



Regionwise Salient Advisories

Northern India

- **Major crops :** Wheat (grain maturity/harvesting), mustard (maturity / harvesting)



- As significant rainfall occurred in Anantnag, Ganderwal, Kupwara and Poonch districts of Jammu & Kashmir; Bahraich, Gazipur, Gorakhpur, Maharajganj, Mau and Sonbhadra districts of East Uttar Pradesh and Pithoragarh district of Uttarakhand during last week, farmers are advised to postpone irrigation to the standing crops in above mentioned districts. Apply irrigation to summer moong and urad in remaining districts of Uttarakhand and Uttar Pradesh and summer vegetables in Himachal Pradesh, Delhi and Rajasthan.
- As thundersquall would occur at one or two places over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana and Rajasthan, farmers are advised to arrange staking for vegetables and also carry out propping up in sugarcane to prevent the crops from lodging due to strong winds.

Central India

- **Major crops :** Autumn sugarcane (vegetative / elongation), summer vegetables (sowing / transplanting)



- As no significant rainfall occurred during last week in Madhya Pradesh except in Bhopal and no significant rain is likely to occur during the period, farmers are advised to apply irrigation to sugarcane and summer vegetables.
- As significant rainfall occurred in Bastar, Bijapur, Bilaspur, Dantiwada, Janjgir, Jashpurnagar, Koriya, Kowarda, Mahasamund districts of Chhattisgarh during last week, farmers are advised to postpone irrigation to moong, okra, ridge gourd, watermelon and muskmelon in these districts. As there was no significant rain in remaining districts of Chhattisgarh and rain and thundershowers are likely to occur at one or two places during next 48 hours, apply irrigation in remaining districts in Chhattisgarh.
- Farmers in east Madhya Pradesh and Chattisgarh are advised to arrange propping up in sugarcane and staking in vegetables to prevent the crops from lodging due to strong winds. Farmers in Chhattisgarh are advised to use hail net for orchard crops to protect from mechanical damage.

Eastern India

- **Major crops :** summer vegetables (vegetative / flowering), moong, urad (sowing/ early vegetative), Jute (sowing / early vegetative)
- As there was significant rainfall in all the districts of Sikkim, all districts of Sub Himalayan West Bengal except North Dinajpur, all districts of Gangetic West Bengal except at Howrah and Murshidabad, many districts of Odisha except at Angul, Bargarh, Baudh, Deogarh, Jagatsinghpur, Jharsuguda, Keonjhar, Nawapara, Puri, Sundargarh and Sambalpur; Bokaro, Jamtara and West Singhbhum district of Jharkhand and Araria, Begusarai, Bhagalpur, East and West Champaran, Gaya, Jahanabad, Lukhisarai, Monghyar, Muzaffarpur, Purnia, Saharsa, Saran and Sheohar districts of Bihar during last week, farmers are advised to postpone irrigation to the standing crops in these districts. As no significant rainfall is likely in Bihar and Jharkhand, in remaining districts of Bihar, Jharkhand and Odisha are advised to apply irrigation to the standing summer maize, summer vegetable crops, moong, sunflower, onion, autumn and spring season sugarcane and summer rice.
- Farmers in Odisha are advised to arrange propping up in sugarcane and staking in vegetables to prevent the crops from lodging due to strong winds. Also use hail net for orchard crops to protect from mechanical damage.

Northeast India

- **Major crops :** *Boro* rice (grain formation / grain maturity), early *ahu* rice (early vegetative), summer vegetables (transplanting /vegetative).
- As significant rain is likely to occur over the States of the region in coming days, farmers are advised to postpone irrigation to the standing crops in these states.
- As Thundersquall would occur at one or two places over Assam & Meghalaya, Arunachal Pradesh during next 24 hours, farmers are advised to arrange mechanical support to banana and staking for vegetables and also carry out propping up in sugarcane to prevent the crops from lodging due to strong winds.

Western India

- **Major crops :** New *suru* sugarcane (early tillering), summer groundnut (flowering / pegging), summer bajra (grain formation), pulses (vegetative / flowering).



- As mainly dry weather prevailed over Maharashtra during last few weeks and mainly dry weather is expected during the period, farmers are advised to apply irrigation to summer bajra at grain formation stage (Pune and Nasik region), sugarcane and vegetables in morning hours or in the evening to avoid excessive evaporation.
- As Amreli and Bhavnagar districts received significant rainfall during last week, postpone irrigation to the standing crops in these districts. As dry weather prevailed during last few weeks in remaining districts of Gujarat State and mainly dry weather is expected during the period, provide irrigation to cluster bean, green gram, groundnut and other vegetables.
- As Thundersquall would occur at one or two places over Vidarbha and Marathwada during next 24 hours, farmers are advised to arrange mechanical support to banana and staking for vegetables to prevent the crops from lodging due to strong winds. Farmers in Vidarbha are also advised to use hail-nets in orchards to protect the crops from probable hail storm.

South India

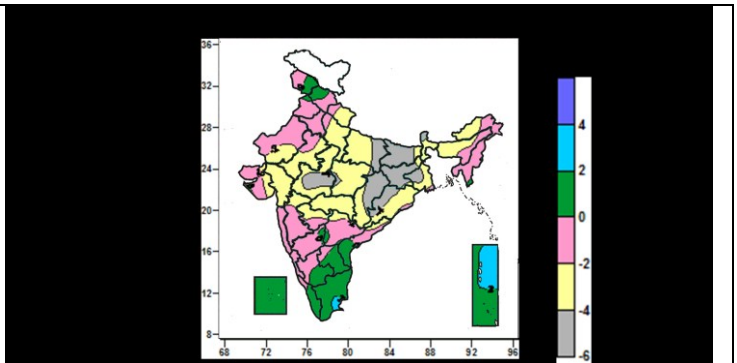
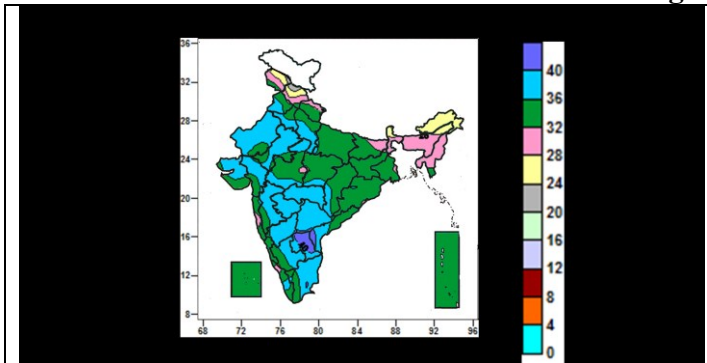
- **Major crops :** Sunflower (seed formation / maturity), rice fallow pulses (vegetative), *puncha* rice (harvesting), sugarcane (ratooning / planting), summer sorghum, maize(cob development) and cotton (vegetative).
- Significant rainfall occurred in Chittoor in Rayalaseema, Hyderabad and Khammam in Telangana, most of the districts in Coastal Andhra Pradesh, Erode and Krishnagiri in Tamil Nadu and Idukki in Kerala during last week. During next 72 hours, rainfall is likely to occur at few places over Andhra Pradesh, Kerala and Tamil Nadu and at one or two places in Karnataka. Farmers are advised to postpone irrigation to the crops in the above mentioned districts and apply irrigation to the standing rice, groundnut, sugarcane, summer cotton, summer pulses and vegetable crops in the rest of the region. Undertake intercultural operations and application of fertilizers and plant protection measures on a non-rainy day in Andhra Pradesh, tamil Nadu and Kerala.
- As thunderstorm accompanied with thunder squall would occur at one or two places over Andhra Pradesh, Kerala and Tamil Nadu during next 24 hours and isolated hailstorm would occur over Coastal Andhra Pradesh and Telangana during next three days, farmers are advised to arrange mechanical support to banana and staking for vegetables and also carry out propping up in sugarcane to prevent the crops from lodging due to strong winds and farmers in Coastal Andhra Pradesh and Telangana are advised to use hail net for orchard crops to protect from mechanical damage.

Issued by

National Agrometeorological Advisory Service Centre, Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.

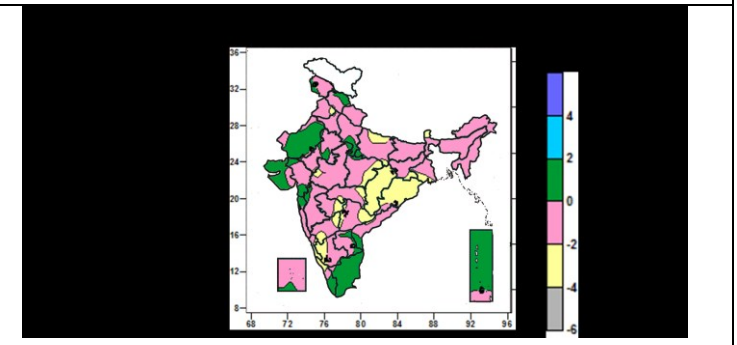
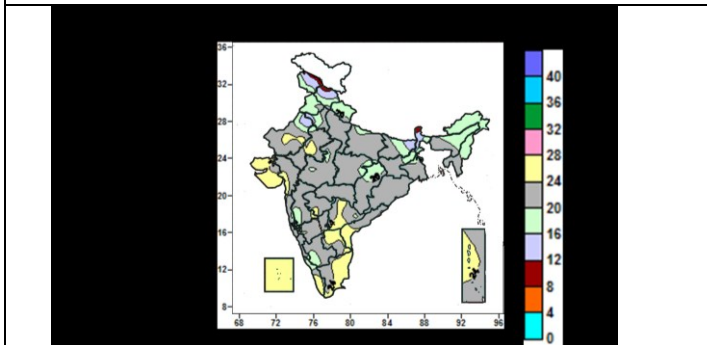
The bulletin is also displayed in the website (<http://www.imdagrimet.gov.in>) of the Division

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 24.04.2013



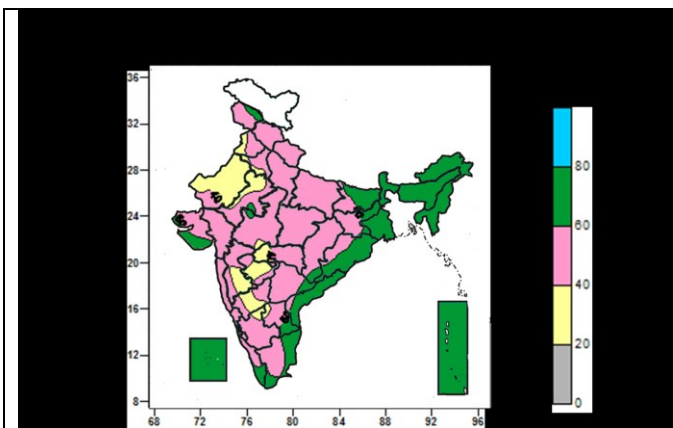
- 40°C and above over most parts of Rayalaseema.
- 36 to 40°C and above over most parts of Rajasthan, West India (except Konkan & Goa), Telengana, Interior Karnataka, Tamil Nadu.
- 32 to 36°C over most parts of Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, East India except Sub-Himalayan West Bengal & Sikkim, Central India except Vidarbha, Saurashtra, West Coast of India, North Andhra Pradesh, Lakshdweep, Andaman & Nicobar Islands.
- 28 to 32°C over most parts of Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand.
- 24 to 28°C over many parts of Arunachal Pradesh, East part of Assam, some parts of Jammu & Kashmir, Himachal Pradesh.
- 20 to 24°C over some parts of Jammu & Kashmir, Himachal Pradesh.

- 0 to 2°C and above over many parts of Coastal Andhra Pradesh, Raylaseema, Tamil Nadu, Kerala, South Interior Karnataka, Lakshadweep, Andhaman & Nicobar Islands, some parts of Jammu & Kashmir, North & South Interior Karnataka.
- -2 to 0°C over many parts of Himachal Pradesh, Punjab, Haryana, Delhi, West Rajasthan, Nagland, Manipur, Mizoram, Tripura, Saurashtra & Kutch, Maharashtra except Vidarbha, Karnataka, Telengana, Coastal Andhra Pradesh, some parts of West Uttar Pradesh, East Rajasthan, Uttar Pradesh, Assam, Arunachal Pradesh, Kerala.
- -6 to -2°C over many parts of Uttar Pradesh, East India, Cental India, Gujarat, Vidarbha, some parts of Arunachal Pradesh, Assam, Madhya Maharashtra, Marathwada.\

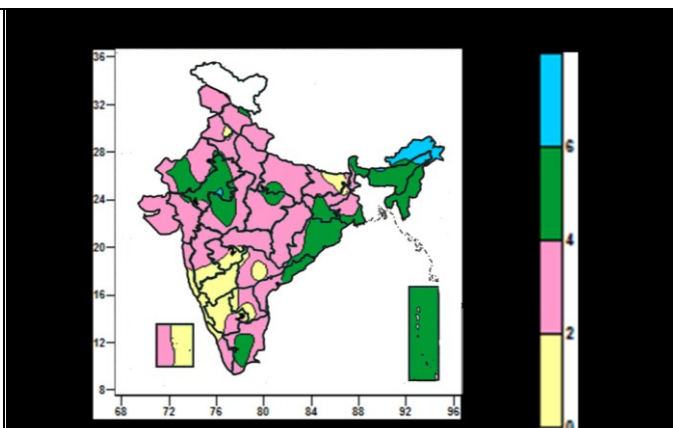


- 24 to 28°C over many parts of Saurashtra & Kutch, Andhra Pradesh, Tamil Nadu, South Kerala, Lakshdweep, some parts of Andaman & Nicobar Islands,
- 20 to 24°C over most parts of Country except Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Sub-Himalayan West Bengal, Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur.
- 16 to 20°C over many parts of Uttarakhand, Punjab, Haryana, Sub-Himalayan West Bengal, Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur.
- 12 to 16°C over some parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, Bihar.
- 8 to 12°C over many parts of Jammu & Kashmir, some parts of Himachal Pradesh.

- 0 to 2°C many parts of West Rajsthan, Saurashtra & Kutch, Tamil Nadu, Kerla, Andaman & Nicobar Islands.
- -2 to 0°C over many parts of North India except West Rajasthan, East India except Sikkim, Madhya Pradesh, Maharashtra, Gujarat, Karnataka, Coastal Andhra Pradesh, Telengana, Lakshadsweep Island.
- -4 to -2°C over many parts of Orissa, Chattisgarh, Sikkim, some parts of Punjab, East Uttar Pradesh, Madhya Pradesh, Marathwada, Vidarbha, Karnataka, Kerala.

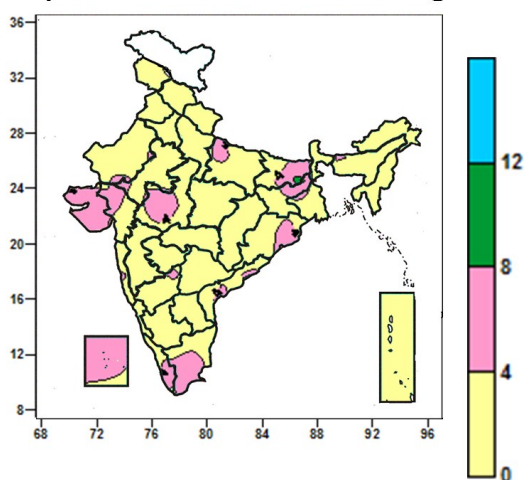


- 60 to 80% over many parts of Northeast India, Bihar, West Bengal & Sikkim, Saurashtra, east coast from Orissa to Tamil Nadu, Coastal Kerala, Lakshdweep, Andaman & Nicobar Islands.
- 40 to 60% over most parts of North India except West Rajasthan, West India, Central India, Jharkhand, Telengana, Rayalaseema, Coastal & South Interior Karnataka, Kerala, Tamil Nadu.
- 20 to 40 % over many parts of West Rajasthan, some parts of Punjab, Maharashtra except Konkan & Goa, Raylaseema, North & South Interior Karnataka.



- 6 okta and above over many parts of Arunachal Pradesh, some parts of Assam.
- 4 to 6 okta over many parts of Rajasthan, West Madhya Pradesh, Sub_Himalayan West Bengal & Sikkim, North East India except Arunachal Pradesh, Orissa, Tamil Nadu, Andaman & Nicobar Islands.
- 2 to 4 okta over many parts of North India except Rajasthan, Central India except West Madhya Pradesh, West India, South India except Karnataka, Lakshdweep Islands.
- 0 to 2 okta over many parts of Karnataka, Maharashtra, Lakshadweep Islands.

Wind speed (knots) over India for the week ending 24.04.2013



- 8 to 12 knots over some parts of Bihar.
- 4 to 8 knots over many parts of Bihar, Jharkhand, West Madhya Pradesh, Saurashtra & Kutch, Gujarat, Coastal Orissa, South Tamil Nadu, South Kerala, Lakshdweep Islands.
- 0 to 4 knots over many part of country except Bihar, Jharkhand, West Madhya Pradesh, Saurashtra & Kutch, Gujarat, Coastal Orissa, South Tamil Nadu, South Kerala, Lakshdweep.

Significant realized rainfall during last week

Significant rainfall received in most of the districts of Arunachal Pradesh, Meghalaya, West Bengal, Sikkim, coastal Andhra Pradesh, many districts of Assam, Orissa, Chhattisgarh, Champhai, Kolasib, Lawngtlai districts of **Mizoram**; Imphal east, Thoubal, Ukhrul **Manipur**; Dimapur, Kohima, Mokochung, Phek, Zunheboto districts of **Nagaland**; Dhalai, North Tripura districts of **Tripura**; Anantnag, Ganderwal, Kupwara, Poonch districts of **Jammu & Kashmir**; Bhopal district of **West Madhya Pradesh**; Bahraich, Gazipur, Gorakhpur, Maharajganj, Mau, Sonbhadra districts of **East Uttar Pradesh**; Pithorgarh district of **Uttarakhand**; Araria, Begusarai, Bhagalpur, East Champaran, Gaya, Jahanabad, Lakhisarai, Monghyar, Muzaffarpur, Purnea, Saharsha, Saran, Sheohar, West Champaran districts of **Bihar**; Bokaro, Jamtara, West Singbhum districts of **Jharkhand**; Amreli, Bhavnagar districts of **Saurashtra, Kutch & Diu region**; Idukki district of **Kerala**; Erode, Krishnagiri districts of **Tamil Nadu**; Hyderabad, Khammam districts of **Telanganana**; Chittoor district of **Rayalaseema**. Mainly dry weather prevailed over rest parts of the country.

Distribution of rainfall of the country during week ending on 24.04.2013

State/Districts	Actual (mm)	% Dep.
Arunachal Pradesh		
Anjaw	**	**
Changlang	19.8	-81
Dibang Valley	25.0	-50
East Kameng	23.1	-36
East Siang	20.2	-59
Kurung Kumey	**	**
Lohit	42.0	-42
Lower Dibang Valley	48.0	-4
Lower Subansari	19.6	-71
Papumpara	30.5	-60
Tawang	35.0	-13
Tirap	27.3	-60
Upper Siang	39.0	-54
Upper Subansari	**	**
West Kameng	34.0	-15
West Siang	35.2	-36
Assam		
Baksa	44.7	2
Barpeta	40.8	-7
Bongaigaon	13.0	-77
Cachar	40.4	-33
Chirang	36.0	-37
Darrang	6.0	-82
Dhemaji	47.0	7
Dhubri	20.9	-59
Dibrugarh	44.4	-30
Goalpara	63.0	16
Golghat	7.1	-79
Hailakandi	13.6	-75
Jorhat	7.6	-84
Kamrup(Rural)	34.6	-11
Kamrup(Metro)	22.4	-42
Karbi Anglong	0.0	-100
Karimganj	12.2	-82
Kokrajhar	68.4	5
Lakhimpur	28.1	-36
Morigaon	29.0	-2
N.C.Hills	35.4	-39
Nowgong	21.6	-38
Nalbari	36.3	11
Sonitpur	46.0	45
Sibsagar	13.0	-63
Tinsukia	25.7	-50
Udalgiri	23.8	-30

Meghalaya		
East Garo Hills	7.0	-89
East Khasi Hills	49.7	-31
Jaintia Hills	43.0	-29
Ribhoi	68.9	154
South Garo Hills	11.0	-77
West Garo Hills	30.0	-38
West Khasi Hills	28.0	-22
Mizoram		
Aizwal	16.7	-68
Champhai	33.0	14
Chhintuipui	**	**
Kolasib	34.0	-29
Lawngtlai	63.0	101
Lunglei	9.0	-73
Mamit	2.0	-96
Saiha	1.0	-97
Serchhip	12.0	-54
Manipur		
Bishnupur	0.0	-100
Chandel	0.0	-100
Churachandpur	0.0	-100
Imphal east	21.2	-26
Imphal west	**	**
Tamenglong	**	**
Thoubal	29.0	47
Senapati	**	**
Ukhrul	24.0	45
Nagaland		
Dimapur	26.0	192
Kephire	5.0	-83
Kohima	22.3	2
Longleng	**	**
Mokokchung	25.0	-19
Mon	**	**
Paran	**	**
Phek	39.1	79
Tuensang	**	**
Wokha	0.0	-100
Zunheboto	38.0	32
Tripura		
Dhalai	22.3	-67
North tripura	26.2	-63
South tripura	3.0	-94
West tripura	0.6	-99
Jammu & Kashmir		
Anantnag	20.9	-11

Badgam	18.1	-1
Bandipore	**	**
Baramula	14.3	-59
Doda	16.0	-22
Ganderwal	35.1	99
Jammu	0.3	-92
Kargil	0.0	-100
Kathua	5.0	100
Kistwar	**	**
Kulgam	11.4	-52
Kupwara	21.2	-30
Ladakh(Leh)	0.0	-100
Poonch	50.0	307
Pulwama	16.2	-24
Rajouri	6.3	40
Ramban	7.7	-63
Reasi	1.0	-89
Samba	1.2	-70
Shopian	16.0	-25
Srinagar	19.4	10
Udhampur	8.1	-7
West Madhya Pradesh		
Bhopal	30.8	10167
Chattisgarh		
Bastar	77.8	727
Bijapur	86.0	1310
Bilaspur	36.1	931
Dantewara	71.0	1265
Dhamtari	0.0	-100
Durg	9.7	471
Janjgir	22.0	1471
Jashpurnagar	23.0	211
Kanker	3.0	-39
Korba	10.5	400
Koriya	36.0	4404
Kawardha	44.0	1995
Mahasumund	21.5	1554
Narayanpur	11.0	49
Raigarh	10.0	223
Raipur	16.3	713
Rajandgaon	0.0	-100
Surguja	17.0	752
East Uttar Pradesh		
Bahraich	27.0	649
Gazipur	33.9	2158
Gorakhpur	23.0	325
Maharajanj	22.0	450

Mau	22.6	1313
Sonbhadra	28.2	1778
Uttarakhand		
Pithorgarh	43.4	306
Bihar		
Araria	29.8	159
Arwal	12.0	700
Aurangabad	3.0	114
Banka	**	**
Begusarai	65.7	1095
Bhabua	**	**
Bhagalpur	54.1	410
East Champaran	26.2	457
Gaya	31.9	1287
Gopalganj	10.0	245
Jahanabad	22.0	659
Jamui	4.7	57
Kathihar	8.8	4
Khagadia	0.0	-100
Kishanganj	0.0	-100
Lakhisarai	33.2	472
Madhepura	0.0	-100
Madhubani	**	**
Monghyar	47.6	721
Muzaffarpur	31.6	617
Nalanda	16.0	1233
Nawada	5.2	148
Patna	12.3	435
Purnea	71.4	567
Rohtas	6.4	327
Saharsha	130.2	830
Samstipur	0.0	-100
Saran	21.7	623
Sheikpura	7.4	111
Sheohar	82.0	979
Sitamarhi	0.0	-100
Siwan	**	**
Supaul	14.7	71
Vaishali	10.5	110
West Champaran	95.2	1365
Jharkhand		
Bokaro	30.3	389
Jamtara	23.2	383
West Singhbhum	28.0	226
Saurashtra, Kutch & Diu region		
Amreli	36.2	200

Bhavnagar	44.1	200
Orissa		
Angul	10.3	50
Balasore	69.9	337
Bargarh	17.6	330
Bhadrak	52.4	269
Bolangir	49.6	872
Boudh	3.8	-54
Cuttack	21.6	170
Deogarh	5.7	67
Dhenkanal	21.3	127
Gajapati	68.8	223
Ganjam	58.1	505
Jagatsingpur	13.4	63
Jajpur	37.0	180
Jharsuguda	1.3	-79
Kalahandi	29.9	416
Kandhamal	45.8	458
Kendrapara	70.3	1016
Keonjhar	16.4	100
Khurda	33.6	534
Koraput	79.3	405
Malkangiri	26.5	139
Mayurbhanj	56.9	282
Nawapara	13.0	196
Nawarangpur	59.3	134
Nayagarh	62.8	548
Puri	18.3	605
Rayagada	44.5	203
Sambalpur	3.9	16
Sonepur	33.6	917
Sundargarh	16.4	428
West Bengal		
GWB		
Bankura	64.0	492
Birbhum	37.1	291
Burdwan	44.3	272
East Midnapore	28.5	217
Hooghly	49.1	189
Howrah	8.6	-36
Kolkata	29.5	71
Murshidabad	16.2	5
Nadia	27.5	87
24 Pargana (N)	35.7	127
Purulia	54.9	390
24 Pargana (S)	36.3	263

West Midnapore	31.6	62
SHWB		
Cooch Behar	57.4	38
Darjeeling	44.8	25
East Sikkim	71.7	71
Jalpaiguri	41.7	23
Malda	25.0	138
North Dinajpur	9.0	-49
North Sikkim	72.4	31
South Dinajpur	21.8	34
South Sikkim	46.9	12
West Sikkim	39.0	-30
Kerala		
Idukki	38.0	-10
Tamil Nadu		
Erode	22.2	67
Krishnagiri	20.3	55
Andhra Pradesh		
Coastal Andhra Pradesh		
East Godavari	46.7	419
Guntur	18.6	264
Krishna	51.5	804
Nellore	14.8	165
Prakasam	19.7	218
Sirkakulam	65.2	1044
Visakhapatnam	48.1	246
Vizianagram	53.3	492
West Godavari	26.4	320
Telangana		
Adilabad	2.7	-13
Hyderabad	29.1	293
Karimnagar	2.8	-34
Khammam	38.8	404
Mehabubnagar	2.4	-57
Medak	0.0	-100
Nalgonda	16.1	130
Nizamabad	0.4	-87
Rangareddy	6.2	10
Warangal	15.8	243
Rayalaseema		
Anantapur	0.0	-100
Chittoor	20.9	140
Cuddapah	1.0	-84
Kurnool	1.3	-80

Legends

	(20% or more) excess rainfall		(-60 to -99 %) scanty rainfall
	(-19 to +19%) normal rainfall		(-100%) no rainfall
	(-20 to -59%) deficient rainfall	**	Data not available

Weather Forecast

Major Feature of Weather Forecast up to 0830 hours IST of 29th April, 2013

- Rain/thundershowers would occur at one or two places over West Bengal & Sikkim, Bihar and northeastern states and increase over northeastern states from tomorrow onwards.
- Rain/thundershowers would occur at a few places over Jammu & Kashmir and Himachal Pradesh and at a one or two places over Uttrakhand, Punjab, Haryana, Delhi, Rajasthan and west Uttar Pradesh.
- Rain/thundershowers would occur at one or two places over Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Vidarbha and Marathwada during next 48 hours.
- Rain/thundershowers would occur at a few places over Andhra Pradesh, Tamilnadu & Kerala and at one or two places over Karnataka, Andaman & Nicobar & Lakshadweep.
- Mainly dry weather would prevail over rest parts of the country.

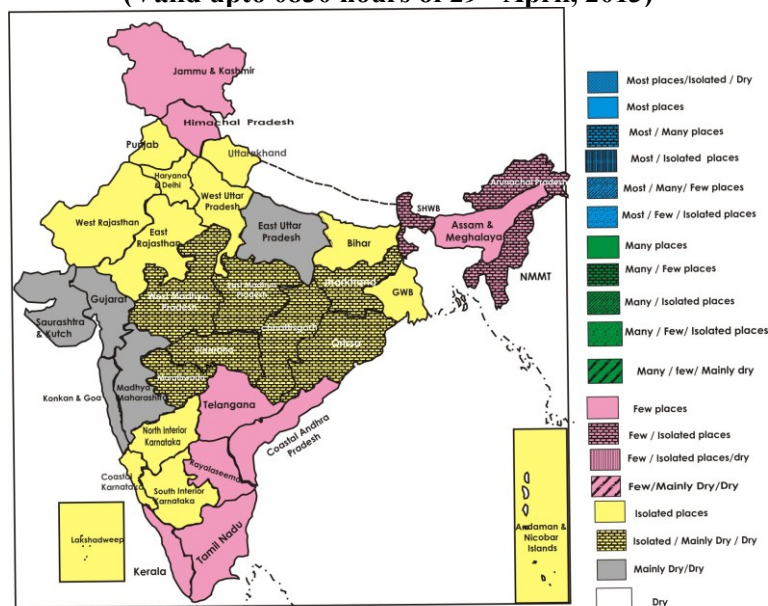
Weather Warning during next 3 days

- Thunderstorm accompanied with thundersquall would occur at one or two places over Jammu & Kashmir, Himachal Pradesh, Punjab, Rajasthan, Haryana, Delhi, West Uttar Pradesh, Arunachal Pradesh, Assam, Meghalaya, Andhra Pradesh, Karnataka, Tamilnadu, East Madhya Pradesh, Vidarbha, Marathwada, Chhattisgarh, Orissa and Kerala during next 24 hours.
- Isolated hailstorm would occur over Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh and Telangana.

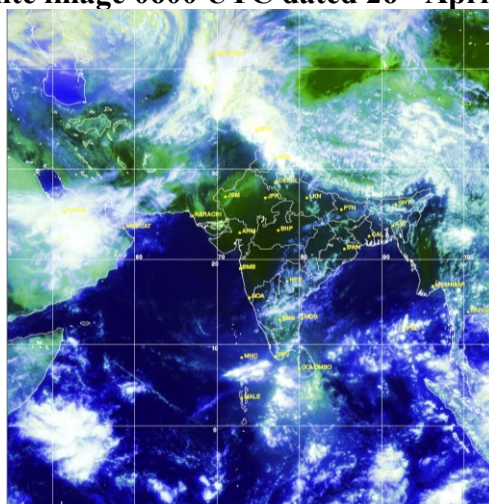
Weather Outlook for subsequent 4 days from 29th April to 3rd May, 2013

- Rain/thundershowers would occur at a few places over Jammu & Kashmir and at one or two places over Himachal Pradesh and Uttrakhand.
- Rain/thundershowers would occur at many places over northeastern states and at a few places over Sub-Himalayan West Bengal & Sikkim.
- Rain/thundershowers would occur at a few places over Kerala, Tamilnadu and south Karnataka.
- Weather would be mainly dry over rest parts of the country.

Weather Forecast Map (Valid upto 0830 hours of 29th April, 2013)



Satellite image 0600 UTC dated 26th April, 2013



Zonewise Agromet Advisories

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

- **Realised Rainfall:** Significant rainfall occurred in Anantnag, Ganderwal, Kupwara and Poonch districts of Jammu & Kashmir, Bahraich, Gazipur, Gorakhpur, Maharajganj, Mau and Sonbhadra districts of East Uttar Pradesh and Pithoragarh district of Uttarakhand. Weather remained mainly dry over rest parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Jammu & Kashmir and Himachal Pradesh and at one or two places over Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and West Uttar Pradesh. Mainly dry weather would prevail over rest of the region.
- **Weather Warning:** Thunderstorm accompanied with thundersquall would occur at one or two places over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Rajasthan, Delhi and West Uttar Pradesh.
- **Weather outlook:** Rain / thundershowers would occur at a few places over Jammu & Kashmir and at one or two places over Himachal Pradesh and Uttarakhand.
- **Advisory:**
 - As significant rainfall occurred in Anantnag, Ganderwal, Kupwara and Poonch districts of Jammu & Kashmir; Bahraich, Gazipur, Gorakhpur, Maharajganj, Mau and Sonbhadra districts of East Uttar Pradesh and Pithoragarh district of Uttarakhand during last week, farmers are advised to postpone irrigation to the standing crops in above mentioned districts. Apply irrigation to summer moong and urad in remaining districts of Uttarakhand and Uttar Pradesh and summer vegetables in Himachal Pradesh, Delhi and Rajasthan.
 - As thundersquall would occur at one or two places over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana and Rajasthan, farmers are advised to arrange staking for vegetables and also carry out propping up in sugarcane to prevent the crops from lodging due to strong winds.
 - In view of prevailing dry weather condition in Eastern Plain Zone of Uttar Pradesh, farmers are advised to apply irrigation in urad, moong, maize and fodder crops.
 - Farmers in Flood Prone Eastern Plain Zone of Rajasthan are advised to give light and frequent irrigation to the tree saplings and cover with thatching material to protect against heat injury.
 - As there is less possibility of rain / thundershowers over Punjab, Haryana and Delhi, farmers are advised to complete harvesting of wheat in dry weather.
 - To conserve soil moisture and to reduce soil temperature, farmers in Punjab and Haryana are advised to apply mulching using materials like rice straw and husk in sugarcane fields. As no significant rain is likely to occur, farmers are advised to irrigate the sunflower crop at an interval of 8-10 days to avoid moisture stress at flowering, soft dough and hard dough stages.
 - Due to rains during last 10 to 15 days, weather is congenial for attack of tuber moth on potato in Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh; farmers are advised to spray 1.6 ml Monocrotophos per litre of water.
 - Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
 - Due to diurnal variation in temperature, livestock owners of Mid Hills Sub-Humid zone of Himachal Pradesh are advised to protect the animals (especially new born animals) during night hours.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Significant Rainfall occurred in Bhopal district of West Madhya Pradesh and Bastar, Bijapur, Bilaspur, Dantiwada, Janjgir, Jashpurnagar, Koriya, Kowardha, Mahasamund districts of Chhattisgarh during last week. Mainly dry weather prevailed over rest of the region.
- **Weather forecast:** Rain / thundershowers would occur at one or two places during next 48 hours over the region.
- **Weather warning:** Thunderstorm accompanied with thundersquall would occur at one or two places over East Madhya Pradesh, Chhattisgarh during next 24 hours. Isolated hailstorm would occur over Chhattisgarh.
- **Advisories:**
 - As no significant rainfall occurred during last week in Madhya Pradesh except in Bhopal and no significant rain is likely to occur during the period, farmers are advised to apply irrigation to sugarcane and summer vegetables.
 - As significant rainfall occurred in Bastar, Bijapur, Bilaspur, Dantiwada, Janjgir, Jashpurnagar, Koriya, Kowardha, Mahasamund districts of Chhattisgarh during last week, farmers are advised to postpone irrigation to moong, okra, ridge gourd, watermelon and muskmelon in these districts. As there was no significant rain in remaining districts of Chhattisgarh and rain and thundershowers are likely to occur at one or two places during next 48 hours, apply irrigation in remaining districts in Chhattisgarh.

- Farmers in east Madhya Pradesh and Chattisgarh are advised to arrange propping up in sugarcane and staking in vegetables to prevent the crops from lodging due to strong winds. Farmers in Chhattisgarh are advised to use hail net for orchard crops to protect from mechanical damage.
- Dry weather is expected in Satpura Zone of Madhya Pradesh; farmers are advised to apply irrigation in summer maize, urad and moong crops along with top dressing of nitrogenous fertilizer in maize.
- Due to high temperature, farmers in Kymore plateau and Satpura Hill Zone and Central Narmada Valley Zone of Madhya Pradesh are advised to apply irrigation to fruits and vegetables.
- In view of prevailing high temperature, farmers in Bastar Plateau Zone of Chhattisgarh are advised for mulching with grass and other vegetation to conserve soil moisture in cashew seedlings.
- In Chhattisgarh Plain Zone, farmers are advised to spray Imidachloropid @ 0.5 ml per liter of water for the control measure of yellow vein mosaic of lady's finger as present weather (high temperature) is favourable for its attack.
- Stages of major crops are mentioned in Annexure I.
- **ANIMAL HUSBANDRY & POULTRY**
 - Farmers in Satpura Zone, due to humid weather conditions cattle should be kept in dry and clean places. Create smoke in night to save them from mosquitoes and bees.
 - Farmers in Kymore Plateau Zone, Jhabua Hill Zone, Gird Zone and Central Narmada Valley Zone of Madhya Pradesh are advised to keep animals in shady and cool places and provide frequent drinking water (two-three times) in view of the prevailing high temperature.

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

- **Realised Rainfall:** Significant rainfall occurred in all the districts of Sikkim, all districts of Sub Himalayan West Bengal except North Dinajpur, all districts of Gangetic West Bengal except Howrah and Murshidabad, many districts of Odisha except Angul, Bargarh, Baudh, Deogarh, Jagatsinghpur, Jharsuguda, Keonjhar, Nawapara, Puri, Sundargarh and Sambalpur, Bokaro, Jamtara and West Singhbhum district of Jharkhand and Araria, Begusarai, Bhagalpur, East and West Champaran, Gaya, Jahanabad, Lukhisarai, Monghyar, Muzaffarpur, Purnia, Saharsa, Saran and Sheohar districts of Bihar during last week.
- **Weather Forecast:** Rain / thundershowers would occur at one or two places over West Bengal & Sikkim, Bihar, Jharkhand and Odisha during next 48 hours.
- **Weather Warning:** Thunderstorm accompanied with thundersquall would occur at one or two places over Odisha during next 24 hours and isolated hailstorm would occur over Odisha during next 3 days.
- **Advisories:**
 - As there was significant rainfall in all the districts of Sikkim, all districts of Sub Himalayan West Bengal except North Dinajpur, all districts of Gangetic West Bengal except at Howrah and Murshidabad, many districts of Odisha except at Angul, Bargarh, Baudh, Deogarh, Jagatsinghpur, Jharsuguda, Keonjhar, Nawapara, Puri, Sundargarh and Sambalpur; Bokaro, Jamtara and West Singhbhum district of Jharkhand and Araria, Begusarai, Bhagalpur, East and West Champaran, Gaya, Jahanabad, Lukhisarai, Monghyar, Muzaffarpur, Purnia, Saharsa, Saran and Sheohar districts of Bihar during last week, farmers are advised to postpone irrigation to the standing crops in these districts. As no significant rainfall is likely in Bihar and Jharkhand, in remaining districts of Bihar, Jharkhand and Odisha are advised to apply irrigation to the standing summer maize, summer vegetable crops, moong, sunflower, onion, autumn and spring season sugarcane and summer rice.
 - Farmers in Odisha are advised to arrange propping up in sugarcane and staking in vegetables to prevent the crops from lodging due to strong winds. Also use hail net for orchard crops to protect from mechanical damage.
 - Utilising relatively dry weather condition likely in Odisha, farmers in Western Undulating Zone of Odisha are advised to go for harvesting of green gram, black gram, groundnut and sunflower.
 - Due to high temperature and humidity in New Alluvial Zone of West Bengal, there is possibility of attack of the fungal diseases like fruit rot, stem rot or powdery mildew in summer vegetables. To prevent it apply blitox (4 gram) or carbendazim (1 g) for rot and for powdery mildew apply hexaconazole or dinocap or propiconazole @ 1 ml per litre of water.
 - Due to high temperature and humidity in New Alluvial Zone and Laterite and Red soil Zone of West Bengal, there is chance for the spread of yellow stem borer in late sown *boro* rice. To control stem borer, spray Cartap or Acephate or Fipronil @ 1ml per litre of water.
 - Due to high humidity in Terai Zone of West Bengal, there is possibility of attack downey mildew in bitter gourd and mite in chilli. To control downey mildew spray Mancozeb @ 2 g / litre or Metalaxyl 8% and Mancozeb 64% @ 1-1.5 g / litre of water and to control mite spray Omite 1-1.5 ml/litre of water or sulphur dust 2g/litre of water.

- Prevailing day and night temperatures are favourable for infestation of blast on summer rice in East and South Eastern Coastal Plain Zone of Odisha; farmers are advised to spray 0.6 g Tricyclazole or 1 ml Ediphenphos per litre of water.
- Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
 - Farmers in South West Alluvial Plain Zone of Bihar are advised to keep livestock in shade and provide more amount of drinking water due to high temperature.
 - Farmers in North West Alluvial Plain Zone of Bihar are advised to give special attention to milch animals with regard to feed and water to cope with high temperature and keep them in shaded place.
 - Farmers in Jharkhand are advised to bath the cattle twice a day (morning & evening) to prevent from heat stroke due to high temperature.
- **Poultry**
 - In Jharkhand, due to rise in temperature, preventive measure should be taken by giving mixture of Vitamin C and spraying of cool water during noon time to poultry birds. Roof of asbestos sheet should be painted with white paint, supply sufficient amount of wet poultry feed may be done.
 - Due to high temperature, hens may be affected from heat stroke. Farmers in South Bihar Alluvial Zone are advised to take special care to protect the hens.

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

- **Realised Rainfall:** Significant rainfall occurred in Champai, Kolasib and Lawngtlai districts in Mizoram, Imphal East, Ukhrul and Thoubal districts in Manipur, Dhalai and North Tripura districts in Tripura, all the districts of Arunachal Pradesh except changlang and Lower Subansari, all districts in Assam except Darrang, Karbi Anglong, Golaghat, Jorhat, Karimganj, and Sibsagar districts, all districts in Meghalaya except East Garo Hills and South Garo Hills and all the districts in Nagaland except Kephire and Wokha. No significant rainfall occurred over the remaining districts of the States of the region during last week.
- **Weather Forecast:** Rain / thundershowers would occur at one or two places over the states of the region and increase after 48 hours.
- **Weather warning:** Thunderstorm accompanied with thunder squall would occur at one or two places over Assam & Meghalaya, Arunachal Pradesh during next 24 hours.
- **Outlook:** Rain / thundershowers would occur at many places over the States of the region.
- **Advisories:**
 - As significant rain is likely to occur over the States of the region in coming days, farmers are advised to postpone irrigation to the standing crops in these states.
 - As Thundersquall would occur at one or two places over Assam & Meghalaya, Arunachal Pradesh during next 24 hours, farmers are advised to arrange mechanical support to banana and staking for vegetables and also carry out propping up in sugarcane to prevent the crops from lodging due to strong winds.
 - In view of likely occurrence of rain at many places during the period, farmers in Mild Tropical Hill Zone of Nagaland are advised to provide proper drainage and earthing up in maize as the crop is highly susceptible to water logging.
 - In Sub-Tropical Hill Zone of Arunachal Pradesh, farmers are advised to arrange for adequate drainage to avoid water stagnation in the fields of maize, black gram, soybean and vegetables.
 - Due to prevailing weather conditions in Barak Valley Zone of Assam, there is chance of attack of beetles and fruit and shoot borer in summer gourd, vegetables and okra. Farmers are advised to spray Malathion 50 EC @ 1.5 litres / ha mixed in 500 – 700 litres of water before start of rain.
 - Due to increase in RH and high temperature in North Bank Plain Zone of Assam, the weather condition is suitable for the attack of blast disease in *ahu* rice. If 2-3 leaf spots appear, spray Dithene M-45 @ 2 g / litre or Carbendazim @ 1 g / litre of water before start of rain.
 - In Sub-Tropical Hill Zone of Arunachal Pradesh, high humidity and cloudy conditions are favourable for attack of aphids in cucurbits, French bean and ladies finger; farmers are advised to spray Imidacloprid 17.5 SL @ 2 ml/ 5 litres of water before start of rain.
 - In Mild Tropical Plain Zone of Tripura, cloudy weather with high humidity is conducive for attack of mango hopper in mango. For its control spray Thiamethoxam (0.005%, i.e., 0.2 g per liter of water) or Acephate (1.5 g per liter of water) before start of rain.
 - Due to prevailing weather conditions in Mild Tropical Plain Zone of Tripura, there is chance of fruit and shoot borer on summer brinjal and tomato; farmers are advised to apply Cypermethrin @ 1.5 ml or Flubendamid @ 0.5 ml per liter of water before start of rain.

- Weather is favourable for incidence of *Cercospora* / Sigatoka leaf spot in banana in Mild Tropical Hill Zone of Mizoram; farmers are advised to spray combination of fungicides Mancozeb + Carbendazim @ 2 g / litre of water before start of rain.
- Stages of major crops are mentioned in Annexure I.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** No significant rain occurred over Maharashtra during last week. Significant rain occurred over Amreli and Bhavnagar districts in Gujarat State.
- **Weather Forecast:** Rain / thundershowers would occur at one or two places over Gujarat and Marathwada during next 48 hours. Weather would be mainly dry over rest parts of the region.
- **Warning:** Thunderstorm accompanied with thundersquall would occur at one or two places over Vidarbha and Marathwada during next 24 hours. Isolated hailstorm would also occur over Vidarbha.
- **Outlook:** Weather would be mainly dry over the States of the region.
- **Advisories:**
 - As mainly dry weather prevailed over Maharashtra during last few weeks and mainly dry weather is expected during the period, farmers are advised to apply irrigation to summer bajra at grain formation stage (Pune and Nasik region), sugarcane and vegetables in morning hours or in the evening to avoid excessive evaporation.
 - As Amreli and Bhavnagar districts received significant rainfall during last week, postpone irrigation to the standing crops in these districts. As dry weather prevailed during last few weeks in remaining districts of Gujarat State and mainly dry weather is expected during the period, provide irrigation to cluster bean, green gram, groundnut and other vegetables.
 - As Thundersquall would occur at one or two places over Vidarbha and Marathwada during next 24 hours, farmers are advised to arrange mechanical support to banana and staking for vegetables to prevent the crops from lodging due to strong winds. Farmers in Vidarbha are also advised to use hail-nets in orchards to protect the crops from probable hail storm.
 - Due to prevailing high temperature and acute water shortage in the State, farmers are advised to apply sprinkler irrigation instead of flood irrigation to groundnut at an interval of 8-10 days in Madhya Maharashtra. Apply irrigation at 8-10 days interval to *suru* sugarcane and mulch 5 tons trash / ha in furrow to conserve soil moisture in Western Maharashtra Scarcity Zone.
 - Considering high day temperature in Konkan, farmers are advised to apply irrigation at 4-5 days interval to summer rice at grain formation stage. Provide shadenet to saplings like coconut, arecanut, cinnamon, nutmeg, clove, etc. to protect from scorching sun.
 - Considering the prevailing high temperature, farmers in Pune region are advised mulching with crop residues and other plant waste products in the orchards and sugarcane trash in sugarcane field to minimize the rate of evaporation. To reduce the rate of transpiration of the plants, farmers are also advised to spray 8 % Kaolin. They are also advised to apply 20 litres of water to each banana plant / day by flood irrigation and apply 9-10 litres water / dripper. Farmers are advised to cover the banana bunch with porous gunny bags to protect them from scorching sun.
 - Taking benefit of prevailing day temperature (below 40°C), farmers in Ahmednagar district are advised to complete preparatory tillage and undertake sowing of irrigated cotton at 90 x 90 cm distance in medium and 120 x 90 cm in black soil.
 - Considering prevailing dry weather in South Konkan, farmers are advised to start harvesting of already matured summer rice and summer groundnut in morning hours.
 - As high temperature is predicted and groundnut is at pod formation stage in South Gujarat Heavy Rainfall Zone; apply irrigation in groundnut.
 - In South Gujarat Zone and South Gujarat Heavy Rainfall Zone carry out mulching in sugarcane and in North Gujarat Zone in mango with crop residues to minimize the rate of evaporation due to high temperature.
 - High maximum temperature and high wind favour dropping of flowers and may cause poor fruit setting in Sapota in Middle Gujarat Zone. Use mulching to maintain the soil moisture. Spray 20 ppm Amnethelin Acetic acid and 2% Urea solution for effective control of fruit dropping in mango orchard in South Gujarat Zone.
 - Due to cloudy weather and rain, there may be incidence of fruit borer, thrips, white fly and leaf roller on tomato in Western Maharashtra Scarcity Zone; spray Imidachloprid @ 4 ml or Methyl Dimeton @ 10 ml in 10 litres of water at 10-15 days interval against sap sucking pests. For control of fruit borer spray 4% Neemark or Deltamethrin @ 15 ml in 10 litres of water at 10-15 days interval alternately.
 - Due to prevailing cloudy weather there may be incidence of red spider mite on mango in South Konkan. Spray Sulphur WS @ 20 g in 10 litres of water on non-fruit bearing tree and spray Dicofol @ 20 ml in 10 litres of water on fruit bearing mango tree.

- As high temperature persists, there may be incidence of shoot borer in *suru* sugarcane in Pune region; use 2 Phule Tricocard per acre at 10 days interval for 2-3 times.
- In South Gujarat Heavy Rainfall Zone, due to high maximum temperature attack of aphids and powdery mildew in mango has been observed and is likely to continue; farmers are advised to spray Phozelon 35 EC @ 420 litres + wettable sulphur 80% @ 600 g in 200 litres of water for their effective control.
- In South Gujarat Heavy Rainfall Zone shoot and fruit borer attack has been observed and is likely to persist in brinjal and okra due to high temperature; farmers are advised to spray solution of DDVP 0.05% @ 20 ml in 10 litres of water for its management.
- Stages of the crops are mentioned in Annexure I.
- **Animal Husbandry**
 - As high maximum temperature is persisting and also predicted in North Gujarat Zone, North West Zone of Gujarat, South Gujarat Heavy Rainfall Zone and Bhal and Coastal Zone of Gujarat, keep animals under shade during noon hours and avoid feeding between 11 to 15 hrs. Vaccinate animals against FMD and BQ to avoid disease outbreak. Arrange for fresh and cold drinking water for animals. Make arrangement of curtains for poultry house.
 - To protect cattle from summer heat in North Saurashtra Zone, shower the animals with cold water, two to three times a day, and increase the green fodder quantity for feeding.

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

- **Realised Rainfall:** Significant rainfall occurred in most of the districts in Coastal Andhra Pradesh, Chittoor in Rayalaseema, Hyderabad and Khammam in Telangana, Erode and Krishnagiri in Tamil Nadu and Idukki in Kerala during last week. Mainly dry weather prevailed over remaining parts of the region.
- **Rainfall Forecast:** Rain/thundershowers would occur at a few places over Andhra Pradesh, Tamil Nadu & Kerala and at one or two places over Karnataka for next three days.
- **Warning:** Thunderstorm accompanied with thundersquall would occur at one or two places over Andhra Pradesh, Karnataka, Tamil Nadu and Kerala during next 24 hours and isolated hailstorm would occur over Coastal Andhra Pradesh and Telangana.
- **Advisories:**
 - Significant rainfall occurred in Chittoor in Rayalaseema, Hyderabad and Khammam in Telangana, most of the districts in Coastal Andhra Pradesh, Erode and Krishnagiri in Tamil Nadu and Idukki in Kerala during last week. During next 72 hours, rainfall is likely to occur at few places over Andhra Pradesh, Kerala and Tamil Nadu and at one or two places in Karnataka. Farmers are advised to postpone irrigation to the crops in the above mentioned districts and apply irrigation to the standing rice, groundnut, sugarcane, summer cotton, summer pulses and vegetable crops in the rest of the region. Undertake intercultural operations and application of fertilizers and plant protection measures on a non-rainy day in Andhra Pradesh, Tamil Nadu and Kerala.
 - As thunderstorm accompanied with thunder squall would occur at one or two places over Andhra Pradesh, Kerala and Tamil Nadu during next 24 hours and isolated hailstorm would occur over Coastal Andhra Pradesh and Telangana during next three days, farmers are advised to arrange mechanical support to banana and staking for vegetables and also carry out propping up in sugarcane to prevent the crops from lodging due to strong winds and farmers in Coastal Andhra Pradesh and Telangana are advised to use hail net for orchard crops to protect from mechanical damage.
 - Due to prevailing high day and night temperatures in Southern Zone of Tamil Nadu, farmers are advised to conserve soil moisture by adding crop residues or coconut pith around the root zone of coconut trees.
 - Utilizing the summer showers occurred in North Western Zone of Tamil Nadu, farmers are advised to undertake sowing of green gram (varieties like Vamban-2, Co-8) or groundnut (varieties such as Co-6 and TMV-13).
 - Prevailing temperature is favourable for undertaking of sowing of potato and carrot in High altitude and Hilly Zone of Tamil Nadu. Farmers are advised to take up sowing of potato and carrot.
 - Weather is conducive for incidence of Fusarium wilt/Rhizoctonia root rot in vegetables in Southern Zone of Kerala. Farmers are advised to drench the soil as well as spray with Bavistin 1.5 g per litre of water.
 - Prevailing high temperature is most congenial for viral disease on vegetables in the Problem Area Zone of Kerala. Hence, farmers are advised to control insect vectors by chemical control or using yellow sticky traps.
 - Due to high relative humidity there is chance of incidence of Sigatoka leaf spot disease in banana (6-7 months old) and further spread due to high wind speed in the Central Zone of Kerala. Farmers are advised to spray 2.5 g SAFF per liter of water as control measure in banana plantation.

- Prevailing weather is congenial (light rainfall, high humidity) for incidence of neck blast in rice in North Coastal Zone of Andhra Pradesh. Farmers are advised to spray Tricyclozole @ 0.6 g per litre of water.
- Prevailing high temperature is congenial for incidence of thrips in vegetables in South Telangana Zone of Andhra Pradesh. Farmers are advised to spray Acephate @ 1.5 g or Fipronil @ 2 ml per litre as control measure.
- Prevailing high temperature is conducive for incidence of leaf blast in rice in Northern Telangana Zone of Andhra Pradesh. Farmers are advised to spray Tricyclazole 75 WP @ 0.6 ml or Isoprothiolane 40 EC @ 1.5 ml per litre of water at 15 days interval.
- Weather is congenial (maximum temperature >35° C) for incidence of fruit borer in vegetable in Coastal Zone of Karnataka. Farmers are advised to spray Quinalphos (25 EC) @ 2 ml per litre of water.
- Stages of major crops are mentioned in Annexure I.
- Animal Husbandry:
 - Farmers in the Scarce Rainfall Zone of Andhra Pradesh are advised to provide animals with mineral mixture along with salt regularly and grains like sorghum, Bajra and jaggary etc. may be provided @ 10%-20% in the daily ration during summer season to meet the energy requirement of the animals.
 - Farmers in the Eastern Dry Zone of Karnataka are advised to maintain optimum room temperature in silkworm and poultry rearing houses to take care against the rapid increase in air temperature and decrease in relative humidity.
 - Due to increase in day temperature, farmers in the Cauvery Delta Zone of Tamil Nadu are advised to avoid grazing of sheep and goats in hot hours of the day and sprinkle water on mulching cows every two hours between 10 a.m to 5 p.m to sustain the milk production.
 - Farmers in the Problem Area Zone of Kerala are advised to avoid grazing of animals from 12 to 3 p.m to protect from heat stroke, provide large quantity of clean water and add good amount of electrolytes and Vitamin C in the feed.
 - Stages of major crops are mentioned in Annexure I.

Annexure I Stages of Major Crops

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

- Wheat (maturity / harvesting), pome and stone fruits (planting / flowering), apple (green tip to pink bud), onion (vegetative), cabbage, cauliflower (maturity), capsicum, tomato, brinjal (sowing / transplanting), cucurbits, okra, French bean, fodder crops (chari, bajra) (sowing) in Himachal Pradesh.
- Wheat (maturity / harvesting), onion (bulb formation), cluster bean, amaranthus, summer radish, summer green gram, vegetable lobia, lady's finger, bottle gourd, cucumber, ridge gourd (sowing), chilli, tomato, brinjal and cucurbits (vegetative) in Delhi.
- Wheat (tillering / jointing), pulses (pea and lentil) (flowering), fodder oat (harvesting), vegetables (sowing / planting / transplanting), rice (nursery raising), maize (field preparation / sowing), fruit crops (nursery bed preparation in Valley Temperate Zone (Srinagar)), sunflower (early vegetative / vegetative), garlic, cucurbits, okra (seedling / early vegetative), radish, spinach (sowing), carrot, turnip (sowing), onion, cole crops (nursery sowing / transplanting), wheat, barley (late sown – dough, normal / early sown – maturity / harvesting), pulses (pod formation), oat, berseem (vegetative), summer moong & mash (sowing), dhaincha (sowing), fodder jowar (sowing), fruit crops (nursery bed preparation) in Jammu & Kashmir.
- Wheat (grain maturity / harvesting), arhar (harvesting), ginger (vegetative), garlic (maturity / harvesting), autumn sugarcane (vegetative), barley (grain maturity / harvesting), oat (tillering / ear head emergence), moong, urd (vegetative / flowering), okra (seedling / vegetative), sugarcane, cucurbits (sowing / planting / seedling), fodder jowar (sowing) in Uttarakhand.
- Wheat (grain maturity / harvesting), linseed, jai (pod maturity), onion, garlic (maturity / harvesting), maize (grain maturity / harvesting), moong, urad (germination / vegetative), summer vegetables, spring sugarcane (sowing / planting), summer green fodder like maize, lobia, sunhemp, dhaincha (sowing) in Uttar Pradesh.
- Wheat (maturity / harvesting), sugarcane (harvesting), new sugarcane (early vegetative), maize (sowing / germination), pulses (field preparation for sowing), cucurbits (sowing), berseem (vegetative / cutting), fruit (planting) in Punjab.
- Wheat (maturity/ harvesting), sugarcane (harvesting), new sugarcane (early vegetative), barseem (vegetative / cutting), other fodder crops (bajra, lobia, Sudan grass and Napier grass) (sowing), cotton (field preparation / sowing) in Haryana.
- *Zaid* crops (moong, groundnut, fodder crops) (sowing / germination), sugarcane (maturity / harvesting), new sugarcane (field preparation), maize (maturity), capsicum, guar, water melon, muskmelon (maturity / harvesting), vegetables (tinda, pumpkin, cucumber, coriander, bhindi, ridge gourd) (seedling / vegetative), wheat (grain maturity / harvesting), barley (grain maturity / harvesting), opium poppy (pre-flowering / flowering) in Rajasthan.

CENTRAL INDIA [M.P., CHHATTISGARH]

- Ladies finger (flowering / fruiting / harvesting), sugarcane (elongation), lobia, cowpea, jawar, maize (sowing), summer vegetables (sowing / transplanting) in Madhya Pradesh.
- Sugarcane (planting/vegetative), pigeon pea, groundnut (pod filling/maturity), sesame (late vegetative), ginger, turmeric, papaya (vegetative), onion (transplanting/ early vegetative), vegetable crops (transplanting / vegetative), millet (flowering), rice (transplanting), niger, kulthi (vegetative) in Chhattisgarh.

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

- Sunflower (head formation), sugarcane (planting), summer vegetables (early vegetative/vegetative), moong, urad (sowing/ early vegetative), yam (planting) in Bihar.
- Onion (transplanting), vegetables (vegetative / flowering / fruiting / harvesting), pea (pod formation / pod filling / maturity) in Jharkhand.
- Jute (sowing / early vegetative), Summer rice (late tillering/panicle initiation), sugarcane (tillering), banana (vegetative), *rabi* groundnut (maturity/harvesting), cowpea (pod formation / maturity), fruit crops (planting / seedling), tomato (flowering / fruiting), summer vegetables (sowing), sunflower (seed formation/maturity) in Odisha.
- *Boro* rice (milking to grain filling), wheat (harvesting), sesame (flowering), maize (cob maturity to harvesting), summer vegetables (transplanting), potato (tuber maturity / harvesting), mango (flowering /fruiting), tomato (flowering / fruiting), mustard (harvesting), Bitter gourd, pointed gourd, ladies finger (flowering to fruiting), sunflower (flowering), groundnut (pegging to pod formation), chilli (flowering / fruiting) in West Bengal.

- Ginger (sprouting / early vegetative), large cardamom (primary flowering / secondary flowering), Summer vegetables (vegetative), rice (grain formation / maturity) in Sikkim.

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

- Sugarcane (planting), *boro* rice (grain formation / grain maturity), transplanted early *ahu* rice (tillering), transplanted normal *ahu* rice (seedling / transplanting), early *ahu* (direct seeded) (seedling / tillering), *bao* rice (sowing), maize (sowing), jute (seedling), summer pulses (sowing / seedling / vegetative), okra (sowing / seedling), cucurbits (sowing / seedling / vegetative), coconut, ginger, turmeric, banana, papaya (planting) and summer vegetables (flowering / fruiting) in Assam.
- *Jhum* rice (sowing), okra, green gram, black gram, maize, soyabean (vegetative), French bean (vegetative) and cucurbits (vegetative), banana (planting) in Arunachal Pradesh.
- Pre-*kharif* rice (transplanting / early vegetative), maize (vegetative / flowering), tomato, brinjal, chilli (vegetative / flowering / fruiting), beans (early vegetative / vegetative), cucurbits (flowering / fruiting), okra (sowing), turmeric, ginger (planting) in Manipur.
- *Kharif* maize (sowing / germination / vegetative), *boro* rice (grain filling), jute (sowing / seedling / vegetative), black gram, green gram (sowing / vegetative), okra (sowing / vegetative / flowering / fruiting), French bean, bottle gourd, ash gourd (sowing / vegetative), brinjal (sowing / transplanting) in Meghalaya.
- Maize (maturity / harvesting), banana (vegetative / harvesting), tomato (fruiting / harvesting), okra, cucurbits (sowing) and chilli, brinjal, ginger and turmeric (nursery raising / planting) in Mizoram.
- Maize (vegetative), upland rice (sowing / germination), cucurbits (vegetative), chilli (transplanting), okra (germination / early vegetative) and brinjal (nursery raising / transplanting) in Nagaland.
- *Boro* rice (grain formation / maturity), *jhum* rice (sowing), summer brinjal, tomato (flowering / fruiting), summer green gram and black gram (vegetative / flowering), summer vegetables, summer maize (early vegetative / vegetative) and summer sesamum (vegetative / flowering / pod formation) in Tripura.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Sugarcane New *adsali* (tillering / elongation), new pre seasonal (tillering), new *suru* sugarcane (early tillering), summer rice (grain maturity in early variety and grain formation in medium late and late maturing varieties in South Konkan and grain formation in Western Ghat region and East Vidarbha), summer groundnut (pod maturity / harvesting in South Konkan and pod formation in Madhya Maharashtra, Marathwada and Vidarbha), summer bajra (grain formation in Pune and Nasik region) in Maharashtra.
- Pearl millet (vegetative / tillering), pulses (vegetative / flowering), summer groundnut (flowering / pegging / pod formation), summer rice (panicle initiation / flowering / grain formation), summer vegetables (vegetative / flowering / fruiting), sugarcane (vegetative / elongation / grand growth) in Gujarat.

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

- Summer groundnut (early vegetative), *rabi* maize (cob maturity/harvesting), sunflower (seed formation/maturity), *rabi* rice (grain formation/grain hardening), summer rice (panicle initiation), summer cotton (early vegetative), Green gram (vegetative/ flowering), cowpea (pod maturity/harvest), sesame (flowering /capsule formation), sugarcane (tillering), mango (fruit maturity/harvesting) and vegetables (all stages) in Andhra Pradesh.
- Black gram (sowing/early vegetative), summer cotton (vegetative/flowering), sesame (vegetative), sugarcane (tillering) and vegetables (vegetative/flowering) in Tamil Nadu.
- Summer rice (tillering /panicle initiation), arecanut (flowering) mango (fruiting / fruit maturity), sugarcane (tillering), banana (planting to harvesting), vegetables(all stages) pepper, ginger and cardamom (planting /early vegetative) in Kerala.
- Chilli (fruiting), mango (fruit maturity /harvesting), summer green gram/ black gram (early vegetative), sugarcane (tillering), arecanut (flowering), banana (fruit development) and vegetables (all stages) in Karnataka.