

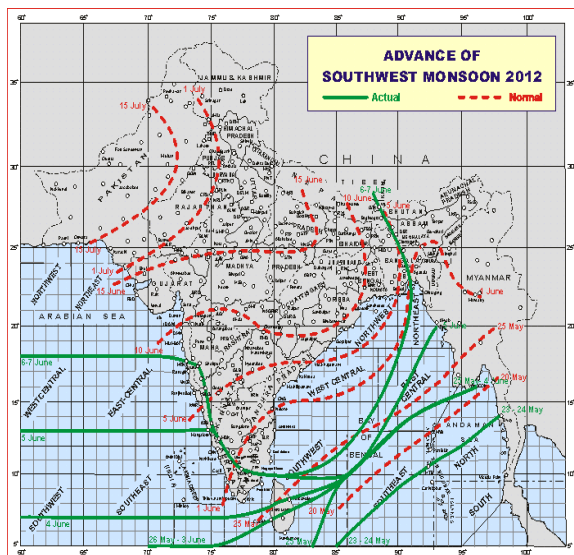
# National Agromet Advisory Bulletin

Thursday, 07<sup>th</sup> June, 2012  
(For the period 07<sup>th</sup> June to 11<sup>th</sup> June, 2012)

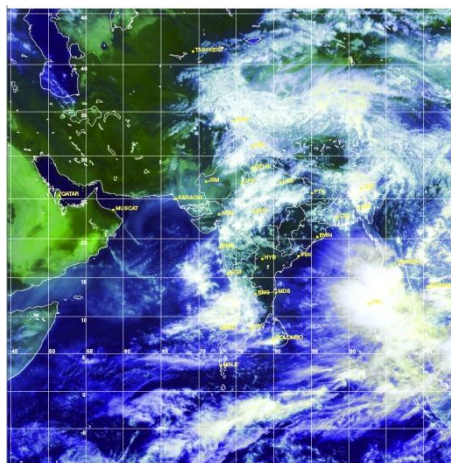


## Monsoon Watch

- The Northern Limit of Monsoon (NLM) continues to pass through Lat 18.0° N/ Long. 60.0° E, Lat 18.0° N/ Long. 65.0° E, Lat 18.0° N/ Long. 70.0° E, Harnai, Satara, Belgaum, Agumbe, Medikeri, Kodaikanal, Lat 10.0° N/ Long. 80.0° E, Lat 12.0° N/ Long. 86.0° E, Lat 18.0° N/ Long. 90.0° E, Lat 23.0° N/ Long. 91.0° E and Gangtok.



Satellite image 0600 UTC dated 8<sup>th</sup> June, 2012



## Monsoon Kharif Crop Watch 2012

Southwest monsoon covered entire Kerala, coastal Karnataka, Goa, some parts of south Konkan and south Madhya Maharashtra, some parts of north interior Karnataka, entire Northeast and some parts of Sub Himalayan West Bengal & Sikkim.

### Status of sowing of kharif crops

- Kerala:** Sowing of direct seeded rice and nursery sowing of Virippu paddy.
- Karnataka:** Nursery bed preparation of paddy in Coastal Karnataka and take up sowing of green gram, black gram, jowar and soyabean in some parts of North Interior Karnataka. Sowing of ginger, turmeric and drill sown paddy in Uttar Kannada district.
- Tamil Nadu:** Nursery Preparation of Kuruvai rice under irrigated condition in Cauvery Delta Zone.
- North eastern states:** Sowing of rice, groundnut and soyabean.
- Maharashtra:** Nursery sowing of rice in South Konkan region and Sub Montane zone. Direct sowing of kharif rice and sowing of soyabean in Kolhapur, Sangli and Satara districts. Land preparation for sowing of kharif crops in other regions.
- West Bengal:** Undertake nursery sowing of aman rice and land preparation and sowing of pigeon pea in Sub Himalayan West Bengal. Field preparation for sowing of aman rice and procurement of inputs is in progress. Preparation for nursery of aman rice is undertaken.



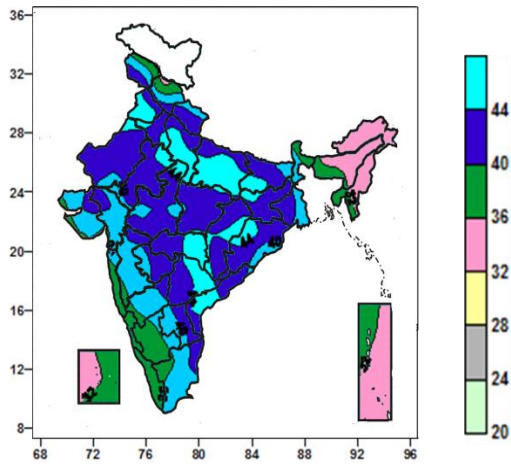
Issued by

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

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

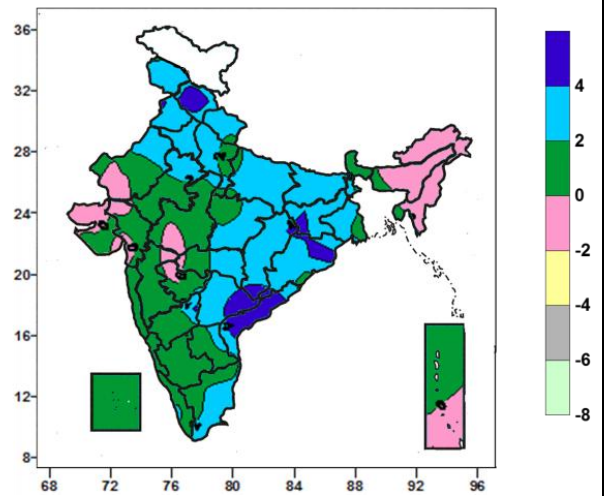
## Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 06.06.2012

**Actual Mean Maximum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 06.06.2012**



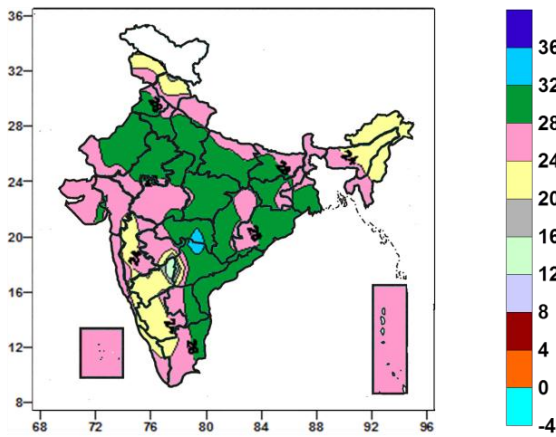
Actual Mean Maximum temperature ranged between  $36^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  over most parts of Sikkim, Kerla, Coastal & South Interior Karnataka, Konkan & Goa, Tripura, Andaman & Nicobar Islands, some parts of Assam, Sub-Himalayan West Bengal, Tamil Nadu, North Interior Karnataka, Madhya Maharashtra,  $32$  to  $36^{\circ}\text{C}$  and above over most parts of North East India (except Tripura), some parts of Lakshadweep, and between  $40^{\circ}\text{C}$  and above over remaining parts of the country.

**Maximum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 06.06.2012**



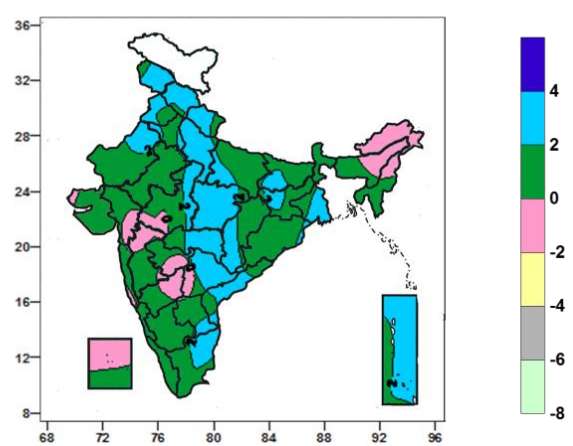
Actual Mean Maximum temperature anomaly ranged between  $4^{\circ}\text{C}$  and above over most parts of Himachal Pradesh, Coastal Andhra Pradesh, some parts of Orissa,  $2$  to  $4^{\circ}\text{C}$  over most parts Northwest India (except Himachal Pradesh, Rajasthan), East India, East Madhya Pradesh, Telanagana, Tamil Nadu, some parts of Rajasthan, Coastal Andhra Pradesh, Raylaseema, Kerala,  $-2$  to  $0^{\circ}\text{C}$  most parts of North East India, some parts of Saurashtra & Kutch, West Rajasthan, West Madhya Pradesh, Madhya Maharashtra, Vidarbha, Andaman & Nicobar Islands,  $0$  to  $2^{\circ}\text{C}$  over rest of the country.

**Actual Mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 06.06.2012**



Actual Mean Minimum Temperature ranged between  $28$  to  $32^{\circ}\text{C}$  and above over most parts of Punjab, Haryana, Delhi, Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Orissa, Chattisgarh, East Madhya Pradesh, Vidarbha, Andhra Pradesh, some parts of West Madhya Pradesh, Kutch, Tamil Nadu and below  $28^{\circ}\text{C}$  over remaining parts of the country.

**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 06.06.2012**



Minimum Temperature anomaly ranged between  $2$  to  $4^{\circ}\text{C}$  and above over many part of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Madhya Pradesh, Coastal Andhra Pradesh, Telengana, Andaman & Nicobar Islands, some parts of Punjab, West Rajasthan, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, West Madhya Pradesh, Rayalaseema, Tamil Nadu,  $-2$  to  $2^{\circ}\text{C}$  over remaining parts of the country.

## Executive Summary

Southwest monsoon covered entire Kerala, coastal Karnataka, Goa, some parts of south Konkan and south Madhya Maharashtra, some parts of north interior Karnataka, entire Northeast and some parts of Sub Himalayan West Bengal & Sikkim.

Significant rainfall occurred over Kerala, Coastal Karnataka, Konkan, Assam and Arunachal Pradesh, Sub-Himalayan West Bengal and Sikkim. Rainfall is likely to occur at many places over Kerala, coastal Karnataka, Konkan and Goa and North Eastern States during next three days along with heavy rainfall at one or two places over coastal Karnataka and Kerala during next 48 hours. Rainfall for the States of Kerala, Coastal Karnataka, Konkan, Assam and Arunachal Pradesh, Sub Himalayan West Bengal and Sikkim during last week is given in Annexure – I. Weather forecast map is provided in Annexure – II.

### Status of sowing of *kharif* crops

#### Southern region

- **Kerala:** Sowing of direct seeded rice and nursery sowing of *Virippu* paddy.
- **Karnataka:** Nursery bed preparation of paddy in Coastal Karnataka and take up sowing of green gram, black gram, jowar and soyabean in some parts of North Interior Karnataka. Sowing of ginger, turmeric and drill sown paddy in Uttar Kannada district.
- **Tamil Nadu:** Nursery Preparation of *Kuruvai* rice under irrigated condition in Cauvery Delta Zone.
- As monsoon is yet to reach, farmers in the state of AP and remaining parts of Karnataka are advised to start land preparation and arrange inputs for sowing for *kharif* crops like rice, sesamum, bajra in AP and ragi, maize, groundnut and other pulses in Karnataka

#### Northeast region

- Monsoon has set over northeast region on 6<sup>th</sup> June 2012.
- **Assam:** Land preparation and sowing of Sali rice.
- **Arunachal Pradesh:** Sowing/ transplanting Jhum and WRC rice sowing of soybean, black gram, green gram.
- **Manipur:** sowing/ transplanting of *kharif* rice, soybean and groundnut.
- **Mizoram:** Sowing of groundnut and soyabean and nursery preparation of rice.
- **Meghalaya:** Sowing and transplanting of *sali* rice in low and medium altitude areas.
- **Nagaland:** Nursery sowing of rice.
- **Tripura:** Land preparation and sowing of *aman* rice.

#### Western region

- **Maharashtra:** Nursery sowing of rice in South Konkan region and Sub Montane zone. Direct sowing of *kharif* rice and sowing of soyabean in Kolhapur, Sangli and Satara districts. Land preparation for sowing of *kharif* crops in other regions.

#### Eastern region

- **West Bengal:** Undertake nursery sowing of *aman* rice and land preparation and sowing of pigeon pea in Sub Himalayan West Bengal. Field preparation for sowing of *aman* rice and procurement of inputs is in progress. Preparation for nursery of *aman* rice is undertaken.
- **Sikkim :** Nursery sowing of rice.

Heat wave conditions are prevailing over some parts of Orissa and isolated pockets of East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal and north coastal Andhra Pradesh and likely to continue over parts of Bihar, Jharkhand, Orissa and coastal Andhra Pradesh during next 24 hours, farmers are advised to apply light and frequent irrigation to the standing crops.

#### Advisories for Pests and Diseases

Due to favourable weather conditions, incidences of fruit fly in cucurbits in Rajasthan, rice bug in *boro* rice in Assam, early stem borer in sugarcane, thrips and rust in groundnut in Orissa, mites and stem borer in sugarcane in Andhra Pradesh below economic threshold level (ETL) have been reported. Farmers are advised to undertake appropriate plant protection measures to control the pests and diseases, if the population exceeds ETL.

**Distribution of rainfall of the country during week ending on 06.06.2012**

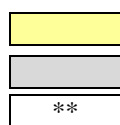
State/Districts	Actual (mm)	% dep.
<b>Arunachal Pradesh</b>		
Anjaw	**	**
Changlang	80.4	2
East Kameng	58.3	1
East Siang	195.7	87
Kurung Kumey	**	**
Lohit	124.1	65
Lower Dibang Valley	**	**
Lower Subansiri	92	28
Papumpara	200.5	26
Tawang	65	-46
Tirap	71.2	-40
Upper Dibang Valley	**	**
Upper Siang	247.7	83
Upper Subansiri	24.6	-40
West Kameng	71.4	-41
West Siang	106	89
<b>Assam</b>		
Baksa	215.8	41
Barpeta	214.8	40
Bongaigaon	231.1	71
Cachar	200.6	63
Chirang	91.9	-32
Darrang	27	-65
Dhemaji	103	-1
Dhubri	119.5	-13
Dibrugarh	121	71
East Garo Hills	323	257
East Khasi Hills	344.2	43
Goalpara	142.6	19
Golghat	67.1	52
Hailakandi	99.1	-17
Jaintia Hills	149	-28
Jorhat	84.2	70
Kamrup(Metro)	100.4	32
Kamrup	120.8	59
Karbi Analog	43.4	24
Karimganj	331.6	143
Kokrajhar	224.9	31
Lakhimpur	201.1	92
Morigaon	43.4	-4
N.C.Hills	174.7	123
Nowgong	54.2	8
Nalbari	176.2	66

State/Districts	Actual (mm)	% dep.
Ribhoi	94.1	80
Sonitpur	218.5	177
Sibsagar	52.1	6
South Garo Hills	60	-43
Tinsukia	118.3	76
Udalgiri	240	208
West Garo Hills	64.8	-38
West Khasi Hills	34	-66
<b>Maharashtra</b>		
<b>Konkan &amp; Goa</b>		
Goa	82.0	-8
Mumbai	1.0	-97
Raigad	9.5	-78
Ratnagiri	34.8	-44
Sindhudurg	56.5	-35
Thane	0	-100
<b>Madhya Maharashtra</b>		
Ahmednagar	0	-100
Dhule	0	-100
Jalgaon	0	-100
Kolhapur	27.4	-19
Nandurbar	0	-100
Nasik	0	-100
Pune	3.3	-85
Sangli	12.6	-50
Satara	15.6	-38
Solapur	14.1	-38
<b>West Bengal</b>		
<b>SHWB</b>		
Cooch Behar	102.1	-13
Darjeeling	113.5	57
East Sikkim	68.9	-5
Jalpaiguri	121.6	10
Malda	1	-97
North Dinajpur	1	-98
North Sikkim	146.2	36
South Dinajpur	98.4	94
South Sikkim	69.8	-3
West Sikkim	58	-46
<b>Karnataka</b>		
<b>Coastal Karnataka</b>		
Dakshin Kannada	67.3	-48
Udupi	75.5	-47
Uttar Kannada	58.1	-30

State/Districts	Actual (mm)	% dep.
<b>North Interior Karnataka</b>		
Bagalkote	7.0	-70
Belgaum	7.4	-71
Bidar	1.6	-92
Bijapur	3.4	-85
Dharwad	5.3	-80
Gadag	4.6	-83
Gulbarga	2.9	-86
Haveri	1.0	-96
Koppal	0.0	-100
Raichur	0.0	-100
Yadgir	1.2	-93
<b>South Interior Karnataka</b>		
Bangalore Rural	0.0	-100
Bangalore Urban	0.0	-100
Bellary	0.0	-100
Chamarajnagar	0.0	-100
Chichballapur	0.8	-97
Chickmagalur	14.5	-69
Chitradurga	4.3	-77
Davangere	0.0	-100
Hassan	3.6	-84
Kodagu	20.2	-68
Kolar	2.0	-92
Mandya	0.0*	-99
Mysore	1.3	-95
Ramnagara	0.0	-100
Shimoga	20.7	-48
Tumkur	1.2	-95
<b>Kerala</b>		
Alappuzha	21.6	-83
Kannur	94.8	-26
Ernakulam	56.5	-58
Idukki	19.7	-80
Kasaragod	128.5	-19
Kollam	7.4	-92
Kottayam	59	-55
Kozhikode	134.4	-12
Malappuram	33.8	-67
Palakkad	15	-77
Pathanamthitta	31.4	-70
Thiruvananthapuram	8	-90
Thrissur	66.6	-47
Wyanad	27.3	-66

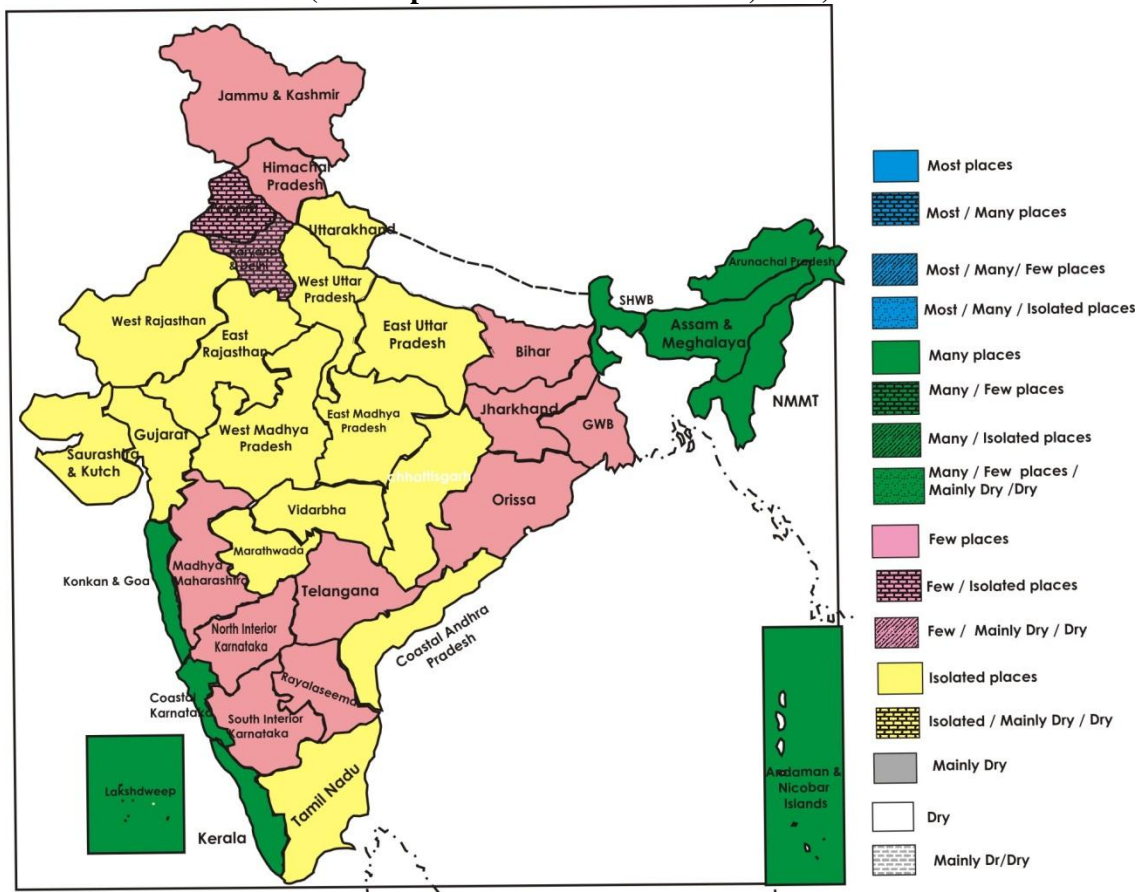


(20% or more) excess rainfall  
 (-19 to +19%) normal rainfall  
 (-20 to -59%) deficient rainfall



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

## Weather Forecast (Valid upto 0830 hours of 10<sup>th</sup> June, 2012)



### Major Feature of Weather Forecast up to 0830 hours IST of 10<sup>th</sup> June, 2012

- Rain/thundershowers would occur at many places over Kerala, coastal Karnataka, Konkan & Goa, Lakshadweep and Andaman & Nicobar Islands, at a few places over interior Karnataka and south Madhya Maharashtra and at one or two places over Marathawada and Gujarat.
- Rain/thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim and north eastern states.
- Rain/thundershowers would occur at a few places over rest south peninsular and east India.
- Rain/thundershowers would occur a few places over Jammu & Kashmir and Himachal Pradesh and at one or two places over Uttarakhand.
- Rain/thundershowers would occur at one or two places over plains of northwest and central India.

### Weather Warning

- Heavy rainfall would occur at one or two places over coastal Karnataka, Kerala and Andaman & Nicobar Islands during next 48 hours.
- Thundersqualls would occur at one or two places over Punjab, Haryana, Delhi and north Rajasthan during next 24 hours.
- Heat wave conditions would prevail over parts of Bihar, Jharkhand, Orissa and coastal Andhra Pradesh during next 24 hours.

### Weather Outlook up to 0830 hours IST of 14<sup>th</sup> June, 2012

- Rain/thundershowers would continue to occur at many places over west coast, West Bengal & Sikkim, northeastern states and Andaman & Nicobar Islands.
- Rain/thundershowers would occur at one or two places over rest peninsular, east, adjoining central and northwest India.
- Rainfall may increase over south Chhattisgarh, Orissa and Andhra Pradesh from 12<sup>th</sup>.

## Zonewise Agromet Advisories

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

- **Realised Rainfall:** Significant rainfall occurred in all the districts of the region.
- **Rainfall Forecast:** Rain / thundershowers would occur at many places over the States of the region.
- **Advisories:**
  - As significant rainfall occurred over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and rainfall is likely at many places during next three days, farmers are postpone intercultural operation and application of pesticides to the standing crops. Due to excess rainfall in Arunachal Pradesh, Assam & Meghalaya, farmers are advised to provide drainage facilities to avoid water logging in standing crop field.
  - Farmers in the Hill Zone of Assam are advised land preparation and sowing of Sali rice and continue sowing of okra, ginger and cucurbitaceous crops utilizing realized monsoon rainfall.
  - Farmers of Barak Valley Zone, North Bank Plain Zone, Upper Bramhaputra Valley Zone, Central Bramhaputra Valley Zone and Lower Bramhaputra Valley Zone of Assam are advised to continue land preparation for nursery bed and sowing *sali* rice utilizing realized monsoon rainfall.
  - Farmers in the Upper Bramhaputra Valley Zone of Assam are advised to continue sowing of vegetables utilizing realized monsoon rainfall.
  - Farmers of Barak Valley Zone of Assam are advised to apply the second top dressing of urea in *ahu* rice at 3 weeks after transplanting after current spells of rain. Before top dressing, remove all the weeds from the field.
  - Farmers in Sub Tropical Hill Zone of Arunachal Pradesh are advised to continue transplanting of rice and sowing of soybean utilizing realized monsoon rainfall.
  - Farmers in Mild Tropical Plain Zone of Tripura are advised to continue land preparation for sowing of *aman* rice utilizing realized monsoon rainfall.
  - Farmers in Temperate Sub Alpine Zone of Meghalaya are advised to complete sowing and transplanting of *sali* rice in low and medium altitude areas. Continue sowing of *sali* rice in high altitude areas and transplanting of *ahu* rice in low lying areas and sowing of soybean in high and low altitude region utilizing realized monsoon rainfall.
  - Farmers of Sub tropical Plain Zone of Manipur are advised to continue land preparation and sowing of *kharif* rice, soybean and groundnut and nursery sowing of early cauliflower utilizing realized monsoon rainfall.
  - In Mild Tropical Hill Zone of Mizoram, farmers are advised to continue sowing of groundnut and soybean, planting of ginger, cucurbits, turmeric and nursery sowing of rice utilizing realized monsoon rainfall.
  - In Mild Tropical Hill Zone of Nagaland, farmers are advised to continue nursery sowing of rice. Farmers are advised to prepare the field and undertake planting of banana for planting in view of onset of monsoon.
  - Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
  - Due to congenial weather conditions, there is chance of attack of blast disease in *ahu* rice in Upper Bramhaputra Valley Zone, North Bank Plain Zone of Assam; farmers are advised to monitor *ahu* rice and spray Bavistin @ 1 g per litre of water, if infestation is noticed above ETL.
  - Rice bug infestation has been observed in some *boro* paddy fields at milky stage, farmers in Central Bramhaputra Valley Zone, North Bank Plain Zone of Assam are advised to apply Malathion 5% powder if infestation is noticed above ETL.
  - Due to prevailing weather conditions there is chances of attack of leaf miner on *kharif* maize, French bean, rice bean and moong in Mild Tropical Hill Zone of Mizoram, farmers are advised to spray neem oil – garlic mixture.
  - Weather is favourable for attack of brown spot on upland *kharif* rice, farmers in Mild Tropical Plain Zone of Tripura are advised to monitor the crop and spray Chlorothalonil or Hexaconazol @ 1.5gm per liter of water if infestation is noticed above ETL.
  - Stages of major crops are mentioned in Annexure I.
- **Animal Husbandry**
  - In Lower Bramhaputra Valley Zone and North Bank Plain Zone of Assam, vaccinate cattle & buffaloes against FMD, HS and BQ and pigs against swine fever. Vaccinate bovines against Brucellosis and Anthrax.

- Farmers in Manipur are advised to deworm cattle, buffalo against *Fasciola spp.*; deworm and vaccinate poultry against Ranikhet / Coccidiosis disease; deworm and vaccinate pig against swine fever. Deworm goat against Fascioliasis.
- Farmers in Mild Tropical Plain Zone of Tripura are advised to vaccinate poultry against Ranikhet disease with R2B @ 0.50 ml through eye drop. Farmers are also advised to maintain good sanitary condition of poultry, provide balanced feed, fresh & clean water to avoid viral diseases.
- Farmers of Central Brahmaputra Valley Zone of Assam are advised to vaccinate cattle, goat and pigs against BQ, HS, Foot and mouth disease as well as anthrax disease.
- In Mild Tropical Hill Zone of Mizoram, poultry farmers are advised to maintain clean sanitary conditions of poultry sheds and equipment and provide balanced feed, fresh clean water as these are essential to prevent viral diseases. Diarrhoeain piglets can be managed by Furazolidone, streptomycin.
- In Mild Tropical Hill Zone of Nagaland, farmers are advised to deworm and vaccinate against infectious diseases particularly 'Foot and Mouth disease'.
- **Pisciculture**
  - Farmers of Barak Valley Zone, Upper Brahmaputra Valley Zone, Lower Brahmaputra Valley Zone and Central Brahmaputra Valley Zone of Assam are advised to release prawn in their fisheries. Clean up the pond well before releasing prawn. Cow dung at the rate of 500 gm per sq m. may be added at least 15 days ahead of releasing fingerlings into the ponds.

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

- **Realised Rainfall:** No significant rainfall occurred in Bihar and Jharkhand, isolated rainfall occurred in Orissa and Gangetic West Bengal and significant rainfall occurred in many districts in Sub-Himalayan West Bengal and Sikkim.
- **Rainfall Forecast:** Rain / thundershowers would occur at many places over Sub-Himalayan West Bengal & Sikkim. Rainfall is likely at a few places over remaining States of the region.
- **Warning:** Heat wave conditions are likely to occur at one or two places over Bihar, Jharkhand and Orissa during next 24 hours.

#### **Advisories:**

- As significant rainfall occurred over Sub-Himalayan West Bengal and Sikkim and rainfall is likely at many places during next three days, farmers are postpone irrigation, intercultural operation and application of pesticides to the standing crops. Due to excess rainfall in most of the districts, farmers are advised to provide drainage facilities to avoid water logging in standing crop field.
- Farmers in these States are advised to provide irrigation to the standing crops in Bihar, Jharkhand and Orissa in view of no significant rainfall occurred during last week and heat wave conditions are likely to occur at one or two places over Bihar, Jharkhand and Orissa during next 24 hours.
- In view of light rainfall in many districts of Orissa and significant rainfall is expected, farmers are advised to start field preparation for sowing of *kharif* crops utilizing the realized rainfall.
- Farmers in East and South Eastern Coastal Plain Zone of Orissa are advised to undertake sowing of okra utilizing realized rainfall. Farmers are also advised to continue sowing of maize for green cob purpose under irrigated conditions.
- Farmers in North Central Plateau Zone of Orissa are advised to undertake planting of ginger and turmeric utilizing realized rainfall.
- Prevailing weather in East and South Eastern Coastal plain Zone of Orissa is favourable for commercial cultivation of fruit crops. Farmers are advised to prepare field and digging of pits to undertake planting on onset of monsoon in July and August. For mango citrus, coconut, guava, Jackfruit and litchi, make the pits of size of 1x1x1 m; for banana and papaya of size 0.5 x 0.5 m and for pineapple make trenches of 30 cm wide and 15 cm deep of any convenient length. Pits may be dug out at a spacing as follows. Mango and jack fruit – 10 x 10 m, coconut, cashew nut and litchi – 8 x 8m, guava- 6 x 6 m, banana-2.4 x 2.4 m, papaya – 3 x 3 m and pine apple - 0.6 x 0.3 m.
- Farmers in East and South Eastern coastal plain zone are advised to prepare land for sowing of arhar, *kharif* groundnut, maize and castor etc. utilising the realised rainfall.
- Farmers of Khurda district in East and South Eastern Coastal Plain Zone of Orissa are advised to prepare field utilizing realized rainfall during last week and go for direct seeding of rice in low and deep low land and complete sowing by 2nd week of June. Before sowing treat the seeds with 3 g Tiram or 1.5 g Topsin-M / kg seeds. Use 25 kg seeds per acre for line sowing and 30 kg for broadcasting. Apply all

the recommended dose of fertilizer as basal in upland, while 50% N and all P& K as basal in medium and low land.

- Farmers of North Eastern Coastal Plane Zone of Orissa are advised to prepare field utilizing realized rainfall during last week and direct sowing of kharif rice after sufficient rainfall.
- Farmers in North West Alluvial Zone of Bihar are advised to undertake harvesting of maize and also apply irrigation to vegetable crops. Prepare the nursery for sowing of long duration rice varieties and sowing of kharif maize. Farmers are also advised for sowing of forage crops such as sorghum, bajra and maize as fodder of animals. Intercropping of meth, lobia and rice bean with these crops will enhance the quality of the fodder, which will be nutritive for the milch animals.
- Farmers in North East Alluvial Zone of Bihar are advised to undertake harvesting of boro rice, start nursery preparation for early kharif rice. Farmers are also advised to grow dhaincha as green manure crop for *kharif* rice.
- As there are no chance of rainfall and temperature is increasing farmers are advised for frequent irrigation in vegetable, moong, maize and others crop and light irrigation in chilli, brinjal, bitter gourd, sponge gourd, cucumber and tomato crops. Irrigation should be providing in morning hours and in the evening hours in North East Alluvial Zone of Bihar.
- As temperature is increasing farmers are advised to protect banana, litchi and mango orchard against hot winds by physical barrier and frequent irrigation. Deep ploughing of fields after harvesting of crops is advised so that eggs and pupae of insects and weed seeds are destroyed in North East Alluvial Zone of Bihar.
- Farmers in Central and North Eastern Plateau Zone of Jharkhand are advised to undertake top dressing of urea @ 32 kg /acre in maize at knee high stage.
- Farmers in Central, Western and North Eastern Plateau Zone of Jharkhand are advised for planting of ginger, turmeric, elephant foot yam and sowing of okra.
- Farmers in Coastal Saline Zone of West Bengal are advised to undertake land preparation for sowing of long duration direct seeded rice. Farmers are also advised to undertake planting of Arum and complete land preparation for planting of turmeric and ginger.
- Farmers in New Alluvial Zone and Laterite and Red Laterite Soil Zone of West Bengal are advised to prepare field and go for sowing operation of *aman* rice after sufficient rainfall. Farmers are advised to undertake intercultural operation in jute and apply top dressing and irrigation.
- Farmers in Old Alluvial Zone of West Bengal are advised to undertake harvesting of *boro* rice and second top dressing of jute at 6 weeks age of the crop.
- Farmers in Terai Zone of West Bengal are advised to undertake planting of ginger and turmeric and avoid planting in wet field just after rain. Farmers are advised to prepare seedbed for early cauliflower, select the temperature tolerable variety, treat the seeds with fungicides before planting.
- Suitable varieties of the crops for sowing or transplanting are mentioned in Annexure II.
- In East and South Eastern Coastal Plain Zone of Orissa in Ganjam and Nayagarh districts, early stem borer infestation has been found on sugarcane. 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 followed by earthing up or spray 400 ml Monocrotophos/Tryozophos/Profenophos.
- Under prevailing weather situation, attack of white fly in lady's finger may be observed in New Alluvial Zone of West Bengal. To control it, apply 2 gm Carbaril or Sevin at an interval of 15 days.
- Due to prevailing weather condition, there is possibility of branches and fruit rotting in pointed gourd, ridge gourd and brinjal in Terai zone of West Bengal. In this situation, spray Mancozeb 64%+ Metalaxyl 8%, 1 gm per litre of water by wetting the plant and leaf.
- Rotting of fruits in Simla mirch (Capsicum) crops are reported in some pockets of Western Plateau of Jharkhand, spray fungicide Blitox-50 @ 3 gm per litre of water. In some pockets the crops also attacked by the fruit borer insects, spray Methyl Dematon (Metasystox) @ 1 ml per litre of water.
- In the Hill zone of West Bengal sucking pests like jassid may infest the okra and cucurbits. For their management, the crop should be sprayed either with Monocrotophos @ 1.5ml/litre or Imidacloprid @ 1ml/7.5 litre of water.
- Stages of major crops are mentioned in Annexure I.

#### • **Animal Husbandry**



- In North Eastern Coastal Plain Zone and North Central Plateau Zone of Orissa, as the temperature is high, provide sufficient water and rice water to the animals before leaving them for grazing. Restrict grazing after 11 am and before 4 pm due to chances of sunstroke.
- There is possibility of attack of heat stroke in animals due to prevailing high day temperature in Central and North Eastern and Western Plateau Zone of Jharkhand. Hence, animals should be protected against intense heat and should not be allowed to be exposed in sunlight during noon and may be provided with plenty of water for drinking. Rise in temperature increases the possibility of death in poultry. Preventive measures should be taken by giving mixture of vitamin C and cool water and spraying of cool water during noon time.

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

- **Realised Rainfall:** Significant rainfall was received in Rudraprayag district in Uttarakhand and moderate rainfall received in rest of the region.
- **Rainfall Forecast:** Rain/thundershowers would occur a few places over Jammu & Kashmir and Himachal Pradesh and at one or two places over Uttarakhand, East Uttar Pradesh and West Uttar Pradesh. Rainfall is likely at a few places over Punjab and Haryana during next 24 hours and at isolated places thereafter.
- **Warning:** Heat wave to severe heat wave conditions would continue to prevail over some parts of Punjab, Haryana & Delhi, Rajasthan, Uttar Pradesh during next 48 hours.
- **Advisory:**
  - As there was no significant rain over the region except Rudraprayag district in Uttarakhand and no significant rainfall is likely over the region, farmers are advised to apply irrigation to the crops.
  - Taking advantage of present weather conditions in Delhi farmers are advised to start sowing of paddy seeds in nurseries. Also prepare nursery for chilli, brinjal and cauliflower. Field preparation for sowing of pigeonpea, guar, bajara, maize, cluster bean, spinach, amaranthus and ladyfinger may be done in this week. Optimum moisture level should be maintained in cucurbitaceous crops by light and frequent irrigation as dry conditions may lead to flowering and poor pollination and thus drop in yield of the crop. In view of no significant rainfall during next three days, irrigation is advised in chilli, brinjal, bitter gourd, spinach and tomato crop.
  - In Rajasthan, farmers are advised to irrigate summer vegetables, young fruit plants and other standing crops as per need. Undertake deep ploughing in hot summer to destroy soil borne pests. Prepare nursery for rice and citrus fruits. Start field preparation for sowing of irrigated groundnut and complete land preparation and sowing of cotton. Undertake sowing of mirch, shimla mirch, guar, vegetable (tinda, cucumber, coriander, bhindi, ridge gourd, planting of *kharif* onion. Dig pits for planting of anola, guava, berry, lemon and papaya etc.
  - In Sub Tropical Zone of Jammu and Kashmir, farmers are advised to complete transplanting of tomato, onion, brinjal, chilli crop and undertake new nursery sowing of brinjal, chillies. Undertake nursery sowing of rice without any further delay. Farmers are also advised to go for deep ploughing with soil turning plough in order to expose the soil and killing of larvae of insects during these days. Provide cover to young plants of litchi, mango etc in order to protect from heat injury.
  - In Intermediate zone (Pahalgam) of Jammu & Kashmir, farmers are advised to undertake nursery sowing / transplanting of brinjal, chillies cabbage, cauliflower, knolkhol, tomato in intermediate higher as well as in intermediate lower zone. Complete harvesting of berseem raised for seed purpose. Provide irrigation to protect fruit plants from sun scorching and also provide shade through organic mulch with parali.
  - Farmers in Cold Arid Zone (Leh) of Jammu & Kashmir are advised to transplanting of cruciferous crops and onion in the main field in middle belts, leafy vegetables like celery, Parsley and Leek in the main field, tomato, capsicum and chilli in the lower belts of the district under open field and preferably under open protected structures in the middle belts. Also advised to undertake direct sowing of cucurbits in greenhouses and trenches and radish, carrot, beet root, coriander and fenugreek may be done.
  - In Valley Temperate zone of Jammu & Kashmir, farmers are advised to continue field preparation for sowing of rice, *kharif* pulses and maintain nursery water level 5 cm during night hours. Sowing of bhindi and pole type beans may be continued. Complete the transplanting of seedlings of cole and solanaceous vegetables. Also complete sowing of maize and transplanting of seedlings of solanaceous vegetables. Continue seed sowing of cucurbits, kale, knol khol, bhindi and beans.

- In Sub Tropical Zone of Jammu & Kashmir, farmers are advised for sowing of direct seeded rice crop. Also, due to chances of light rainfall, farmers can go for land preparation for sowing of maize crop in irrigated as well as rainfed condition.
- In High Hill Temperate Dry Zone of Himachal Pradesh, farmers may go for the sowing of peas, potato, vegetables only in valley (cauliflower / cabbage / lettuce), capsicum / tomato / planting in polyhouse and also advised to irrigate daily or at least in alternate day.
- It is optimum time for the sowing of maize crop for green cobs and dhaincha for green manuring in rice fields and also to have green fodder, sowing of Chari and bajra in irrigated areas in lower hills, peas and French bean, ogla and phafra can be sown in high hills regions, Khira, bitter gourd, tori in field, land preparation for sowing of nursery of rice. It is optimum time for plantation of radish, arbi, garlic and ginger in the fields. Also nursery of cucurbits having 2-4 leaf stage can be successfully transplanted in fields. It is time for harvesting of potato in Sub-Montane & Low Hills Sub-Tropical Zone of Himachal Pradesh.
- Complete transplanting of indeterminate tomato, bellpaper, brinjal and chilli. Undertake nursery sowing / planting of capsicum, tomato, cabbage and cauliflower in polyhouses in high Hill Temperate Dry Zone. Preparation of cabbage and cauliflower nursery and direct seed sowing in the field can also be done in high hills region in Mid Hills Sub-Humid of Himachal Pradesh.
- In Bhabar and Tarai Zone of Uttarakhand, farmers are advised to undertake transplanting of rice with irrigation facilities if age of the nursery is of 21 to 25 days and also advised to continue sowing of rice and finger millets during this week. Due to expected pre - monsoon rainfall during next week, farmers are advised to prepare field for sowing of *kharif* season crops like groundnut, sorghum, millets, pigeon pea, urad, moong, soyabean, rajma and arhar. In Hill Zone of Uttarakhand, farmers are advised to go for sowing of maize and ginger.
- Farmers are advised to undertake weeding in early sown garlic, cucurbits and okra crop and apply irrigation as no rainfall is expected during this week. However, if irrigation facilities are not available, then put straw mulch in between rows for moisture conservation in Sub humid sub tropic of Uttarakhand.
- In view of present weather farmers in Punjab and Haryana are advised to complete the sowing of Desi and American cotton. Prepare the field and undertake nursery sowing of rice with certified seeds in nursery. Apply the light irrigation in nursery at short interval due to hot weather condition during evening hours. Irrigate the standing vegetable crops and fruit plants once in a week regularly, however, in light soils, the interval may be reduced to 4 to 5 days. Mulching can be practiced in widely spaced cultivated vegetable crops with the use of straw, grasses etc. Start sowing okra and maize. Farmers are advised to give need based irrigation to the moong crop.
- Farmers in Uttar Pradesh are advised to irrigate moong, banana, sugarcane and cucurbits crops. Continue sowing of urad, maize, soyabean, cotton, sunflower, jower, bajra and vegetables like okra, cucumber, pumpkin etc. After harvesting of berseem and jai, start sowing of maize, lobia etc., Sanai and Dhaincha also for green fodder purpose. Also start land preparation and nursery sowing of rice upto 15<sup>th</sup> of June.
- In Central plain zone of Uttar Pradesh, due to present weather condition there is chances of yellow blight diseases in urd, moong crops. Farmers are advised such plants should be remove and buried in the field.
- In Bhabar and Tarai Zone of Uttarakhand, due to dry weather, there are chances of fruit borer in tomato and capsicum. Hence, farmers are advised to spray 50 EC Prophenophas @ 1 ml per litre of water on these crops if insect population is more than 10 % and also due to high temperature lemon fruits are damaged, hence it is advised to spray Zibrelic acid @ 10 mg per litre of water if damage is more than 5 %.
- In Bharatpur region (Flood Prone Eastern Plain Zone), there is chances of fruit fly attack in cucurbits. Farmers are advised to spray Malathion 50 EC @ 15 ml /10 litre water during morning hour or evening hours at 15 days interval.
- In present weather conditions in Delhi, rouging of viral infested crop may be done in chilli. Infected crop should be uprooted and buried in the soil. After rouging, spraying of Imidacloprid @ 0.3 ml per litre of water is advised to control the vector. Also constant monitoring of lady's finger crop against attack of mite, jassid and hoper is advised. Spray of Phosmite @ 1.5 - 2 ml/litre of water to control mite and spray Rogor against jassid and hoper. Due to prevailing high temperature, light irrigation at short interval is advised.
- During the present weather in Punjab and Haryana, summer mung is severely attacked by thrips which cause flower drop, deformation of pods, deterioration of grain quality and ultimately heavy reduction in yield. Spray the crop at flower bud initiation stage with 100 ml of Rogar 30 EC or Malathion 50 EC in 80-100 litres of water per acre against the attack of thrips.
- Stages of major crops are mentioned in Annexure I.

- **Animal Husbandry**

- In Punjab and Haryana provide cool and fresh water to birds. Provide sufficient water to avoid excess movement of birds. Proper vaccination schedule must be followed. Vaccinate the chicks of 6-8 weeks with Ranikhet disease vaccine and fowl pox vaccine at 8-10 weeks of age. Gal Ghotu, Black Quarter (Pat Soja) can cause heavy loss of animal life in unvaccinated animals. If it is not already done, get your animals vaccinated immediately against the disease. Provide plenty of water to poultry birds to meet the increasing requirement of water. Change the water frequently to provide cool water. Sprinkling of water around the shed, more green area surrounding this shed is helpful in reduction of heat. White washing of poultry shed from outside will be helpful in reflecting the sun rays back from the shed. Increase protein, minerals and vitamins in feed as the feed intake is reduced during summer.
- In Bhabar and Tarai Zone of Uttarakhand, keep all animal under shed during day time to protect them from heat stroke & feed them properly. Go for vaccination in all animals for disease control, make alternate light arrangement in Brooder houses in the night.
- In Valley Temperate Zone of Jammu & Kashmir, it is advised to provide cool and fresh drinking water to the livestock as there is increase in the day temperature, Ventilation within the shed should be improved. Low energy diets should be provided to animals.
- In Sub Humid Southern Plain and Aravali Hill Zone, it is advised that the poultry and animals should be protected from heat waves and vaccination should be done in animals before onset of monsoon.
- In Himachal Pradesh, it is advised to avoid heat stress to animals. Grazing pattern may be shifted to early morning and evening hours. Practice concentrated feeding in early morning and late evening. Provide water splash to buffalos twice a day. Clean the cow sheds properly as occurrence of flies increases during this period.

- **Floriculture :**

- In valley temperate zone of Srinagar in Jammu & Kashmir, farmers are advised to collect seeds from selected spring flowering annuals. Prepare the beds for transplanting of summer flowering annuals. Irrigate lawns, flowering beds and pot plants as and when required. Propagate chrysanthemum and carnation by stem cuttings. Continue desuckering of budded roses. Apply fertilizer around trees and shrub plants after ensuring that the soil is weed free and moist enough.
- In Mid-Hills Sub-Humid Zone of Himachal Pradesh, apply mulching in the crops planted in open fields like marigold, chrysanthemum and gladiolus. Irrigate the fields thoroughly in the evening. Pinch the marigold crop which has been transplanted in the fields 20-30 days ago. Provide second dose of nitrogenous fertilizers (15 gm/m<sup>2</sup>) to gladiolus on 6 days stage.

- **Apiculture :**

- In Sub Tropical Zone of Jammu & Kashmir, it is advised to provide ventilation by placing a small stock in between brood chamber. Keep bee colonies in shade or cover with wet gunny bags.
- In Himachal Pradesh, in lower plains areas, keep the colonies in shady places and sprinkle water, if possible to reduce the heat in the region.

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

- **Realised Rainfall:** Most of the districts in Kerala except Kollam, Palakkad and Thiruvananthapuram, all the districts in Coastal Karnataka, Kodagu and Shimoga in South Interior Karnataka received sufficient rainfall. No significant rainfall occurred over the remaining parts of the region.
- **Rainfall Forecast:** Rain/thundershowers would occur at many places over Kerala and Coastal Karnataka and at a few places over interior Karnataka along with heavy rainfall at one or two places over coastal Karnataka and Kerala during next 48 hours. Rain/thundershowers would occur at one or two places over interior Karnataka and rest south peninsular India.
- **Advisories:**
  - Southwest monsoon covered entire Kerala and some parts of coastal Karnataka. Farmers are advised to undertake land preparation and sowing of *kharif* crops.
    - Kerala: Sowing of direct seeded rice and nursery sowing of *Virippu* paddy.
    - Karnataka: Nursery bed preparation of paddy in Coastal Karnataka and some parts of North Interior Karnataka take up sowing of green gram, black gram, jowar and soyabean. Sowing of ginger, turmeric and drill sown paddy in Uttar Kannada district.

- Tamil Nadu: Nursery Preparation of *Kuruvai* rice under irrigated condition in Cauvery Delta Zone.
- As monsoon is yet to reach, farmers in the state of Andhra Pradesh and remaining parts of Karnataka are advised to start land preparation and arrange inputs for sowing for kharif crops like rice, sesamum, bajra in Andhra Pradesh and ragi, maize, groundnut and other pulses in Karnataka
- During last five days, severe heat wave conditions prevailed over Coastal Andhra Pradesh and heat wave conditions in Telangana region of the state. Heat wave conditions would prevail over parts of coastal Andhra Pradesh during next 24 hours. Farmers in these regions are advised to apply light and frequent irrigation and provide mulching to minimize evaporation.
- Farmers in the Eastern Dry Zone of Karnataka are advised to prepare the land for sowing of *kharif* crops.
- Farmers in the Coastal Zone of Karnataka are advised to undertake nursery and land preparation of paddy and drain out the excess water in papaya plantation field.
- Farmers in the North East Transition Zone of Karnataka are advised to take up sowing of black gram, green gram, jowar and soybean first and then sowing of pigeon pea provided sufficient rainfall occurs, take up fresh plantation of fruit trees, teak, neem, tamarind, acacia or other trees which are useful to prepare the agricultural implements on the bunds, uncultivated and marginal land and make basins and give chemical fertilizer to the fruit crops.
- Farmers in the North Dry Zone of Karnataka are advised procure the required seeds for kharif sowings before onset of monsoon season.
- Farmers in the North Transition Zone of Karnataka are advised to take up land preparation to harvest the rain water and not to take up any sprays during next five days, keep the land ready for sowing (where ever irrigation facility is there), incorporate recommended dose of FYM (7.5 tons/ha) three weeks before planting and procure certified seeds (paddy, maize, sorghum, green gram, soybean, groundnut, chilli, cotton, onion etc.) and fertilizers (Urea, DAP and MOP), since 6 mm/day rainfall is expected on an average, during next five days.
- Farmers in the North East Dry Zone of Karnataka are advised to build moisture conservation structures and procure the required seeds for kharif sowings before onset of monsoon season, prepare nursery bed for paddy seedling and keep seeds of green gram, black gram, tur, cowpea, bajra, sorghum etc, and recommended dose of fertilizers ready for kharif sowings. (varieties mentioned in Annexure-I)
- Farmers in the Central Dry Zone of Karnataka are advised transplant arecanut seedlings, paddy growing farmers should use the recommended variety (varieties mentioned in Annexure-I) for their area, clean and repair all drainage channels before the start of the rain, clean up inter drainage channels so that rain water flows easily, take up sowing of ginger/turmeric by making use of expected rainfall in the next week.
- Farmers in the Western Zone of Tamil Nadu are advised to plough the field and prepare the land for sowing rainfed crops, utilizing the summer rain.
- As moderate rainfall is expected during the coming days, farmers in the South Zone of Tamil Nadu are advised to avoid irrigation and do top dressing of fertilizers to the irrigated crops.
- Due to strong winds, the standing crops which are nearing maturity, their leaves and the top soil lose moisture which results in reduction in growth. Hence, farmers in the North Western Zone of Tamil Nadu are advised to go for planned irrigation for the crop, to retain the moisture that is lost due to winds, so that production is not affected.
- Farmers in the Northern Coastal Zone of Andhra Pradesh are advised to undertake sowing of green manure crops and rainfed crops like mesta, sesamum, and bajra preceding to paddy where ever sufficient rainfall is received and land preparation for rainfed sugarcane, since rainfall may occur in ensuing five days.
- Farmers in the Southern Telangana Zone of Andhra Pradesh are advised to procure the quality seeds and fertilizers for taking up timely sowing of rainfed crops like cotton, jowar, maize, castor, groundnut, pigeonpea, greengram etc. and dig pits for planting new orchards.

- Farmers in the Northern Telangana Zone of Andhra Pradesh are advised to buy seeds of paddy, cotton, chilli, turmeric, sunflower, groundnut, red gram, black gram, sesamum, safflower, jowar etc. (Details of varieties are given in Annexure-I).
- Farmers in the Krishna Godavari Zone of Andhra Pradesh are advised to go for field preparation, procure the seed materials, can sow the green manure seeds, remodelling the bunds and use the rains for land preparation for sowing.
- Farmers in the southern zone of Andhra Pradesh are advised to prepare nursery beds for paddy. Due to high temperatures in Nellore district farmers are advised to frequently irrigate the nursery beds. The recommended varieties of paddy in this region is enclosed in the Annexure- I.
- Farmers in the Problem Area Zone of Kerala are advised to undertake sowing of paddy, planting of vegetables, coconut seedlings, ginger and turmeric after assuring adequate drainage, since moderate to heavy rainfall is expected. Farmers are also advised to stop giving irrigation to coconut and vegetables, (varieties of ginger and turmeric are given in Annexure I).
- Farmers in the Central Zone of Kerala are advised to undertake transplanting of rice after puddling and when the seedlings are in the optimum age.
- Farmers in the Hill Zone of Karnataka are advised to take up spraying of Dimethoate 2 ml/lit of water to control mealy bug infestation in papaya plantations and undertake plant protection measures.
- Sigatoka leaf spot disease was noticed in many parts of Southern Dry Zone of Karnataka in different varieties of banana. Farmers are advised to spray copper oxichloride @2.5 gm/lit. of water to manage this disease.
- Dieback disease, sucking pest like aphid and whitefly is noticed in lemon in the Southern Zone of Tamil Nadu. Farmers are advised to spray methyl demeton @ 1ml per litre of water 1 ml / l and also manage mealy bug attack in sugar-cane.
- Farmers in the Northern Coastal Zone of Andhra Pradesh are advised to undertake plant protection measures against infestation of mites and top rot may occur in sugarcane.
- Leaf rot disease is noticed in five year old coconut trees in the Problem Area Zone of Kerala. Farmers are advised to remove the rotten parts from the spear and the two adjacent leaves and spray the crowns and leaves with 1% Bodeaux mixture and undertake plant protection measures.
- Farmers in the Central Zone of Kerala are advised to undertake plant protection measures against incidence of bunchy top and pseudostem weevil in banana, stem and fruit borer in bhindi, brinjal and cow pea spray garlic and fruit fly in cucurbits and mango.
- Spodetra is noticed in the groundnut crop in the southern zone of Andhra Pradesh. Farmers in this region are advised to spray quinal phos 2ml or chloropiriphos 2.5 ml or monoprotophos 1.6 ml per litre on the crop.

- **Animal Husbandry**

- Farmers in the North East Transition Zone of Karnataka are advised to protect animals from hot temperature, deworm and vaccinate the animals (cow, buffalow, bullock) for foot and mouth disease (FMD vaccination), BC vaccination against black quarter, cow, buffalow and bullock against Haemorrhagic Septcaemia and sheep and goats against Enterotoximia(ET vaccine) before onset of monsoon.
- Vaccinate the animals (cow, buffalow, bullock) before onset of monsoon against Foot and mouth disease Due to the elevated day time temperature, milk yield of Friesian and Jersey cows are likely to go down. To overcome reduction in milk yield of these crossbred animals, Farmers in the North Western Zone of Tamil Nadu are advised to sprinkle water over the animal during morning and evening hours, keep them under shades and feed them with lots of green grasses.
- Farmers in the Problem Area Zone of Kerala are advised to vaccinate animals against Pasteurollosis (Bacterial infection) and undertake Precautionary measures against Mastitis.

#### **WEST INDIA [GOA, MAHARASHTRA, GUJARAT]**

- **Realised Rainfall:** Significant rainfall occurred in Ratnagiri and Sindudurg districts in Konkan and moderate rainfall occurred in Kolhapur, Satara and Sangli districts in Madhya Maharashtra. Rainfall

occurred at one or two places over Marathwada and mainly dry weather prevailed in Vidarbha. No significant rainfall occurred over Gujarat and Maharashtra States during last week.

- **Rainfall Forecast:** Rainfall is likely at many places over Konkan, at a few places over Madhya Maharashtra and at isolated places over Marathwada, Vidarbha, Gujarat region and Saurashtra region.
- **Advisories:**
  - As monsoon has advanced over South Konkan and Kolhapur region, farmers in these region are advised to undertake drill sowing of *kharif* rice.
  - As isolated /scattered rain is expected over Madhya Maharashtra, Marathwada and Vidarbha, farmers are advised to complete harvesting of already matured summer crops before onset of monsoon. Complete preparatory tillage with the help of pre monsoon showers and field may be kept ready for sowing of *kharif* jowar, groundnut, soybean, cotton, red gram, green gram and black gram.
  - Farmers of Western Ghat Zone are advised to undertake nursery sowing of *kharif* rice and nagli procuring improved varieties of seeds. Also undertake pit preparation, fill it with soil and compost for new planting of fruit crops in *kharif* season.
  - Farmers of Konkan are advised to arrange seedlings and filling materials like soil mixture and FYM for new plantations of mango, cashew, coconut and arecanut.
  - Farmers in Kolhapur region are advised to complete preparatory tillage for sowing of *kharif* jowar, groundnut, red gram and soyabean. They are also advised to undertake drill sowing of *kharif* rice after receiving sufficient rainfall.
  - Farmers of North Madhya Maharashtra are advised to undertake sowing of Bt cotton upto 15<sup>th</sup> June by selecting improved varieties. Farmers in central vidarbha zone are advised to arrange seeds for sowing of cotton on receipt of monsoon rain.
  - Farmers in Middle Gujarat Zone are advised to prepare field for sowing of *kharif* crops. Purchase certified seeds for *kharif* crops only from authorized dealer. Prepare nursery for *kharif* paddy late maturing varieties viz., GR-101, 102, 103, 104, Masuri, Narmada with seed rate of 30 kg seeds/ ha for bold grains varieties and 20 kg seeds/ ha for small grains varieties. Give seed treatment of Thiram or Captan or Cerasan or Agrosan @ 3 g/kg of seeds for controlling the seed borne disease.
  - Farmers in Bhal and Coastal Zone of Gujarat are advised for timely weeding and inter culturing in summer bajra and groundnut. Apply irrigation in groundnut.
  - Farmers in North West Zone of Gujarat are advised to harvest summer crops and prepare land for *kharif* crops. Selection of crops may be done as per irrigation facility. Arrange certified seeds, fertilizers and other inputs as per crop planning.
  - Farmers in South Saurashtra Zone of Gujarat are advised to prepare field for sowing of *kharif* crops. Carry out harvesting of bajra crop and mango fruits.
  - Farmers in North Saurashtra Zone are advised to select suitable varieties of *kharif* crops groundnut, bajra, sesame and green gram etc.
  - Cotton growing farmers in South Gujarat Zone who has irrigation facility may prepare field for sowing of cotton. For effective utilization of available water, drip irrigation system may be adopted for irrigating the fruit crops. As temperature is high, fruit crops should be kept weed free and covered with suitable mulch for conservation of available soil moisture.
  - Farmers in South Gujarat Heavy Rainfall Zone are advised to harvest matured mango. Due to prevailing high temperature conditions, protect banana bunch with plastic sheet and cover papaya fruits using gunny bags to avoid scorching. Irrigate flowers during morning hours to meet evaporative demand.
  - Farmers in North Gujarat Zone are advised to complete harvesting of pearl millet, sorghum and groundnut crop utilizing dry weather conditions. Taking advantage of prevailing weather conditions, complete sowing of irrigated hybrid cotton and B.T. cotton Harvest matured mangoes, papaya and sapota.
  - Due to partly cloudy conditions in the current week, there may be infestation of mango fruit fly on mango in South Konkan, install Rakshak traps @ 4 traps per ha. To avoid further spread of the pest, collect and destroy fallen infested fruits of mango in the orchard.
  - There may be infestation of early shoot borer in *suru* sugarcane in Sub Montane Zone of Maharashtra, spray Endosulfan 35 EC @ 15 ml in 10 litres of water.

- Under prevailing weather conditions, there is a possibility of incidence of thrips on new flush of various grafts fruit crops in North Konkan, spray aciphate @ 1.5g per litre of water.
- Stages of major crops are mentioned in Annexure-I.

### **Animal Husbandry:**

- Due to high temperature forecast in North Gujarat Zone, Middle Gujarat Zone and South Gujarat Heavy Rainfall Zone keep animals under shade during noon hours and provide clean drinking water. Put curtains on south-west side of poultry house and sprinkle water on curtains during noon time.
- Vaccinate the animals in North Gujarat Zone against FMD and BQ to avoid disease outbreak during ensuing monsoon season.
- In Konkan and Madhya Maharashtra, provide clothing from outside the poultry shed and sprinkle it with water and apply layer of grass or gunny bags on the roof of poultry shed and sprinkle water on it for protection of poultry birds from heat. Provide fresh and cool drinking water for the poultry birds and chicks.

### **CENTRAL INDIA [M.P., CHHATTISGARH]**

- **Realised Rainfall:** Mainly dry weather prevailed over the region.
- **Rainfall Forecast:** Isolated rainfall is likely over the region.
- **Advisories:**
- As mainly dry weather prevailed during last week and no significant rainfall is likely over the region, farmers in this region are advised to provide irrigation to the standing crops.
- Farmers in Kymore Plateau and Satpura Hills region of Madhya Pradesh are advised to clean the dried leaves and weeds in harvested sugarcane fields to take ratoon crop. Undertake hoeing / earthing and gap filling utilizing relatively dry weather followed by irrigation in sugarcane.
- Farmers in Gird Zone of Madhya Pradesh are advised to give irrigation during evening to urad, moong, chilli, okhra, tomato and fodder crop as per requirement. Prepare nursery bed for sowing of onion seeds.
- Farmers in Bundelkhand region of Madhya Pradesh are advised to prepare nursery bed for sowing of *kharif* onion and give light irrigation in evening time to all standing crops specially vegetables and fruit crops.
- Farmers in Malwa Plateau Zone of Madhya Pradesh are advised to protect harvested summer crops from rains as rainfall is expected. Also collect soil samples for analysis.
- Farmers in Central Narmada Valley Zone of Madhya Pradesh are advised to irrigate the sugarcane after 18 to 20 days of interval, also provide irrigation in cucurbitaceous crops, okra, cowpea, and other vegetables. Also do intercultural operation in lobia, cowpea, jowar and maize. Farmers are advised for picking of okra and spinach. They are also advised to harvest moong, urad and maize crops.
- Farmers in Vindhyan Plateau of Madhya Pradesh are advised to harvest matured urad and moong crops utilising relatively dry weather.
- Farmers in Jhabua Hills of Madhya Pradesh are advised to harvest matured pods of green gram and black gram. They are also advised to irrigate and give RDF in summer vegetables i.e. cucurbitaceous family, water melon, muskmelon, okra, cilli, tomato, brinjal etc. at proper time. Arrange seed of *kharif* onion, tomato, chilli and prepared nursery. Prepare nursery of marigold.
- Farmers in Chhattisgarh Plain Zone are advised to dry harvested rice under well ventilated shaded place to avoid breakage of rice during milling. Similarly harvested groundnut should also be dried in well ventilated shaded area. At present the evaporation rate is about 14 mm/day. Hence, farmers are advised for proper water management in summer vegetables, groundnut and sunflower as per the requirement. The farmers having drip irrigation system for vegetables and plantation crops should regulate the water discharge rate accordingly to maintain proper soil moisture around root zone. At present groundnut is at pod filling stage which is crucial for moisture. Hence it is advised to irrigate the crop as per requirement to avoid moisture stress condition. Also, where the crop is at harvesting stage, light irrigation before uprooting the crop is advised.
- Farmers are advised to prepare land rice nursery in Chhattisgarh Plain Zone with assured irrigation facility.

- Farmers are advised to prepare field for planting of tapioca, ginger, colocasia, Dioscorea and elephant foot yam in Bastar Plateau Zone of Chhattisgarh.
- **Animal Husbandry & Poultry**
  - Farmers in Kymore Plateau and Satpura Hills region, Grid Zone, Central Narmada Zone and Malwa Plateau Zone of Madhya Pradesh are advised to provide plenty of cool potable water and fresh green fodder to the cattle.
  - In view of high temperature conditions in Bundelkhand Zone, farmers are advised to cover the window and doors of poultry house with gunny bags between 11 am to 4 pm and keep it wet with water and remove the gunny bag after 4 pm. Farmers are also advised to allow the buffalos to wash their body with water twice in a day to keep their body temperature cool in high temperature and provide green and juicy fodder for the dairy animals.



## Annexure I

### Major Crops

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

- Sugarcane (vegetative), *ahu* rice (direct seeded) (flowering / milky / dough ), *ahu* rice (transplanted) (tillering / panicle initiation), *sali* rice (nursery preparation / sowing), okra (flowering/ fruiting), black gram, green gram (flowering / pod formation), *Capsularis / Olitorius* jute (vegetative), summer vegetables (sowing/vegetative / flowering / fruiting), cucurbits (vegetative / flowering/fruiting), ginger / turmeric (planting / vegetative), pumpkin (sowing) in Assam.
- *Jhum* and WRC rice (sowing / transplanting /early tillering), maize (cob formation / harvesting), black gram, green gram (sowing / vegetative), okra, cucurbitaceous vegetables (vegetative / flowering / fruiting), beans (vegetative / flowering / pod formation), soybean (sowing), sesame (vegetative) in Arunachal Pradesh.
- Pre-*kharif* rice (late transplanted) (tillering / panicle initiation), pre-*kharif* rice (panicle initiation / flowering), soybean, groundnut (sowing), *kharif* maize (sowing / early vegetative), cabbage, chilli (new) (transplanting / vegetative), okra, cow pea, French bean (flowering/ fruiting), ginger, turmeric (planting / vegetative), brinjal (sowing), cauliflower (nursery sowing) in Manipur.
- *Sali* rice (nursery sowing), *ahu* rice (sowing/ transplanting), *kharif* maize(vegetative / tillering), black gram, green gram (vegetative / branching), brinjal (fruiting / harvesting), soybean (sowing / vegetative), tomato (vegetative / flowering), potato (vegetative / tuberization), turmeric, ginger (vegetative / tillering), jute (vegetative/ branching) and vegetables like bottle gourd, ash gourd, cauliflower, cabbage etc. (flowering / fruiting) in Meghalaya.

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

- Sugarcane (vegetative), lobia for green fodder (vegetative), mishrikand (vegetative), vegetables (flowering / fruiting / harvesting), *boro* rice (harvesting), moong (harvesting), summer maize (grain formation / maturity), *kharif* rice ( land preparation) in Bihar.
- Turmeric, ginger and elephant foot yam (planting), okra (sowing), summer moong (pod formation / maturity), summer rice (grain filling / maturity / harvesting), summer vegetables (flowering / fruiting / harvesting), summer maize (grain formation) in Jharkhand.
- Summer rice (harvesting), summer groundnut (harvesting), sunflower (early maturity / maturity ), sugarcane (new) (tillering), banana (vegetative), tomato (flowering / fruiting / harvesting), jute (sowing / early vegetative), yam and ginger (planting), okra, pulses, oilseeds, cotton, sunflower, maize and vegetables (sowing) in Orissa.
- *Boro* rice (grain maturity / harvesting), aus rice (sowing/tillering), Aman paddy (seed bed preparation), summer vegetables (flowering / fruiting / harvesting), sesame (early maturity / maturity), groundnut (seed maturity / harvesting), chilli (flowering / fruiting / harvesting), mango, litchi (fruiting / maturity / harvesting), cauliflower (seedling), green gram (pod maturity), jute (sowing / early vegetative) in West Bengal.
- Ginger (germination / early vegetative), orange (flowering / transplanting), large cardamom (vegetative / primary flowering/secondary flowering), vegetables (vegetative) orange (flowering), maize (vegetative/late vegetative) in Sikkim.

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

- Vegetables (bhindi, cucurbits), potato (sowing / germination), mirch, brinjal (nursery sowing/ transplanting), cucurbits viz. cucumber, summer squash, bitter gourd, bottle gourd (nursery sowing/transplanting), bush type French bean (Contender), bhindi, surajmukhi (sowing / germination), tur, brinjal, Shimla mirch, and tomato (transplanting / seedling), apple and other temperate fruits (vegetative), arbi, amaranthus, turmeric, maize, barley, radish, onion, pea, garlic, coriander, cabbage, knolkhol, parsley, lettuce, fennel, cauliflower, broccoli (sowing / planting / germination), rice (nursery sowing) in Himachal Pradesh.

- Paddy (Nursery preparation), Late onion (vegetative), Chilli, tomato, brinjal, spinach, tomato and cucurbits (Vegetative and fruiting Stage), French bean, cluster bean, summer radish, summer green gram (vegetative and fruiting Stage), ladies finger (fruiting / maturity / harvesting), guar, maize, Bajra, cluster bean as fodder crops (sowing), pigeon pea, cotton (sowing) in Delhi.
- Rice (Nursery sowing), cole crops viz. early cauliflower, cabbage, knoll khol, broccoli (sowing / transplanting / vegetative/flowering), onion (transplanting), bhindi (emergence / fruiting / harvesting), radish, turmeric, ginger (sowing), summer moong, mash (vegetative), fodder (jowar, dhaincha, berseem), summer fodder (maize + cowpea + jowar) (sowing/ vegetative), maize (sowing / emergence / vegetative), turnip, cruciferous crop (viz. cabbage, cauliflower, knolkhol, kale, broccoli), solanaceous crops (tomato, brinjal and chilli, capsicum), (nursery sowing/transplanting), cucurbits like summer squash (Leh) (sowing / transplanting) under low tunnels, Horticultural crops (various stages) viz. [peach, plum & mango (flowering/fruiting), ber, orange & guava (fruiting)] , *kharif* pulses (sowing) in Jammu & Kashmir.
- Chilli, capsicum, cauliflower, broccoli (germination/vegetative), sugarcane (planting), papaya (planting), urd and moong (pod formation), pearl millets (early vegetative/vegetative), sunflower (germination), Chaitee dhan, maize, lobia, sunhemp, cowpea, jowar for green fodder (seedling / early vegetative ), French bean, ginger, okra, maize (seedling), rice (nursery sowing/transplanting), finger millets (sowing), urd, moong, soyabean, rajma, arhar (land preparation) in Uttarakhand.
- Rice (land preparation / sowing), winter sugarcane (vegetative growth), sunflower, summer moong, urad (pod maturity), vegetables [tomato, brinjal, lady's finger, cucurbits like bottle gourd, bitter gourd, cucumber] (fruiting / harvesting), onion (flowering / fruiting / harvesting), maize (grain formation), fodder maize, lobia, jowar (sowing / germination), Sanai, Dhaincha (sowing / early vegetative), summer sugarcane (initial growth (tillering)), mango (flowering / fruiting), cotton, soyabean and urd (sowing), sunflower, jowar, bajra(sowing) in Uttar Pradesh.
- Rice (land preparation / nursery sowing), spring sugarcane (sprouting / tillering), berseem (harvesting), barley (harvesting), radish (sowing), carrot, turnip, cauliflower (transplanting / vegetative), summer pulses (flowering / pod formation ), tomato, cucurbits, sunflower (sowing), cotton (sowing), okra, chilli, brinjal (sowing / transplanting) in Punjab.
- Rice (land preparation / nursery sowing ), Sugarcane (spring season) (early vegetative), barseem (vegetative / last cut), fodder ((maize + cowpeas) sowing / vegetative), moong, mash, pigeon pea (vegetative), cauliflower, cabbage, carrot, potato (transplanting), barley (heading/pre heading) and radish, cotton (sowing), turnip (sowing) in Haryana.
- Sweet potato (tuberization / maturity / harvesting), cluster bean (vegetative / pod formation), vegetables (potato, brinjal, radish, carrot, palak, berseem, isabgol, ajwain, garlic (vegetative growth / flowering / fruiting / harvesting), tomato, brinjal, chilli (picking), cauliflower, cabbage, onion (transplanting / germination), cucurbits, summer green fodder (sowing / germination), okra, *zaid* pearl millet fodder, *zaid* sorghum fodder, *zaid* green gram, groundnut, sweet corn (sowing / seedling ), sugarcane (new planting), cotton (Desi kapas, B.T. kapas, Narma kapas, American Cotton) (land preparation / sowing), jowar and bajra mixed with guar, Sudan grass, oats, maize, sorghum etc. for green fodder (land preparation / sowing), mirch, simla mirch, guar, vegetable (tinda, cucumber, coriander, bhendi, ridge gourd) (sowing), *kharif* onion (nursery planting), *kharif* groundnut, rice (land preparation) in Rajasthan.

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

- Sugarcane (ratooning), paddy (nursery sowing/land preparation), mango (fruiting), cotton (picking), vegetables (fruiting), turmeric, ginger, green gram, black gram, tur, cowpea, bajra, sorghum (sowing) and horticultural crops (fruiting) in Karnataka.
- Sugarcane (vegetative / ratooning), vegetables (fruiting), Paddy (Nursery preparation) Cotton (vegetative) and groundnut ( vegetative) in Andhra Pradesh.
- Pepper (planting/flowering), ginger (planting/vegetative), rubber (tapping), irrigated banana (harvesting/ planting), cardamom (nursery/planting), nutmeg (maturity/ harvest), sugarcane (grand growth), vegetables (nursery/planting), vegetables (planting), *virippu* paddy (nursery sowing/land preparation), cashew, coconut (planting) in Kerala.
- Kuruvai rice (nursery sowing), sugarcane (maturity), gingely (flowering), tomato (fruiting), summer irrigated cotton (harvest), pulses (harvest), cotton (boll development), vegetables (pre-flowering/harvest), maize (harvesting), sorghum (harvesting), irrigated groundnut (harvesting), chilli (fruiting), sunflower (vegetative) and turmeric (harvesting) in Tamil Nadu.

## WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Sugarcane new *adsali* (active tillering), sugarcane new pre-seasonal (early tillering / tillering), sugarcane new *suru* (early vegetative in Madhya Maharashtra and Marathwada), summer rice (grain maturity / harvesting in in East Vidarbha), summer groundnut (harvesting) in Maharashtra.
- Summer groundnut (pod maturity), sesame (flowering / capsule formation), summer rice (grain maturity), summer bajra, sorghum (harvesting), summer moong, urad, cowpea (pod formation / maturity), sugarcane (vegetative), vegetables (flowering / fruiting / harvesting), green gram (maturity / harvesting) in Gujarat.

## CENTRAL INDIA [M.P., CHHATTISGARH]

- Vegetables (fruiting), moong (harvesting), tomato, brinjal (vegetative / fruiting), fodder crops (sowing), onion (nursery sowing) in Madhya Pradesh.
- Sugarcane (planting), groundnut (pod filling), sesame (late vegetative), ginger, turmeric, papaya, mango and guava (vegetative), pigeon pea (pod filling / maturity), cauliflower, tomato, brinjal, chilli (maturity / plucking), onion (planting), summer rice (tillering), summer vegetables (land preparation / sowing / vegetative), moong, urad and maize (early vegetative), millet (sowing), tapioca, ginger, colocasia, discorea, elephant foot yam (planting) in Chhattisgarh.

## Annexure II

### List of Varieties

#### Assam

**Sali rice:** Ranjit, Bahadur, Peoli, Moniram, Pankaj, Kushal (for typical lowland rice area).

Satya and Basundhara (for medium lowland area).

**Okra:** Pusa Sawani, Arka Anamika, Parbhani Kranti, Panchasira.

**Ginger:** Nadia, Karkai, Maran, Jorhat, Chaina.

**Turmeric:** Shillong type, CL-24, PTS-38, PCT-13, VK-145.

**Bitter gourd:** Long Green, Extra Long.

**Snake gourd:** Long Green, Long White and Extra Long.

**Ridge gourd:** PusaNasdar, AAUJ-1, AAUJ-2, Satputia.

#### Meghalaya

**Soyabean :** Clark-63, Bragg, Hill, Punjab-1, Hardee, Lee

#### Mizoram

**Rice :** Buhsakei, Bhusanghar, Biahzin, Khairawal, Wonder Rice, IR 64, Ranjeet, PHB-71, IR 50, RCM-9

#### Manipur.

**Soybean :** JS 335

**Groundnut :** ICGS-76

**Cauliflower :** Early Himlata

#### Tripura

**Aman rice :** Swarna Masuri, Naveen, Puja, Krishnahamsa

#### Orissa

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

**Jute:** JRO-524 (Naveen).

**Ginger:** Suprava, Suruchi and Suravi.

**Kharif rice:**

**Early varieties** - Parijat, Khandagiri, Vandana, Jogesh, Siddant

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

**Late varieties** – CR-1009, CR-1018, Ranidhan, Mrinalini, Swarna, RGL-2837, Ketakijoha, Moti, Padmini, Kanchana, Mahanadi, Jagabandhu.

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

**Hybrid varieties :** CRHR-32, Ajay, Rajalaxmi, BS6444G, JKRH-401, ARIZE 6444G, JKRH-3333  
**Maize:** Navjot, Shakti, Decan-107.

**Fruit Crops:**

**Mango-** Banganpalli, Totapuri, Subarnnarekha, Nilam, Langrah, Dasher, Amrapalli, ,

**Banana-** Kabuli, Robusta, Patakapura, Champa, Gaja bantala, Batisha bantala, ,

**Guava-** Allahabad Safed, Lucknow –49, Banarasi Seedless,

**Papaya-** Kurg honeydew, Coimbatore-1 & 2, Pusa Delicious, Pusa Majesty,

**Coconut-** Eastcoast Tall, Westcoast Tall, Andaman, Lakhyadeep, Java, Fiji

**Pine apple-** Que, Queen, Simachalan and Maricius,

**Cashew nut-** Vengrulla 1.4, BPP-4

**Jackfruit-** Kadua, Khajra and Singapor.

**West Bengal**

**Jute:** Chaitali, Basudev, Naveen, Sonali, Sobujsona, Shyamali.

**Aurum:** BCC-17, BCC-33, BCC-02, BCC-01, BCC09 etc.

**Jharkhand**

**Ginger:** Vardhaman or Nadia.

**Turmeric:** Rajendra, Sonia.

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

**Elephant foot yam:** Gajendera, Shree Padma, Santragachhi.

**Bihar**

**Kharif Rice:** Rajshree, Rajendra Sweta, Rajendra Mansuri, Swarna, Satyam, Kishori

**Kharif maize :** Deoki ,Shaktiman 1, Shaktiman 2,Sunkar makka 3 and Ganga 11.

**Himachal Pradesh :**

**Brinjal:** Arka Nidhi, PPC

**Shimla mirch:** California wonder

**Agetibhindi:** P-8, Prabhnikranti, Arkaanamika,

**Frenchbean:** Contender

**Pepper :** Surjmukhi,

**Rajmash:** Triloki, Jwala, baspa Kailash

**Raddish:** japani white and early mino white,

**Turnip:** PTWG-1.

**Cabbage:** Himsona Cabbage Varun, Bahar, Bajrang, Green challenge.

**Knolkhol :** White Bina,

**Cauliflower:** Pride of India, Shweta, Madhuri, Himrani.

**Peas:** Angoori, PS1100/Azad1.

**Cucumber :** Kiyani seedless/243, Matgaura, Maliniseeded

**Tomato :** Naveen2000plus, Avtar, Solan hybrid 1 and 2,

**Redcapsicum :** Natasha, Tanvi

**Yellow capsicum :** California wonder, bharat, solan sankar 1,Indira, Orivelle

**Summer squash :** Pusa Alankar Jacuni types.

**Sarson :** KBS3

**Bhindi:** P-8, Prabhini kranti, Arka anamika.

**Jammu & Kashmir**

**Vegetable crop** like **radish** (var. Pusachetki, Japanese white & Pusaresmi), **carrot** (var.Pusakesar), **turnip** (var PTWG), **garlic** (var. local, large segmented), **spinach** (prickly seeded) and **methi** (P.E.B.K methi), **Cauliflower** (var. PusaDipali), **knoll khol** (White Vienna), **Broccoli** (Early green),

**Bottle gourd** ( Pusa Summer Prolific Long, Punjab Komal, Punjab Round, Pusa Summer Prolific Round), **Sponge gourd** (Pusa Chikni, Pusa Supriya), **Ridge gourd** (Pusa Nasadar, Swaran Manjari, Pant Tori-I), **Bitter gourd** (Pusa Domousmi, Pusa Vishesh, Coimbatore Long, Pusa Hybrid- Kalyanpur Baramasi), **Cucumber** (Japanese Long, Straight Eight Poinsette), **Pumpkin** (Arka Suryamukhi, Arka Chandan), ginger (Local), **Knolkhol** (W. Vienna).

**Brinjal :** PPL, PPC, PPPR, **Chillies :** NP-46A, Pusa jawala

**Jowar :** Ujjain, Swarna-413, M.P.chari & PoineerJowar ,

**Beans :** Contender, Pusa Parvati, Arka Komal

**Maize (unirrigated) :** Super Composite (Mansar), C-6, Vijay, Him-123, Local Tall, [GS-2, Vijay, Mansar, C-5 and C-8 in mid to high altitude area (intermediate region)).

**Rice (Irrigated):** IET-1410,K-39, Ratna, PC-19, Jaya RR-8585,Basmati 370 and Ranbir Basmati

Hybrid: KRH-2, PHB-71

## Punjab & Haryana

**Punjab : Paddy :** PR 118, PR 116, PR 114, PR 113, PR 111, PR 115.

**Haryana : Paddy :** PAU 201, PR 120, PR 118, PR 116, PR 114, PR 113, PR 111, PR 115.

**Onion:** Agri Found Dark Red, N 53

**Okra:** PusaSawani , PunjabPadmini , Punjab 7 or 8.

**Groundnut:** SG 99 or M 522/SG 84

**Radish:** Pusa, chetki , Punjab Ageti

**Maize:** PMH 1, Prabhat ,sweet corn , PMH 2,JH 3459, Kesri and Pearl Pop Corn.

## Delhi

### Paddy

Hybrid varieties: - K. R. H 2, PHB 71, Pant hybrid Dhan1, Narendra hybrid dhan 1, P R H 10, High yielding varieties- Pusa 44, Pant Dhan-4, Pant Dhan-10, Narendra Dhan-359, Pusa-834, Pusa basmati-1, Pusa improved basmati, Pusa sugandha-5, Pusa sugandha-4 (Pusa 1121), Ranvir basmati and Taravadi basmati.

**Green gram:** Pusa-9531, Pusa Visal, Pusa Vaisakhi, PDM-11, SML-32, Pusa Ratna, Samrat

**Black gram :** Pant Urd 19, Pant Urd 30, Pant Urd 35, PDU1.

**Maize:** African Tall

**Cluster bean:** PusaKomal, PusaSukomal.

**Radish:** Pusa Chetki and R.R.W.T

**Pigeon pea:** Pusa-2001, Pusa-991 and Pusa-992.

**Cotton:** H-777, H-974, H-1098

## Uttarakhand

**Paddy:** VL-Dhan -154, Vivek Dhan -62, Vivek Dhan-65, VL Dhan-81, Vivek Dhan-82 or VL-Dhan-85, VL-163, 221, Vivek Dhan-154, Pusa-44, Jaya, Serju-52, NDR-359, Pant Dhan-4, PR-113, PR-114, Pant Dhan-18, Pant Dhan-19, Pant Sankar Dhan-1, Pant Sankar Dhan-3, Narendra Sankar Dhan-2 etc. in nursery.

**Milllets :** long duration (105 to 110)VL- Mandua-124 and VL-149, short duration (95 to 100 days) varieties like VL- Mandua-204, Pant Mandua-3, PES-176, PES-110, VL- Mandua-146.

**Groundnut:** G-201, Kausal, JL-24.

**Maize:** Him-129, Navin, Sartaj, VL makka 16.

**Urd:** Pant urd-19, 30, 35,

**Moong:** Pant moong-2, 4, Narendra moong-1

## Uttar Pradesh

**Sugarcane :** KS-8436, KS-88230, KS-95255

**Sunflower :** K.P.S.H. 1, Divyamukhi, Jwalamukhi

**Moong :** Type-44, Pant Moong-1,2, Narendra Moong-1, PDM-11, MUM-2, MalviyaJagruti, Samrat, PusaVaishakhi K. , K-851, JM-721 etc.

**Urad :** Azad Urd-1,2, Bhokhar-1,2, Type-9, Uttara etc. JT-9, pant u-19, Narendra ,, pant U-35

**Arhar :** U.P.A.S.-120 and T 21.

## Rajasthan

**Kharif paddy :** P.R.106, B.K.190, Mahi Sugandha (Basmati)

**Kharif onion :** N-53 & Agrifound dark red

**Kharif groundnut :** RG-382, R.S.-1, M-13, RG-141, TG 37-A & Girnar-2 are improved varieties

**Cotton :** (Narma kapas): improved varieties: R.S.T.-9, R.S.-810, R.S.-2013, (B.T. kapas) : M.R.C.H. 6304, M.R.C.H. 6025, R.C.H. 134, R.C.H. 314, J.K.C.H. 1947, M.R.C. 7017 (BG-11), N.E.C.H. 6, Improved varieties of B.T. Cotton (for Jaipur): Bikaneri Nerma (190-200 days), Ganganagar Ageti (170-180 days), RST-9 (185-200 days), RG-8 (Desi, 170-180 days), MRC-7017, Tulsi-4-BG & Rasi-314, American Cotton : Bikaneri Nerma, RST-9, R.S.T. 810 and Hybrid-4.

**For Green fodder (Jowar) :** Raj Chari-1, Raj Chari -2, MP Chari, SSG 59-3, MSFH-3, MSFH-4 and Hara Sona,

**For Green fodder (Bajra) :** Raj Bajra Chari-2, Co -8, Avika Bajra Chari-19 and Jiant bajra

**For Green fodder (Guar) :** RGC-986, Bundel guar-1, Bundel Guar-2 and Bundel Guar-3

**Mirch :** Pusa Jwala, Mathaniya, long, Pant C-1, G-3, G-5.

**Guar :** R.G.S- 936, R.G.S- 986, R.G.S- 1002, R.G.S- 1017, H.G- 365, H.G 563, H.G 2 & 20.

**Shimla Mirch:** yellow wonder, California wonder, Bulnose and Arka Mohini.

## Gujarat:

**Hybrid cotton:** G. Cot. 4, 6, 8, 10.

**Groundnut:** GG 2, GG-5, TG-26, TPG-41, TAG 37 for bunch and GG-20 for semi spreading.

**Sesamum:** GT-2 or GT-3  
**Bajara:** GHB-558,577,538,719,732,744.  
**Green gram:** GM-3, GM-4, K-851  
**Black gram:** T-9, GU-1

### **Maharashtra:**

**Kharif bajra:** Hybrid variety Shraddha, Saburi, Phule Shanti and Improved variety – ICTP 8203, ICMV – 155.  
**Kharif groundnut:**SD 11, Phule Pragati, Phule Vyas, Phule Unap, TPG 41, TG 26.  
**Red Gram** – ICPL 87, Vipula, BSMR-853, BSMR-736 for Madhya Maharashtra and for Central Vidarbha – ICPL-87119 (Asha), C-11.

### **Chattisgarh**

**Millet:** High Yielding : PR 202, HR 374, VR 708, RAU 08, GPU 45, VC 149 and for kodo millet GPUK-3, RVK-155 and for Kutki JK08.

### **Karnataka**

**Green gram :** BGS-9, Selection – 4 , PS-16,TAP-7,Pusabisaki,Chinamoong,Sel-4,  
**Black gram :** TAU – 1, DU – 1  
**Soybean :** JS - 335  
**Red gram :** BSMR 736, TS-3R  
**Jowar :** DSV – 2  
**Bajra :** WCC-75,MH-179,ICTP-8203(@5Kg/Ha)  
**Pigeon pea:**PT-221,GS-1,HCPL-87,WRP-1,TS -3 R,BSMR-76 and Maruti(for wilt prone areas)  
**Groundnut:**S-206,KRG-1,R 2001-3,JL-24(for early sowing),R-8808,R-9251,S-220(Spreading type)  
**Sunflower :** Morden,BSH-1,KBSH-1,RSFH-130  
**Sesame :**E-8,TMV-4,DSH-1 or Local  
**Cotton:** DCH-32, DHH-11, NHH-44 etc.  
**Lowland paddy:** Intan, Abhilash, I.R.-57773 or basmathi variety like I.E.T 13549. Upland paddy: Amrut or Prasanna  
**Kerala**  
**Ginger:** Wayanad local, Rio-De Janero, Varada,Mahima  
**Turmeric:** Suguna, Sobha, Suvarna, Kanthi, Sona

### **Tamil Nadu**

**Rice:** ADT 36, ADT 43, ADT 45 and ADT 47

### **AP**

Bharani, NLR 34242, NLR mashuri, NLR 40024 for Coastal Andhra Pradesh

### **RICE**

**Black soils – Irrigated**

#### **Long duration:**

BPT 5204, Swarna, Amara

#### **Medium duration:**

Polasa Prabha (JGL 384), Manair Sona (JGL 3828),  
Karimnagar Samba (JGL 3855), Jagtial Mashuri  
(JGL 11470), Bhadrakali, Kavya, Vijetha

#### **Short duration:**

MTU 1010, Indur Samba, Erramallelu, Keshava,  
Pothana, IR 64, Jagtial Sannalu (JGL 1798), Jagtial  
samba (JGL 3844)

**Very short duration:** Varalu

### **COTTON**

**Varieties:** LK 861, LRA 5166, ADB 39, Narasimha,  
NA 1588

**Hybrids:** NHH 44, NHH 390, Savitha, AHH 468,  
LAHH 4, H 8, Popular private hybrids

### **CHILLIES**

LCA 206, LCA 235, LCA 334, Popular private  
varieties and hybrids

### **TURMERIC**

Armoor, PCT 13, PCT 14, Duggirala

**GROUNDNUT**

JCG-88, Kadiri-6, Kadiri-9, Narayani, TCGS-25,  
TAG 24

**SUNFLOWER**

**Hybrids:**

MSFH8, MSFH17 APSH11, BSH 1, DRSF 108,  
NDSH 1, DRSH 1 and popular private hybrids

**Varieties:**

Morden, EC 68414

**REDGRAM**

LRG30, ICPL 85063, MRG 66 PRG 100, WRG 27,  
LRG 41, ICPL 87119 (Asha)

**BLACKGRAM**

T 9, LBG 20, LBG 623, LBG 752

Lam – 17, 20, 623, LBG -1

**SESAMUM**

Gowri, Madhavi, YLM 11, YLM 17, Chandana,  
Swetha-Thil, Hima, Rajeshwari

**Black soils – Rainfed**

**COTTON** (Upto 8th July)

Varieties: ADB 39, LRA 5166, B 1007, Narasimha, NA  
1588

**Hybrids:** H 8, NHH 44, Savitha, NHH 390, AHH 468,  
LAHH 4

**SOYBEAN**

JS 335, Lsb 18, JS 9305

**REDGRAM**

LRG 30, MRG 66, BDN 2, ICPL 332, ICPL 85063,  
ICPL 87119 (Asha)  
WRG 27, PRG 100

**SESAMUM**

Rajeshwari, Swetha-Thil, Chandana, Hima

**CHILLIES**

LCA 206, LCA 235, LCA 334 and popular private  
varieties and hybrids

**SUNFLOWER**

**Hybrids**

MSFH 17, MSFH 8, APSH 11 and popular private  
hybrids

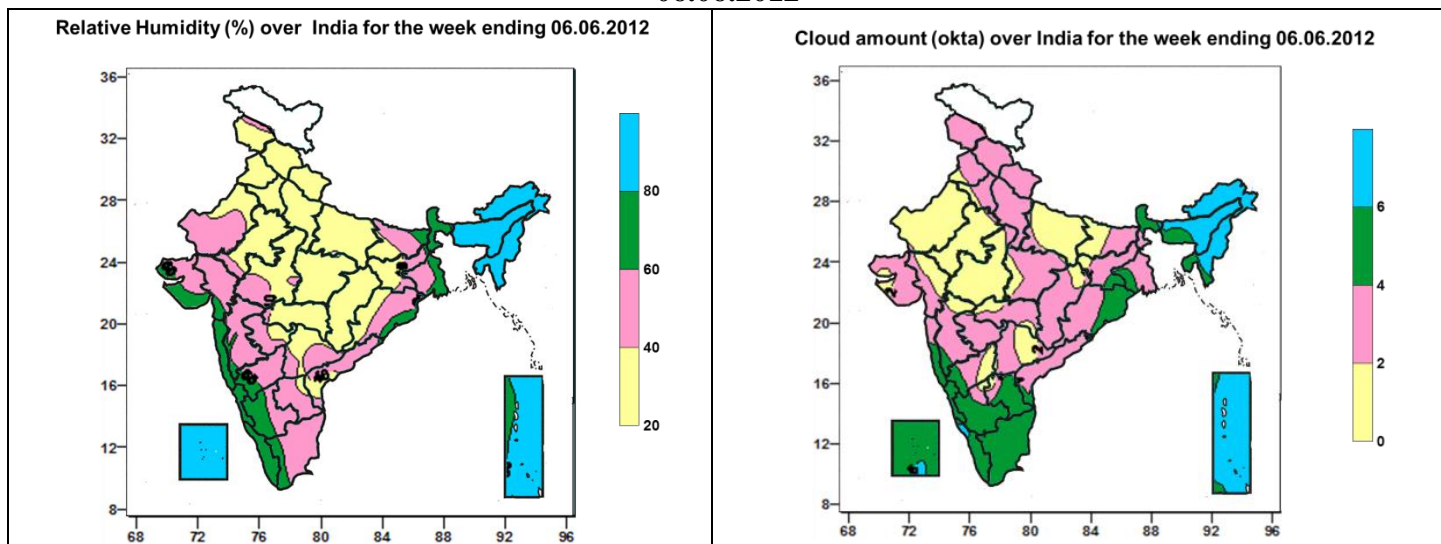
**Varieties:**

Morden, EC 68414

**CASTOR**

Aruna, Kranti, Haritha, Kiran, PCH 111, DCH 177

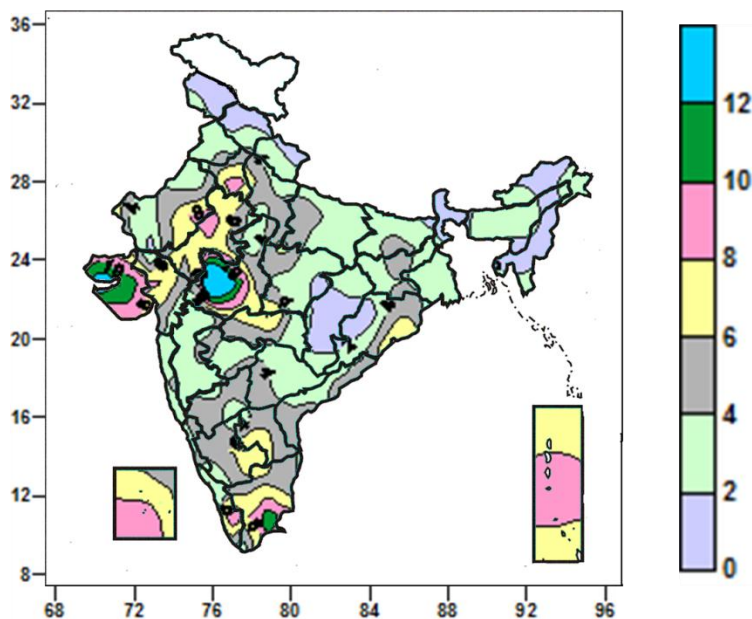
## Contour maps for Relative Humidity, Cloud Amount and Wind speed for the week ending on 06.06.2012



Relative humidity ranged between 80% and above over many parts of North East India, Lakshadweep, Andaman & Nicobar Islands, 60 to 80% over most parts of West Bengal & Sikkim, Konkan & Goa, Coastal Karnataka, Kerala, some parts of Bihar, Jharkhand, Coastal Orissa, Gujarat, Saurashtra & Kutch, North & South Interior Karnataka, Tamil Nadu, Madhya Maharashtra and 20 to 60 % over remaining parts of the country.

Cloud amount 6 okta and above over many parts of North East India (except Tripura), Andaman & Nicobar Islands, 4 to 6 okta over most parts of Sikkim, Rayalaseema, Coastal & South Interior Karnataka, Kerala, Tamil Nadu, Lakshadweep, some parts of West Bengal, Coastal Orissa, North Interior Karnataka, Madhya Maharashtra, Konkan & Goa, Madhya Maharashtra and 0 to 4 okta over remaining parts of the country.

### Wind speed (knots) over India for the week ending 06.06.2012



Wind speed ranged between 8 to 12 knots and above over some parts of Saurashtra & Kutch, West Madhya Pradesh, Rajasthan, Haryana, Delhi, Kerala, Tamil Nadu, Lakshadweep, Andaman & Nicobar Islands, 6 to 8 knots over most parts of East Rajasthan, some parts of Haryana, Orissa, Madhya Pradesh, Gujarat, West Rajasthan, Saurashtra & Kutch, Vidarbha, Raylaseema, North Interior Karnataka, Kerala, Tamil Nadu, below 6 knots over remaining parts of country.