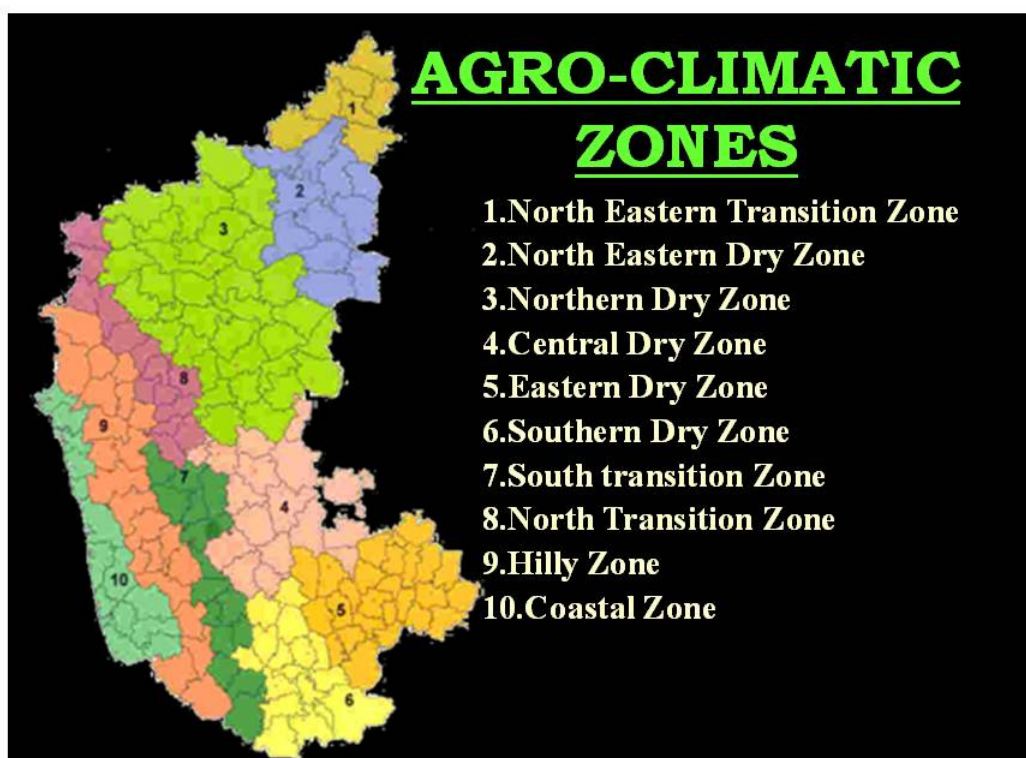


**COMPOSITE BULLETIN OF AGROMETEOROLOGICAL ADVISORY
KARNATAKA STATE**

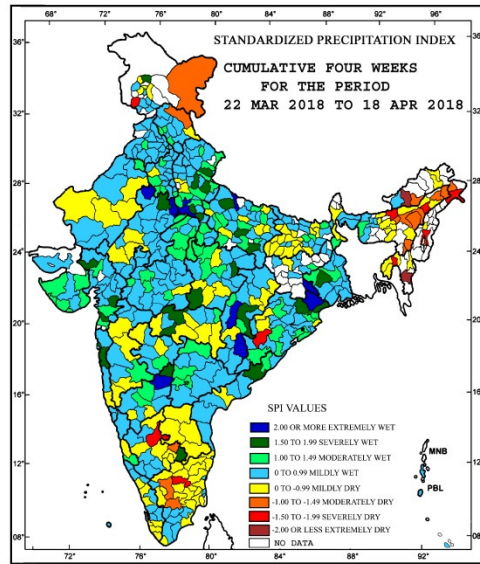
**ISSUED BY METEOROLOGICAL CENTRE, BENGALURU (IMD)
IN COLLABORATION WITH
STATE AGRICULTURE DEPARTMENT &
AGRICULTURAL UNIVERSITIES OF KARNATAKA
FOR THE PERIOD 21ST APRIL TO 25TH APRIL 2018
ISSUED ON FRIDAY, THE 20TH APRIL 2018**

AGROCLIMATIC ZONES OF THE STATE



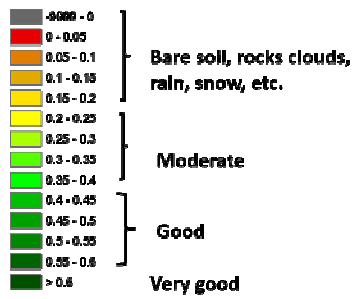
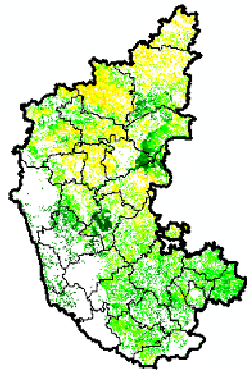
SL.NO.	AGROCLIMATIC ZONE	DISTRICTS	AGROMET FIELD UNIT (AMFU) LOCATION
1.	North East Transition Zone	Bidar	Bidar
2.	Northeastern Dry Zone	Kalaburgi, Raichur, Ballari, Yadgiri, Koppal	Raichur
3	Northern Dry Zone	Vijayapura, Gadag, Bagalkot	Vijayapur
4.	Central Dry Zone	Tumkuru, Chitradurga, Davangere	Hiriyur
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

MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



Karnataka

16 April 2018



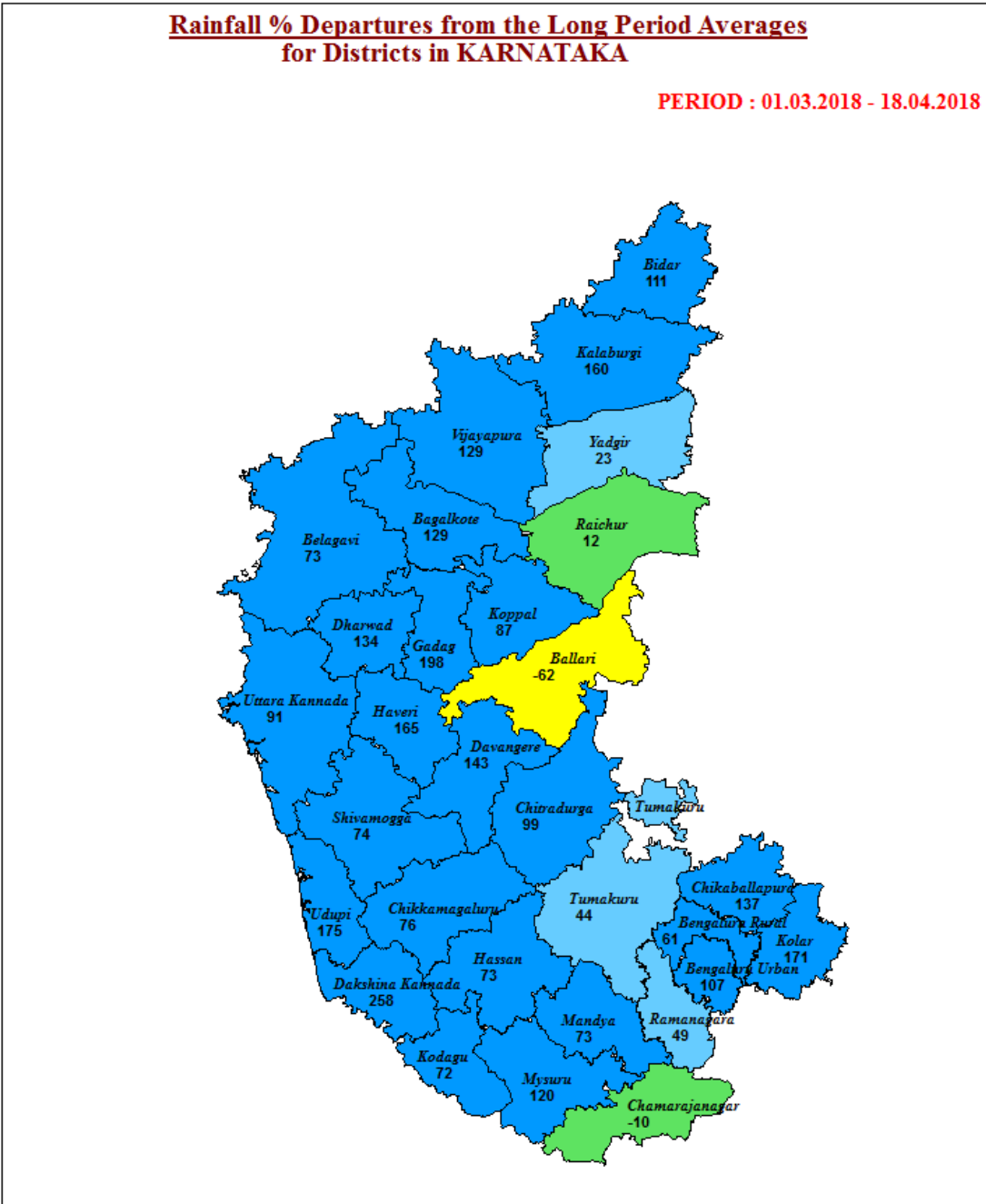
Agriculture vigour is moderate over entire state except few patches in interior shows good NDVI vigour.

Seasonal Rainfall Statistics :

**INDIA METEOROLOGICAL DEPARTMENT
MC BANGALORE**

**Rainfall % Departures from the Long Period Averages
for Districts in KARNATAKA**

PERIOD : 01.03.2018 - 18.04.2018



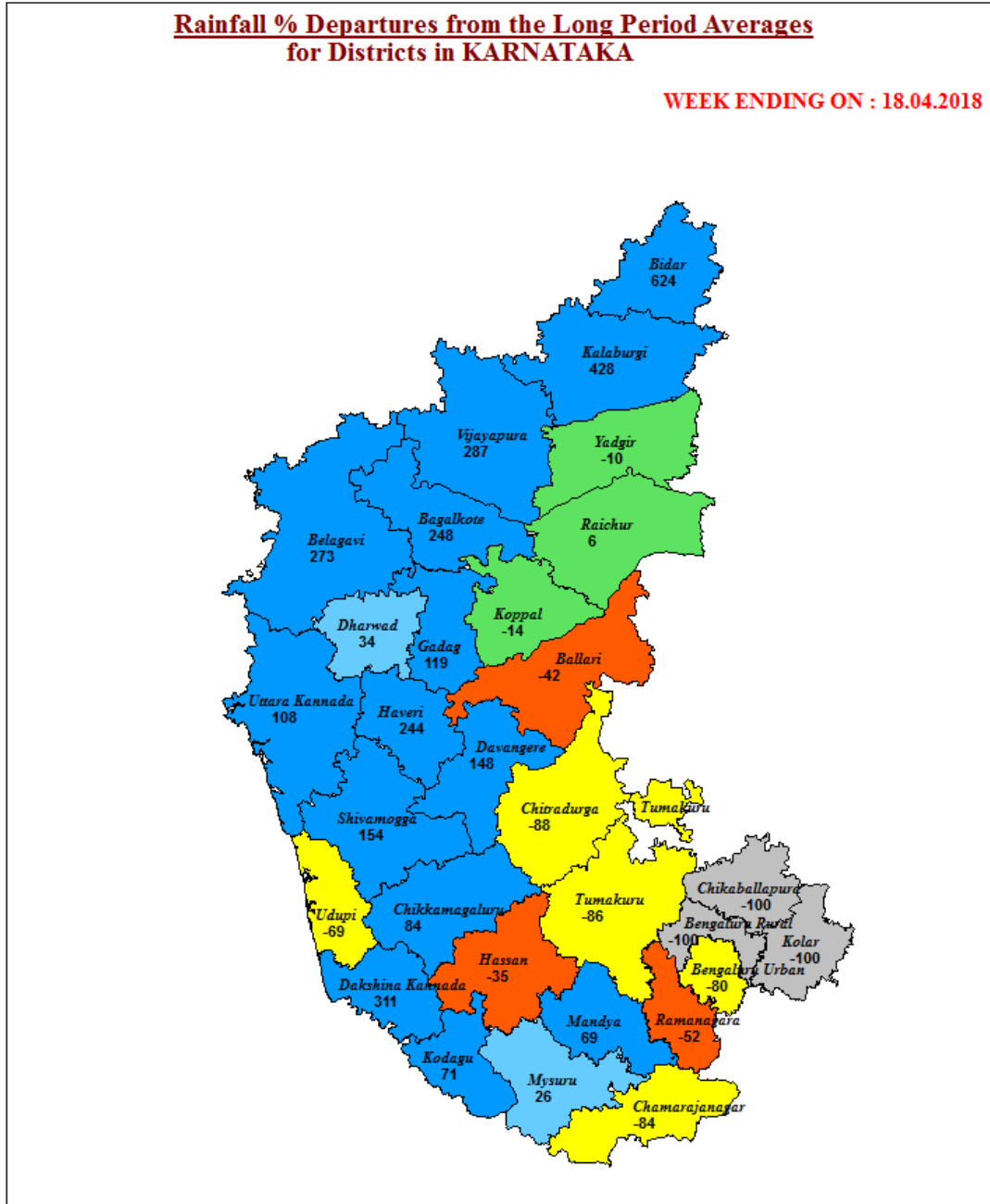
LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN [-100%] ■ NO DATA

Weekly Rainfall Statistics:

**INDIA METEOROLOGICAL DEPARTMENT
MC BANGALORE**

**Rainfall % Departures from the Long Period Averages
for Districts in KARNATAKA**

WEEK ENDING ON : 18.04.2018



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN [-100%] ■ NO DATA

Summary for the past 3 days over the State:

On 18TH April:

Rainfall occurred at a few places over Coastal Karnataka & North Interior Karnataka and at isolated places over South Interior Karnataka.

Maximum Temperatures were Normal over the State.

On 19TH April: :

Rainfall occurred at a few places over Coastal Karnataka and at isolated places over Interior Karnataka.

Maximum Temperatures were Normal over the State.

On 20TH April: :

Rainfall occurred at many places over Coastal Karnataka & South Interior Karnataka. Dry weather prevailed over North Interior Karnataka.

Maximum Temperatures were above normal at a few places over Coastal Karnataka and normal over Interior Karnataka.

Highest Maximum Temperature: Kalaburgi has recorded the highest maximum temperature of 41.8° C. on 18.04.2018 .

State Rainfall forecast:

Day 1 valid until 0830 hrs IST of April 21ST :

Light to moderate rain likely to occur at few places over Coastal Karnataka and South Interior Karnataka.
Light rain likely to occur at isolated places over North Interior Karnataka

Day 2 valid until 0830 hrs IST of April 22ND : Light rain likely to occur at isolated places over the State.

Day 3 valid until 0830 hrs IST of April 23RD : Light to moderate rain likely to occur at few places over South Interior Karnataka. Light rain likely to occur at a few places and North Interior Karnataka. and at isolated places over Coastal Karnataka.

Day 4 valid until 0830 hrs IST of April 24th : Light rain likely to occur at a few places over South Interior Karnataka and at isolated places over Coastal Karnataka and North Interior Karnataka.

Day 5 valid until 0830 hrs IST of April 25th : Light rain likely to occur at a few places over South Interior Karnataka and at isolated places over Coastal Karnataka and North Interior Karnataka.

Heavy rainfall Warning:

Day 1 valid until 0830 hrs IST of April 21ST : . NIL

Day 2 valid until 0830 hrs IST of April 22ND : NIL

Day 3 valid until 0830 hrs IST of April 23RD : NIL

Day 4 valid until 0830 hrs IST of April 24th : NIL

Day 5 valid until 0830 hrs IST of April 25th : NIL

Thunderstorm/Squall Warning:

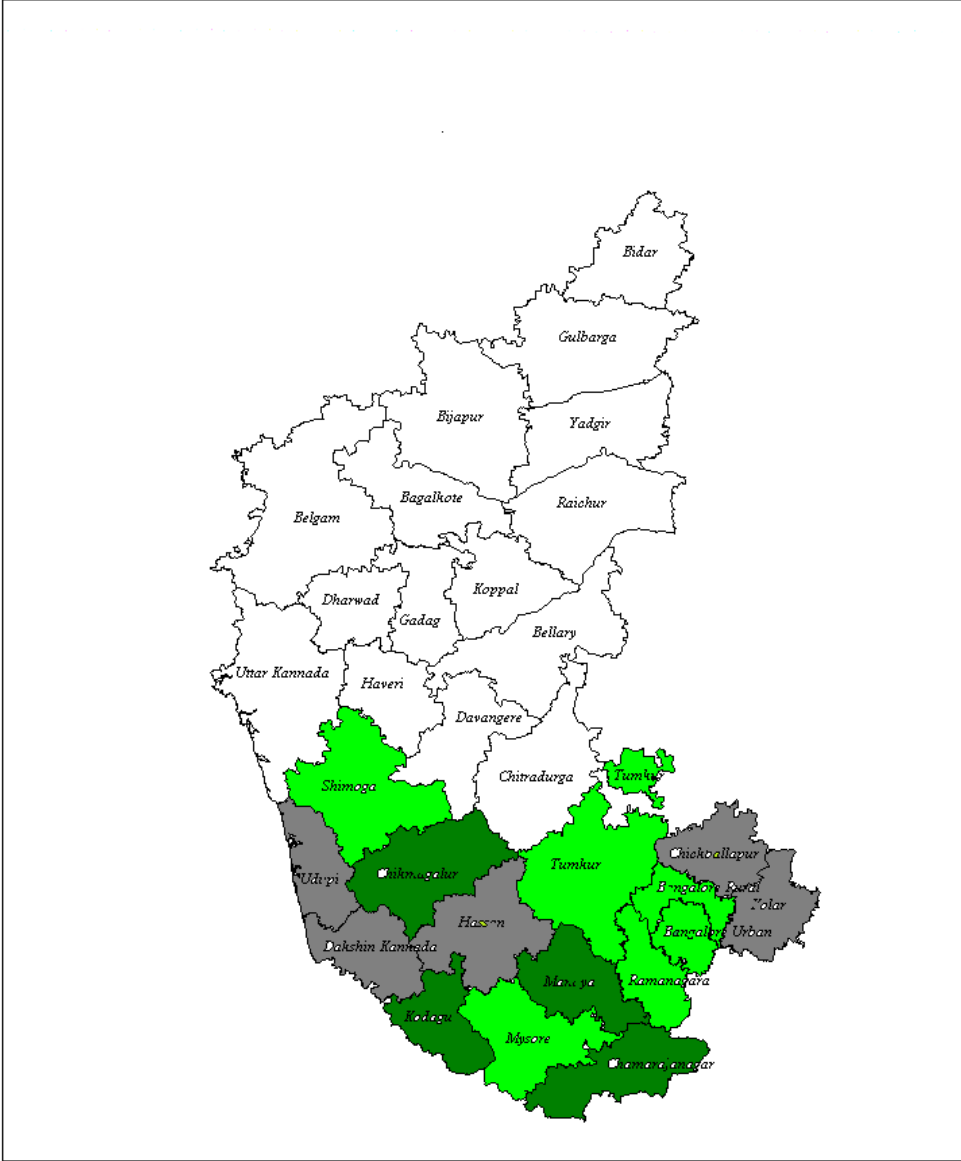
Thunderstorm with gusty winds likely to occur few places over Coastal Karnataka and South Interior Karnataka. and at isolated places over North Interior Karnataka 21st April 2018.

Thunderstorm with gusty winds likely to occur few places over Interior Karnataka on 23rd April 2018..








Outlook: No large change is expected over the State.

Rainfall forecast for the next 5 days:

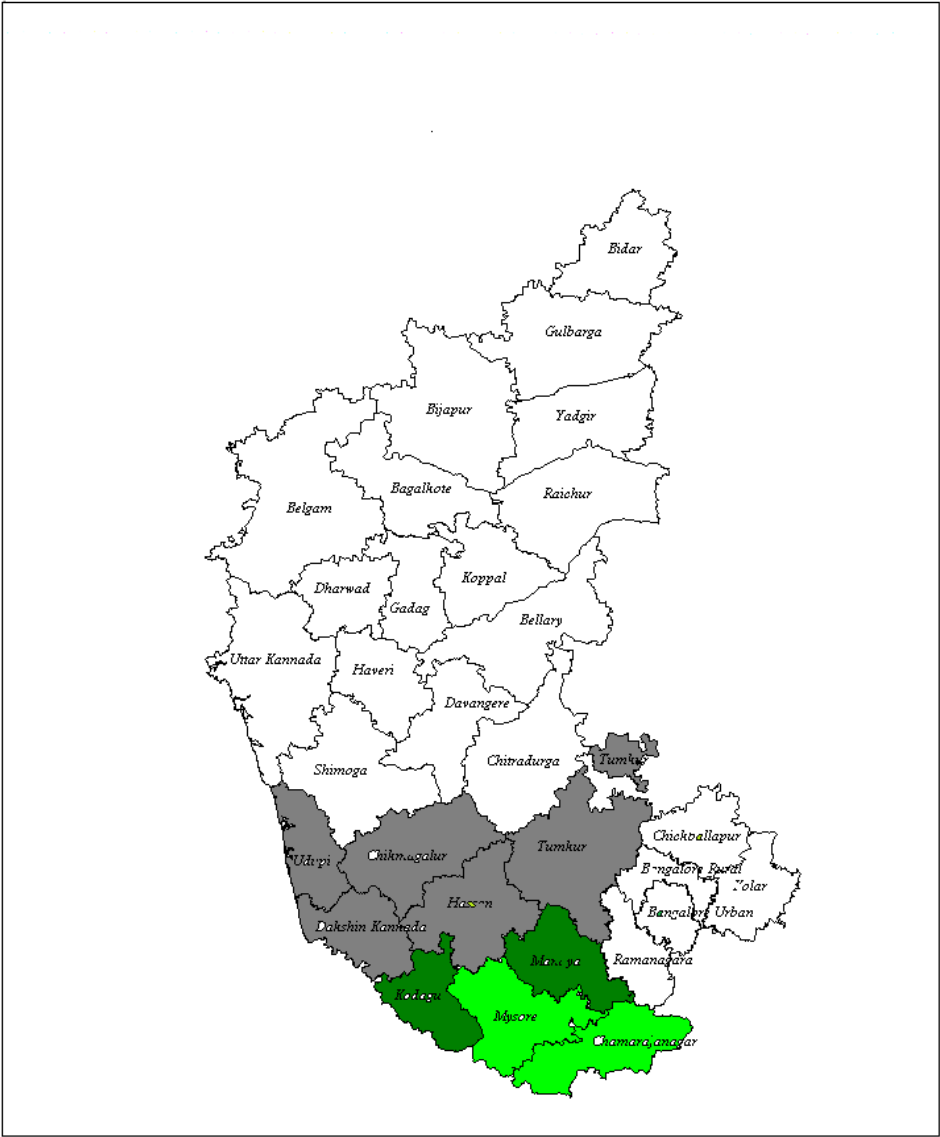
21.4.2018 :



LEGEND IN Cms:

	>25		12.5-25		6.5-12.4
	2.5-6.4		0.5-2.4		0.1-0.4
	No Rain				

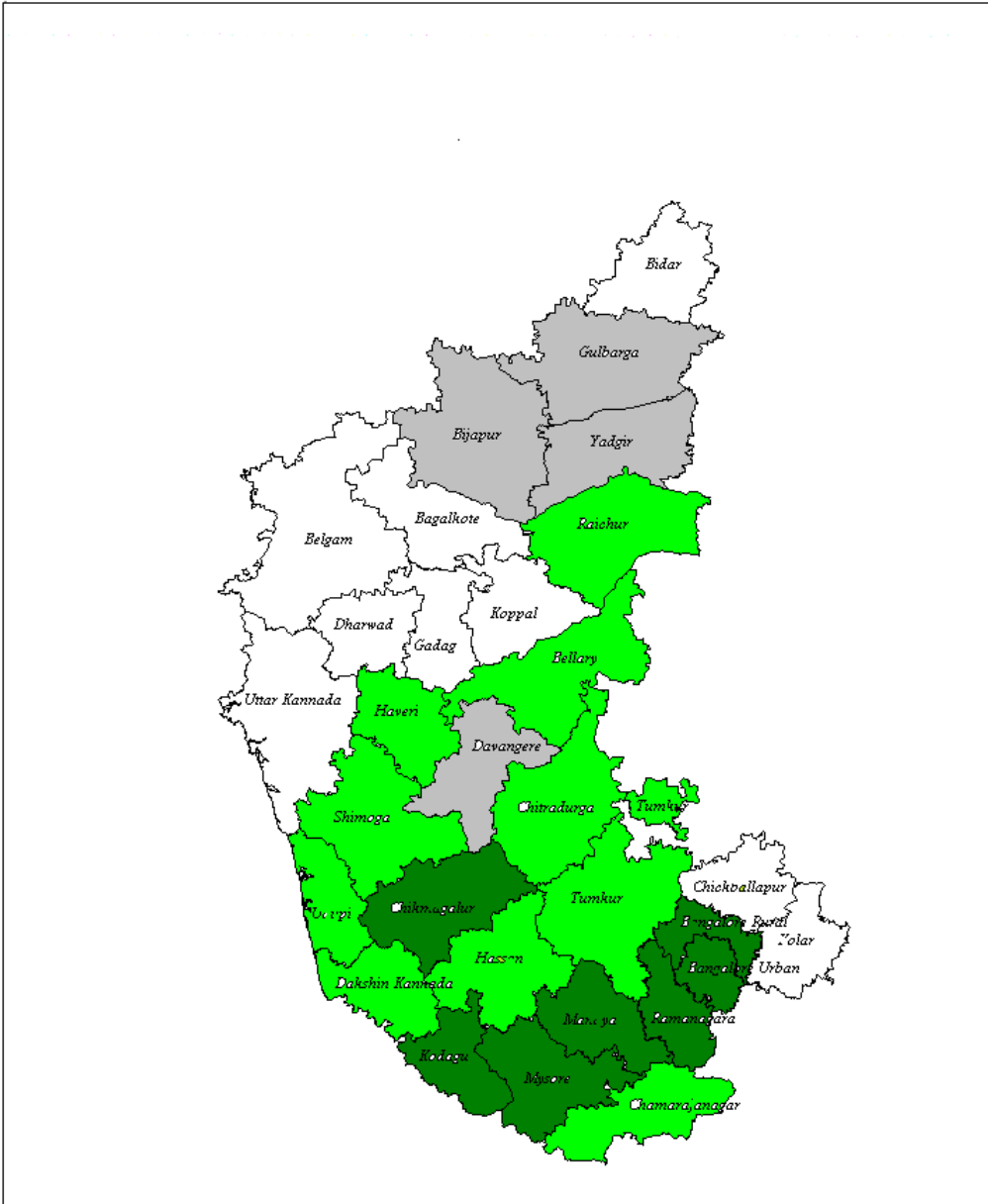
22.4.2018.



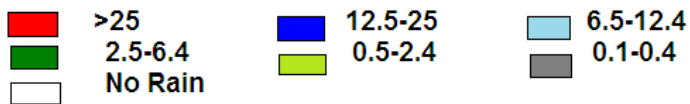
LEGEND IN Cms:

	>25		12.5-25		6.5-12.4
	2.5-6.4		0.5-2.4		0.1-0.4
	No Rain				

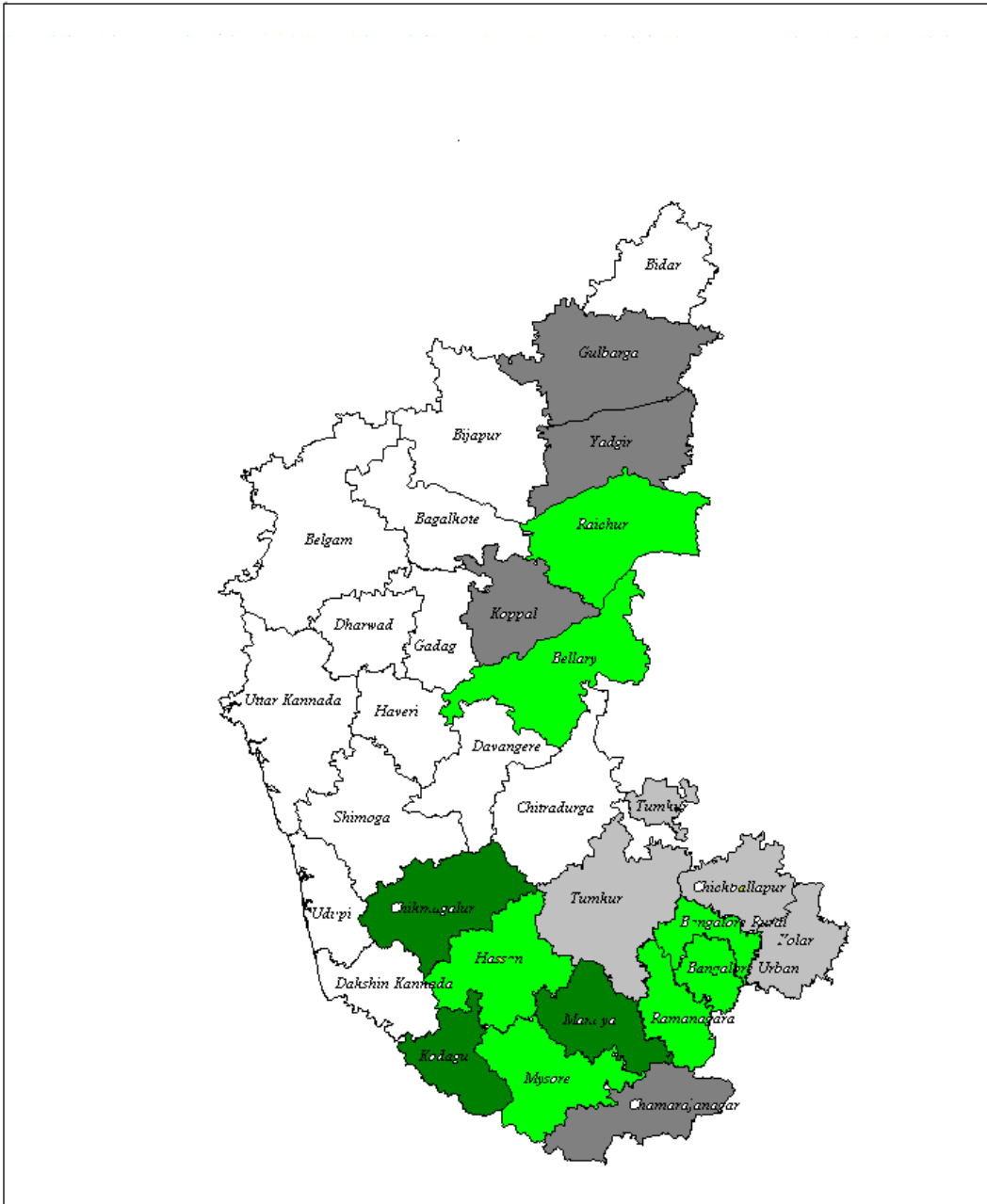
23.4.2018:










LEGEND IN Cms:



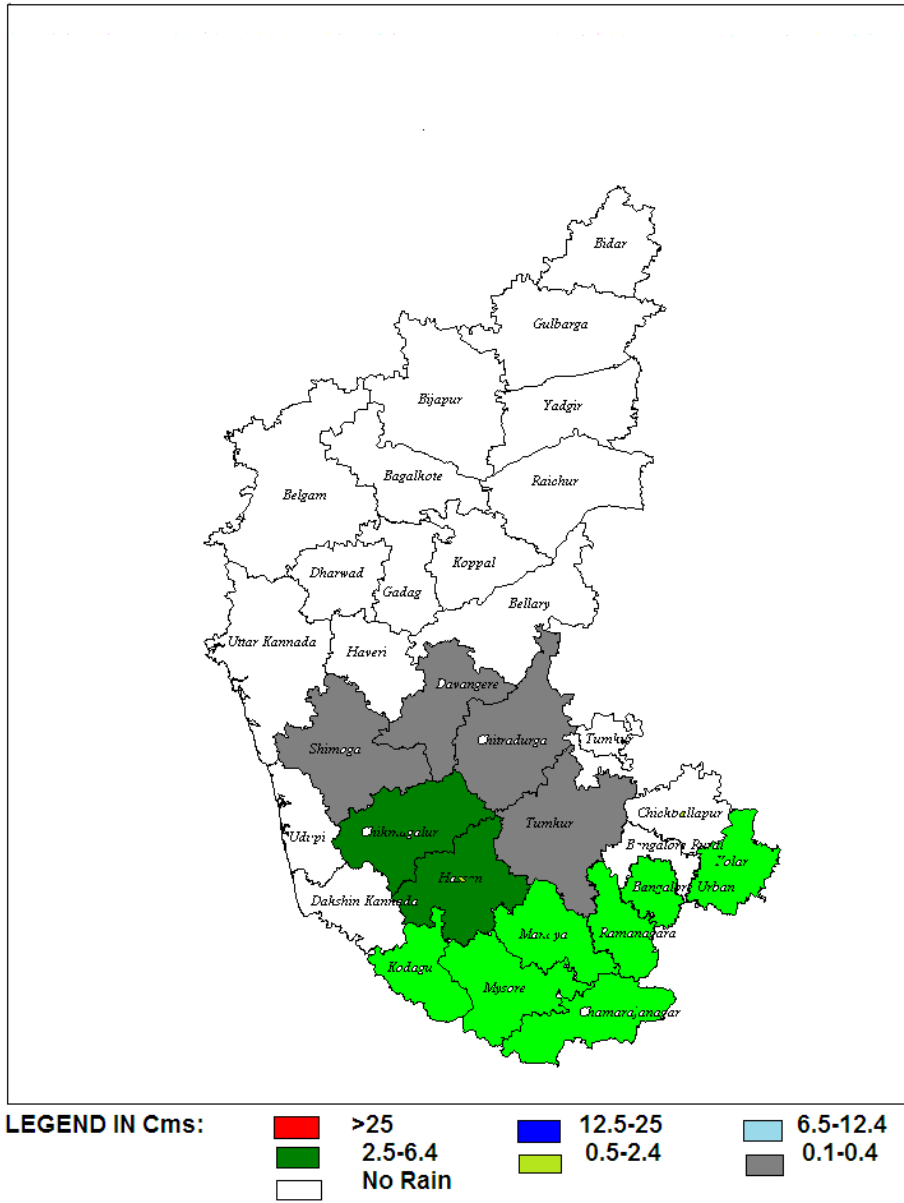
24.4.2018.



LEGEND IN Cms:

	>25		12.5-25		6.5-12.4
	2.5-6.4		0.5-2.4		0.1-0.4
	No Rain				

25.4.2018:



PART II
AGRICULTURAL ADVISORIES

VEGETABLES

Districts	VG	GI/TU	CI
Bidar	V		
Kalaburgi			
Yadgiri			
Koppal			
Ballari			
Raichur			
Vijayapura			
Bagalkote			
Gadag			
Tumkuru			
Chitradurga			
Davangere			
Bengaluru (R)			
Bengaluru (U)			
Chikballapura			
Kolar			
Ramanagar			
Chamarajnagar			
Kodagu			
Mandya			
Mysuru			
Hassan		H/S	
Shivamogga		H/S	
Chikkamagaluru		H/S	
Belagavi	FD		
Dharwad	FD		
Haveri	FD		

Dharwad														
Haveri														
Uttara Kannada														
Dakshina Kannada														
Udupi														

CROPS

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

Haveri		H		H							H			
Uttara Kannada														
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, Th: Threshing

PART II
AGROCLIMATIC ZONEWISE AGRICULTURAL AGROMETEOROLOGICAL
ADVISORIES

NORTH EAST TRANSITION ZONE, BIDAR

BIDAR:

Main crops	Stage	Agricultural Advisories
General		During night time on the day of Ist shawar, branches of neem, guava dipped in pesticide solution and then installed on the bunds all along the cane crop to attract the root grub adult beetles and killing them consequently.
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 non drying oils such as Castor oil and Honge oil (10gm) per kg of seeds.
Tomato	vegetative	Tomato serpentine leaf miner infestation can be effectively controlled by using neem based insecticide such as NSKE 5% (50 ml dissolved in 1 litre of water) or 1.7 ml dimethoate per liter of water. Whitefly infestation can also be managed by using Triazophos 2.5 ml or 2 ml profenophos dissolved in one liter of water.
Sugarcane	One month old crop	Farmers are advised to take Earthing up activities in the crop in order to protect the crop from Early shoot borer infestation, besides the fields will be kept weed free. Integrated Root grub management in sugarcane In Sugarcane plantation, wherever the infestation of root grub is noticed, following action to be undertaken. Soon after the first shawar during kharif season, Beetle emergence takes place between 7.30 to 8.30 pm night. During night time on the day of Ist shawar, branches of neem, guava dipped in pesticide solution and then installed on the bunds all along the cane crop to attract the beetles and killing them consequently. On the same day, apply bio based fungicide i.e <i>Metarrhizium anisopae</i> (entomopathogenic) Mix 4-8 kg in desired quantity of fully decomposed compost and then applied to the soil. Drenching of Chloropyrifos 10 ml /litre of water. About 500 litres of spray solution is required for one hectare.
Animal Husbandry	Livestock/poultry	In order to overcome the moisture stress in milch and draft animals during summer, it is advisable to take up the cultivation of green fodder crops such as Maize, Bajra & jowar respectively.

Mango	Flowering and nut size fruit formation	<p>Malformed flower or affected stem of the mango is being cured by treating with 1% Bordomixture.</p> <p>Application of Vermicompost along with Micronutrient is done in order to increase the growth of plant.</p> <p>In case,if any diseases noticed,treatment is done with Carbendiazem(1 gram) or Benomyl(1 ml) by dissolving in one liter of water.</p>
-------	--	---

NORTHEASTERN DRY ZONE, RAICHUR

KALABURGI/ YADGIRI/ RAICHUR/KOPPAL/ BALLARI :

Crops	Stage	Agricultural Advisories
	SUMMER LAND PREPARAT ION	<ul style="list-style-type: none"> If sufficient rains received dry land farmers may take up ploughing of land across the slope as it improves infiltration and conserve the rain water and also avoids soil erosion.
		<ul style="list-style-type: none"> Dry fodder to be fed after uniform mixing with 2% urea and 10% molasses or jaggery to improve palatability for the livestock.
		<ul style="list-style-type: none"> Add FYM or compost and harrow the land 2-3 times so as to mix it in the soil and keep the land ready for sowing.
		<ul style="list-style-type: none"> The left over crop residue should not be burnt. They should be used for making compost or vermicompost or they should be incorporated in the soil at the time of ploughing the land.
		<ul style="list-style-type: none"> Maintain sufficient moisture in the vermi-compost pits.

NORTHERN DRY ZONE, VIJAYAPURA

VIJAYAPURA/BAGALKOTE/GADAG:

Sugarcane	<ul style="list-style-type: none">• Adopt drip irrigation system to save the water up 40%.• If there is shortage of water, irrigation can be given to alternate furrows and alternate furrows alternatively.• Hand hoeing and weeding should be done immediately after the harvest of the crop. If, broad leaved weeds are present, a post-emergent spray of 2,4-D @1kg a.i./ha.
------------------	---

Pomegranate	<ul style="list-style-type: none">➤ To manage Bacterial blight disease in pomegranate, spray the crop with Streptomycin Sulphate 0.5 g. + Copper oxy-chloride 2 g. + 2 g. Blitox 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.➤ To manage sucking pests, take up spraying of 1.7 ml Dimethoate or 0.25 gram Acetamaprid dissolved in one liter of water.
Lime	<ul style="list-style-type: none">➤ Remove the dried twigs and branches and then take up spraying of 1 % Bordo mixture to manage Canker disease.➤ To manage leaf minor pest, spray the crop with 0.3 ml Imidachloprid dissolved in one liter of water or spray with 3 per cent bio-digester solution.➤ To manage Mites, take up spraying of 2.5 ml Dicofal or 0.75 ml Spiromeshiphane dissolved in one liter of water.
Watermillon, Ladies finger and tomato	<ul style="list-style-type: none">➤ To manage sucking pests, take up spraying of 1.7 ml Dimethoate or 2 ml Melathion dissolved in one liter of water.

CENTRAL DRY ZONE, HIRIYUR

Chitradurga/Davanagere/Tumkur:

Mango

- ✓ To control sucking pests, Thrips, and Powdery mildew in mango spray the crop with 4 g Carbaryl + 1 g Bavistin dissolved in one liter of water.
- ✓ To control mango stem borer, apply paste made of crude carbolic acid (130 ml), soft soap (1 kg) and hot water (3.7 liters) to holes in the bark and plug the holes.

Pomegranate

- ✓ 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.
- ✓ To manage leaf and fruit spot disease, spray the crop with 2 ml Chlorothonil dissolved in one liter of water.

EASTERN DRY ZONE, BENGALURU

BENGALURU URBAN/ BENGALURU RURAL/RAMANAGARA/CHIKBALLAPURA KOLAR:

Crop	Stage/ Condition	Pest and Disease	Agro advisories
Agriculture crop			
			<ul style="list-style-type: none"> ➤ Normal monsoon rainfall predicted this year. Farmers need not have to be panic. ➤ Ashwini rainstar starts from April 14th and remains upto April 26th . The normal rainfall of Ashwini rainstar is 32.4 mm. ➤ Time for application tank silt to increase soil fertility. ➤ Taken up summer plough to expose the soil to kill the different stages of insect and weeds. ➤ Average Rainfall in April and May months are 36 mm and 93 mm respectively. Hence, cowpea, sesame, black gram and green gram are recommended for the sowing the above crops during May month. Agricultural implements and seeds may be kept ready for sowing of crops. ➤ Under double cropping the short duration crops of first crop are as follows: <ul style="list-style-type: none"> Seasamum : Navile-1, T-7 Cowpea: TVX-944, KBC-1, Green gram: PS-16, PDM-84,178 Field bean: HA 1, 2, 3 &4. Groundnut : TMV-2, JL-24, KCG-6, Black gram: Karagao-3, T-9, Rashmi(LBG-625) ➤ Crop residues other than cattle feed may be used for compost making instead of burning
Mango			<ul style="list-style-type: none"> ➤ For soil moisture conservation in mango orchard, weeds and crop residues mulching is recommended.
Animal Husbandry			
Dairy			<p>Livestock management during summer:</p> <ul style="list-style-type: none"> ❖ Silage, hay and crop residues may be used for cattle feed when shortage of green fodder. ❖ Apply 4-6 inch thick thatch as a roofing material. Water can be used for spraying the floor and roof of shelter ❖ Periodically water spray during peak hot hours lowers the temperature and consequently reduces the heat load on animals <ul style="list-style-type: none"> ❖ Proper ventilation should be maintained for free circulation of air in the sheds ❖ Clean drinking water be provided to animals and water troughs should be regularly cleaned ❖ Drinking water of 60 lts. of water/day/animal is required. ➤ Animals may be allow for grazing early in morning or later in evening.

SOUTHERN DRY ZONE, NAGANHALLI

MYSORE/ MANDYA/CHAMARA,JNAGARA/KODAGU:

Crop / Animals	Stage/ Condition	Pest and Disease	Agro advisories
<p style="color: red; font-weight: bold;">Indian metereological department as predicted normal Rainfall during this monsoon.director of IMD K.G.Ramesh has releases the press note that 97 %(normal) of Rainfall will receive from june -september of this year</p>			

Paddy	Tillering	Stem borer	To manage this disease spray with Manocrotophose @ 1gm/ litre of water or chlorophose @0.6 gm/litre of water .About 250-300 ltr of spraying solution is required for one acre.
<p>Farmers are advised to take up Ploughing or passing the cultivator in the areas where rainfall received and it should be taken up across the slope, it improves infiltration and conservation of rain water but also avoids soil erosion and further it checks the weeds</p> <p>Farmers may take up land preparation and keep ready the land for pre-monsoon crop sowing.</p> <p>Sowing seeds may be procured in advance and store for pre monsoon season sowing.</p> <p>Farmers are advised to purchase seeds from authorized dealers blue tags only.</p>			

SOUTHERN TRANSITION ZONE, NAVILE, SHIVAMOGGA

SHIVAMOGGA / HASSAN / CHIKKAMAGALURU:

Crops/ Components	Stage / Condition	Pest and Disease	Agro advisories
General information			Go for deep ploughing/ summer ploughing, wherever summer rain is received it will helps in killing of weed seeds and minimizes soil born incidence of disease-pest.
Paddy	Tillering/ Panicle initiation stage	Blast and sheath blight	Farmers are advised to go spraying of Trycyclozole @0.6 gm/lit or Corbondizim 1g/lit for blast For sheath blight spray Hexaconozol @ 1 ml/lit
		Leaf roller	Spray Quinolphos 25 EC @ 2 ml or Indoxycarb 14.5 SC @ 0.5 ml per litre of water
		Stem borer	Spray Chloropyriphos 20 EC 1 ml/lit.
		Brown leaf spot	Spray Mancozeb 2 g/litre or Carbondizim 1g/lit
Areca nut	Flowering	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 Carbondizim 2 g or Mancozeb 2 g/litre of water
		Bacterial leaf blight	Avoid nitrogen application Spray 2.0 g/litre copper oxychloride along with 0.5 g/ liter Streptocycline at 20 days of interval

		Scale insects	Spray 1.7 ml Thimethiote 30 EC or Imidachloprid 17.8 SL @ 0.5 ml/liter of water
		Bud rot	For infected plant use 10 Bordeaux paste @ or 3 percent copper oxychloride after cleaning of infected part by using clean water.
		Anabe roga (Ganoderma)	Pouring of 0.3% of Calixin in 15-20 litre of water at three month intervals or root feeding of 1.5% calixin solution or drench Hexaconazole (Contof) solution @ 1 ml/lit.
Coconut	Maturity /harvesting stage	Mites	Spray water soluble sulphur @ 5 g/liter of water or spray a mixture of neem oil (20 ml) + garlic solution (20 g) + soap powder solution (5 g) per liter of water to the coconut flower and fruit bunch.
		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.
		Anabe roga (Ganoderma)	Pouring of 0.3% of Calixin in 15-20 litre of water at three month intervals or root feeding of 1.5% calixin solution or drench Hexaconazole (Contof) solution @ 1 ml/lit.
Ginger / Turmeric	Harvesting/ Sowing stage	-	Go for harvesting of matured rhizomes. Right time for land preparation for sowing of Ginger/turmeric farmers are advised to go for repeated ploughing of land in order to kill the weed seeds as well as diseased spores and also advised to use disease free seed material for sowing. Mix 1 kg Trychoderma in 1 quintal of neem cake and apply at the time of sowing. Treat rhizome with solution prepared by using Bleaching powder @2 g/liter, Metalaxyl MZ-72 @ 1 g/litre, Streptocycline @ 1 g/litre and Endosulfon @ 2 ml/litre keep it for 30 minutes and go for shade drying of 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.
		Panama wilt	Drenching of Carbendizim 0.2% or Propiconazole 0.5 ml/ litre once in a month.
Mango	Fruit maturity	Anthracnose	Spray 1% Bordeaux mixture or 1 g carbendizim 50WP or 1 g Methyl Thiophenate 70% or 2 g Chlorothelonil 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.
		Bugs	Spray 5 % Neem seed extract on leaves, flowers and fruits
		Fruit flies	Advised to place 10 pheromone traps/ ha, for each trap keep 1 ml/litre of methyl eugenol + 1 ml/litre Melathion 50 EC or 1 ml/litre Dichlorovas solution @ 100 ml/trap. or Spray 4 g Carbaryl 50 WP or 1.7 ml Dimethoate 30 EC dilute with 10 g Jaggery solution at the time of fruit maturity.
Sugarcane	Tillering	Leaf spot	Spray copper oxychloride @ 2.5 g or Mancozeb @ 2 g/ litre of water at 8, 12, 16 and 20 th week after sowing by using 300 litre of solution per acre.
Animals	Protect animals from hot temperature.. 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 .Ensure cleanliness in milching animals having advanced pregnancy to avoid mastitis. Supplemental mineral mixture (30-40 g and salt 20 g per animal) may be given regularly to pregnant / other animals.		

NORTH TRANSITION ZONE, DHARWAD

BELAGAVI/DHARWAD/ HAVERI:

Rabi Sorghum	<ul style="list-style-type: none"> Attend ploughing operation after harvesting and thrashing.
Wheat	<ul style="list-style-type: none"> Attend ploughing operation after harvesting and thrashing.
Bengal gram	<ul style="list-style-type: none"> Attend ploughing after completion of harvesting and thrashing.
Cotton	<ul style="list-style-type: none"> It is suggested not to irrigate the crop where kapas picking is completed to avoid new growth. It is suggested to use the cotton stalks for compost making using cellulose degrading microbial cultures available instead of burning or using as fuel.
Sugarcane	<ul style="list-style-type: none"> 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. Under scarce water situation irrigate the crop in alternate row. Drip irrigation save the water up 40%. During summer months irrigate the crop in alternate rows and put dried leaves of sugarcane as a mulch in un irrigated rows which saves the water. Avoid new plantation in sugarcane from march to june.
Mango	<ul style="list-style-type: none"> In mango fruit drop can be controlled by spraying spraying of NAA (Naphthalene acetic acid) at 20ppm twice at an interval of 15 days. For control of hoppers, spray imidacloprid 200 SL @0.25 ml/litre of water.
Sapota/Chikku	<ul style="list-style-type: none"> Fully matured fruits can be harvested.
Chilli/Tomato Brinjal	<i>Pest and Diseases management in Tomato</i>

	<ul style="list-style-type: none"> • If the Crop is at fruit initiation to fruit development stage. • Tomato If fruit borer is noticed- spray Thiodicarb 1gm 75WP per litre of water. • For control of Powdery mildew in Tomato Spray 3 g water soluble Sulphur per litre of water. • Growing of one line Radish in every two lines of Tomato Reduces the fruit rot in tomato. • looking to the weather and soil type irrigate the crop once in 15 days black soil and 8-10days in red soils. • Harvest the matured fruits in chilli, sundry and store. • To manage leaf curl disease in tomato take up spraying of 1 ml Acetamaprid dissolved in liter of water.
Animals	<ul style="list-style-type: none"> • For milch animals regularly follow schedule of 1 kg feed + 50 g mineral mixture per 2 litre of milk yield. Feed animals with a mixture of green grass + hay + minerals + dry feed like khichri. • Proper ventilation should be maintained for free circulation of air in the sheds. • Maintain optimum moisture of 60 to 70 per cent in vermin compost pits and drain out the excess water from the vermipits. • It is advisable to leave the animals in ponds during afternoon hours or sprinkle the cool water 2-3 times a day on the body of the animal to overcome the heat. • Apply 4-6 inch thick hay thatch as a roofing material. Water can be used for spraying the floor and roof of shelter periodically during peak hot hours which lowers the temperature and consequently reduces the heat load on animals

HILL ZONE, SIRSI

UTTARA KANNADA:

Paddy

- 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

- It is at fruiting stage.
- For control of powdery mildew spray Carbendazim @1 gm / lit of water or Hexaconazole @1g / lit of water.
- For control of Hoppers spray Melathion @ 2ml / lit of water or Monocrotophos @ 1.25ml / lit of water.

Arecanut

- 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

Veterinary

- Animals to be screened for nasal discharge, wound and injuries regularly and the services of veterinary doctor be taken for treatment
- Animals to be dewormed with suitable anti-helmentic drug and be checked and treated for ecto-parasites, if any

COASTAL ZONE, BRAMHAVAR

UDUPI/DAKSHINA KANNADA :

Crop	Congenial Atmosphere	Operations/ Agro advisories
Ground nut (Harvest)	Cloudy weather	• After 15-20 days harvesting of ground nut will be carried out. Avoid excess moisture during these days or harvesting time.
mango (Leaf hopper)	Cloudy weather followed by raise in temperature	• Leaf hopper suck the sap from leaf and flower. 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.

<p>brinjal (Shoot and fruit borer)</p>		<ul style="list-style-type: none"> • Installation of Pheromone traps 12 per hectare. • Spraying a chemical like spinosad 0.25ml/liter.
<p>Coconut (white Fly)</p>		<ul style="list-style-type: none"> • For small trees spray with neem oil @ 3ml/liter • For fly free we need to keep spray paras prid will control the gost.
<p>Coconut: (Rhinoceros beetle/Red Palm weevil)</p>	<p>At all weather condition</p>	<ul style="list-style-type: none"> • Treat the affected plants with Carbaryl solution at 4 g/ltr to bored holes and later fill with mud. OR • Treat the affected plants with one aluminum phosphate into the bored holes and latter fill with mud. • 4-5 Pheromone traps are kept around the farm.
<p>Coconut (budrot)</p>		<ul style="list-style-type: none"> • 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 • from rainfall.