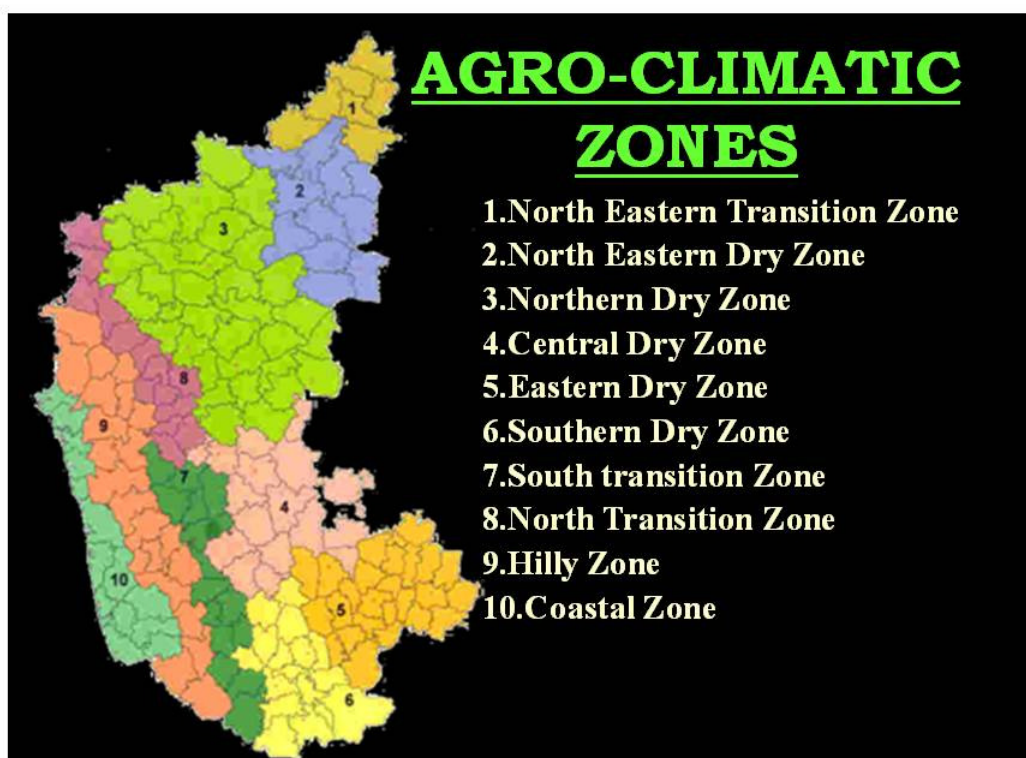


**COMPOSITE BULLETIN OF AGROMETEOROLOGICAL ADVISORY  
KARNATAKA STATE**

**ISSUED BY METEOROLOGICAL CENTRE, BENGALURU (IMD)  
IN COLLABORATION WITH  
STATE AGRICULTURE DEPARTMENT &  
AGRICULTURAL UNIVERSITIES OF KARNATAKA  
FOR THE PERIOD 21<sup>ST</sup> FEBRUARY TO 25<sup>TH</sup> FEBRUARY 2018  
ISSUED ON TUESDAY, THE 20<sup>TH</sup> FEBRUARY 2018**

**AGROCLIMATIC ZONES OF THE STATE**



SL.NO.	AGROCLIMATIC ZONE	DISTRICTS	AGROMET FIELD UNIT (AMFU) LOCATION
1.	North East Transition Zone	Bidar	Bidar
2.	Northeastern Dry Zone	Kalaburgi, Raichur, Ballari, Yadgiri, Koppal	Raichur
3	Northern Dry Zone	Vijayapura, Gadag, Bagalkot	Vijayapur
4.	Central Dry Zone	Tumkuru, Chitradurga, Davangere	Hiriyur
5.	Eastern Dry Zone	Bengaluru Rural, Bengaluru Urban, Kolar, Ramanagara , Chikballapura	Bengaluru
6.	Southern Dry Zone	Mysuru, Mandya, Chamarajanagar, Kodagu	Naganahalli
7.	Southern Transition Zone	Hassan, Shivamogga, Chikkamagaluru	Navile, Shivamogga
8.	North Transition Zone	Dharwad, Belagavi, Haveri	Dharwad
9.	Hill Zone	Uttara Kannada	Sirsi
10.	Coastal Zone	Dakshina Kannada, Udupi	Bramhavar

**Summary for the past 4 days over the State:**

**On 17<sup>TH</sup> February,**

**Dry weather prevailed over the State.**

**Minimum temperatures** were below normal at many places being appreciably so at a few places over North Interior Karnataka; below normal at a few places over Coastal Karnataka and were normal over South Interior Karnataka.

**On 18<sup>TH</sup> February,**

**Dry weather prevailed over the State.**

**Minimum temperatures** were below normal at few places over Interior Karnataka; and were normal over Coastal Karnataka.

**On 19<sup>th</sup> February,**

**Dry weather prevailed over the State.**

**Minimum temperatures** were above normal at a few places over North Interior Karnataka and were normal over Coastal Karnataka & South Interior Karnataka.

**On 20<sup>th</sup> February,**

**Dry weather prevailed over the State.**

**Minimum temperatures** were normal over the State.

**Lowest Minimum Temperature:** **Bidar** has recorded the lowest minimum temperature of 12.6 deg C on 17.02.2018.

**State Rainfall forecast:**

**Day 1 valid until 0830 hrs IST of 21<sup>ST</sup> February:** Dry weather likely to prevail over the state  
**Day 2 valid until 0830 hrs IST of 22<sup>ND</sup> February:** Dry weather likely to prevail over the state  
**Day 3 valid until 0830 hrs IST of 23<sup>RD</sup> February:** Dry weather likely to prevail over the state  
**Day 4 valid until 0830 hrs IST of 24<sup>TH</sup> February:** Dry weather likely to prevail over the state  
**Day 5 valid until 0830 hrs IST of 25<sup>TH</sup> February:** Dry weather likely to prevail over the state

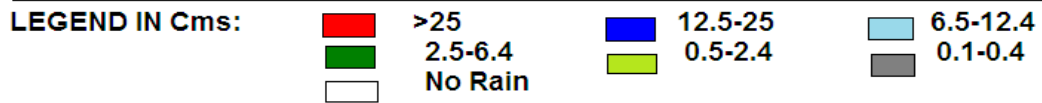
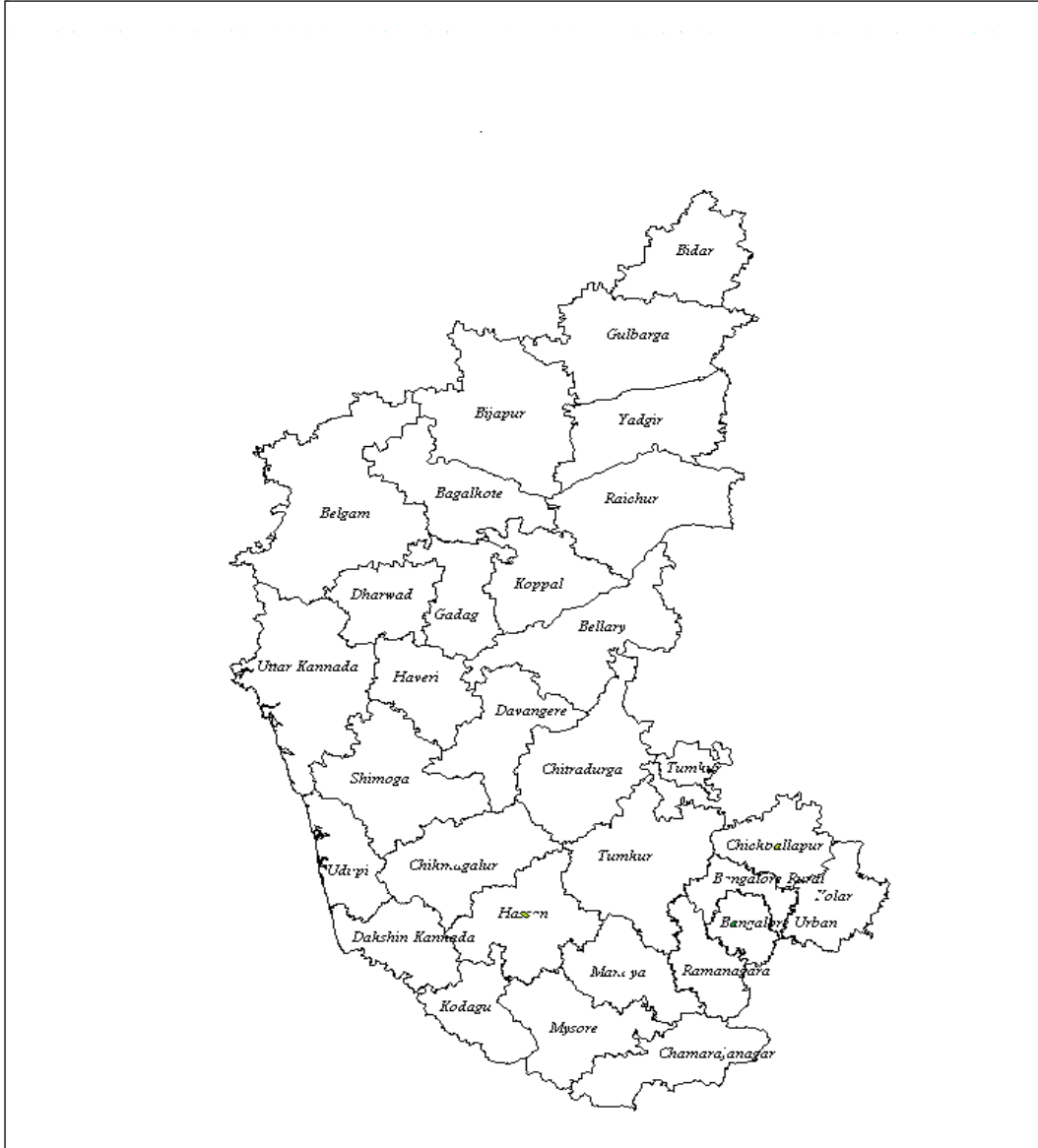
**Heavy rainfall Warning:**

**Day 1 valid until 0830 hrs IST of February 21<sup>ST</sup> :** NIL  
**Day 2 valid until 0830 hrs IST of February 22<sup>ND</sup> :** NIL  
**Day 3 valid until 0830 hrs IST of February 23<sup>RD</sup> :** NIL  
**Day 4 valid until 0830 hrs IST of February 24<sup>TH</sup> :** NIL  
**Day 5 valid until 0830 hrs IST of February 25<sup>TH</sup> :** NIL

**Outlook:** No large change is expected over the State.

**Rainfall forecast for the next 5 days:**

**21.02.2018 – 25.2.2018 :**



## PART II AGRICULTURAL ADVISORIES

### VEGETABLES

Districts	VG	GI/TU	CI
Bidar			
Kalaburgi	F		
Yadgiri	F		
Koppal	F		
Ballari	F		
Raichur	F		
Vijayapura	H		H
Bagalkote	H		H
Gadag	H		H
Tumkuru	H		H
Chitradurga	H		H
Davangere	H		H
Bengaluru (R)			
Bengaluru (U)			
Chikballapura			
Kolar			
Ramanagar			
Chamarajnagar	T		T
Kodagu	T		T
Mandya	T		T
<i>Mysuru</i>	T		T
Hassan		M&H	
Shivamogga		M&H	
Chikkamagaluru		M&H	

Belagavi			FD
Dharwad			FD
Haveri			FD
Uttara Kannada			
Dakshina Kannada			
Udupi			

## **HORTICULTURAL CROPS**

Districts	MG	GR	CH	CO	BA	PG	WM	CW
Bidar	F							
Kalaburgi	F							
Yadgiri	F							
Koppal	F							
Ballari	F							
Raichur	F							
Vijayapura								
Bagalkote								
Gadag								
Tumkuru								
Chitradurga								
Davangere								
Bengaluru (R)								
Bengaluru (U)								
Chikballapura								
Kolar								
Ramanagar								
Chamarajnagar								
Kodagu								
Mandya								
Mysuru								
Hassan	F&FS			M&H				
Shivamogga	F&FS			M&H				

Chikkamagaluru	F&FS			M&H				
Belagavi								
Dharwad								
Haveri								
Uttara Kannada	F			Ir				
Dakshina Kannada								
Udupi								

## CROPS

Districts	GN	BG	Rg	SOR	COT	BG/GG /RG	CP	MZ	SF	PD	WH	AN	PD
Bidar													
Kalaburgi				M		M			M		M		
Yadgiri				M		M			M		M		
Koppal				M		M			M		M		
Ballari				M		M			M		M		
Raichur				M		M			M		M		
Vijayapura				GF									
Bagalkote				GF									
Gadag				GF									
Tumkuru													
Chitradurga													
Davangere													
Bengaluru (R)													
Bengaluru (U)													
Chikballapura													
Kolar													
Ramanagar													
Chamarajnagar													
Kodagu													
Mandya													
Mysuru													
Hassan										T		F	
Shivamogga										T		F	
Chikkamagaluru										T		F	

Belagavi				GF		H					GF		
Dharwad				GF		H					GF		
Haveri				GF		H					GF		
Uttara Kannada												Ir	
Dakshina Kannada													
Udupi													

## LEGEND

**CROP/VEGETABLE NAMES:** GN-Groundnut, MZ-Maize, AN-Areca nut, COP-Cowpea, BG-Black Gram, GG-Green Gram, RG-Red Gram, SC-Sugarcane, CO-Coconut; CP-Chickpea, SOR-Sorghum, SB-Soya bean, WM-Watermelon, VG-Vegetables, CI-Chili, SF-Safflower ;RI: Rice ;PD: Paddy; MG: Mango, CH: Chico, CW: Cashew; GR: Grapes, COT: Cotton; BA: Banana; PG: Pomegranate; GN: Ginger; Rg: Ragi; TU:Turmeric; WH -wheat

## CROP STAGES

- NP:** Nursery Preparation; **Pf:** Preflowering; **G:** Germination; **EV:** Early Vegetative; **S:** Sowing; **Sp:** Sprouting; **DG:** Development Growth **GG:** Grand Growth **T:** Transplanting, **Fi:** Flower Initiation **F:** Flowering, **GF:** Grain filling, **GD:** Grain Development; **FM:** Fruit maturity **G:** Germination, **EV:** Early vegetative, **VG:** Vegetative growth, **BF:** Boll Formation: **BM:** Boll maturity, **P:** Picking, **FLI:** Flag leaf initiation, **PF:** Pod formation, **PD:** Pod Development; **PM:** Pod Maturity, **CRI:** Crown root initiation, **Br:** Branching, **FD:** Fruit Development, **H:** Harvesting, **LJ:** Late jointing Stage. **M:** Maturation, **R:** Ripening. **CF:** Cob Formation **CI:** Cob initiation **F& FS:** Flowering to fruit setting, **HE:** Head emergence, **MS :** Milking stage **PI:** Planting, **FI:** Filling, **GM:** Grain Maturation, **R:** Ripening, **FR:** Fruit Setting, **TI:** Tillering, ; **Bf:** Bud formation; **PI:** Panicle Initiation; **NUF & M:** Nut formation and Maturity; **JU:** Juvenile; **LP:** Land preparation; **NM:** Nut Maturity, **NU:** Nursery; **KH:** Knee high ; **Sd:** Seedling stage; **B:** Booting; **Sq:** Square formation; **Re:** Reproductive; **Pe:** Pegging; **PoI:** Pod Initiation; **Ts:** Tasselling; **E:** Establishment; **PgI:** Peg Initiation; **PL:**Ploughing; **SD:** Soft dough stage; **HD:** Hard dough stage; **Ra:** Ratoon; **Fr:** Fruiting; **SS:** Seed Setting; **IBI:** Inflorescence Bud initiation; **SS:** Silking stage; **EI:** Ear head Initiation; **G:**Growth; **CMT:** cob maturity stage: **Ir:** : Irrigation



**PART II**  
**AGROCLIMATIC ZONEWISE AGRICULTURAL AGROMETEOROLOGICAL**  
**ADVISORIES**

**NORTH EAST TRANSITION ZONE, BIDAR**

**BIDAR:**

<b>Main crops</b>	<b>Stage</b>	<b>Agricultural Advisories</b>
<b>General</b>		Spraying of Thiamethaxom 25 WG at the rate of 0.5 gm/liter of water undertaken to protect mango from leaf hopper infestation.
Blackgram, Greengram, Soybean &pigeonpea	Storage	Bruchid Management in the storage In order to protect the pulse seeds from the ravage of bruchids ,Farmers are advised to take up seed treatment measures by the use of <b>non drying oils</b> such as Castor oil and Honge oil (10gm) per kg of seeds.
Sugarcane	New plantation	Farmers are advised to take up improved sugarcane variety Co-86032 for new plantation. Setts required for one acre is treated with carbendazim 40gm plus chloropyrifos 40ml plus urea 40 gram,all these ingredients are dissolved in 40 liters of water for 10 minutes shade dried and used. 4 kg of Azospirillum and 4 kg of PSB mixed thoroughly with vermicompost required for one acre prior to the sugarcane planting
Animal Husbandry	Livestock/poultry	Maintain the ambient temperature of the poultry house.
Mango	Flowering	Incidence of Leaf hoppers has been noticed in some of the mango growing belts. For its effective management,application ofThiamethaxom 25WG at the rate of 0.5 gram per liter of water is recommended

**NORTHEASTERN DRY ZONE, RAICHUR**

**KALABURGI/ YADGIRI/ RAICHUR/KOPPAL/ BALLARI :**

<b>crops</b>	<b>Stage</b>	<b>Agricultural Advisories</b>
Fodder crops	Planting	If there are irrigation facility go for planting of fodder crops

Redgram	---	In already harvested fields the farmers are advised to remove the half cutted stubbles of pigeon pea from their fields. This will avoid multiplication and spreading of sterility mosaic disease
Wheat/ Bengalgram/ Rabi Sorghum/ Safflower	Maturity	As there will be no rainfall forecast harvesting can be taken up as early as possible
Mango	Fruiting	Provide irrigation as the fruit setting is at mustard stage
Brinjal	Fruiting	High incidence of shoot and fruit borer is observed. Spray Malathion 2 ml or rynaxpir 0.3 ml per litre of water.
Sugarcane	Ratoon	<ul style="list-style-type: none"> <li>• Apply 40 kg nitrogen and 24 kg potash per acre after irrigation.</li> <li>• In iron and zinc deficient soils take up spraying of 0.25% ferrous sulphate + 0.5% zinc sulphate + 1% urea. Spray 5-6 times with 10 days interval</li> </ul>

### NORTHERN DRY ZONE, VIJAYAPURA

#### VIJAYAPURA/ BAGALKOTE:

<b>Rabi sorghum</b>	➤ Late sown crop is in grain filling stage. The crop is sensitive to the moisture and nutritional stress, So if possible give irrigation.
<b>Sugarcane</b>	<ul style="list-style-type: none"> <li>➤ <b>Do not burn the trash. Incorporate the same in the soil using suitable machine. This will improve the fertility and productivity of the soil.</b></li> <li>➤ <b>To save water irrigate the crop in alternate row. Drip irrigation save the water up 40 per cent</b></li> <li>➤ <b>Take up intercultivation at 50, 65, 80 and 95 Days after planting and earthing up should be done at 120 days after planting.</b></li> <li>➤ <b>To manage <i>striga</i> weed take up spraying of 2,4 -D sodium salt at the rate of 1 kg a.i., dissolved in one liter of water as directed spray on the weed</b></li> <li>➤ <b>Heavy and early earthing up of ratoons ensure optimum plant density with good yield and quantity.</b></li> <li>➤ <b>Where the crop is at tillering stage, irrigate the crop once in 10 days.</b></li> </ul>
<b>chilli/ Tomato/ brinjal</b>	<ul style="list-style-type: none"> <li>➤ <b>Harvest the matured fruits in chilli, sun dry and store.</b></li> <li>➤ <b>To manage leaf curl disease in tomato, take up spraying of 1 ml Acetamaprid dissolved in 4 liter of water.</b></li> <li>➤ <b>To manage sucking pests in tomato, take up spraying of 1.75 ml Dimethate, dissolved in one liter of water.</b></li> <li>➤ <b>To manage fruit borer, remove the infected fruits and twigs along with the insect and burn them. Then take up spraying of 4 gram Carbarayl or 2 ml Melathion or 2 ml Quinolphos dissolved in one liter of water. Repeat the same spray after 15 days.</b></li> </ul>

<b>Citrus</b>	<ul style="list-style-type: none"> <li>➤ To manage leaf minor, take up spraying of 0.3 ml Indoxicarb or 0.2 gram Emamectin Benzoate, dissolved in one liter of water.</li> <li>➤ To manage Gummosis and wilt diseases, paste the gum prepared by mixing 4 gram Ridimil gold + 3 gram Blitox + 50 gram Red Oxide in one liter of water and pour 2-3 liters of mixture prepared by dissolving 5 ml Hexaconazole in one liter of water at the bottom of the plant.</li> </ul>
<b>Grape</b>	<ul style="list-style-type: none"> <li>➤ <b>There is a chance of incidence of fruit rot in grapes due to unseasonal rainfall received during the last two days. So manage this, take up spraying of 0.5 gram Tricoderma or 1 gram Carbandizeme and 0.5 ml Dichlorophas dissolved in one liter of water.</b></li> <li>➤ <b>To manage Downey mildew, take up spraying of 1 ml Azoxysprobin dissolved in one liter of water.</b></li> <li>➤ <b>To manage Mites, take up spraying of 2.5 ml Dicofal or 0.75 ml Spiromeshiphane dissolved in one liter of water.</b></li> <li>➤ <b>To manage mealy bug, take up spraying of 2.5 ml Dichlorovas + 5 ml fish oil dissolved in one liter of water.</b></li> </ul>
<b>Pomegranate</b>	<ul style="list-style-type: none"> <li>➤ To manage Bacterial blight disease, spray the crop with Streptomycin Sulphate 0.5 g. + Copper oxy-chloride 2 g. dissolved in one liter water. Then take up spraying of micro nutrients viz., 1 g. Zinc Sulphate + 1 g. Magnesium Sulphate + 1 g. Barax + 1 g. Calcium dissolved in one liter of water.</li> <li>➤ To manage sucking pests, take up spraying of 0.3 ml Imidachloprid or 0.25 ml Trimethoxam dissolved in one liter of water.</li> <li>➤ To manage, sucking moth, install Traps at night in the field so as attract the moth and kill them, and also take up spraying of 1 ml DDVP dissolved in one liter of water, during night time.</li> <li>➤ To manage Mites, take up spraying of 2.5 ml Dicofal or 0.75 ml Spiromeshiphane dissolved in one liter of water.</li> </ul>
<b>Mango</b>	<ul style="list-style-type: none"> <li>➤ To manage, leaf eating hoppers, take up spraying of 0.5 gram Thimithoxam dissolved in one liter of water.</li> </ul>

### GADAG:

<b>Rabi sorghum</b>	<ul style="list-style-type: none"> <li>➤ Late sown rabi sorghum crop is in grain filling stage. The crop is sensitive to the moisture and nutritional stress, So if possible give irrigation.</li> </ul>
<b>Mango</b>	<ul style="list-style-type: none"> <li>➤ To manage, leaf eating hoppers, take up spraying of 0.5 gram Thimithoxam dissolved in one liter of water.</li> </ul>

## CENTRAL DRY ZONE, HIRIYUR

### Chitradurga/Davanagere/Tumkur:

Safflower	<ul style="list-style-type: none"><li>➤ To manage, sucking pests, take up spraying of 0.2 gram Thiamethacom 25 WG or 1 gram Acephate 75 SP or 1.75 ml Dimethoate 30 EC, dissolved in one liter of water.</li></ul>
Chilli/Tomato/ Brinjal	<ul style="list-style-type: none"><li>➤ Harvest the matured fruits in chilli, sun dry and store.</li><li>➤ To manage leaf curl disease in tomato, take up spraying of 1 ml Acetamatriid dissolved in 4 liter of water.</li><li>➤ To manage sucking pets in tomato, take up spraying of 1.75 ml Dimethate, dissolved in one liter of water.</li><li>➤ To manage fruit borer, remove the infected fruits and twigs along with the insect and burn them. Then take up spraying of 4 gram Carbarayl or 2 ml Melathion or 2 ml Quinolphos dissolved in one liter of water. Repeat the same spray after 15 days.</li></ul>
Pomegranate	<ul style="list-style-type: none"><li>✓ To manage Bacterial blight disease, spray the crop with Streptomycin Sulphate 0.5 g+ Copper oxy-chloride 2 g. dissolved in one liter water. Then take up spraying of micro nutrients viz., 1 g. Zinc Sulphate + 1 g. Magnesium Sulphate + 1 g. Borax + 1 g. Calcium dissolved in one liter of water.</li><li>✓ To manage leaf and fruit spot disease, spray the crop with 2 ml Chlorothonil dissolved in one liter of water.</li></ul>
Mango	<ul style="list-style-type: none"><li>➤ To manage, sucking pets and powdery mildew, take up spraying of 4 g. Carbaryl or 2 ml Melathion and 3 g. wettable sulphur or 2 g. Carbandezim, dissolved in one liter of water. Repeat the same spray if necessary at an interval of 15 days.</li></ul>
Coconut	<ul style="list-style-type: none"><li>✓ To manage rhinoceros beetle in coconut Remove and burn all dead coconut trees in garden to maintain good sanitation</li><li>✓ Examine the crowns of tree at every harvest and hook out and kill the adults</li><li>✓ To mix sand and quinlophous or Malathion to fill hole in affected trees</li><li>✓ If compost pit near by the garden to mix the Quinolphous 350 gram per cubic meter</li></ul>

## EASTERN DRY ZONE, BENGALURU

### BENGALURU URBAN/ BENGALURU RURAL/RAMANAGARA/CHIKBALLAPURA

#### KOLAR:

Crop	Stage/ Condition	Pest and Disease	Agro advisories
<b>Agriculture crop</b>			
			➤ Shatabhisha rainstar starts from February 19 <sup>th</sup> and remains upto March 3 <sup>rd</sup> . The normal rainfall of Shatabhisha rainstar is 5.6 mm.
Grains- Storage			➤ The grains of the harvested crops should be properly dried by retaining moisture percentage of Cereals 11-12 %, Pulses-9%, Oilseeds-8 and Vegetable seeds 5-6% for long storage & also minimize the store pest damage. ➤ Ragi: advised for harvested crops cleaning, drying and storage in dry gunny bag. ➤ To protect the pulse grains from storage pests apply oils of Castor/ linseed/honge/neem oil @ 3-5 ml per kg of grains
Mango			➤ Dropping of fruits in mango trees was noticed. To manage this by giving adequate quantity of irrigation water (go for drip irrigation where ever it possible). ➤ To control the malformation, thorough pruning of affected flowers parts between trees to reduces the spread of pests and disease and spray Carbendazim @ 1 g/L to control disease. ➤ Sray Lamda Cyhalothrin 5EC@ 0.5 ml/ litre of water or sulphur dust (SULTAF) 80 W @3g/litre of water against the Powdery mildew diseases.
<b>Animal Husbandry</b>			
Dairy			➤ Protect milch animals from cold weather. · Farmers are advised to keep the animal habitation dry to avoid hoof infection & to prevent fly breeding. ➤ It is the right time for de -worming of animal. ➤ Keep the cattle shed clean & warm
Poultry			➤ Provide artificial brooding to chicks to maintain adequate temperature. ➤ Sides should be covered with curtains during cool hours of the day.

## SOUTHERN DRY ZONE, NAGANHALLI

### MYSORE/MANDYA/CHAMARAJNAGARA/KODAGU:

Crop / Animals	Stage/ Condition	Pest and Disease	Agro advisories
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Brinjal, Tomato Chilli	Growth	Wilt	Broadcast the bleaching powder 20 kg per acre before planting. Apply COC(3gm)+ tetracycline sulphate (500mg) to control the disease
Brinjal, Tomato Chilli	Transplanting	Root treatment	Before transplanting dip the seedlings roots with pseudomonas fluorescens solution(1gm/ltr of water) to avoid incidence of diseases in next stages
<p>➤ Most of the paddy growing soil deficit of zinc, it is advisable to use zinc sulphate @ 8kg /acre. It can be applied separately without mixing with chemical fertilizers</p> <p>➤ Paddy crop growth may be effected due to low temperature in the evening to overcome this apply recommended dose of chemical fertilizers(40:20:20 NPK/ha)</p>			

### SOUTHERN TRANSITION ZONE, NAVILE, SHIVAMOGGA

#### SHIVAMOGGA / HASSAN / CHIKKAMAGALURU:

Crops/ Components	Stage / Condition	Pest and Disease	Agro advisories
Paddy	Transplanting	-	Go for transplanting of summer paddy Apply Butachlor 50 EC @ 2 litre/ha after 2-3 days after transplanting
Areca nut	Flowering/Fruiting stage	Leaf spot	Spray Mancozeb @ of 2 g/lit or copper oxychloride at 3g/lit
		Hidimundige disease	Spray 225 gm/palm equal proportion of copper sulphate + lime twice in a year.
		Spindle bug	Keep 10 g Phorate granules in polythine bag and make small hole and placed near spindle or spray 2 ml/litre Quinolphos
		Mites	Keep 10 g of Phorate granules in inflorescence of arecanut plant
		Inflorescence dieback	Recommended to spray of Carbendazim 2 g or Mancozeb 2 g/litre of water
Coconut	Maturity /harvesting stage	Mites	Avoid nitrogen application Spray 2.0 g/litre copper oxychloride along with 0.5 g/ liter Streptocycline at 20 days of interval
		Leaf spot	Spray Mancozeb 75 W P @ 2 g/litre or copper oxychloride 50 WP 3 g/litre on leaf.
		Black headed hairy caterpillar	Spraying of bioagents viz., <i>Metarhiziumanisopliae</i> @ 20 g/litre or <i>Baeuarea bassiana</i> @ 20 g/litre or <i>Goniozous nephentidis</i> @ 1 adult/ palm

		Rhinoceros beetle	Remove the beetle from infected part and fill 2 % Quinolphos or 5 % Melathion in sand @ 1:1 ratio.
Ginger / Turmeric	Maturity/ harvesting stage	-	Cover the partially opened rhizome in the bed by mulches or soil in order to avoid rotting of rhizomes Go for harvesting of matured rhizomes.
Banana	-	Leaf spot/Sigatoka	As a precautionary measure spray carbendizim + mancozeb (SAAF) @ 2.0 g / litre of water followed by (15 days after) chlorothalanil@ 2.0 g/ litre of water
		Pseudo stem weevil	Suggested to give stem injection with 5 ml Chloropyriphos or Dimethoate or spray 2.5 ml of Chloropyriphos per litre of water.
Sugarcane	Sowing	-	Use 8 to 10 month old disease free sets for sowing and treat those sets with 1 g/litre Carbondizim for 15 minutes.
Vegetable crops	-	Sucking pests	Advised to go for 2.5 ml Chlorpyriphos dissolved in one liter of water.
Mango	Flowering/ fruit setting	Powdery mildew	Spray 3 g sulphur or 1 g Tridemefon 50 W P or 1 g Carbendizim 50 WP or 1 ml Hexaconazole 5 EC per litre of water before flowering and at the time of fruit setting and also advised to repeat the spray if the incidence is more.
		Anthracnose	Spray 1% Bordeaux mixture or 1 g carbendizim 50WP or 1 g Methyl Thiophenate 70% or 2 g Chlorotheloniol per litre of water.
		Jassids	Spray 2 ml Melathion 50 EC or 0.3 ml Imidacloprid 50 EC per liter of water at before flowering and immediate after fruit setting.

## NORTH TRANSITION ZONE, DHARWAD

### BELAGAVI/DHARWAD/ HAVERI:

<b>Rabi Sorghum</b>	<ul style="list-style-type: none"> <li>• Provide irrigation in critical stages (grain filling) in irrigated condition.</li> <li>• Early sown crop is at maturity to harvesting stage attend harvesting.</li> </ul>
<b>Wheat</b>	<ul style="list-style-type: none"> <li>• If the wheat crop is at grain filling stage, this stages is sensitive for any kind of stress it may reduce seed size so it is advised to give irrigation immediately.</li> <li>• Crop sown during the month of October 2<sup>nd</sup> week is at harvesting stage attend harvesting.</li> </ul>
<b>Bengal gram</b>	<ul style="list-style-type: none"> <li>• For late sown irrigated crop Provide irrigation in critical stages (pod filling).</li> <li>• Bengal gram crop is at Harvesting stage, harvesting can be done in the early morning to avoid</li> </ul>

	shedding of the pods.
<b>Cotton</b>	<ul style="list-style-type: none"> <li>Attend picking up of late sown cotton and keep the kapas separately picking and variety wise to get the higher prices in the market.</li> <li>Avoid mixing of dried lives and soil with Kapas which may reduce the market price.</li> <li>It is suggested not to irrigate the crop where kapas picking is completed to avoid new growth.</li> <li>It is suggested to use the cotton stalks for compost making using cellulose degrading microbial cultures available instead of burning or using as fuel.</li> </ul>
<b>Sugarcane</b>	<ul style="list-style-type: none"> <li>After the harvest of Sugarcane, trash should not burn; it should be kept between the lines of ratoon crop, which improves the organic matter and nutrient content of the soil.</li> <li>Fresh planting in Sugarcane, apply 10 kg Zinc sulphate + 10kg ferrous sulphate + 4kg Magnesium sulphate + 1kg boran per ha. Before planting dip the sets for 10 min in a solution prepared by dissolving 100 gram of Carbandizeme + 100 ml Chloropyriphos + 100 gram urea in 100 litre of water.</li> </ul>
<b>Mango</b>	<ul style="list-style-type: none"> <li>For control of powdery mildew in mango, spray 0.5 ml Phosphamidon 86 WSC with 1.0 g Hexaconzole 5 EC per litre of water.</li> </ul>
<b>Chilli/Tomato Brinjal</b>	<p><i>Pest and Diseases management in Tomato</i></p> <ul style="list-style-type: none"> <li><b>If the Crop is at fruit initiation to fruit development stage.</b></li> <li>Tomato If fruit borer is noticed- spray Thiodicarb 1gm 75WP per litre of water.</li> <li>For control of Powdery mildew in Tomato Spray 3 g water soluble Sulphur per litre of water.</li> <li>Growing of one line Radish in every two lines of Tomato Reduces the fruit rot in tomato.</li> <li>looking to the weather and soil type irrigate the crop once in 15 days black soil and 8-10days in red soils.</li> </ul>
<b>Animals</b>	<ul style="list-style-type: none"> <li>For milch animals regularly follow schedule of 1 kg feed + 50 g mineral mixture per 2 litres of milk yield. Feed animals with a mixture of green grass + hay + minerals + dry feed like a khichri.</li> <li>Proper ventilation should be maintained for free circulation of air in the sheds.</li> <li>Maintain optimum moisture of 60 to 70 per cent in vermin compost pits and drain out the excess water from the vermipits.</li> <li>Farmers are advised to keep the animal habitation dry to avoid hoof infection &amp; to prevent fly breeding.</li> </ul>

### HILL ZONE, SIRSI

#### Uttara Kannada:

**For Coconut, Arecanut and Pepper irrigation should be given**



## Paddy

- Farmers are advised to continue the Paddy threshing.
- Farmers are advised to take up the sowing of pulses like Black gram, Green gram and also the green manure crop sun hemp to utilize residue moisture after harvest of the paddy in Paddy field.
- In paddy fields where there is no residue moisture, in such fields farmers can take up deep ploughing, so that the soil pathogens will die and in turn it will help to reduce pest incidence for the next paddy crop.

## Mango

- Flowering started.
- As a precautionary measure for control of powdery mildew spray Carbendazim @1 gm / lit of water or Hexaconazole @1g / lit of water.
- As a precautionary measure for control of Hoppers spray Melathion @ 2ml / lit of water or Monocrotophos @ 1.25ml / lit of water.

## Arecanut

- To avoid the cold effect on the crop, irrigate the crop and apply 100 g Urea and 100 g DAP.
- The incidence of button dropping, inflorescence dieback will occur. For the control of these spraying of Carbendazim @ 1 gm/lit or Mancozeb @ 2 gm/lit of water can be taken.

## Coconut

- For control of mites spray water soluble sulphur @ 5gm/liter of water or spray a mixture of neem oil (20 ml) + garlic solution (20 gm) + soap powder solution ( 5 gm) per liter of water to the coconut flower and fruit bunch

## Cocoa

- For control of fruit rot remove the rotted fruits and spray with 1% Bordeaux mixture for control.

### COASTAL ZONE, BRAHMAVAR

## UDUPI/DAKSHINA KANNADA

Crop	Congenial Atmosphere	Operations/ Agro advisories
mango (Leaf hopper)	Cloudy weather	• Leaf hopper suck the sap from leaf and flower.

	followed by raise in temperature	Fruit-finally leaf drop development of sootymould. before flowering and after fruit set spraying of carbaryl 4gram 50wpc 1+of water,us imidacloprid 0.25ml of water.
brinjal (Shoot and fruit borer)		<ul style="list-style-type: none"> <li>• Installation of Pheromone traps 12 per hectare.</li> <li>• Spraying a chemical like spinosad 0.25ml/liter.</li> </ul>
Groundnut	Seeds treatment	<ul style="list-style-type: none"> <li>• Treat a 1kg of seeds with 2.5 gram Thiram and shade dry</li> <li>• Treat the seeds with 150 gram Rhizobium along with 400 gram PSB (phosphorus solublizing bacteria )</li> </ul>
Coconut (white Fly)		<ul style="list-style-type: none"> <li>• For small trees spray with neem oil @ 3ml/ liter</li> <li>• For fly free we need to keep spray paras prid will control the gost.</li> </ul>

<p><b>Black pepper</b> (slow wilt)</p>	<p>Hot humid moisture scarcity condition &amp; increased temperature</p>	<ul style="list-style-type: none"> <li>• Apply carbofuran granules during October &amp; November @ 15gm/vine. Before applying please ensured that moisture level of the soil.it should be at field capacity.</li> <li>• Spray with copper oxy chloride @3gm/liter &amp; drench the soil with same chemical 2 liter solution near the vine.</li> </ul>
<p><b>Cashew</b> (Tea mosquito bug)</p>	<p>Hot humid condition &amp; increased temperature</p>	<ul style="list-style-type: none"> <li>• Spray with imidacloprid @0.5ml/ liter.</li> </ul>
<p><b>Okra</b> (Shoot and fruit borer)</p>		<ul style="list-style-type: none"> <li>• Installation of pheromone traps 12 per hectare.</li> <li>• Using 40 days old African marigold as trap crop in the ratio of 10:1</li> <li>• Spraying a chemical like indoxcarb 0.5ml/liter</li> </ul>

<p><b>Jasmine (leaf spot)</b></p>		<ul style="list-style-type: none"> <li>• To control the leaf spot disease a liquid mixture of the pesticide should be sprayed twice daily an interval of 15 days, about 2 time of this pesticide mixture is liquid for one acre ( 200/liter).</li> </ul>	
<p><b>Coconut: (Rhinceros beetle/Red Palm weevil)</b></p>	<p><b>At all weather condition</b></p>	<ul style="list-style-type: none"> <li>• <b>Treat the affected plants with Carbaryl solution at 4 g/ltr to bored holes and later fill with mud. OR</b></li> <li>• Treat the affected plants with one aluminum phosphate into the bored holes and latter fill with mud.</li> <li>• <b>4-5 Pheromone traps are kept around the farm.</b></li> </ul>	
<p><b>Coconut (budrot)</b></p>		<ul style="list-style-type: none"> <li>• Scrape the infected part and apply a mixture of metalaxyl plus mancozeb at 2 gram per liter or apply 1 percent bordeaux paste, protect the infected part</li> <li>• from rainfall.</li> </ul>	