

The southwest monsoon has been active over Bihar, east Uttar Pradesh, Punjab and east Rajasthan during past 24 hours ending at 0830 hours IST of today.

In the following sub-divisions moisture stress condition prevails and as a result, contingent planning has been advised:

Saurashtra & Kutch: In North Saurashtra Zone of Gujarat State, South West monsoon remains scanty and prolonged dry spell persists. Farmers who have irrigation facility are advised to apply lifesaving irrigation through drip method under acute moisture stress condition. Where crop is failed, sowing of castor, sesame, dual-purpose sorghum, ajwan etc. may be undertaken. Farmers in South Saurashtra Zone of Gujarat are advised to carry out hand weeding and apply irrigation to vegetables, wherever possible. Carry out sowing of castor and apply irrigation in cotton if irrigation facility is available. In Kutch region, farmers are advised to carry out sowing of maize, sorghum, lucerne, bajra, cowpea etc. for green fodder after the receipt of sufficient rainfall. Increase the area under fodder crops.

Gujarat region: In North Gujarat Zone, complete sowing of castor, fodder sorghum, maize, sesame and cluster bean utilising rainfall occurred during previous week. In Ahmedabad district farmers are advised to complete sowing of castor, after receipt of sufficient rain, up to 25th August to protect the crop from the castor semi looper. Carry out sowing of short duration varieties of cluster bean and sorghum.

South Interior Karnataka: Due to severe dry condition in Mandya, Chamarajnar and Mysore districts, late sown crops also suffer from moisture stress and shows withering symptoms. Farmers are advised to undertake sowing of fodder crops after receipt of sufficient rainfall. Farmers in the Eastern dry zone are advised to take up sowings of short duration finger millet varieties, after receipt of sufficient rain, upto end of August. Also undertake sowing of finger millet in nursery and fodder maize. Farmers may also undertake sowing of minor millets like foxtail millet and cowpea upto 15th September.

North Interior Karnataka: All the districts received scanty rainfall during the week. In North Dry Zone, undertake sowing of sunflower, niger, castor and horse gram during second fortnight of August after the receipt of sufficient rainfall. In North Transition zone, undertake sowing of sunflower with residual moisture. Continue sowing of *desi* cotton. North East Dry zone farmers may undertake sowing of jowar, maize and bajra for fodder purpose. Castor and sunflower can also be sown till October end.

Madhya Maharashtra: As there was significant rain during previous week, farmers in Pune district are advised to complete sowing of contingency crops like sunflower, red gram and castor. Farmers in Eastern Pune district are also advised to adopt intercropping of sunflower + tur (2:1) and sow early maturing marigold, okra, cluster bean, cucumber, snake gourd, bitter gourd, bottle gourd. Solapur district received deficient rain during last few weeks and isolated rain is expected during next 2-3 days; farmers are advised to wait for adequate rain and undertake sowing or re-sowing of sole crops like sunflower, red gram and castor after receipt of sufficient rain. As Kolhapur, Sangli and Satara received no significant rain and isolated rain is expected during next 2-3 days, farmers are advised to undertake hoeing and weeding in late sown *kharif* crops to conserve soil moisture.

Marathwada: As Aurangabad, Beed and Jalna districts of Marathwada received no significant rain during last few weeks and no significant rain is expected during next 2-3 days, crop growth is likely to be affected by water stress. Farmers are advised to undertake moisture conservation practices like mulching, inter-culture and weeding in the crop field and apply supplementary irrigation, if possible.



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

Executive Summary

Significant rainfall occurred over all the districts in Chhattisgarh, Uttarakhand, Konkan, Orissa, Sub Himalayan West Bengal & Sikkim, Coastal Karnataka and Kerala, most of the districts in Gangetic West Bengal, Arunachal Pradesh, Assam, Himachal Pradesh, East Madhya Pradesh, East Rajasthan and Vidarbha, many districts in West Madhya Pradesh, Haryana, Bihar, Jharkhand and West Uttar Pradesh and over a few districts in Punjab, Jammu & Kashmir, East Uttar Pradesh, West Rajasthan and Telangana. Rainfall for the above mentioned States during last week is given in Annexure – I.

Rainfall is likely to occur at many places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Rajasthan, West Rajasthan, Punjab, Haryana, Delhi, East Uttar Pradesh, West Uttar Pradesh, Bihar, Gangetic West Bengal, Sub Himalayan West Bengal & Sikkim, North Eastern States, Konkan, Coastal Karnataka and Kerala and at a few places over East Madhya Pradesh, Chhattisgarh, Jharkhand and Orissa during next 48 hours and increase thereafter. Farmers are advised to postpone irrigation, intercultural operation and application of fertilizers and plant protection measures in these regions. Heavy rainfall would occur at one or two places over Jammu Division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, East Rajasthan, Uttar Pradesh, Bihar, Sub Himalayan West Bengal & Sikkim and Assam & Meghalaya during next 48 hours. Farmers in these regions are advised to arrange for adequate drainage in standing crops. Weather forecast map is provided in Annexure – II.

In the following sub-divisions moisture stress condition prevails and as a result, contingent planning has been advised:

1. **Saurashtra & Kutch:** In North Saurashtra Zone of Gujarat State, South West monsoon remains scanty and prolonged dry spell persists. Farmers who have irrigation facility are advised to apply lifesaving irrigation through drip method under acute moisture stress condition. Where crop is failed, sowing of castor, sesame, dual-purpose sorghum, ajwan etc. may be undertaken. Farmers in South Saurashtra Zone of Gujarat are advised to carry out hand weeding and apply irrigation to vegetables, wherever possible. Carry out sowing of castor and apply irrigation in cotton if irrigation facility is available. In Kutch region, farmers are advised to carry out sowing of maize, sorghum, lucerne, bajra, cowpea etc. for green fodder after the receipt of sufficient rainfall. Increase the area under fodder crops.
2. **Gujarat region:** In North Gujarat Zone, complete sowing of castor, fodder sorghum, maize, sesame and cluster bean utilising rainfall occurred during previous week. In Ahmedabad district farmers are advised to complete sowing of castor, after receipt of sufficient rain, up to 25th August to protect the crop from the castor semi looper. Carry out sowing of short duration varieties of cluster bean and sorghum.
3. **South Interior Karnataka:** Due to severe dry condition in Mandya, Chamarajnagar and Mysore districts, late sown crops also suffer from moisture stress and shows withering symptoms. Farmers are advised to undertake sowing of fodder crops after receipt of sufficient rainfall. Farmers in the Eastern dry zone are advised to take up sowings of short duration finger millet varieties, after receipt of sufficient rain, upto end of August. Also undertake sowing of finger millet in nursery and fodder maize. Farmers may also undertake sowing of minor millets like foxtail millet and cowpea upto 15th September.
4. **North Interior Karnataka:** All the districts received scanty rainfall during the week. In North Dry Zone, undertake sowing of sunflower, niger, castor and horse gram during second fortnight of August after the receipt of sufficient rainfall. In North Transition zone, undertake sowing of sunflower with residual moisture. Continue sowing of *desi* cotton. North East Dry zone farmers may undertake sowing of jowar, maize and bajra for fodder purpose. Castor and sunflower can also be sown till October end.
5. **Madhya Maharashtra:** As there was significant rain during previous week, farmers in Pune district are advised to complete sowing of contingency crops like sunflower, red gram and castor. Farmers in Eastern Pune district are also advised to adopt intercropping of sunflower + tur (2:1) and sow early maturing marigold, okra, cluster bean, cucumber, snake gourd, bitter gourd, bottle gourd. Solapur district received deficient rain during last few weeks and isolated rain is expected during next 2-3 days; farmers are advised to wait for adequate rain and undertake sowing or re-sowing of sole crops like sunflower, red gram and castor after receipt of sufficient rain. As Kolhapur, Sangli and Satara received no significant rain and isolated rain is expected during next 2-3 days, farmers are advised to undertake hoeing and weeding in late sown *kharif* crops to conserve soil moisture.
6. **Marathwada:** As Aurangabad, Beed and Jalna districts of Marathwada received no significant rain during last few weeks and no significant rain is expected during next 2-3 days, crop growth is likely to be affected by water stress. Farmers are advised to undertake moisture conservation practices like mulching, inter-culture and weeding in the crop field and apply supplementary irrigation, if possible.

In the following sub-divisions rainfall conditions improved during last 1-2 weeks; however farmers are advised to continue contingent planning:

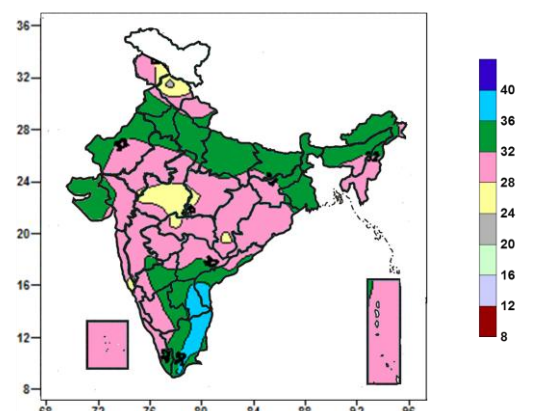
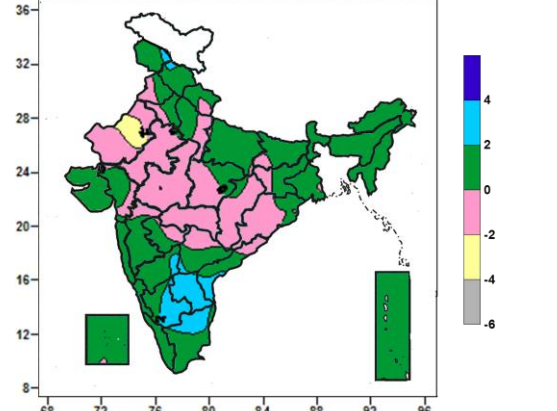
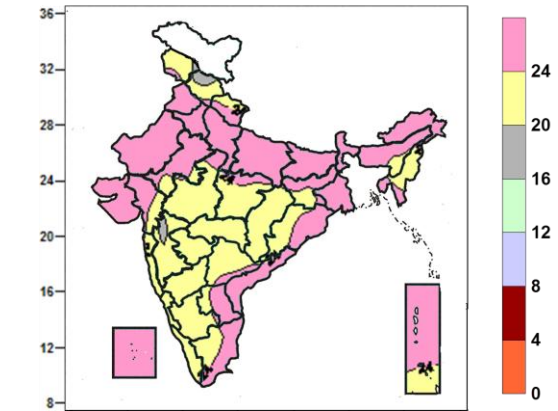
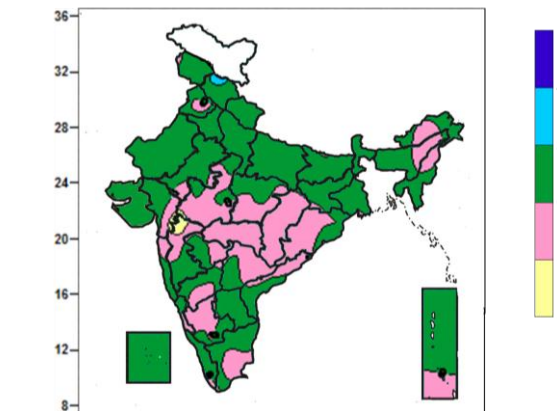
1. **Haryana:** Rainfall occurred in all the districts except in Mewat, Panipat and Sirsa districts during last week. Farmers are advised to undertake sowing of fodder crops (bajra, jowar, makchari, lobia & Sudan ghas) in fallow land with the realised and expected rainfall.

2. **Delhi:** Transplanting of tomato, chilli, brinjal and cauliflower is continued. Sowing of coriander, spinach and radish is in progress under irrigated condition as well as utilizing the rainfall during last week.
3. **West Rajasthan:** Good rainfall occurred during last week. As per contingent plan, sowing of fodder bajra fodder sorghum, short duration varieties of moth and guar continued.
4. **Bihar:** In the upland areas, where paddy crop could not be transplanted, farmers can start sowing of September pigeon pea after 25th August. Farmers are advised to adopt contingent crop planning such as short duration crops (sunflower, maize, urd, bhindi) on upland fields. Sowing of tobacco and vegetables is in progress.

In remaining parts of the country, due to receipt of adequate rainfall in terms of quantity and distribution in relation to agricultural operations as well as water requirements of the crops, sowing of *kharif* crops continued normally and state of the crops are normal, which is stated below:

1. **Royalaseema:** Severe moisture stress is noticed in groundnut, red gram and castor in Anantapur district. Farmers are advised to provide lifesaving irrigation.
2. **East Uttar Pradesh:** Undertake weeding in early sown direct seeded and transplanted rice. Continue sowing of *kharif* crops like jowar, bajra, urad, moong, soybean, groundnut and til.
3. **West Uttar Pradesh:** Complete sowing of black gram and sesame. Complete transplanting of rice and sowing of sorghum. It is also advised to complete nursery sowing of vegetables. Undertake weeding, hoeing and top dressing of fertilizers in sugarcane, early sown *kharif* crops and vegetables.
4. **Nagaland, Manipur, Mizoram & Tripura:** Farmers in Manipur are advised for sowing / transplanting of late variety of rice RC Maniphou 7. Complete transplanting of *aman* rice in Tripura and *sali* rice in other States.
5. **Arunachal Pradesh:** Nursery preparation for early cruciferous crops may be done.
6. **Assam & Meghalaya:** Undertake transplanting of short duration varieties of rice in the flood affected area, complete transplanting of semi dwarf *sali* rice and sowing of early cauliflower, raddish, green gram, black gram and sesame etc.
7. **Sub Himalayan West Bengal:** Complete transplanting of *aman* rice and undertake short to medium duration rice where sowing was delayed.
8. **Sikkim:** Undertake transplanting of large cardamom in low, medium and high hills.
9. **Gangetic West Bengal:** Complete transplanting of *aman* rice and undertake short to medium duration rice where sowing was delayed.
10. **Orissa:** Undertake weeding in rice at three week stage. Go for hoeing and weeding in maize.
11. **Punjab:** Undertake sowing of vegetables like cauliflower (mid- season variety).
12. **Himachal Pradesh:** Ensure drainage in maize fields and impound water in rice field. Undertake nursery sowing of cauliflower. In mid hill region transplanting of cauliflower can also be undertaken.
13. **Jharkhand:** Undertake intercultural operations in ginger and red gram crops.
14. **Uttarakhand:** Drain out excess water from the crop fields to prevent the root damage of maize, soybean and pulse crops.
15. **Jammu & Kashmir:** Drain out the excess water from field of maize in view of recent rains and further chances of rainfall.
16. **East Rajasthan:** Carry out weeding and maintain plant population by thinning in timely sown crops like cluster bean, pearl millet, sesame, moong and groundnut on clear days.
17. **East Madhya Pradesh:** Drain out water from rice field followed by top dressing of urea.
18. **West Madhya Pradesh:** Drain out water from rice field followed by top dressing of urea. Top dressing of urea should be done in maize.
19. **Vidarbha:** Farmers are advised to complete transplanting of 21 to 25 days old rice (*dhan*) seedlings. Farmers are advised to undertake weeding and hoeing in late sown soybean, cotton and red gram.
20. **Chhattisgarh:** Sowing of *kharif* crops completed in most parts of the State.
21. **Konkan:** Farmers are advised to maintain 5 cm water level in already transplanted rice field and complete earthing up in 35 to 40 days old groundnut.
22. **Coastal Andhra Pradesh:** Take up sowing of medium duration varieties of rice and pulses. If excess moisture situation exists in early sown pulses, maize and other vegetables, farmers are advised to undertake spraying of 2% urea.
23. **Telangana:** In areas of prolonged dry spell, irrigate cotton and maize crop, if water is available. Stop sowing of rice in nursery and undertake direct sowing after receipt of sufficient rainfall.
24. **Tamil Nadu:** Transplanting of *Kuruvai* rice completed.
25. **Coastal Karnataka:** Transplanting of rice completed.
26. **Kerala:** Transplanting of *viruppu* rice completed.

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 22.08.2012

<p>Actual Mean Maximum Temperature (°C) in India for the week ending 22.8.2012</p> 	<p>Maximum Temperature (°C) Anomaly in India for the week ending 22.8.2012</p> 
<p>Actual Mean Maximum temperature ranged between 36 to 40⁰C over some parts of Coastal Andhra Pradesh, Raylaseema, Tamil Nadu, 32 to 36⁰C and above over most parts of Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalya, Saurashtra & Kutch, some parts of Uttarakhand, West Rajasthan, Nagland, Madhya Pradesh, Gujarat, Madhya Maharashtra, North & South Interior Karnataka, Andhra Pradesh, Tamil Nadu, Kerala, 24 to 28⁰C over most parts of Himachal Pradesh, West Madhya Pradesh, some parts of Jammu & Kashmir, and between 28 to 32⁰C over remaining parts of the country.</p>	<p>Actual Mean Maximum temperature anomaly ranged between 2 to 4⁰C and above over most parts of Raylaseema, some parts of Jammu & Kashmir, Coastal Andhra Pradesh, Telangana, South & North Interior Karnataka, -4 to -2⁰C over some parts of West Rajasthan, -2 to 2⁰C over rest of the country.</p>
<p>Actual Mean Minimum Temperature (°C) in India for the week ending 22.8.2012</p> 	<p>Minimum Temperature (°C) Anomaly in India for the week ending 22.8.2012</p> 
<p>Actual Mean Minimum Temperature ranged between 24⁰C and above over many parts of Northwest India (except Jammu & Kashmir, Himachal Pradesh), East and Northeast India(except Nagaland, Manipur), North Gujarat, Saurashtra & Kutch, Coastal Andhra Pradesh, Rayalaseema, Lakshadweep, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Madhya Pradesh Telengana, Tamil Nadu, 16 to 20⁰C over some parts of Jammu & Kashmir, Himachal Pradesh and between 20 to 24⁰C over remaining parts of the country.</p>	<p>Minimum Temperature anomaly ranged 2 to 4⁰C over some parts of Himachal Pradesh, 0 to 2⁰C over most parts of Northwest India, East India, North East India(except Nagaland), Saurashtra & Kutch, Gujarat, South Konkan & Goa, South Madhya Maharashtra, Coastal Andhra Pradesh, Rayalaseema, Kerala, Tamil Nadu, Andaman & Nicobar Islands, some parts of Madhya Pradesh, Orissa, Marathwada, Karnataka, Vidarbha, Telengana, below 0⁰C over remaining parts of the country.</p>

Distribution of rainfall of the country during week ending on 22.08.2012

State/Districts	Actual	% Dep.
Arunachal Pradesh		
Anjaw	**	**
Changlang	271.5	255
East Kameng	55.0	74
East Siang	20.2	-62
Kurung Kumey	198.8	3
Lohit	**	**
Lower Dibang Valley	203.8	89
Lower Subansiri	**	**
Papumpara	10.0	-87
Tawang	54.3	-50
Tirap	86.0	-38
Upper Dibang Valley	179.7	52
Upper Siang	161.9	59
Upper Subansiri	62.2	32
West Kameng	107.1	-23
West Siang	50.0	-55
Assam		
Baksa	41.4	-60
Barpeta	115.0	12
Bongaigaon	84.6	-17
Cachar	78.7	-25
Chirang	78.4	-23
Darrang	9.0	-84
Dhemaji	46.0	-57
Dhubri	125.4	22
Dibrugarh	47.5	-55
East Garo Hills	**	**
East Khasi Hills	390.9	56
Goalpara	21.9	-67
Golghat	16.9	-70
Hailakandi	78.7	-19
Jaintia Hills	226.0	28
Jorhat	44.9	-46
Kamrup(Metro)	73.6	28
Kamrup	32.7	-43
Karbi Analog	33.2	-31
Karimganj	144.0	31
Kokrajhar	100.4	-2
Lakhimpur	48.8	-54
Morigaon	36.8	-45
N.C.Hills	0.0	-100
Nowgong	20.2	-69
Nalbari	30.3	-48
Ribhoi	175.6	88
Sonitpur	28.9	-66
Sibsagar	44.6	-43
South Garo Hills	243.0	164
Tinsukia	118.2	28
Udalgiri	142.6	149
West Garo Hills	95.0	3
West Khasi Hills	**	**
Himachal Pradesh		
Bilaspur	165.2	194
Chamba	45.4	-17
Hamirpur	331.0	314
Kangra	364.9	221
Kinnaur	8.8	-43
Kullu	23.2	-41
Lahaul and Spiti	3.1	-90

State/Districts	Actual	% Dep.
Mandi	181.4	99
Shimla	62.0	21
Sirmaur	85.7	-30
Solan	110.6	60
Una	123.3	99
Punjab		
Amritsar	21.9	-33
Barnala	0.0	-100
Bhatinda	22.5	-6
Faridkot	1.0	-97
Fatehgarh Sahib	7.3	-83
Ferozpur	0.0	-100
Gurdaspur	163.3	168
Hoshiarpur	30.0	-38
Jalandhar	4.8	-87
Kapurthala	38.7	49
Ludhiana	40.7	0
Mansa	0.9	-97
Moga	2.4	-93
Muktesar	1.0	-96
Nawashahar	34.9	-20
Patiala	26.8	-38
Ropar	99.1	91
Sangrur	9.6	-77
Mohali	17.0	-61
TarnTaran	16.4	-50
Haryana		
Ambala	65.7	-9
Bhiwani	85.5	162
Chandigarh	146.1	120
Faridabad	33.2	-13
Fatehabad	26.9	19
Gurgaon	32.6	-31
Hissar	63.5	128
Jhajar	49.6	45
Jind	33.3	-14
Katihah	37.7	-7
Karnal	19.8	-63
Kurukshetra	18.0	-67
Mahendragarh	95.9	158
Mewat	8.3	-79
Palwal	19.3	-50
Panchkkula	89.4	41
Panipat	13.8	-73
Rewari	58.4	34
Rohtak	38.2	-10
Sirsa	9.8	-58
Sonepat	75.0	67
Yamunanagar	92.7	19
New Delhi	45.7	-10
Jammu & Kashmir		
Anantnag	9.3	-36
Badgam	6.0	-59
Bandipore	**	**
Baramula	11.3	-27
Doda	6.2	-74
Ganderwal	27.8	84
Jammu	198.3	188
Kargil	0.0	-100
Kathua	207.1	163
Kistwar	**	**
Kulgam	9.8	-32

State/Districts	Actual	% Dep.
Kupwara	3.3	-76
Ladakh(Leh)	0.9	-67
Poonch	0.0	-100
Pulwama	18.5	18
Rajouri	175.8	156
Ramban	32.6	36
Reasi	263.0	203
Samba	168.5	145
Shopian	0.0	-100
Srinagar	9.8	-35
Udhampur	175.6	102
East Madhya Pradesh		
Anuppur	30.0	-65
Balaghat	87.3	-25
Chhatarpur	41.6	-48
Chindwara	79.0	51
Damoh	40.6	-54
Dindori	53.3	-45
Jabalpur	97.2	21
Katni	115.5	48
Mandla	69.4	-27
Narsingpur	150.7	62
Panna	80.0	-2
Rewa	22.0	-71
Sagar	126.6	48
Satna	60.7	-15
Seoni	64.5	-4
Shahdol	110.0	32
Sidhi	27.2	-67
Singrauli	98.8	37
Tikamgarh	81.0	-11
Umaria	61.5	-39
West Madhya Pradesh		
Alirajpur	5.3	-90
Asoknagar	74.8	-7
Badwani	1.5	-97
Betul	44.9	-34
Bhind	34.4	-35
Bhopal	185.2	121
Burhanpur	47.8	-14
Datia	95.8	37
Dewas	49.2	-34
Dhar	6.8	-87
Guna	138.1	63
Gwalior	31.0	-53
Harda	88.2	-10
Hosangabad	159.5	49
Indore	4.3	-92
Jhabua	10.9	-77
Khandwa	45.1	-19
Khargone	17.0	-61
Mandsaur	54.5	-17
Morena	51.0	-26
Neemuch	37.2	-40
Raisen	113.7	25
Rajgarh	177.4	120
Ratlam	3.3	-95
Sehore	152.0	69
Shajapur	91.9	21
Sheopur Kalani	139.8	91

State/Districts	Actual	% Dep.
Shivpuri	94.3	52
Ujjain	15.7	-76
Vidisha	34.1	-62
Chattisgarh		
Bastar	106.3	29
Bijapur	154.1	64
Bilaspur	74.3	-9
Dantewara	111.8	57
Dhamtari	42.2	-48
Durg	75.7	13
Janjgir	149.1	57
Jashpurnagar	76.6	-19
Kanker	128.8	38
Korba	171.1	59
Koriya	48.1	-50
Kawardha	68.0	2
Mahasumund	166.7	108
Narayanpur	256.2	183
Raigarh	100.1	21
Raipur	71.6	-9
Rajandgaon	100.1	37
Surguja	60.1	-29
East Uttar Pradesh		
Allahabad	10.9	-82
Ambedkar Nagar	43.8	-31
Azamgarh	35.1	-40
Bahraich	36.5	-48
Ballia	13.6	-73
Balrampur	10.5	-86
Banda	50.1	-25
Barabanki	7.1	-89
Basti	4.2	-93
Chandauli	37.8	-48
Deoria	6.0	-91
Faizabad	3.6	-95
Farrukhabad	13.9	-75
Fatehpur	21.2	-66
Gazipur	65.8	3
Gonda	7.7	-88
Gorakhpur	42.7	-50
Hardoi	52.5	-8
Jaunpur	9.3	-83
Kannauj	14.0	-79
Kanpur City	27.6	-57
Kanpur Dehat	43.7	-30
Kaushambi	9.7	-83
Kheri	107.6	52
Kushi nagar	6.3	-92
Lucknow	33.2	-41
Maharajganj	1.0	-99
Mau	23.0	-68
Mirzapur	55.6	-5
Pratapgarh	19.7	-69
RaiBareilly	18.8	-68
Sahuji		
Maharajnagar	18.0	-75
Sant Kabirnagar	33.5	-51
Sant Ravidas Nagar	15.0	-79
Shrawasti	112.4	59
Sidharthnagar	4.0	-95
Sitapur	43.8	-28
Sonbhadra	84.7	36
Sultanpur	15.9	-75

State/Districts	Actual	% Dep.
Unnao	56.7	-7
Varanasi	15.1	-78
West Uttar Pradesh		
Agra	58.0	-3
Aligarh	52.7	-2
Auraiya	26.7	-53
Badaun	51.3	-5
Baghpat	7.2	-83
Bareilly	21.2	-61
Bijnor	53.9	-8
Bulandsahar	32.2	-44
Etah	25.3	-49
Etawah	38.2	-44
Firozabad	10.8	-81
GBNagar	59.0	12
Ghaziabad	16.5	-71
Hamirpur	28.3	-56
Jalaun	61.1	7
Jhansi	35.7	-47
Jotirba Phule Nagar	20.3	-67
Kanshiramnagar	2.2	-96
Lalitpur	21.0	-70
Mahamaya Nagar	42.0	-14
Mahoba	25.0	-63
Mainpuri	41.1	-21
Mathura	70.5	25
Meerut	35.0	-50
Moradabad	27.4	-60
Muzzaffarnagar	33.6	-50
Pilibhit	62.7	-15
Rampur	29.9	-54
Saharanpur	96.0	16
Shahjahanpur	117.5	78
Uttarakhand		
Almora	53.1	-22
Bageshwar	138.5	103
Chamoli	109.6	52
Champawat	89.5	-7
Dehradun	310.2	105
Garhwal Pauri	139.9	44
Garhwal Tehri	130.5	68
Haridwar	167.0	93
Nainital	138.9	21
Pithorgarh	77.9	-39
Rudraprayag	179.6	9
Udham Sing Nagar	69.9	-20
Uttarkashi	157.5	79
Bihar		
Araria	82.9	9
Arwal	47.0	-21
Aurangabad	68.7	15
Banka	12.0	-78
Begusarai	25.6	-65
Bhabua	78.7	9
Bhagalpur	42.4	-33
Bhojpur	20.0	-71
Buxar	4.9	-91
Darbhanga	75.1	21
East Champaran	32.5	-42
Gaya	98.8	57
Gopalganj	16.4	-73
Jahanabad	26.6	-58
Jamui	19.2	-66







State/Districts	Actual	% Dep.
Kathihar	12.3	-82
Khagadia	51.4	-13
Kishanganj	87.0	-11
Lakhisarai	11.7	-81
Madhepura	85.1	40
Madhubani	12.4	-83
Monghyar	53.2	-12
Muzaffarpur	45.6	-23
Nalanda	57.1	-4
Nawada	35.8	-40
Patna	35.4	-48
Purnea	21.1	-67
Rohtas	135.7	72
Saharsha	94.6	54
Samstipur	14.8	-72
Saran	38.7	-46
Sheikpura	37.0	-38
Sheohar	17.0	-75
Sitamarhi	82.3	21
Siwan	47.0	-31
Supaul	37.1	-40
Vaishali	54.9	-10
West Champaran	27.4	-63
Jharkhand		
Bokaro	95.9	51
Chatra	58.8	-4
Deoghar	41.2	-43
Dhanbad	73.7	19
Dumka	45.2	-47
East Singbhum	53.3	-24
Garhwa	45.4	-36
Giridih	53.4	-19
Godda	5.1	-91
Gumla	92.7	13
Hazaribagh	11.2	-82
Jamtara	68.2	-17
Khunti	61.1	-25
Koderna	10.4	-83
Latehar	29.1	-53
Lohardagga	23.2	-60
Pakur	98.8	13
Palamau	110.5	65
Ramgarh	76.2	20
Ranchi	84.4	4
Sahebganj	27.6	-63
Saraikela	45.9	-37
Simdega	95.1	-2
West Singbhum	72.1	2
East Rajasthan		
Ajmer	59.4	49
Alwar	77.2	56
Banswara	3.3	-95
Baran	67.9	-6
Bharatpur	50.1	-1
Bhilwara	38.4	-34
Bundi	65.2	7
Chittorgarh	79.6	13
Dausa	126.2	138
Dholpur	38.6	-40
Dungarpur	3.4	-94
Jaipur	170.3	289
Jhalawar	84.5	0
Jhunjhunu	145.5	375

State/Districts	Actual	% Dep.
Karauli	126.3	116
Kota	74.4	9
Pratapgarh	14.2	-81
Rajsamand	42.3	2
Sawai Madhopur	189.9	211
Sikar	157.6	465
Sirohi	15.5	-79
Tonk	128.3	140
Daipur	17.1	-63
West Rajasthan		
Barmer	8.7	-57
Bikaner	41.8	127
Churu	46.6	129
Hanumangarh	19.6	10
Jaisalmer	9.0	-45
Jalore	19.2	-43
Jodhpur	16.6	-26
Nagaur	54.3	88
Pali	17.0	-52
Sri Ganganagar	7.2	-57
Gujarat Region		
Ahmedabad	0.8	-98
Anand	9.0	-85
Banaskantha	0.1	-99
Baroda	9.5	-85
Broach	5.4	-88
DNH	52.4	-49
Dahod	5.4	-91
Daman	34.8	-66
Dangs	48.7	-58
Gandhinagar	0.8	-98
Kheda	3.4	-94
Mehsana	1.2	-97
Narmada	3.9	-94
Navsari	17.0	-81
Panchmahal	2.4	-96
Patan	1.0	-97
Sabarkantha	1.3	-97
Surat	7.3	-88
Tapi	33.0	-56
Valsad	47.9	-49
Saurashtra, Kutch & Diu region		
Amreli	0.9	-97
Bhavnagar	2.9	-90
Diu	1.7	-93
Jamnagar	1.8	-90
Junagarh	8.8	-74
Kutch	0.1	-99
Porbandar	7.6	-71
Rajkot	2.0	-93
Surendranagar	0.8	-97
Maharashtra		
Konkan & Goa		
Goa	74.0	-42
Mumbai	34.8	-61
Raigad	110.5	-36
Ratnagiri	51.0	-71
Sindhudurg	36.6	-73
Thane	108.3	-15
Madhya Maharashtra		
Ahmednagar	0.8	-96
Dhule	0.8	-97
Jalgaon	5.6	-87

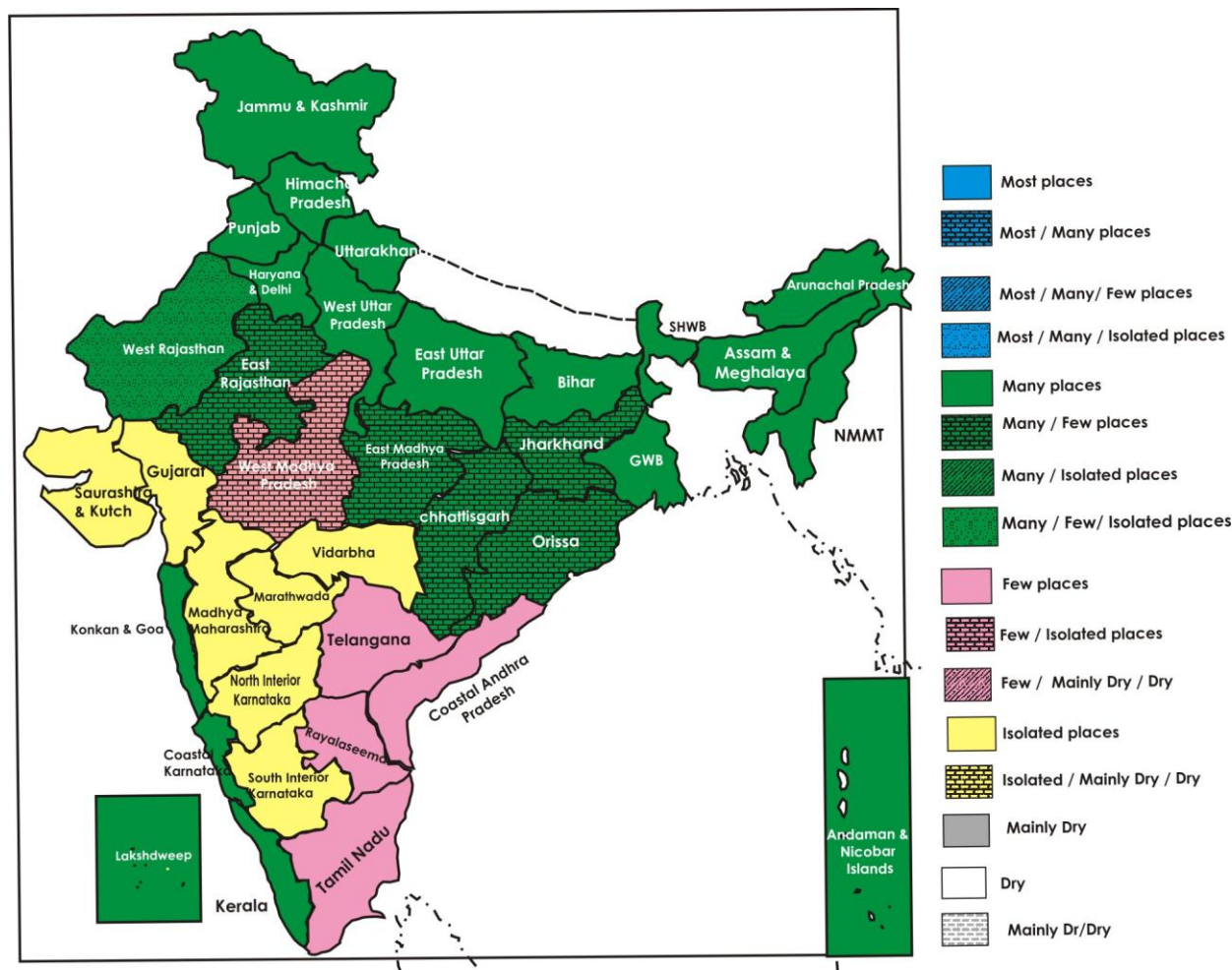
State/Districts	Actual	% Dep.
Kolhapur	19.0	-80
Nandurbar	10.5	-77
Nasik	19.0	-64
Pune	14.8	-66
Sangli	7.3	-62
Satara	13.2	-59
Solapur	5.7	-76
Marathwada		
Aurangabad	4.5	-87
Beed	2.7	-91
Hingoli	33.6	-49
Jalna	1.9	-95
Latur	20.2	-65
Nanded	50.9	-20
Usmanabad	4.7	-87
Parbhani	12.1	-79
Vidarbha		
Akola	26.2	-39
Amraoti	38.1	-28
Bhandara	186.0	115
Buldhana	18.9	-55
Chandrapur	215.1	165
Gadchiroli	232.2	136
Gondia	153.3	62
Nagpur	46.6	-25
Wardha	53.9	-10
Washim	25.3	-56
Yeotmal	94.0	54
Orissa		
Angul	130.2	54
Balasore	81.8	12
Bargarh	178.2	102
Bhadrak	75.6	-3
Bolangir	104.0	25
Boudh	203.9	144
Cuttack	146.0	55
Deogarh	104.7	-6
Dhenkanal	126.4	50
Gajapati	51.5	-20
Ganjam	85.6	37
Jagatsingpur	111.3	8
Jajpur	70.1	-18
Jharsuguda	363.6	286
Kalahandi	89.6	-4
Kandhamal	212.4	154
Kendrapara	109.9	38
Keonjhar	74.9	10
Khurda	110.7	33
Koraput	160.7	77
Malkangiri	195.0	69
Mayurbhanj	82.3	0
Nawapara	53.6	-37
Nawarangpur	101.0	-4
Nayagarh	191.4	144
Puri	88.7	0
Rayagada	82.4	19
Sambalpur	248.9	124
Sonepur	169.8	79
Sundargarh	154.2	82
West Bengal		
GWB		
Bankura	64.4	0
Birbhum	19.1	-67

State/Districts	Actual	% Dep.
Burdwan	40.4	-29
East Midnapore	80.0	22
Hooghly	34.9	-42
Howrah	37.3	-42
Kolkata	111.9	69
Murshidabad	15.6	-71
Nadia	43.1	-26
24 Pargana (N)	56.0	-20
Purulia	73.5	20
24 Pargana (S)	121.3	40
West Midnapore	39.3	-45
SHWB		
Cooch Behar	142.2	28
Darjeeling	93.1	-33
East Sikkim	62.9	-36
Jalpaiguri	162.1	15
Malda	34.1	-51
North Dinajpur	56.5	-18
North Sikkim	57.8	-44
South Dinajpur	98.9	61
South Sikkim	58.7	-41
West Sikkim	45.0	-57
Karnataka		
Coastal Karnataka		
Dakshin Kannada	100.7	-49
Udupi	183.2	-10
Uttar Kannada	115.2	-17
North Interior Karnataka		
Bagalkote	1.5	-90
Belgaum	5.6	-76
Bidar	11.7	-75
Bijapur	3.9	-80
Dharwad	6.8	-65
Gadag	3.9	-72
Gulbarga	7.4	-83
Haveri	7.9	-65
Koppal	4.3	-74
Raichur	1.0	-96
Yadgir	1.9	-95
South Interior Karnataka		
Bangalore Rural	4.6	-86
Bangalore Urban	11.2	-65
Bellary	9.0	-50
Chamarajnar	9.9	-41
Chichballapur	11.0	-59
Chickmagalur	42.6	-55
Chitradurga	5.2	-58
Davangere	5.7	-68
Hassan	9.3	-72
Kodagu	36.5	-72
Kolar	7.0	-70
Mandya	1.6	-91
Mysore	6.5	-61
Ramnagara	15.3	-48
Shimoga	52.8	-40
Tumkur	8.6	-55
Kerala		
Alappuzha	109.7	37
Kannur	89.1	-22
Ernakulam	123.5	45
Idukki	195.0	59
Kasaragod	76.9	-43
Kollam	73.0	18

State/Districts	Actual	% Dep.	State/Districts	Actual	% Dep.	State/Districts	Actual	% Dep.
Kottayam	139.1	56	Nilgiris	47.4	12	Nellore	10.8	-57
Kozhikode	126.1	16	Perambalur	10.3	-58	Prakasam	6.2	-73
Malappuram	57.0	-36	Puducherry	3.1	-93	Sirkakulam	18.3	-61
Palakkad	72.6	-10	Pudukottai	27.3	2	Visakhapatnam	33.5	-20
Pathanamthitta	175.5	121	Ramanathapuram	1.4	-86	Vizianagram	28.6	-39
Thiruvananthapuram	50.1	48	Salem	21.8	-20	West Godavari	17.4	-65
Thrissur	97.3	-4	Sivaganga	21.0	12	Telangana		
Wyanad	33.5	-75	Thanjavur	18.1	-31	Adilabad	111.2	63
Tamil Nadu			Theni	14.7	65	Hyderabad	5.0	-89
Ariyalur	54.1	88	Tirunelveli	4.2	-40	Karimnagar	84.4	54
Chennai	9.5	-76	Tirupur	0.8	-90	Khammam	32.9	-34
Coimbatore	9.4	-3	Tiruvallur	17.0	-47	Mehabubnagar	3.4	-91
Cuddalore	26.6	-10	Tiruvannamalai	53.8	44	Medak	21.7	-61
Dharmapuri	28.5	1	Tiruvarur	24.8	0	Nalgonda	14.8	-54
Dindigul	19.6	5	Toothukudi	0.0	-100	Nizamabad	63.6	-17
Erode	31.4	121	Trichy	42.8	150	Rangareddy	6.1	-87
Kanchipuram	24.0	-47	Vellore	34.6	-3	Warangal	65.5	41
Kanyakumari	36.0	76	Villupuram	22.0	-36	Rayalaseema		
Karikal	0.6	-97	Virudhunagar	12.5	26	Anantapur	2.8	-85
Karur	22.1	69	Andhra Pradesh			Chittoor	24.1	-4
Krishnagiri	14.7	-46	Coastal Andhra Pradesh			Cuddapah	16.1	-42
Madurai	26.2	28	East Godavari	14.3	-65	Kurnool	15.1	-51
Nagapattinam	14.2	-35	Guntur	19.0	-46			
Namakkal	14.7	-34	Krishna	8.4	-81			

	(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 (Valid upto 0830 hours of 26th August, 2012)



Major Feature of Weather Forecast up to 0830 hours IST of 26th August, 2012

- Rain/thundershowers would occur at many places over western Himalayan region.
- Rain/thundershowers would occur at many places over Rajasthan and Indo Gangetic Plains.
- Rain/thundershowers would occur at many places over SubHimalayan West Bengal & Sikkim, northeastern states, west coast, Lakshadweep and Andaman & Nicobar Islands.
- Rain/thundershowers would occur at a few places over east Madhya Pradesh, Chhattisgarh, Jharkhand and Odisha during next 48 hours and increase thereafter.
- Rain/thundershowers would occur at a few places over Andhra Pradesh, south interior Karnataka and Tamilnadu.
- Rain/thundershowers would occur at one or two places over rest parts of the country.

Weather Warning during next 3 days

- Heavy rainfall would occur at one or two places over Jammu division of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, east Rajasthan, Uttar Pradesh, Bihar, SubHimalayan West Bengal & Sikkim and Assam & Meghalaya during next 48 hours.

Weather Outlook for subsequent 4 days up to 0830 hours IST of 30th August, 2012

- Rainfall would occur at many places over many parts of the country outside Gujarat state and southeast peninsula where it would be at one or two places.

Zonewise Agromet Advisories

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

- **Realised Rainfall:** Most of the districts of the States of the region received rainfall during last week.
- **Rainfall Forecast:** Rain / thundershowers would occur at many places over the States of the region during the period.
- **Warning:** Heavy rainfall would occur at one or two places over Assam & Meghalaya during next 48 hours.
- **Advisories:**
 - As most of the districts of the States of the region received rainfall during last week and rain is also likely to occur at many places during the period, farmers are advised to postpone irrigation, intercultural operation and application of fertilizers and plant protection measures to the crops.
 - Farmers in the areas where flood water has been receded, are advised to raise community nursery for late transplanting with old seedlings of the varieties like Profulla and Gitesh (if more than 50% area damaged) or nursery raising of the photo insensitive short duration variety like Luit for re-transplanting (in case of total damage). Farmers may also transplant traditional varieties of *sali* rice up to the end of August. Adopt submergence tolerance varieties like Jalashree and Jalkuwari for repeatedly flood prone areas.
 - In flood affected areas of Hill Zone of Assam, the short duration varieties of rice like Luit, Kapilee, Dichang etc. can be sown directly in puddled fields with sprouted seeds up to middle of September. Farmers can also sow sesame in August or green gram and black gram up to mid-September in medium and upland situation. Farmers can also raise community nursery, if individual farmer does not have suitable land for nursery due to inundation by flood water.
 - Farmers in Hill Zone and lower Brahmaputra valley Zone of Assam are advised to continue transplanting of *sali* rice and gap filling with seedlings of *sali* rice within 7-10 days of transplanting. Farmers are also advised to undertake land preparation and sowing of black gram and green gram and nursery sowing of early cauliflower.
 - Farmers in Upper Brahmaputra Valley Zone of Assam are advised to continue sowing of *sali* rice and harvesting of matured jute and retting properly. Farmers are also advised to undertake sowing of sesame and *Capsularis* and *Olitorius* jute for seed purpose.
 - Farmers in North Bank Plain Zone of Assam are advised to continue land preparation and sowing of green gram, black gram, early cauliflower and radish. Farmers are also advised to continue transplanting of short duration HYV rice in the main field of flood affected area.
 - Farmers in Central Brahmaputra Valley Zone are advised to undertake sowing of black gram and intercultural operation of *kharif* sesame and arhar. Harvesting of *Olitorius* jute may be continued.
 - Farmers in Barak Valley Zone of Assam are advised to complete transplanting of semi dwarf *sali* rice. Select upland sandy loam soil for the cultivation of *Dolichos* bean (locally known as sheem) and nursery sowing of early cauliflower. Farmers are also advised to undertake sowing of *Kharif* sesamum under upland situation.
 - Farmers in Sub Tropical Hill Zone of Arunachal Pradesh are advised to harvest matured early sown rice (jhum), black gram, green gram. Farmers are also advised to undertake nursery preparation of early cauliflower and cabbage.
 - In Mild Tropical Hill Zone of Mizoram, farmers are advised to continue land preparation for sowing of black gram and nursery sowing of tomato and cole crops and undertake harvesting of okra, bean, cowpea etc.
 - In Mild Tropical Hill Zone of Nagaland farmers are advised to harvest matured maize cob, cucumber, cowpea and beans. Arrange for good drainage in papaya as water logging is harmful for the plant. Undertake sowing of soybean.
 - Farmers in Sub Tropical Plain Zone of Manipur are advised to sow late varieties of rice i.e. RC Maniphou 7. Continue land preparation for nursery sowing of cauliflower and cabbage. Undertake land preparation and sowing of black gram, French bean and broad bean.
 - In Temperate Sub Alpine Zone of Meghalaya, farmers are advised to undertake land preparation and sowing of *Dolichos* bean, French bean, pea, mustard and garlic and planting of pineapple.

- In Mild Tropical Plain Zone of Tripura, Farmers are advised for harvesting of maize and planting of banana.
- Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
- In Lower Brahmaputra Valley Zone and Hill zone of Assam, infestation of rice hispa in *sali* rice at tillering stage is observed in some parts of the district; spray Chloropyriphos 20 EC (0.02%) or Quinolphos 25 EC (0.025%) or Monocrotophos 40 EC (0.04%) to control the attack.
- In Barak valley Zone of Assam blast disease as well as stem borer may be seen in *sali* rice; spray Bavistin @ 1 g / litre of water as soon as one or two blast spots are seen. To control stem borer, apply Carbofuran (Furadon 3G) @ 3 g/m².
- In Mild Tropical Plain Zone of Tripura, due to prevailing weather conditions, there is chance of attack of sheath blight in upland rice. To control sheath blight, Bavistin 50 WP @ 1 g per liter of water may be applied. Also there is chance of attack of yellow vein mosaic virus in ladies finger. To manage the attack, spray Cypermethrin @ 1.5 ml per litre of water.
- In Sub Tropical Plain Zone of Manipur and Mild Tropical Hill Zone of Mizoram, tikka disease and hairy caterpillar may occur in groundnut. To control tikka disease, apply Carbendazim @ 0.5 g / litre of water. To control hairy caterpillar, spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml / litre of water.
- In Sub Tropical Hill zone of Arunachal Pradesh, stem borer may infest citrus plants; apply a paste made by mixing lime, water and 5% Malathion dust on the stems of the plants up to a height of about 1 m from the ground.
- Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
 - In North Bank Plain Zone of Assam and Sub Tropical Plain Zone of Manipur, farmers are advised to vaccinate cattle and buffaloes against FMD, HS and BQ, pigs against swine fever. Farmers are advised to vaccinate poultry against Ranikhet and coccidiosis. Deworm goat and sheep against Fascioliasis and Vaccinate against H.S.
 - In Mild Tropical Hill Zone of Mizoram, farmers are advised to deworm cattle against Fascioliasis, vaccinate poultry against Ranikhet and Coccidiosis, deworm pig and vaccinate against swine fever.
 - In Mid Tropical Plain Zone of Tripura, due to congenial weather, farmers are advised to vaccinate and deworm cattle against FMD, poultry against Ranikhet, pigs against swine fever.
 - Farmers in Sub Tropical Hill Zone of Arunachal Pradesh are advised to vaccinate poultry against Ranikhet and apply ointment (like Himex-Tropical application) to goat and sheep against heal or wound infection.
 - In Mild Tropical Hill Zone of Nagaland, farmers are advised to take precaution against Japanese encephalitis, a mosquito borne disease in pigs / piglets. Avoid stagnant water in and around the sty, maintain proper hygienic condition. Provide ample quantity of clean drinking water for prevention of poultry diseases.
- **Pisciculture**
 - Farmers in Barak Valley Zone of Assam are advised to supply feed in adequate amount to help the fingerlings to grow well. Necessary precautionary measures should be adopted so that embankments of the ponds are not submerged during flood.
 - Farmers in Manipur, Mizoram are advised to keep pond free from unwanted vegetation and insects. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.

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

- **Realised Rainfall:** Significant rainfall occurred in all of the districts of Orissa, Gangetic West Bengal, (except Birbhum and Murshidabad), Sub Himalayan West Bengal, Sikkim, Jharkhand (except Godda, Hazaribagh, Koderna, Latehar, Lohardagga, Sahebganj) and Bihar (except Banka, Begusarai, Bhojpur, Buxar, Gopalganj, Jahanabad, Jamui, Kathihar, Lakhisarai, Madhubani, Purnea, Samstipur, Sheohar, West Champaran) during last week.

- **Rainfall Forecast:** Rain / thundershowers would occur at many places over Sub Himalayan West Bengal and Sikkim, Gangetic West Bengal and Bihar during the period. Rain / thundershowers would occur at a few places over Orissa and Jharkhand during next 48 hours and increase thereafter.
- **Warning:** Heavy rainfall would occur at one or two places over Bihar and Sub-Himalayan West Bengal & Sikkim during next 48 hours.

Advisories:

- As there was significant rainfall in most of the districts of the States of the region and rain is also likely to occur at many places, farmers are advised to postpone irrigation, intercultural operation and application of fertilizers and plant protection measures.
- In Bihar, in the upland areas, where paddy crop could not be transplanted, farmers can start sowing of September pigeon pea after 25th August, utilizing recent monsoon rainfall. Farmers are also advised to adopt contingent crop planning such as short duration crops (sunflower, maize, urd, bhindi) on upland fields. Sowing of tobacco and vegetables may also be undertaken.
- The farmers of East and South Eastern Coastal Plain Zone of Orissa are advised to complete sowing of green gram, black gram, cowpea, planting of papaya and brinjal and nursery raising of tomato.
- The farmers of North Central Plateau Zone of Orissa are advised to undertake banana planting. They are also advised to drain out excess rain water from the fields of arhar and maize crops as these crops are susceptible to water stagnation.
- Due to heavy rainfall, if the field bunds are damaged and large holes are formed, farmers of North Eastern Plateau Zone of Orissa are advised to plug the hole and repair the bunds to further store and conserve the rain water for better water management in Rice fields.
- The farmers of North Eastern Plateau Zone of Orissa are advised to complete the transplanting of rice at the earliest and prepare the field for sowing of rainy season vegetables like bhindi (lady's finger), bean, French bean, tomato, cauliflower, cabbage etc. and also planting of brinjal.
- The farmers of Mid Central Table Land Zone of Orissa are advised to undertake lemon planting.
- In Central and North Eastern Plateau Zone of Jharkhand, farmers are advised to undertake short duration varieties of arhar, groundnut, rice, urad, turmeric, jowar, soybean and okra for inter cropping. Farmers are also advised to sow til, kulthi and grow African marigold or French marigold. Weeding, intercultural operation should be done in ginger and 30 days old crop of pigeon pea.
- In Western Plateau Zone of Jharkhand, farmers are advised to complete sowing of different *kharif* crops at an early date with early duration varieties; undertake sowing of short duration varieties of different *kharif* crops like rice, urad, groundnut, arhar, maize and rainy season vegetables like bhindi, bean, French bean, tomato, cauliflower, cabbage, brinjal, chilli etc. Farmers, who have not sown *kharif* crops in upland till now, may sow kulthi or safflower.
- Farmers in Coastal Saline Zone of West Bengal are advised to complete the transplanting operation of rice as soon as possible and also start transplanting of SRI rice in the main field.
- In view of likely occurrence of rainfall in New Alluvial Zone of West Bengal, farmers can sow composite varieties of maize under upland to medium land situation.
- Utilising recent monsoon rainfall, farmers in Laterite and Red Soil Zone of West Bengal are advised to complete transplanting of *aman* rice and take short to medium duration variety for delayed sowing. Farmers are advised to undertake sowing of monsoon vegetables like bhindi, beans, French bean, tomato etc.
- Farmers in Old Alluvial Zone of West Bengal are advised to complete the transplanting operation of *aman* rice and also harvest already matured jute crop and start retting. Farmers are also advised to sow short duration varieties of rice, if *aman* rice is not yet sown, after harvesting of jute.
- Farmers in Hill Zone of West Bengal are advised to start seedbed preparation of early cauliflower.
- Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
- Ant attack in **groundnut** has been found in dry areas in Kendrapara and Puri district of East and South Eastern Coastal Plain Zone of Orissa. The farmers are advised to go for soil drenching with 2 ml Chloropyrifos per litre water thoroughly. Leaf miner has also occurred in groundnut. Spray 2 ml Chloropyrifos / litre water to control it.
- There is incidence of *Alternaria* blight and bacterial leaf spot on cotton crop in some places of Western Undulating Zone (Bhavanipatana) of Orissa. The farmers are advised to Spray Mancozeb @ 2.5 g per

litre water for *Alternaria* blight and for bacterial leaf spot, spray Steptocycline @ 0.1 g with copper oxychloride @ 2.5 g per litre of water. Spray 500 litres of these solution for one hectre area. There is incidence of root rot disease in some place. Drench the root zone with Bavistin @ 2 g / litre of water to control the disease. To watch the movement of boll worm fix five nos. of pheromone traps and 20 nos. of bird perch per hectre.

- Fruit and shoot borer in brinjal has been found in Mid Central Table Land Zone of Orissa. Farmers are advised to install Pheromone traps @ 12 nos / acre. Alternately, spray 4 g Sevin WP or 2 ml Malathion in 1 litre water. Thrips in Chilli has been found. Spray 300 ml Ethion or 400 ml Carbosulphan in 200 litre water / acre.
- Early shoot borer infestation has been found in sugarcane crop in Mid Central Table Land Zone of Orissa. If it crosses the ETL level (5% dead heart), carry out hoeing, weeding and apply 4 kg phorate or 12 kg Carbofuran or 10 kg Cartap followed by earthing up or spray 400 ml Monocrotophos or Tryozophos or Profenophos.
- Infestation of thrips on groundnut crop has been occurred in Mid Central Table Land Zone of Orissa. Spray 2 ml Endosulphan in 1 litre water. White ant and white grub attack has been found. Carry out thorough soil drenching with Chloropyriphos solution @ 2 ml / litre water. Bud necrosis has also been found. Spray Imidacloprid @ 4 ml / 10 litre water to control the vector.
- In Nayagarh district in East and South Eastern Coastal Plain Zone of Orissa, infestation of early shoot borer in sugarcane has been found. Release 50,000 *Trychogramma chilonis* parasite to control the borer. Otherwise install 4 to 5 pheromone traps per acre to attract the borer or spray 400 ml Monocrotophos or Quinalphos in 200 litres of water per acre.
- Under prevailing weather situation, in Laterite and Red Soil Zone and New Alluvial Zone of West Bengal, Gandhi bug may attack *aus* rice; apply Dichlorovos 76% or Malathion 2% per litre of water. Green leaf hopper may attack *aman* rice. Use Azadirectin 1% EC @ 3 ml, Chlorpyriphos 20% @ 2.5 ml or Acephate 75% @ 0.7 g. combined attack of Downy mildew and Mosaic may be seen in pointed and bitter gourd. Apply Ridomil –MZ @ 2 g per litre of water to control the attack.
- In Hill Zone of West Bengal, fruit and shoot borer may infest tomato, okra, chilli and brinjal. To manage fruit and shoot borer, spraying should be done with Malathion @ 1 ml / litre or Dichlorovos @ 1 ml / litre of water. Tea may be infested by mites. For protection, the crops may be sprayed with Dicofol @ 1 ml / litre of water. Stem borer, leaf folder, blast or brown spot may be found in rice. For protection against the stem borer and leaf folder, spray either with Chlorpyriphos @ 2.5 ml / litre or Monocrotophos @ 1.5 ml / litre of water and for blast or brown spot, spray Ediphenphos @ 1ml / litre of water.
- As there is possibility of rain and high humidity in Terai Zone of West Bengal, sheath blight and kharia disease may be found in rice and collar rot in chiili. For sheath blight, spray Carbendazim 1 g per litre of water or validamycin @ 2 ml per litre of water. For kharia spray the mixture of zinc sulphate and quick lime @ 12 g and 6 g per katha.
- Apply plant protection measures after current spells of rain.
- Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
- The farmers of North Eastern Plateau Zone Orissa are advised to provide clean and concentrate feed to the cattle, and mix with dry and green fodder. Insure for enrich diet having protein, carbohydrate, fat, vitamins. Arrange for vaccination to prevent from Foot and Mouth disease. Use potassium permanganate @ 5 ml per liter of water to clean the infected parts of the animals, as a precautionary measure. Vaccinate cattle against Anthrax disease, and arrange medicine against worm infection during rainy season. During the present monsoon season, there are low light duration due to cloudy weather condition on most of the days and hence, farmers are advised to increase light duration in poultry farms.
- **Pisiculture**
- The farmers of North Eastern Coastal Plain Zone of Orissa are advised to purchase fish seeds from a reliable fish seed producer and stock 3000 nos. of advance fingerlings of more than 8 cm size per one acre. In case of three species combination, the stocking numbers should be for Catla-900, Rohu-1200 and Mrigal-900. In case of six species combination, the stocking numbers should be for Catla-800, Rohu-1200, Mrigal-500, Common carp-300, Grass carp-100 and Silver carp-100. In any situation, the average water depth of the pond should not be less than 5ft level.

- The farmers of North Eastern Plateau Zone Orissa are advised to apply Mahua Oil cake @ 1 ton / ac to kill the predator fishes, where the pisciculture activities are to be taken in new water bodies. Collect 4000 no. of fish fry / acre in the ratio of 4:3:3 (Catla : Rohu : Mrigal). For Ph correction of water add 250 kg of lime / 1 hamt of water.
- Under current weather condition, farmers are advised to provide vaccination to their cattle to protect from contagious diseases in North West Alluvial Plain Zone of Bihar.

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

- **Realised Rainfall:** Significant rainfall occurred in most of the districts of Himachal Pradesh (except Kinnaur, Lahaul and Spiti), Gurdaspur, Hosiarpur, Kapurthala, Ludhiana, Nawashahar and Ropar districts in Punjab, many districts in Haryana(except Fatehabad, Karnal, Kurukshetra, Mewat, Palwal, Panipat and Sirsa districts), Delhi, Jammu, Kathua, Rajouri, Ramban, Reasi, Samba and Udhampur districts of Jammu & Kashmir, Ambedkar Nagar, Azamgarh, Bahraich, Banda, Chandauli, Gazipur, Gorakpur, Hardoi, Kanpur Dehat, Kheri, Lucknow, Mirzapur, Sant Kabir nagar, Shaswati, Sitapur, Sonbhatra and Unnao districts, many districts of West Uttar Pradesh, all the districts of Uttarakhand, most of the districts of East Rajasthan and Bikaner, Churu and Nagaur districts in West Rajasthan.
- **Rainfall Forecast:** Rain/thundershowers would occur at many places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Uttar Pradesh, Punjab, Haryana and East Rajasthan during next three days and over West Rajasthan during next 48 hours and decrease thereafter.
- **Warning:** Heavy rainfall would occur at one or two places over the region except West Rajasthan during next 48 hours.
- **Advisory:**
 - As rain / thundershowers would occur at many places over the region, farmers in are advised to postpone irrigation, weeding, intercultural operation and application of fertilisers to the standing crops in all States of the region. In view of occurrence of heavy rainfall in one or two places over the region except West Rajasthan during next 48 hours, arrange for adequate drainage in standing crops to avoid stagnation of water.
 - Farmers in Flood prone Eastern plain zone (Bharatpur) in East Rajasthan are advised to undertake transplanting of marigold, balsom, bougainvilla and xenia utilizing realized rainfall during last week. Sowing of dhaincha (sesbania) in fallow land may be done for green manuring purpose. Transplanting of onion seedlings and raising of nursery of early cauliflower may be done. Carry out weeding and maintain plant population by thinning in timely sown crop like cluster bean, pearl millet, sesame, moong and groundnut. Undertake sowing of early radish.
 - In Aravali Hill Zone (Udaipur) in East Rajasthan, farmers are advised to undertake top dressing of urea in maize. Install five pheromone traps per ha in cotton fields for assessment of bollworm incidence in cotton. To protect citrus plants from canker use Streptocyclin @ 250mg & Bavistin @ 1 gm per litre water. Repeat spray at an interval of 20 days.
 - Farmers in Semi Arid Eastern Plain Zone (Jaipur) in East Rajasthan are advised to undertake hoeing and weeding and top dressing in pearl millet, maize and sorghum and irrigated groundnut. Continue sowing of early radish, okra and spinach. Adopt proper drainage to remove stagnant water from standing crops. In Semi Arid Eastern Plain Zone(Jaipur), farmers are advised for sowing of sweet potato and raising nursery of cauliflower.
 - In Transitional Plain Zone of Inland drainage (Fatehpur) of West Rajasthan, farmers are advised to undertake hoeing and weeding in timely sown *kharif* crops.
 - In Arid Western Plain Zone (Jodhpur) in West Rajasthan, farmers are advised to sow carrot and undertake planting of tomato, brinjal, onion, cabbage and chilly.
 - In irrigated northwestern plain zone of Rajasthan, farmers are advised to do the top dressing of 1/3 rd dose of urea in rice.
 - In Cold Arid Zone of Jammu & Kashmir, farmers are advised to continue sowing of legumes as fodder or pea mixed with maize and millets to enrich the soil.
 - In Intermediate zone of Jammu & Kashmir, farmers are advised to continue nursery sowing / transplanting of knol-khol, cabbage and cauliflower and sowing of bhindi, radish, pumpkin, bitter gourd, bottle gourd, sponge gourd, carrot and turnip. Also advised to undertake top dressing in rice, maize, bajra and pulses.
 - In Valley Temperate zone of Jammu & Kashmir, farmers are advised to undertake transplanting of seedlings of cole crops (cauliflower and cabbage) and sowing of root crops.
 - Farmers in East Uttar Pradesh are advised complete sowing of *kharif* crops like jowar and bajra and transplanting of rice as early as possible, if not transplanted till now. Farmers are advised for intercropping of pigeon pea with jowar.

- Farmers in West Uttar Pradesh are advised to complete transplanting of rice and sowing of sorghum and bajra. It is also advised for transplanting of early varieties of tomato, brinjal, cauliflower and celery. Weeding, hoeing top dressing of fertilizers in sugarcane, early sown *kharif* maize, sorghum and vegetables may be done.
- Farmers in Himachal Pradesh are advised to undertake sowing of French bean, nursery sowing of cauliflower and direct sowing of medicinal plants like ashwagandha. Late planting of cabbage and cauliflower may be done. Maintain 4-5 cm standing water in rice field.
- In Bhabar and Tarai Zone of Uttarakhand, farmers are advised to maintain proper drainage in all standing field crops like soybean, groundnut, maize, pigeon pea, gahat, kutoo mandua and madira and remove weeds during this week. Continue transplanting of seasonal grasses for fodder to animals.
- In (Roorki) Sub humid sub tropic Zone of Uttarakhand, farmers are advised to weeding in rice and spray of Urea at required amount after current spells of rainfall in vegetables like brinjal, chilli, lady's finger to recover from waterlogging.
- In Delhi, farmers are advised for transplanting of brinjal, tomato, chilli, cauliflower, cabbage and onion. It is suitable time for preparation of nurseries of cauliflower for mid season (Nov.-Dec.). Farmers are advised to prepare nursery for cauliflower. Prepare field and undertake sowing of sarson, radish and spinach. Weeding and hoeing may be done in all crops and vegetables. After that split dose of nitrogen may be broadcasted. Intercultural operations in sugarcane are advised to remove the weeds.
- Farmers in Punjab are advised to sow leguminous and non-leguminous fodder crops in mixture i.e. maize + cowpea, sorghum + guara. Start sowing of cauliflower with mid season varieties like Punjab Giant 26 in one marla bed area. Collect and destroy the infected shoots of sugarcane affected with different borers particularly Gurdaspur borer at weekly interval regularly to prevent further infestation of the healthy canes.
- Farmers in Eastern Zone of Haryana are advised to sow the fodder crops (bajra, jowar, Makchari, lobia & Sudan grass) in fallow land where sufficient rain occurred at the earliest. Do intercultural operations for conserving the moisture and removing weeds and diseased plants in cotton crop. Keep the rice field saturated by applying irrigation water as per requirement of the crop and remove the weeds. Farmers in Western Zone of Haryana are advised to keep rice crop weed free and apply recommended dose of fertilizers. Avoid water stagnation for extended period in existing vegetable crops. Stages of major crops are mentioned in Annexure I.
- In Transitional plain zone of luni basin (Fatehpur) in East Rajasthan, white grub attack is seen in groundnut & pearl millet. Farmers are advised to apply Chloropyriphos @ 4 litre with irrigation water or mix the above chemical in 80-100 kg pure sand (Bajri) & broadcast in field when there is sufficient soil moisture.
- In Arid Western Plain Zone (Jodhpur) in West Rajasthan, farmers are advised to spray the solution of Borax 0.4% (4 gm/lit water) and zinc sulphate 0.2% (4 gm/lit water) in Amla.
- In irrigated northwestern plain zone of Rajasthan, sucking pests like green moth, white fly and thrips are observed. Farmers are advised to spray mixture of Triazophos 25 ml or Thimithogzham 25 W.G 0.5gm/lit water. For the green moth spray Acephate 70 S.P. 2 gm/lit water. In Desi kapas spotted bollworm is observed to control it, spray Fenvalerate/Endoscarb 1 ml/lit of water. In guar field, there may be occurrence of sucking pests like white fly, green moth. If there is more infestation, farmers are advised to spray mixture of Triazophos 25ml or Acetamiprid 0.4 gm/lit water.
- In Barbar & Tarai region of Uttarakhand, if there is incidence of leaf folder insects in rice crop and damage to leaves is >5%, then for plant protection it is advised to spray 400 ml of 30 EC Diamethoate dissolved in 400 liter of water/ acre crop area.
- In Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh, weather is conducive for blast in paddy, for control spray the crop with Blitox 50 (Copper oxychloride) with 2.250 kg Blitox 50 or 750 g Bavistin 50 WP or 750 ml Hinosan in 750 litre of water/ha. Fruit borer is also appearing in brinjal, okra and tomato, for control spray Carbaryl @ 2g /litres. Weather is conducive for attack of white fly in cucurbits, tomato and French bean, for control spray Acephate @0.05% (7g/litres of water) and direct the spray on lower leaves.
- As there is increase in humidity, there may be attack of jassid on the cotton crop in Eastern Zone of Haryana. Farmers are advised to spray the recommended insecticide if there is incidence.
- Due to humid weather conditions in Delhi, there may be increase in population of insect pests of cotton. Farmers are advised to install pest specific pheromone traps in the fields.
- Under present weather conditions, damage by leaf folders in paddy crop is reported by farmers. To control the pest, mechanical methods, such as rope method (to dislodge the larvae) is advised.
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- **Animal Husbandry**

- In Sub humid sub tropic of Uttarakhand, it is advised to vaccinate the animals for various diseases as they are more prone to diseases in this weather. For the control of cough use Piperazine citrate @ 30-50 ml/animal. Vaccination for Ranikhet disease in poultry should be done.
- In Himachal Pradesh, weather is conducive for spread of FMD and galgotu so, farmers are advised for vaccination of animals against FMD. Feed pregnant and lactating cows and buffaloes 2 kg feed for their body maintenance and additional 1 kg for developing calves. Weather is conducive for ticks and mites attack on animals for control spray Butox @ 2.0 ml per litres of water. Ensure proper drinking water. Feed pregnant and lactating cows and buffaloes with balance feed including mineral mixture. Put uromin bricks for licking to animals for 5 minutes in morning and evening. Ensure proper drainage in the surroundings of cowshed. Clean the cowshed with phenyl to prevent mastitis disease in animals.
- In Jammu & Kashmir, farmers are advised to vaccinate animals against FMD. Weather is conducive for ticks and mites attack on animals. For control spray Butox@ 2.0 ml per litres of water. Ensure proper drainage in the surroundings of cowshed.
- In temperate valley zone of Jammu & Kashmir, due to the increase in day temperature animals should be fed low energy diets and should provide fresh cool drinking water. Poultry birds should be reared in well ventilated sheds. Enough of vitamins should be provided through drinking water. Strict sanitary measures should be followed to avoid the spread of diseases.
- In Arid Western Plain Zone (Jodhpur) in Rajasthan, farmers are advised to spray insecticides in animals and cattle houses. For infected animals and cattles spray butox 2-4ml /lit water. Keep their houses clean and dry.
- In Semi Arid Eastern Plain Zone (Jaipur), farmers are advised not to allow water to stagnant in their sheds.
- In West Uttar Pradesh, animal should be bathed before milking. Balanced diet should be given for milch animal with 50% green fodder and use fresh water for drinking. Common diseases among animals are Anthrax (high fever and enlargement of spleen), Gala Ghotu (respiratory trouble and Surra (sudden death of animals after restlessness)). The routine immunization of animals is necessary since disease decrease milk production.

- **Horticulture :**

- In Himachal Pradesh, give support to the branches of apple so that branches should not break due to fruit load. Good rains already received and also expected in next week, so keep the basins of the plants free from weeds and well drained. It is time for plantation of evergreen plants like mango, litchi, guava, citrus, loquat and amla. Plant the saplings in 3x3x3 cubic feet pit. Add 40-50kg FYM+SSP300g + Chlorpyrifos 10ml/10litres of water per pit before planting. The ensuing weather is conducive for the attack of leaf miner in new growth of citrus. For its control, spray 10 ml Matasystox or Malathion 10 ml in 10 litre of water. The new growth appearing below bud union may be cut.
- In valley temperate zone, do budding operations in apple trees. Use well grown bud material from known mother plants. Harvest apple and pear when they attain proper size and develop at least 50 % of the variety color. Harvest grapes when they berries in the bunch have attained proper size, develop variety color and sweetness.
- Flood prone Eastern plain zone (Bharatpur) in East Rajasthan, prepare check basin around the young plant of last year transplanting for efficient rain water utilization.
- In irrigated northwestern plain zone of Rajasthan, farmers are advised to prepare nursery for kinnow fruit.

- **Apiculture :**

- In Sub Tropical (Chatha) Zone and Intermediate (Pahalgam) Zone of Jammu & Kashmir, farmers are advised to check ants by placing leg of bee hives stand in water pots & feed the colonies with sugar water solution in the ratio of 2:1. Check ectoparasitic mite infestation by dusting sulphur. Keep bee colonies in shade or cover with wet gunny bags. Provide ventilation by placing a small stock in between brood chamber. Kill wasps with a wooden flapper and also by dusting or spraying with insecticides.
- In Intermediate zone, dust sulphur @ 1 g/frame on top bars to control ectoparasitic mite. Control wax both by fumigating frames with aluminium phosphide tablets before using them. Destroy wasp nests by dusting or spray insecticides and kill wasps colonies by wooden flappers.

- **Floriculture :**

- In Flood Prone Eastern Plain Zone (Bharatpur) of Rajasthan, farmers are advised to transplant Marigold, Balsom and Xenia. Plant cuttings of *Bougainvillea*, Mogra and Chameli. Dip cuttings in 5000 ppm IBA solution for quick rooting.
- In Himachal Pradesh it is advised to control of mites in carnation by spray of diclofol @ 1 ml per litres of water and repeat spray in 15 days interval if problem persists. In already planted summer annuals, pinching is advised. Weather is conducive for appearance of red spider mites in carnation, for control spray cypermethrin or nuvacson

@0.05%. A heavy rain is expected so skip irrigation and ensure proper drainage to flowers beds. Weather is conducive for attack of blue beetle in roses and balsam, for control spray Metacid @ 0.05%.

**SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]
WEST INDIA [GOA, MAHARASHTRA, GUJARAT]**

- **Realised Rainfall:** All districts in Konkan region, Amravati, Gondia, Wardha, Nagpur, Chandrapur, Bhandara and Gadchiroli districts in Vidarbha and Nanded and Hingoli districts in Marathwada received significant rain during last week. Valsad, Dangs and Tapi districts in Gujarat region received significant rain during last week.
- **Rainfall Forecast:** Rain / thundershowers would occur at many places over Konkan and at one or two places over Madhya Maharashtra, Marathwada, Vidarbha and Gujarat State.
- **Advisories:**
 - Farmers in Konkan are advised to maintain 5 cm water level in already transplanted rice field. Apply second dose of nitrogenous fertilizers i.e. 870 g Urea per 1 R area. Complete earthing up in 35 to 40 days old groundnut. Undertake planting of all fruit crops by removing plastic bag without disturbing the soil of the graft.
 - As Aurangabad, Beed, Jalna districts in Marathwada, Ahmednagar, Solapur, Satara and Sangli districts and eastern talukas of Pune district in Madhya Maharashtra and Buldhana district in West Vidarbha received no significant rain during last few weeks and no significant rain is expected during next 2-3 days, crop growth is likely to be affected by water stress. Farmers are advised to undertake moisture conservation practices like mulching, intercultural operations and weeding in the crop field and apply supplementary irrigation, if possible.
 - As there was significant rain during previous week, farmers in Pune district are advised to complete sowing of contingency crops like sunflower, red gram and castor. Farmers in Eastern Pune district are also advised to adopt intercropping of sunflower + tur (2:1) and sow early maturing marigold, okra, guar, cucumber, snake gourd, bitter gourd and bottle gourd.
 - Farmers in Madhya Maharashtra and Marathwada are advised to sow giant bajra or sorghum (Phule Ruchira, Phule Amruta) in light soils upto end of August to meet the fodder shortage.
 - Solapur district received deficient rain during last few weeks and isolated rain is expected during next 2-3 days; farmers are advised to wait for adequate rain and undertake sowing or re-sowing of sole crops like sunflower, red gram and castor after receipt of sufficient rain.
 - Farmers in Nasik district (Western Ghat region) are advised to undertake weeding in paddy and maintain proper water level in transplanted rice. They are also advised to apply top dressing with 20 kg N / ha to finger millet.
 - As all districts in Marathwada region (except Nanded, Hingoli), North Madhya Maharashtra received insignificant rain during last two weeks and isolated rain is expected during next 2-3 days, farmers are advised to undertake moisture conservation practices like mulching, inter-culture and weeding in the crop field and apply supplementary irrigation, if possible.
 - Farmers in Vidarbha are advised to complete transplanting of 21 to 25 days old rice (dhan) seedlings. Transplant 2 to 3 seedlings per hill. Farmers of Vidarbha (East and West) are advised to undertake weeding, hoeing in late sown soybean, cotton and red gram.
 - In North Saurashtra Zone of Gujarat State, South West monsoon remains scanty and prolonged dry spell persists. Farmers who have irrigation facility are advised to apply lifesaving irrigation through drip method under acute moisture stress condition. Where crop is failed, sowing of castor, sesame, dual-purpose sorghum, ajwan etc. may be undertaken after receipt of sufficient rain or with irrigation facilities.
 - Farmers in South Saurashtra Zone of Gujarat are advised to carry out hand weeding and apply irrigation to vegetables. Carry out sowing of castor with irrigation and also apply irrigation in cotton if irrigation facility is available.
 - In Kutch region, farmers are advised to carry out sowing of maize, sorghum, lucerne, bajra, cowpea etc. for green fodder after the receipt of sufficient rainfall. Increase the area under fodder crops.
 - In North Gujarat Zone, complete sowing of castor, fodder sorghum, maize, sesame and cluster bean utilising rainfall occurred during previous week. In Ahmedabad district farmers are advised to complete sowing of castor, after receipt of sufficient rain, up to 25th August to protect the crop from the castor

semi looper. Carry out sowing of short duration varieties of cluster bean and sorghum. Carry out intercultural operation and hand weeding in the standing crops.

- In South Gujarat Heavy Rainfall Zone of Gujarat, carry out sowing of maize. Valsad and Dangs districts received significant rain during last week. Drain out excess water from the low land areas.
- In Middle Gujarat Zone, farmers are advised to undertake transplanting of tobacco @ 90 cm X 75 cm spacing. Continue sowing of castor.
- In Bhal and Coastal Zone of Gujarat, farmers are advised to complete sowing of castor up to 25th August to protect the crop from the castor semi looper. Carry out sowing of cluster bean and sowing of sorghum. Carry out plantation of different horticultural crops.
- Varieties of *kharif* crops are mentioned in Annexure II.
- Due to subdued rainfall, there may be attack of woolly aphids and white grubs in pre seasonal and *suru* sugarcane in Kolhapur division, remove the lower dried leaves and apply Themate 4 kg/Acre.
- Under prevailing weather there may be attack of shoot fly and leaf girdle beetle in soybean in East Vidarbha, dried and infested branches may be removed and destroyed. For control spray Trizophos 40% @ 25 ml or Profenophos 50% @ 15 ml in 10 litres of water.
- Due to cloudy and rainy weather there may be infestation of blight in potato and tomato in Pune Division; spray Copper oxychloride @ 25 g in 10 litres of water. More humid weather is congenial for infestation of downy mildew in cucumber and ridge gourd; spray Metalaxil MZ 72 @ 25 g or Phosetil @ 20 g + Mancozeb @ 20 g in 10 litres water for 2-3 times at 10 to 12 days interval.
- Cloudy condition and humid weather in North Gujarat Zone and South Gujarat Heavy Rainfall Zone is favourable for attack of sucking pest in cotton and vegetables. Farmers are advised to spray Methyl-o-Demeton or Dimethoate @ 10 ml / 10 liters of water.
- Cloudy weather in North Gujarat Zone is favourable for attack of tikka disease in groundnut crop. Farmers are advised to spray Mancozeb @ 25 g / 10 liters of water.
- Stages of major crops are mentioned in Annexure-I.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Significant rainfall occurred in most of the districts of East Madhya Pradesh except Rewa and Sidhi districts and many districts in West Madhya Pradesh except Alirajpur, Badwani, Dhar, Indore, Jhabua, Khargone, Ratlam and Ujjain districts. Significant rainfall occurred in all districts of Chhattisgarh.
- **Rainfall Forecast:** Rain/thundershowers would occur at few places over East Madhya Pradesh, Chhattisgarh and isolated places over West Madhya Pradesh during next 48 hours and increase thereafter.
- **Advisories:**
 - Farmers in Madhya Pradesh and Chhattisgarh are advised to postpone irrigation to the standing crops as there was significant rainfall during last week.
 - Farmers in Kymore Plateau and Satpura Hills region of Madhya Pradesh are advised to complete sowing of niger crops and undertake nursery sowing / transplanting of tomato, brinjal, onion, chilli and cauliflower. Farmers are also advised to do weeding in rice and arhar and apply top dressing of urea in rice. Drain the water from rice field then top dressing of urea may be done. Impound the water in the paddy field after three days after top dressing. Apply post-emergence herbicides in both rice (direct-seeded and transplanted) and arhar. Herbicide may be applied when wind speed is low and no rain.
 - Farmers in Gird Zone of Madhya Pradesh are advised to do weeding and intercultural operations in bajra, urad, moong, til and rice, apply top dressing of nitrogen to these crops.
 - Farmers in Jhabua Hills of Madhya Pradesh are advised to prepare drainage channels in soybean, maize, cotton, vegetables and pulses. Attack of semilooper and gram pod borer is increased in this area, so farmers are advised to monitor the crops and if 3 caterpillars in one meter row are found, farmers may spray Trizophos @ 800 ml/ha or Profenophos @ 1.5 l/ha (3.0 ml/l). Farmers are also advised to spray 10 kg/ha of Zinc Sulphate in sulphur deficient soybean.
 - Farmers in Central Narmada Valley Zone of Madhya Pradesh are advised to undertake nursery sowing/transplanting of tomato, brinjal, onion, chilli and cauliflower.
 - Farmers in Nimar Valley Zone of Madhya Pradesh are advised to apply urea in already sown *kharif* crops. Make proper drainage arrangement in maize, jowar and arhar. Farmers are also advised to complete weeding and intercultural operations in groundnut.

- Farmers in Bundelkhand region of Madhya Pradesh, there is report of attack of semi lopper in urd and moong. Farmers are advised to spray Triazophos 40 E.C. @ 2.0 ml per litre of water. Also there is report of attack of girdle beetle and semi lopper in the soybean, farmers are advised to spray Triazophos 40 E.C. @ 2.0 ml per litre of water. Farmers are advised to regularly monitor the crops for the pest.
 - Farmers in Satpura Plateau of Madhya Pradesh are advised to apply top dressing of urea in cotton, maize, sugarcane and jowar etc. Cultural operations like weeding, interculture, earthing and application of plant protection measures may be done in sugarcane. Sowing of niger and seasmum may be done as early as possible. Prepare/repair bunds for soil and water conservation. Transplanting of brinjal, tomato, cauliflower, *kharif* onion etc. may be done.
 - Farmers in Vindhyan Plateau Zone of Madhya Pradesh are advised for chemical weeding control in soybean, moong and urad after 15 to 20 days of crop sowing. Use chemical with sticking material only.
 - Rice crop is at tillering stage in most of the fields, farmers are advised for second dose of fertilizer application at tillering stage of rice for healthy tillers. Farmers are also advised to maintain 5 cm standing water in the transplanted rice field.
 - Farmers are advised for provide drainage channels as per requirement of crop to avoid water stagnation in the field.
 - Present weather conditions are favourable for transplanting of vegetables in Chhattisgarh Plain Zone. Farmers are advised to go for main field preparation and transplanting.
 - Farmers in North Hill zone of Chhattisgarh are advised to prepare field and complete sowing of maize utilizing the realized rainfall during last week. Farmers are advised to undertake sowing of arhar, urad, til, maize, groundnut, jowar, ginger, turmeric and arbi.
 - Farmers in Bastar plateau zone in Chhattisgarh are advised to prepare field and undertake sowing of cowpea and *kharif* vegetables like bottle gourd, bitter gourd, okra and short duration beans, cabbage, cauliflower utilizing the realised rainfall during last week. Farmers are also advised for planting of cassava, colocasia, ginger, elephant foot yam and dioscorea and support may be given by bamboo sticks.
 - Farmers in Bastar plateau zone in Chhattisgarh are advised to undertake transplanting of rice and sowing of niger, horsegram (kulthi), urad, vegetables etc. and in case of availability of sufficient moisture, castor crop sowing may also be done in the marhan and tikra farming situations.
 - In the maize crop, the attack of stem borer is being observed in Dantewada and Bijapur districts of Chhattisgarh. For its control, Carbofuran 3 G may be applied @ 2-3 grains/ per plant or this can also be applied @ 10 kg/ acre at the time of earthing up operation.
 - Attack of caterpillars and semiloopers is being observed in Bastar Plateau Zone in Chhattisgarh in castor, spray Prophenophos @ 1-1.5 ml/ litre of water.
- **Animal Husbandry & Poultry**
 - Farmers in Central Narmada Valley Zone and Satpura Plateau Zone are advised to vaccinate cattle against Foot and Mouth Disease.
 - Farmers in Kymore Plateau and Satpura Hills region of Madhya Pradesh are advised to vaccinate cattle against Anthrax disease and provide deworming tablets against worm's infection.
 - Farmers in Jhabua hills of Madhya Pradesh are advised to vaccinate their goats by CCPC vaccine and keep them in clean, dry and well ventilated place.
 - In the present monsoon season, low light duration due to cloudy weather condition, farmers in Chhattisgarh are advised to increase light duration in poultry farms.

Annexure I

Major Crops

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

- Sugarcane (vegetative), *sali* rice (transplanting / early tillering / tillering), *Capsularis* and *Olitorius* jute for seed (sowing), ginger / turmeric (vegetative), arhar (vegetative), *kharif* sesame (sowing / early vegetative / vegetative), groundnut (vegetative / flowering / pegging), pulses (sowing / vegetative), maize (vegetative), cauliflower (nursery raising) in Assam.
- WRC rice (tillering / flowering / grain formation), okra, cucurbitaceous vegetables (fruiting / harvesting), soybean (early vegetative / vegetative), sesamum (vegetative) in Arunachal Pradesh.
- *Kharif* rice (transplanting / tillering), soybean, groundnut (vegetative), *kharif* maize (vegetative / silking), cucurbits, chilli and okra (fruiting / harvesting), tomato (seedling / transplanting), cauliflower (nursery raising), rice bean, pea (sowing) in Manipur.
- *Sali* rice (vegetative / panicle initiation), maize (cob formation), groundnut (vegetative), tomato (flowering / fruiting / maturity), potato (tuber formation), soybean (vegetative / flowering), turmeric, ginger (vegetative / rhizome formation), banana (planting / vegetative) and vegetables like bottle gourd, ash gourd (vegetative / flowering) in Meghalaya.
- Rice (early vegetative / tillering), soybean, groundnut (vegetative), *kharif* maize (vegetative / tasseling / silking), cauliflower, tomato (nursery preparation) and ginger / turmeric (vegetative / rhizome formation) in Mizoram.
- *Jhum* rice (dough / maturity), Wetland rice (transplanting / tillering), maize (maturity / harvesting), okra (flowering / fruiting), soybean (sowing), cowpea / bean (pod formation / maturity / harvesting), papaya (vegetative) in Nagaland.
- *Aus* rice (panicle initiation / flowering), upland *kharif* rice (tillering / panicle initiation / flowering), *aman* rice (transplanting / tillering), groundnut (vegetative / flowering), maize (tasseling / silking), sesame (vegetative / flowering / pod formation), *kharif* vegetables like okra, *kharif* cucurbits (sowing / vegetative), early sown cucurbits, okra (flowering / fruiting) in Tripura.

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

- Sugarcane (vegetative), fodder crops like sorghum, bajra, maize, meth, kalai, boda and dinanath grass (sowing / early vegetative / vegetative), *kharif* rice (transplanting / tillering), urad, arhar, bajra etc. (sowing / early vegetative), mango, litchi, guava (planting) in Bihar.
- Turmeric and ginger (vegetative), upland rice (tillering / panicle initiation), maize, arhar, groundnut, rice, urad, jowar and soybean, til (sowing / vegetative), *kharif* vegetables like okra, beans, French bean, tomato, cauliflower, cabbage etc. (sowing / vegetative), kulthi, African marigold, French marigold (sowing) in Jharkhand.
- Sugarcane (grand growth), banana (vegetative), jute (harvesting), maize, groundnut, arhar, ragi, cotton, direct seeded rice, sunflower (early vegetative / vegetative), rice (transplanting / tillering), green gram, black gram, cow pea (sowing), *kharif* vegetables like okra, French bean, tomato, cauliflower, cabbage etc. (sowing / vegetative) and fruit crops (planting / seedling) in Orissa.
- *Aus* rice (flowering / grain filling), *aman* rice (transplanting / tillering / panicle initiation), jute (harvesting / retting), banana (vegetative), maize, sweet corn (vegetative / flowering), cauliflower (seedling), marigold (seedling), bitter gourd and pointed gourd, cucurbits (fruiting), yam and betel vine (vegetative) in West Bengal.
- Ginger (germination / early vegetative), orange (transplanting), large cardamom (vegetative / primary flowering / secondary flowering), vegetables (vegetative), rice (transplanting / tillering) in Sikkim.

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

- Vegetables (bhindi, cucurbits), peas (germination/vegetative), mirch, brinjal (seedling), cucurbits viz. cucumber, summer squash, khira, bitter gourd, bottle gourd (transplanting/ early vegetative/vegetative), tur, Shimla mirch, and tomato (early vegetative/vegetative), apple and other temperate fruits (vegetative), radish, arbi, amaranthus, turmeric, maize, dhaincha, chari, bajra, barley, red and white clover, bell pepper, garlic, ginger, coriander, knol khol, cabbage, cauliflower, lettuce (germination/ early vegetative), soybean (early vegetative/vegetative), rice (early tillering/panicle initiation) in Himachal Pradesh.

- Rice (vegetative), chilli, tomato, brinjal, cauliflower (seedling), spinach, coriander, radish (seedling / vegetative), maize, urd, moong, lobia (vegetative), bajra, til, sorghum (vegetative), sugarcane (vegetative), cotton (vegetative), sugarcane (vegetative) in Delhi.
- Chilli, capsicum, cauliflower, broccolli (vegetative), sugarcane (planting), papaya (planting), sunflower (germination), maize (Normal sown -vegetative stage, early sown- tassel emergence / silking stage), lobia, sunnhemp, cowpea, jowar for green fodder (vegetative), garlic, cucurbits, okra(seedling), French bean, maize (seedling), rice (tillering/vegetative), summer fodder (maize + cowpea + jowar) (vegetative), maize (sowing / emergence / early vegetative / vegetative / knee high stage), *kharif* pulses (flowering /pod formation), radish (sowing), cabbage, cauliflower, (nursery sowing), carrot, turnip (sowing), knol-khol, cole crops(transplanting) in Jammu & Kashmir.
- Rice(tillering / panicle initiation), finger millets (vegetative), groundnut, sorghum, pigeon pea, urad, moong, soyabean, rajma, arhar and ginger (early vegetative/vegetative), maize(early vegetative/cob formation) in Uttarakhand.
- Rice (tillering/panicle initiation), sugarcane (vegetative growth), sunflower, fodder maize, lobia, (germination/early vegetative), Sanai, Dhaincha (sowing / early vegetative / vegetative), summer sugarcane (tillering), cotton, soyabean and urd (early vegetative/vegetative), sunflower, jowar, bajra, maize, arhar, (sowing/seedling), vegetables [cucumber, pumpkin, tomato, brinjal, cabbage, lady's finger, chilly, cucurbits](sowing/vegetative), groundnut(germination) in Uttar Pradesh.
- Rice (tillering), spring sugarcane (sprouting / tillering), radish (sowing), carrot, turnip, cauliflower (transplanting / vegetative), tomato, sunflower (sowing), cotton (early vegetative), okra, chilli, brinjal (sowing / transplanting), maize, mung, mash, tur(sowing) in Punjab.
- Rice (tillering), Sugarcane (spring season) (early vegetative), barseem (vegetative / last cut), fodder ((maize + cowpeas) (vegetative)), moong, mash, pigeon pea (vegetative), cauliflower, cabbage, carrot, potato (transplanting), radish, cotton (sowing), turnip (sowing) in Haryana.
- Cauliflower, cabbage, onion (transplanting / germination), sugarcane (new planting), cotton (Desi kapas, B.T. kapas, Narma kapas, American Cotton) (early vegetative), pearl millet, jowar and bajra mixed with guar, Sudan grass, oats, maize, sorghum etc. for green fodder (vegetative), mirch, simla mirch, guar, vegetable (tinda, water melon, pumpkin, cucumber, coriander, bhendi, ridge gourd) (sowing), *kharif* onion (transplanting), *kharif* groundnut, rice (sowing) other *kharif* crops viz. pearl millet, sorghum, maize, green gram, cowpea (sowing), short duration moth and guar (sowing) in Rajasthan.

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

- Sugarcane (vegetative), rice (transplanting / tillering), fodder maize (vegetative/silking/tasseling), sunflower (sowing), groundnut (sowing/early vegetative), cowpea (sowing), vegetables (vegetative/ flowering), turmeric, ginger (vegetative), green gram/black gram (vegetative/ flowering), soybean (flowering), pigeon pea (vegetative), maize (silking/tasseling), *desi* cotton (sowing), cotton (vegetative/flowering) and chilli (flowering/fruiting) in Karnataka.
- Sugarcane (January to March planted) (grand growth), sugarcane (April planted) (formative), banana (vegetative), vegetables (all stages), rice (transplanting/tillering), jowar (vegetative), bajra (vegetative/flowering), maize (vegetative/tasseling), ragi (vegetative), finger millets (vegetative), castor (seedling/vegetative), early sown groundnut (vegetative/flowering/pod formation), Late sown groundnut (vegetative/flowering), green gram/black gram (vegetative/ flowering), red gram (vegetative), sesamum (pod filling/harvesting), rainfed cotton (vegetative), Bt. cotton (vegetative / floral initiation) in Andhra Pradesh.
- Pepper (flowering/new planting), ginger (vegetative), irrigated banana (planting), cardamom (planting), sugarcane (grand growth), vegetables (sowing/ seedling / transplanting), virippu paddy (tillering/panicle initiation), coconut (flowering) in Kerala.
- *Kuruvai* rice (tillering/panicle initiation/flowering), rainfed groundnut (vegetative), cotton (vegetative/flowering/boll formation), irrigated maize (vegetative/silking/tasseling/maturity), sugarcane (grand growth stage), pulses (sowing/vegetative/flowering), vegetables (vegetative/fruiting) in Tamil Nadu.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Sugarcane new *adsali* (active tillering / elongation), sugarcane new pre-seasonal (active tillering), sugarcane new *suru* (active tillering in Madhya Maharashtra and Marathwada), new *adsali* (plantation), *kharif* rice (early tillering / active tillering in Konkan, Kolhapur Division and transplanting / early tillering in Nashik, Pune and East Vidarbha Division), cotton (vegetative), soybean (branching / flowering), groundnut (vegetative / flowering), bajra (vegetative in Madhya Maharashtra and Marathwada), red gram (early vegetative / vegetative) in Maharashtra.

- Cotton (vegetative / flowering / boll formation), groundnut (vegetative / flowering / pegging), *kharif* rice (transplanting / tillering), pulses (early vegetative / flowering), sugarcane (vegetative / elongation), sesamum, castor (sowing / emergence), vegetables (seedling / transplanting / vegetative), green gram, black gram (early vegetative / vegetative / pod development), red gram (germination / vegetative), pearl millet (panicle emergence / flowering), sorghum, cow pea (sowing / emergence) in Gujarat.

CENTRAL INDIA [M.P., CHHATTISGARH]

- Rice (tillering/vegetative), maize, jowar, arhar and soybean (early vegetative/vegetative), *kharif* vegetables i.e. tomato, brinjal, chilli etc. (early vegetative/vegetative), fodder crops (vegetative), ladies finger, cucurbits (early vegetative/vegetative) in Madhya Pradesh.
- Rice (tillering), sugarcane (planting/vegetative), groundnut (pod filling), sesame (late vegetative), ginger, turmeric, papaya, mango and guava (vegetative), onion (planting), vegetables (transplanting / vegetative), millet (sowing), tapioca, ginger, colocasia, dioscorea, elephant foot yam, cassava (planting) in Chhattisgarh.

Annexure II

List of Varieties

Assam

Sali rice: Ranjit, Bahadur, Peoli, Moniram, Pankaj, Kushal, Masuri, Monohar (for typical lowland rice area), Satya and Basundhara (for medium lowland area).

Rice for flood affected areas: Profulla and Gitesh.

Short duration rice for flood affected areas: Luit, Kapilee, Dichang etc.

Traditional sali rice for flood affected areas: Sonamukhi, Manohar Sali, Bordha, Andru Sali, Solpona.

Submergence tolerance Sali rice varieties: Jalashree and Jalkuwari.

Sesame: Punjab Til No. 1, Gouri, Vinayak, Madhabi, ST-1683.

Early cauliflower: Early Kunwari, Pusa Katki, Pusa Deepali.

Dolichos bean: Asina

Green gram: T-44, Kopergaon, K-851, ML-56, ML-131.

Black gram: T-9, T-27, Pant U-19, T-122, Saonia Mah (SB123), KU 301, USJD113.

Manipur

Cauliflower: White Shot.

Tripura

Kharif rice:

For flash flood areas: Swarna Sub-1, Barsa Dhan.

Hybrid varieties: CRHR-32, Ajay, Rajalaxmi, BS6444G, JKRH-401, ARIZE 6444G, JKRH-3333.

Orissa

Okra: Utkal Gourav, Arka Anamika, Varsha Uphar, Parvani Kranti and all available hybrid varieties.

Kharif rice:

Early maturing varieties: Parijat, Khandagiri, Vandana, Jogesh, Siddant.

Medium maturing varieties: Pratikshya, Manaswini, Tapaswini MAS, Konark, Surendra, Lalata, Kharavela, Naveen, Surendra, MTU-1001, MTU1010, Abhisek.

For flash flood areas: Swarna Sub-1, Barsadhan.

Hybrid varieties: CRHR-32, Ajay, Rajalaxmi, BS6444G, JKRH-401, ARIZE 6444G, JKRH-3333.

Green gram: PDM-11 & 54, K-851.

Black gram: T-9, Pant U-11, Pant U-19, Pant U-30.

Cowpea: SEB-2, Pusa Barsati.

Brinjal: Utkala Tarini, Utkala Madhuri, Blue Star, Green Star, Pusa Purple Cluster.

Green chilli: Pant C-1, Kala Suryamukhi, Utkala Ava, Utkala ragini etc.

Lemon: Ureka, Lisbon, Bhillafranka of lemon and Kagazi lembu, Mexican lime, Sarbati lime and Tahita of lime.

West Bengal:

Aman rice: IET-4094, 2233, Ratna, Bikash, Kitish, Sasya-shree, IR-42, Swarna, Mashuri, IET-8002.

Cauliflower: Kanwari, Jowhar, Moti, Early Patna.

Tomato: Pusa Rubi, Pusa Early, S-2, Roma Super.

Jharkhand:

Okra: Pusa A-4, Prabhani Kranti, Arka Anamika, Versha Uphar & Hybrid varieties like Sonal and Sarika.

Maize: Birsa Makka-1, Birsa Makka-1, Sawan-1 (Hybrid), HQPM (Hybrid).

Arhar: Birsa Arhar-1, Narendra Arhar-1, Bahar, ICPH-2671.

Medium land rice: Anjali, Sahbhagi, Naveen, Lalat, Birsamati, Sugandha, BR-10, Pro-Agro 6444, IR-36, IR-64 etc.

Low land rice: Swarna (MTU-7029), Rajshree, Sambha Mahsuri (BPT-5204), Birsa Dhan- 202, Birsamati, Pro-Agro 6444.

Urad: Pant Urad -19, Birsa Urad -1.
Til: Kanke Safed and Krishna.
Horse gram: Birsa kulthi-1, G.H.G.-20.
African Marigold: Pusa Narangi, Pusa Basanti.
French Marigold: Petite Orange, Petite Yellow, Rusty Red, Lemmon Drop.

Bihar

Urd: T-9.
Arhar: Bahar, Narendra Arhar 1, Malviya 13.

Jammu & Kashmir

Vegetables : Pumpkin: Arka Suryamukhi and Arka Chandan, Bittergourd: Pusa Domousami & Pusa Vishesh
Bottlegourd: Pusa Summer Prolific Long, Pusa Summer Prolific Round, Spongegourd: Pusa Chikni and Pusa Supriya, Pusa Nasadar Radish: Japanese white, Pusa Chetki Carrot: Nantes, Turnip: Purple Top White Globe, Spinach: All green, Beans: Contender, Pusa Parvati and Arka komal, Methi: Pusa Early Bunching and Kasuri methi., Knol-khol: White Vienna and Purple Vienna, Cabbage: Golden Acre and Pride of India, Pusa Mukta Brinjal: Pusa Purple Long, Pusa Purple Cluster, Cauliflower: Pusa Snowball, Pusa Snowball K-I
Til: Punjab Til-1
Okra: (Varsha Uphar, Parbhani Kranti and A-4), Pumpkin (Arka Suryamukhi & Arka Chandan)

Punjab & Haryana

Punjab :

Okra: Punjab-8, Punjab-7 and Punjab Padmani
Radish: Punjab Ageti & Pusa Chetki.

Delhi

Radish: Versa ki rani, summer long, long chetaki, Pusa chetaki
Spinach: All green
Coriander: Pant Haritama or hybrids
Cauliflower: Pusa sharad, Pusa hybrid-2, Pant shubra.
Sarson saag: Pusa saag-1;

Rajasthan

Vegetables : Tomato : Pusa Ruby, Pusa early dwarf, Roma, Brinjal: Pusa long, Meghdoot, Arka Bahar, Pusa summer and prolific round, Cucumber: Balam, Pusa Sahyog, Early Radish: Pusa Chetki, Carrot: Pusa Kesar,
Early cauliflower : Pusa hybrid-2, Improved chinese and Pusa Himjyoti,
Sweet potato: Pusa Safed, Pusa Lal, Pusa Sunhari & L-20,
Mid season cauliflower: Improved Japanese, Pusa hybrid-2 & Himjyoti
Ashwaghandha : Improved varieties - Ashwaghandha-20 and Ashwaghandha-134.

Chattisgarh

Maize: Proagro-4640, 4212, Pusa Hybrid -42, MH-10, MH-11, Navjyot, HM-9.
Niger: JNC-1, JNC-6, JNC-9, GA-10, Ootakmund, KGN-2
Kulthi: AK-21, Ak-42, Bastar Kulthi, Birsa Kulthi and VLG-9

Gujarat:

Castor: GAUCH-1, GCH-2, 4, 5, GCH-5, 6 or 7 for dry land
Maize: GM-1, 2.
Sesamum: GT-1, 2, 3, 4, Purva-1.
Green gram: GM-3, GM-4, K-851. Meha, GG 4
Black gram: T-9, GU-1.

Cowpea: Gujarat Cowpea-1, 2, 3,4,Pusa Falguni.

Pigeon pea: GT-1, GT-100, GT-101, T-15-15, BDN-2, IPCL_87-Pusa Ageti, GTH-1.

Cluster bean: HG-75 or G.C.-1, G.Guar-2, SG-74

Urad: T- 9, GUB- 1

Sorghum: GJ-39, GJ-40 GJ-41 and GFS-4, GFS-5

Dual purpose sorghum: Gundari

Ajwan: Guj. Ajwan-1 & Guj. Ajwan-2

Karnataka

Finger millet: Indaf-5, Indaf-9, GPU-48, KMR-204, MR-365and GPU-28.

Fodder Maize: Deccan-103

Sunflower : Morden, BSH-1.

Aerobic rice: MAS-946-1, Rasi and KRH-2

Redgram: BRG-1 and BRG-2.

Rice: MTU-1010, IR-64, Raksha, BPT-5204 and JGL-1798

Cotton: Jayadhar, DDHC-11 and RAHS-14

Cow pea: TVX-944, KBC-1and KBC-2.

Field bean-HA-3 and HA-4

Andhra Pradesh

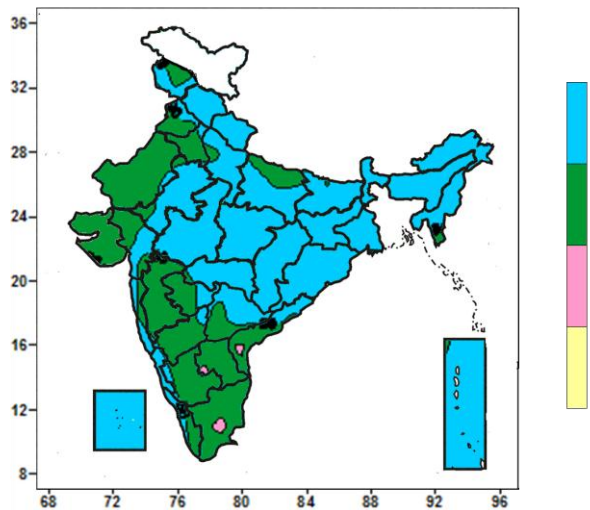
Rice : (Swarna, Chatanya, Krishnaveni, Sambamasuri, Bapatlasannalu, Amara, Sriranga, NLR-T-145 (Swarnamukhi), LNLR-9674for salt affected areas: Deepthi, Vikal, Vedagiri and Somaseela)

Redgram: LRG-41, 38 and Laksmi (ICPL-85063)

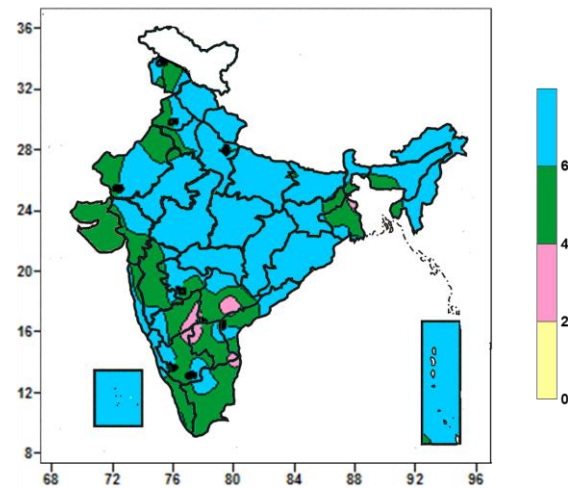
Annexure III

**Contour maps for Relative Humidity, Cloud Amount and Wind speed for the week ending on
22.08.2012**

Relative Humidity (%) over India for the week ending 22.8.2012



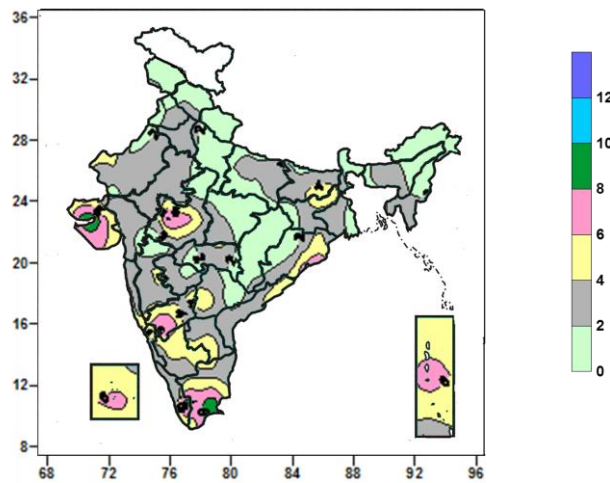
Cloud amount (okta) over India for the week ending 22.8.2012



Relative humidity ranged between 60 to 80 % over most parts of Jammu & Kashmir, Punjab, Haryana, Delhi, West Raasthan, Saurashtra & Kutch, Madhya Maharashtra, Marathwada, North & South Interior Karnataka, Andhra Pradesh, Tamil Nadu, Kerala, some parts of Uttar Pradesh, West Rajasthan, Tripura, Andaman & Nicobar Islands, 80 % and above over remaining parts of the country.

Cloud amount 4 to 6 okta over most parts of Jammu & Kashmir, Saurashtra & kutch, Gangetic West Bengal, Andhra Pradesh, North & South Interior Karnataka, Madhya Maharashtra, Konkan, Kerala, Tamil Nadu, some parts of Punjab, Haryana, Delhi, West Rajasthan, Gujarat, Assam, Tripura, Jharkhand, Sub-Himalayan West Bengal, Marathwada, Andaman & Nicobar Islands, 2 to 4 okta over some parts of Andhra Pradesh, Interior Karnataka, Tamil Nadu and 6 okta and above over remaining parts of the country.

Wind speed (knots) over India for the week ending 22.8.2012



Wind speed ranged between 8 to 10 knots and above over some parts of Saurashtra & Kutch, Coastal Tamil Nadu, 6 to 8 knots over many parts of Saurashtra & Kutch, Tamil Nadu, some parts of West Madhya Pradesh, Coastal Orissa, North Interior Karnataka, Kerala, Lakshdweep Andaman & Nicobar Islands, and below 6 knots over remaining parts of country.