

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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(29^{th} \text{ April to } 2^{nd} \text{ May, } 2016)$

The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}\text{C}$, range of minimum temperature observed was 17.6 - 22.0 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Thoubal $(4^{th}$ to 8^{th} May, 2016)

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp of 29.0-31.0 $^{\circ}$ C & minimum temp of 17.0-18.0 $^{\circ}$ C. Relative humidity may reach up to 93 % (max RH) & 33 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Easterly to North west Westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016 Rain/thunderstorm likely at many places over northeastern states Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan |
| Soybean/ Groundnut/ Blackgram | Land preparation | | 3G at maize whorl. Land preparation for sowing of soybean/ groundnut/ blackgram may be started. Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | • | • | |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparation | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi). -High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6". -Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|----------------------------------|---|---|----------|--|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| Poultry All age groups (Chicken/ | | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production Controlled breeding | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | brooders | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(29^{th} \text{ April to } 2^{nd} \text{ May, } 2016)$

The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}$ C, range of minimum temperature observed was 17.6 – 22.0 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Ukhrul (4th to 8th May, 2016)

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp of 30.0-31.0 $^{\rm o}$ C & minimum temp of 17.0-18.0 $^{\rm o}$ C. Relative humidity may reach upto 83 % (max RH) & 30 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South Westerly to North Westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016 Rain/thunderstorm likely at many places over northeastern states Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | • | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl. |
| Soybean/ Groundnut/ Blackgram | Land preparation | | Land preparation for sowing of soybean/ groundnut/ blackgram may be started. Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | • | • | , , |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi). -High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6". -Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | ıl | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|----------------------------------|---|---|----------|--|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| Poultry All age groups (Chicken/ | | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production Controlled breeding | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | brooders | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

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Weather forecast for next five days of Bishnupur $(4^{th}$ to 8^{th} May, 2016)

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp of 29.0-31.0 $^{\rm o}$ C & minimum temp of 18.0-19.0 $^{\rm o}$ C. Relative humidity may reach upto 94 % (max RH) & 38 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South-south Easterly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016
Rain/thunderstorm likely at many places over northeastern states
Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl. |
| Soybean/ Groundnut/ Blackgram | Land preparation | | - Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | | | |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | 1 | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|----------------------------------|---|---|----------|--|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| Poultry All age groups (Chicken/ | | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production Controlled breeding | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | brooders | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

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The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}\text{C}$, range of minimum temperature observed was 17.6 - 22.0 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Chandel $(4^{th}$ to 8^{th} May, 2016)

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp of 30.0-31.0 $^{\rm o}$ C & minimum temp of 18.0-19.0 $^{\rm o}$ C. Relative humidity may reach upto 84 % (max RH) & 29 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be South-west Westerly to North-westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016 Rain/thunderstorm likely at many places over northeastern states Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | • | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl. |
| Soybean/ Groundnut/ Blackgram | Land preparation | | Land preparation for sowing of soybean/ groundnut/ blackgram may be started. Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | • | • | , , |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi). -High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6". -Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | 1 | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|----------------------------------|---|---|----------|--|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| Poultry All age groups (Chicken/ | | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production Controlled breeding | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | brooders | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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





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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(29^{th} \text{ April to } 2^{nd} \text{ May, } 2016)$

The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}$ C, range of minimum temperature observed was 17.6 – 22.0 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Churachandpur $(4^{th}\ to\ 8^{th}\ May,\ 2016)$

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp of 30.0-31.0 $^{\rm o}$ C & minimum temp of 17.0-19.0 $^{\rm o}$ C. Relative humidity may reach upto 95 % (max RH) & 39 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Southerly to South Westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016
Rain/thunderstorm likely at many places over northeastern states
Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | • | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl. |
| Soybean/ Groundnut/ Blackgram | Land preparation | | Land preparation for sowing of soybean/ groundnut/ blackgram may be started. Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | • | • | , , |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi). -High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6". -Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | ıl | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|----------------------------------|---|---|----------|--|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| Poultry All age groups (Chicken/ | | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production Controlled breeding | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | brooders | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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





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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(29^{th}\ April\ to\ 2^{nd}\ May,\ 2016)$

The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}\text{C}$, range of minimum temperature observed was 17.6 - 22.0 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Imphal East $(4^{th}$ to 8^{th} May, 2016)

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp. of 29.0-30.0 $^{\circ}\text{C}$ & minimum temp. 17.0-18.0 $^{\circ}\text{C}$. Relative humidity may reach upto 98 % (max RH) & 35 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North east Easterly to North Westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016 Rain/thunderstorm likely at many places over northeastern states Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | • | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan |
| Soybean/ Groundnut/ Blackgram | Land preparation | | 3G at maize whorl. - Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | • | • | |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi). -High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6". -Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material | |
|---------------------------------------|--|---|-----------------------|--|--|
| Animal Science | es . | | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories | |
| Poultry (Chicken/ Turkey/ Duck) | All age groups | Care & management Ranikhet Diseases | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March- April months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). | |
| Sheep/ Goat | All age groups | | | After that at every two months interval Pepirazine compound- 100mg/kg orally for 3 days. | |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. | |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. | |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. | |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. | |
| Cattle | All age groups excepts the young ones B.Q./ H.S/FMD Ectoparasitism | | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution | |
| | | Fodder crops | | (2 C.C. in 1 litre of water) can also be used. -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. | |
| | | Puerperal Fever in Pregnant animals Decrease in milk production Controlled breeding | | -50-60 gram of mineral mixture every day. | |
| | | | | -The milk & urine samples must be sent for testing. | |
| | Breedable age group | | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. | |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. | |
| Fishery: | | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories | |
| Carp culture | Fries/ fingerlings/ brooders | Pond and water Feed | -Apply A Provide f | n minimum depth of 1.5 – 2.0 m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. Geed 1-2 times @ 2 % body weight per day. | |
| | | Fish | programs | Male and female brooders should be stock in separate ponds for early breeding programs for Common Carp. Harvesting of fish may be done in area where water availability is low. | |



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





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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(29^{th}\ April\ to\ 2^{nd}\ May,\ 2016)$

The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}\text{C}$, range of minimum temperature observed was 17.6 - 22.0 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Imphal West $(4^{th}$ to 8^{th} May, 2016)

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp. of 28.0-30.0 $^{\circ}\text{C}$ & minimum temp. 15.0-16.0 $^{\circ}\text{C}$. Relative humidity may reach upto 98 % (max RH) & 38 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Easterly to Westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016
Rain/thunderstorm likely at many places over northeastern states
Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl. |
| Soybean/ Groundnut/ Blackgram | Land preparation | | - Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | | | |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi)High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6"Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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



| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|--------------------|---|--|----------|---|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| | All age groups | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-Apri months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | Controlled breeding | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ brooders | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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





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



"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(29^{th}\ April\ to\ 2^{nd}\ May,\ 2016)$

The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}\text{C}$, range of minimum temperature observed was 17.6 - 22.0 $^{\circ}\text{C}$, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Senapati (4th to 8th May, 2016)

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp of 29.0-30.0 $^{\circ}$ C & minimum temp of 16.0-17.0 $^{\circ}$ C. Relative humidity may reach upto 97 % (max RH) & 40 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South easterly to South westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016 Rain/thunderstorm likely at many places over northeastern states Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | • | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl. |
| Soybean/ Groundnut/ Blackgram | Land preparation | | - Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | | | |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi). -High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6". -Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | ıl | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|--------------------|---|--|----------|---|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| | All age groups | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-Apri months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | Controlled breeding | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ brooders | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 3rd May, 2016

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 4th to 8th May, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(29^{th}\ April\ to\ 2^{nd}\ May,\ 2016)$

The sky was fair to mainly cloudy. Rainfall of 39.7 mm was recorded during past four days. Maximum temperature range observed was 30.3 to 33.0 $^{\circ}$ C, range of minimum temperature observed was 17.6 – 22.0 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 89 % and 58.5 % respectively. The average wind speed range was 3.3 to 7.4 km/hr.

Weather forecast for next five days of Tamenglong $(4^{th}\,to\,8^{th}\,May,\,2016)$

Likely to have light rain with thunderstorm upto Sunday. Sky will remain variable to mainly cloudy, with maximum temp of 29.0-30.0 $^{\circ}$ C & minimum temp of 16.0-17.0 $^{\circ}$ C. Relative humidity may reach upto 97 % (max RH) & 40 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South easterly to South westerly during the next five days.

Weather Outlook for subsequent 2 days from 8th to 10th May, 2016
Rain/thunderstorm likely at many places over northeastern states
Weather Warning during next 5 days

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|---------------------------------------|---|------------------|---|
| Field Crops | • | | |
| Kharif rice | | | -land preparation for sowing kharif rice may be started. |
| Early kharif rice | Main field preparation to transplanting | | Row planting of 2-3 seedlings per hill at 25x10 cm using beaded rope may be done. Transplanting may be done upto mid of April. To enhance the establishment of transplanted seedlings, water depth of 2-3cm should be maintained in the field after transplanting then it may be increased gradually. |
| Rabi Maize | Cob formation | Stem borer | - To control the infestation of stem borer, apply few granules of Carbofuradan 3G at maize whorl. |
| Soybean/ Groundnut/ Blackgram | Land preparation | | - Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 - 13 t/ha or 2.5 - 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing. |
| Horticulture Crops | | | |
| Ginger/Turmeric | Preparation for sowing | | -The seed rhizome should be screened from pest and diseases -Spread in the shed for 1-2 days -Treat rhizome with Captan 50 W P or Hexaconazeb @ 3gm/kg seed & keep for ½ hour and sowing may be doneSpacing for Ginger -20cm X 30cm; turmeric- 20 cm X 45-50cm - Desirable weight of rhizome-15-25 gm with 2-3budsMulching with dried twigs/paddy straw is recommendedComplete sowing as early as possible preferably in the upland areasTrichoderma harzianum may also be used for seed treatment. |
| Bhindi/cowpea | Land preparatio | n | -Proper drainage should be given to drain excess water -No sowing should be done except in permissible field condition. |
| Onion | Harvesting | | -Mature onion should be harvested and dried in airy shed. |
| Tomato | Harvesting | | -50% mature/ripen fruits may be harvested and kept in a cooler place. |
| Water melon | | | -In early stage the beds and ridges should be free from weeds. In the later stage the vine will automatically cover the space in between the plants. Hence, weeding cum top dressing is recommended |
| Allium odorosum | | | -Plantation of <i>Allium odorosum</i> (Maroi nakuppi). -High density planting (1-0-12 nos. of rhizome) per hill is recommended for high yield at a spacing of 6" X 6". -Coriander seed may also be sown in between the Allium Species as an intercrop. |
| Fruit plants (Banana, Lime, Lemon, | Procurement of planting materia | ıl | -Jungle cutting and preparation of pit for planting/transplanting of these fruit plants should be started. Pit preparation should be done atleast 1 month ahead of planting. |



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| Orange, Kiwi, | etc.) | | -Pr | ocure quality planting material |
|--------------------|---|--|----------|---|
| Animal Science | es . | | | |
| Name of the animal | Growth stage | Disease/ infestation | | Agro-meteorological advisories |
| | All age groups | Care & management | | - To protect from dehydration, provision for wholesome and clear water (cool) be maintained properly atleast four times during the day. |
| Turkey/ Duck) | | Ranikhet Diseases | | Birds must be vaccinated as per recommended schedule mentioned below as the probability of occurrence of the disease is high during March-Apri months. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers). After that at every two months interval. |
| Sheep/ Goat | All age groups | | | - Pepirazine compound- 100mg/kg orally for 3 days. |
| | excepts the young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| Pig | All age groups excepts the | Deworming | | -Give Morantel citrate tablet @ 15 mg/kg of body weight. |
| | young ones | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Hog Cholera | | -Vaccination against swine fever must be carried out. |
| Cattle | All age groups excepts the young ones | B.Q./ H.S/FMD | | -If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot & mouth Disease. |
| | | Ectoparasitism | | - Keep the sheds clean. Hang Bouquets of Basil (Ocimum sactum) or Lemon Grass (Cymbopogon citrates) in the animals sheds to keep away the ecto-parasites. Neem oil based disinfectants can be sprayed. Butox solution (2 C.C. in 1 litre of water) can also be used. |
| | | Fodder crops Puerperal Fever in Pregnant animals Decrease in milk production | | -Maize should be sown for use as green fodderNapier/Guinea grass may be transplantedSilage can be prepared. |
| | | | | -50-60 gram of mineral mixture every day. |
| | | | | -The milk & urine samples must be sent for testing. |
| | Breedable age group | Controlled breeding | | -control breeding programme for animals should continue in the month of February so the all participating animals become pregnant during this month. |
| | Milch cow | Mastitis | | -To prevent mastitis they should be milked completely. |
| Fishery: | | | | |
| Type of Farming | Stage | Management | Agro-me | etrological advisories |
| Carp culture | Fries/ fingerlings/ brooders | Pond and water | -Apply A | n minimum depth of $1.5 - 2.0$ m by filling fresh and clean water. Agri-Lime in brooder pond at small quantity at an interval of 30 days regularly. |
| | | Feed | | feed 1-2 times @ 2 % body weight per day. |
| | | Fish | | nd female brooders should be stock in separate ponds for early breeding s for Common Carp. |
| | | | | ting of fish may be done in area where water availability is low. |



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