



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24th to 26th 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 (28th July to 1st 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 style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
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	<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



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Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Banana	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.
	Old Plantation		- 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 Sciences

* Provide clean drinking water for birds and animals. Drainage may 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 (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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 except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • 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 & 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.

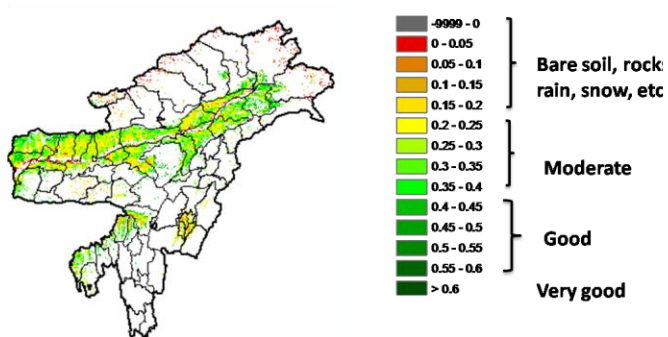


ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



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
amada 10g Trichoderma amadi Pseudomonas
formulation ga 500g FYM yanbiyu.

(I.Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
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 28th July to 1st August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24th to 26th 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 Senapati (28th July to 1st 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**.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
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Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



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	Old Plantation		- 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 Sciences

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Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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.
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		• 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.
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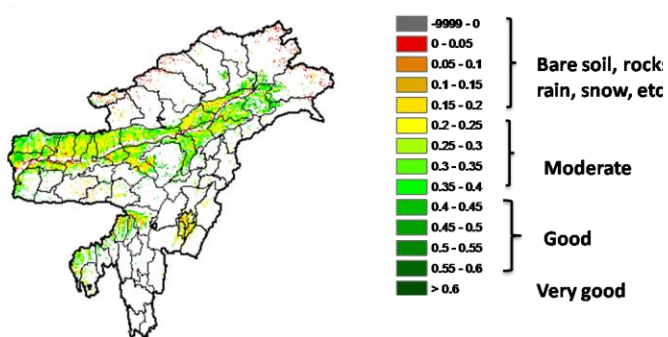


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NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29
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North East Region



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formulation ga 500g FYM yanbiyu.

(I.Meghachandra Singh)
Scientist i/c, GKMS



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Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

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Weather forecast for next five days of Tamenglong (28th July to 1st 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**.

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		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.

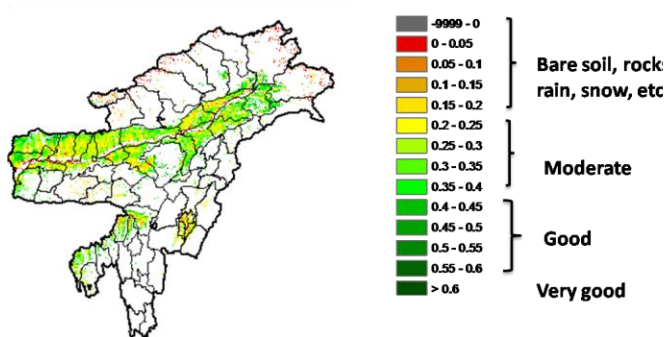


ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



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.

(I.Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24th to 26th 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 (28th July to 1st 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 style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
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	<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Banana	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.
	Old Plantation		- 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 Sciences

* Provide clean drinking water for birds and animals. Drainage may 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 (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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 except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • 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 & 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.

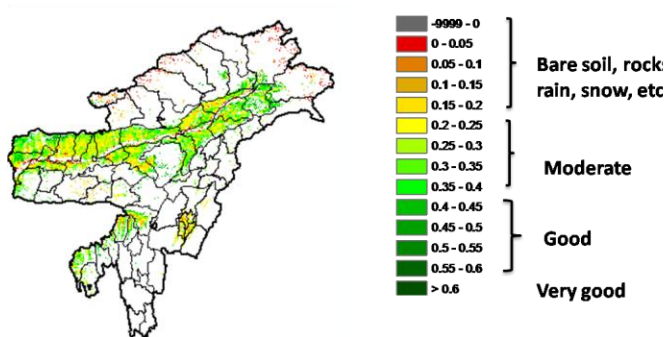


ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



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
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amada 10g Trichoderma amadi Pseudomonas
formulation ga 500g FYM yanbiyu.

(I.Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24th to 26th 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 (28th July to 1st 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 style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
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	<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Banana	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.
	Old Plantation		- 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 Sciences

* Provide clean drinking water for birds and animals. Drainage may 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 (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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 except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • 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 & 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.

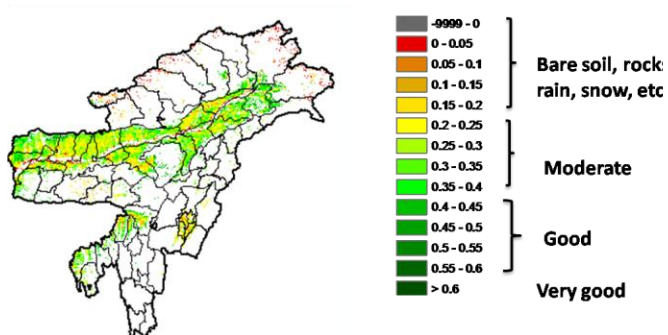


ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



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
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(I.Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24th to 26th 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 (28th July to 1st 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 style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
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	<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Banana	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.
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Animal Sciences

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Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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 except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • 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 & 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.

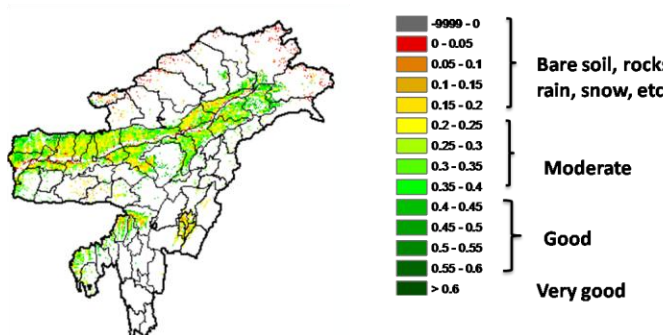


ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



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
amada 10g Trichoderma amadi Pseudomonas
formulation ga 500g FYM yanbiyu.

(I.Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24th to 26th 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 (28th July to 1st 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 style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>

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	<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Banana	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.
	Old Plantation		- 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 Sciences

* Provide clean drinking water for birds and animals. Drainage may 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 (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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 except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • 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 & 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.

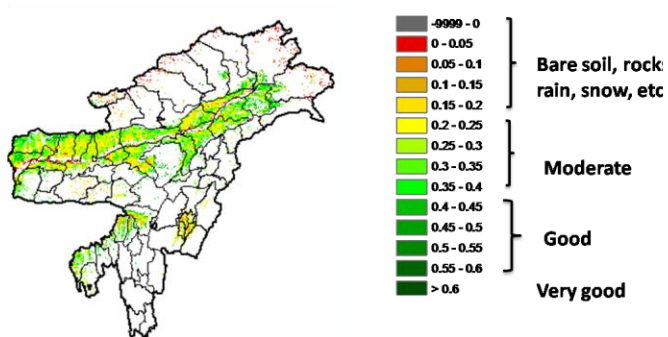


ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



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
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formulation ga 500g FYM yanbiyu.

(I.Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (24th to 26th 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 (28th July to 1st 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 style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
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	<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Banana	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.
	Old Plantation		- 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 Sciences

* Provide clean drinking water for birds and animals. Drainage may 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 (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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 except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • 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 & 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.

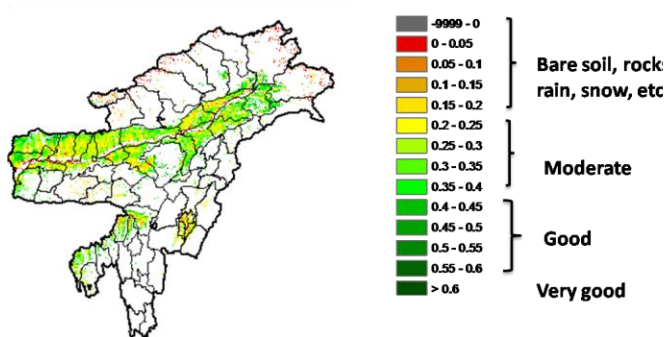


ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29
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North East Region



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

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ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****27th 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 28th July to 1st August, 2018 as below:

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Weather forecast for next five days of Imphal East (28th July to 1st 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**.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (Kharif rice)		<ul style="list-style-type: none"> - 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. - Weed control: Apply Butachlor @25kg/ha within one week of transplanting. - 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.
Kharif Maize	Silking to cob formation		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - Maintain proper drainage system to avoid water logging due to rains. - 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).
Blackgram/ Rice Bean	Vegetative to Flowering		<ul style="list-style-type: none"> - Hand weeding should be done after rains if the weed population is high. - Monitor for insect pest infestation.
Seeds storage	Post-harvest management		<p>For seed purpose store the seeds in RC-Seed Bin 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.</p> <p>For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.</p>
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	<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - 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. - At the time of planting apply 5 kg FYM + 30g lime+30g linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. - Regular weeding should be done especially during initial stage of plantation. - 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. - The soil of the basin area should be earthed. Trichoderma & Pseudomonas formulation @10g each/ tree mixed with 500 g FYM or vermicompost should be mixed in to the soil. - 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.
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> - 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 style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease. - Spray Streptocycline @ 1g/10 lit of water or Tetracycline @5g/10 litre water.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Banana	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.
	Old Plantation		- 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 Sciences

* Provide clean drinking water for birds and animals. Drainage may 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 (Chicken/ Duck)	All age groups	• Fungal Toxin	• Avoid consumption of feed with fungal growth.
		• 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 except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Protect from thunder showers especially during night.
Cattle	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • 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 & 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 with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	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.

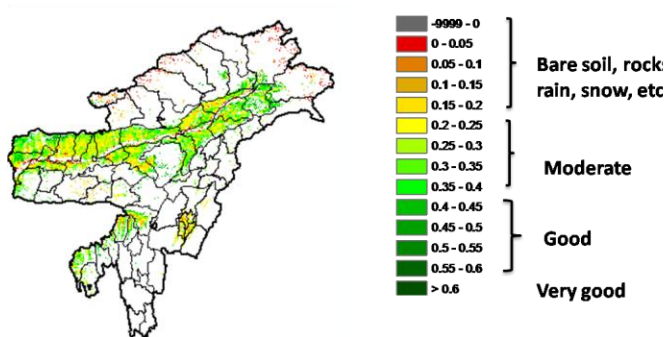


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NOAA/VIIRS/BLENDED NDVI Composite ending on Week no 29
(16.07.2018 to 22.07.2018) over Agricultural region

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
amada 10g Trichoderma amadi Pseudomonas
formulation ga 500g FYM yanbiyu.

(I.Meghachandra Singh)
Scientist i/c, GKMS