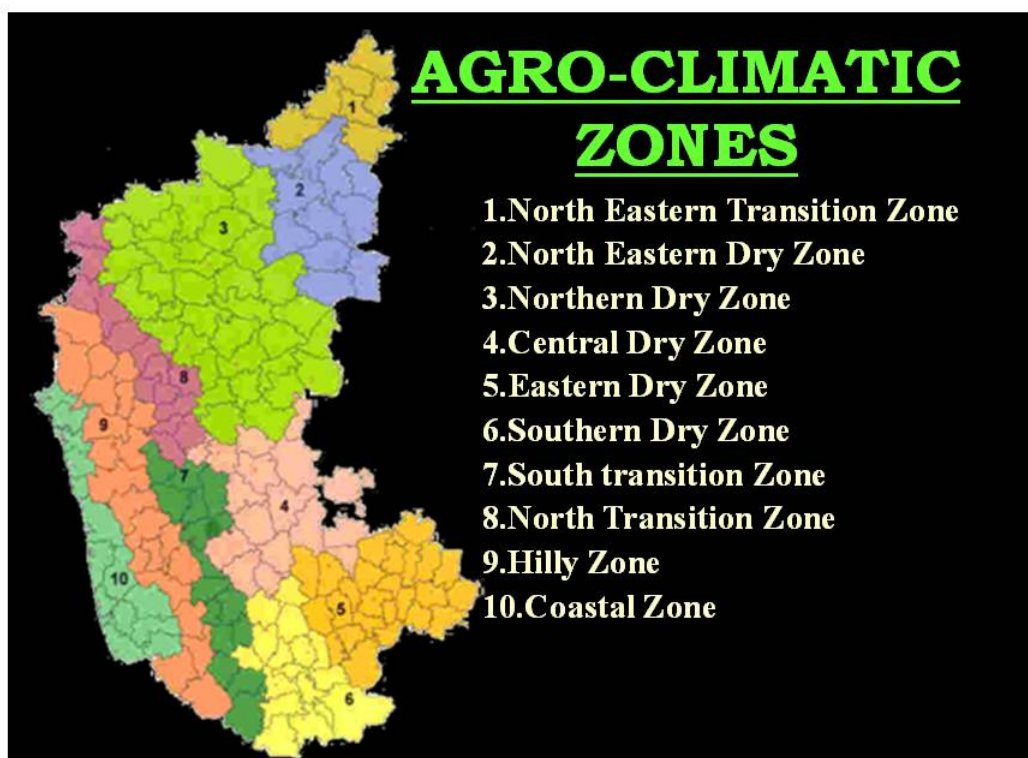


**COMPOSITE BULLETIN OF AGROMETEOROLOGICAL ADVISORY
KARNATAKA STATE**

**ISSUED BY METEOROLOGICAL CENTRE, BENGALURU (IMD)
IN COLLABORATION WITH
STATE AGRICULTURE DEPARTMENT &
AGRICULTURAL UNIVERSITIES OF KARNATAKA
FOR THE PERIOD 20th TO 24nd OCTOBER 2017
ISSUED ON THURSDAY, THE 19th OCTOBER 2017**

AGROCLIMATIC ZONES OF THE STATE



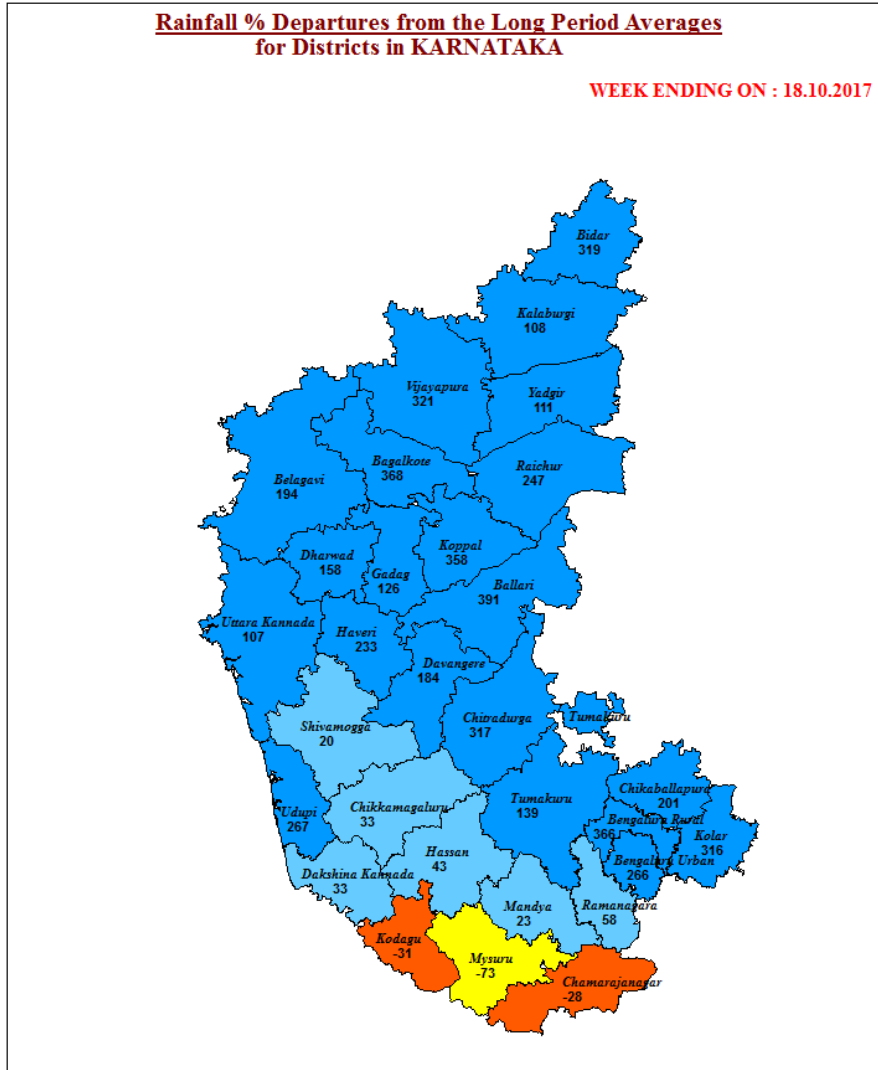
SL.NO.	AGROCLIMATIC ZONE	DISTRICTS	AGROMET FIELD UNIT (AMFU) LOCATION
1.	North East Transition Zone	Bidar	Bidar
2.	Northeastern Dry Zone	Kalaburgi, Raichur, Ballari, Yadgiri, Koppal	Raichur
3	Northern Dry Zone	Vijayapura, Gadag, Bagalkot	Vijayapur
4.	Central Dry Zone	Tumkuru, Chitradurga, Davangere	Hiriyur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

WEEKLY RAINFALL STATISTICS

INDIA METEOROLOGICAL DEPARTMENT MC BANGALORE

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

WEEK ENDING ON : 18.10.2017



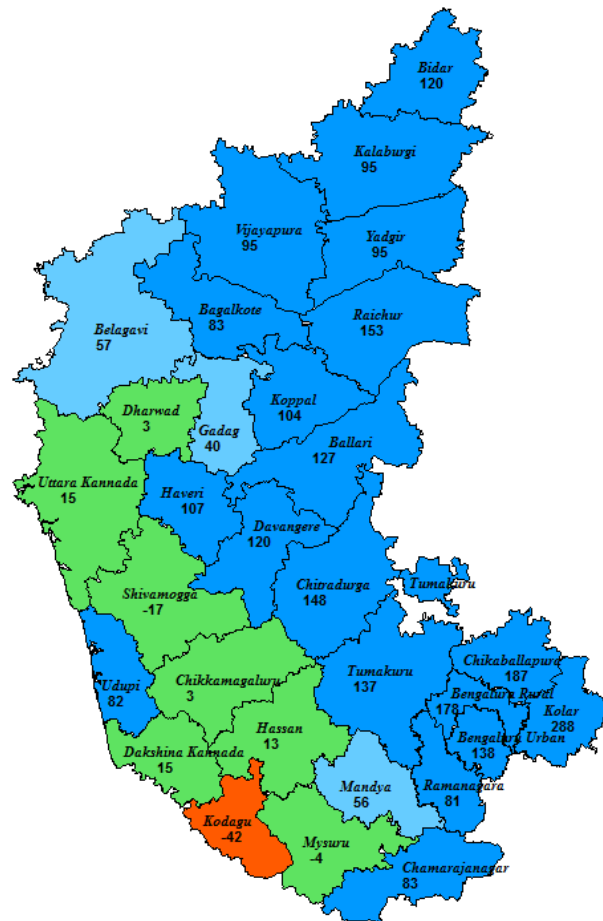
LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN [-100%] ■ NO DATA

Seasonal Rainfall Statistics

INDIA METEOROLOGICAL DEPARTMENT MC BANGALORE

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

PERIOD : 01.10.2017 - 18.10.2017



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 2 days over the State

On 18th October, **Southwest monsoon has been weak over the State.**

Rainfall occurred at isolated places over Interior Karnataka. Dry weather prevailed over Coastal Karnataka.

There was no large change in **Maximum** temperatures and were normal over the State. There was no large change in **Minimum** temperatures and were normal over the State.

On 19th October, **Southwest monsoon has been weak over the State.**

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

There was no large change in **Maximum** temperatures and were normal over the State. **Minimum** temperatures fell appreciably at many places over North Interior Karnataka and there was no large change over Coastal Karnataka & South Interior Karnataka. They were above normal at a few places over Coastal Karnataka and were normal over Interior Karnataka.

Highest Maximum Temperature: Kalaburgi has recorded **33.8 deg C on 18.10.2017**; karwar has recorded **33.8 deg C on 19.10.2017.**

Lowest Minimum Temperature: Belgavi Airport has recorded of **16.3 deg C on 15.10.2017.**

State Rainfall forecast:

Day 1 valid until 0830 hrs IST of October 20th :

Rain/thundershowers likely to occur at one or two places over Coastal Karnataka & South Interior Karnataka, **Dry weather would prevail over North Interior Karnataka..**

Day 2 valid until 0830 hrs IST of October 21th:

Rain/thundershowers likely to occur at one or two places over Coastal Karnataka & South Interior Karnataka, **Dry weather would prevail over North Interior Karnataka.**

Day 3 valid until 0830 hrs IST of October 22nd:

Rain/thundershowers likely to occur at one or two places over the state.

Day 4 valid until 0830 hrs IST of October 23rd:

Rain/thundershowers likely to occur at a few places over North Interior Karnataka, at one or two places over Coastal Karnataka & South Interior Karnataka.

Day 5 valid until 0830 hrs IST of October 24th:

Rain/thundershowers likely to occur at a few places over Interior Karnataka, at one or two places over Coastal Karnataka.

Heavy rainfall Warning:

Day 1 valid until 0830 hrs IST of October 20th : NIL.

Day 2 valid until 0830 hrs IST of October 21st : NIL

Day 3 valid until 0830 hrs IST of October 22nd : NIL.

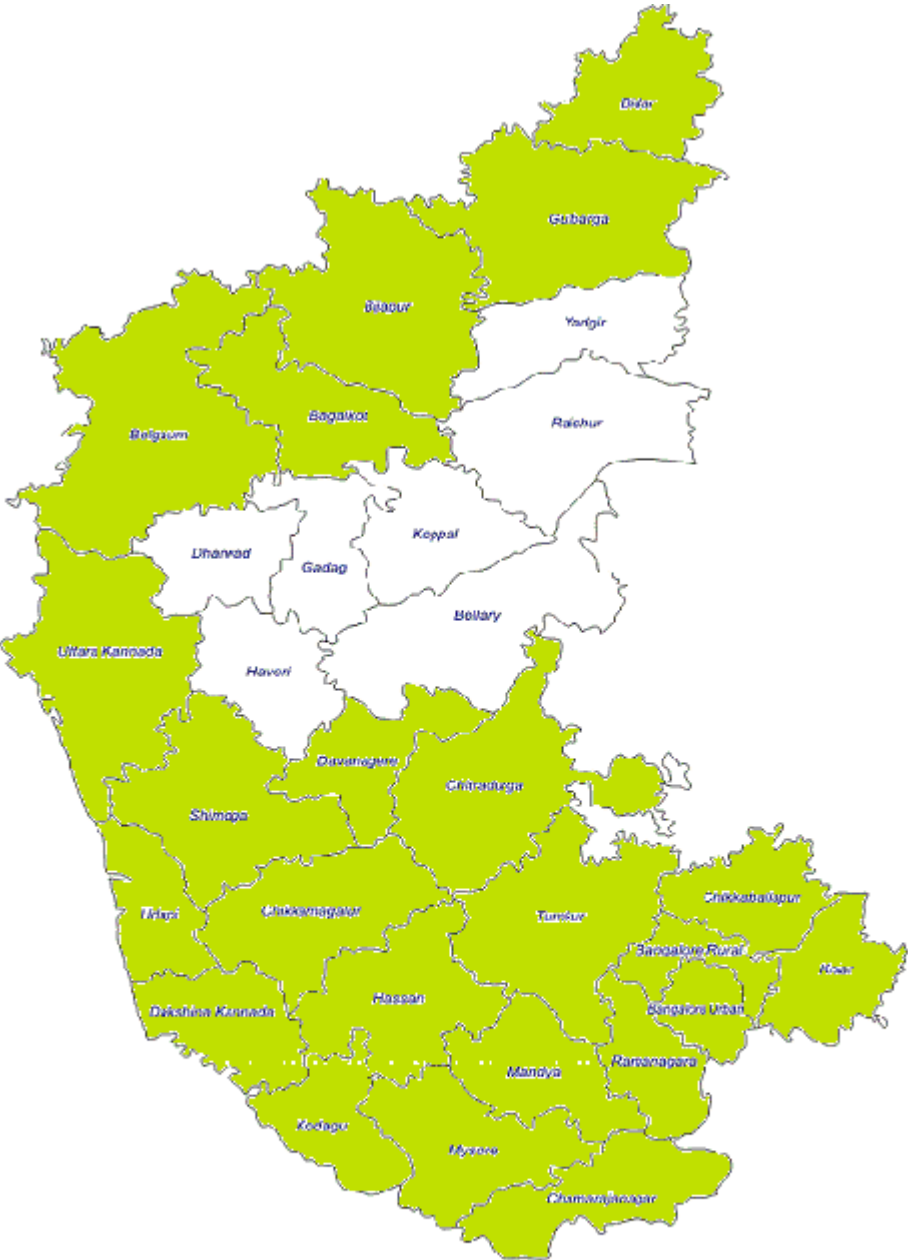
Day 4 valid until 0830 hrs IST of October 23rd : NIL

Day 5 valid until 0830 hrs IST of October 24th : NIL








Outlook: No large change is expected over the State.

Rainfall forecast for the next 5 days:

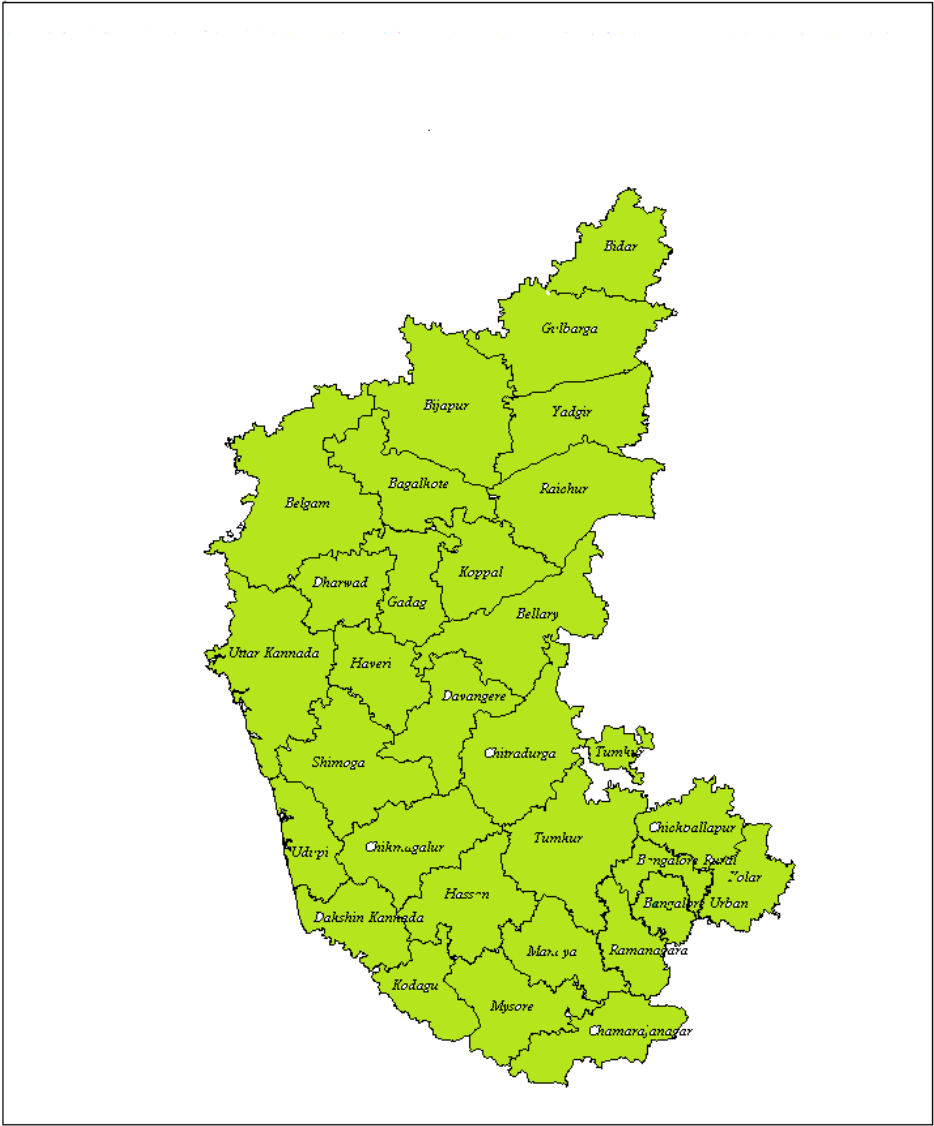
20-10-2017 - 21-10-2017:







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				

22-10-2017 to 24-10-2017:



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				

PART II

AGRICULTURAL ADVISORIES

ADVISORIES

NORTH EAST TRANSITION ZONE, BIDAR

BIDAR:

Main crops	Stage	Agricultural Advisories
General		Initiation of Second spray i.e by using Neem based Insecticide by dissolving 2ml in one liter of water to protect the tur crop from pod borer menace.
Sorghum	sowing	Seed Hardening: To overcome drought and uniform germination of sorghum required quantity of seeds for one acre(3kg) dissolved in 30 grams of calcium chloride in 1.5 liters of water for 30 minutes followed by shade drying then starts sowing. To protect the crop from smut disease seed treatment is done using 5 grams of sulphur per kg of seeds.
Blackgram and Green gram	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.
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 chloropyrifos40mlplus 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
Pigeon pea	Flowering	In order to protect the Tur crop from flower drop or pod drop, 20 ppm of Napthalene Acetic Acid (2ml NAA dissolved in 100 liters of water) and then spray 3 times at an interval of 15 days each.
Chickpea	sowing	Seed Hardening: In order to overcome the drought and also to get uniform germination,required quantity of seeds for one acre are dissolved in 2% calcium chloride solution for 30 minutes. Shade dried and then sow it. seed Treatment Required quantity of seeds for one acre are treated with Rhizobium (500gm)+PSB(500gm) by doing so their will be a reduction in the application of urea by 50%.
Animal Husbandry		For effective management of livestock ectoparasites, application of Flumethrin 1% is recommended

NORTHEASTERN DRY ZONE, RAICHUR

KALABURGI/ YADGIRI/ RAICHUR/KOPPAL/ BALLARI :

Crops	Stage	Agricultural Advisories
Sunflower / Maize	Sowing	This is the right time to take up sowing of Sunflower / Maize
Rabi sorghum	Sowing	Before sowing, soak one kg seeds of sorghum in 30g Calcium Chloride solution in 1.5 litres of water for 8 hours, and then shade-dry. This will induce drought resistance
Bengal gram	Sowing	Before sowing treat the seeds of Bengalgram with Rhizobium biofertiliser (500 grams for the seeds required for one acre).
Cotton	Flowering	To manage reddening of leaves take up spraying of 19:19:19 and MgSo4 both 10g dissolved in one liter of water
Paddy	Vegetative	Brown plant hopper is noticed in paddy crop. To control this pest, spray the crop with 2.0 ml Chloropyrifos or 1.5 ml Monocrotophos dissolved in one liter of water
Redgram	Vegetative	Take up spraying of 19:19:19 dissolved in one liter of water to grow profusely

NORTHERN DRY ZONE, VIJAYAPURA

VIJAYAPURA/ BAGALKOTE:

Field Crops:

HORTICULTURAL CROPS :

GADAG :

CENTRAL DRY ZONE, HIRIYUR

CHITRADURGA /TUMKURU/DAVANAGERE:

EASTERN DRY ZONE, BENGALURU

**BENGALURU URBAN/ BENGALURU RURAL/RAMANAGARA/CHIKBALLAPURA
KOLAR:**

SOUTHERN DRY ZONE, NAGANAHALLI

MYSURU/ CHAMARAJNAGARA/ MANDYA/ KODAGU:

Crop / Animals	Stage/ Condition	Pest and Disease	Agro advisories
Paddy and Ragi	Nursery	Blast	Due to cloudy weather there will be a chance of blast infection in paddy and Ragi nursery. To manage the blast infection in nursery, spraying of Bevistin (1gm/lt) or Saaf(2gm/ltr) Or Tricyclozol @0.6 gm/litre of water is to be followed. If the paddy nursery is infected by blast the farmers should not take up applying Urea as top dress.
Paddy		Leaf roller	To manage this pest by spraying of Chloropyriphos 20EC @ 2ml/lts of water.
Ginger		Rhizome rot.	To manage this disease by spraying of 1 per cent Bordeaux mixture or indofil-m-45 @ 3gm/lt.of.water.
Farmers can take up Ragi, Maize, Fodder Maize, Minormilletts or Vegetables like Tomoto, Brinjal, Chilli and other Horticulture crops			

SOUTHERN TRANSITION ZONE, NAVILE, SHIVAMOGGA

SHIVAMOGGA / HASSAN / CHIKKAMAGALURU:

Crops/ Components	Stage / Condition	Pest and Disease	Agro advisories
Paddy	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
		Brown leaf spot	Spray Mancozeb 2 g/litre or Carbondizim 1g/lit
Maize	Maturity stage	Cob borer	Spray 4 g Carbaryl 4 G or dusting of Melathion at 5% on cobs
Redgram	Branching stage	Sterility mosaic virus	Uproot the infected plants and burn Spray Dicofol 20 EC @ 2.5 ml/litre or Prophenophos 0.4 ml/litre at 30 to 45 days interval.
		Wilt	Uproot and burn the infected plant
Groundnut	Maturity/harvesting stage	Tikka disease	Recommended to spray Corbondizim or capton @1 g/lit
		Rust	Spray Mancozeb @2.5 g/litre water at three different intervals after sowing
		-	Go for harvesting of matured crop
Ragi	Ear head initiation stage	Blast	Spray Mancozeb @ of 2 g/lit or Carbendizim @ 1 g/lit or Jineb 2.5 g/lit
		Brown leaf spot	Spray Mancozeb @2 g or Carbendizim @ 2 g/litre of water.
		Stem borer	Spray Chloropyriphos 20 EC 2 ml/lit.
Areca nut	Maturity /harvesting stage	Leaf spot	Spray Mancozeb @ of 2 g/lit or copper oxychloride at 3g/lit
		Yellow leaf disease	Physical condition of the soil should be improved by deep digging and adding sand/organic matter. In heavy sticky soils, gypsum @ 500 kg / ha may not be incorporated, once in two years prior to normal fertilizer application. Adequate drainage should be provided, especially during monsoon season. Phyto-sanitary and plan-protection measures should be adopted to control Anabe, bud rot, spindle bud and mite infestation. Sun-scorching of the stem should be avoided by covering with arecanut leaves or painting with lime slurry. Application of NPK fertilizers as per schedule along with lime and zinc @ 8.5 g each per palm.
		Stem bleeding	Improving the drainage may help in minimizing its incidence. Scooping out the affected portions and application of coal tar or Bordeaux paste @ 1% is effective to reduce the incidence.
		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 Hexaconozole (Contof) solution @ 1 ml/lit.
		Hidimundige disease	Spray 225 gm/palm equal proportion of copper sulphate + lime twice in a year.

		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
		Bud rot	For infected plant use 10 Bordeaux paste @ or 3 percent copper oxychloride after cleaning of infected part by using clean water.
		Nut drop/splitting	Application of borax (2 g/litre of water) during early stages of the disease reduces splitting. Improve drainage in ill drained gardens
		Koleroga	Spray 1% Bordeaux mixture or 3 g copper oxychloride or Metalaxyl + Mancozeb 72 WP 2 g per liter water
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
Ginger/ Turmeric	Development stage	Leaf spot	Spray 3 g copper oxychloride 50 WP/liter or 1% Bordeaux mixture
		Rhizome Rot	Provide proper drainage to remove excess water from the field. Go for drenching of 3 g copper oxychloride 50 WP/liter for the infected rhizomes.
		Anthraxnose in turmeric	Spray 2% Mancozeb or 0.1% Carbendizim/ liter of water
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
		Panama wilt	Drenching of Carbendizim 0.2% or Propiconazole 0.5 ml/ litre once in a month.
Sugarcane	Maturity stage	Soot borer	Spray Chloropyriphos 20 EC @ 2 ml/litre. By using 300 litre of solution per acre.
		Wooly aphids	Go for spraying of Chloropyriphos 20 E C @ 2 ml or Thimethiote 30 EC @ 1.7 ml per litre of water

NORTH TRANSITION ZONE, DHARWAD

BELAGAVI/ DHARWAD:

Rabi Sorghum	<ul style="list-style-type: none"> For control of Shoot fly in Sorghum Spray 0.2 gram Epidamaprid 20 SP or 0.5 ml Cypermethrin 10 EC per litre of water at 12-14 days after sowing.
Wheat	<ul style="list-style-type: none"> Fertilizer for Irrigated Condition: 154 Kg Urea, 163 Kg DAP and 83 Kg MOP Kg/ha: apply 50% Urea at the time of sowing and Remaining 50% Urea at 30 Days after sowing. Rainfed Condition: 87 Kg Urea, 54 Kg DAP/ha. Fertilizer should be applied at the time of sowing.
Bengal gram	<ul style="list-style-type: none"> Fertilizer for Irrigated Condition: 12 Kg Urea, 109 Kg DAP /ha.

	<ul style="list-style-type: none"> • Rainfed Condition: 0.5 Kg Urea, 54 Kg DAP/ha. Fertilizer should be applied at the time of sowing for both the conditions.
Groundnut	<ul style="list-style-type: none"> • Control of Spodoptera spray 0.2 gm Imamectine benzoate 5 SG or 2 ml Quinalphos 25 EC per litre of water. Spraying may be taken up in the evening time. • Early sown crop is at harvesting stage attended harvesting if condition is favorable.
Maize	<ul style="list-style-type: none"> • If stem borer was noticed – apply 7.5 kg Lindin 1% Granules or 7.5 kg Carbaryl 4% Granules per hectare in leaf oral. • Topdressing of Nitrogen can be done @ 45, 45 and 15 kg per ha at 35, 50 and 65 days after sowing respectively. • Under dry land situation in sufficient soil moisture condition apply 15 kg Nitrogen per hectare which improves the grain size & grain Weight which improves the yield.
Soybean	<ul style="list-style-type: none"> • Control of Spodoptera in Soybean spray 0.2ml Rinaxifire 20 SL or 0.5 ml Flubendimide 20% WG per litre of water. • Early sown crop is at harvesting stage attend the harvesting, harvested produce should be protected from rain.
Sugarcane	<ul style="list-style-type: none"> • Fertilizer: Nitrogen:250 kg (10% at the time of sowing, 20% at 6th week after planting, 30% at 10th week, remaining 40% at 14th week after planting. • Application of sulphur in the form of Gypsum @ 500 kg /ha to sulphur deficient soils to increase the cane yield and juice quality. • Attend Intercultivation at 50, 65, 80 and 95 Days after planting and urthing up can be done at 120 days after planting.
Chilli/Tomato Brinjol	<p><i>Pest and Diseases management in Tomato</i></p> <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. • Growing of one line Radish in every two lines of Tomato Reduces the fruit rot in tomato. • At flowering stage spray NAA 50ppm @5ml in 100 litre of water to reduce flower dropping. • For control of Shoot & Fruit borer in brinjol Collcet and destroy the damaged tender shoots, Fallen fruits and Spray Carbaryl 50% WP 2glitre + wettable Sulphur 50% WP 2g/litre 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 litres of milk yield. Feed animals with a mixture of green grass + hay + minerals + dry feed like a 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. • Farmers are advised to keep the animal habitation dry to avoid hoof infection & to prevent fly breeding.

Haveri:

Rabi Sorghum	<ul style="list-style-type: none"> • For control of Shoot fly in Sorghum Spray 0.2 gram Epidamaprid 20 SP or 0.5 ml Cypermethrin 10 EC per litre of water at 12-14 days after sowing.
Wheat	<ul style="list-style-type: none"> • Fertilizer for Irrigated Condition: 154 Kg Urea, 163 Kg DAP and 83 Kg MOP Kg/ha: apply 50% Urea at the time of sowing and Remaining 50% Urea at 30 Days after sowing. • Rainfed Condition: 87 Kg Urea, 54 Kg DAP/ha. Fertilizer should be applied at the time of sowing.
Bengal gram	<ul style="list-style-type: none"> • Fertilizer for Irrigated Condition: 12 Kg Urea, 109 Kg DAP /ha. • Rainfed Condition: 0.5 Kg Urea, 54 Kg DAP/ha. Fertilizer should be applied at the time of sowing for both the conditions.
Groundnut	<ul style="list-style-type: none"> • Early sown crop is at harvesting stage attended harvesting if condition is favorable.

	<ul style="list-style-type: none"> Control of Spodoptera spray 0.2 gm Imamectine benzoate 5 SG or 2 ml Quinalphos 25 EC per litre of water. Spraying may be taken up in the evening time.
Maize	<ul style="list-style-type: none"> If stem borer was noticed – apply 7.5 kg Lindin 1% Granules or 7.5 kg Carbaryl 4% Granules per hectare in leaf oral. under irrigated condition Topdressing of Nitrogen can be done @ 45, 45 and 15 kg per ha at 35, 50 and 65 days after sowing respectively. Under dray land situation in sufficient soil moisture condition apply 15 kg Nitrogen per hectare which improves the grain size & grain Weight which improves the yield.
Soybean	<ul style="list-style-type: none"> Control of Spodoptera in Soybean spray 0.2ml Rinaxifire 20 SL or 0.5 ml Flubendimide 20% WG per litre of water. Early sown crop is at harvesting stage attend the harvesting, harvested produce should be protected from rain.
Cotton	<ul style="list-style-type: none"> If, Jassids /Thrips /Aphids were noticed – Spray 0.5 ml Imidacloprid 17.8SL or 1.5 ml Oxydemton methyl 25EC or 0.2 g Acetamiprid 20SP or Thiomethoxam 25 WG @ 0.2 g/lit per liter of water.
Sugarcane	<ul style="list-style-type: none"> Apply 25 tons of FYM/2.5 tons of Vermi compost 2-3 weeks before planting. Fertilizer: Nitrogen:250 kg (10% at the time of sowing, 20% at 6th week after planting, 30% at 10th week, remaining 40% at 14th week after planting. Application of sulphur in the form of Gypsum @ 500 kg /ha to sulphur deficient soils to increase the cane yield and juice quality. Attend Intercultivation at 50, 65, 80 and 95 Days after planting and urthing up can be done at 120 days after planting.
Chilli/Tomato Brinjol	<p><i>Pest and Diseases management in Tomato</i></p> <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. Growing of one line Radish in every two lines of Tomato Reduces the fruit rot in tomato. At flowering stage spray NAA 50ppm @5ml in 100 litre of water to reduce flower dropping. For control of Shoot & Fruit borer in brinjol Collcet and destroy the damaged tender shoots, Fallen fruits and Spray Carbaryl 50% WP 2glitre + wetttable Sulphur 50% WP 2g/litre 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 litres of milk yield. Feed animals with a mixture of green grass + hay + minerals + dry feed like a 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. Farmers are advised to keep the animal habitation dry to avoid hoof infection & to prevent fly breeding.

HILL ZONE, SIRSI

UTTARA KANNADA:

Paddy

- This is the right time for giving second top dressing to paddy crop , which is 50-55 days old. Apply 18.75 kg nitrogen per hectare of paddy as a second top dressing. Before top dressing with fertilizers, drain the water from fields, apply fertilizer preferably during evening hours and later impound the water 24 hours after application.
- Under late planted situation farmers are found using aged seedlings. Under such circumstances, farmers are advised to use 4-6 seedlings per hill while planting instead of 2-3 seedlings per hill.
- For control of blast in paddy spray Carbendazim or Kitagin @ 1 g/litre of water or Beam @ 0.6 g/litre
- For control of leaf cutter spray chloropyriphos @2 ml per litre of water.
- For control of brown plant hopper spray 2g carbaryl or 1.25 ml of monocrotophos per lit of water and spray should at the bottom of the plant. If it is not possible apply phorate granules @5kg / acre
- Farmers are advised to plug the holes made by the crabs to store the water in the paddy field as for as possible.

Cotton

- Cotton crop is from square to flowering formation stage.
- Right time for hand weeding.
- Apply the remaining N & K as top dressing i.e. 25% N & K (50 kg Urea and 25 kg of MOP)
- **To reduce the square/flower bud/flower drop – spray Planofix (0.25 ml/lit)**
- Foliar spray of 19 all (19:19:19) water soluble fertilizer at the rate of 5 gm/lit of water
- White fly, Jassids and Aphids is there then go for spraying of 0.5 ml Imidacloprid 178 SL or 1.5 ml Oxydemeton Methyl per litre of water.

Arecanut

- For the control of Koleroga in Arecanut, spray 1% Bordeaux mixture solution.
- 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.

Ginger and Turmeric

- For the control of tube rot in ginger and turmeric, treat the tubers with 3 gm Copper Oxychloride per litre of water and remove excess water from the field.
- The stem borer is likely to attack the **Ginger, Turmeric** and **Cardomom**. For the control of this insect, spray 1.2 ml Monocrotophos or 2 ml Chloropyriphos per litre of water.

Pinapple

- For the control of tube rot in pineapple, treat the tubers with 3 gm Copper Oxychloride per litre of water and then take up the planting.

Pepper

- As a precautionary measure, for the control of Katta Roga in Black pepper spray 1% Bordeaux mixture solution and pour 5 liters of 0.2 % Copper Oxychloride solution to the root of the vine in the soil.

the soil.

Cocoa

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

Cardamum

- For control of Leaf spot and rot, spray with 1% Bordeaux mixture or 3 gm copper oxy chloride per lit of water.

UDUPI/DAKSHINA KANNADA :