



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

**MANIPUR BULLETIN****18th August, 2017****Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 17th August, 2017)

Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Bishnupur (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 28 - 32 °C & minimum temp. 22 - 24 °C. Relative humidity may reach up to 98 % (max RH) & 76 % (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	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocassia	Vegetative to corm formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

(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****18th August, 2017**Chandel

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 17th August, 2017)

Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Chandel (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 28 - 32 °C & minimum temp. 22 - 24 °C. Relative humidity may reach up to 97 % (max RH) & 72 % (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	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocassia	Vegetative to corm formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

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



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

**MANIPUR BULLETIN****18th August, 2017****Churachandpur**

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Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Churachandpur (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 30 - 32 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 98 % (max RH) & 79 % (min RH). The average wind speed may be 2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocassia	Vegetative to corm formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
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		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

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



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**MANIPUR BULLETIN****18th August, 2017**Senapati

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

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Weather forecast for next five days of Senapati (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 27 - 30 °C & minimum temp. 21 - 23 °C. Relative humidity may reach up to 95 % (max RH) & 80 % (min RH). The average wind speed may be 3-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
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Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
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Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



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“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

(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****18th August, 2017****Tamenglong**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 17th August, 2017)

Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Tamenglong (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29 - 33 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 98 % (max RH) & 71 % (min RH). The average wind speed may be 2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocassia	Vegetative to corm formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

(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****18th August, 2017****Thoubal**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 17th August, 2017)

Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Thoubal (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29 - 32 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 98 % (max RH) & 78 % (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	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocassia	Vegetative to corm formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

(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****18th August, 2017****Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 17th August, 2017)

Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Ukhrul (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 27 - 30 °C & minimum temp. 21 - 23 °C. Relative humidity may reach up to 94 % (max RH) & 71 % (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	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocassia	Vegetative to corm formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

(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****18th August, 2017****Imphal East**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 17th August, 2017)

Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Imphal East (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29 - 32 °C & minimum temp. 22 - 24 °C. Relative humidity may reach up to 97 % (max RH) & 82 % (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	Tillering (kharif rice)	Bacterial leaf blight	- Ridges may be well constructed to maintain optimum water level of 5-8cm. - Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
		Case worm, borer, leaf folder, thrips	- Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam) after rains.
			- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water after rains.
Blackgram & Rice bean	Vegetative to flowering		- Avoid hairy caterpillars during vegetative stage. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocassia	Vegetative to corm formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Potato	Land preparation		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging in the field.
Turmeric	Rhizome initiation	Taphrine leaf blotch and other leaf spot	- Spray Redomil MZ 72 WP @ 2g/lit water at least two times alternately with Sixer at 15 days interval after the wet spell. - Avoid water logging in the field.
Cauliflower and	Nursery of mid		- Use temporary rain shelter facility/ low cost polyhouse for raising nursery.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Tomato	season variety		Protect nursery from damping off. Fumigate the soil with formaldehyde drench the soil with Captan 50WP.
Cauliflower	Vegetative (early variety)		- Transplant healthy seedlings of early cauliflower (variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rains.
Onion	Sowing/ planting		- This is the season for sowing of onion in the upland areas.

Animal Sciences

* Provide clean drinking water for birds and animals.

- Check for water leakage in sheds of birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @ 7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	- Provide clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca ⁺ and Phosphorus daily @ 5-7days.

Fishery:

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. Drain out excess water accumulated in fish pond due to rain.
		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.
Integrated Fish Farming	Fish	Same as grow out fish management	Same as grow out fish farming management.
	Pig		About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

(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****18th August, 2017****Imphal West**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19th to 23rd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 17th August, 2017)

Observed to mainly cloudy to overcast sky and **5.9 mm** rainfall was recorded during past three days. Maximum temperature range of 27.6 to 29.5 °C and minimum temperature range of 22.5 to 24.0 °C with mean relative humidity 92.67 % max and 83.33 % min was recorded in the past three days.

Weather forecast for next five days of Imphal West (19th to 23rd August, 2017)

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29 - 33 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 98 % (max RH) & 76 % (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	Tillering (kharif rice)		- Ridges may be well constructed to maintain optimum water level of 5-8cm.
		Bacterial leaf blight	- Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) after rains.
		Any sucking insect	- Imidachloprid @ 8ml/ 15 litres of water after rains.
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Maize	Cob formation		- Weeding may be done after rains to avoid insect pest in the crop field and also avoid water logging in the crop field. - Construct proper drainage to avoid water logging.
Soybean / Groundnut	Vegetative to flowering		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Construct proper drainage to avoid water logging.
		hairy caterpillars	- 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) after rains.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Use a slow-release, organic fertilizer on crops and avoid excess nitrogen. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
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