

Manipur Centre, Lamphelpat, Imphal - 795 004

#### "Gramin Krishi Mausam Seva"



### **MANIPUR BULLETIN**

27<sup>th</sup> July, 2018

## **Imphal West**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

# Weather forecast for next five days of Imphal West (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 30-32°C & minimum temp. 22-23 °C. Relative humidity may reach upto 100 % (max RH) & 99 % (min RH). The average wind speed may be 0-2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ha.</li> </ul>
Kharif Maize	Silking to cob formation		<ul> <li>Maintain proper drainage system to avoid water logging due to heavy rains.</li> <li>After rains weeding to control insect pest population in the crop fields.</li> </ul>
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.  For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops	_		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
	crop		- Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus		Consider	- Prune the disease infected twigs and burn them outside the farm area Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.



Manipur Centre, Lamphelpat, Imphal - 795 004





Banana	N	New Plantation			- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.  Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.		
	C	Old Plantation	n		<ul> <li>Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required.</li> <li>Care must be taken to avoid wilting disease in banana grown in same pit in</li> </ul>		
Turmeric		Rhizome ormation	Leaf Sp	ot and leaf	<ul> <li>poor drained area for more than 5-6 years.</li> <li>For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.</li> </ul>		
Animal Science		ormation	oroten		propriyatede measures against Zear Spot and rear electric		
		ater for bird	s and animals. D	rainage may	be constructed well around the birds or animals sheds to avoid water logging.		
Name of bird/ animal		tage	Diseas Manag	e and	Agro-meteorological advisories		
Poultry	All age g	groups	Fungal Tox		Avoid consumption of feed with fungal growth.		
(Chicken/ Duck)			Deworming	,	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.		
			Managemen	nt	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.		
Sheep/ Goat	All age	groups	Vaccination	l	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.		
			Fascioliosis		• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.		
			Management		• Protect from thunder showers. Protect from after winds (loo).		
Pig	All age g	groups he young	De-worming		• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.		
	ones		<ul> <li>Vaccination</li> </ul>		Vaccinate against FMD.		
			Management		Protect from thunder showers especially during night.		
Cattle	Cattle All age groups excepts the young ones		Vaccination		<ul> <li>Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>		
			Deworming		• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.		
			Care & Management		Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.		
			Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.		
Fishery							
					oid escape of fishes.		
Type of Farming		age	Management		trological advisories		
Carp culture	Nurseries out	s/ grow-	Pond and water	Apply Linclean with	minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. me/ Green AQ for maintaining good quality water. Make culture water fresh and h high oxygen content.		
			Feed		Provide feed 2-3 times @ 5-10% body weight per day.  Provide good feed having 30% crude protein fortified with vitamins and mineral.		
			Fish	For semi-	intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. g ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% eder. Sampling of fish for growth, disease should be done regularly by netting.		
	Brooder		Pond water and feed	Maintain	minimum depth of 2.0-2.2 m. Maintain good quality water. eed @ 3-5 % body weight per day.		
	Breeding		Hormone	Fish horn	nones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5		

ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ngakra.



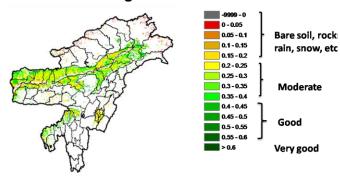
Manipur Centre, Lamphelpat, Imphal - 795 004

## "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004

#### "Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

27th July, 2018

## **Senapati**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4**  $^{\circ}$ C and minimum of **22.0** to **22.1**  $^{\circ}$ C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

# Weather forecast for next five days of Senapati (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 29-30°C & minimum temp. 22-23 °C. Relative humidity may reach upto 100 % (max RH) & 95 % (min RH). The average wind speed may be 2-3 km/hr.

Stage	Pest and disease	Agro-meteorological advisories
Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.</li> </ul>
Silking to cob formation		- Maintain proper drainage system to avoid water logging due to heavy rains After rains weeding to control insect pest population in the crop fields.
Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
_		
Stage	Pest and disease	Agro-meteorological advisories
of early crop and nursery of main	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
		- Raise main crop cauliflower nursery.
Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
blight		- Prune the disease infected twigs and burn them outside the farm area.
	Silking to cob formation Flowering  Vegetative to Flowering  Post-harvest management  Stage  Vegetative stage of early crop and nursery of main crop  Transplanting/ Fertilizer	Transplanting to tillering (Kharif rice)  Silking to cob formation  Flowering  Vegetative to Flowering  Post-harvest management  Stage  Vegetative stage of early crop and nursery of main crop  Transplanting/ Fertilizer application  Pest and disease Plutella Diamond black moth







Banana	nana New Plantation			- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.  Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one		
Old Plantation		Plantation	on I		sucker (with broad base & narrow leaves) per pit.  - Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required.  - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.	
Turmeric		zome nation	Leaf Spot blotch	t and leaf	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.	
Animal Science						
					pe constructed well around the birds or animals sheds to avoid water logging.	
Name of bird/	Stag	ge	Disease		Agro-meteorological advisories	
animal	4.11		Manager			
Poultry	All age gro	_	Fungal Toxir	1	Avoid consumption of feed with fungal growth.	
(Chicken/ Duck)		•	Deworming		Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.	
			Management		• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.	
Sheep/ Goat	All age gro	oups •	Vaccination		• If the animals have not been vaccinated against F.M.D., B.Q., H.S.,	
					Enterotoxaemia, etc. do it in this month.	
		•	Fascioliosis		• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.	
		•	Management		• Protect from thunder showers. Protect from after winds (loo).	
Pig	All age gro		De-worming		Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
	ones	•	Vaccination		Vaccinate against FMD.	
		•	Management		Protect from thunder showers especially during night.	
Cattle	All age gro		Vaccination	·	Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.	
	excepts the				• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.	
		•	Deworming		De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.	
		•	Care & Mana	agement	Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.	
		•	Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.	
Fishery	II.	1				
	l with hanna	net or raise th	e pond dvke i	height to ava	oid escape of fishes.	
Type of Farming	Stage	e Ma	nagement	Agro-met	trological advisories	
Carp culture	Nurseries/ g out	grow- Pond	l and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5.  Apply Lime/ Green AQ for maintaining good quality water. Make culture clean with high oxygen content.		
		Feed		Provide feed 2-3 times @ 5-10% body weight per day.  Provide good feed having 30% crude protein fortified with vitamins and mineral.		
		Fish		For semi-i	intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. g ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% eder. Sampling of fish for growth, disease should be done regularly by netting.	
	Brooder	Pond feed	l water and	Maintain	minimum depth of 2.0-2.2 m. Maintain good quality water. eed @ 3-5 % body weight per day.	
	Breeding	Hori	none	Fish horm	nones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.	



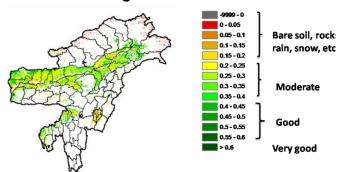
Manipur Centre, Lamphelpat, Imphal - 795 004

#### "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004

#### "Gramin Krishi Mausam Seva"



## **MANIPUR BULLETIN**

27<sup>th</sup> July, 2018

## **Tamenglong**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

Weather forecast for next five days of Tamenglong (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 29-30°C & minimum temp. 22-23 °C. Relative humidity may reach upto 100 % (max RH) & 88 % (min RH). The average wind speed may be 2-3 km/hr.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.</li> </ul>
Kharif Maize	Silking to cob formation		- Maintain proper drainage system to avoid water logging due to heavy rains After rains weeding to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.      Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus	_	Greening	<ul> <li>Prune the disease infected twigs and burn them outside the farm area.</li> <li>Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> <li>Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.</li> </ul>







Banana	New Plantation  Old Plantation			<ul> <li>Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required.</li> <li>Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.</li> </ul>	
Turmeric		Rhizome formation	Leaf Spo	ot and leaf	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.
Animal Science	ces				
* Provide clean	drinking v	vater for bird	ds and animals. Di	rainage may l	be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/ animal		Stage	Disease Manage		Agro-meteorological advisories
Poultry	All age	groups	• Fungal Toxi	n	Avoid consumption of feed with fungal growth.
(Chicken/ Duck)			Deworming		• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
			Managemen	t	Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
Sheep/ Goat	All age	groups	Vaccination		• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
			Fascioliosis		Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
			Management		Protect from thunder showers. Protect from after winds (loo).
Pig	All age except t	groups the young	De-worming	7	Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones	, ,	Vaccination		Vaccinate against FMD.
			Management		Protect from thunder showers especially during night.
Cattle	All age excepts ones	groups the young	Vaccination		<ul> <li>Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>
			Deworming		• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			Care & Management		Mixture of mineral/salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
			Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.
Fishery					
* Encircle pond					oid escape of fishes.
Type of Farming	St	age	Management	Agro-met	trological advisories
Carp culture	Nurserie out	es/ grow-	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 - 7.5.  Apply Lime/ Green AQ for maintaining good quality water. Make culture water free clean with high oxygen content.	
			Feed	Provide fe	eed 2-3 times @ 5-10% body weight per day. ood feed having 30% crude protein fortified with vitamins and mineral.
			Fish	For semi-	intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. g ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% eder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder		Pond water and feed	Maintain	minimum depth of 2.0-2.2 m. Maintain good quality water.  seed @ 3-5 % body weight per day.
	Breeding	g	Hormone	Fish horm	nones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.



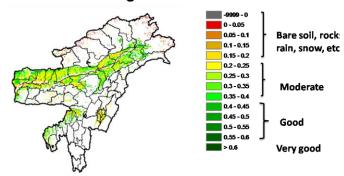
Manipur Centre, Lamphelpat, Imphal - 795 004

## "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004

## "Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

27<sup>th</sup> July, 2018

## **Thoubal**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

Weather forecast for next five days of Thoubal (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 30-32°C & minimum temp. 22-24 °C. Relative humidity may reach upto 100 % (max RH) & 98 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.</li> </ul>
Kharif Maize	Silking to cob formation		<ul> <li>Maintain proper drainage system to avoid water logging due to heavy rains.</li> <li>After rains weeding to control insect pest population in the crop fields.</li> </ul>
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.  For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.      Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus		Greening	<ul> <li>- Prune the disease infected twigs and burn them outside the farm area.</li> <li>- Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> <li>- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.</li> </ul>



Manipur Centre, Lamphelpat, Imphal - 795 004





Banana	nana New Plantat				- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.  Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one	
					sucker (with broad base & narrow leaves) per pit.	
	Old	Plantation			- Desuckering and removal of dried leaves and trashes and maintaining 3 plants	
	o i a	1 Iuiiuiioii			per pit is required.	
					- Care must be taken to avoid wilting disease in banana grown in same pit in	
					poor drained area for more than 5-6 years.	
Turmeric	Rhia	zome	Leaf Spo	t and leaf	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as	
Turmeric		nation	blotch	t and rear	prophylactic measures against Leaf Spot and leaf blotch.	
Animal Science		in i	bloten		prophylactic measures against Dear oper and lear order.	
		n fon hinda o	nd animala Du	oimaga mari l	ha constructed well around the hinds on enimals shade to avoid wester lacking	
Name of bird/					be constructed well around the birds or animals sheds to avoid water logging.	
	Stag	ge	Disease		Agro-meteorological advisories	
animal	A 11		Manager			
Poultry	All age gro	ups	<ul> <li>Fungal Toxii</li> </ul>	n	Avoid consumption of feed with fungal growth.	
(Chicken/ Duck)		,	Deworming		• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.	
		1	Management	t	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.	
Sheep/ Goat	All age gro	ups	Vaccination		• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.	
		Fasciolios		3	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.	
			Management		Protect from thunder showers. Protect from after winds (loo).	
Pig	All age gro	ups	• De-worming		Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
	ones	Vaccination			Vaccinate against FMD.	
	ones	_			-	
			Management		Protect from thunder showers especially during night.	
Cattle	All age gro excepts the ones		Vaccination		<ul> <li>Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>	
	ones		• Deworming		• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-	
					30ml for 100 kg body weight.	
		'	Care & Management     Milk fever		Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.	
		<u> </u>			Give 100-150ml of mixture calcium and phosphorous daily.	
T: 1		I			• Give 100-130iiii of mixture calcium and phosphorous daily.	
Fishery						
					oid escape of fishes.	
Type of Farming	Stage		<b>Management</b>		trological advisories	
Carp culture	Nurseries/ g out	row- Po	and water	Apply Lir	minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. me/ Green AQ for maintaining good quality water. Make culture water fresh and n high oxygen content.	
		Fe	ed	Provide feed 2-3 times @ 5-10% body weight per day.  Provide good feed having 30% crude protein fortified with vitamins and mineral.		
		Fis	sh	For semi-	intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. g ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% eder. Sampling of fish for growth, disease should be done regularly by netting.	
	Brooder	_	ond water and	Maintain	minimum depth of 2.0-2.2 m. Maintain good quality water.	
	Breeding Hormone Fish ho			Fish horm	nones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5	

ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.



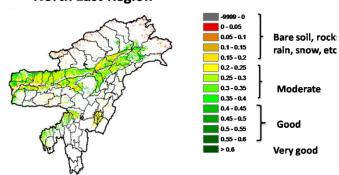
Manipur Centre, Lamphelpat, Imphal - 795 004

### "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004

#### "Gramin Krishi Mausam Seva"



### **MANIPUR BULLETIN**

27<sup>th</sup> July, 2018

## **Ukhrul**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

# Weather forecast for next five days of Ukhrul (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 29-30°C & minimum temp. 22-23 °C. Relative humidity may reach upto 100 % (max RH) & 98 % (min RH). The average wind speed may be 2-3 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ha.</li> </ul>
Kharif Maize	Silking to cob formation		<ul> <li>Maintain proper drainage system to avoid water logging due to heavy rains.</li> <li>After rains weeding to control insect pest population in the crop fields.</li> </ul>
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops	_		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
	crop		- Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus		Consider	- Prune the disease infected twigs and burn them outside the farm area Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.







Banana	New Plant	ation		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a		
				spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for		
				dwarf varieties.		
				Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one		
	OLLDI			sucker (with broad base & narrow leaves) per pit.		
	Old Planta	tion		- Desuckering and removal of dried leaves and trashes and maintaining 3 plants		
				per pit is required Care must be taken to avoid wilting disease in banana grown in same pit in		
				poor drained area for more than 5-6 years.		
Turmeric	Rhizome	Leaf Spo		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as		
Turmerie	formation	blotch		prophylactic measures against Leaf Spot and leaf blotch.		
Animal Scienc	es	1	1			
* Provide clean	drinking water for b	irds and animals. Dr	ainage may be	constructed well around the birds or animals sheds to avoid water logging.		
Name of bird/	Stage	Disease		Agro-meteorological advisories		
animal	J	Manage	ment			
Poultry	All age groups	Fungal Toxii	1	<ul> <li>Avoid consumption of feed with fungal growth.</li> </ul>		
(Chicken/ Duck)		Deworming		• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.		
		Management		Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.		
Sheep/ Goat	All age groups	Vaccination		• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.		
		• Fascioliosis		Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.		
		Management		• Protect from thunder showers. Protect from after winds (loo).		
Pig	All age groups	De-worming		• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per		
0	except the young			adult animal once.		
	ones	Vaccination		Vaccinate against FMD.		
		Management		Protect from thunder showers especially during night.		
Cattle	All age groups	Vaccination		Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.		
	excepts the young			<ul> <li>Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>		
		Deworming		• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.		
		Care & Management		• Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick		
		3.5		control measures.		
771.7		Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.		
Fishery						
		raise the pond dyke				
Type of Farming	Stage	Management	J	ological advisories		
Carp culture	Nurseries/ grow-	Pond and water		inimum depth of $1.0 - 1.5$ m and pH at $7.0 - 7.5$ .		
	out		clean with h	by Green AQ for maintaining good quality water. Make culture water fresh and high oxygen content.		
		Feed		d 2-3 times @ 5-10% body weight per day.  In the distribution of t		
		Fish	For semi-int	tensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. atio may be maintained at 40% of surface feeder, 30% column feeder and 30%		
				in feeder. Sampling of fish for growth, disease should be done regularly by netting.		
	Brooder	Pond water and feed	Maintain mi	inimum depth of 2.0-2.2 m. Maintain good quality water.  d @ 3-5 % body weight per day.		
	Breeding	Hormone		nes like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5		
				h for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.		



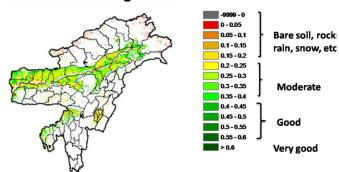
Manipur Centre, Lamphelpat, Imphal - 795 004

#### "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004





## MANIPUR BULLETIN

27<sup>th</sup> July, 2018

## **Bishnupur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

Weather forecast for next five days of Bishnupur (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 30-33°C & minimum temp. 22-23 °C. Relative humidity may reach upto 100 % (max RH) & 99 % (min RH). The average wind speed may be 0-2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ha.</li> </ul>
Kharif Maize	Silking to cob formation		<ul> <li>Maintain proper drainage system to avoid water logging due to heavy rains.</li> <li>After rains weeding to control insect pest population in the crop fields.</li> </ul>
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.  For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops	_		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
	crop		- Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus		Consider	- Prune the disease infected twigs and burn them outside the farm area Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.







Banana	anana New Plantation			- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.  Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one	
Old Plantatio		on		sucker (with broad base & narrow leaves) per pit.  - Desuckering and removal of dried leaves and trashes and maintaining 3 plants	
					per pit is required Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.
Turmeric		Rhizome formation	Leaf Spo blotch	t and leaf	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.
Animal Scien					
					be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/	\$	Stage	Disease		Agro-meteorological advisories
animal	A 11		Manage		
Poultry	All age	groups	Fungal Toxi	n	Avoid consumption of feed with fungal growth.
(Chicken/ Duck)			Deworming		Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
			Managemen	t	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
Sheep/ Goat	All age	groups	<ul> <li>Vaccination</li> </ul>		• If the animals have not been vaccinated against F.M.D., B.Q., H.S.,
					Enterotoxaemia, etc. do it in this month.
			Fascioliosis	8	Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
			Management		• Protect from thunder showers. Protect from after winds (loo).
Pig	All age except t	groups he young	De-worming	,	Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones		Vaccination		Vaccinate against FMD.
			Management		Protect from thunder showers especially during night.
Cattle	All age	groups	Vaccination	•	Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		the young			• Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.
			Deworming		• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
			• Care & Man	agement	Mixture of mineral/salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.
			Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.
Fishery			10,01		1
	l with han	na net or ra	ise the nand dyko	height to ava	pid escape of fishes.
Type of Farming	St	age	Management Management	Agro-met	trological advisories
Carp culture	Nurserie out	s/ grow-	Pond and water		minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. ne/ Green AQ for maintaining good quality water. Make culture water fresh and
					n high oxygen content.
			Feed	Provide feed 2-3 times @ 5-10% body weight per day.	
					ood feed having 30% crude protein fortified with vitamins and mineral.
			- Stocking		intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond.
					g ratio may be maintained at 40% of surface feeder, 30% column feeder and 30%
	Dag - J		Dond weter 1		eder. Sampling of fish for growth, disease should be done regularly by netting.
	Brooder		Pond water and feed	Provide fe	minimum depth of 2.0-2.2 m. Maintain good quality water. eed @ 3-5 % body weight per day.
	Breeding	3	Hormone		nones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.



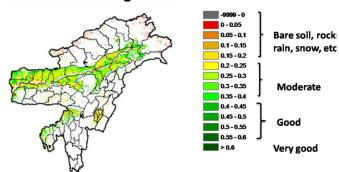
Manipur Centre, Lamphelpat, Imphal - 795 004

## "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004

### "Gramin Krishi Mausam Seva"



## **MANIPUR BULLETIN**

## 27<sup>th</sup> July, 2018

## **Chandel**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

# Weather forecast for next five days of Chandel (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 30-31°C & minimum temp. 22-24 °C. Relative humidity may reach upto 100 % (max RH) & 97 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ha.</li> </ul>
Kharif Maize	Silking to cob formation		<ul> <li>Maintain proper drainage system to avoid water logging due to heavy rains.</li> <li>After rains weeding to control insect pest population in the crop fields.</li> </ul>
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.  For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops	_		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
	crop		- Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus		Consider	- Prune the disease infected twigs and burn them outside the farm area Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.







		ew Plantatio	n		- Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.  Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one	
		Old Plantation			sucker (with broad base & narrow leaves) per pit.  - Desuckering and removal of dried leaves and trashes and maintaining 3 plants	
					per pit is required Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.	
Turmeric Rhizome formation			Leaf Spot and leaf blotch		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.	
Animal Scien						
					be constructed well around the birds or animals sheds to avoid water logging.	
Name of bird/	Sta	age	Disease		Agro-meteorological advisories	
animal	A 11		Manager			
Poultry (Chicken)	All age gr	roups	Fungal Toxin	<u> </u>	Avoid consumption of feed with fungal growth.	
(Chicken/ Duck)			Deworming		Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.	
			Management		• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.	
Sheep/ Goat	All age gr	roups	Vaccination		• If the animals have not been vaccinated against F.M.D., B.Q., H.S.,	
					Enterotoxaemia, etc. do it in this month.	
			Fascioliosis		Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.	
			<ul> <li>Management</li> </ul>		• Protect from thunder showers. Protect from after winds (loo).	
Pig	All age greater the		De-worming		Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
	ones		Vaccination		Vaccinate against FMD.	
					Protect from thunder showers especially during night.	
Cattle	All age gr	coups	Management     Vaccination		Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.	
		pts the young			Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.	
			Deworming		De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.	
			• Care & Mana	gement	Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.	
			Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.	
Fishery					1	
	d with hanna	net or raise	e the nand dyke l	neight to ava	oid escape of fishes.	
Type of Farming	Stag	ge	Management	Agro-met	rological advisories	
Carp culture	Nurseries/ out	grow- I	Pond and water	Apply Lin	minimum depth of 1.0 - 1.5 m and pH at $7.0 - 7.5$ . ne/ Green AQ for maintaining good quality water. Make culture water fresh and	
				clean with high oxygen content.		
			Feed		eed 2-3 times @ 5-10% body weight per day.	
					pood feed having 30% crude protein fortified with vitamins and mineral.	
		1	- Stockin		r semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond.	
					Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30%	
	Drocdon	Т	Oand water and		eder. Sampling of fish for growth, disease should be done regularly by netting.	
	Brooder	f	Pond water and Feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water. Provide feed @ 3-5 % body weight per day.		
Breeding		I	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.		



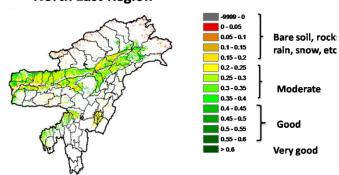
Manipur Centre, Lamphelpat, Imphal - 795 004

### "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004

## "Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

27<sup>th</sup> July, 2018

## **Churachandpur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West  $(24^{th}$  to  $26^{th}$  July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

# Weather forecast for next five days of Churachandpur (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 30-32°C & minimum temp. 22-23 °C. Relative humidity may reach upto 100 % (max RH) & 99 % (min RH). The average wind speed may be 2-3 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.</li> </ul>
Kharif Maize	Silking to cob formation		<ul> <li>Maintain proper drainage system to avoid water logging due to heavy rains.</li> <li>After rains weeding to control insect pest population in the crop fields.</li> </ul>
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.  For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops	_		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main	Plutella Diamond black moth	- Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
	crop		- Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus		Consider	- Prune the disease infected twigs and burn them outside the farm area Spray Copper oxychloride @ 3ml/lit to control fungal disease.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.

feed

Hormone

Breeding



## ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004





Banana New Plantati Old Plantati				<ul> <li>Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>Desuckering and removal of dried leaves and trashes and maintaining 3 plants</li> </ul>	
1				per pit is required.  - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.	
Turmeric	Turmeric Rhizome formation		t and leaf	- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.	
Animal Science		blotch		propriyatede medistres against Dear oper and rear order.	
		rds and animals Dr	ainage may	be constructed well around the birds or animals sheds to avoid water logging.	
Name of bird/ animal	Stage Stage	Disease and Management		Agro-meteorological advisories	
Poultry	All age groups	Fungal Toxii		Avoid consumption of feed with fungal growth.	
(Chicken/ Duck)		Deworming		Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.	
			t	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.	
Sheep/ Goat	Sheep/ Goat All age groups			• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.	
		Fascioliosis		• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.	
		Management		• Protect from thunder showers. Protect from after winds (loo).	
Pig	Pig All age groups except the young			• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
	ones	<ul> <li>Vaccination</li> </ul>		Vaccinate against FMD.	
		Management	t	Protect from thunder showers especially during night.	
Cattle All age groups excepts the yo		Vaccination		<ul> <li>Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>	
		Deworming		De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.	
		Care & Mana	agement	Mixture of mineral/salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.	
		Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.	
Fishery					
* Encircle pond	l with happa net or re	aise the pond dyke	height to av	oid escape of fishes.	
Type of Farming	Stage	Management	Agro-me	etrological advisories	
Carp culture	Nurseries/ grow- out	Pond and water	Apply Li	minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. me/ Green AQ for maintaining good quality water. Make culture water fresh and th high oxygen content.	
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.		
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.		
	Brooder		Maintain minimum depth of 2.0-2.2 m. Maintain good quality water.  Provide feed @ 3-5 % body weight per day		

Provide feed @ 3-5 % body weight per day.

Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5

ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.



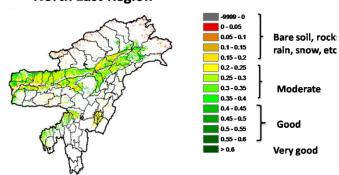
Manipur Centre, Lamphelpat, Imphal - 795 004

## "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.



Manipur Centre, Lamphelpat, Imphal - 795 004

### "Gramin Krishi Mausam Seva"



## **MANIPUR BULLETIN**

27<sup>th</sup> July, 2018

## Imphal East

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 28<sup>th</sup> July to 1<sup>st</sup> August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 26<sup>th</sup> July, 2018)

Observed **65.0 mm** rainfall with **mainly cloudy to overcast sky**. Maximum temperature recorded ranged from **30.7** to **31.4** °C and minimum of **22.0** to **22.1** °C with mean relative humidity **91.0** % max and **63.0** % min was recorded in the past three days & average wind speed was **2.8** – **3.9** km/ hr.

# Weather forecast for next five days of Imphal East (28<sup>th</sup> July to 1<sup>st</sup> August, 2018)

Likely to have moderate to heavy rains at isolated places over next five days with cloudy to overcast sky and maximum temp might range 30-32°C & minimum temp. 22-23 °C. Relative humidity may reach upto 100 % (max RH) & 93 % (min RH). The average wind speed may be 0-2 km/hr.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul> <li>Maintain a thin film of water upto 7 days after transplanting. Then increase water to 5-8cm and drain out excess water if accumulated due to heavy rain.</li> <li>Weed control: Apply Butachlor @25kg/ha within one week of transplanting.</li> <li>If the crop is in tillering stage, after rains weeding may be done manually or by using conoweeder followed by top dressing with Urea @33kg/ ha.</li> </ul>
Kharif Maize	Silking to cob formation		- Maintain proper drainage system to avoid water logging due to heavy rains After rains weeding to control insect pest population in the crop fields.
Soybean/ Groundnut	Flowering		<ul> <li>- Hand weeding should be done after rains to avoid hairy caterpillar. Also, earthing-up and thinning may be done after rains. Avoid earthing up after 40 days of sowing in groundnut.</li> <li>- Maintain proper drainage system to avoid water logging due to rains.</li> <li>- For control of red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).</li> </ul>
Blackgram/ Rice Bean	Vegetative to Flowering		<ul><li>Hand weeding should be done after rains if the weed population is high.</li><li>Monitor for insect pest infestation.</li></ul>
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.  For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cauliflower	Vegetative stage of early crop and nursery of main crop	Plutella Diamond black moth	Check for infestation of Plutella Diamond black moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.      Raise main crop cauliflower nursery.
Tree bean	Transplanting/ Fertilizer application		<ul> <li>After rains, one year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row.</li> <li>At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>Regular weeding should be done especially during initial stage of plantation.</li> <li>Bordeaux paste mixed with Carbaryl (20 g/lit of water) should be applied on the main trunk up to 5 ft height from the ground.</li> <li>The soil of the basin area should be earthed. Trichoderma &amp; Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120g urea, 300g SSP, 80g MOP, 1 Kg lime should be applied.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		- Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 W.P. @ 2gm/lit water 14 days interval at least twice.
Citrus		Greening	<ul> <li>Prune the disease infected twigs and burn them outside the farm area.</li> <li>Spray Copper oxychloride @ 3ml/lit to control fungal disease.</li> <li>Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.</li> </ul>







Banana New Plantation Old Plantation				<ul> <li>Plant banana in newly constructed ring bands or bank of rivers/ ponds at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>Desuckering and removal of dried leaves and trashes and maintaining 3 plants per pit is required.</li> <li>Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.</li> </ul>		
Turmeric Rhizome formation		Leaf Spot and leaf		- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures against Leaf Spot and leaf blotch.		
Animal Science	ces					
* Provide clean	drinking v	water for bird	ds and animals. Di	ainage may l	be constructed well around the birds or animals sheds to avoid water logging.	
Name of bird/ animal		Stage	Disease and Management		Agro-meteorological advisories	
Poultry	All age	groups	• Fungal Toxi	n	Avoid consumption of feed with fungal growth.	
(Chicken/ Duck)			Deworming		• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.	
		Management		t	Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.	
Sheep/ Goat	All age	groups	Vaccination		• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.	
			Fascioliosis		Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.	
			Management		Protect from thunder showers. Protect from after winds (loo).	
Pig	All age	groups the young	• De-worming		Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
	ones		Vaccination		Vaccinate against FMD.	
			Management		Protect from thunder showers especially during night.	
Cattle All age grou excepts the yones			Vaccination		<ul> <li>Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>Protect animals from PICA (depraved appetite) by providing essential body salts (mineral forte powder) 25g/day.</li> </ul>	
			Deworming		• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.	
			Care & Management		Mixture of mineral/ salts should be added in the feed/water to avoid loss of essential body salts. Avoid the cattle from chiting/ biting by flies. Adopt tick control measures.	
			Milk fever		Give 100-150ml of mixture calcium and phosphorous daily.	
Fishery	•		•		,	
					oid escape of fishes.	
Type of Farming				Agro-metrological advisories		
Carp culture	Nurseries/ grow- out Pond an		Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5.  Apply Lime/ Green AQ for maintaining good quality water. Make culture water fresh and clean with high oxygen content.		
		Feed	Provide feed 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.			
			Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.		
	Brooder		Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Maintain good quality water.  Provide feed @ 3-5 % body weight per day.		
Breeding		Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp/ ngakra.			



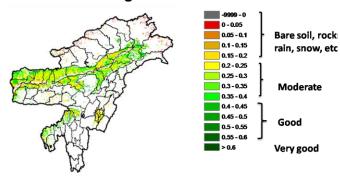
Manipur Centre, Lamphelpat, Imphal - 795 004

## "Gramin Krishi Mausam Seva"



# NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29 (16.07.2018 to 22.07.2018) over Agricultural region

## **North East Region**



Agriculture vigour is moderate over many of the parts Assam and few pockets of Tripura, Manipur and Meghalaya.

#### SMS:

Lakliba Leibakpokpadagi mafam kharada nong kanna churaba yai. Yongchak pambigi feet 5 faoba Bordeaux paste ta Carbaryl yanlaga ukhong sengdokpiraga teibiyu. Makhongda leibak thongatpiba matamda pambi amada10g Trichoderma amadi Pseudomonas formulation ga 500g FYM yanbiyu.