



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Imphal - West (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 20.0 – 22.0 °C. Relative humidity may reach upto 100 % (max RH) & 51 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	<ul style="list-style-type: none"> - Give Ranizole suspension @ 3ml/ 10 kg body weight - Give Niclomar tablet @ 75mg/ kg body weight
Pig	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactam or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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. <ul style="list-style-type: none"> - 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

I. Meghachandra Singh
Scientist i/c, IAAS



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“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Senapati (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 18.0 – 20.0 °C. Relative humidity may reach upto 99 % (max RH) & 50 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



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	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
Pig	All age groups		- Give Niclomar tablet @ 75mg/ kg body weight
		Management	- Keep sheds dry.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactum or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

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MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Tamenglong (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 31.0 – 33.0 °C & minimum temp. 20.0 – 22.0 °C. Relative humidity may reach upto 100 % (max RH) & 57 % (min RH). The average wind speed may be 2 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



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“Gramin Krishi Mausam Seva”

	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
			- Give Niclomar tablet @ 75mg/ kg body weight
Pig	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactam or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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. <ul style="list-style-type: none"> - 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

I. Meghachandra Singh
Scientist i/c, IAAS



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“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

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Weather forecast for next five days of Thoubal (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 29.0 – 31.0 °C & minimum temp. 21.0 – 23.0 °C. Relative humidity may reach upto 99 % (max RH) & 56 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
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		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
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Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



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“Gramin Krishi Mausam Seva”

	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. <p>Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).</p>

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
			- Give Niclomar tablet @ 75mg/ kg body weight
Pig	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactam or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Ukhrul (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 26.0 – 29.0 °C & minimum temp. 17.0 – 19.0 °C. Relative humidity may reach upto 98 % (max RH) & 59 % (min RH). The average wind speed may be 2-3 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		- Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	- Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	- Give Ranizole suspension @ 3ml/ 10 kg body weight
Pig	All age groups		- Give Niclomar tablet @ 75mg/ kg body weight
		Management	- Keep sheds dry.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
			Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			- Shift the animals in higher elevated site. - Give Amoxyline/ Salbactum or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.
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. Apply Lime @ 25-30kg/ ha everymonth. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Bishnupur (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 29.0 – 31.0 °C & minimum temp. 20.0 – 22.0 °C. Relative humidity may reach upto 100 % (max RH) & 59 % (min RH). The average wind speed may be 2 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	<ul style="list-style-type: none"> - Give Ranizole suspension @ 3ml/ 10 kg body weight - Give Niclomar tablet @ 75mg/ kg body weight
Pig	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactum or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Chandel (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 30.0 – 32.0 °C & minimum temp. 19.0 – 21.0 °C. Relative humidity may reach upto 98 % (max RH) & 64 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	<ul style="list-style-type: none"> - Give Ranizole suspension @ 3ml/ 10 kg body weight - Give Niclomar tablet @ 75mg/ kg body weight
Pig	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactum or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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. <ul style="list-style-type: none"> - 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Churachandpur (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 30.0 – 32.0 °C & minimum temp. 19.0 – 21.0 °C. Relative humidity may reach upto 99 % (max RH) & 69 % (min RH). The average wind speed may be 2 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Gramin Krishi Mausam Seva”

	development		
Ginger / Turmeric	Rhizome development	Soft rot	Apply Mancozeb + Metalxyl or Carbendazim 12% + Mancozeb 12% @ 2g/lit water.
Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. <p>Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).</p>

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	<ul style="list-style-type: none"> - Give Ranizole suspension @ 3ml/ 10 kg body weight - Give Niclomar tablet @ 75mg/ kg body weight
Pig	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactum or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”

MANIPUR BULLETIN

15th September, 2015

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 16th to 20th September, 2015 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (11th to 14th September, 2015)

During last four days sky was mainly clear to partly cloudy but mainly cloudy during afternoon hours of 14th Sept. No rainfall was recorded during last four days. Maximum temperature range observed was 29.4 – 31.0 °C, range of minimum temperature observed was 20.9 – 22.6 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 71.75 % respectively. The average wind speed range was 2.4 – 2.9 km/hr.

Weather forecast for next five days of Imphal - East (16th to 20th September, 2015)

There may be light rain during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. of 28.0 – 30.0 °C & minimum temp. 21.0 – 22.0 °C. Relative humidity may reach upto 100 % (max RH) & 49 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The Wind direction may be westerly upto Wednesday and north-easterly to easterly upto Sunday during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Kharif Rice	Panicle initiation		- Hand weeding may be done for the crop at panicle initiation. Drain out water and top dress with 33kg Urea/ ha. Irrigate the field after 48hrs of top dressing. Maintain water depth of 5cm in the rice field.
		Sucking insects	Imidachloprid @ 4-7 ml/ 15 litres of water.
		Sheath rot	Kocide-101 @ 20g/15 lit of water or Propiconazole @ 15ml/15lit of water.
		Stem borer	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem rot	Spray Validamycin 3L@ 2.5 ml/lit or Thiophanate methyl 75 WP @ 1 g/ lit of water
Soybean	Flowering to fruiting	Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
Groundnut	Flowering to pegging	Tikka disease	- Monitor infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 30, 50 and 60 days after sowing.
		Rust	- Spray Bayleton @ 10g/ 15 ml of water or Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
		Hairy caterpillars	- To control red hairy caterpillars, dust 5% Malathion @ 20 kg/ ha or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage (seed)			- Clean and store the seeds in RC-seed bins after proper drying of the desiccant charcoal. Check for moisture content or weight of seeds. For grains, store in well ventilated godowns with regular check for moisture.
Horticulture Crops			
French Bean, Broad bean & Pea	Land preparation		Land preparation for sowing of french bean, broad bean and pea must be completed when there is enough moisture in the soil. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, reddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.
Ginger	Rhizome	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.



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	development		
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Cabbage/ Cauliflower/ Tomato	Nursery Preparation		<ul style="list-style-type: none"> - Prepare raised beds of 1.5-2 sq.m for sowing 10g seed for small scale nursery raising. - For transplanting 1 sangam area 75g seed for hybrid variety can be sown in 12sq.m area. - Select fertile area with sunshine and free from water logging. - Protective measures must be taken up against damping off in seedlings. Temporary rain shelter structures may be used to protect against rainfall. <p>Recommended varieties: Cabbage: Rareball. Cabbage: White flash (medium size) and Swetha (big size).</p>

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Contingency plan and management	<ul style="list-style-type: none"> - Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. - Give green grasses sufficiently & mix with ground maize/ rice bran. - Add mineral mixture & vitamins either in feed or water or both. - At least use turpauline sheet for shelter of sites. - Add water sanitizer in drinking water/ or add potash.
			Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	Above 3 months of age	Vaccination	- Vaccinate against Enterotoxaemia/ M.C.C.V. (left overs).
		Deworming	<ul style="list-style-type: none"> - Give Ranizole suspension @ 3ml/ 10 kg body weight - Give Niclomar tablet @ 75mg/ kg body weight
Pig	All age groups	Management	- Keep sheds dry.
		Deworming	Give Morantel citrate tab. (Banminth) @ 15mg/kg body weight.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Ectoparasite infestations	Diclorvo/ Organophosphates @ 60ml/ 20 lit of water.
			<ul style="list-style-type: none"> - Shift the animals in higher elevated site. - Give Amoxyline/ Salbactam or any antibiotic for 5 days. - Add mineral mixture & vitamins either in feed or water or both. - Add water sanitizer in drinking water/ or add potash.

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Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % 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.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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.
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