

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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15th Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5 – 29.5 °C, range of minimum temperature observed was 8.4 – 10.4 °C, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was $0.1 - 2.0 \, \text{km/hr}$.

 $\frac{\text{Weather forecast for next five days of Imphal - West}}{(20^{\text{th}} \text{ to } 24^{\text{th}} \text{ November, 2013})}$

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 25.0 - 27.0 °C & minimum temp. 7.0 - 9.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 39 % (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	1		·
Rice	Post-harvest		- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	ps		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
as to maintain the Animal Science	e soil temperature.		hes after earthing up and weeding to conserve residual soil moisture as well
		T	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
		Disease/ infestation Ranikhet disease	$\label{eq:Agro-meteorological advisories} \mbox{- Vaccinate against Ranikhet disease using Lasota strain vaccine and R_2B vaccine.}$
animal	Growth stage All susceptible		- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
animal	Growth stage All susceptible	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
animal Poultry	All susceptible age groups	Ranikhet disease Management	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%.
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months	Ranikhet disease Management Deworming	 - Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. - Increase energy feed (maize, rice bran, etc.) upto 5%. - Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months of age	Ranikhet disease Management Deworming Ectoparasite	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
animal Poultry	All susceptible age groups Above 3 months of age Above 3 months	Ranikhet disease Management Deworming Ectoparasite Swine Fever	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. Vaccinate against swine fever after the age of 3 months.

Fis	heries

of age

Skin disease

Mithun

Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Maintained water depth of 1.0-1.5m.
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per
			day.
		Harvest	- Harvesting may be done.
			- Check fish health from time to time by netting.

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15^{th} Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5-29.5 °C, range of minimum temperature observed was 8.4-10.4 °C, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1-2.0 km/hr.

 $\frac{\text{Weather forecast } \text{ for next five days of Senapati}}{(20^{\frac{th}{1}} \text{ to } 24^{\frac{th}{1}} \text{ November}, 2013)}$

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and 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) & 39 % (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, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	ps		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
Animal Science Name of the			
	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal Poultry	All susceptible age groups	Disease/ infestation Ranikhet disease	$\label{eq:Agro-meteorological advisories} \mbox{- Vaccinate against Ranikhet disease using Lasota strain vaccine and R_2B vaccine.}$
	All susceptible		- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
	All susceptible	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
Poultry	All susceptible age groups	Ranikhet disease Management	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%.
Poultry	All susceptible age groups Above 3 months	Ranikhet disease Management Deworming	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and
Poultry Sheep/ Goat	All susceptible age groups Above 3 months of age	Ranikhet disease Management Deworming Ectoparasite	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
Poultry Sheep/ Goat	All susceptible age groups Above 3 months of age Above 3 months	Ranikhet disease Management Deworming Ectoparasite Swine Fever	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. Vaccinate against swine fever after the age of 3 months.

Fis	heries

of age

Skin disease

Mithun

Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Maintained water depth of 1.0-1.5m.
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per
			day.
		Harvest	- Harvesting may be done.
			- Check fish health from time to time by netting.

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15^{th} Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5-29.5 °C, range of minimum temperature observed was 8.4-10.4 °C, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1-2.0 km/hr.

Weather forecast for next five days of Tamenglong (20th to 24th November, 2013)

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 27.0 - 29.0 °C & minimum temp. 8.0 - 10.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 40 % (minimum RH). The average wind speed may be 3-5 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, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	DS		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
as to maintain th	e soil temperature.	,	hes after earthing up and weeding to conserve residual soil moisture as well
		T	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
		Disease/ infestation Ranikhet disease	$\label{eq:Agro-meteorological advisories} \mbox{- Vaccinate against Ranikhet disease using Lasota strain vaccine and R_2B vaccine.}$
animal	Growth stage All susceptible		- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
animal	Growth stage All susceptible	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
animal Poultry	All susceptible age groups	Ranikhet disease Management	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%.
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months	Ranikhet disease Management Deworming	 - Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. - Increase energy feed (maize, rice bran, etc.) upto 5%. - Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months of age	Ranikhet disease Management Deworming Ectoparasite	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
animal Poultry	All susceptible age groups Above 3 months of age Above 3 months	Ranikhet disease Management Deworming Ectoparasite Swine Fever	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. Vaccinate against swine fever after the age of 3 months.

HICK	heries
1 001	

of age

Skin disease

Mithun

Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Maintained water depth of 1.0-1.5m.
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per
			day.
		Harvest	- Harvesting may be done.
			- Check fish health from time to time by netting.

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15^{th} Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5-29.5 °C, range of minimum temperature observed was 8.4-10.4 °C, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1-2.0 km/hr.

Weather forecast for next five days of Thoubal (20th to 24th November, 2013)

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 25.0 - 27.0 °C & minimum temp. 8.0 - 10.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 44 % (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, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	ps		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
as to maintain th	e soil temperature.	,	hes after earthing up and weeding to conserve residual soil moisture as well
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
		Disease/ infestation Ranikhet disease	$\label{eq:Agro-meteorological advisories} \mbox{- Vaccinate against Ranikhet disease using Lasota strain vaccine and R_2B vaccine.}$
animal	Growth stage All susceptible		- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
animal	Growth stage All susceptible	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
animal Poultry	All susceptible age groups	Ranikhet disease Management	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%.
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months	Ranikhet disease Management Deworming	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months of age	Ranikhet disease Management Deworming Ectoparasite	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
animal Poultry	All susceptible age groups Above 3 months of age Above 3 months	Ranikhet disease Management Deworming Ectoparasite Swine Fever	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. Vaccinate against swine fever after the age of 3 months.

HICK	heries
1 001	

of age

Skin disease

Mithun

Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Maintained water depth of 1.0-1.5m.
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per
			day.
		Harvest	- Harvesting may be done.
			- Check fish health from time to time by netting.

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15^{th} Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5-29.5 °C, range of minimum temperature observed was 8.4-10.4 °C, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1-2.0 km/hr.

Weather forecast for next five days of Ukhrul (20th to 24th November, 2013)

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 24.0 - 25.0 °C & minimum temp. 5.0 - 7.0 °C. Relative Humidity may reach a maximum value of 98 % (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		- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	ps		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
	ne soil temperature.		
Animal Science Name of the		Disease/ infestation	Agro-meteorological advisories
	Growth stage All susceptible	Disease/ infestation Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
Name of the animal	Growth stage	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
Name of the animal Poultry	Growth stage All susceptible		- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
Name of the animal	Growth stage All susceptible age groups	Ranikhet disease Management	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%.
Name of the animal Poultry Sheep/ Goat	Growth stage All susceptible age groups Above 3 months	Ranikhet disease Management Deworming	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and
Name of the animal Poultry	Growth stage All susceptible age groups Above 3 months of age	Ranikhet disease Management Deworming Ectoparasite	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
Name of the animal Poultry Sheep/ Goat	Growth stage All susceptible age groups Above 3 months of age Above 3 months	Ranikhet disease Management Deworming Ectoparasite Swine Fever	 - Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. - Increase energy feed (maize, rice bran, etc.) upto 5%. - Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Vaccinate against swine fever after the age of 3 months.

of age

Skin disease

Mithun

Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Maintained water depth of 1.0-1.5m.
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per
			day.
		Harvest	- Harvesting may be done.
			- Check fish health from time to time by netting.

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15^{th} Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5-29.5 °C, range of minimum temperature observed was 8.4-10.4 °C, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1-2.0 km/hr.

Weather forecast for next five days of Bishnupur (20th to 24th November, 2013)

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 26.0 - 28.0 °C & minimum temp. 7.0 - 9.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 43 % (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, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	ps		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
as to maintain th	e soil temperature.	,	hes after earthing up and weeding to conserve residual soil moisture as well
		T =	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
		Disease/ infestation Ranikhet disease	$\begin{tabular}{lll} Agro-meteorological advisories \\ - Vaccinate against Ranikhet disease using Lasota strain vaccine and R_2B vaccine. \\ \end{tabular}$
animal	Growth stage All susceptible		- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
animal	Growth stage All susceptible	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
animal Poultry	All susceptible age groups	Ranikhet disease Management	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%.
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months	Ranikhet disease Management Deworming	 - Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. - Increase energy feed (maize, rice bran, etc.) upto 5%. - Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and
animal Poultry	All susceptible age groups Above 3 months of age	Ranikhet disease Management Deworming Ectoparasite	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months of age Above 3 months	Ranikhet disease Management Deworming Ectoparasite Swine Fever	 - Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. - Increase energy feed (maize, rice bran, etc.) upto 5%. - Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. - Vaccinate against swine fever after the age of 3 months.

Fis	heries

of age

Skin disease

Mithun

Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Maintained water depth of 1.0-1.5m.
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.
		Feeding	- Minimum feed must be provided in two splits @ 1-2 % of body weight per
			day.
		Harvest	- Harvesting may be done.
			- Check fish health from time to time by netting.

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of $15^{\rm th}$ Nov. No rainfall was recorded during past four days. Maximum temperature range observed was 27.5-29.5 °C, range of minimum temperature observed was 8.4-10.4 °C, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1-2.0 km/hr.

Weather forecast for next five days of Chandel (20th to 24th November, 2013)

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 27.0 - 28.0 °C & minimum temp. 9.0 - 10.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 48 % (minimum RH). The average wind speed may be 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, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	ps		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
Animal Scienc		I	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
		Management	- Increase energy feed (maize, rice bran, etc.) upto 5%.
Sheep/ Goat	Above 3 months of age	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	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Piperazine liquid @10-15 ml orally followed by half dose
		Deworming	on second day.

HISI	heries
1 001	

Mithun

Skin disease

of age

Fisheries				
Type of Farming	Stage	Management	Agro-metrological advisories	
Carp culture Grow-out		Pond water	- Maintained water depth of 1.0-1.5m.	
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.	
		Feeding - Minimum feed must be provided in two splits @ 1-2 %		
		day.		
		Harvest	- Harvesting may be done.	
			- Check fish health from time to time by netting.	

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15th Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5 - 29.5 $^{\circ}\text{C}$, range of minimum temperature observed was 8.4 - 10.4 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1 - 2.0 km/hr.

Weather forecast for next five days of Churachandpur (20th to 24th November, 2013)

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 25.0 - 27.0 °C & minimum temp. 7.0 - 8.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 44 % (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, grains must be sundried well before storage. Dr grains/ seeds to 12-14% moisture if mechanical thresher is used.	
Rapeseed/ Mustard	Sowing		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	Land preparation to sowing		For pea: - Land preparation may be done. 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. - Lentils may also be sown with minimum tillage or zero tillage.	
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.	
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 Cro	ps			
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare. 	
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. 	



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
as to maintain th Animal Scienc Name of the	T	Disease/ infestation	
animal	Growth stage	Disease/ intestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
		Management	- Increase energy feed (maize, rice bran, etc.) upto 5%.
Sheep/ Goat	Above 3 months of age	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	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Piperazine liquid @10-15 ml orally followed by half dose
		Deworming	on second day.

Fisheries

of age

Skin disease

Mithun

Fisheries				
Type of Farming	Stage	Management	Agro-metrological advisories	
Carp culture Grow-out		Pond water	- Maintained water depth of 1.0-1.5m.	
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.	
		Feeding - Minimum feed must be provided in two splits @ 1-2 %		
		day.		
		Harvest	- Harvesting may be done.	
			- Check fish health from time to time by netting.	

- Spray Butox @ 2ml in 1 lit of water, twice a week.



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



"Integrated Agromet Advisory Services"

MANIPUR BULLETIN 19th November, 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 20th to 24th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15th to 18th November, 2013)

During the past four days the sky was clear to mainly clear but mainly cloudy during morning hours of 15th Nov. **No** rainfall was recorded during past four days. Maximum temperature range observed was 27.5 - 29.5 $^{\circ}\text{C}$, range of minimum temperature observed was 8.4 - 10.4 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 87.25 % and 46.25 % respectively. The average wind speed range was 0.1 - 2.0 km/hr.

Weather forecast for next five days of Imphal - East $(20^{th} to 24^{th} November, 2013)$

There may be no rain upto Sunday. Weather will be dry with clear to partly cloudy sky and maximum temp. of 26.0 - 27.0 °C & minimum temp. 8.0 - 9.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 40 % (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	1		·
Rice	Post-harvest		- After proper threshing, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	12 kg/ - Record - After		 After harvesting rice, zero tillage rapeseed may be sown (seed rate is 10-12 kg/ha) when soil in the field is soft 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	For pea: - Land preparation to sowing - Land preparation may be done. Sowing may be done and some an		 - Land preparation may be done. 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 @
Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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 Cro	ps		
Potato	Land preparation and seed/ tuber treatment and planting		 - Prepare raised beds. Treat soil with systemic insecticide such as Phorate 10G @ 2.5kg/ sangam to prevent aphid vector. - Soil must be made to fine tilt and planted in furrows at a spacing of 25cm seed to seed and 45-50 cm row to row. - Cover the seed with soil to a depth 1-1½ inches. - If the soil is dry, give light irrigation prior to planting. - Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.
Onion	Transplanting		 Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. Give light watering during morning and evening hours for 7-10 days after transplanting. Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.



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



"Integrated Agromet Advisory Services"

Garlic	Land preparation to planting		- Garlic bulblets may be planted in prepared beds.
Dolichos bean	Flowering to fruiting		 - As the temperature is going down, aphid population will be more. - Harvest the mature fruits and spray neem based pesticides. - If it is in initial flowering stage, then spray Cypermethrin @ 2 ml/ litre of water. - Earthing up of soil, followed by top dressing with 20g DAP + 5g MOP + 3kg FYM will helpful for fruiting.
Cole Crops/ Tomato, etc.	Vegetative		Light watering to the crops during morning hours may be done.Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		- Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.
as to maintain th	e soil temperature.		hes after earthing up and weeding to conserve residual soil moisture as well
		T	
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
		Disease/ infestation Ranikhet disease	$\label{eq:Agro-meteorological advisories} \mbox{- Vaccinate against Ranikhet disease using Lasota strain vaccine and R_2B vaccine.}$
animal	Growth stage All susceptible		- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B
animal	Growth stage All susceptible	Ranikhet disease	- Vaccinate against Ranikhet disease using Lasota strain vaccine and R ₂ B vaccine.
animal Poultry	All susceptible age groups	Ranikhet disease Management	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%.
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months	Ranikhet disease Management Deworming	 - Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. - Increase energy feed (maize, rice bran, etc.) upto 5%. - Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and
animal Poultry Sheep/ Goat	All susceptible age groups Above 3 months of age	Ranikhet disease Management Deworming Ectoparasite	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
animal Poultry	All susceptible age groups Above 3 months of age Above 3 months	Ranikhet disease Management Deworming Ectoparasite Swine Fever	 Vaccinate against Ranikhet disease using Lasota strain vaccine and R₂B vaccine. Increase energy feed (maize, rice bran, etc.) upto 5%. Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt. Spray Butox @ 2ml in 1 lit of water for protection against mange and mites. Vaccinate against swine fever after the age of 3 months.

Fis	ner	res

of age

Skin disease

Mithun

Fisheries				
Type of Farming	Stage	Management	Agro-metrological advisories	
Carp culture Grow-out		Pond water	- Maintained water depth of 1.0-1.5m.	
			- Apply Lime or Aqua magic regularly to maintain good quality pond water.	
		Feeding - Minimum feed must be provided in two splits @ 1-2 %		
		day.		
		Harvest	- Harvesting may be done.	
			- Check fish health from time to time by netting.	

- Spray Butox @ 2ml in 1 lit of water, twice a week.