



National Agromet Advisory Service Bulletin
based on
Extended Range Weather Forecast (ERFS)

Valid for 27th May to 9th June, 2016

Date of Issue: 27th May, 2016

Issued by

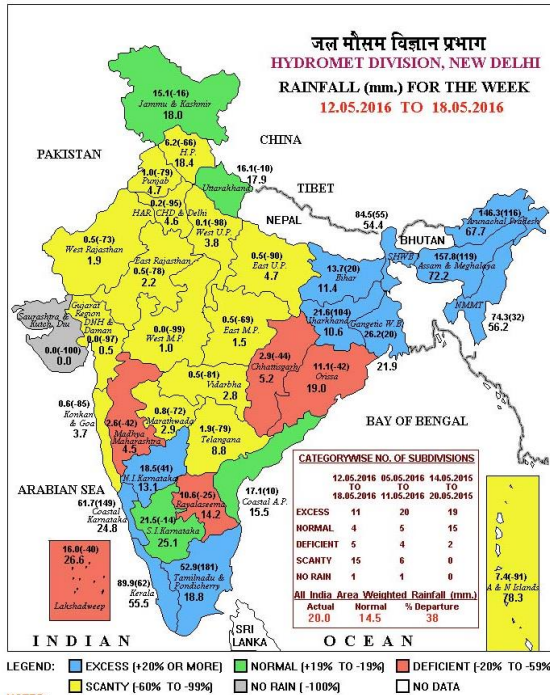
**Earth System Science Organisation
India Meteorological Department**

&

**Indian Council of Agricultural Research (ICAR)
All India Coordinated Research Project on Agricultural Meteorology (AICRPAM),
Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad**

Realized Rainfall (12th May to 25th May 2016)

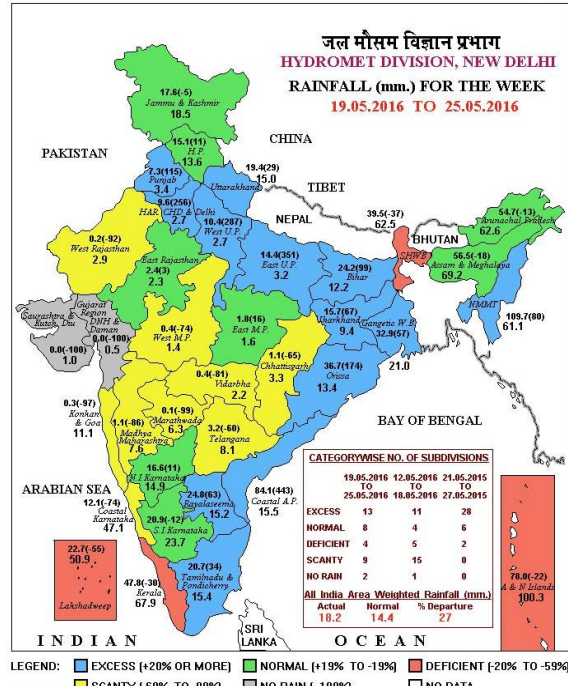
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: [Blue] EXCESS (+20% OR MORE) [Green] NORMAL (+19% TO -19%) [Red] DEFICIENT (-20% TO -59%)
[Yellow] SCANTY (-60% TO -99%) [Grey] NO RAIN (-100%) [White] NO DATA

NOTES:
[a] Rainfall figures are based on operational data.
[b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
Percentage Departures of Rainfall are shown in Brackets.

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Percentage Departures of Rainfall are shown in Brackets.

- Normal or above normal rainfall occurred during last two weeks in Jammu & Kashmir, Uttarakhand, Bihar, Jharkhand, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Coastal Andhra Pradesh, Interior Karnataka and Tamil Nadu.
- Normal or above normal rainfall occurred in either of the last two weeks in Himachal Pradesh, Punjab, Haryana & Delhi, Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Sub-Himalayan West Bengal and Sikkim, Odisha, Rayalaseema, Kerala and Coastal Karnataka.
- Below normal rainfall or no rain occurred in the last two weeks over West Rajasthan, West Madhya Pradesh, Chhattisgarh, Maharashtra, Goa, and Gujarat State and Telangana,

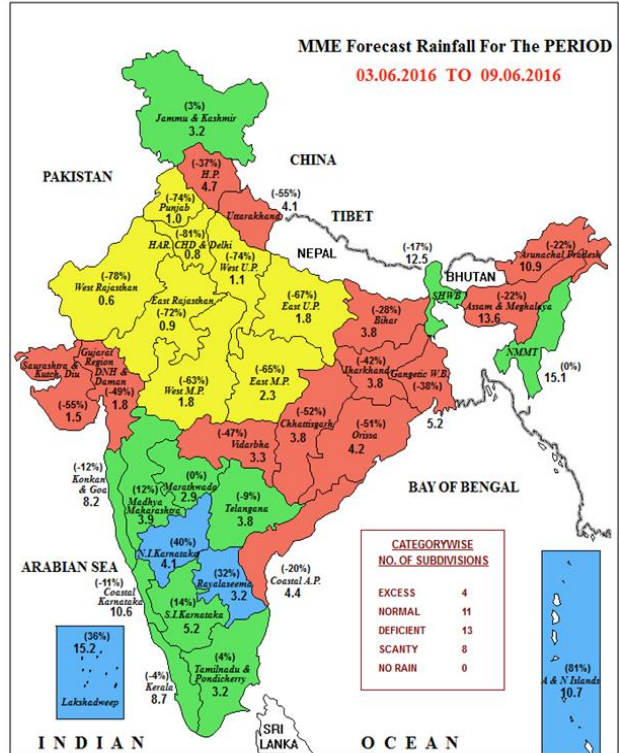
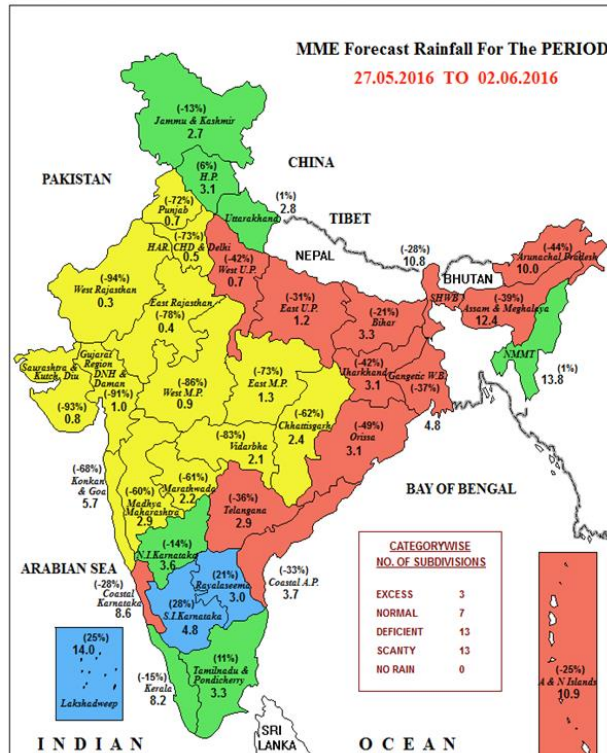
Extended Range Forecast System

Subdivision wise rainfall forecast map for the next 2 weeks (IC =25 May)

Rainfall forecast (mm/day) (27 May – 9 June, 2016)

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- (b) Bold figures indicate forecast Normal rainfall (mm/day)
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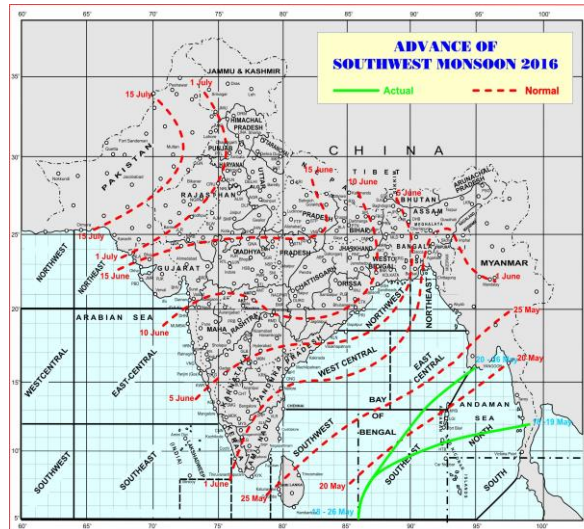
- (a) Rainfall figures are based on MME forecast
- (b) Bold figures indicate forecast Normal rainfall (mm/day)
- (c) Percentage Departures of Rainfall are shown in Brackets

- Normal or above normal rainfall would occur during next fortnight over Jammu & Kashmir, Nagaland, Manipur, Mizoram, Tripura, Interior Karnataka, Rayalaseema, Tamil Nadu and Kerala.
- Normal or above normal rainfall would occur in either of the next two weeks in Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana and Coastal Karnataka.
- Below normal rainfall would occur during the next two weeks over Punjab, Haryana & Delhi, Uttar Pradesh, Rajasthan, Gujarat State, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Odisha, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya and Coastal Andhra Pradesh.

Forecast of the Onset Date of Southwest Monsoon - 2016 over Kerala

- The southwest monsoon is likely to set in over Kerala on 7th June with a model error of ± 4 days.

Advance of Southwest Monsoon - 2016



27th May, 2016

- The Northern Limit of Monsoon (NLM) continues to pass through Lat. 5.0°N/ Long.86.0°E, Lat. 8.0°N/ Long. 87.0°E, Lat.13.0°N / Long. 91.0°E and Lat. 16.0°N / Long. 95.0°E.

Strategic Agricultural Planning based on rainfall during next two weeks till 9th June

Salient Agromet Advisories

- Extreme parts of south India and northeast India are likely to receive rain during 27th May to 2nd June. Over the west-coast the rainfall belt will gradually extend northward and the rainfall belt from the southern India will also extend slightly to the north during 3rd to 9th June. The met-subdivision level rainfall forecast indicates rainfall activity over southern part of India during the period, which can bring the monsoon onset.
- Prevailing weather conditions are suitable to continue agricultural activities like land preparation and sowing of *kharif* crops in North-eastern states, Kerala, Karnataka, Maharashtra and West Bengal.
- As there was rainfall and likely to continue over Kerala, undertake nursery for rice and vegetables and planting of orchard crops.
- Heat wave/high temperature conditions prevailed in Rajasthan, Madhya Pradesh, Odisha, Vidarbha, Coastal Andhra Pradesh and Telangana. Heat wave/severe heat wave likely over central India and northwest India including Odisha, Chhattisgarh, Gangetic West Bengal, East Uttar Pradesh during later part of next fortnight.
- In view of prevailing heat wave conditions, apply light and frequent irrigation to summer vegetables, sugarcane and orchards in the above States during evening hours. Also undertake soil mulching or mulching with straw or polythene to conserve soil moisture.

The following advisories are issued for North-eastern States, Kerala, Karnataka, Maharashtra and West Bengal.

Kerala

Kerala State received good rainfall during last three weeks and rainfall activity is likely to continue during next fortnight.

Major advisories for *kharif* crops

- Direct sowing of rice in Problem Area Zone and Northern Zone.
- Continuation of Nursery sowing of *Virippu* rice in Southern Zone.
- Continuation of land preparation for sowing of rice (variety: Jyothi) in Central Zone.
- Continuation of sowing of *kharif* vegetables like bhindi, bitter gourd, amaranthus in High Altitude Zone and bhindi, brinjal, cucurbits like pumpkin, cucumber, bottle gourd in Southern Zone.
- Follow stale seed bed technique for the management of weeds.

Other Advisories

- Planting of ginger and turmeric in Central Zone.
- Continuation of planting of coconut, arecanut, pepper and cardamom in the High Altitude Zone.
- Planting of coconut seedlings in Problem Area Zone and in Southern Zone.
- Cultivation of ginger, turmeric, banana, mulberry and tuber crops as intercrops along with coconut.
- Planting of bananas (Robusta, Poovan, Njalipoovan, Palayankodan) in Thiruvananthapuram district, cucurbits like bitter gourd, snake gourd in Pathanamthitta district, coconut, banana and cucurbits like pumpkin, cucumber, bottle gourd in Kollam district.
- Planting of Tapioca.
- Provide proper drainage in Nutmeg in Southern Zone.
- Coconut: Open the basins for application of fertilizers / lime.
- Rubber: Resume tapping as good showers occurred. In order to control fungal diseases in young budded plants, spray Copper-oxy-Chloride 4g/1 litre of water.
- Cardamom: Take necessary control measures against thrips, white flies in cardamom

Karnataka

Good rainfall occurred over many districts of Interior Karnataka during last fortnight and likely to continue in next fortnight over Interior Karnataka and later part of next fortnight in Coastal Karnataka.

Major advisories for *kharif* crops

Coastal Karnataka

- Nursery raising of rice in Coastal Zone and land preparation for sowing of groundnut in Hill Zone.
- Sowing of *kharif* maize, cotton.
- Continuation of nursery raising for seedlings of black pepper in Hill Zone.

South Interior Karnataka

- Sowing of red gram (TTB-7, BRG-1, 2, 4, 5), groundnut (TMV-2, JL-24, KCG-6), and maize in Eastern Dry Zone.
- Continuation of land preparation for sowing of ragi (Indaf -9, ML-365), sesame (Navile-1, T-7), green gram (PS-16, PDM-84,178) black gram (Karagao-3, T-9, Rashmi), cowpea (TVX-944, KBC-1), and castor (DCS-9 (Jyothi), DCH-177 & 32) in Eastern Dry Zone.
- Continuation of land preparation for sowing of ragi, sunflower, nursery sowing of rice in Southern Transition Zone and groundnut, maize, sunflower, sorghum, finger millet and vegetable crops and for nursery sowing of rice in Central Dry Zone.
- Sowing of pulses like cowpea, green gram, black gram, horse gram, field bean etc., ragi, and maize with available soil moisture in Mysore and Chamrajnagar districts in Southern Dry Zone.
- Sowing of red gram, groundnut, maize, cotton in Southern Transition Zone utilising realised and expected rainfall.
- Continuation of summer deep ploughing across the slope to improve infiltration and conservation of more rain water and keeping the inputs ready for pre-monsoon sowing.

❖ **North Interior Karnataka**

- Continuation of deep ploughing across the slope to improve infiltration and conservation of more rain water.
- Continuation of land preparation for nursery sowing of rice, for sowing of *kharif* crops like jowar, red gram, black gram, pearl millet, maize, groundnut, soybean, sunflower, sesame, and utilising realised and expected rainfall.
- Making ridges and furrows or compartment bunding so as to conserve rain water received due to pre-monsoon showers.

Other Advisories

❖ **Coastal Karnataka**

- Sowing of green manure crops.

❖ **South Interior Karnataka**

- Continue planting of ginger and turmeric.
- Sowing of ragi in Eastern Dry Zone in 1st week of June.
- Ploughing across the slope and land leveling which helps in conserving more rain water in the soil.
- Land preparation for planting of coffee, cardamom, arecanut and banana in Kodagu district of Southern Transition Zone.
- Strengthen the bunds to facilitate conservation of rainwater due to pre-monsoon showers.

❖ **North Interior Karnataka**

- Harvesting of fully matured fruits of mango to avoid the damage due to rain.
- Take up the repair of bunds and check dam so as to reduce the runoff and to check the soil erosion.

Andhra Pradesh

Good rainfall occurred over Andhra Pradesh and likely to continue during next fortnight.

- **Coastal Andhra Pradesh**

Major advisories for *kharif* crops

- Completion of sowing of sesamum in North Coastal Zone. The recommended varieties are: Hima, Sarada (YLM 66)
- Utilizing the available soil moisture, take up sowing of green manure crops like Sun hemp or Daincha in paddy fields in north coastal and Godavari districts
- Continuation of land preparation for sowing of pulses (red gram and green gram) and cotton in Krishna Godavari Zone.
- Continuation of land preparation for sowing pre-kharif crops like bajra, planting of rainfed sugarcane in North Coastal Zone.
- Keep the seeds ready for sowing.

Rayalaseema

Major advisories for *kharif* crops

- Continuation of land preparation for sowing of rice (early *kharif* plantings: Pushkala, Rasi, IR64), maize (medium duration hybrids/varieties: DHM 111, DHM 117, DHM-119, KH 510, Bio 9637, KH 9541, MCH 2, Kohinoor, Prabhal and Bisco 855) and groundnut (Kadiri-7 Bold, Kadiri-8, Bold, kadiri-6 Kadiri-9, Kadiri Harithandra, Kadiri Anantha) in High Altitude Tribal Zone.
- Continue planting of sugarcane.
- Continuation of nursery sowing of rice (MTU 1010, Nellore Masuri) in Nellore district; land preparation for sowing of *kharif* groundnut (Narayani, Abhaya, Dharani, K-6, Grishma, TPT-4, K-6) and undertake sowing in first fortnight of June in chittoor and Nellore districts which received significant rain during last fortnight and where availability of water is there in Southern Zone.
- Continue deep summer ploughing in Anantpur district in the Scarce Rainfall Zone and also in Southern Zone; application of FYM before deep summer ploughing to enhance the water holding capacity of the soil.
- Land preparation for sowing of *kharif* pigeon pea, sorghum and sunflower.

Advisories for other crops

- Harvesting of summer pulses in Southern Zone.

Maharashtra

Rainfall is likely to occur in Maharashtra in later part of next fortnight.

❖ Konkan

Major advisory for *kharif* crops

- Nursery preparation for *kharif* rice.
- Continue preparatory tillage for finger millet.
- Procurement of seeds of rice, groundnut and nagli.
- Sowing of *kharif* vegetables, where there is availability of water.

Other Advisories

- New planting of mango, cashew, coconut and arecanut.

- Mulching with black 25 micron polythene in between two trenches or beds of fruit crop nurseries to control weeds, increase soil temperature and for soil water conservation.
- Land preparation for planting of biennial forage crops like Paragrass, Napier, Gajraj etc.
- Harvesting of matured mango fruits.

❖ **Marathwada**

Major advisory for *kharif* crops

- Land preparation for sowing of cotton, pigeon pea, green gram, black gram, groundnut, maize. Ploughing followed by 2 to 3 harrowing; application of appropriate amount of FYM before last harrowing.
- Nursery preparation / cultivation of *kharif* onion.
- Nursery sowing of *kharif* vegetable crops like tomato, chilli, bitter gourd, cluster bean etc.

Advisories for other crops

- Preparing pits of proper size for planting of mango and custard apple crops.
- Mulching with farm waste, dry grass, leaves and twigs in orchards and vegetable crops.

❖ **Vidarbha**

Major advisory for *kharif* crops

- Land preparation for nursery sowing of *kharif* rice in Eastern Vidarbha Zone.
- Continuation of preparatory tillage for sowing of *kharif* jowar, soybean, cotton, red gram, green gram and black gram.
- Keep inputs ready for sowing of *kharif* crops like red gram (ICPL- 87119 (Asha), C-11), cotton (desi cotton: AKA-5, 7, 8, American improved varieties: AKH – 081, PKV-Rajat, AKH-8828, hybrid varieties: PKV-DH-1), soybean, green gram, black gram, pigeon pea, sorghum etc.

Advisories for other crops

- Tree basins of fruit crops should be mulched to conserve moisture. Juvenile/young plantation should be protected from heat with thatches and mulching of basins. Thatches may be made of cotton/pigeon pea stalks/green shade net, etc. Apply light and frequent irrigations to summer crops/orchards preferably during evening hours.
- Under prevailing high temperature and water shortage conditions avoid pre-monsoon cotton sowings.
- Wherever possible water bodies may be covered or treated with anti-evaporant sprays to check evaporation losses.
- Cultivation of vegetables like bitter gourd, tinda, ridge gourd, smooth gourd, bottle gourd, cowpea, cluster bean, coriander etc. in Central Vidarbha Zone.
- Planting of binneal forage crops like Paragrass, Napier, Gajraj etc.

❖ **Madhya Maharashtra**

Major advisories for *kharif* crops

- Nursery raising for *kharif* rice.
- Continuation of preparatory tillage for sowing of *kharif* jowar, soybean, cotton, red gram, green gram and black gram.

- Keep the inputs ready for *kharif* sowing.

Advisories for other crops

- Land preparation for cultivation of ginger and turmeric where irrigation facility is available.

Good rainfall occurred in the States of Northeast India and in East India. Rainfall is likely over Sub-Himalayan West Bengal & Sikkim and Nagaland, Manipur, Mizoram and Tripura.

Arunachal Pradesh

Major advisories for *kharif* crops

- Nursery sowing and transplanting of rice.
- Sowing / transplanting of summer vegetables like cucumber, sponge gourd, bottle gourd and ladies finger.

Agro Forestry

- Sowing of seeds of toko palm in poly bags @ 1 seed/bag for nursery in West Siang District.

Assam

Major advisories for *kharif* crops

- Completion of transplanting of normal *ahu* rice.
- Sowing of *boro* rice in Lower and Central Bramhaputra Valley Zone. (varieties: Maguri, Kekua Bao, Negheri Bao, Tara Bao for Nagaon and Morigaon districts).
- Nursery raising of *sali* rice (varieties: Ranjit, Bahadur, Peoli, Moniram, Pankaj, Kushal etc. for typical lowland paddy area, medium duration varieties: Satya and Basundhara T.T.B.-404, Mulagabharu, Kanaklata, Joymoti, IR-36, IR-64) in Lower Bramhaputra Valley Zone and North Bank Plain Zone.
- Suitable paddy cultivars for flood prone area: Luit, Jalashree, Plaban
- Land preparation and sowing of groundnut (Varieties: TG-1A, JL-24) in Lower Bramhaputra Valley Zone.

Advisories for other crops

- Land preparation and sowing of turmeric and ginger in Central Bramhaputra Valley Zone.
- Planting of tapioca in Hill Zone.
- Planting of pineapple in North Bank Plain Zone and Hill Zone.
- Planting of guava (varieties: Alahabad Safeda, Lucknow-49, Chittidar, Seedless) in Upper Bramhaputra Valley Zone.
- Completion of sowing of Jute (varieties: *Olitorious*) and mesta (varieties: HC 583 and AMC 108) in Central and Lower Bramhaputra Valley Zone.
- Sowing of Colocasia (varieties: Kaka Kachu, White Gaurya, Panchamukhia, Nadia, Ahinia Kachu and Birbhum) in Lower Bramhaputra Valley Zone.
- Sowing of fodder crops like Hybrid Napier, Setaria and Guinea etc. may be planted at a spacing of 45 cm in Upper Bramhaputra Valley Zone.

Meghalaya

Major advisories for *kharif* crops

- Complete sowing of *Jhum* rice (varieties: Bhalum 1, 2, 3; IRAT 109, IR 50, etc.).

Advisories for other crops

- Planting of High Yielding Varieties of ginger/turmeric (varieties: turmeric- Lakadong, RCT-1, ginger- Nadia, Poona, Riodegenerio etc.).

Manipur

Major advisories for *kharif* crops

- Maintain water level at 5-8 cm in *kharif* rice.
- Sowing of soybean, groundnut and black gram.
- Sowing of main *kharif* rice.

Mizoram

Major advisories for *kharif* crops

- Nursery sowing of rice.
- Sowing of *kharif* green gram, black gram.

Advisories for other crops

- Transplanting of brinjal and chilli in the main fields.
- Sowing of maize, okra, French bean, cowpea, Colocasia, planting of ginger and turmeric and also new planting of orchard crops like passion fruit, Khasi mandarin and acid lime.

Tripura

Major advisories for *kharif* crops

- Land preparation for sowing of groundnut (TAG 24, TG 37A, ICGS 76) in upland and medium upland regions.

Advisories for other crops

- Maintenance of 5 cm water level in *boro* rice fields (flowering stage).

West Bengal

Major advisories for *kharif* crops

- Land preparation for nursery sowing of *aman* rice.
- Continue transplanting of *Aus*-rice in Laterite and Red Soil zone.

Advisories for other crops

- Land preparation and planting of ginger and turmeric in Terai Zone.
- In Hill Zone, undertake land preparation for new plantation of large cardamom.
- Completion of transplanting of chilli in the main field and planting of ginger in Hill Zone.
- Undertake harvesting of matured sesame in Laterite and Red Soil zone.

For the areas receiving scanty rainfall:

- Dry sowing of paddy seeds is recommended. Collect IET-4094, Swarna, Shatabdi, Lalat, IET 9947, IET 1444, IET 2233 seed. Long duration varieties should be avoided.

For the areas prone to flash flood:

- In areas where flood or stagnation occurred, tall variety like Ranjit may be selected. Short duration variety (like *Daya*, which matures in 95 days) may be selected.
- Maize: Hybrid Ganga-11, Sartaj, HQPM-5, Pro-316, Bio-9681, Y-1402, HQPM-8 and composite variety Prabhat can be sown with a seed rate of 18-20 kg/ha.

Andaman & Nicobar

- Land preparation for raising nursery of vegetable like chilli and brinjal in the upland area of Portblair.
- Land preparation for raising nursery of rice.

Advisories for remaining States

Jharkhand

If irrigation facility or sufficient soil moisture is already available, following crops and cultivars are recommended.

- Maize: Birsa Makka-1, Birsa Makka-2, Suwan-1(Hybrid), HQPM (Hybrid)
- Ginger: Vardhaman or Nadia
- Turmeric: Rajendera Sonia

Advisories for Central and North India

- Undertake harvesting of summer crops in central and North India.

Himachal Pradesh

- Harvesting and threshing of wheat crop was interrupted due to hail, high velocity winds, heavy and untimely rain on 20th and 22nd May in some areas of Kangra, Mandi and Hamirpur districts.
- Since, dry weather for next two-three days is forecasted, farmers are advised to complete harvesting and threshing of wheat and prepare their land for sowing of *Kharif* crops to take advantage of available soil moisture.

❖ National AAS Bulletin based on ERFSS is also available at <http://www.imdagrimet.gov.in/erfsview15>