

Consolidated Agro-Meteorological Advisory for the farmers of Uttarakhand issued by Meteorological Centre, Dehradun with the cooperation of A.M.F.U. Ranichauri, Pantnagar and Roorkee valid from 07-01-2020 (08:30 IST) till 12-01-2020 (08:30 IST):

PART –I: WEATHER INFORMATION

Past weather from 03-01-2020 to 06-01-2020	Weather forecast valid from 07-01-2020 (08:30 IST) till 12-01-2020 (08:30 IST)
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HILLY REGION: A.M.F.U. RANICHAURI

<p>During the period sky conditions remained mainly clear to overcast. As per the meteorological data received from A.M.F.U. Ranichauri, very light rainfall was recorded on 03rd & 05th January, 2020 and dry weather prevailed on rest of days. Maximum temperature was between 6.7°C to 9.8°C. The minimum temperature was between -3.5°C to -0.2°C. Relative humidity was between 64% and 99%. Average wind speed was between 3 and 5 km/hour.</p>	<p>Sky likely to remain generally cloudy on 07th & 08th January; partly to generally cloudy on 09th January 2020 and mainly clear on rest of the days. Light to moderate rainfall/snowfall likely to occur at most places in Uttarakhand on 07th & 08th January and very light to light rainfall/snowfall likely to occur at a few places in hills especially in Kumaun region of Uttarakhand on 09th January, 2020. Dry weather likely to prevail on rest of the days.</p>
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A.M.F.U-PANTNAGAR (UDHAM SINGH NAGAR AND NAINITAL DISTRICT)

<p>During the period sky conditions remained mainly clear to generally cloudy. As per the meteorological data of departmental observatory, Pantnagar, light rainfall was recorded on 03rd & 05th January, 2020 and dry weather prevailed on rest of days. Maximum temperature was between 16.2°C to 22.7°C and the departure from the normal was between -3°C and 3°C. The minimum temperature was between 3.2°C to 8.2°C and departure from the normal was between -3°C to 2°C. Relative humidity was between 64% and 97%. Average wind speed was between 0 and 5 km/hour.</p>	<p>Sky likely to remain generally cloudy on 07th & 08th January; partly to generally cloudy on 09th January 2020 and mainly clear on rest of the days. Light to moderate rainfall/snowfall likely to occur at most places in Uttarakhand on 07th & 08th January and very light to light rainfall/snowfall likely to occur at a few places in hills especially in Kumaun region of Uttarakhand on 09th January, 2020. Dry weather likely to prevail on rest of the days.</p>
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A.M.F.U-ROORKEE (HARIDWAR, HILLY AREAS OF DEHRADUN AND PAURI DISTRICTS)

<p>During the period sky conditions remained partly cloudy to overcast. As per the meteorological data of departmental observatory, Dehradun, light rainfall was recorded on 05th January; very light rainfall was recorded on 03rd & 06th January, 2020 and dry weather prevailed on rest of days. Maximum temperature was between 15.1°C to 22.0°C and the departure from normal was between -4°C and 3°C. The minimum temperature was between 3.6°C to 7.3°C and departure from the normal was between -2°C and 1°C. Relative humidity was between 62% and 100%. Average wind speed was between 1 and 2 km/hour.</p>	<p>Sky likely to remain generally cloudy on 07th & 08th January; partly to generally cloudy on 09th January 2020 and mainly clear on rest of the days. Light to moderate rainfall/snowfall likely to occur at most places in Uttarakhand on 07th & 08th January and very light to light rainfall/snowfall likely to occur at a few places in hills especially in Kumaun region of Uttarakhand on 09th January, 2020. Dry weather likely to prevail on rest of the days.</p>
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Note: Snowfall likely to occur at places with height 1800m & above on 08th January and at places with height 2000m & above on 07th & 09th January, 2020.

WEATHER WARNING	
07.01.2020	<ul style="list-style-type: none"> • (WATCH):Hail likely to occur at isolated places in Dehradun, Haridwar, UdhamSingh Nagar, Pauri and Nanital districts of Uttarakhand from evening/night of today. • (ALERT):Heavy snowfall likely to occur at isolated places with height 2500m and above.

08.01.2020	<ul style="list-style-type: none"> • (WATCH):Hail likely to occur at isolated places in Dehradun, Haridwar, UdhamSingh Nagar, Pauri and Nainital districts of Uttarakhand. • (TAKE ACTION):Cold Day to severe cold day conditions likely to occur at a few places in Uttarakhand. • (TAKE ACTION):Heavy snowfall likely to occur at a few places with height 2500m and above.
09.01.2020	<ul style="list-style-type: none"> • (WATCH):Moderate to dense fog likely to occur in plains especially in Haridwar and Udham Singh Nagar districts of Uttarakhand. • (ALERT):Cold Day condition likely to occur at a few places especially in hills of Uttarakhand.
10.01.2020	(WATCH):Dense to very dense fog likely to occur in plains especially in Haridwar and Udham Singh Nagar districts of Uttarakhand.
11.01.2020	(WATCH):Dense to very dense fog likely to occur in plains especially in Haridwar and Udham Singh Nagar districts of Uttarakhand.

**PART –II: ZONAL AGRO-METEOROLOGICAL ADVISORY BASED ON THE ADVISORY
ISSUED BY A.M.F.U. RANICHAURI, PANTNAGAR AND ROORKEE
HILLY REGION: A.M.F.U. RANICHAURI**

Crops/ Animal Husbandry	Crop stage	Agro Meteorological Advisory
WHEAT	-	Keeping in view of forecasted rainfall and low temperature, it is advice to avoid irrigation, chemicals as well as fertilizer application in this week. Do not allow rainwater to accumulate in the field.
Onion/Garlic	-	Onions can prevent hailstorms and cold wave by laying hay (dry grass) between rows of plants.
APPLE	-	In temperate gardens, avoid cutting and postpone the use of chemicals in this week. Keep proper arrangement for rainwater storage.
MALTA	-	Harvest mature Malta fruits and graded it before selling. To make value added product like squash etc, extract fruit juice and preserve it by mixing 1 gram of potassium metabisulfite (KMS) per liter of juice
Animal Husbandry	Cow /Buffalo	Keeping in mind low temperatures, it is advice to increase the amount of dry grasses in the feed. Covered the floor by dry leaves and properly closed the windows and doors of the cattle shed. Covered newly borne calves with jute bag. Give warm water for drinking. 40-50g minerals mixture should be given daily to an animal.

A.M.F.U-PANTNAGAR (UDHAM SINGH NAGAR AND NAINITAL DISTRICT)

Crops/ Animal Husbandry	Crop stage	Agro Meteorological Advisory
Wheat	Sowing	<p><u>Nainital</u> To control the grassy and broad leaf weed in wheat field, solution of veta @ 400g/ 700 lit of water/ ha should be sprayed after 30-35 days of sowing. To control the weed, solution of total (or Sulfosulfuron and Metsulfuronmethyl) @ 40g/ 700 lit of water/ ha should be sprayed after 25-30 days of sowing wheat crop.</p> <p><u>Udham Singh Nagar</u> First and second irrigation should be applied after 20-25 days of sowing at CRI stage and after 40-50 days at tillering stage respectively. The remaining dose of nitrogen should be applied as a top dressing after first and second irrigation. If there is highly occurrence of broad leaf weed in the wheat crop, then solution of 500g AI of 2,4D or 4g of metsulfuron methyl or 20g of</p>

		carfentrazone in 500-600 liter of water should be sprayed @ per hectare with the help of flat fan nozzle after 34-40 days in November sown wheat crop and after 40-45 days in December sown wheat crop.
Mustard	Sowing	<u>Nainital</u> To control the leaf spot disease in mustard, solution of mancozeb @ 2.5 g/liter of water should be sprayed. In valley and low hills, light irrigation should be applied at the time of grain filling. <u>Udham Singh Nagar</u> Harvesting of toria and yellow mustard should be done on their maturity. Necessary irrigation should be applied in the rye crop at the time of flowering and pod formation.
Barley	-	<u>Nainital</u> Weeding and hoeing should be done in barley crop. In unirrigated condition, on the occurrence of rain 1 kg Urea/naali should be used as a top dressing. <u>Udham Singh Nagar</u> Weeding and hoeing should be done after 25-30 days of sowing in late sowing variety of Barley and necessary irrigation should be applied.
Tomato/ Capsicum/ Brinjal/ Potato	-	<u>Nainital</u> Seeds of tomato, brinjal and capsicum should be sown in the nursery. To save the nursery from frost, cover it with white plastic and proper movement of sun rays and air should be maintained. <u>Udham Singh Nagar</u> Potato leaves should be cut near 10th January. To control the late blight disease in potato and tomato, it is advised that solution of Mancozeb @ 2.5g/liter or copper oxichloride @ 3g/lit of water should be sprayed.
Gram/Pea/ Lentil	Sowing	<u>Nainital</u> Weeding and hoeing should be done. <u>Udham Singh Nagar</u> Weeding and hoeing is necessary two times in the timely sown gram crop. First weeding and hoeing should be done after 25-30 days of sowing and second 45-50 days after sowing and after first irrigation.
French bean	-	<u>Nainital</u> In irrigated valley, if the french bean (frasbean) are sown two month prior then plucking of pods should be done.
Radish	Sowing	<u>Udham Singh Nagar</u> Radish can be sown throughout the year. Seed rate for European and Asian variety of Radish should be 6-8Kg/ha and 10-12 kg/Ha respectively. Dung manure should be applied in the field before sowing the seed of radish. Fertilizer should be used on the basis of soil testing and distance of line of sowing should be 20-25cm. On the germination of seed plant to plant distance should be maintained at a distance of 8-10 cm.
Cauliflower, Cabbage	-	<u>Nainital</u> Mulch should be applied after weeding and hoeing in the seed crop of cabbage and cauliflower.
Potato	-	<u>Nainital</u> To control the late blight disease in potato, it is advised that solution of Mancozeb @ 2.5g/liter or copper oxichloride @ 3g/lit of water should be sprayed.
Sugarcane		<u>Udhamsingh Nagar</u>

		To save the standing naulakh sugarcane crop from frost, necessary irrigation should be applied. Harvesting of early naulakh sugarcane should not be done at this low temperature.
Onion	Transplanting	<u>Udhamsingh Nagar</u> Transplanting of onion should be completed till 15 January. Line to line and plant to plant distance should be 15 cm and 10 cm respectively.
Horticulture	-	<u>Nainital</u> Sowing of fruit crops like-apple, pear, plum, wall nut etc should be started. Basin should be prepared in the temperate fruit plants and right quantity of dung manure, Nitrogen and Phosphorous should be applied in the field. To control the Canker disease in the apple, 0.3% Copper-oxichloride should be used after cutting and pruning. Unwanted and affected branches of apple should be removed through pruning and insecticide and fungicide should be sprayed. <u>Udhamsingh Nagar</u> Irrigation should be given in the new orchards to save them from frost. To control the Mango mealy bug in mango, polythene strips should be used so that plants can be protected from these insects. For this, stem of plants should be covered by 25-30 cm broad polythene and above 30-40 cm from the ground. After covering the stem, grease and unusable oil should be applied in the upper and lower part of polythene and both the end of polythene should be tied with the help of chord/string.
Animal Husbandry	-	To save the animals from cold, proper arrangement of animal shed should be done. Sitting place of animals should be leveled so that their productive capacity is not affected and special care should be given to the new born animals. To save the animal from cold, dry grasses, paddy residue (Puwal) etc which are not used as fodder for animals should be used as a bedding material for animals in sheds. Door and window should be covered properly so that cold wind could not be entered in the animal shed. To save the animal from cold, increase the amount of oil and Jaggery (Gur) in the food of animals. Caraway (Ajwain) and gur also be given to the animals. <u>Nainital</u> In hilly areas, heater may be used to protect the animals from cold. Rice husk should be given to the animals as a food which is the source of energy.

A.M.F.U-ROORKEE (HARIDWAR, HILLY AREAS OF DEHRADUN AND PAURI DISTRICTS)

Crops/ Animal Husbandry	Crop stage	Agro Meteorological Advisory
WHEAT	-	Spray 2 litre of chlorpyriphos 20 EC with 20 k.g of sand per acre in wheat crop for the cure of termite in the evening, if weather is clear.
SUGARCANE	-	Spray 2 litre of chlorpyriphos 20 EC with 20 k.g of sand per acre in sugarcane crop for the cure of termite in the evening, if weather is clear.
TOMATO	-	Spray Carbendazim @ 1gm/l of water for the prevention of blast disease in tomato when sky is clear.
POTATO	-	Spray Carbendazim @ 1gm/l of water for the prevention of blast disease in potato when sky is clear.
BUFFALO/COW	-	Protect cattle from the cold. Balanced diet should be given to milch animal. Wheat straw should be added with 60 % green

		fodder. Used paddy straw or ash as litter in animal houses.
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(बिक्रम सिंह)

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