



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Bishnupur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Bishnupur (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 27 - 28 °C & minimum temp. 13-14 °C and relative humidity may reach up to 71 % (max RH) & 50 % (min RH). The average wind speed may be 2 km/hr.

| Field Crops | | | |
|---|----------------------------|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |

Horticulture Crops

- * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.
- * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|-------------------------------------|---|-------------------------|---|
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Coriander | Land preparation & sowing | | - Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m ² and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m ² . |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---------------|-----------------------------------|--|--|
| Onion | Transplanting to early vegetative | | <ul style="list-style-type: none"> - 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |
| Potato | Tuber seed treatment and sowing | | <ul style="list-style-type: none"> - Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. - Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing. |

Animal Sciences

| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
|----------------------------------|---------------------------------------|---|--|
| Poultry (Chicken/ / Duck) | All age groups | <ul style="list-style-type: none"> • Management | <ul style="list-style-type: none"> • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | <ul style="list-style-type: none"> • Shearing for wool | <ul style="list-style-type: none"> • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | <ul style="list-style-type: none"> • Coccidial infection | <ul style="list-style-type: none"> • Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • De-worm with Albendazole @ 7.5 mg/kg b.wt. |
| | | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against FMD. |
| | | <ul style="list-style-type: none"> • Skin disease | <ul style="list-style-type: none"> • Sprayer of Anti-<i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals. |
| | | <ul style="list-style-type: none"> • Deworming | <ul style="list-style-type: none"> • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | <ul style="list-style-type: none"> • Care & Management | <ul style="list-style-type: none"> • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | <ul style="list-style-type: none"> • Adequate care must be ensured for prevention of mastitis for the milch animals. |

- Fodder cultivation: Oat crop may be sown immediately.

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------|------------|---|
| Carp culture | Grow-out | Pond water | <ul style="list-style-type: none"> - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | <ul style="list-style-type: none"> - As per market demand harvesting may be started. |
| | | Feeding | <ul style="list-style-type: none"> - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Chandel**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Chandel (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 24 - 25 °C & minimum temp. 12-13 °C and relative humidity may reach up to 85 % (max RH) & 58 % (min RH). The average wind speed may be 2-3 km/hr.

| Field Crops | | | |
|---|---|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |
| Horticulture Crops | | | |
| * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops. * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature. * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). | | | |
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Coriander | Land preparation & sowing | | - Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m ² and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m ² . |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---------------|-----------------------------------|--|--|
| Onion | Transplanting to early vegetative | | <ul style="list-style-type: none"> - 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |
| Potato | Tuber seed treatment and sowing | | <ul style="list-style-type: none"> - Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. - Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing. |

Animal Sciences

| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
|----------------------------------|---------------------------------------|---|--|
| Poultry (Chicken/ / Duck) | All age groups | <ul style="list-style-type: none"> • Management | <ul style="list-style-type: none"> • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | <ul style="list-style-type: none"> • Shearing for wool | <ul style="list-style-type: none"> • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | <ul style="list-style-type: none"> • Coccidial infection | <ul style="list-style-type: none"> • Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • De-worm with Albendazole @ 7.5 mg/kg b.wt. |
| | | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against FMD. |
| | | <ul style="list-style-type: none"> • Skin disease | <ul style="list-style-type: none"> • Sprayer of Anti-<i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. |
| | | <ul style="list-style-type: none"> • Deworming | <ul style="list-style-type: none"> • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | <ul style="list-style-type: none"> • Care & Management | <ul style="list-style-type: none"> • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | <ul style="list-style-type: none"> • Adequate care must be ensured for prevention of mastitis for the milch animals. |

- Fodder cultivation: Oat crop may be sown immediately.

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------|------------|---|
| Carp culture | Grow-out | Pond water | <ul style="list-style-type: none"> - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | <ul style="list-style-type: none"> - As per market demand harvesting may be started. |
| | | Feeding | <ul style="list-style-type: none"> - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Churachandpur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Churachandpur (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 27 - 28 °C & minimum temp. 13-14 °C and relative humidity may reach up to 77 % (max RH) & 50 % (min RH). The average wind speed may be 2 km/hr.

| Field Crops | | | |
|---|---|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |
| Horticulture Crops | | | |
| * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops. * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature. * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). | | | |
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Coriander | Land preparation & sowing | | - Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m ² and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m ² . |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---------------|-----------------------------------|--|--|
| Onion | Transplanting to early vegetative | | <ul style="list-style-type: none"> - 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |
| Potato | Tuber seed treatment and sowing | | <ul style="list-style-type: none"> - Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. - Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing. |

Animal Sciences

| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
|----------------------------------|---------------------------------------|---|--|
| Poultry (Chicken/ / Duck) | All age groups | <ul style="list-style-type: none"> • Management | <ul style="list-style-type: none"> • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | <ul style="list-style-type: none"> • Shearing for wool | <ul style="list-style-type: none"> • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | <ul style="list-style-type: none"> • Coccidial infection | <ul style="list-style-type: none"> • Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • De-worm with Albendazole @ 7.5 mg/kg b.wt. |
| | | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against FMD. |
| | | <ul style="list-style-type: none"> • Skin disease | <ul style="list-style-type: none"> • Sprayer of Anti-<i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals. |
| | | <ul style="list-style-type: none"> • Deworming | <ul style="list-style-type: none"> • De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | <ul style="list-style-type: none"> • Care & Management | <ul style="list-style-type: none"> • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | <ul style="list-style-type: none"> • Adequate care must be ensured for prevention of mastitis for the milch animals. |

- Fodder cultivation: Oat crop may be sown immediately.

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------|------------|---|
| Carp culture | Grow-out | Pond water | <ul style="list-style-type: none"> - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | <ul style="list-style-type: none"> - As per market demand harvesting may be started. |
| | | Feeding | <ul style="list-style-type: none"> - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Imphal East**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Imphal East (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 26 - 27 °C & minimum temp. 13 °C and relative humidity may reach up to 79 % (max RH) & 47 % (min RH). The average wind speed may be 4 km/hr.

As per SPI and NDVI maps the district is showing severely wet condition, hence all agricultural practices must be done after attaining optimum soil moisture.

| Field Crops | | | |
|---|---|-------------------------|---|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @ 2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |
| Horticulture Crops | | | |
| * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops. * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature. * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). | | | |
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Coriander | Land preparation & sowing | | - Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m ² and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m ² . |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---------------|-----------------------------------|--|--|
| Onion | Transplanting to early vegetative | | <ul style="list-style-type: none"> - 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |
| Potato | Tuber seed treatment and sowing | | <ul style="list-style-type: none"> - Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. - Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing. |

Animal Sciences

| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
|----------------------------------|---------------------------------------|---|--|
| Poultry (Chicken/ / Duck) | All age groups | <ul style="list-style-type: none"> • Management | <ul style="list-style-type: none"> • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | <ul style="list-style-type: none"> • Shearing for wool | <ul style="list-style-type: none"> • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | <ul style="list-style-type: none"> • Coccidial infection | <ul style="list-style-type: none"> • Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • De-worm with Albendazole @ 7.5 mg/kg b.wt. |
| | | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against FMD. |
| | | <ul style="list-style-type: none"> • Skin disease | <ul style="list-style-type: none"> • Sprayer of Anti-<i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. |
| | | <ul style="list-style-type: none"> • Deworming | <ul style="list-style-type: none"> • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | <ul style="list-style-type: none"> • Care & Management | <ul style="list-style-type: none"> • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | <ul style="list-style-type: none"> • Adequate care must be ensured for prevention of mastitis for the milch animals. |

• Fodder cultivation: Oat crop may be sown immediately.

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------|------------|---|
| Carp culture | Grow-out | Pond water | <ul style="list-style-type: none"> - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | <ul style="list-style-type: none"> - As per market demand harvesting may be started. |
| | | Feeding | <ul style="list-style-type: none"> - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Imphal West**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Imphal West (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 26 - 27 °C & minimum temp. 13 °C and relative humidity may reach up to 79 % (max RH) & 47 % (min RH). The average wind speed may be 4 km/hr.

| Field Crops | | | |
|---|---|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |
| Horticulture Crops | | | |
| * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops. * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature. * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). | | | |
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Coriander | Land preparation & sowing | | - Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m ² and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m ² . |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---------------|-----------------------------------|--|--|
| Onion | Transplanting to early vegetative | | <ul style="list-style-type: none"> - 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |
| Potato | Tuber seed treatment and sowing | | <ul style="list-style-type: none"> - Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. - Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing. |

Animal Sciences

| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
|----------------------------------|---------------------------------------|---|--|
| Poultry (Chicken/ / Duck) | All age groups | <ul style="list-style-type: none"> • Management | <ul style="list-style-type: none"> • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | <ul style="list-style-type: none"> • Shearing for wool | <ul style="list-style-type: none"> • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | <ul style="list-style-type: none"> • Coccidial infection | <ul style="list-style-type: none"> • Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • De-worm with Albendazole @ 7.5 mg/kg b.wt. |
| | | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against FMD. |
| | | <ul style="list-style-type: none"> • Skin disease | <ul style="list-style-type: none"> • Sprayer of Anti-<i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. |
| | | <ul style="list-style-type: none"> • Deworming | <ul style="list-style-type: none"> • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | <ul style="list-style-type: none"> • Care & Management | <ul style="list-style-type: none"> • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | <ul style="list-style-type: none"> • Adequate care must be ensured for prevention of mastitis for the milch animals. |

- Fodder cultivation: Oat crop may be sown immediately.

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------|------------|---|
| Carp culture | Grow-out | Pond water | <ul style="list-style-type: none"> - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | <ul style="list-style-type: none"> - As per market demand harvesting may be started. |
| | | Feeding | <ul style="list-style-type: none"> - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017**Senapati

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Senapati (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 22 - 24 °C & minimum temp. 9-11 °C and relative humidity may reach up to 78 % (max RH) & 43 % (min RH). The average wind speed may be 3 km/hr.

| Field Crops | | | |
|---|----------------------------|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |

Horticulture Crops

- * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.
- * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|-------------------------------------|---|-------------------------|---|
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |
| 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| Animal Sciences | | | |
|---|---|------------------------|---|
| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
| Poultry (Chicken/ / Duck) | All age groups | • Management | • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | • Vaccination | • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | • De-worming | • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | • Shearing for wool | • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | • Coccidial infection | • Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days. |
| | | • De-worming | • De-worm with Albendazole @7.5 mg/kg b.wt. |
| | | • Vaccination | • Vaccinate against FMD. |
| | | • Skin disease | • Sprayer of Anti- <i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | • Vaccination | • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. |
| | | • Deworming | • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | • Care & Management | • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | • Adequate care must be ensured for prevention of mastitis for the milch animals. |
| • Fodder cultivation: Oat crop may be sown immediately. | | | |
| Fishery: | | | |
| Type of Farming | Stage | Management | Agro-metrological advisories |
| Carp culture | Grow-out | Pond water | - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | - As per market demand harvesting may be started. |
| | | Feeding | - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
 Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Tamenglong**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Tamenglong (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 27 - 28 °C & minimum temp. 13-14 °C and relative humidity may reach up to 77 % (max RH) & 50 % (min RH). The average wind speed may be 2 km/hr.

| Field Crops | | | |
|---|---|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |
| Horticulture Crops | | | |
| * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops. * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature. * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). | | | |
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Coriander | Land preparation & sowing | | - Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m ² and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m ² . |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---------------|-----------------------------------|--|--|
| Onion | Transplanting to early vegetative | | <ul style="list-style-type: none"> - 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |
| Potato | Tuber seed treatment and sowing | | <ul style="list-style-type: none"> - Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. - Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing. |

Animal Sciences

| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
|----------------------------------|---------------------------------------|---|--|
| Poultry (Chicken/ / Duck) | All age groups | <ul style="list-style-type: none"> • Management | <ul style="list-style-type: none"> • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | <ul style="list-style-type: none"> • Shearing for wool | <ul style="list-style-type: none"> • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | <ul style="list-style-type: none"> • Coccidial infection | <ul style="list-style-type: none"> • Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • De-worm with Albendazole @ 7.5 mg/kg b.wt. |
| | | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against FMD. |
| | | <ul style="list-style-type: none"> • Skin disease | <ul style="list-style-type: none"> • Sprayer of Anti-<i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. |
| | | <ul style="list-style-type: none"> • Deworming | <ul style="list-style-type: none"> • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | <ul style="list-style-type: none"> • Care & Management | <ul style="list-style-type: none"> • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | <ul style="list-style-type: none"> • Adequate care must be ensured for prevention of mastitis for the milch animals. |

- Fodder cultivation: Oat crop may be sown immediately.

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------|------------|---|
| Carp culture | Grow-out | Pond water | <ul style="list-style-type: none"> - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | <ul style="list-style-type: none"> - As per market demand harvesting may be started. |
| | | Feeding | <ul style="list-style-type: none"> - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Thoubal**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Thoubal (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 27 - 28 °C & minimum temp. 13-14 °C and relative humidity may reach up to 71 % (max RH) & 50 % (min RH). The average wind speed may be 2 km/hr.

| Field Crops | | | |
|---|----------------------------|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |

Horticulture Crops

- * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.
- * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|-------------------------------------|---|-------------------------|---|
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Coriander | Land preparation & sowing | | - Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m ² and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m ² . |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



| | | | |
|---------------|-----------------------------------|--|--|
| Onion | Transplanting to early vegetative | | <ul style="list-style-type: none"> - 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |
| Potato | Tuber seed treatment and sowing | | <ul style="list-style-type: none"> - Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. - Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing. |

Animal Sciences

| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
|----------------------------------|---------------------------------------|---|--|
| Poultry (Chicken/ / Duck) | All age groups | <ul style="list-style-type: none"> • Management | <ul style="list-style-type: none"> • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | <ul style="list-style-type: none"> • Shearing for wool | <ul style="list-style-type: none"> • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | <ul style="list-style-type: none"> • Coccidial infection | <ul style="list-style-type: none"> • Ofloxacin/ Ornidazole (O₂) tab twice daily for 5 days. |
| | | <ul style="list-style-type: none"> • De-worming | <ul style="list-style-type: none"> • De-worm with Albendazole @ 7.5 mg/kg b.wt. |
| | | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against FMD. |
| | | <ul style="list-style-type: none"> • Skin disease | <ul style="list-style-type: none"> • Sprayer of Anti-<i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | <ul style="list-style-type: none"> • Vaccination | <ul style="list-style-type: none"> • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. |
| | | <ul style="list-style-type: none"> • Deworming | <ul style="list-style-type: none"> • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | <ul style="list-style-type: none"> • Care & Management | <ul style="list-style-type: none"> • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | <ul style="list-style-type: none"> • Adequate care must be ensured for prevention of mastitis for the milch animals. |

- Fodder cultivation: Oat crop may be sown immediately.

Fishery:

| Type of Farming | Stage | Management | Agro-metrological advisories |
|---------------------|----------|------------|---|
| Carp culture | Grow-out | Pond water | <ul style="list-style-type: none"> - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | <ul style="list-style-type: none"> - As per market demand harvesting may be started. |
| | | Feeding | <ul style="list-style-type: none"> - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS



ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****24th November, 2017****Ukhrul**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25th to 29th November, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd November, 2017)

Observed fair to mainly cloudy sky during past three days with **no** rainfall. Maximum temperature range of 26.7 to 27.2 °C and minimum temperature range of 10.6 to 13.9 °C with mean relative humidity 94.0 % max and 48.7 % min was recorded in the past three days.

Weather forecast for next five days of Ukhrul (25th to 29th November, 2017)

Likely to have light rains at isolated places on Saturday and moderate to dense fog during morning hours of 25th Nov. Sky may remain mainly clear. The maximum temp. 23 - 25 °C & minimum temp. 10-12 °C and relative humidity may reach up to 77 % (max RH) & 51 % (min RH). The average wind speed may be 3 km/hr.

| Field Crops | | | |
|---|----------------------------|-------------------------|--|
| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
| Rice | Post harvest | | - After proper threshing, grains must be sundried well to 12-14% moisture before storage. |
| Rapeseed/ Mustard | Sowing to early vegetative | | - Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high. |
| Rabi Maize | Land preparation | | - Land preparation for sowing rabi maize may be started. |
| Field Pea | Sowing to early vegetative | | Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing. |
| Lentil/ Blackgram (late variety) | Sowing to early vegetative | | Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it. |
| Seeds storage | Post harvest management | | For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores. |

Horticulture Crops

- * Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- * Apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.
- * Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).

| Name of the crop | Stage | Pest and disease | Agro-meteorological advisories |
|-------------------------------------|---|-------------------------|---|
| Cabbage/ Cauliflower/ Tomato | Transplanting to early vegetative | | - Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation. |
| Tree Bean | Pre-bearing and bearing trees (flowering to fruiting) | | - Apply 60g DAP+ 10g MOP + 20g Tracel (micronutrient mixture) to pre-bearing and bearing trees before flowering for better yield. - Spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. to prevent Verticillium wilt. - 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites. |
| 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 till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting. |
| 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. |

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

| Animal Sciences | | | |
|---|---|------------------------|---|
| Name of bird/ animal | Stage | Disease and Management | Agro-meteorological advisories |
| Poultry (Chicken/ / Duck) | All age groups | • Management | • Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time. • Litter must be stirred frequently and aired every day. |
| Sheep/ Goat | All age groups | • Vaccination | • If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month. • Take adequate care to prevent occurrence of Mastitis. • PPR immunization must be done once in every three years. |
| | | • De-worming | • Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt. |
| | | • Shearing for wool | • Sheep should be sheared during this month. |
| Pig | All age groups except the young ones | • Coccidial infection | • Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days. |
| | | • De-worming | • De-worm with Albendazole @7.5 mg/kg b.wt. |
| | | • Vaccination | • Vaccinate against FMD. |
| | | • Skin disease | • Sprayer of Anti- <i>Psoroptic</i> may be used |
| Cattle | All age groups excepts the young ones | • Vaccination | • Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals. |
| | | • Deworming | • De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight. |
| | | • Care & Management | • Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures |
| | | Mastitis | • Adequate care must be ensured for prevention of mastitis for the milch animals. |
| • Fodder cultivation: Oat crop may be sown immediately. | | | |
| Fishery: | | | |
| Type of Farming | Stage | Management | Agro-metrological advisories |
| Carp culture | Grow-out | Pond water | - Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day. |
| | | Harvest | - As per market demand harvesting may be started. |
| | | Feeding | - Feeds should be provided 2 times a day. |

(I. Meghachandra Singh)
Scientist i/c, GKMS