212, JRC 7447 etc.

Sugar cane: Co1008, Co 997, Co 740, Co 961.

Meghalaya

Lady's Finger: Paravin Kranti, Akra Anamika.

Mizoram

Lady's Finger: Pusa Sawani, Pusa Makhmali, Punjab Padmini, Arka Anamika, Arka Abha.

Tripura

Ridge gourd: Pusa Nasdar, Satputia.

Cucumber: Japanese long, Straight 8.

Delhi

Green gram – Pusa Visal, Pusa Vaisakhi, Pusa 9531, Pant moong 1, Pant moong 5, PDM-11, SML-32

Black gram – Pant Urd 19, Pant Urd 30, Pant Urd 35, PDU1.

Maize – African Tall.

Hybrid cluster bean: Pusa Komal, Pusa Sukamol

Baby corn: HM-4.

Sugarcane: Karan-1, Karan-2, Co-64, and Co-1496.

Himachal Pradesh

Cauliflower: Sweta, Madhuri

Cabbage: Golden Acre

Tomato: 7711, Him sona, Him 1

Capsicum: California wonder

Cucumber: Kiyan

Summer squash: hybrid green

Lettuce: Iceberg

Brinjal : Arka Nidhi, PPC

Ageti bhindi : P-8, Prabhini kranti, Arka anamika

Frenchbean : Contender

Jammu & Kashmir

Rice : var. IET-1410, K-39, Ratna, PC-19, Jaya RR-8585, Basmati 370 and Ranbir Basmati) in tropical area

Mash: Mash Pant, U-19, T-9

Moong: PDM-54, PS-16, PS-17, ML-131

Punjab

Summer moong: SML-668.

Summer mash: Sathi mash, i.e. Mash 1008 or Mash-414 or Mash-218.

Haryana

Baisakhi Mung: K851 and Type 44 and Muskan

Pigeon pea: UPAS 120, T-21.

Uttar Pradesh

Moong: Yellow Mosaic resistant variety PDM-139A, Pant Moong-2A, Narendra Moong-1A, Malaviya Jagruti, H.U.M-2, Moong JANpriya, MALaviya Jyoti, Malaviya Janchetana.

For intercropping : Moong : Pant Moong-1 / 2, Urd : Pant Urd-12 / 35

Summer Sugarcane: K.S. 97264, K.S.-8432, K.S.-767, K.S.-92423, K.S.-95268, K.S.-98268, K.S.-96275, K.S.-95270

Uttarakhand :

Rice : VL-Dhan-206, Majdera-7 etc. (un-irrigated)

Maize : Ganga-2, Ganga-7, African Tall etc.

Lobia : Russian Joint, EC-4216, UPC-5286 etc.

Okra : VL Bhindi-1

Rajasthan

Cotton : improved varieties : RG-8, RG-18, hybrid varieties : Raj D.H.-9

Bikaneri Nerma (190-200 days), Ganganagar Ageti (170-180 days), RST-9 (185-200 days) & RG-8 (Desi ,170-180 days).

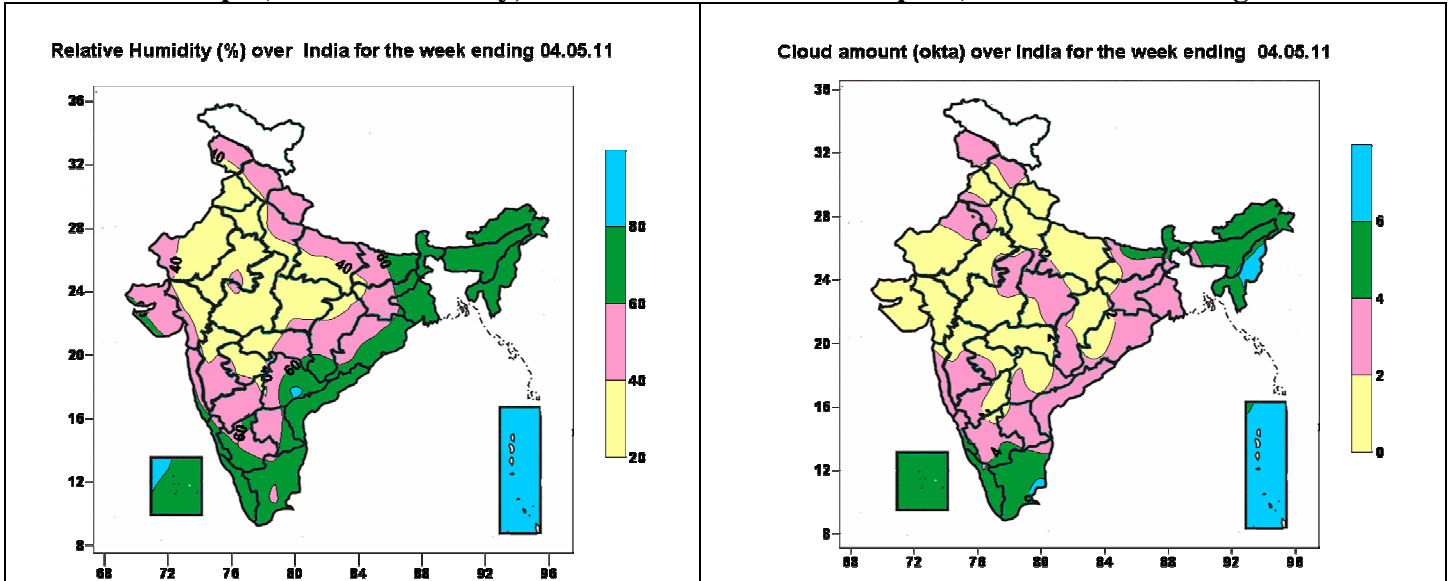
Papaya : improved varieties Honey dew, Coorg Honey dew, Pusa delicious, Pusa Nanaha and CO-2.

Madhya Pradesh

Sugarcane: Jawahar-86-141, Jawaharlal-86572, Co- Jawaharlal-86600, Co-86032

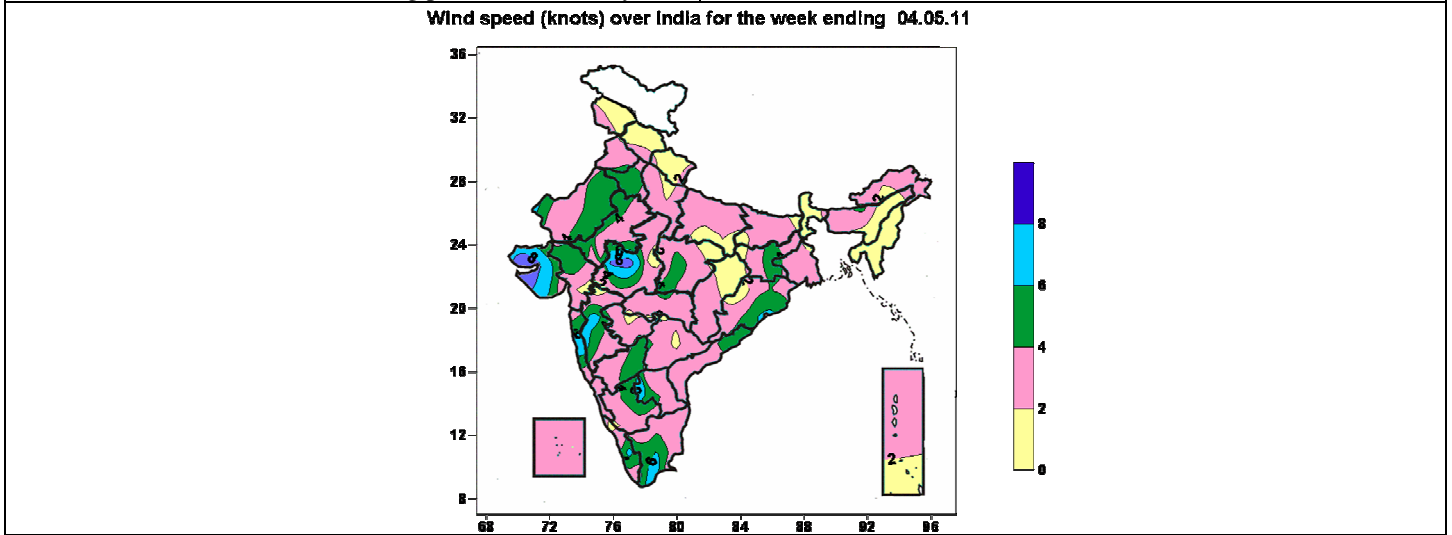
Annexure III

Contour maps (Relative humidity, Cloud amount and Wind Speed) for the week ending 04.05.2011



Relative humidity between 80% and above over most parts of Andaman & Nicobar Islands, some parts of Telengana, Lakshdweep Islands, 40 to 60% over most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, North Uttar Pradesh, Bihar, Jharkhand, Chattisgarh, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, North & South Interior Karnataka, Rayalaseema, some parts of Rajasthan, Orissa, Madhya Pradesh, Vidarbha, Marathwada, Gujarat, Telengana, Coastal Karnataka, Tamil Nadu, 20 to 40% over most parts of Rajasthan, Punjab, Haryana, Delhi, Uttar Pradesh, Madhya Pradesh, Gujarat, Marathwada, some parts of Jammu & Kashmir, Himachal Pradesh, Bihar, Jharkhand, Chattisgarh, Madhya Maharashtra, Vidarbha, North Interior Karnataka, 60 to 80% over remaining parts of the country.

Cloud amount 6 okta and above over most parts of Manipur, Andaman & Nicobar Islands, some parts of Nagaland, Mizoram, Tamil Nadu, 4 to 6 okta over most parts of Arunachal Pradesh, Assam & Meghalaya, Mizoram, Tripura, Kerala, Tamil Nadu, Lakshadweep Islands West Bengal, some parts of 0 to 2 okta over most parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, Rajasthan, Chhatisgarh, West Madhya Pradesh, Gujarat, Saurashtra & Kutch, some parts of Himachal Pradesh, Bihar, Jharkhand, Orissa, East M.P., Madhya Maharashtra, Telangana, Rayalaseema 2 to 4 okta over remaining parts of the country.



Wind speed ranged between 8 knots and above over some parts of West Madhya Pradesh, Saurashtra & Kutch, 6 to 8 knots over some parts of West Madhya Pradesh, Saurashtra & Kutch, Orissa, Madhya Maharashtra, Konkan, Rayalaseema, Tamil Nadu, Kerala, 4 to 6 knots over most parts of Haryana, West Rajasthan, some parts of Punjab, East Rajasthan, Assam, Jharkhand, Orissa, Madhya Pradesh, Gujarat, Saurashtra & Kutch, Maharashtra, Andhra Pradesh, Interior Karnataka, Tamil Nadu, Kerala, 0 to 2 knots over most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram, Tripura, some parts of Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Orissa, Madhya Pradesh, Chhatisgarh, Gujarat, Madhya Maharashtra, Marathwada, Vidarbha, Telengana, Kerala, Andaman & Nicobar Islands, 2 to 4 knots over remaining parts of the country.

