



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

6th 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 7th to 11th December, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)</u></p> <p>During the past three days the sky was mainly clear to partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (7th to 11th December, 2013)</u></p> <p>There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 24.0 - 26.0 °C & minimum temp. 5.0 - 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 45 % (minimum RH). The average wind speed may be 3-4 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		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

6th 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 7th to 11th December, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)</u></p> <p>During the past three days the sky was mainly clear to partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - East (7th to 11th December, 2013)</u></p> <p>There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 25.0 - 26.0 °C & minimum temp. 6.0 – 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 2-3 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		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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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MANIPUR BULLETIN

6th 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 7th to 11th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)

During the past three days the sky was mainly clear to partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.

Weather forecast for next five days of Imphal - West (7th to 11th December, 2013)

There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 24.0 - 26.0 °C & minimum temp. 6.0 – 8.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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

6th 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 7th to 11th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)

During the past three days the sky was mainly clear to partly cloudy. **No** rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.

Weather forecast for next five days of Senapati (7th to 11th December, 2013)

There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 23.0 - 25.0 °C & minimum temp. 3.0 - 6.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 41 % (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		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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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.
	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
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		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.
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.
Pig	Above 3 months of age (as and when required)	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
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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.
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Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
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			- Check fish health from time to time by netting.

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MANIPUR BULLETIN

6th 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 7th to 11th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)

During the past three days the sky was mainly clear to partly cloudy. **No** rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.

Weather forecast for next five days of Tamenglong (7th to 11th December, 2013)

There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 25.0 - 27.0 °C & minimum temp. 6.0 - 8.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 43 % (minimum RH). The average wind speed may be 4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Post-harvest		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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“Integrated Agromet Advisory Services”

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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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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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

6th 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 7th to 11th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)

During the past three days the sky was mainly clear to partly cloudy. **No** rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.

Weather forecast for next five days of Thoubal (7th to 11th December, 2013)

There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 25.0 - 26.0 °C & minimum temp. 5.0 - 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 48 % (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		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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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Seva (GKMS)



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

MANIPUR BULLETIN

6th 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 7th to 11th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)

During the past three days the sky was mainly clear to partly cloudy. **No** rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.

Weather forecast for next five days of Ukhrul (7th to 11th December, 2013)

There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 23.0 - 24.0 °C & minimum temp. 3.0 - 5.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 47 % (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		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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

6th 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 7th to 11th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)

During the past three days the sky was mainly clear to partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.

Weather forecast for next five days of Bishnupur (7th to 11th December, 2013)

There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 24.0 - 26.0 °C & minimum temp. 5.0 - 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 46 % (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		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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



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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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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

6th 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 7th to 11th December, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th December, 2013)

During the past three days the sky was mainly clear to partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 25.5 – 26.6 °C, range of minimum temperature observed was 7.0 – 7.6 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 48.0 % respectively. The average wind speed range was 0.9 – 1.4 km/hr.

Weather forecast for next five days of Chandel (7th to 11th December, 2013)

There may be no rain upto Wednesday. Sky may be mainly clear upto 7th and mainly cloudy to cloudy upto 11th December with maximum temp. of 24.0 - 25.0 °C & minimum temp. 4.0 - 6.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 51 % (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		- After proper threshing and cleaning, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to vegetative		- Rapeseed may be sown (seed rate is 10-12 kg/ ha) at 30 cm row spacing. - Recommended variety – M-27. - After 10-15 days of sowing plant to plant distance may be maintained at 10-15cm by thinning.
Pulses	Sowing to early vegetative		For pea: - Sowing may be done at a spacing of 30cm x 10-15cm. - Recommended variety - Rachana. Seed rate is 75 kg/ ha. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
			- Lentil may be sown with minimum tillage or zero tillage.
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			
Ginger/ Turmeric	Enlargement of rhizome to maturity		- For eight to nine months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the soil for proper curing. - In 6-7 months old crops (for late planted crop), if yellowing of leaves had started then apply 10-12 kg K ₂ O/ sangam and wait for 1-1½ months for harvesting.
Cauliflower	Curd initiation stage		At curd initiation stage, apply 4 kg DAP and 4 kg K ₂ O for 200 plants, i.e., 4 g/ plant. Also, spray Tracel (micronutrient @ 5 g/ lit of water).
Dolichos bean	Flowering to fruiting		Harvest mature fruits and spray Cypermethrin @ 2ml/lit of water or Nuvan @ 1ml/lit of water.
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.



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“Integrated Agromet Advisory Services”

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).
Cucurbits (off season)	Nursery		- Raise nursery in polybags/ pro-tray under polyhouse/ cover. - The low temperature and high RH may cause aphid infestation hence spray Dichlorovos @ 0.5ml/lit water or Cypermethrin @ 1 ml/lit water as prophylactic measure.
Cabbage/ Broccoli	Vegetative	leaf eating caterpillar	- If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
	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.
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.
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.
			- 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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