



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. **No** rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Churachandpur (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 26.0 - 27.0 °C & minimum temp. 6.0 – 7.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 37 % (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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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Garlic	Planting to early vegetative		<ul style="list-style-type: none"> - Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
Dolichos bean	Flowering to fruiting		<ul style="list-style-type: none"> - 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		<ul style="list-style-type: none"> - Light watering to the crops during morning hours may be done. - Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		<ul style="list-style-type: none"> - Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> - 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.

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



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MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Imphal - East (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 26.0 - 27.0 °C & minimum temp. 7.0 – 8.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 36 % (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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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Garlic	Planting to early vegetative		<ul style="list-style-type: none"> - Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
Dolichos bean	Flowering to fruiting		<ul style="list-style-type: none"> - 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		<ul style="list-style-type: none"> - Light watering to the crops during morning hours may be done. - Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		<ul style="list-style-type: none"> - Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> - 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.

I. Meghachandra Singh
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MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Imphal - West (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 25.0 - 27.0 °C & minimum temp. 6.0 – 8.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 36 % (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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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Garlic	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
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.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

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.

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MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Senapati (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 24.0 - 26.0 °C & minimum temp. 5.0 – 6.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 35 % (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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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“Integrated Agromet Advisory Services”

Garlic	Planting to early vegetative		<ul style="list-style-type: none"> - Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
Dolichos bean	Flowering to fruiting		<ul style="list-style-type: none"> - 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		<ul style="list-style-type: none"> - Light watering to the crops during morning hours may be done. - Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		<ul style="list-style-type: none"> - Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> - 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.

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MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

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During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Tamenglong (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 27.0 - 29.0 °C & minimum temp. 7.0 – 9.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 36 % (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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

Garlic	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
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.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

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.

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Thoubal (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 26.0 - 27.0 °C & minimum temp. 6.0 – 8.0 °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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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Garlic	Planting to early vegetative		<ul style="list-style-type: none"> - Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
Dolichos bean	Flowering to fruiting		<ul style="list-style-type: none"> - 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		<ul style="list-style-type: none"> - Light watering to the crops during morning hours may be done. - Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		<ul style="list-style-type: none"> - Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> - 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.

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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Ukhrul (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 23.0 - 25.0 °C & minimum temp. 5.0 – 6.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 44 % (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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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Garlic	Planting to early vegetative		<ul style="list-style-type: none"> - Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
Dolichos bean	Flowering to fruiting		<ul style="list-style-type: none"> - 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		<ul style="list-style-type: none"> - Light watering to the crops during morning hours may be done. - Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		<ul style="list-style-type: none"> - Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> - 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.

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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Bishnupur (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 26.0 - 28.0 °C & minimum temp. 7.0 – 8.0 °C. Relative Humidity may reach a maximum value of 100 % (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, grains must be sundried well before storage. Dry grains/ seeds to 12-14% moisture if mechanical thresher is used.
Rapeseed/ Mustard	Sowing to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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	Planting to early vegetative		<ul style="list-style-type: none"> - Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
Dolichos bean	Flowering to fruiting		<ul style="list-style-type: none"> - 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		<ul style="list-style-type: none"> - Light watering to the crops during morning hours may be done. - Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		<ul style="list-style-type: none"> - Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> - 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.

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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (19th to 21st November, 2013)

During the past three days the sky was clear partly cloudy. No rainfall was recorded during past three days. Maximum temperature range observed was 26.5 – 27.5 °C, range of minimum temperature observed was 6.7 – 10.0 °C, mean relative humidity observed in morning and afternoon were 76.3 % and 42.7 % respectively. The average wind speed range was 1.0 – 1.6 km/hr.

Weather forecast for next five days of Chandel (23rd to 27th November, 2013)

There may be no rain upto Wednesday. Sky may be clear to partly cloudy sky and maximum temp. of 26.0 - 28.0 °C & minimum temp. 6.0 – 7.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 49 % (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 to early vegetative		- 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	Sowing to early vegetative		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 Crops			
Potato	Land preparation and seed/ tuber treatment & planting to early vegetative		- 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 to early vegetative		- 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.



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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

Garlic	Planting to early vegetative		<ul style="list-style-type: none"> - Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
Dolichos bean	Flowering to fruiting		<ul style="list-style-type: none"> - 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		<ul style="list-style-type: none"> - Light watering to the crops during morning hours may be done. - Monitor regularly for insect/ pest infestation.
Garden pea	Vegetative		<ul style="list-style-type: none"> - Avoid plucking off of young shoots especially of dwarf tang short duration crops (variety like Azad, Arkel, etc.). It will delay fruiting & reduce yield.

* 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	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 on second day.
Cattle / Buffalo/ Mithun	Above 3 months of age	FMD	- Vaccinate against FMD.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

Fisheries

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"> - 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.

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