

Central Research Institute for Dryland Agriculture
Hyderabad

Status of monsoon and contingency plans for some rainfall deficit areas

As on 14 July 2014, Southwest monsoon has covered almost entire country except Saurashtra and Kutch regions of Gujarat, Western Rajasthan, Jammu and Kashmir, Himachal Pradesh and Uttarkhand. Conditions are favourable for advance of Southwest monsoon into some more parts of Gujarat and Rajasthan during next 3-4 days. The northern limit of monsoon on 14 July is passing through Porbandar, Rajkot, Surendernagar, Udaipur, Ajmer, Bikaner. During 1st June to 13th July, the country as whole experienced deficit rainfall (-43% departure from normal). The rainfall was deficit by 54% over North-West India, 57% over Central India, 32% over Southern peninsula and by 26% over East and North-East India.

Maharashtra

The rainfall was deficit by 67% in Vidarbha, 62% in Marathwada, 67% in madhya Maharashtra, and 41 in Konkan and Goa during 1 June to 13 July. Intercropping method may be adopted instead of sowing sole crops like sunflower, red gram, green gram or black gram after receiving significant rainfall. In Madhya Maharashtra, sowing of sunflower, soybean, cotton, hybrid jowar, hybrid pearl millet, red gram and sesame may be undertaken after receiving sufficient rainfall. Intercropping of pearl millet+redgram in 2:1, sunflower+redgram in 2:1, soybean+redgram in 3:1 and guar+redgram in 2:1 ratios is also recommended. For sowing of redgram, Vipula variety may be selected. For Marathwada region, farmers are advised to adopt intercropping systems such as: Cotton + Soybean (1:1), Cotton + Pigeon pea (6:2), Soybean + Pigeon pea etc) for minimizing risk. Use MAUS 71, JS 335 varieties of Soybean. Sowing of pigeon pea should be done on 90 x 20 cm spacing and use varieties viz; BSMR 736, BSMR 853 and for low rainfall area BDN 708 and BDN 711. Prevailing situation in Vidharba calls for contingency situation for cotton and short duration pulses(greengram/blackgram) since normal sowing window ended by June 30. Sowing of crops should be taken-up only after receiving sufficient rains (60-75 mm) for 2 to 3 days. Follow risk minimizing three tier intercropping of cotton: sorghum: pigeonpea: sorghum at 6:1:1:1 or 3:1:1:1. Include greengram/blackgram as intercrops(Cotton+greengram/blackgram 1:1) with slightly higher seed rate.

Gujarat

Rainfall was deficit by 91% in Gujarat region, 75% in Saurashtra & Kutch region during 1 June to 13 July. Region wise contingency plan are as follows:

1 For South and Middle Gujarat region:

- Prefer short duration oilseeds crops for sowing, like Sunflower (cv. Modern and EC-68414 and Guj-1) and Sesamum (cv. Guj. Tal 1,2, 10).
- Prefer pulse crops like: Blackgram (cv. T-9, Guj. Udid-1), Greengram (cv. GM-4, K-851, Meha), Cowpea (cv.Guj. Cowpea 1,2,4, Pusa Falguni).
- Prefer grain Sorghum (cv. CSH-5,6,1, GJ-39, 40, 41) and Fodder sorghum (cv. S-1049, C-10-2, Gundari, GFS 4,5).
- Where canal water is available sowings may be undertaken up to 20th July
- Paddy: GR-8,9, Sathi 34-36, Ambica and Gurjari varieties can be transplanted.

2. North Gujarat Region:

- Sesamum (cv. Guj. Tal 1,2, 10), Sunflower (cv. Modern, EC 68414), Fodder sorghum (cv. S-1049, C-10-2) are to be sown.
- Cotton cv. Hy-8, 10, V-797, G. Cot 13,21, 23 can be cultivated.

3. Saurashtra region:

- Groundnut: Erect variety (cv.GG-2, 5,7), Fodder sorghum(cv. S-1049, C-10-2), Sunflower(cv. Modern, EC 68414), Greengram (cv. GM-4, K-851, Meha), Blackgram (cv. T-9, Guj. Udid-1) and Greengram (cv. GM-4, K-851, Meha) are preferred for sowing.
- For risk reduction in groundnut follow mix cropping with castor or Tur in 3:1 row.

Rajasthan

Rainfall was deficit by 72% in Rajasthan during 1 June to 13 July. The major recommendations are as follows:

1. In southern parts, sowing of maize varieties Navjot, PEHM-2, Pratap Makka-3 and Pratap Makka-5 can be done upto 10th July as and when rainfall occurs.
2. Dry sowing of maize should be done after 10th July.
3. Intercropping of maize + blackgram (2:2) or maize + greengram(1:1) in maize growing region should be done.
4. Seed priming of maize (0.1 % thiourea)for 6 hrs should be done before sowing.
5. Intercropping of Groundnut variety JL-24 or Pratap mungphali-2 with sesamum at 6:2 row ratio under present situation.
6. Sorghum varieties CSH – 6, CSH – 14, Pratap jowar 1430,CSV-17, CSV-15, CSH-13, CSV- 13, RJ – 96 may be used at 25 % higher seed rate.
7. In eastern and western parts,) only short duration varieties of Bajra (HHB-67, Improved, RHB-121, RHB-90 and Raj-171) can be sown upto 20th July as these varieties are mature in 65-80 days.

Karnataka

Rainfall was deficit by 40% in Coastal Karnataka, 34% in North interior Karnataka and 26% in South interior Karnataka during 1 June to 13 July. Farmers in Northern Dry Zone of Karnataka are advised not to take up sowing of green gram and black gram now. They are advised to keep the land fallow in areas where double cropping had been planned in medium to deep black soils. However, soil and moisture conservation techniques such as compartment bunding, ridges and furrows across the slope are suggested for medium and deep black soils spared for rabi sowings. For Bijapur, Bagalkot and Gadag districts, Sowing of onion, cucumber, ridgeguard, sesamum, maize,sunflower, niger, castor, Bajra, groundnut (bunch type/spreading), redgram, cotton, navane, horsegram, tobacco or cowpea, may be taken up with the following seed treatments and moisture conservation practice.

- Bajra: Soak the seeds in water for 10 hours and dry under shade. Take up sowing in wider row spacing up to 135 cm.
- Groundnut: Open conservation furrow after every 8th row for moisture conservation.
- Pigeonpea: Soak seeds in CaCl₂ solution (2%) for 1 hour and dry under shade for 7 hours and then go for recommended seed treatment.
- Niger: Soak the seeds in water for 6 hours and dry under shade, then treat seeds with thiram/captan @ 3g/kg seeds.

Crop sowing is delayed due to inadequate rainfall in major parts of South Interior Karnataka. The main normal sowing window is continuing up to the 15th July 2014. Suggested long to medium duration varieties of Red gram -TTB-7, BRG-1 and BRG-2; Groundnut - TMV-2, JL-24 and Chintamani-2; Finger millet - Indaf- 8, MR-1, MR-2 and MR-6; Maize - Ganga, Deccan, Vijaya composite and Composite NAC.

Andhra Pradesh

Rainfall was deficit by 45% in Coastal AP and surplus by 13% in Rayalaseema during 1 June to 13 July. In Andhra Pradesh, 48% of the normal kharif sown area is covered up to 2nd July. As sowing of rice nurseries is progressing in Andhra Pradesh, foliar application of 1% Urea or potassium nitrate is recommended in Srikakulam district to overcome moisture stress. In coastal AP farmers can go for sowing and transplanting of Rice up to end of July and 15th of August, respectively under canal commands. Adopt closure spacing for cotton and red gram sole crops and form dead furrows for moisture conservation in Prakasam district.

Telangana

Rainfall is deficit by 55% in Telangana during 1 June to 13 July. In Telangana, 62% of the normal kharif sown area is covered up to 2nd July. Sowing of rainfed crops maize, pulses, soybean, cotton, castor in Nizamabad, Warangal, Mahbubnagar, Adilabad, Nalgonda and Karimnagar districts is in progress. In NSP commands of Nalgonda, it is recommended to go for rainfed maize instead of rice. In Mahbubnagar and Nizamabad, sowing of rice nursery is in progress. Due to receipt of rains during 3-9 July in Adilabad, Karimnagar, Mahbubnagar, Nalgonda, Warangal and Medak districts, standing crops are recovering from stress and sowing of crops is in progress. Application of 2% urea is recommended to overcome moisture stress.

Chhattisgarh

In the light soils, the early duration varieties like Danteshwari, Poornima, Indira Barani Dhan-1, Annada, Samleshwari, MTU-1010, IR-36 should be grown. In case certified seeds are not available, then farmer should use own stored seeds and 17 per cent salt solution should be used for selection of bold seeds and seed treatment should be done with Bavistin.

The rice crop which has reached 20 days age and due to rainless situation, there are chances of cut worm (swarming caterpillar) attack. In the case of attack, Quinolphos or Dichlorvos should be used @ 800 ml- 1 liter per hectare in 300 liters of water.

Bihar

With available rain water, farmers are advised to transplant Rajendra Bhagwati, Prabhat, Narandra 97, MTU-1010 and Rajendra Sweta in medium land and Swarna Sab-1, BPT-5204, MTU-7029, MTU-1001 and Rajshree in low land situation.

Transplanting in upland areas should be avoided. Instead of that, sowing of Til (var. Krishna), intercropping of Maize (Suwan) + Urd (T-9, Pant U-31, Pant U-19) is advised.

Note: The above is a general overview for the states. However, ICAR (CRIDA) has prepared district level contingency plans (covering all farming situations within the district) and placed in the websites of the Ministry of Agriculture & Cooperation, Government of India (www.agricoop.nic.in) and CRIDA (www.crida.in) for further details.