



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)

During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. **No** rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.

Weather forecast for next five days of Chandel (11th to 15th December, 2013)

There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 22.0 - 24.0 °C & minimum temp. 4.0 – 6.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 52 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/ sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

I. Meghachandra Singh
Scientist i/c, Gramin Krishi Mausam
Seva (GKMS)



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)

During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. No rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.

Weather forecast for next five days of Churachandpur (11th to 15th December, 2013)

There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 22.0 - 24.0 °C & minimum temp. 4.0 – 6.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 47 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/ sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

I. Meghachandra Singh
Scientist i/c, Gramin Krishi Mausam
Seva (GKMS)



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MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)</u></p> <p>During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. No rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - East (11th to 15th December, 2013)</u></p> <p>There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 22.0 - 24.0 °C & minimum temp. 5.0 – 6.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 2 km/hr during next five days.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/ sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

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MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)</u>	<u>Weather forecast for next five days of Imphal - West (11th to 15th December, 2013)</u>
During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9 th Dec. No rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.	There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12 th December then mainly clear with maximum temp. of 23.0 - 25.0 °C & minimum temp. 5.0 – 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

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10th December, 2013

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 11th to 15th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)

During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. **No** rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.

Weather forecast for next five days of Senapati (11th to 15th December, 2013)

There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 20.0 - 23.0 °C & minimum temp. 2.0 – 5.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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



“Integrated Agromet Advisory Services”

Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

I. Meghachandra Singh
Scientist i/c, Gramin Krishi Mausam
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**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)

During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. **No** rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.

Weather forecast for next five days of Tamenglong (11th to 15th December, 2013)

There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 24.0 - 26.0 °C & minimum temp. 5.0 – 7.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 43 % (minimum RH). The average wind speed may be 3-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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“Integrated Agromet Advisory Services”

Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/ sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)

During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. No rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.

Weather forecast for next five days of Thoubal (11th to 15th December, 2013)

There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 22.0 - 24.0 °C & minimum temp. 5.0 – 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 49 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



**ICAR Research Complex for N.E.H. Region
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“Integrated Agromet Advisory Services”

Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/ sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)

During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. **No** rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.

Weather forecast for next five days of Ukhrul (11th to 15th December, 2013)

There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 22.0 - 24.0 °C & minimum temp. 3.0 – 5.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 48 % (minimum RH). The average wind speed may be 3-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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



“Integrated Agromet Advisory Services”

Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/ sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

10th December, 2013

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 11th to 15th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (6th to 9th December, 2013)

During the past four days the sky was partly cloudy to mainly cloudy and foggy during morning hours of 9th Dec. No rainfall was recorded during past four days. Maximum temperature range observed was 24.0 – 25.4 °C, range of minimum temperature observed was 7.8 – 9.1 °C, mean relative humidity observed in morning and afternoon were 84.8 % and 50.0 % respectively. The average wind speed range was 0.8 – 1.3 km/hr.

Weather forecast for next five days of Bishnupur (11th to 15th December, 2013)

There may be no rain upto Sunday. Sky may be partly cloudy to cloudy upto 12th December then mainly clear with maximum temp. of 23.0 - 24.0 °C & minimum temp. 6.0 – 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 47 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Vegetative		- After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning. - If the soil is dry, give light irrigation just to keep soil moist during vegetative stage.
Pulses	Vegetative		- As there were no rainfall in past 40 days, also during next five days there is likely of no rain, give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
Rabi Maize	Land preparation to sowing		- Sowing of rabi maize may be done in prepared land.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Broad bean	Sowing		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Tree Bean	Pre-bearing and bearing plants		- Incorporate 250g each of DAP and MOP/ tree in the soil around the tree at a distance of 2 feet. During this proper care must be taken to avoid injury to the roots of the tree. - Spray Thiomethoxam @ 5g/15 lit of water against stem borer.
Cauliflower	Curd initiation stage		- If <i>Whip tail</i> in cauliflower is observed, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer (4 kg DAP + 4 kg K ₂ O for 2000 plants).
Onion/ Garlic	Early vegetative		- Give light watering during morning and evening hours till plants are established.
	For late sowing of onion/ transplanting		- Direct seeded followed by thinning of nursery may be done for onion (at a spacing of 10 cm plant to plant & 20 cm row to row) if there is shortage of manpower. - For an area of 10 m ² , 1500 seedlings are required.
Garden pea	Vegetative		- Give light irrigation just to keep soil moist.
Tomato		Early blight	- At 30-35 days after transplanting, as a prophylactic measure against early blight, spray Sixer (Carbendazim + Mancozeb) @ 2g/ lit of water at 10 days interval (at least twice).



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“Integrated Agromet Advisory Services”

Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	For ratoon/ sprouts (in early sown crops)		- If harvesting of sprouts of more than 3000 plants has to be done (in large scale growers), farmers are advised to top dress 3g DAP/ plant for good yield.
	Nursery		- If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. - Transplanting may be completed at earliest possible.

* Smoking is advised in and around the crop field during morning and evening hours.

* Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Amprolium powder may be added in low dose in both feed (@25 g per 1000kg of mash) and drinking water (30g 25 lit of water) of poultry above 3 weeks of age.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days. 2. R ₂ B vaccine at 8-9 weeks of age and 3. Killed ND virus vaccine at 16-18 weeks of age.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - protect birds from cold by hanging plastic sheet all around the wire mesh/ poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week. - For milch cow, administer 100 ml Osteovet liq. daily. - Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- If the pond water quality is not good then change it with fresh and clear water. Maintained water depth of 1.0-1.5m. - If the water level in pond is decreasing then culture pond area may be reduced and stocking density may be maintained.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per day.
			- Check fish health from time to time by netting.

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