Agromet Advisory Bulletin for the District, Kozhikode
(Valid from 07.04.2023 to 11.04.2023)

(Issued jointly by Kerala Agricultural University Regional Agricultural Research Station Pilicode & India Meteorological Department)

Bulletin Number: Pilicode/Kkd-28/2023	Date: 06/04/2023

A. Weather Summary of preceding four days

Rainfall, mm	Max. temp., ºC	Min. temp., ºC	R. H., %	Wind speed, Km/h
0.3	29.0 – 35.0	25.1 – 27.4	74.9 – 79.7	00 – 00

B. Weather forecast for next five days

Parameters	07-04-2023	08-04-2023	09-04-2023	10-04-2023	11-04-2023
Rainfall, mm	1	0.1	0.1	0	0.2
Max. Temp, ºC	35	35	35	35	35
Min. Temp, ºC	27	27	27	27	27
Max. Relative Humidity, %	80	80	80	80	80
Min. Relative Humidity, %	58	58	58	58	58
Wind speed, km/h	4	6	6	6	5
Wind direction, degrees	290	270	270	270	290
Total cloud cover, octa	8	7	5	7	7

C. Agrometeorological Advisories

Crop	Stages	Problems	Agro-meteorological advisories
General conditions		**Isolated light to moderate rainfall ****	
	Isolated light to moderate rainfalls. Low night temperature and high day temperature will be experienced. Hence there will be large difference between day temperature and night temperature. The sky will be partially or fully cloudy. The air will be dry.		
General Recommendations	There may be isolated rainfalls .Keep vigilance while drying the harvested produces like seeds, cashew nuts, copra and rubber in open conditions. Provide props to nendran banana. Provide props to nendran banana. Drought Management: 1) Give mulches in crop basins to prevent water loss from soil. 2) Adopt drip irrigation. This will minimize the loss of water. 3) Avoid agricultural activities and pesticide application during 12 AM to 3 PM. 4) Restrict the application of chemical fertilizers and poultry manure in un-irrigated areas. 5) Apply lime on tree trunk. 6) Spraying of Sulphate of Potash @ 5 g / L at 15 days interval helps to mitigate drought. 7) Provide Vermicompost or coir pith compost in the basins. Compost has very good water holding capacity		

	For mulching, the trashes used should be free of any pest and diseases. Avoid the trashes of the same species as mulch. This will help to prevent the multiplication of crop specific pest and disease causing organisms. Powdering the top soil using a secondary tillage implement and spreading it uniformly over the field, will help to conserve water for a long period of time in the fields. Protect young plants by surrounding them with thatched coconut leaves Provide plenty of drinking water to the animals and birds to avoid dehydration during day time. Also frequently sprinkle water on to the body of animals and provide fans in their shelter houses.		
Various crops	Various stages	Sucking pests The climate is favourable for the spread of sucking pests like mealy bug, jasids, aphids, mites, bugs etc. If not controlled properly they will act as vectors and may spread virus diseases.	To control the pests apply neem oil emulsion (5 ml. neem oil mixed in one litre of luke warm soap water solution) Or Apply malathion 50 EC @ 2 ml + neem oil 4ml per litre of water
Coconut	Various stages	Leaf eating caterpillar	The season is congenial for the spread of leaf eating caterpillars in coastal areas. Cut and burn the affected leaves. Release larval parasitoids, *Goniozus nephantidis*, @10 nos/palm (4-6 release) on the trunk
Black pepper	Different stages	Wilting due to drought	Protect the plants from direct sunlight by smothering the basal portions of the vines with dried banana leaves, plated coconut leaves etc.. Give protective irrigations one in every two weeks.
Cucurbitaceous vegetables	All stages	Downy mildew	Downy mildew : As a prophylactic measure apply 'Mancozeb'(@ 2g/l of water). If disease appeared, spray Akomin® (@3ml/L) on both surfaces of the leaves, thrice at 15 days intervals.

Mango	Fruit maturing stage	Mango fruit flies 	Harvest matured mangoes before ripening. Mix cool water and boiling water in equal proportion and dissolve common salt at the rate of one tablespoon per liter of the water mix. Dip the harvested matured mangoes in this warm saline solution for two minutes. After that take out the mangoes, wipe the water on them with cotton cloths and keep for ripening.
Poultry and pet birds	Different stages	Summer stress 	To combat heat stress, the poultry sheds should be protected from direct sunlight, roofing can be painted white to reflect heat, fans can be fitted, cool water can be sprayed, plenty of clean water can be provided with ice, glucose and 0.1 % sodium bicarbonate, feed offered during the cooler parts of the day can be supplemented with 20% extra vitamins, phosphorous and vitamin C.
Animal Husbandry	All stages	Summer Stress 	The rise in temperature will affect the thermoregulatory mechanism of dairy cattle. This will cause increase in body temperature, rapid shallow breathing, increased heart rate, profuse salivation, and reduced feed intake. This in turn results in severe production loss and reduced breeding efficiency in dairy cattle. Provide pure drinking water to the dairy cattle (45 to 60 litres of water), Allow grazing only during the cooler parts of the day. Provide shading. Shelter them in thatched roofings of minimum 9 ft. height with ample ventilation. Providing fans, misting and fogging assembly in cattle sheds will help them to regulate body temperature. Also ensure minerals fortified feeds.
**Mammalian livestock	Various stages of growth	Tick parasites Ticks are the vectors of many severely damaging disease causing organisms like protozoa. Also tick infestation may cause anemia, bloody urine, jaundice etc.	Usually after feeding the ticks fall on the ground and live in small holes in the ground as well as on the walls of the cattle shed. Hence controlled flaming (with dried leaves), the floor and walls of the cattle shed and also the ground were cattle lie outside the shed is advised. At the time of flaming the cattle should be kept temporarily away from the location. Soak cotton clothes in dilute Cypermethrin (1ml per 2 litrres of water) solution and wipe the whole body of the cattle once in a week. Spray Cypermethrin (diluted @1ml per litre of water) on the ground and walls of the cattle shed, and also wherever the cattle is sheltered during day time.

Cow	Milking	Summer Mastitis	Summer Mastitis is a bacterial disease. The disease is common on cows which are sheltered in unhygienic conditions. The disease is transmitted by insects like flies and mosquitoes.
			Symptoms:- The symptoms are change in composition of milk and turning the milk into an yellow watery liquid , severe fever, lack of appetite, abortions etc. If not treated the cow may lose its milk yielding capacity permanently. Also the cow may lose mobility and gradually death may occur.
			Control:- Ensure hygiene cattle shed and surroundings to control the pathogen and the vectors. Boost the immunity of cattle by supplementing feeds with vitamins and minerals containing health tonics.
			If disease appears, immediately give medication under the supervision of a Veterinary doctor.
Live stock	Ingestion of poisonous shrubs and leaves	During summer, due to shortage in availability of grasses and green leaves, the cattle may accidentally ingest poisonous shrubs and leaves. The commonly found poisonous plants in north Kerala are Rubber, Green bamboo, Aanathottavadi, Chelamaram, Kozhuppa, Arali, Kunnikkuru, Erikku and Avanakku. Difficulty in breathing, fast deep breathes, lack of appetite, lethargy, muscle cramps, shivering, paralysis, pupil dilation, bloat are some of the common toxicity symptoms. Immediately approach a veterinary care centre. Otherwise prepare and administer universal antidote as a first aid. The antidote can be prepared by mixing Activated charcoal (2 parts) + Magnesium oxide (2 parts) + Tannic acid (1 part) +Kaolin (1part). The recommended dose is 250g for cattle, 30g for calves and 15g for goats and pigs, two to three times in a day. The antidotes should be followed by a saline purgative (450g of magnesium sulfate for cattle and for others in proportion to their body weight) in drinking water.		

*** Warning colour codes of rainfall (for disaster management)*

Warning (Take actions)	Alert (Be prepared)	Watch (Be updated)	No warning (No actions)

Sd/-
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