



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

**MANIPUR BULLETIN****28th July, 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 29th July to 2nd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th July, 2017)

Observed mainly cloudy to overcast sky and **0.3 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 30.8 °C and minimum temperature range of 22.2 to 23.2 °C with mean relative humidity 92.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Thoubal (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 30-31 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 98 % (max RH) & 74 % (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)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		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).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha. - The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.



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Papaya	Transplanting		<ul style="list-style-type: none"> - Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey). - Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.
Banana	New Plantation		<ul style="list-style-type: none"> - Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). 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		<ul style="list-style-type: none"> - Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

Animal Sciences

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			<ul style="list-style-type: none"> - 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 ft² 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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****28th July, 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 29th July to 2nd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th July, 2017)

Observed mainly cloudy to overcast sky and **0.3 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 30.8 °C and minimum temperature range of 22.2 to 23.2 °C with mean relative humidity 92.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Ukhrul (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 30 - 32 °C & minimum temp. 20 - 22 °C. Relative humidity may reach up to 95 % (max RH) & 75 % (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)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		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).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha. - The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.



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Papaya	Transplanting		<ul style="list-style-type: none"> - Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey). - Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.
Banana	New Plantation		<ul style="list-style-type: none"> - Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). 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		<ul style="list-style-type: none"> - Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

Animal Sciences

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			<ul style="list-style-type: none"> - 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 ft² 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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

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**MANIPUR BULLETIN****28th July, 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 29th July to 2nd August, 2017 as below:

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Weather forecast for next five days of Imphal East (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 32 °C & minimum temp. 21 - 22 °C. Relative humidity may reach up to 98 % (max RH) & 66 % (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)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		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).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha. - The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.



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Banana	New Plantation		<ul style="list-style-type: none"> - Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). 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		<ul style="list-style-type: none"> - Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

Animal Sciences

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			<ul style="list-style-type: none"> - 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 ft² 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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Weather forecast for next five days of Imphal West (29th July to 2nd August, 2017)

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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
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Animal Sciences

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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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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****28th July, 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 29th July to 2nd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th July, 2017)

Observed mainly cloudy to overcast sky and **0.3 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 30.8 °C and minimum temperature range of 22.2 to 23.2 °C with mean relative humidity 92.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Bishnupur (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 33-34 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 97 % (max RH) & 71 % (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)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		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).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha. - The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Papaya	Transplanting		<ul style="list-style-type: none"> - Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey). - Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.
Banana	New Plantation		<ul style="list-style-type: none"> - Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). 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		<ul style="list-style-type: none"> - Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

Animal Sciences*** Provide clean drinking water for birds and animals.**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			<ul style="list-style-type: none"> - 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 ft² 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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****28th July, 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 29th July to 2nd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th July, 2017)

Observed mainly cloudy to overcast sky and **0.3 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 30.8 °C and minimum temperature range of 22.2 to 23.2 °C with mean relative humidity 92.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Chandel (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 33-34 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 97 % (max RH) & 77 % (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	Transplanting to tillering (kharif rice)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		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).
		Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
	Direct seeding with drum seeder		- The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Papaya	Transplanting		<ul style="list-style-type: none"> - Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey). - Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.
Banana	New Plantation		<ul style="list-style-type: none"> - Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). 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		<ul style="list-style-type: none"> - Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

Animal Sciences

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			<ul style="list-style-type: none"> - 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 ft² 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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****28th July, 2017**Churachandpur

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 29th July to 2nd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th July, 2017)

Observed mainly cloudy to overcast sky and **0.3 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 30.8 °C and minimum temperature range of 22.2 to 23.2 °C with mean relative humidity 92.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Churachandpur (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 32-34 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 98 % (max RH) & 77 % (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)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		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).
		Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
	Direct seeding with drum seeder		- The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Papaya	Transplanting		<ul style="list-style-type: none"> - Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey). - Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.
Banana	New Plantation		<ul style="list-style-type: none"> - Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). 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		<ul style="list-style-type: none"> - Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

Animal Sciences

*** Provide clean drinking water for birds and animals.**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			<ul style="list-style-type: none"> - 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 ft² 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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****28th July, 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 29th July to 2nd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th July, 2017)

Observed mainly cloudy to overcast sky and **0.3 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 30.8 °C and minimum temperature range of 22.2 to 23.2 °C with mean relative humidity 92.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Senapati (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 30-32 °C & minimum temp. 20 - 22 °C. Relative humidity may reach up to 96 % (max RH) & 64 % (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)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @3ml/15 lit of water or lambdacythrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha. - The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Papaya	Transplanting		<ul style="list-style-type: none"> - Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey). - Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.
Banana	New Plantation		<ul style="list-style-type: none"> - Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). 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		<ul style="list-style-type: none"> - Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

Animal Sciences

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			<ul style="list-style-type: none"> - 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 ft² 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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.

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
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**MANIPUR BULLETIN****28th July, 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 29th July to 2nd August, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th July, 2017)

Observed mainly cloudy to overcast sky and **0.3 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 30.8 °C and minimum temperature range of 22.2 to 23.2 °C with mean relative humidity 92.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Tamenglong (29th July to 2nd August, 2017)

Likely to have heavy rains on 30th and 31st July with mainly cloudy to overcast sky and maximum temp. 32-33 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 98 % (max RH) & 69 % (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	Transplanting to tillering (kharif rice)	Low lying area	- Gap filling may be done immediately in the flood affected fields. Plant 2-3 old seedlings (40-45days old) per hill. To have more tillers, avoid excess water in the field. - Seedling of rice may also be raised using dry bed method with RC Maniphou-12 or RC Maniphou 7 for transplanting before 15 th August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/plot.
			- If seedlings are available, complete transplanting before 15 th August. - Row planting of 2-3 seedlings (25-35 days old) per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.
		Upland area/ hill slopes	- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @3ml/15 lit of water or lambdacythrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha. - The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
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
Ginger	Vegetative to rhizome formation		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
		Rhizome rot	Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.



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