



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

**MANIPUR BULLETIN****28th October, 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 29th October to 2nd November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th October, 2016)

The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Bishnupur (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 27-29 °C & minimum temp. 16 - 19 °C. Relative humidity may reach upto 99 % (max RH) & 75 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Easterly to South South-Easterly during the next five days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		- Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/hectare.
Rapeseed/ Mustard	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



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Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

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



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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****28th October, 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 29th October to 2nd November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th October, 2016)

The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Chandel (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 25-28 °C & minimum temp. 16 - 19 °C. Relative humidity may reach upto 99 % (max RH) & 80 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Easterly to Southerly during the next five days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		<ul style="list-style-type: none"> - Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		<ul style="list-style-type: none"> ➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
Rapeseed/ Mustard	Seed collection		<ul style="list-style-type: none"> ➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		<ul style="list-style-type: none"> ➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		<ul style="list-style-type: none"> ➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		<ul style="list-style-type: none"> ➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	<ul style="list-style-type: none"> ➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			<ul style="list-style-type: none"> ➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



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Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

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**MANIPUR BULLETIN****28th October, 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 29th October to 2nd November, 2016 as below:

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Weather forecast for next five days of Imphal East (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 27-29 °C & minimum temp. 16 - 19 °C. Relative humidity may reach upto 100 % (max RH) & 80 % (min RH). The average wind speed may be 2-3km/hr. Wind direction may be Easterly during the next five days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		- Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
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Field pea	Land preparation		➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
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Animal Sciences

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Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
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Fishery:

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**MANIPUR BULLETIN****28th October, 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 29th October to 2nd November, 2016 as below:

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The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Imphal West (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 25 – 28 °C & minimum temp. 15 - 18 °C. Relative humidity may reach upto 99 % (max RH) & 73 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		<ul style="list-style-type: none"> - Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut/	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		<ul style="list-style-type: none"> ➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
Rapeseed/ Mustard	Seed collection		<ul style="list-style-type: none"> ➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		<ul style="list-style-type: none"> ➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		<ul style="list-style-type: none"> ➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		<ul style="list-style-type: none"> ➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	<ul style="list-style-type: none"> ➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			<ul style="list-style-type: none"> ➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

(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****28th October, 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 29th October to 2nd November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th October, 2016)

The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Thoubal (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 25-28 °C & minimum temp. 16 - 19 °C. Relative humidity may reach upto 100 % (max RH) & 79 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Easterly to South South-Easterly during the next five days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		- Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
Rapeseed/ Mustard	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



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Manipur Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

(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****28th October, 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 29th October to 2nd November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th October, 2016)

The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Churachandpur (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 27-29 °C & minimum temp. 16 - 19 °C. Relative humidity may reach upto 100 % (max RH) & 72 % (min RH). The average wind speed may be 2-3km/hr. Wind direction may be South South-Easterly on 29th and Easterly thereafter.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		<ul style="list-style-type: none"> - Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		<ul style="list-style-type: none"> ➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
Rapeseed/ Mustard	Seed collection		<ul style="list-style-type: none"> ➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		<ul style="list-style-type: none"> ➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		<ul style="list-style-type: none"> ➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		<ul style="list-style-type: none"> ➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	<ul style="list-style-type: none"> ➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			<ul style="list-style-type: none"> ➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



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



Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

(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****28th October, 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 29th October to 2nd November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th October, 2016)

The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Senapati (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 25-28 °C & minimum temp. 16 - 19 °C. Relative humidity may reach upto 100 % (max RH) & 74 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be North Easterly to South East Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		<ul style="list-style-type: none"> - Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		<ul style="list-style-type: none"> ➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
Rapeseed/ Mustard	Seed collection		<ul style="list-style-type: none"> ➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		<ul style="list-style-type: none"> ➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		<ul style="list-style-type: none"> ➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		<ul style="list-style-type: none"> ➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	<ul style="list-style-type: none"> ➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			<ul style="list-style-type: none"> ➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



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“Gramin Krishi Mausam Seva”



Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

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



ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****28th October, 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 29th October to 2nd November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th October, 2016)

The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Tamenglong (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 25-28 °C & minimum temp. 17 - 19 °C. Relative humidity may reach upto 99 % (max RH) & 68 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be Easterly on 29th and North Easterly thereafter during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		<ul style="list-style-type: none"> - Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		<ul style="list-style-type: none"> ➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
Rapeseed/ Mustard	Seed collection		<ul style="list-style-type: none"> ➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		<ul style="list-style-type: none"> ➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		<ul style="list-style-type: none"> ➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		<ul style="list-style-type: none"> ➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	<ul style="list-style-type: none"> ➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			<ul style="list-style-type: none"> ➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



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“Gramin Krishi Mausam Seva”



Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

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



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**MANIPUR BULLETIN****28th October, 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 29th October to 2nd November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th October, 2016)

The sky remain mainly cloudy to overcast during next five days. **18.4 mm** rainfall was recorded during past four days. Maximum temperature range observed was 23.1 to 25.1 °C, range of minimum temperature observed was 17.3 to 19.4 °C, mean relative humidity observed in morning and afternoon were 92.0 % and 88.0 % respectively. The average wind speed range was 2.5 to 3.3 km/hr.

Weather forecast for next five days of Ukhrul (29th October to 2nd November, 2016)

Likely to have light rainfall upto Monday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 26-28 °C & minimum temp. 16 - 19 °C. Relative humidity may reach upto 99 % (max RH) & 69 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Easterly to South Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting		<ul style="list-style-type: none"> - Drain out water completely 10 days before harvesting rice. - Mature crops may be harvested after Monday as there is likely to have no rain. Harvesting of rice may be done if 80 % of the spikelet is yellow if facility for threshing is available.
Groundnut	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain. Harvest the crop when 125 days old (var. ICGS-76) as well as dark tint inside the shell appears. ➤ Make bundles and dry the crops in shade for 2-3 days for curing. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean			<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop and harvest after rain.
Blackgram / rice bean	Maturity to harvesting		<ul style="list-style-type: none"> ➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging and harvest after rain.
Potato	Land preparation and seed tuber collection		<ul style="list-style-type: none"> ➤ Prepare land and plant seed tubers after rains when the soil is relatively dry. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting after rain. ➤ Sowing may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare.
Rapeseed/ Mustard	Seed collection		<ul style="list-style-type: none"> ➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture. ➤ Sow seeds just after harvesting rice.
Field pea	Land preparation		<ul style="list-style-type: none"> ➤ Land preparation for sowing field pea may be started after rain. ➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing.
Pre-kharif rice seeds	Post harvest management		<ul style="list-style-type: none"> ➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables after rains.			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		<ul style="list-style-type: none"> ➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. - Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops.
Ginger/ Turmeric	Rhizome formation	Leaf blotch & Leaf Spot	<ul style="list-style-type: none"> ➤ Disease free mulching material may be used when soil moisture reduces. ➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
Tree Bean (4 to 5 yrs old)			<ul style="list-style-type: none"> ➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).



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Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Garden Pea	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.
Papaya	Planting and bearing trees	Fruit fly	<ul style="list-style-type: none"> - Papaya seedling (15-20 cm in height) can be planted at a distance of 1.8 m X 1.8 m distance in the area where occurrence of frost is not common. - For fruiting plants, spray Bavistin (0.1%) at 20 days intervals or Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases. - To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe infestation.

Animal Sciences

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	<ul style="list-style-type: none"> ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	<ul style="list-style-type: none"> ➤ Cover the wall with hessian cloth/ polysheet during night time. ➤ Brooding house must be kept warm and avoid wet litter material. ➤ Preventive dose of an antibiotic is suggested.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> ➤ De-worming of animals should be done using Abendazole/ Levamisole @ 7.5 mg/kg b.wt. or Ivermectin @ 50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> ➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	<ul style="list-style-type: none"> ➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> ➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> ➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<ul style="list-style-type: none"> ➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<p>Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.</p> <p>Sowing of improved varieties of fodder must be done in this month.</p> <p>There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.</p> <p>De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.</p>

Fishery:

* Encircle pond with happa net to avoid escape of fishes from the pond.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow -out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Harvesting of grown-up fishes may be done.

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