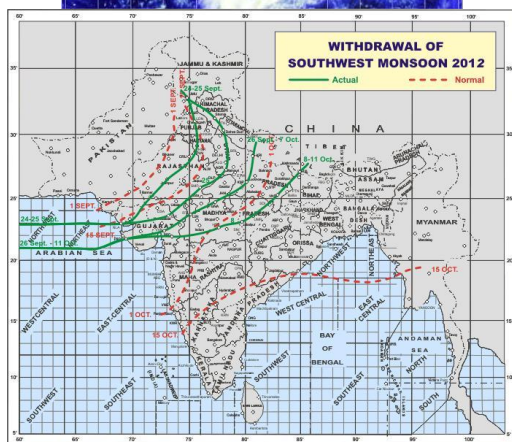
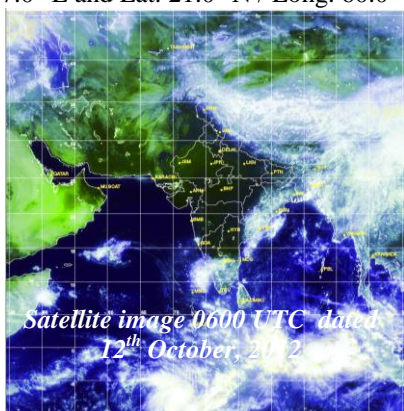


- Conditions are favourable for further withdrawal of southwest monsoon from some more parts of Bihar, some parts of Chhattisgarh, Jharkhand, remaining parts of Uttar Pradesh, Madhya Pradesh & Gujarat and north Arabian and some parts of Maharashtra during next 24 hours.
- The withdrawal line of southwest monsoon continues to pass through Raxaul, Varanasi, Jabalpur, Hoshangabad, Vadodra, Porbandar, Lat. 21.0° N / Long. 67.0° E and Lat. 21.0° N / Long. 60.0° E.



Southwest monsoon has further withdrawn from most parts of Uttar Pradesh, some more parts of Madhya Pradesh and Gujarat State and some parts of Bihar. Conditions are favourable for further withdrawal of southwest monsoon from some more parts of Bihar, some parts of North Chhattisgarh, Jharkhand, remaining parts of Uttar Pradesh, Madhya Pradesh, Gujarat and some parts of Maharashtra during next 24 hours.

Significant rainfall occurred over all the districts in Konkan, many districts in Arunachal Pradesh, Assam, Bihar, Madhya Maharashtra, Orissa, West Bengal, North Interior Karnataka and over a few districts in Marathwada and Tamil Nadu during last week. Rainfall for the above mentioned regions during last week is given in Annexure – I.

Rainfall is likely to occur at most places over Nagaland, Manipur, Mizoram, Tripura, Assam, Meghalaya and Arunachal Pradesh during next 24 hours and decrease thereafter and at a few places over Kerala, Tamil Nadu during next 24 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 Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 24 hours. Farmers in these regions are advised to arrange for adequate drainage to avoid stagnation of water in standing crops. Weather forecast map is provided in Annexure – II.

In the following sub-divisions moisture stress condition prevailed during earlier weeks of the monsoon months due to deficient rainfall and as a result, contingent planning has been issued in the agromet advisory during *kharif* season. Crop status and advisories for these subdivisions are given below:

Saurashtra & Kutch: Carry out hand weeding in vegetables in South Saurashtra Zone. Harvesting of groundnut and castor may be undertaken. In North Saurashtra Zone, carry out harvesting of early sown groundnut. Undertake sowing of gram (Gujarat Gram-2 or Gujarat Gram-3) and mustard (Varuna or Gujarat Mustard-1), if facility of 2-3 irrigations is available. Harvest already matured green gram and other pulses in North West Zone. Apply irrigation in groundnut, bajra and jowar.

2. Gujarat region: In Middle Gujarat Zone, carry out harvesting of matured cluster bean, green gram, Indian bean and maize, threshing of bajra during noon hours and picking of cotton in late morning hours. Undertake nursery raising for winter vegetables, if facility of shade net is available. Drain out water from rice field 10-15 days before harvesting of the crop. Carry out harvesting of already matured rice. Prepare land for sowing of mustard crop. Apply irrigation in tobacco nursery, castor and groundnut to avoid moisture stress. Carry out picking of matured cotton bolls.

3. South Interior Karnataka: Farmers in the Eastern dry zone are advised to take up intercultural operation in late sown crops of ragi and top dressing with urea. Take up normal agricultural operations for the standing crops.

4. North Interior Karnataka: In North Dry Zone, sowing of sunflower, safflower, *rabi* jawar, chickpea and wheat may be taken up. In North East Dry zone, farmers may undertake sowing of *rabi* sorghum. Sunflower can be sown upto end of October under irrigated conditions.

Agromet advisories for remaining met subdivisions are mentioned in page no 2.



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

(Continued from page no. 1)

5. **Madhya Maharashtra:** Due to recent rain matured bajra, soybean, groundnut in South Madhya Maharashtra, is likely to be affected; farmers are advised to complete harvesting of already matured crops. As most of the districts received rain during last week, farmers are advised to continue sowing of *rabi* jowar, safflower, maize and rainfed gram with the help of optimum soil moisture in the field. In Ahmednagar, Dhule and Nandurbar districts, farmers are advised to undertake sowing of rainfed gram. Farmers are advised to start harvesting of matured crops of *kharif* jowar and groundnut. In North Madhya Maharashtra as mainly dry weather is expected during next 5 days, farmers are advised to start picking of fully opened cotton boll.
6. **Marathwada:** Due to recent rain matured bajra, soybean, groundnut is likely to be affected; farmers are advised to complete harvesting of already matured crops. As most of the districts received rain during last week, farmers are advised to continue sowing of *rabi* jowar, safflower, maize and rainfed gram with the help of optimum soil moisture in the field. Farmers are advised to start harvesting of matured crops of *kharif* jowar and groundnut. As irrigated cotton is at boll maturity stage in Aurangabad division and mainly dry weather is expected during next 5 days, farmers are advised to start picking of fully opened cotton boll.
7. **Haryana:** Basmati Rice is at grain formation stage. Harvest early varieties of rice (non-scented) and continue picking of cotton bolls. Harvest matured bajra and guar crop in Eastern Zone. There is mild attack of attack of hopper and moderate to severe attack of leaf folder on basmati rice in Western Zone; spray the crop with 250 ml monocrotophos, or dusting of methyl parathion (Folidol) @ 10 kg / acre.
8. **Delhi:** Rice is at grain filling stage. Maize, bajra, til, sorghum etc. are at maturity stage. Cotton at boll formation and picking stage. Undertake sowing of early mustard, pea, planting of early potato, sowing of carrot, sarson saag, spinach, radish, fenugreek, coriander, bathua, turnip etc. Transplant mature seedlings of cauliflower, cabbage, broccoli and tomato in raised bed. Nursery preparation of these crops may be started for late transplanting which mature in December or January. False smut may appear in rice due to present weather conditions. Spraying of Blitox 50 @ 500 grams per hectare at 10 days interval (2-3 times) is advised.
9. **West Rajasthan:** Sowing of taramira may be carried out upto 15th October. Prepare field for sowing of the *rabi* crops like mustard. Farmers are advised to apply lifesaving irrigation in rice crop, which is at flowering stage. Farmers are also advised to prepare land for sowing of toria, mustard, early pulses, oil seed crops and *rabi* vegetables. Farmers are advised to harvest the matured maize and early varieties of rice.
10. **Bihar:** Farmers are advised to apply lifesaving irrigation to rice crop, which is in flowering stage. Farmers are also advised to prepare the land for sowing of rapeseed in the upland area. Farmers are advised to harvest the matured maize and rice crops.

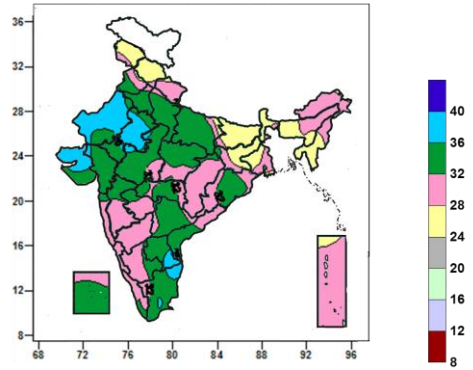
In remaining parts of the country, receipt of rainfall, in terms of quantity and distribution during the *kharif* season in relation to agricultural operations as well as water requirements of the crops, were adequate and normal. Crop status and advisories for these subdivisions are given below:

1. **Rayalaseema:** Undertake sowing of Bengal gram.
2. **East Uttar Pradesh:** Continue sowing of toria, onion, garlic, radish, carrot and pea and planting of potato. Also continue transplanting of cauliflower, brinjal, chilli, tomato and sugarcane. Farmers are advised to undertake harvesting of short duration varieties of rice and application of irrigation to long duration varieties of rice.
3. **West Uttar Pradesh:** Stop irrigation 10 – 12 days before harvesting of rice crop. Undertaking propping for sugarcane crop. Prepare land for nursery sowing of *rabi* crops, onion and tomato. Continue transplanting of brinjal, chilli and tomato, cauliflower, cabbage. Undertake harvesting of urd, moong and land preparation and sowing of toria / lahi.
4. **Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh and Assam & Meghalaya:** Undertake land preparation and nursery sowing of winter vegetables like early cauliflower, radish, tomato, brinjal, Knolkhol, carrot and spinach. Undertake land preparation and sowing of mustard and *rabi* maize in Meghalaya. However, as rainfall is likely to occur at most places along with heavy rainfall at one or two places over these States during next 24 hours, farmers are advised to postpone irrigation, intercultural operation and application of fertilizers and plant protection measures and also to arrange for adequate drainage to avoid stagnation of water in standing crops.
5. **Sub Himalayan West Bengal:** Start land preparation for transplanting and sowing of early cauliflower, radish broccoli, cabbage and onion. Farmers are also advised to harvest maize.

6. **Sikkim:** Farmers are advised to maintain 3-5 cm standing water in flowering stage of rice.
7. **Gangetic West Bengal:** Prepare field for transplanting of winter vegetables.
8. **Orissa:** Farmers are advised to sow mustard, *rabi* groundnut, sesame and toria. Undertake raising of nursery for *rabi* vegetables. Spraying should be done in cotton with 2% DAP for better boll development. In Western Undulating zone, occurrence of BPH and sheath blight is reported in rice. For control of BPH, spraying of Buprofezin @ 1.5 ml / litre of water or Imidacloprid @ 1 ml / 4 litres of water may be carried out. To control sheath blight spray validamycin @ 1.5 ml / litre of Water.
9. **Punjab:** Complete harvesting of rice crop and continue picking of cotton bolls. Undertake sowing of raya during first fortnight of October. Transplant main season varieties of cauliflower and cabbage. Complete planting of autumn sugarcane up to 20th October in Western Plain Zone. Intercrops such as potato, raya, gobhi sarson, winter maize, cabbage, radish, peas etc. can be grown successfully in sugarcane during this month. Complete sowing of autumn potato crop in the first fortnight of October.
10. **Himachal Pradesh:** Undertake sowing of barley in the high altitudes and complete sowing of potato in the lower hill areas. Continue sowing of toria and early varieties of pea, radish, turnip, coriander, cabbage, Knol khol, broccoli, parsley, lettuce, fennel and cauliflower.
11. **Jharkhand:** Farmers are advised to undertake sowing. After harvesting of moong and urad, undertake sowing of toria immediately in that field. Farmers are advised to sow *rabi* crops like gram, lentil, linseed, pea, mustard, kulthi, African marigold or French marigold and planting of potato and sowing of vegetables like turnip, spinach, carrot etc.
12. **Uttarakhand:** Start harvesting and threshing of matured rice crop during this week. In the hilly region, farmers are advised to go for sowing of vegetable crops like vegetable pea, coriander, spinach, radish and mentha etc.
13. **Jammu & Kashmir:** Undertake sowing of toria intercropped with gobi sarson, berseem and harvesting of moong, vegetables, maize, *kharif* fodder and early sown rice crops. Farmers are advised to undertake sowing of vegetables. and mustard.
14. **East Rajasthan:** Undertake harvesting of *kharif* crops. Start field preparation and sowing of *rabi* crops like mustard and other horticultural crops.
15. **East Madhya Pradesh:** Prepare field for sowing of mustard and pea.
16. **West Madhya Pradesh:** Arrange seed, fertilizers etc. and prepare for sowing of *rabi* crops.
17. **Vidarbha:** Due to recent rain matured bajra, soybean, groundnut in Akola, Buldhana districts of West Vidarbha is likely to be affected; farmers are advised to complete harvesting of already matured crops. Farmers are advised to continue sowing of *rabi* jowar, safflower, maize and rainfed gram at optimum soil moisture in the field.
18. **Chhattisgarh:** Farmers are advised to undertake transplanting of vegetable crops. After the harvesting of rice crop, sow gram and lathyrus.
19. **Konkan:** Due to recent rain in Konkan Division, *kharif* rice, which is at nearly maturing stage, is likely to be affected, farmers are advised to complete harvesting of already matured crops. As early and mid-late varieties of *kharif* rice are at maturity stage in Konkan Division, farmers are advised to harvest the crop.
20. **Coastal Andhra Pradesh:** Undertake sowing of *rabi* pulses like black gram, red gram and green gram. Infestation of brown plant hopper, sheath blight, leaf fodder and blight in Swarna variety noticed on rice crop in the North Coastal Zone of Andhra Pradesh. Farmers are advised to drain out water from the field and take appropriate plant protection measures. Further, red rot was observed on sugarcane plantations. Farmers are advised to drain out water from the field and uproot red rot infested plants and destroy.
21. **Telangana:** Incidence of jassids, leaf spot and grey mildew is noticed on BT Cotton in the Southern Telangana zone of Andhra Pradesh. Farmers are advised to take appropriate plant protection measures.
22. **Tamil Nadu:** Application of 4 kg Gypsum / cent in *samba* rice nursery is advised.
23. **Coastal Karnataka:** Harvest the already matured crops.
24. **Kerala:** Transplanting of *mundakan* rice may be continued.

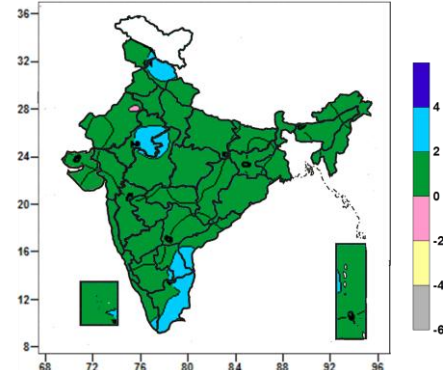
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 10.10.2012

Actual Mean Maximum Temperature (°C) in India for the week ending 10.10.2012



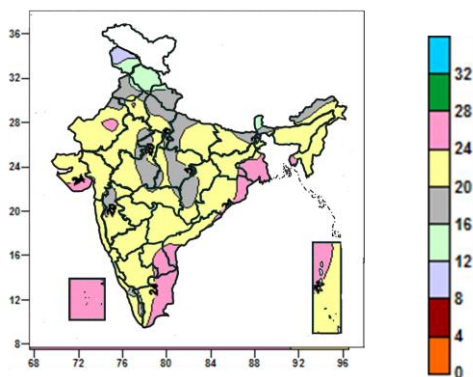
Actual Mean Maximum temperature ranged 36⁰C and above over many parts of West Rajasthan, some parts of East Rajasthan, Saurashtra, Raylaseema, Tamil Nadu, 32 to 36⁰C over many parts of Punjab, Haryana, Uttar Pradesh, Orissa, Madhya Pradesh, Gujarat, Vidarbha, Andhra Pradesh, Tamil Nadu, Lakshadweep Islands, some parts of Rajasthan, Saurashtra & Kutch, Maharashtra (except Vidarbha), South Interior Karnataka, Kerala, 24 to 28⁰C over many parts of Jammu & Kashmir, Himachal Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Tripura, some parts of Uttarakhand, Assam, Mizoram, Gangetic West Bengal, Andaman & Nicobar Islands, 28 to 32⁰C over remaining parts of the country.

Maximum Temperature (°C) Anomaly in India for the week ending 10.10.2012



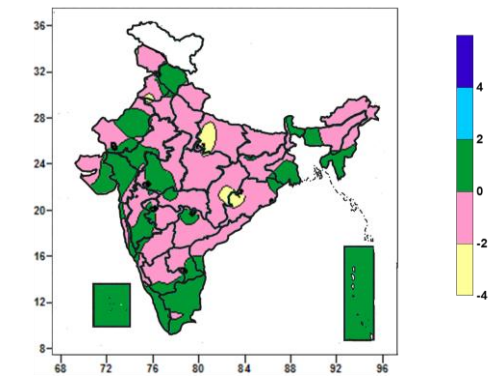
Actual Mean Maximum temperature anomaly ranged between 2 to 4⁰C and above over many parts of Himachal Pradesh, Raylaseema, Tamil Nadu, some parts of Jammu & Kashmir, East Rajasthan, Coastal Andhra Pradesh, Kerala, Lakshadweep Islands, -2 to 0⁰C over some parts of West Rajasthan, 0 to 2⁰C over rest of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 10.10.2012



Actual Mean Minimum Temperature ranged between 24⁰C and above over many parts of Gangetic West Bengal, West Bengal & Sikkim, Tripura, Tamil Nadu, Kerala, Lakshadweep Islands, Andaman & Nicobar Islands, some parts of West Rajasthan, Jharkhand, Tripura, Coastal Orissa, Coastal Andhra Pradesh, Saurashtra & Kutch, , Andhaman & Nicobar Islands, 16 to 20⁰C over many parts of Uttarakhand, Punjab, Uttar Pradesh, Madhya Pradesh, some parts of Rajasthan, Bihar, Sub-Himalayan West Bengal, Chattisgarh, Vidarbha, Madhya Maharashtra, 8 to 16⁰C over many parts of Jammu & Kashmir, Himachal Pradesh, and between 20 to 24⁰C over remaining parts of the country.

Minimum Temperature (°C) Anomaly in India for the week ending 10.10.2012



Minimum Temperature anomaly ranged above 0⁰C over many parts of Himachal Pradesh, West Rajasthan, Gujarat, Saurashtra & kutch, West Madhya Pradesh, Madhya Maharashtra, West Bengal & Sikkim, Tripura, Tamil Nadu, Kerala, Lakshadweep, Andaman & Nicobar Islands, some parts of Punjab, Haryana, East Rajasthan, Assam & Meghalaya, Mizoram, Orissa, Andhra Pradesh, Karnataka, Konkan & Goa, Marathwada, Konkan & Goa, Vidarbha, , -2 to 0⁰C over remaining parts of the country.

Distribution of rainfall of the country during week ending on 10.10.2012

State/Districts	Actual	Dep %
Arunachal Pradesh		
Anjaw	**	**
Changlang	96.8	10
Dibang Valley	100.0	83
East Kameng	24.8	-38
East Siang	264.7	268
Kurung Kumey	**	**
Lohit	95.8	33
Lower Dibang Valley	**	**
Lower Subansari	11.0	-52
Papumpara	75.9	-5
Tawang	11.0	-87
Tirap	61.7	-17
Upper Siang	118.6	72
Upper Subansari	30.0	97
West Kameng	69.6	-18
West Siang	28.0	-13
Assam		
Baksa	7.0	-88
Barpeta	61.5	4
Bongaigaon	56.4	-14
Cachar	76.2	3
Chirang	31.1	-53
Darrang	18.0	-40
Dhemaji	12.0	-77
Dhubri	23.6	-64
Dibrugarh	35.2	-18
East Garo Hills	112.0	66
East Khasi Hills	202.7	100
Goalpara	15.7	-72
Golghat	28.1	-12
Hailakandi	101.7	46
Jaintia Hills	230.0	5
Jorhat	28.4	-27
Kamrup(Rural)	10.8	-68
Kamrup(Metro)	52.4	55
Karbi Anglong	116.5	197
Karimganj	121.0	24
Kokrajhar	37.6	-18
Lakhimpur	62.4	22
Morigaon	46.4	33
N.C.Hills	124.5	278
Nowgong	126.4	220
Nalbari	14.8	-58
Ribhoi	114.6	227
Sonitpur	15.1	-49
Sibsagar	31.9	6
South Garo Hills	122.0	76
Tinsukia	51.9	32
Udalgiri	6.2	-79
West Garo Hills	31.8	-54
West Khasi Hills	**	**
Bihar		
Araria	30.1	34
Arwal	23.8	72
Aurangabad	62.0	248
Banka	0.0	-100
Begusarai	53.5	321
Bhabua	0.9	-95
Bhagalpur	54.0	98
Bhojpur	25.5	15
Buxar	0.0	-100
Darbhangha	42.3	83
East Champaran	8.3	-78
Gaya	66.9	250
Gopalganj	0.0	-100
Jahanabad	71.6	447
Jamui	89.0	189
Kathihar	116.1	259
Khagadia	73.4	169
Kishanganj	18.2	-31

State/Districts	Actual	Dep %
Lakhisarai	114.0	327
Madhepura	33.8	5
Madhubani	4.6	-80
Monghyar	73.7	176
Muzaffarpur	22.7	3
Nalanda	68.2	231
Nawada	48.1	81
Patna	43.5	79
Purnea	42.8	48
Rohtas	1.1	-94
Saharsha	47.8	185
Samstipur	40.6	88
Saran	31.4	83
Sheikpura	125.2	399
Sheohar	14.0	-49
Sitamarhi	10.0	-64
Siwan	6.4	-62
Supaul	21.7	29
Vaishali	77.8	187
West Champaran	**	**
Jharkhand		
Bokaro	25.9	-16
Chatra	0.0	-100
Deoghar	**	**
Dhanbad	6.3	-81
Dumka	46.3	5
East Singbhum	40.0	70
Garhwa	0.0	-100
Giridih	14.4	-56
Godda	**	**
Gumla	4.5	-83
Hazaribagh	16.4	-42
Jamtara	49.5	26
Khunti	4.6	-83
Koderna	7.0	-67
Latehar	12.0	-44
Lohardagga	6.9	-67
Pakur	0.0	-100
Palamau	18.6	6
Ramgarh	106.1	276
Ranchi	42.0	53
Sahebganj	**	**
Saraikela	4.3	-83
Simdega	23.5	-30
West Singbhum	18.7	-34
Maharashtra		
Konkan & Goa		
Goa	55.3	15
Mumbai	70.7	139
Raigad	92.0	111
Ratnagiri	168.8	234
Sindhudurg	118.0	142
Thane	48.9	54
Madhya Maharashtra		
Ahmednagar	35.7	52
Dhule	3.0	-83
Jalgaon	3.0	-82
Kolhapur	74.2	85
Nandurbar	2.2	-84
Nasik	53.9	132
Pune	49.8	76
Sangli	73.4	115
Satara	62.5	109
Solapur	49.9	71
Marathwada		
Aurangabad	9.3	-47
Beed	34.6	54
Hingoli	29.6	29
Jalna	9.7	-56
Latur	48.6	60
Nanded	22.1	-19
Usmanabad	21.0	-21

State/Districts	Actual	Dep %
Parbhani	33.9	35
Vidarbha		
Akola	6.9	-59
Amraoti	12.9	-25
Bhandara	0.0	-100
Buldhana	5.4	-72
Chandrapur	22.0	10
Gadchiroli	13.8	-35
Gondia	3.3	-83
Nagpur	11.5	-42
Wardha	18.7	-2
Washim	31.9	32
Yeotmal	26.1	34
Orissa		
Angul	30.0	9
Balasore	12.8	-76
Bargarh	25.9	70
Bhadrak	26.7	-39
Bolangir	33.1	68
Boudh	62.7	42
Cuttack	61.1	42
Deogarh	52.5	181
Dhenkanal	71.4	96
Gajapati	3.3	-94
Ganjam	18.7	-68
Jagatsingpur	38.4	-10
Jajpur	87.8	93
Jharsuguda	48.4	83
Kalahandi	7.5	-73
Kandhamal	11.1	-75
Kendrapara	57.5	-16
Keonjhar	40.8	28
Khurda	41.3	-30
Koraput	4.8	-90
Malkangiri	11.3	-66
Mayurbhanj	40.0	24
Nawapara	39.7	79
Nawarangpur	35.5	29
Nayagarh	66.2	25
Puri	58.3	11
Rayagada	3.2	-92
Sambalpur	71.1	280
Sonepur	90.8	339
Sundargarh	38.8	138
West Bengal		
GWB		
Bankura	12.4	-53
Birbhum	74.6	170
Burdwan	47.7	82
East Midnapore	27.7	-43
Hooghly	30.5	-11
Howrah	27.2	-26
Kolkata	59.7	34
Murshidabad	97.9	189
Nadia	54.0	140
24 Pargana (N)	76.6	129
Purulia	20.2	-16
24 Pargana (S)	29.6	-55
West Midnapore	18.6	-41
SHWB		
Cooch Behar	48.8	-4
Darjeeling	29.0	-30
East Sikkim	18.0	-69
Jalpaiguri	61.8	7
Malda	85.1	121
North Dinajpur	42.1	35
North Sikkim	75.5	-8
South Dinajpur	61.3	19
South Sikkim	7.6	-87
West Sikkim	17.0	-79
Karnataka		
Coastal Karnataka		

State/Districts	Actual	Dep %
Dakshin Kannada	14.9	-78
Udupi	18.7	-71
Uttar Kannada	49.8	12
North Interior Karnataka		
Bagalkote	37.4	3
Belgaum	25.2	-28
Bidar	57.3	99
Bijapur	51.3	63
Dharwad	28.7	-18
Gadag	2.9	-92
Gulbarga	42.8	28
Haveri	9.2	-72
Koppal	35.1	10
Raichur	24.3	-31
Yadgir	43.2	21
South Interior Karnataka		
Bangalore Rural	18.9	-62
Bangalore Urban	12.7	-73
Bellary	15.3	-54
Chamarajnar	27.9	-27
Chichballapur	18.1	-61
Chickmagalur	4.9	-89
Chitradurga	5.6	-83
Davangere	0.5	-98
Hassan	0.6	-99
Kodagu	16.4	-66
Kolar	26.0	-39
Mandya	33.3	-17
Mysore	24.4	-34
Ramnagara	10.8	-77
Shimoga	4.1	-89
Tumkur	17.2	-58
Kerala		
Alappuzha	1.2	-99
Kannur	4.6	-92
Ernakulam	5.9	-91
Idukki	24.5	-68

State/Districts	Actual	Dep %
Kasaragod	14.1	-80
Kollam	4.5	-95
Kottayam	0.6	-99
Kozhikode	1.9	-97
Malappuram	7.5	-88
Palakkad	5.3	-90
Pathanamthitta	0.0	-100
Thiruvananthapuram	0.4	-99
Thrissur	7.9	-89
Wyanad	27.6	-44
Tamil Nadu		
Ariyalur	0.5	-99
Chennai	0.1	-99
Coimbatore	47.1	68
Cuddalore	0.0	-100
Dharmapuri	38.7	-16
Dindigul	76.2	111
Erode	47.6	36
Kanchipuram	6.8	-83
Kanyakumari	11.1	-73
Karikal	0.0	-100
Karur	56.0	78
Krishnagiri	20.5	-53
Madurai	40.3	-2
Nagapattinam	3.9	-88
Namakkal	41.3	7
Nilgiris	27.6	-35
Perambalur	10.8	-76
Puducherry	3.0	-92
Pudukottai	14.8	-51
Ramanathapuram	11.6	-53
Salem	21.3	-54
Sivaganga	47.5	34
Thanjavur	18.9	-46
Theni	30.2	14
Tirunelveli	5.4	-74
Tirupur	18.5	-39
Tiruvallur	13.1	-67

State/Districts	Actual	Dep %
Tiruvannamalai	26.0	-44
Tiruvarur	25.7	-19
Toothukudi	3.4	-84
Trichy	36.2	-11
Vellore	20.3	-52
Villupuram	0.7	-98
Virudhunagar	48.7	52
Andhra Pradesh		
Coastal Andhra Pradesh		
East Godavari	9.9	-84
Guntur	1.5	-96
Krishna	0.6	-99
Nellore	11.0	-74
Prakasam	5.8	-87
Sirkakulam	1.2	-98
Visakhapatnam	7.9	-87
Vizianagram	1.0	-98
West Godavari	1.7	-97
Telangana		
Adilabad	15.6	-38
Hyderabad	10.9	-61
Karimnagar	13.9	-52
Khammam	8.3	-78
Mehabubnagar	22.6	-24
Medak	21.3	-18
Nalgonda	3.6	-89
Nizamabad	19.6	-29
Rangareddy	26.3	-18
Warangal	5.8	-80
Rayalaseema		
Anantapur	49.9	43
Chittoor	11.3	-73
Cuddapah	7.9	-80
Kurnool	26.6	-17

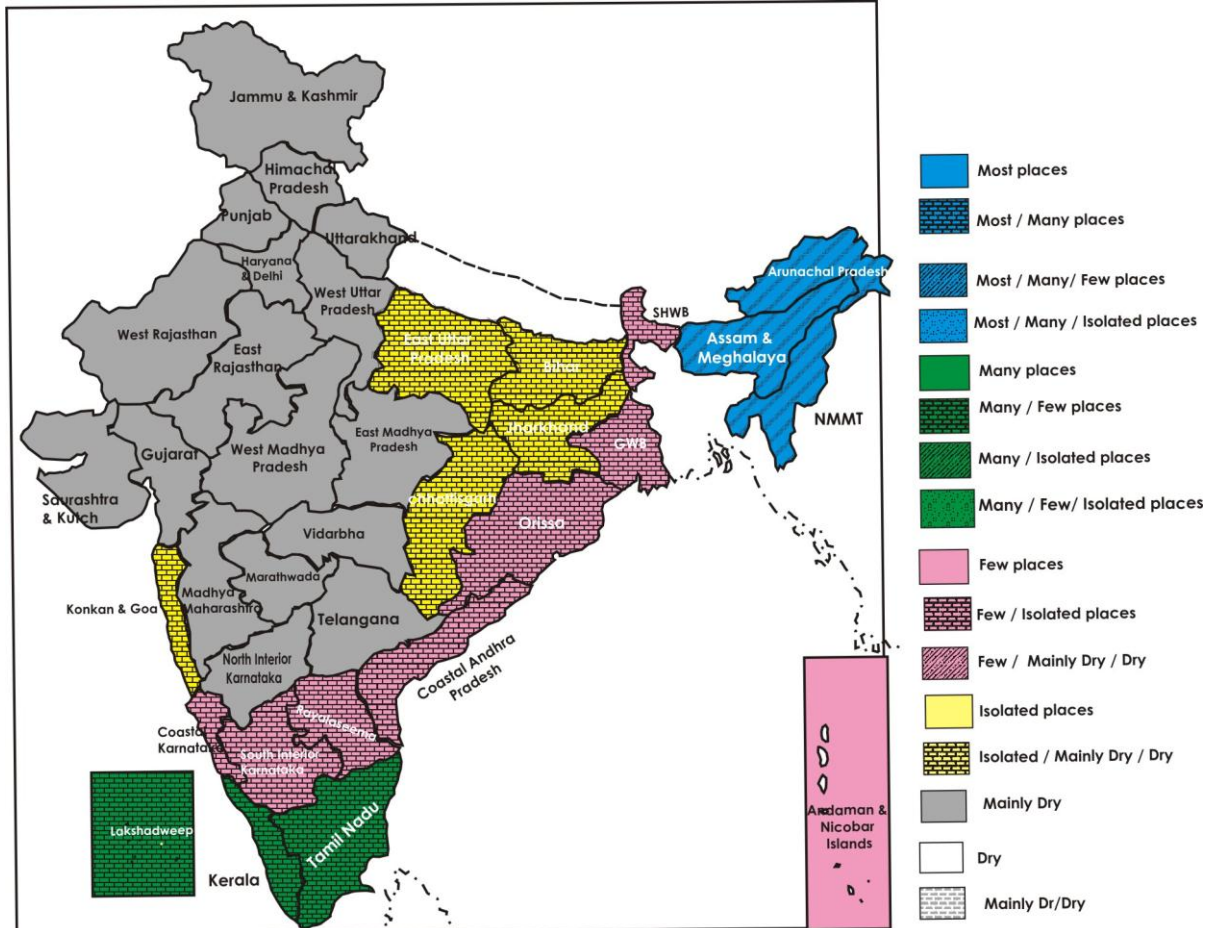


(20% or more) excess rainfall
(-19 to +19%) normal rainfall
(-20 to -59%) deficient rainfall



(-60 to -99 %) scanty rainfall
(-100%) no rainfall
** Data not available

Weather Forecast (Valid upto 0830 hours of 14th October , 2012)



Major Feature of Weather Forecast up to 0830 hours IST of 14th October, 2012

- Rain/thundershowers would occur at many places over northeastern states and Konkan-Goa.
- Rain/thundershowers would occur at most places over Nagaland, Manipur, Mizoram, Tripura, Assam & Meghalaya and Arunachal Pradesh during next 24 hours and decrease thereafter.
- Rain/thundershowers would occur at a few places over Odisha, West Bengal & Sikkim and Andaman & Nicobar Islands during next 48 hours and decrease thereafter.
- Rain/thundershowers would occur at a few places over Kerala, Tamilnadu and Lakshadweep and at one or two places over south Andhra Pradesh and south Karnataka during next 24 hours and increase thereafter.
- Rain/thundershowers would occur at one or two places over south Konkan & Goa, Chhattisgarh, Jharkhand and Bihar during next 24 hours and mainly dry weather thereafter.
- Weather would be mainly dry over rest of the country.
- No significant change in maximum and minimum temperatures over plains of northwest and central India during next 23 days.

Weather Warning during next 3 days

- Heavy to very heavy rainfall would occur at one or two places over Assam & Meghalaya and Arunachal Pradesh during next 72 hours.
- Heavy rainfall would occur at one or two places over Konkan & Goa, Nagaland, Manipur, Mizoram and Tripura during next 48 hours.

Weather Outlook for subsequent 4 days up to 0830 hours IST of 11th October, 2012

- Rain/thundershowers would occur at many places over northeastern states and south Peninsular India.
- Weather would be mainly dry over parts of northwest and adjoining central India.

Zonewise Agromet Advisories

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

- **Realised Rainfall:** Most of the districts of Arunachal Pradesh and Assam received rainfall during last week.
- **Rainfall Forecast:** Rain / thundershowers would occur at most places over Nagaland, Manipur, Mizoram, Tripura, Assam & Meghalaya and Arunachal Pradesh during next 24 hours and decrease thereafter.
- **Warning:** Heavy rainfall would occur at one or two places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 24 hours.
- **Advisories:**
 - As most of the districts of Arunachal Pradesh and Assam received rainfall during last week and rain is also likely to occur at most places over the States of the region during next 24 hours, farmers are advised to postpone irrigation, intercultural operation, application of fertilizer and pesticides to the standing crops. In view of occurrence of heavy rainfall at one or two places in these States during next 24 hours, farmers are also advised to arrange for adequate drainage to avoid water stagnation in the crop fields.
 - Farmers in Hill Zone of Assam are advised to undertake land preparation and nursery sowing of winter vegetables. 4-6 weeks aged Seedlings may be transplanted to the main field.
 - Farmers in lower Brahmaputra Valley Zone of Assam are advised for nursery sowing of early cauliflower, early cabbage, knol khol, winter brinjal and select well drained sandy loam soil for sowing of carrot, onion and garlic.
 - Farmers in Upper Brahmaputra Valley Zone of Assam are advised to undertake sowing of radish and early cauliflower.
 - Farmers in North Bank Plain Zone of Assam are advised to undertake land preparation and sowing and transplanting of early cauliflower, radish, tomato, brinjal, Knolkhol, carrot and spinach beet.
 - Farmers in Central Brahmaputra Valley Zone are advised to undertake nursery preparation for early cole crops, winter brinjal and raddish.
 - Farmers in Barak Valley Zone of Assam are advised to start planting seedlings of brinjal in the main field and select sandy loam soil for cultivation of potato. Farmers are also advised to undertake field preparation for planting of sugarcane (*Autumn* planting). Select upland sandy loam soil for the cultivation of cauliflower.
 - Farmers in Sub Tropical Hill Zone of Arunachal Pradesh are advised to harvest rice, soybean, black gram and green gram. Farmers are also advised to undertake nursery preparation for early cauliflower, cabbage, broccoli and knolkhol and raising seedling of tomato and raddish.
 - In Mild Tropical Hill Zone of Mizoram, farmers are advised to harvest okra, bean and cowpea and nursery sowing of tomato and cole crops.
 - In Mild Tropical Hill Zone of Nagaland, farmers are advised to harvest *jhum* rice. Farmers are also advised for land preparation and transplanting of the seedlings of tomato and cabbage.
 - Farmers in Sub Tropical Plain Zone of Manipur are advised to undertake land preparation and sowing of potato and pea and nursery raising of cabbage, cauliflower, broccoli, onion and capsicum.
 - In Temperate Sub Alpine Zone of Meghalaya, farmers are advised to undertake nursery raising of cole crops and other winter vegetables. Farmers are also advised to undertake sowing of *rabi* maize in low and medium altitude region.
 - In Mild Tropical Plain Zone of Tripura, farmers are advised for land preparation for transplanting of the seedlings of early cauliflower, radish and brinjal in the main field. Farmers are advised to harvest *kharif* maize and sesame and complete the harvesting of bitter gourd and pointed gourd. After harvesting land may be prepared for vegetables like tomato, cauliflower, cabbage, capsicum, radish, carrot and pea etc.
 - Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
 - In Hill Zone of Assam, infestation of rice blast and stem borer may occur in *sali* rice. To control rice blast, spraying of Hinosan @ 1 ml / litre of water and to control stem borer, spraying of Chloropyriphos (20%) @ 2 ml / litre of water may be carried out.

- In Lower Brahmaputra Valley Zone of Assam, leaf folder, Hipsa and sheath blight have reported in *sali* rice; spray Chloropyriphos 20 EC or Monocrotophos 40 EC @ 1.5 ml per liter of water for Hipsa and Nuvacron @ 5 ml per litre of water for leaf folder. To control sheath blight, spray Carbendazim @ 1 g / litre of water twice, first at the appearance of the symptoms and the other at 10 days after the first spraying.
- In Mid Tropical Hill zone of Mizoram there is chance of attack of tikka disease in groundnut; spray Carbendazim @ 0.5 g / litre of water.
- Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
 - In North Bank Plain Zone and Bramhaputra Valley Zone of Assam and Sub Tropical Plain Zone of Manipur and Mid Tropical Zone of Tripura, farmers are advised to vaccinate cattle, pigs and buffaloes against FMD, HS, BQ.
 - In Mild Tropical Hill Zone of Mizoram and Sub Tropical Plain Zone of Manipur, farmers are advised to deworm cattle against Fascioliosis and Endoparasite, vaccinate poultry against Ranikhet and Coccidiosis, deworm pigs and vaccinate against swine fever.

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

- **Realised rainfall:** Rainfall occurred in many districts in Orissa, Bihar and most districts in West Bengal, Sikkim and in Bokaro, Dumka, East Singbhum, Jamtara, Ramgarh, Ranchi and Simdega districts of Jharkhand.
- **Rainfall Forecast:** Rain/thundershowers would occur at a few places over Odisha, Gangetic West Bengal, Sub Himalayan West Bengal & Sikkim, and at one or two places over Jharkhand and Bihar during next 24 hours and mainly dry weather thereafter.

Advisories:

- As rainfall occurred in many districts in Orissa, Bihar and most districts in West Bengal, Sikkim and in Bokaro, Dumka, East Singbhum, Jamtara, Ramgarh, Ranchi and Simdega districts of Jharkhand farmers are advised to postpone irrigation to the standing crops.
- In South Bihar Alluvial Zone, in the upland areas, farmers are advised to prepare field for sowing of toria and mustard. Weather is congenial for planting of onion, mango, litchi and guava. Farmers are also advised to apply last dose of nitrogenous fertilizers in late transplanted rice at panicle initiation stage.
- Farmers in North East Alluvial Plain Zone of Bihar are advised for harvesting of early variety of rice. Maintain optimum moisture level in the rice field which is at flowering stage. Prepare land for early pulses, oilseed and *rabi* vegetables.
- In North West Alluvial Plain Zone of Bihar, farmers are advised to apply life saving irrigation to rice crop which is in milking stage. Farmers are also advised to prepare the land in the upland area for sowing of rapeseed. Undertake sowing of early varieties of carrot. As weather is likely to remain congenial, farmers are advised to harvest the matured maize and rice crops.
- Farmers of East and South Eastern Coastal Plain Zone are advised that now weather is optimum for sowing of mustard under rainfed condition, rainfed groundnut, sunflower and complete sowing of green gram black gram and cowpea.
- Farmers of North Central Plateau Zone are advised to start sowing of black gram & green gram and sesame if not sown.
- Farmers of North Eastern Plateau Zone are advised to maintain optimum water in paddy which are mostly at milking stage and in medium and late paddy which are at panicle initiation stage.
- Farmers of North Eastern Plateau Zone are advised that it is the best time for sowing of toria. They are also advised to start transplanting of winter vegetables like cauliflower, cabbage, chilli tomato, brinjal etc. Spray bioinsecticide like Halt or Delfin @ 1 gm per litre of water to control different insects in cauliflower and cabbage.
- Farmers of North Eastern Ghat Zone of Orissa are advised to go for sowing of non-paddy crops like green gram, black gram, sesame and vegetables such as cowpea, okra and cucurbitaceous crops.

- In Central and North Eastern Plateau Zone of Jharkhand, farmers are advised to undertake sowing of short duration varieties of arhar, groundnut, urad, jowar, soybean, turmeric and okra for inter cropping. Farmers are also advised to sow til, kulthi, potato, green pea and African marigold or French marigold.
- In Western Plateau Zone of Jharkhand, farmers are advised to sow til, kulthi, green pea and grow African marigold or French marigold. After harvesting of moong and urad, undertake sowing of toria immediately in that field. Farmers are advised to sow *rabi* crops like gram, lentil, linseed, pea, mustard, potato etc. Farmers may start seeding of linseed, rape seed and mustard after harvesting of *kharif* crops. Farmers may raise the seedlings of winter vegetables like cauliflower, cabbage, chilli, tomato and brinjal etc and directly sow the seeds of radish, turnip, spinach, carrot etc. Farmers are advised to dry the cob (maize) in the open sun before storage.
- In Coastal Saline Zone of West Bengal, farmers are advised to complete transplanting of seedlings of tomato, cucumber and provide mechanical support. Also start sowing of hybrid radish, spinach and coriander. Cover the land of coriander by straw for better germination of seed. Farmers are also advised to harvest of brinjal and okra.
- In New Alluvial Zone of West Bengal, farmers are advised to sow winter vegetables like onion, capsicum, radish and broccoli etc. Farmers are also advised to start land preparation for sowing of mustard with applying 15 t FYM with 10 kg Azotobactor + PSB/ ha and 30-45 kg Nitrogen, 30 kg P₂O₅ and 20 kg K₂O per hectare as a basal dose. Maintain proper level of standing water in the field of *Aman* rice.
- Farmers in Laterite and Red Soil Zone of West Bengal are advised to prepare main field for transplanting the seedling of winter vegetables like radish, broccoli, cabbage and cauliflower etc. and also advised to harvest of summer vegetables. After harvesting, sowing operation of onion can be started. Farmers are also advised to maintain 5-7 cm depth of water in *aman* rice and irrigate as per requirement.
- Farmers in Hill Zone of West Bengal are advised to start land preparation for the transplanting of early cauliflower. Seedbed may be prepared for the sowing of late varieties of cauliflower and cabbage. Farmers are also advised to harvest maize.
- Farmers in Old Alluvial Zone of West Bengal are advised to start seedbed preparation for winter vegetables. Maintain 5-7cm water in field of *Aman* rice.
- Farmers in Terai Zone of West Bengal are advised to prepare seedbed for planting winter seasonal flowers. Farmers are also advised raising the seedbed of brinjal and tomato.
- Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
- Brown Plant Hopper and sheath blight occurrence in rice is reported in Western Undulating Zone of Orissa during this period. For control of BPH, basal spraying of Buprofezin @1.5ml/lit. of water or Imidacloprid @1ml/4lt. of water should be done. Make alleys at two metre spacing in the field to drain out water and better circulation of air and penetration of light. Alternate wetting and drying of field should be done. To control sheath blight, spray Validamycin@1.5ml/litre of water. There is infestation of whorl maggot and leaf folder in paddy for which spray Chloropyriphous or monocrotophos @2ml/lit of water.
- Stem borer infestation occurred in some area on maize crop in Western Undulating Zone of Orissa. Apply granular insecticides like Thimet or Phorate 4-5 granules to the middle whorl per plant and spray Monocrotophos@ 2ml/ lt. of water.
- Infestation of blister beetle is severe in arhar during flowering particularly in the month of October. Farmers of East and South Eastern Coastal Plain Zone are advised to spray 2 ml Neem oil along with 1 ml Endosulphan in 1 litre water thrice at an interval of one week. If pod borer infestation has been found, spray 200 ml Endosulphan along with 200 Neem based pesticides in 200 litre water.
- Infestation of early shoot borer in sugarcane has been occurred. Farmers of North Eastern Ghat Zone of Orissa state are advised to 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 litre water. Spray 2 g Bentan or Crilton in each litre water to control red rot.
- Top shoot borer infestation has been found on sugacane crop. Farmers of Mid Central Table Land Zone of Orissa are advised that if it crosses the ETL level (5% dead heart), go for hoeing, weeding and

apply 4 kg phorate or 12 kg Carbofuran or 10 kg Cartap per acre followed by earthing up. Spray 400 ml Monocrotophos/Tryozophos/Profenophos for control of early stem borer.

- Fruit and shoot borer in brinjal has been found in Mid Central Table Land Zone of Orissa. Farmers are advised to control it by installing Pheromone trap @ 12 nos /ac. Alternately spray 4 g Sevin WP or 2 ml Malathion in 1 litre water. Root rot of pointed gourd is observed. Spray 10 g Plantomycine along with 20 g Blitox 50 in 10 litre water. Thrips in chilli has been found, spray 300 ml Ethion or 400 ml Carbosulphan in 200 litre water/acre. Drain out excess water from the vegetable field.
- Due to humid and wet weather in Terai Zone of West Bengal, tobacco caterpillar may be found in bean. Spray mixture of Idoxacarb and Novaluron @ 2 ml per lit. of water. Sheath blight, stem borer, leaf folder, ear cutting caterpillar may be found in rice. To protect from sheath blight spray Carbendazim 1 gm per lt of water or Validamycin 2 ml per lit. of water. To protect from stem borer and leaf folder spray Fipronil 80% WG 2 gm per 15 lit. of water.
- Due to favourable weather condition in Hill Zone of West Bengal, fruit borer and shoot borer may attack in brinjal, Okra, tomato and chilli, for the management of fruit borer and shoot borer Dichlorvos may be sprayed @0.75ml/litre of water. Aphids, lemon butterflies and powdery mildew may be infested in orange. For their protection spraying should be done with Endosulfan @ 2ml/litre of water. For protection against powdery mildew wettable sulphur should be sprayed @ 2g/litre of water.
- Under present hot and humid situation in Laterite and Red soil Zone of West Bengal, sheath blight may attack Aman rice. As a control spray Carbendazim @1.5 g/l of water. In case of stem borer attack spray Carbosulfan 25 EC @ 2ml/l or Profenphos 40% + Cypermethrin 4% @ 1ml/l of water.
- Stages of major crops are mentioned in Annexure I.

Animal Husbandry

- Farmers of North Central Plateau Zone of Orissa are advised that during rainy season the high moisture content may accelerate the growth of fungus (*Aspergillus Spp.*) in the poultry feed. So all feed concentrate meant for poultry should be dried to 12% moisture. In cattle to prevent the out break of foot and mouth disease, FMD vaccine may be administered to the adult cattle@5ml S/C.

Pisciculture

- Farmers of North Eastern Plateau Zone of Orissa are advised to apply CIFAX 400ml/ha mt of water as prophylactic measures against diseases. Apply Lime @ 250 kg/ha.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** All districts in Konkan, Madhya Maharashtra except Dhule, Jalgaon Nandurbar, Beed, Latur and Parbhani districts in Marathwada and Washim district in Vidarbha received significant rain during last week. Valsad and Dangs districts in Gujarat received significant rain during last week.
- **Rainfall Forecast:** Rain / thundershowers would occur at one or two places in South Konkan during next 24 hours and mainly dry weather would prevail in remaining region of Maharashtra and Gujarat State.
- **Advisories:**
 - Due to recent rain matured bajra, soybean, groundnut in South Madhya Maharashtra, Marathwada and Akola, Buldhana districts in West Vidarbha and early maturing kharif rice in Konkan and Kolhapur division is likely to be damaged, farmers are advised to complete harvesting of already matured crops.
 - As most of the districts in Madhya Maharashtra received rain during last week, farmers are advised to continue sowing of rabi jowar, safflower, maize and rainfed gram with the help of optimum soil moisture in the field.
 - As early maturing and mid late varieties of kharif rice are in maturity stage in Konkan and Kolhapur division, farmers are advised to harvest matured rice crop. Late maturing varieties of rice are in grain formation stage, farmers are advised to maintain 5-10 cm water level in the field.
 - Farmers in Ahmednagar, Dhule and Nandurbar districts are advised to undertake sowing of rainfed rabi gram by selecting varieties "Vijay and Dig Vijay".
 - As kharif rice is in flowering / grain formation stage in Pune (Western parts), Nasik and East Vidarbha region and mainly dry weather is expected during next 2-3 days, farmers are advised to maintain water level 5-10 cm by bunding in mid late and late maturing rice field.

- As early sown kharif jowar and groundnut are in grain / pod maturity stage in Madhya Maharashtra and Marathwada region, farmers are advised to start harvesting of already matured crops.
 - As irrigated cotton is at boll maturity stage in North Madhya Maharashtra and Aurangabad division and mainly dry weather is expected during next 2-5 days, farmers are advised to start picking of fully opened cotton bolls.
 - As sky will remain mainly clear and no rain would occur in North Gujarat Zone, carry out harvesting of pulses and light digging in basin of orchards to remove weed. Prepare the fallow land for sowing rabi crops and make crop planning for rabi sowing according to availability of irrigation water. Apply irrigation in tobacco nursery, castor crop and groundnut, which is in pod development stage to avoid moisture stress. Carry out picking of matured cotton bolls.
 - Undertake sugarcane plantation by selecting sugarcane cutting with 2-3 buds and giving set treatment with Emisan and Melathion solution as this is the best time for plantation in South Gujarat Zone.
 - As paddy is in grain filling stage in middle Gujarat Zone, keep 5 to 7 cm standing water in paddy field. Drain out excess water from paddy field. Carry out harvesting of paddy crop when it is yellow and at around 14% moisture in grain. Taking advantage of dry weather carry out harvesting of matured cluster bean, green gram, Indian bean and maize crops, threshing of bajra during noon. As there was no rain during last week and dry weather is likely to prevail, apply irrigation to okra, brinjal, tomato, chilli and other vegetables and raise nursery for winter vegetables, if facility of agro shade net is available. Apply top dressing dose of fertilizer @ 19 Kg Nitrogen (41 Kg Urea) per hectare during optimum soil moisture condition in early sown irrigated castor. Prepare land for sowing of mustard crop.
 - Harvest green gram and pulses at proper time in North West Zone of Gujarat. Apply irrigation in groundnut, bajra and jowar. Carry out weeding and apply half dose of fertilizer in horticultural crops.
 - Carry out hand weeding in vegetables in South Saurashtra Zone of Gujarat. Apply irrigation as and when required in vegetables. Harvesting of groundnut and castor may be done in time.
 - Spray 5 ml NAA in 10 litre of water in cotton to prevent dropping of squares and flowers in North Saurashtra Zone. Give supplementary irrigation to cotton crop, if irrigation facility is available. If regrowth of cotton is good and irrigation facility is available, spray liquid fertilizer containing micronutrients at morning or afternoon hrs. Undertake sowing of gram (Gujarat gram-2 or Gujarat gram-3) and mustard (Varuna or Gujarat mustard-1), if 2-3 irrigation facility available. Hand picking of castor leaves having egg mass of Prodenia may be done for better control of Prodenia in castor crop. Carry out intercultural operation in lemon.
 - Carry out harvesting of *kharif* crops in South Gujarat Heavy Rainfall Zone. Taking advantage of recent rain in Valsad and Dangs districts, farmers are advised to sow mustard before 15th October to escape mustard sawfly and thrips epidemic, selecting varieties varuna, GM-1 or GM-2. Carry out picking of matured cotton bolls regularly and interculturing and hand weeding in castor to conserve the soil moisture. Apply supplementary dose of fertilizers. Apply irrigation to vegetables and castor.
 - Carry out intercultural and hand weeding operations in castor in Bhal and Coastal Zone of Gujarat. Apply supplementary dose of fertilizers in castor and vegetables. Apply irrigation in vegetables.
 - Stages of the crops are mentioned in Annexure I.
 - Prevailing weather is congenial for incidence of white fly in *suru* and pre seasonal sugarcane in Kolhapur division in Maharashtra, spray Monocrotophos @ 1200 ml / ha in 1000 litres of water.
 - Due to change in weather there may be incidence of mango hoppers on new flush in mango in South Konkan, spray 25 % Cypermethrin @ 3 ml or 2.8 % Deltamethrin @ 9 ml or 20% Fenvelarate @ 5 ml per 10 litres of water on whole tree.
 - Due to rain and humid weather there is incidence of white fly, thrips and jassids in cotton in Western Maharashtra Scarcity Zone, spray Acephate @ 20 g + Monosil @ 20 ml in 10 litres of water. There is also incidence of white fly in cotton in Marathwada region, spray Acephate @ 20 g or Trizophos @ 20 ml in 10 litres of water.
 - Due to uneven rains, the incidence of rice ear head bug is observed in late variety of *kharif* rice in some parts of Sindhudurg district, dust 2% Methyl Parathion dust @ 20 kg/ha.
 - Varieties of *kharif* crops are mentioned in Annexure II.
- Animal Husbandry:**
- Wash eyes by diluting a pinch of boric powder in warm water thrice daily in case of conjunctivitis in cattle in Middle Gujarat Zone.

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

- **Realised Rainfall:** No significant rainfall occurred over the States of the region.
- **Rainfall Forecast:** Mainly dry weather is likely over the region.
- **Advisory:**
 - As no significant rainfall occurred over the States of the region and no significant rainfall is likely during next three days, farmers are advised to apply irrigation to the standing crops in the region.
 - Farmers in Flood Prone Eastern plain zone of East Rajasthan are advised to prepare field for sowing of *rabi* crops like wheat, mustard, potato and lentil.
 - Farmers in Semi-arid Eastern plain zone of Jaipur and Southern humid plain zone of East Rajasthan are advised to continue field preparation for the sowing of *rabi* crops like rainfed taramira, toria and mustard. Undertake sowing of early pea.
 - In Arid Western Plain Zone Bikaner of West Rajasthan, farmers are advised to undertake hoeing and weeding in late sown *kharif* crops, also undertake sowing of taramira, toria and mustard. Sowing of gram may be started.
 - In Arid Western Plain Zone Jodhpur, farmers are advised to undertake sowing of mustard.
 - In Transitional plain zone of Inland Drainage (Fathepur), farmers are advised to start field preparation for sowing of rainfed taramira, toria and mustard.
 - In Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan, farmers are advised to undertake sowing of toria, taramira, mustard and gram for *rabi* season and undertake picking of mature cobs and harvesting of green gram and pulses.
 - In Sub Humid Southern Plain zone of East Rajasthan, farmers are advised to prepare the field for sowing of mustard.
 - In southern humid plain zone of East Rajasthan, farmers are advised to start harvesting of *kharif* crops and prepare the fields for sowing of *rabi* crops. Apply irrigation at the time of milking stage in soyabean and flowering in cotton.
 - In irrigated Northwestern Plain zone of West Rajasthan, farmers are advised to prepare the field for sowing mustard and gram. Do not irrigate in cotton field and start picking.
 - In Intermediate zone of Jammu & Kashmir, farmers are advised to continue sowing of potato, pole type beans, radish, carrot, turnip, garlic, methi and nursery sowing of cauliflower and cabbage, undertake sowing of toria with intercropped with gobi sarson, berseem crops and harvesting of moong, vegetables, maize, *kharif* fodder and early sown rice crops. Apply irrigation and hoeing and weeding may be done.
 - In Sub tropical zone of Jammu and Kashmir, farmers are advised to continue sowing of gobi sarson and fodder crop and start harvesting of rice, maize, bajra and pulses.
 - In Temperate Valley Zone of Jammu and Kashmir, farmers are advised to start field preparation for sowing of *rabi* crops before 15th October.
 - In East Uttar Pradesh, farmers are advised to undertake sowing of toria, onion, garlic, radish, potato, carrot and pea, intercultural operation in pea, urd, mung, transplanting of cauliflower, brinjal, chilli, tomato, sugarcane and fertilizer application in sugarcane may be continued.
 - In east Uttar Pradesh, dry weather prevailed during this week. Farmers are advised to harvesting of short duration varieties of paddy, complete sowing of early potato, toria, irrigation in long duration varieties of paddy and tillage of fallow lands.
 - In Central plain zone of Uttar Pradesh, farmers are advised to sow sugarcane. Start sowing of rai, potato. Also, undertake sowing of non-irrigated wheat and rai in Bundelkhand Zone.
 - In Western Plain Zone of Uttar Pradesh, farmers are advised to stop irrigation before harvesting of rice. When plants turn yellow then start harvesting. Also, advised to tie up sugarcane crops. Intercrops such as potato, raya, may be sown in sugarcane. Transplanting of brinjal and chilli may be undertaken. Prepare land for nursery sowing of onion and tomato.
 - In Central Plain Zone of Uttar Pradesh, farmers are advised to undertake sowing of onion, garlic, carrot, radish, coriander, potato and pea. Also advised to undertake hoeing and weeding in fruit plants like banana, pappya, mango and guava.
 - In West Uttar Pradesh, transplanting of brinjal, chilli and tomato, cauliflower, cabbage may be done. Undertake harvesting of urd, moong. Prepare the land for of sowing of early potato and vegetable pea and toria/lahi.
 - In (Palampur) Sub-Montane & Low Hills Sub-Tropical Zone and (Seobagh) Mild Hills Sub Humid Zone of Himachal Pradesh, farmers are advised to maintain 4-5cm of water level in rice field for good yield. It is optimum time for nursery sowing of early variety of pea, raddish, turnip, corriander, cabbage, Knol khol, broccoli, parsley, lettuce, fennel and cauliflower.

- In (Palampur) Sub-Montane & Low Hills Sub-Tropical Zone Himachal Pradesh, farmers are advised to take up sowing of barley in the high altitudes and complete the sowing of potato in the lower hill areas.
- In Bhabar and Tarai Zone of Uttarakhand, farmers are advised to do harvesting & threshing of matured rice crop during this week. In the hilly region, farmers are advised to go for sowing of vegetable crops like vegetable pea, coriander, spinach, radish and mentha etc. The sowing distance from line to line must be 30 cm. Farmers are also advised to go for planting of potato during this week with high yielding varieties. Apply 5 kg Urea, 15 kg SSP and 4 kg MOP per Nali before planting of potato tubers.
- In (Ranichuri) Hill zone, Uttarakhand, farmers are advised to start sowing of vegetable pea from end of this week. Farmers are advised for sowing of high yield variety of toria utilizing realized rainfall of last week. Also advised to sow wheat, vegetables after harvesting of *kharif* crops.
- In Sub humid sub tropic zone of Uttarakhand, farmers are advised to harvest early planted rice crop. In case of late planted varieties which are at heading stage, it is the most sensitive stage of irrigation thus apply mild irrigation. Supplemental irrigation may be done in brinjal, chilli and lady's finger after earthing up and weeding. Also it is appropriate time for sowing of vegetable pea and mustard.
- Farmers in Delhi are advised to start field preparation for *rabi* crops. Ploughing and planking should be done properly to conserve the moisture in the soil. Undertake sowing of early mustard, pea, planting of early potato, sowing of carrot, sarson saag, spinach radish, fenugreek, coriander, bathua and turnip. Transplanting of mature seedlings of cauliflower, cabbage, broccoli and tomato may also be done in raised bed. Nursery preparation should be started for late crop which mature in December or January. Training and pruning as well as intercultural operations of rose should be done in present weather conditions. Marigold should be transplanted in raised bed as earliest. Sowing of gladiolus should be done in prepared fields.
- Farmers in Western Zone in Punjab are advised to complete harvesting of the paddy crop and picking of cotton bolls. Undertake sowing of raya during first fortnight of this month. Sow barseem or lucerne in mixture with oats and sarson. Use PBR-210 and PBR 91 varieties for districts in South Western Region only. Transplant main season varieties of cauliflower and cabbage. Complete sowing of autumn potato crop in first fortnight of this month particularly for seed production purpose and use healthy tubers.
- Farmers in Punjab and Haryana are advised to complete harvesting of matured paddy crop and continue picking of cotton. Farmers in Punjab are advised to complete sowing of autumn potato crop in first fortnight of October particularly for seed production purpose and use healthy tubers. Transplant 4-6 weeks old seedlings of cabbage, mid season cauliflower, chinese cabbage and broccoli.
- Farmers in Western Zone in Punjab are advised to undertake sowing of raya during first fortnight of October. Sow barseem or lucerne in mixture with oats and sarson.
- Farmers in Western Plain Zone of Haryana are advised to complete planting of autumn sugarcane up to 20th October. Intercrops such as potato, raya, gobhi sarson, winter maize, cabbage, reddish peas may be sown in sugarcane during this month. Start sowing nursery of tomato.
- Farmers in Eastern Zone of Haryana are advised to undertake picking of cotton when the dew is dried up. Start the harvest of ripened bajra and guar.
- Farmers in Western Zone of Haryana are advised to complete harvesting of early maturing non scented paddy crop.
- In Sub Humid Southern Plain of East Rajasthan, farmers are advised to control stem borer and blast in paddy spray Monocrotophos 36 S.L. 1.0l/ha and tricyclozel 0.1% respectively.
- In southern humid plain zone of East Rajasthan, farmers to control tobacco caterpillar in soyabean spray 14.5 S.C Endoscarb @ 300 ml/lit.
- In Sub Humid Southern Plain and Aravali Hill Zone of East Rajasthan, farmers are advised to control leaf curl disease in Shimla mirch by spraying Phosphomidon 40 S.L. @ 1ml/lit of water.
- In Transitional Plain Zone of Inland drainage of West Rajasthan, cauliflower is affected with leaf eating insects like sawfly, flea betel and lemon butterfly. Farmers are advised to spray Melathion 5% or Carboryl 5% dust @ 20-25 kg /ha.
- In Transitional Plain Zone of Inland drainage of West Rajasthan, bacterial blight attack on late sown green gram, moth bean and cowpea is reported, spray Streptocyclin @ 1 gm and copper fungicide @ 20 gm per 10 litre of water. Also attack of fruit borer in bitter gourd, Tinda, cucumber, brinjal and tomato is observed, pick affected fruits and buried them deep in soil and spray Melathion 50 EC @ 1.0 ml per litre of water.
- Termites may damage crops and vegetables in the present weather in Delhi. Farmers are advised to spray Chlorpyrifos 20 % EC @ 4 ml/litre of water.
- False smut may appear in paddy in present weather conditions in Delhi. Symptoms include increase in grains size with brown colored fungus inside. Spraying of Blitox 50 @ 500 grams per hectare at 10 days interval (2-3 times) is advised.

- Due to high humidity there is possibility of attack of whitefly and sundi in late sown cotton crop in Eastern Zone of Haryana, spray the crop with recommended insecticide.
- **Animal Husbandry**
 - In Uttarakhand, farmers are advised to maintain proper cleanliness in animal sheds for avoiding incidence of diseases. Farmers are advised to use Iron case in poultry house for birds. It will give more eggs & will increase feed efficiency of birds. Proper care should be taken for cattles because the chance of Foot Mouth disease is more during rainy season. Green forages is more available at this time but it should be mixed with wheat straw in 30: 70 ratio for feeding. Proper vaccination of all cattles and hens/bird should be during this period.
 - In Transitional Plain Zone of Inland drainage and sub-humid southern plain and Aravali hilli zone of Rajasthan farmers are advised to that, mastitis disease may be seen in milch animals. In this disease, mammary glands & teats become swollen & blood spots in milk may be seen. Treat the affected animal under the guidance of veterinary Doctor, protect sheep and infants from pink cold, give vaccination to animals against H.S/B.Q.
 - In intermediate zone of Jammu & Kashmir, vaccination of animals against FMD is advised. 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 Western plain Zone of Punjab, farmers are advised to provide dry bedding to young calves.
- **Horticulture :**
 - In intermediate zone (Pahalgam) of Jammu & Kashmir, farmers are advised to undertake planting of litchi.
 - In sub tropical zone of Jammu and Kashmir farmers are advised to apply the dose of urea.
 - In valley temperate zone of Jammu and Kashmir, continue harvesting of apple and walnut. Maintain orchard sanitation.
 - In Eastern plain zone of East Rajasthan, farmers are advised to sow seeds for raising nursery of autumn vegetables like tomato, brinjal, cauliflower, cabbage and radish.
 - In Arid Western Plain Zone Jodhpur farmers are advised to apply irrigation with urea to plum fruit.
 - In Irrigated North Western plain zone of Rajasthan, farmers are advised to give regular irrigation to kinnow fruit.
 - In arid western plain and semi-arid eastern plain zone of Rajasthan, farmers are advised to spray Dimethoiate 30 EC / @ of lit water to control mosaic disease in papaya.
- **Apiculture**
 - In Intermediate zone of Jammu & Kashmir, provide ample space for queen be by giving drawn comb. Week colonies may be provided sealed brood from strong one to equalize the strength of all the colonies. Stimulating feeding of sugar, syrup should be given for expansion of brood area, if needed at the start of the month. Sulphur dusting may be continued at fortnight interval. Protect the bees from the birds by scaring. Wasps nest should be destroyed by dusting or spraying with insecticides or by killing them with fly flapper. Ants should be checked by placing the legs of the stands of beehives in the water pots or by dusting with lindane 5% around the apiary or on the nest of the ants. Queenless colonies should be united with strong ones. (Sulphur dusting should be avoided in temperate regions)
- **Floriculture**
 - In Himachal Pradesh, when the seasonal flower crops attain height of 10-15cm then do pinching of terminal growing buds 1-2 cm so as to encourage the side branching for profuse flowering.
 - Farmers in Flood prone Eastern plain zone (Bharatpur) in East Rajasthan are advised to transplant marigold, balsom and xenia. Plant cuttings of bougainvillea, mogra and chameli.
In valley temperate zone of Jammu and Kashmir, regular check out the stored bulbs of tulip and other planting material to avoid damage. Mowing of lawn should be followed regularly. Sow the seeds of spring annuals as early as possible if not sown till now. Collect the seeds of summer annuals. Stop irrigation in gladiolus and liliium field. Preparation of land for spring flowering annuals should be followed.

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

- **Realised Rainfall:** Coimbatore, Dharmapuri, Dindigul, Erode, Madurai, Namakkal, Sivaganga, Theni, Trichy and Virudunagar in Tamil Nadu, Anantapur in Rayalaseema, Uttar Kannada in Coastal Karnataka, Bagalkote, Bidar, Gulbarga, Koppal and Yadgir in North Interior Karnataka, and Mandya in South Interior Karnataka received good rainfall during last week. No significant rainfall occurred over remaining parts of the region.
- **Rainfall Forecast:** Rain/thundershowers would occur at a few places over Kerala, Tamilnadu, and at one or two places over south Andhra Pradesh and south Karnataka during next 24 hours and increase thereafter. Weather would be mainly dry over rest of the region.
- **Advisories:**

- As Coimbatore, Dharmapuri, Dindigul, Erode, Madurai, Namakkal, Sivaganga, Theni, Trichy and Virudunagar in Tamil Nadu, Anantapur in Rayalaseema, Uttar Kannada in Coastal Karnataka, Bagalkote, Bidar, Gulbarga, Koppal and Yadgir in North Interior Karnataka, and Mandya in South Interior Karnataka received good rainfall during last week., postpone irrigation to the standing crops and drain out excess water from the fields. Apply irrigation to the crops in the remaining parts of the region, as no significant rainfall occurred.
- Farmers in the Eastern Dry zone of Karnataka are advised to take up inter cultural operations in ragi and top dress with urea. Take up normal agricultural operations for the standing crops.
- Farmers in the North East Transition zone of Karnataka are advised to take up sowing of rabi sorghum, wheat, Bengal gram and safflower. Before sowing sorghum, soak one kg seeds in 30g Calcium Chloride solution in 1.5 litres of water for 8 hours and then shade-dry to induce drought resistance.
- In North Dry Zone of Karnataka, farmers are advised to take up the sowing of sunflower, safflower, chickpea and rabi jowar. Sow the tall variety of Rabi jowar at the border of the chickpea field to control the pod borer pests. Also to treat the seeds of sunflower and sorghum with Azospirillum + PSB and Capton or Thiram or Carbandizeme at the rate of 2 gram per Kg of seeds or Trichoderma at the rate of 4 gram per Kg of seed before sowing for the better growth of crop and to avoid the diseases that may attack the crop. Harvesting of pearl millet (Bajra) may be taken up carefully since there is possibility of rain at some places. After harvest, sundry the grains and then store.
- In the North Transition zone of Karnataka farmers are advised to take up the sowing of sorghum, check pea, wheat and safflower as good soil moisture is available and immediately after the sowing apply Herbicide of Atrazine @ 0.5 kg a.i. per ha to keep the field weed free for about 20-25 days.
- In North East Dry zone of Karnataka, farmers are advised to undertake inter cultivation in all long duration kharif crops like redgram, cotton etc. Wherever it is possible hand weeding can also be done in between the plants and can make top dressing. Farmers may continue Rabi land preparation. Sowing of R Sorghum can be done after soaking the sorghum seeds in Endosulfan 35 E.C solution (2ml/l of water) for eight hours and shading dry before sowing to protect from shoot fly damage and treating the dry seeds with Sulphur 2 g/kg of seed before sowing to avoid black smut disease.
- Farmers in High altitude tribal zone of Andhra Pradesh are advised to maintain 5 cm of standing water in rice crop.
- Farmers in the Krishna Godavari zone of Andhra Pradesh are advised to do Foliar application of 2% urea/2%DAP/2% KNO₃ at square formation, flowering and boll development stages in the cotton crop. Farmers are also advised to take up sowing of *rabi* black gram/ green gram/ red gram. The recommended varieties are enclosed in the annexure. They are further advised that if transplanting of rice could not be completed due to water shortage then take up alternate crops maize/jowar/black gram/green gram/rabi red gram.
- Farmers in the Southern zone of Andhra Pradesh are advised to take up harvesting of groundnut crop if the 80 % of leaves turn yellow and black inside.
- Farmers in the Central Zone of Kerala are advised to start preparation for transplanting of mundakan crop, continue inter-cultural operation and weeding in coconut gardens and go for the application of second dose of fertilizer to coconut and pepper, since light rain is expected. This is the best time for planting vegetables for seed production. Cultivate tomato varieties like Sakthi, Mukthi, Anagha and brinjal varieties like Swetha, Haritha for resistance in bacterial wilt prone areas.
- Since light to moderate rain fall is expected in the next five days, farmers in the Cauvery Delta Zone of Tamil Nadu are advised to take up nursery sowing with short duration varieties like ADT 36, ADT 37, ADT 42, ADT 45, ADT 47, Co 47 and ASD 16 for samba season to avoid terminal drought as well as timely sowing of rice fallow pulses and postpone application of fertilizers and herbicides to samba paddy fields in next few days.
- As good rainfall is expected in the forthcoming week, farmers in the Western Zone of Tamil Nadu are advised to take up land preparation for sowing of pulse crops. Farmers are also advised to undertake drainage facility to avoid water stagnation in maize, as good amount of rainfall was received last week.
- Farmers in the North Western Zone of Tamil Nadu are advised to start plantation of castor, onion, vegetables, fruit crops, coconut and fodder sorghum immediately, with the rainfall received last week.
- Since there is forecast of rainfall in the coming days, farmers in the High rainfall Zone of Tamil Nadu are advised to plough fields and undertake interspaces of perennial crops for effective harvesting of rain water.
- Stem weevil infestation is being noticed in rainfed cotton in the Cauvery Delta Zone of Tamil Nadu. Farmers are advised to apply carbofuron 3G at 12 kg/ac on 20 DAS to control stem weevil infestation
- Farmers of North Dry zone of Karnataka are advised to manage white woolly aphid on sugarcane, by the following measures 1) Drain out the standing water from the field. 2) Spray the crop with, 1 gram Aciphate or 2 ml Chlorpyrifos dissolved in one liter of water. Otherwise, Broadcast 25 Kg Phorate granules (per hectare)

mixed in sand, uniformly in the sugarcane field. To manage stem borer on Maize and Sugarcane, spray the crop with, 0.5 ml Cypermethrin or 2.5 ml Chlorpyrifos or 2 ml Quinolphos dissolved in one liter of water. To manage sucking pests on cotton spray the crop with, 1.75 ml Dimetoate or 2.5 ml Chlorpyrifos or 2 ml Quinolphos dissolved in one liter of water. To manage leaf minor pest on groundnut, take up spraying of 2 ml Prophenophos or 1ml Monocrotophos dissolved in one liter of water.

- Farmers of North Transition zone of Karnataka are advised to manage Leaf spot and rust on groundnut, root grub in sugarcane, fruit borer in vegetables and mealy bug, pink boll worm on cotton by taking plant protection measures.
- Farmers of Southern Transition Zone of Karnataka are advised that if neck blast disease on paddy is noticed, spray 0.5 ml of tricychlozole per litre of water.
- Farmers of the high altitude zone of Kerala are advised to plough the inter spaces for controlling the weed growth and enhancing the infiltration of rain in coconut orchards during NE monsoon. Leaf axil filling with sand and carbaryl for controlling red palm weevil and Rhinoceros beetle is also suggested. For controlling Bud rot it is suggested to remove the infected areas and dress with Bordeaux paste.
- Stem weevil infestation is being noticed in rainfed cotton in the Cauvery Delta Zone of Tamil Nadu. Farmers are advised to apply carbofuron 3G at 12 kg/ac on 20 DAS to control stem weevil infestation.
- Brown plant hopper, sheath blight, leaf fodder and blight noticed on rice (in Swarna variety) crop in the North Coastal Zone of Andhra Pradesh. Farmers are advised to drain out water from the field and take appropriate plant protection measures. Further Red rot was observed on sugarcane plantations. Farmers are advised to remove red rot infested plants with roots and destroy.
- Incidence of jassids, leaf spot is noticed on BT Cotton in the Southern Telangana zone of Andhra Pradesh. Farmers are advised to take appropriate plant protection measures.
- **Livestock**
- In North Dry Zone of Karnataka, farmers are advised to vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and Haemorrhagic Septicaemia and sheep and goats against Enterotoxemia.
- Farmers in the Southern and Northern Telangana zone of Andhra Pradesh are advised to vaccinate the against ET and Hemorrhagic Septicemia in Cattle, Buffaloes and Black Quarter in cattle.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Rainfall occurred in few districts of East Madhya Pradesh and many districts in Chattisgarh.
- **Rainfall Forecast:** Rain/thundershowers would occur at one or two places over Chhattisgarh during next 24 hours and mainly dry weather in the rest of the region.
- **Advisories:**
 - Farmers in Madhya Pradesh and Chhattisgarh are advised to provide irrigation to the standing crops as there was no significant rainfall during last week.
 - Farmers in Kymore Plateau and Satpura Hills region of Madhya Pradesh are advised that top dressing of remaining nitrogenous fertilizer may be applied in rice. Again fill the water in the paddy field after three days. Undertake sowing / transplanting of tomato, brinjal, onion, chilli, and cauliflower. Weeding in rice, arhar, ginger and turmeric field should be done and give irrigation as per requirement in chilly, brinjal and tomato field.
 - Farmers in Gird Zone of Madhya Pradesh are advised to prepare fields for *rabi* crops Conserve moisture in the field. This is proper time for sowing of potato, nursery preparation of vegetables and coriander.
 - Farmers in Malwa Plateau Zone of Madhya Pradesh are advised that early varieties are at maturity; harvest the crop at physiological maturity. Arrange seeds of improve varieties and fertilizer for sowing of *rabi* crops. Nursery for *rabi* vegetables can be prepared in elevated bed so that water logging can be avoided. Sowing of leafy vegetables, radish, and carrot should be done.
 - Farmers in Jhabua Hills of Madhya Pradesh are advised to harvest soybean, urad and maize crop, then dry in sun light at proper moisture level then threshed. Give irrigation in cotton crop if moisture stress condition is there. Apply recommended dose of fertilizers in cotton crop. Arrange inputs– seed, fertilizers and chemicals as soon as possible for *rabi* crop cultivation. Tillage operation should be done in fallow field. Irrigated pea/gram (Green) crop may be sown. Transplanting of cauliflower for early crop may be done. Prepare nursery of *rabi* onion.

- Looking to the possibility of dry weather condition during next five days, farmers in Bundelkhand region of Madhya Pradesh are advised to start harvesting and threshing of the mature crops of urd, moong and soybean etc. and perform sun drying. In view of moisture availability in soil, farmers are advised to sow chickpea, lentil, linseed and mustard in already prepared field also treat the seed with fungicide Captan or thairum @ 2g/kg and there after use the rhizobium culture. Do hoeing and weeding in vegetables and orchard crops and also apply irrigation. They are also advised to use mulch to enhance germination after the sowing of coriander and garlic.
 - Farmers in Vindhya Plateau of Madhya Pradesh are advised to sow improved varieties of irrigated and non-irrigated wheat and gram. Harvest the mature crop of urad, moong, soybean and arhar, thresh it after proper drying.
 - Farmers in Central Narmada Zone and Nimar Valley Zone of Madhya Pradesh are advised to harvest the mature crops, dry it in sunlight and then thresh. Prepare land for sowing of *rabi* crops and arrange inputs for *rabi* sowing.
 - Present weather conditions are suitable for sowing of nursery of early varieties of cabbage, tomato, brinjal, chilli etc. in a raised nursery of about 6 inch with proper drainage system in Chhattisgarh Plain Zone. Farmers are advised to undertake sowing / transplanting of vegetables utilizing the realized rainfall during last week. Present weather conditions are suitable for sowing of niger, winter black gram and lobia, hence it is advised to complete the sowing at the earliest. Farmers are also advised for the preparation of the land where *rabi* crop is to be taken so that sowing of the crops can be done in the first fortnight of the October. After the harvesting of the rice crop sow gram and lathyrus.
 - Farmers are advised to apply last dose of fertilizer application for healthy grain production which is at panicle initiation stage in most of the fields in Chhattisgarh Plain Zone.
 - Farmers are advised for land preparation in the upland sloping fields in Chhattisgarh Plain Zone for sowing of horse gram during second fortnight of this month and transplanting of vegetables crops with proper drainage system.
 - 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.
 - If the nursery of vegetables like chillies, brinjal and cucurbitaceous vegetables and other winter season vegetables is ready in Bastar Plateau Zone in Chhattisgarh, proper water drainage measures should be adopted from the beds and seedlings should be planted in the beds.
 - In Kymore Plateau and Satpura hill zone of Madhya Pradesh, incidence of bihar hairy caterpillar, tobacco caterpillar and semilooper is seen in the soybean, moong and urad crops. Use light traps in the field, and if possible destroy egg and larval masses by hand picking. For chemical control spray Chlorpyrifos (20 EC) at 1.5 lit/ha; or Triazaphos at 800 ml/ha, or Quinalphos at 1.5 lit/ha on these crops.
 - Farmers in Malwa Plateau Zone of Madhya Pradesh are advised that there may be attack of leaf minor on vegetable crops apply rogor or confidore @ 1ml/ lit.
 - In Jhabua hill zone of Madhya Pradesh, farmers are advised for control of sucking pest spray thiomethoxam 0.3 g/l (5.0g/pump) of water. For control of caterpillar, spray Prophenophos 40EC @ 2.0 ml/l of water. Control of sucking pests i.e. jassid and white fly in vegetables spray methyl demeton 25 EC @ 1.0 ml/l (15ml/tank). For control of root rot disease in vegetables, drenched the soil near the crop root with Mancozeb 75% WP @ 3 gm/l. Control of red pumpkin beetle in cucurbitaceous crops by dusting with Carboril @ 25 kg/ha.
 - Attack of fruit borer is observed in the brinjal and tomato crops in Bundelkhand region of Madhya Pradesh. For its control farmers are advised to spray Malathion 50 E.C. 2.0 ml per litre of water and don't pick up the vegetables till next seven days.
 - In rice, the attack of stem borer is being observed in North Hill Zone of Chhattisgarh, spray Carbofuron 30 kg/ha or Floret 10 kg/ha.
- **Animal Husbandry & Poultry**

- Farmers in Kymore Plateau and Satpura Hills and Satpura Plateau regions 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 cattle for FM disease. Animal and birds should be kept in clean, dry and well ventilated place.
- Farmers in Malwa Plateau of Madhya Pradesh are advised to provide the clean water, balanced nutrients rich food to the animals. De-worm the cattle.

Annexure I

Major Crops

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

- Sugarcane (vegetative), *sali* rice (panicle initiation / flowering / grain formation), *Capsularis* and *Olororius* jute for seed (vegetative), ginger / turmeric (vegetative), arhar (vegetative / flowering / pod formation), *kharif* sesame (capsule formation / maturity), groundnut (pod formation / maturity), black gram, green gram (vegetative / flowering / pod formation), cauliflower (nursery raising / transplanting), winter vegetables (nursery sowing) in Assam.
- WRC rice (grain formation / maturity), okra, cucurbitaceous vegetables (fruiting / harvesting), soybean (pod formation / maturity), sesame (capsule formation / maturity), cauliflower, cabbage (nursery raising) in Arunachal Pradesh.
- *Kharif* rice (flowering / grain formation), soybean, groundnut (pod formation / maturity), cucurbits, chilli and okra (fruiting / harvesting), potato, pea (sowing), tomato (seedling / transplanting), cauliflower (nursery sowing) in Manipur.
- *Kharif* rice (flowering / grain formation) maize (cob maturity / harvesting), groundnut (pod formation), tomato (flowering / fruiting / harvesting), cole crops (nursery sowing), soybean (pod formation), turmeric, ginger (vegetative / rhizome formation) and *rabi* maize (sowing) in Meghalaya.
- Rice (flowering / grain formation), soybean (pod formation), groundnut (pod formation), *kharif* maize (maturity / harvesting), cauliflower, tomato (nursery preparation) and ginger / turmeric (vegetative / rhizome formation), okra, bean and cow pea (harvesting) in Mizoram.
- *Jhum* rice (ripening), wet land rice (dough stage), maize (maturity / harvesting), tomato, cabbage (nursery preparation), soybean (pod formation) in Nagaland.
- Upland rice (grain formation / maturity), *aman* rice (panicle initiation / flowering / grain formation), groundnut (pod formation), *kharif* maize (harvesting), sesame (harvesting), bitter gourd and pointed gourd (harvesting) in Tripura.

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

- Mustard, toria (Land preparation / sowing) Maize (cob formation/maturity), sugarcane (vegetative), fodder crops like sorghum, bajra, meth, kalai, boda and dinanath grass (vegetative), *kharif* rice (panicle initiation / flowering), urad, arhar, bajra etc. (sowing / early vegetative), onion, mango, litchi, guava (planting/early vegetative) in Bihar.
- Turmeric and ginger (vegetative), upland rice (tillering / panicle initiation), maize (harvesting), pigeon pea, arhar, groundnut(vegetative), rice (flowering / grain formation), urad, jowar and soybean, til (vegetative), *kharif* vegetables like okra, beans, French bean, tomato, cauliflower, cabbage etc. (vegetative / harvesting), kulthi, African marigold, French marigold (sowing), urad, potato, green pea, toria, tomato, cauliflower, cabbage and bell pepper (land preparation / sowing), gram(land preparation), rapeseed, linseed and mustard(sowing) radish, turnip, spinach, carrot (sowing) in Jharkhand.
- Sugarcane (grand growth), banana (vegetative), maize(cob formation), ragi (flowering), sunflower (vegetative), rice (panicle initiation/ flowering /), mustard, groundnut, sesame, green gram, black gram, cow pea (sowing) and fruit crops (planting / seedling) in Orissa.

- *Aman* rice (heading to grain filling stage), *kharif* maize (cob formation/ cob maturity), cauliflower (seedling), marigold (planting), bitter gourd and pointed gourd, cucurbits (fruiting), yam and betel vine (vegetative), winter vegetables (sowing), Monsoon vegetables (flowering to fruiting stage) in West Bengal.
- Ginger (germination / early vegetative), orange (transplanting/seedling), large cardamom (vegetative / primary flowering / secondary flowering), vegetables (vegetative), rice (tillering) in Sikkim.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Sugarcane *adsali* (elongation), sugarcane new pre-seasonal (active tillering / elongation), sugarcane new *suru* (active tillering in Madhya Maharashtra and Marathwada), new *adsali* (early tillering), *kharif* rice (grain maturity in early maturing variety, flowering / grain formation in mid late and panicle initiation / flowering in late variety in Konkan, Kolhapur division and flowering in Nashik, Pune and East Vidarbha division), cotton (boll formation/maturity), soybean (pod maturity / harvesting), groundnut (pod maturity / harvesting), bajra (grain maturity / harvesting in Madhya Maharashtra and Marathwada), red gram (primary branching) in Maharashtra.
- Cotton (boll formation / maturity / picking), groundnut (maturity / harvesting), *kharif* rice (grain filling / maturity), pulses (maturity / harvesting), sugarcane (vegetative / elongation), sesamum, castor (early) (flowering / capsule formation), castor (vegetative), vegetables (flowering / fruiting / harvesting), winter vegetables (sowing / transplanting), mustard (sowing), red gram (vegetative), sorghum (vegetative), tobacco (nursery / transplanting) in Gujarat.

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

- Vegetables [bhindi, cucurbits], mirch, brinjal (maturity/harvesting), Shimla mirch, and tomato (maturity/harvesting), apple (harvesting/new planting), radish, arbi, amaranthus, turmeric, dhaincha, chari, bajra, barley, red and white clover, bell pepper, garlic, ginger, coriander, knol khol, cabbage, cauliflower, lettuce (vegetative/maturity), maize (harvesting), rice (grain formation/maturity), pea, raddish, turnip, coriander, cabbage, Knol khol, broccoli, parsley, lettuce, fennel and cauliflower (sowing) in Himachal Pradesh.
- Rice (flowering/grain filling stage), chilli, tomato, brinjal, cauliflower (vegetative/flowering/fruiting), spinach, coriander, radish (vegetative/ flowering/fruiting), maize (cob formation), urd, moong, lobia, bajra, til, sorghum (grain formation), sugarcane (vegetative), cotton (boll formation), sugarcane (vegetative) in Delhi.
- Chilli, capsicum, cauliflower, broccoli (vegetative/fruiting/harvesting), sugarcane (planting), papaya (planting), sunflower (early vegetative / vegetative), maize (Normal sown -reproductive stage, maize (cob maturity/harvesting), early sown- cob maturity/harvesting stage, very late sown- silking stage), lobia, sunhemp, cowpea, jowar for green fodder (vegetative/1st cutting), garlic, cucurbits, okra (seedling), French bean, rice (flowering), rice: reproductive, rice: (Irrigated- maturity/harvesting), *kharif* pulses reproductive, potato (sowing), radish (sowing), cabbage, cauliflower (nursery sowing), carrot, turnip (sowing), knol-khol, cole crops (transplanting), toria (sowing/emergence), vegetable crops (fruiting stage/harvesting), vegetables {Methi early bunching and kasuri methi, spinach} (sowing), *rabi* oilseeds (sowing/emergence), moong/mash: (Harvesting) in Jammu & Kashmir.
- Rice (maturity/harvesting), finger millets (grain formation/maturity), groundnut, sorghum, urad, moong, rajma (pod / grain formation/maturity), arhar and ginger (vegetative), soybean (pod maturity/harvesting), maize (cob maturity/harvesting) in Uttarakhand.
- Rice (grain maturity/harvesting), sugarcane (vegetative growth/ripening), sunflower (vegetative/flowering), Sanai, Dhaincha (early vegetative / vegetative), summer sugarcane (tillering/grand growth), cotton (flowering), soybean (flowering/pod maturity), urd (maturity/harvesting), sunflower, jowar, bajra, arhar, (flowering/maturity), maize (cob maturity/harvesting), vegetables [cucumber, pumpkin, tomato, brinjal, cabbage, lady's finger, chilly, cucurbits] (vegetative/fruiting/picking), groundnut (vegetative/pegging), wheat, chana, pea, masoor, alsin (sowing) in Uttar Pradesh.
- Rice (grain formation / maturity), spring sugarcane (sprouting/tillering), radish, carrot, turnip, (sowing / germination/vegetative), cauliflower (transplanting/vegetative), tomato, sunflower (early vegetative), cotton (fruiting), okra, chilli, brinjal (transplanting/early vegetative), maize, mung, mash, tur (early vegetative), toria (sowing), maize (cob formation) in Punjab.

- Rice (grain formation / maturity), sugarcane (grand growth) (early vegetative/vegetative), barseem (vegetative / last cut), fodder ((maize + cowpeas) (vegetative/ 1st cutting)), moong, mash, pigeon pea (vegetative), cauliflower, cabbage, carrot, potato (transplanting), radish, cotton (flowering), turnip (sowing/seedling) in Haryana.
- Cauliflower, cabbage, onion (transplanting / germination), sugarcane (new planting), cotton (Desi kapas, B.T. kapas, Narma kapas, American Cotton) (boll formation/boll maturity), pearl millet, jowar and bajra mixed with guar, Sudan grass, oats, sorghum etc. for green fodder (vegetative/fruiting/1st cutting), maize (tasseling/cob formation), mirch, simla mirch, guar, vegetable (tinda, water melon, pumpkin, cucumber, coriander, bhendi, ridge gourd) (sowing/seedling), *kharif* rice (panicle initiation / flowering), other *kharif* crops viz. pearl millet, sorghum, (grain formation/grain maturity), green gram, cowpea (pod formation/pod maturity) and groundnut (pod formation/pod maturity), short duration moth and guar (pod formation), moong (vegetative), kinnow (fruiting), mustard, potato (sowing) in Rajasthan.

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

- Sugarcane (grand growth), rice (grain filling), late planted paddy (flowering to grain formation), sunflower (vegetative), groundnut (Pod development), cowpea (vegetative), pigeon pea (vegetative/flowering), bajra (maturity/harvesting), soybean (harvesting) maize (grain filling), desi cotton (vegetative), cotton (flowering/boll formation) and chilli (fruiting), Red gram (flowering). Rabi crops- sorghum (sowing), Wheat (sowing), Bengal gram (sowing), safflower (sowing) in Karnataka.
- Sugarcane (June planted) (formative/grand growth), banana (vegetative), vegetables (all stages), rice (tillering / panicle initiation), ragi (pod formation/pod maturity/ harvesting), castor (flowering/ spike formation), early sown groundnut (Pod maturity/harvesting), late sown groundnut (Pod formation/pod filing), maize (tasselling/ cob development/ maturity), green gram/black gram (pod formation), red gram (vegetative), sesamum (pod filling/harvesting), Bt. cotton (vegetative /flowering/boll development) in Andhra Pradesh.
- Pepper (Berry development/new planting), coconut (flowering), irrigated banana (harvesting/ planting), cardamom (planting/harvesting), rubber (tapping), vegetables (harvesting/planting), virippu paddy (harvesting), mundakan paddy (transplanting/early vegetative), sugarcane (grand growth) in Kerala.
- Kuruvai rice (harvesting), Late Samba rice (nursery sowing), Samba rice (transplanting), rainfed maize and cotton (vegetative), rainfed groundnut (flowering), groundnut (pod formation/pod maturity), cotton (flowering/boll formation), maize (silking/tasseling), banana (planting), irrigated maize (grain formation/ maturity), sugarcane (grand growth), pulses, cotton and maize (sowing), vegetables (vegetative/fruiting) in Tamil Nadu.

CENTRAL INDIA [M.P., CHHATTISGARH]

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

Annexure II List of Varieties

Assam

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

Dolichos bean: Asina.

Cabbage: Golden Acre, Pride of India, Pusa Mukta (Sel – 8), Japanese, Pusa Synthetic, Pusa Snowball and for late maturing varieties- Snowball-16, Pusa Snowball, K-1 and Hissar 1 etc.

Tomato: Punjab Chhuhara, S-12, Punjab Kesri, Pusa Early Dwarf, Sioux, Pusa Ruby, VC- 48-1, Arka Abha (BWR-1).

Radish: Pusa Desi, Pusa Himani, Pusa Chetki.

Carrot: Nantes, Pusa Kesar and Chantenay.

Spinach beet: Jobner Green, All Green, S-23, Pusa Jyoti.

Onion: Pusa Red, Pusa Ratnar, Pusa white (Round), Pusa white (Flat), N-53, Agrifound Light Red, Punjab Red Round, Pusa Madhuri, Arka Niketan etc.

Winter brinjal: Pusa Kranti, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, Pant Samrat etc.

Manipur

Cauliflower: White Shot.

Pea: Arkel, Azad Pea.

Meghalaya:

French bean: Arka Suvidha, Arka Anoop (bush type) and Naga local, RCMFB-1 (pole type).

Cabbage: H-139 and Pride of India.

Cauliflower: Pusa Meghna, Pusa Sharad and Meghalaya Local.

Broccoli: Puspa, Aiswarya and Fiesta.

Tripura:

Tomato: Trishul, Allrounder, T- 1408, T- 1458, Anup.

Cauliflower: CFL- 4048, Pusa early synthetic, Kamaya, Suhasi.

Cabbage: BC- 76, Pusa Drum Head, Pusa Synthetic.

Broccoli: Everest, Ayeshwaria.

Pea: Arkel, Arka Ajit, TRC P- 8, 9.

Cowpea: Kashi Kanchan.

Orissa

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.

Tomato: BT-2, BT-10, BT-12, Niladri, Sadabahar, Madhuri, Maharathi, Rasmi, Naveen, etc.

Pre-rabi non-paddy crops

Sesame: Kanak, kalika, Uma, Usha, Tilottama, Neelima and Prachi

Green gram : K -851, PDM -54, PDM -11, OUM 11-5

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

Mustard: Parbhathi, Anuradha, TS-29 & M-27

Groundnut: Smruti and JL-24

Sunflower: Morden, Sunrise, Surya and Hybrid varieties like KBSH-1, KBSH-3 and MSFH.

West Bengal:

Cauliflower: Kanwari, Jowhar, Moti, Early Patna.

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

Onion: Agrani(B-54), Panchali (T.W.C.-3), B-9, Rai-5 and Bhagiroti (R.W.-351) etc.

Jharkhand:

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

Potato: Kufri Ashoka, Kufri Puhkraj, Kufri Pushkar and Kufri Surya.

Toria: T-9, Panchali, Bhawani, PT-303.

Tomato: Pusa ruby, Swarna Sampda, Swarn Lalima.

Cabbage: Golden Acre, Pride of India, Early Drum Head.

Cauliflower: Pusa Depali , Patna Early, Hazipur Extra Early, Pusa Ketki.

Mustard: Shivani, Pusa jaikisan, Pusa bold, Vardan.

Rapeseed: Panchali, Bhawani, P.T.-303.

Linseed: Sweta, Shubhra, T-397.

Gram: Pusa-372, K.P.G.-59, K.W.R.-108 and for Kabuli gram are H.K.-94134 and Kak-2.

Pea: Arkel, Kashi Nandini, PE - 6 and Birsa Matar.

Bihar

Urd: T-9.

Arhar: Bahar, Narendra Arhar 1, Malviya 13, Pusa-9, Sharad

Pigeon pea: Navin

Cauliflower: Aghani, Pusi, Early Snowball, Patna main and Pusa Shuvra

Rapeseed: RAUTS-17, PT-303, Panchali and Bhawani

Carrot: Pusa Keser, Pusa Meghali, Pusa Yamdagini, Desi lal, Desi kali, American beauty and Kalyanpur yellow.

Gujarat:

Gram: Gujarat gram-2 or Gujarat gram-3

Mustard: Varuna or Gujarat mustard-1,2,3

Maharashtra

Rabi Safflower: Bhima, Phule Kusuma, Sharda, Girna or DSH-129.

Rabi Jowar: Phule Mauli, Phule Anuradha in light soil, Phule Chitra, Phule Mauli, Maldandi-35-1 in medium soil and Phule Vasuda, Phule Yashoda, CSV-22 in black soil.

Rainfed rabi jowar: Maldandi (M 35-1), Swati (SPV-504), Parbhani Moti(SPV-1411) for Marathwada region.

Rainfed rabi gram: Vijay and DigVijay for Ahmednagar, Dhule and Nandurbar districts.

Madhya Pradesh

Wheat: Sujata, HW 2004, HI 1500,

Gram: JG-130, JG-11, JG-315, JG-16, Jaki – 9218, Kabuli kak-2

Lentil: RVL-31, JL-2

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

Karnataka- Rabi

Sorghum– DSV-4, M 35-1 and Muguthi, DSH-4, M-35-1(rainfed and irrigated), Moguti(5-4-1), DSV-5(rainfed and 1 or 2 protective irrigation)

Wheat– DWR-162, DWR-225, DWR-185, DWR-2006, DDK-1001 and DDK-1009.

Chick pea – Annigeri-1, ICCV-2,ICCV-10,BG-1105 and BGD-103

Safflower – A-1 , A-2 , A-300, NARI-6 (spineless variety)

Bengal gram- JG -11, Annegeri -1, ICCV-10

Kerala:

Banana: Robusta, Poovan, Njalipoovan, Palayankodan.

Tamilnadu:

Samba Paddy: ADT 36, ADT 37, ADT 42, ADT 45, ADT 47, Co 47 and ASD 16.

cotton -KC 3 and PA 255, sorghum-K 8 and K 11 , green gram- CO 6 , sunflower -CO 4 , pearl millet -CO (Cu) 9 , gingelly- TMV 3 , coriander- CO 4 and senna- KKM 1, Fodder sorghum (Lovilpatty-8), Castor (YRTS-1) and groundnut (TMV-7 and 13).

Andhra Pradesh:

Greengram- LGG 460,LGG 407, LGG-410, TM96-2, MGG 295, ML 267, LGG 450

Blackgram-LBG 752,PU 31,T9,LBG 20, LBG 645, LBG 685, LBG 709, LBG 623

Recommended seed rate- Greengram- 16kg/ha,Blackgram- 20 kg/ha Redgram- 16-20 kg/ha (45cmX 20cm) 8-10 kg/ha (90cmX 20cm or 75cmX 20cm)

Himachal Pradesh :

Cauliflower: Pride of India, Shweta, Madhuri, Himrani.
Cucumber : Kiyan seedless/243, Matgaura, Maliniseeded
Pea: Ageta – 6 or Arkal pea
Raddish :Japani white and early mino white
Turnip : PTWG-1,
Cabbage :Snow ball K-1 Palam uphar, golden acre,
Knol khol : White Bina,
Broccoli : Palm kanchan, Palam vichitra and palam samridhi.

Jammu & Kashmir

Potato : Kufri Badshah, K. Jyoti
Radish: P.Reshmi, Japanese White, Minowase
Carrot: Pusa Kesar, P.Yamdagani, Nantes, Chaman
Turnip: PTWG,
Garlic: Yamuna safed agrifound parvati,
Methi : Pusa early bunching and kasuri methi
Gobi sarson: GSS-1, GSL-2 & DGS –1.
Mustard: KOS-1, KS-101
Peas: Bonnevillea, AP-1, AP-3
Onion var. Pusa Red, Punjab Selection

Punjab & Haryana

Punjab :

Okra: Punjab-8, Punjab-7 and Punjab Padmani
Radish: Punjab Ageti & Pusa Chetki, Punjab Pasand & Punjab Safed
Turnip: L-1 & 4-white
Carrot: PC-34
Palak: Punjab Green
Cauliflower: Punjab Giant 26, late season varieties: Snow-Ball-16, Pusa Snow ball 1 & Pusa Snow ball K-1.
Torai: PBT 37/ TL
Sugarcane: CoJ 85, CoJ 83, and CoJ 64

Delhi

Mustard: Pusa Sarson-25, Pusa Sarson-26, Pusa Agrni, Pusa Taraka, Pusa Mahak
Carrots: Pusa Rudhira and Pusa Kesar.
Sarson Saag:Pusa Saag-1;
Bathua: Pusa Bathua-1
Radish: Japani White, Hill queen, French Radish;
Spinach: All Green, Pusa Bharti;
Coriander: Pant Haritama, Hybrids;
Turnip: Pusa Swati, Local Red variety.

Potato: Kufri Badshah, Kufri Bahar, Kufri Aanand, Chipsona-1, Chipsona-2, Chipsona-3.

Pea : Pusa Pragati, Arkel.

Fenugreek: Pusa Kasuri

Rajasthan

Vegetables : Tomato : Pusa Ruby, Pusa early dwarf, Roma, Pusa Earli and Vihar, Brinjal: Pusa long, Meghdoot, Arka Bahar, Pusa summer and prolific round, Cucumber: Balam, Pusa Sahyog, Radish: Japanese White and Hill

Queen, Early cauliflower : Pusa hybrid-2, Improved Japanese and Pusa Himjyoti, Cabbage: Pusa Drum Head and Hybrid 10, Cauliflower: Pusa Snowball 1 and Hissar 1, - Taramira: Karan Tara, Narendra Tara, Early mustard: NPJ112, EJ17, Pusa Mahak and Kanti Early Pea: Arkil, Hara bona, VL-3, Jawahar Matar-4, Matar Ageti-6
Normal sown (irrigated)-Maya, Rohini, Pusa Jai kisan, Varuna, RGN13, RGN73, like Bharat Sarson-1 (NRCDR-2), Bharat Sarson-2 (NRCHB 101), Bharat Sarson-3 (NRCHB506), Laxmi and Pusa bold. Normal sown (rainfed) - Arawali, RGN48, Geeta and PBR 97, Saline sodic soils - CS52, CS54, CS56, Narendra Rai 1. Yellow Sarson - NRCYS-05-02, YSH401
Potato- Kufri-Ashok and Kufri-Chandramukhi, Kufri-Anand, Chipsona-1, 2, Jyoti and Pukhraj.
Mustard: Jay Kisan (Bio-902), Rajat- P. C. R. -7 R.H. – 30, Pusa bold, Aravali- I.N. 393, R.N.505, Ashirwad – 48, R.G.N.- 145, R.G.N.-73, R.G.N.-13
Gram: G.N.G. 663 (Vardhan), G.N.G 469 (Samrat), G.N.G 1581 (Gangaur), Gram (Rainfed area): C-235, Kabuli Chana: G.N.G 1499 (Gauri) and G.N.G 1292.
early pea: Arkil, Hara bona, VL-3, Jawahar Matar-4, Matar Ageti-6.

Uttar Pradesh

Rai : Narebdra rai 8301, Rohini
Potato: kupri, ashok, kupri chandramuki, kupri jawahar.,
Non-irrigated wheat :lok-1, sujata, gomati, Indira.
Wheat:VL616, 829, 802, 804, 738, 719 and HS277.
Chana : KWR-108, JG-16, JGK-1(kabuli)
Pea: Indira, JP-850.
Masoor: Bokar-2, 3, K-75, IPL-81
Alsi: bokar, Lakshmi-27, padmini, parvati

Uttarakhand

Pea: VL Ageti Mater-7, Vivek Mater-10, Pant Subjee Mater-3, Azad Mater-3
Tomato: Pant Bahar, Pusa Rubi, Navin
Toria: PT-303, PT-507.
Vegetable pea : VL Ageti Mater-7, Vivel Mater-10, Pant Subjee Mater-3, Azad Mater-3 and Arkel
Potato : Kufri Jyoti, Kufri Ashok or Kufri Anand.

Annexure III

Contour maps for Relative Humidity, Cloud Amount and Wind speed for the week ending on 10.10.2012

