

AICRP on Irrigation Water Management

Agro-advisory on Water Management for July 2020

Sl. No.	Centre name	Agro-advisory on water management to farmers
1	Navsari	<ul style="list-style-type: none">• Clean the field drains for proper drainage. Stop irrigation in mango orchard after harvesting of fruits• Frequently irrigate sapota orchard to reduce dropping of fruits• Do the earthing up in sugarcane crop to support the crop and draining excess rainwater during heavy rains• Transplant paddy in lowland area during sufficient rains• Pre-seasonal <i>Bt</i> cotton should be grown with drip irrigation and fertilizer should be applied through fertigation• Sow pigeonpea crop on ridges and drain excess rainwater from the field
2	Kota	<ul style="list-style-type: none">• Apply irrigation through mini-sprinkler for 30 minutes on every alternate day to rice nursery.• In summer planted sugarcane, apply irrigation at IW/CPE 0.75 (20-25 days interval) for proper vegetative growth in paired row planting or row planting.• In <i>zaid</i> okra, apply sprinkler irrigation at IW/CPE 1.0 (12-15 days interval) for three hours• Apply irrigation at 8-10 days interval to tomato, leafy vegetables, cucumber and other cucurbitaceous vegetables during morning hours, in case there is no rain
3	Dapoli	<ul style="list-style-type: none">• Paddy seedlings are 20-25 days old and are ready for transplantation. Farmers should undertake paddy transplantation as early as possible. In case of scanty rainfall during transplantation period, the farmers are advised to use harvested rainwater for irrigation. Protective irrigation should be given to paddy for its survival till satisfactory precipitation occurs.• Transplantation of finger millet (<i>nagali</i>) crop should be done. In case of shortage of rainfall, protective irrigation should be given preferably with the help of sprinkler irrigation
4	Ludhiana	<ul style="list-style-type: none">• Paddy: For transplanted rice, apply irrigation two days after ponded water has infiltrated into soil. Depth of ponded water should not exceed 10 cm. To save irrigation water, irrigate with farmer's friendly PAU tensiometer (with green, yellow and red strips) installed at 15-20 cm soil depth at soil metric tension of 150 ± 20 cm or when water level in tensiometer enters yellow strip.

		<p>Care should be taken that field does not develop cracks.</p> <p>Paddy: Apply need based irrigation at 5-10 days interval to direct seeded rice depending on the soil type. Irrigation interval may be adjusted with rainfall. Optimum time to transplant recommended varieties of basmati rice (Punjab Basmati 2, Punjab Basmati 3, Punjab Basmati 4, Punjab Basmati 5, Pusa Basmati 1121, Pusa Basmati 1637, Pusa Basmati 1718) seedlings in the field is first fortnight of July and for varieties CSR 30, Basmati 370, Basmati 386, Pusa Basmati 1509 it is second fortnight of July. Irrigation scheduling to direct seeded basmati rice is similar to direct seeded rice.</p> <ul style="list-style-type: none"> • Cotton: Need based irrigation to the crop should be given according to prevailing weather conditions. Drain out excessive water from field in case stagnation of water during rains. • Kharif moong: Sowing of the crop should be completed till 2nd fortnight of July after pre-sowing irrigation. • Maize: Need based irrigation should be given. Drain out excess water to avoid flooding in the fields during rains. • Vegetables: Sow <i>kharif</i> vegetable crops like okra, cowpea, sweet potato, early radish, bottlegourd, bitter gourd, sponge gourd and pumpkin. Transplanting of brinjal, tomato and early varieties of cauliflower may also be completed in this month. • Fruits: Apply light and frequent irrigations to fruit plants such as pear, citrus, late bearing peach according to weather conditions (rain). • Farmers are also advised to do regular monitoring, have preparedness and take control measures as preventive efforts and remain vigil to combat the prevailing locust swarm threat to the state from the adjoining states of Rajasthan and Haryana.
5	Coimbatore	<ul style="list-style-type: none"> • Weather forecasting and agro advisory weekly and seasonal information has been given to farmers to increase the crop yield and profit to the farmers. • Price forecasting for the selected commodities has been issued to the farmers to take decision on selling the produce or storing the produce. • Supply and demand side interventions have been given to reduce the over exploitation of groundwater in the Noyyal and Bhavani basins of Tamil Nadu • Rice cultivation during July 2020 (Kuruvai) is not possible since the water level in Periyar Dam (112 ft) and Vaigai dam (42 ft) are

		<p>not sufficient to release water for the irrigation in Periyar Vaigai command area</p> <ul style="list-style-type: none"> • Lowland farmers of the command area are advised to prepare their field for raising green manures either daincha (thakaipoondu/thaka) or sunhemp (sanapai) by utilizing the rainfall of July 2020. The recommended seed rate is 50 kg/ha and to be incorporated before flowering (@ 40 days approximately. This will save 25 % of N fertilizer use in subsequent cropping period. • For upland system, the green gram (CoGg8) can be sown with the rainfall received from South west monsoon during July 2020 (Aadi pattam). • In Lower Bhavani Project area, 100 cusecs of water will be released in Kalingrayan canal from July 2020 to October 2020 which covers Bhavani block of Erode District. Hence it is advised to go for direct sowing of paddy with drum seeder and alternate wetting and drying method of irrigation for paddy may be practiced during Kharif season to get optimum yield and increased water use efficiency.
6	Ayodhya	<ul style="list-style-type: none"> ▪ Farmers may do sowing of sprouted rice through drum seeder in puddled soil and irrigate with 7 cm water in each irrigation after 4 days of disappearance of ponded water in checks of 10x10 m². ▪ Farmers may irrigate transplanted rice with 7 cm water in each irrigation after 3 days of disappearance of ponded water in checks of 10x10 m². ▪ Farmers may do sowing of <i>kharif</i> pulses (moong and urd) either on ridges or on broad beds and irrigate with 5 cm irrigation through furrows at 20-25 days interval if there is no/deficit rain. ▪ Farmers may also do the planting of <i>kharif</i> maize either on ridges or on broad beds and irrigate with 5-6 cm water in each irrigation through furrows at 20-25 days interval if there is no/deficit rain. ▪ Furrows of ridge/bed planting system also facilitate drainage for rainwater during events of heavy rains. ▪ Irrigate sugarcane crop with 6 cm ponded water in each irrigation at an interval of 20 days if there is no/deficit rain. ▪ Irrigate turmeric crop with 5 cm water in each irrigation at 20-25 days interval if there is no/deficit rain. ▪ Collect rainwater in ponds for its multiple use through rice based integrated farming with pisciculture and duckery production. ▪ Farmers may do intercropping of pigeonpea (two rows, 50 cm apart) and urd (3 rows) on alternate broad raised beds at tail end of canal command. ▪ Farmers may also do intercropping of pigeonpea (2 rows, 50 cm apart) on raised beds and sowing of rice in sunken beds (5 rows) under poor availability of canal water.

7	Jammu	<p>Transplanted basmati rice</p> <p><i>Nursery management:</i> Irrigate the nursery frequently to keep the soil moist. Apply second split of urea @ 20 kg per acre after about a fortnight of sowing. Seedlings of 25-30 days (having 6 to 7 leaves) are optimum for transplanting.</p> <p><i>Precautions during transplanting:</i> Transplanting of basmati rice should be carried out by 15th of July. Irrigate the nursery before uprooting and wash the roots of seedlings in water to remove mud. Transplant seedlings in lines at 20 × 15 cm (33 hills/m²) for normal and in case of late transplanting 15 × 15 cm (44 hills/m²). For good crop establishment and synchronous flowering, seedlings should be transplanted upright and about 2-3 cm deep with 2 to 3 seedlings per hill.</p> <p><i>Fertilizer application:</i> Bury the biomass of <i>dhaincha</i> or <i>moong bean</i> (green manuring crops) just 1 day before transplanting of paddy to achieve higher water productivity in light textured soils. If FYM is available, apply well rotten FYM @ 6 tonnes/ha before puddling. Do not apply urea as basal application in the event of green manuring or FYM application, otherwise half of recommended N should be applied during transplanting.</p> <p><i>Irrigation after transplanting:</i> Keep the water ponded (shallow ponding of 2-3 cm) continuously for 2 weeks after transplanting for better stand establishment. Drain away excess water before carrying out any inter-culture or weeding and irrigate the field after these operations.</p> <p>Direct seeded basmati rice</p> <p>Apply irrigations at 5 to 10 days interval depending on soil type. Depending upon the rainfall, frequency of irrigation is decided for direct seeded basmati rice. Out of three splits of nitrogen, apply first split of nitrogen on July first week.</p>
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