



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

**MANIPUR BULLETIN**4th April, 2017**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 5th to 9th April, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (31st March to 3rd April, 2017)

Observed mainly cloudy to overcast and observed heavy rainfall of **238.6 mm** was recorded during past four days. Maximum temperature range of 19.8 to 28.1 °C and minimum temperature range of 14.5 to 18.0 °C with mean relative humidity 95.0 % max and 79.0 % min was recorded in the past four days. The average wind speed range remained 3.2 to 5.9 km/hr.

Weather forecast for next five days of Bishnupur (5th to 9th April, 2017)

Likely to have fairly widespread rainfall upto Wednesday than scattered rainfall thereafter over Manipur and mainly cloudy to overcast sky with maximum temp. 21 – 24 °C & minimum temp. 15- 18 °C. Relative humidity may reach up to 99 % (max RH) & 83 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Pre-kharif rice)		<ul style="list-style-type: none"> - Maintain 5-8cm of water level. - Make proper drainage system in and around the crop field to maintain optimum water level. - Drain out excess water accumulated due to heavy rains. - Monitor for insect pest in the crop.
	Land preparation (Main kharif rice)		<ul style="list-style-type: none"> - Prepare main plots for ploughing.
Rabi maize	Flowering		<ul style="list-style-type: none"> - Drain out excess water accumulated due to heavy rains during past two days at earliest possible from the crop field. - Avoid water logging by constructing proper drainage system.
Seeds storage	Post harvest management		<ul style="list-style-type: none"> - 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 seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in godowns.

Horticulture Crops

- * Drain out excess water in crop field to avoid water logging.
- * No culture operation in vegetable crops particularly in low lying area.
- * Solanaceae crops like tomato/ chili is highly susceptibility to excess moisture.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Khasi Mandarin	For grown up		For grown up Khasi Mandarin, apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Kachai Lemon	For grown up		For grown up Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Ginger & Turmeric	Planting		<ul style="list-style-type: none"> - Recommended varieties: For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shed before planting. - Planting may be delayed till the field conditions permit.
French Bean	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing may be done after rains. - Spacing: 30x45 cm from seed to seed & row to row for dwarf variety like Anupama and for pole type Local variety (Tangkhu hawaii) at 60x60 cm with 2-3 seeds per hill. Apply 12-13 kg Urea, 94 kg SSP and 20 kg MOP per sangam at the time of sowing.
Cucurbits	Vegetative		<ul style="list-style-type: none"> - Construct proper drainage system to avoid water logging in and around the crop field. Drain out excess water.
Bhindi	Sowing to early vegetative		<ul style="list-style-type: none"> Sowing of bhindi/ladies finger may be done after rains at the spacing of 30cm x 45cm. Apply 20kg urea, 38kg SSP and 20kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani



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Manipur Centre, Lamphelpat, Imphal - 795 004

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Chilli/ capsicum	Early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.
Tomato/ Brinjal	Vegetative		- After rains apply 38kg Urea+ 125kg SSP+ 24kg MOP per sangam as basal dose and 25kg Urea after 25-30days after tansplanting.
Onion/ Garlic	Bulb formation to maturity	Leaf minor/ Thrips	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Monocrotophos 76EC @ 1ml/lit of water to protect the crop from infestation of leaf minor. Spray is to be given twice or thrice at an interval of 7 to 10 days.
		Purple Bloch	- Apply 1kg Trichoderma viride/ sangam when there is moisture in soil and avoid excess application of Nitrogen in case of onion and garlic to avoid Purple Bloch.

Animal Sciences

Name of the animal

* **Provide clean drinking water for birds and animals.**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Fowl Pox	Vaccinate against fowl pox.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
Sheep/ Goat	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
Pig	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.
		Milk Fever	Provide minamil/ mineral mixture @ 50-60 gm/ orally in the food.
		Perennial fodder grass	Suckers/ cuttings of hybrid wapiar Gunea grass may be transplanted in prepare fields after rains.
		Maize/ Bajra/ Jawar	Maize/ Bajra/ Jawar may be sown for use as green fodder.

Fisheries

- * Encircle ponds to avoid escape of fishes.
- * New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.
- * Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.
- * Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with well balanced feed and good quality water.
- * Avoid rain water to get drained directly into the culture pond.

(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**4th April, 2017**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 5th to 9th April, 2017 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (31st March to 3rd April, 2017) Observed mainly cloudy to overcast and observed heavy rainfall of 238.6 mm was recorded during past four days. Maximum temperature range of 19.8 to 28.1 °C and minimum temperature range of 14.5 to 18.0 °C with mean relative humidity 95.0 % max and 79.0 % min was recorded in the past four days. The average wind speed range remained 3.2 to 5.9 km/hr.</p>	<p>Weather forecast for next five days of Chandel (5th to 9th April, 2017) Likely to have fairly widespread rainfall upto Wednesday than scattered rainfall thereafter over Manipur and mainly cloudy to overcast sky with maximum temp. 23 – 24 °C & minimum temp. 13- 15 °C. Relative humidity may reach up to 96 % (max RH) & 73 % (min RH). The average wind speed may be 2-5 km/hr.</p>
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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Pre-kharif rice)		<ul style="list-style-type: none"> - Maintain 5-8cm of water level. - Make proper drainage system in and around the crop field to maintain optimum water level. - Drain out excess water accumulated due to heavy rains. - Monitor for insect pest in the crop.
	Land preparation (Main kharif rice)		<ul style="list-style-type: none"> - Prepare main plots for ploughing.
Rabi maize	Flowering		<ul style="list-style-type: none"> - Drain out excess water accumulated due to heavy rains during past two days at earliest possible from the crop field. - Avoid water logging by constructing proper drainage system.
Seeds storage	Post harvest management		<ul style="list-style-type: none"> - 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 seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in godowns.

Horticulture Crops

- * Drain out excess water in crop field to avoid water logging.
- * No culture operation in vegetable crops particularly in low lying area.
- * Solanaceae crops like tomato/ chili is highly susceptibility to excess moisture.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Khasi Mandarin	For grown up		For grown up Khasi Mandarin, apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Kachai Lemon	For grown up		For grown up Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Ginger & Turmeric	Planting		<ul style="list-style-type: none"> - Recommended varieties: For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shed before planting. - Planting may be delayed till the field conditions permit.
French Bean	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing may be done after rains. - Spacing: 30x45 cm from seed to seed & row to row for dwarf variety like Anupama and for pole type Local variety (Tangkhu hawaii) at 60x60 cm with 2-3 seeds per hill. Apply 12-13 kg Urea, 94 kg SSP and 20 kg MOP per sangam at the time of sowing.
Cucurbits	Vegetative		<ul style="list-style-type: none"> - Construct proper drainage system to avoid water logging in and around the crop field. Drain out excess water.
Bhindi	Sowing to early vegetative		<ul style="list-style-type: none"> Sowing of bhindi/ladies finger may be done after rains at the spacing of 30cm x 45cm. Apply 20kg urea, 38kg SSP and 20kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani



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Chilli/ capsicum	Early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.
Tomato/ Brinjal	Vegetative		- After rains apply 38kg Urea+ 125kg SSP+ 24kg MOP per sangam as basal dose and 25kg Urea after 25-30days after tansplanting.
Onion/ Garlic	Bulb formation to maturity	Leaf minor/ Thrips	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Monocrotophos 76EC @ 1ml/lit of water to protect the crop from infestation of leaf minor. Spray is to be given twice or thrice at an interval of 7 to 10 days.
		Purple Bloch	- Apply 1kg Trichoderma viride/ sangam when there is moisture in soil and avoid excess application of Nitrogen in case of onion and garlic to avoid Purple Bloch.

Animal Sciences

Name of the animal

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Fowl Pox	Vaccinate against fowl pox.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
Sheep/ Goat	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
Pig	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
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		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.
		Milk Fever	Provide minamil/ mineral mixture @ 50-60 gm/ orally in the food.
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Fisheries

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**MANIPUR BULLETIN**4th April, 2017**Churachandpur**

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Weather forecast for next five days of Churachandpur (5th to 9th April, 2017)

Likely to have fairly widespread rainfall upto Wednesday than scattered rainfall thereafter over Manipur and mainly cloudy to overcast sky with maximum temp. 23 – 25 °C & minimum temp. 13- 14 °C. Relative humidity may reach up to 99 % (max RH) & 84 % (min RH). The average wind speed may be 2-4 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
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Seeds storage	Post harvest management		<ul style="list-style-type: none"> - 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 seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in godowns.

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**MANIPUR BULLETIN**4th April, 2017**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 5th to 9th April, 2017 as below:

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French Bean	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing may be done after rains. - Spacing: 30x45 cm from seed to seed & row to row for dwarf variety like Anupama and for pole type Local variety (Tangkhu hawaii) at 60x60 cm with 2-3 seeds per hill. Apply 12-13 kg Urea, 94 kg SSP and 20 kg MOP per sangam at the time of sowing.
Cucurbits	Vegetative		<ul style="list-style-type: none"> - Construct proper drainage system to avoid water logging in and around the crop field. Drain out excess water.
Bhindi	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing of bhindi/ladies finger may be done after rains at the spacing of 30cm x 45cm. Apply 20kg urea, 38kg SSP and 20kg MOP per sangam at final stage of land preparation before sowing. - Recommended varieties are - Arka Anamika and Pusa Sawani



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Chilli/ capsicum	Early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.
Tomato/ Brinjal	Vegetative		- After rains apply 38kg Urea+ 125kg SSP+ 24kg MOP per sangam as basal dose and 25kg Urea after 25-30days after tansplanting.
Onion/ Garlic	Bulb formation to maturity	Leaf minor/ Thrips	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Monocrotophos 76EC @ 1ml/lit of water to protect the crop from infestation of leaf minor. Spray is to be given twice or thrice at an interval of 7 to 10 days.
		Purple Bloch	- Apply 1kg Trichoderma viride/ sangam when there is moisture in soil and avoid excess application of Nitrogen in case of onion and garlic to avoid Purple Bloch.

Animal Sciences

Name of the animal

*** Provide clean drinking water for birds and animals.**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Fowl Pox	Vaccinate against fowl pox.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
Sheep/ Goat	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
Pig	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.
		Milk Fever	Provide minamil/ mineral mixture @ 50-60 gm/ orally in the food.
		Perennial fodder grass	Suckers/ cuttings of hybrid wapiar Gunea grass may be transplanted in prepare fields after rains.
		Maize/ Bajra/ Jawar	Maize/ Bajra/ Jawar may be sown for use as green fodder.

Fisheries

- * Encircle ponds to avoid escape of fishes.
- * New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.
- * Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.
- * Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with well balanced feed and good quality water.
- * Avoid rain water to get drained directly into the culture pond.

(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**4th April, 2017**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 5th to 9th April, 2017 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (31st March to 3rd April, 2017) Observed mainly cloudy to overcast and observed heavy rainfall of 238.6 mm was recorded during past four days. Maximum temperature range of 19.8 to 28.1 °C and minimum temperature range of 14.5 to 18.0 °C with mean relative humidity 95.0 % max and 79.0 % min was recorded in the past four days. The average wind speed range remained 3.2 to 5.9 km/hr.</p>	<p>Weather forecast for next five days of Tamenglong (5th to 9th April, 2017) Likely to have fairly widespread rainfall upto Wednesday than scattered rainfall thereafter over Manipur and mainly cloudy to overcast sky with maximum temp. 23 – 25 °C & minimum temp. 13- 14 °C. Relative humidity may reach up to 99 % (max RH) & 81 % (min RH). The average wind speed may be 2-3 km/hr.</p>
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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Pre-kharif rice)		<ul style="list-style-type: none"> - Maintain 5-8cm of water level. - Make proper drainage system in and around the crop field to maintain optimum water level. - Drain out excess water accumulated due to heavy rains. - Monitor for insect pest in the crop.
	Land preparation (Main kharif rice)		<ul style="list-style-type: none"> - Prepare main plots for ploughing.
Rabi maize	Flowering		<ul style="list-style-type: none"> - Drain out excess water accumulated due to heavy rains during past two days at earliest possible from the crop field. - Avoid water logging by constructing proper drainage system.
Seeds storage	Post harvest management		<ul style="list-style-type: none"> - 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 seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in godowns.

Horticulture Crops

- * Drain out excess water in crop field to avoid water logging.
- * No culture operation in vegetable crops particularly in low lying area.
- * Solanaceae crops like tomato/ chili is highly susceptibility to excess moisture.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Khasi Mandarin	For grown up		For grown up Khasi Mandarin, apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Kachai Lemon	For grown up		For grown up Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Ginger & Turmeric	Planting		<ul style="list-style-type: none"> - Recommended varieties: For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shed before planting. - Planting may be delayed till the field conditions permit.
French Bean	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing may be done after rains. - Spacing: 30x45 cm from seed to seed & row to row for dwarf variety like Anupama and for pole type Local variety (Tangkhu hawaii) at 60x60 cm with 2-3 seeds per hill. Apply 12-13 kg Urea, 94 kg SSP and 20 kg MOP per sangam at the time of sowing.
Cucurbits	Vegetative		<ul style="list-style-type: none"> - Construct proper drainage system to avoid water logging in and around the crop field. Drain out excess water.
Bhindi	Sowing to early vegetative		<ul style="list-style-type: none"> Sowing of bhindi/ladies finger may be done after rains at the spacing of 30cm x 45cm. Apply 20kg urea, 38kg SSP and 20kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Chilli/ capsicum	Early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.
Tomato/ Brinjal	Vegetative		- After rains apply 38kg Urea+ 125kg SSP+ 24kg MOP per sangam as basal dose and 25kg Urea after 25-30days after tansplanting.
Onion/ Garlic	Bulb formation to maturity	Leaf minor/ Thrips	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Monocrotophos 76EC @ 1ml/lit of water to protect the crop from infestation of leaf minor. Spray is to be given twice or thrice at an interval of 7 to 10 days.
		Purple Bloch	- Apply 1kg Trichoderma viride/ sangam when there is moisture in soil and avoid excess application of Nitrogen in case of onion and garlic to avoid Purple Bloch.

Animal Sciences

Name of the animal

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Fowl Pox	Vaccinate against fowl pox.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
Sheep/ Goat	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
Pig	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.
		Milk Fever	Provide minamil/ mineral mixture @ 50-60 gm/ orally in the food.
		Perennial fodder grass	Suckers/ cuttings of hybrid wapiar Gunea grass may be transplanted in prepare fields after rains.
		Maize/ Bajra/ Jawar	Maize/ Bajra/ Jawar may be sown for use as green fodder.

Fisheries

- * Encircle ponds to avoid escape of fishes.
- * New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.
- * Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.
- * Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with well balanced feed and good quality water.
- * Avoid rain water to get drained directly into the culture pond.

(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**4th April, 2017**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 5th to 9th April, 2017 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (31st March to 3rd April, 2017) Observed mainly cloudy to overcast and observed heavy rainfall of 238.6 mm was recorded during past four days. Maximum temperature range of 19.8 to 28.1 °C and minimum temperature range of 14.5 to 18.0 °C with mean relative humidity 95.0 % max and 79.0 % min was recorded in the past four days. The average wind speed range remained 3.2 to 5.9 km/hr.</p>	<p>Weather forecast for next five days of Thoubal (5th to 9th April, 2017) Likely to have fairly widespread rainfall upto Wednesday than scattered rainfall thereafter over Manipur and mainly cloudy to overcast sky with maximum temp. 23 – 24 °C & minimum temp. 14- 15 °C. Relative humidity may reach up to 98 % (max RH) & 83 % (min RH). The average wind speed may be 2-4 km/hr.</p>
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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Pre-kharif rice)		<ul style="list-style-type: none"> - Maintain 5-8cm of water level. - Make proper drainage system in and around the crop field to maintain optimum water level. - Drain out excess water accumulated due to heavy rains. - Monitor for insect pest in the crop.
	Land preparation (Main kharif rice)		<ul style="list-style-type: none"> - Prepare main plots for ploughing.
Rabi maize	Flowering		<ul style="list-style-type: none"> - Drain out excess water accumulated due to heavy rains during past two days at earliest possible from the crop field. - Avoid water logging by constructing proper drainage system.
Seeds storage	Post harvest management		<ul style="list-style-type: none"> - 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 seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in godowns.

Horticulture Crops

- * Drain out excess water in crop field to avoid water logging.
- * No culture operation in vegetable crops particularly in low lying area.
- * Solanaceae crops like tomato/ chili is highly susceptibility to excess moisture.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Khasi Mandarin	For grown up		For grown up Khasi Mandarin, apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Kachai Lemon	For grown up		For grown up Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Ginger & Turmeric	Planting		<ul style="list-style-type: none"> - Recommended varieties: For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shed before planting. - Planting may be delayed till the field conditions permit.
French Bean	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing may be done after rains. - Spacing: 30x45 cm from seed to seed & row to row for dwarf variety like Anupama and for pole type Local variety (Tangkhu hawaii) at 60x60 cm with 2-3 seeds per hill. Apply 12-13 kg Urea, 94 kg SSP and 20 kg MOP per sangam at the time of sowing.
Cucurbits	Vegetative		<ul style="list-style-type: none"> - Construct proper drainage system to avoid water logging in and around the crop field. Drain out excess water.
Bhindi	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing of bhindi/ladies finger may be done after rains at the spacing of 30cm x 45cm. Apply 20kg urea, 38kg SSP and 20kg MOP per sangam at final stage of land preparation before sowing. - Recommended varieties are - Arka Anamika and Pusa Sawani



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Chilli/ capsicum	Early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.
Tomato/ Brinjal	Vegetative		- After rains apply 38kg Urea+ 125kg SSP+ 24kg MOP per sangam as basal dose and 25kg Urea after 25-30days after tansplanting.
Onion/ Garlic	Bulb formation to maturity	Leaf minor/ Thrips	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Monocrotophos 76EC @ 1ml/lit of water to protect the crop from infestation of leaf minor. Spray is to be given twice or thrice at an interval of 7 to 10 days.
		Purple Bloch	- Apply 1kg Trichoderma viride/ sangam when there is moisture in soil and avoid excess application of Nitrogen in case of onion and garlic to avoid Purple Bloch.

Animal Sciences

Name of the animal

* Provide clean drinking water for birds and animals.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Fowl Pox	Vaccinate against fowl pox.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
Sheep/ Goat	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
Pig	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.
		Milk Fever	Provide minamil/ mineral mixture @ 50-60 gm/ orally in the food.
		Perennial fodder grass	Suckers/ cuttings of hybrid wapiar Gunea grass may be transplanted in prepare fields after rains.
		Maize/ Bajra/ Jawar	Maize/ Bajra/ Jawar may be sown for use as green fodder.

Fisheries

- * Encircle ponds to avoid escape of fishes.
- * New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.
- * Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.
- * Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with well balanced feed and good quality water.
- * Avoid rain water to get drained directly into the culture pond.

(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**4th April, 2017**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 5th to 9th April, 2017 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (31st March to 3rd April, 2017)</p> <p>Observed mainly cloudy to overcast and observed heavy rainfall of 238.6 mm was recorded during past four days. Maximum temperature range of 19.8 to 28.1 °C and minimum temperature range of 14.5 to 18.0 °C with mean relative humidity 95.0 % max and 79.0 % min was recorded in the past four days. The average wind speed range remained 3.2 to 5.9 km/hr.</p>	<p>Weather forecast for next five days of Ukhrul (5th to 9th April, 2017)</p> <p>Likely to have fairly widespread rainfall upto Wednesday than scattered rainfall thereafter over Manipur and mainly cloudy to overcast sky with maximum temp. 21 – 22 °C & minimum temp. 12- 13 °C. Relative humidity may reach up to 94 % (max RH) & 65 % (min RH). The average wind speed may be 2-3 km/hr.</p>
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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Pre-kharif rice)		- Maintain 5-8cm of water level. - Make proper drainage system in and around the crop field to maintain optimum water level. - Drain out excess water accumulated due to heavy rains. - Monitor for insect pest in the crop.
	Land preparation (Main kharif rice)		- Prepare main plots for ploughing.
Rabi maize	Flowering		- Drain out excess water accumulated due to heavy rains during past two days at earliest possible from the crop field. - Avoid water logging by constructing proper drainage system.
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 seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in godowns .

Horticulture Crops

- * Drain out excess water in crop field to avoid water logging.
- * No culture operation in vegetable crops particularly in low lying area.
- * Solanaceae crops like tomato/ chili is highly susceptibility to excess moisture.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Khasi Mandarin	For grown up		For grown up Khasi Mandarin, apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Kachai Lemon	For grown up		For grown up Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Ginger & Turmeric	Planting		- Recommended varieties: For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shed before planting. - Planting may be delayed till the field conditions permit.
French Bean	Sowing to early vegetative		- Sowing may be done after rains. - Spacing: 30x45 cm from seed to seed & row to row for dwarf variety like Anupama and for pole type Local variety (Tangkhul hawaii) at 60x60 cm with 2-3 seeds per hill. Apply 12-13 kg Urea, 94 kg SSP and 20 kg MOP per sangam at the time of sowing.
Cucurbits	Vegetative		- Construct proper drainage system to avoid water logging in and around the crop field. Drain out excess water.
Bhindi	Sowing to early vegetative		Sowing of bhindi/ladies finger may be done after rains at the spacing of 30cm x 45cm. Apply 20kg urea, 38kg SSP and 20kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Chilli/ capsicum	Early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.
Tomato/ Brinjal	Vegetative		- After rains apply 38kg Urea+ 125kg SSP+ 24kg MOP per sangam as basal dose and 25kg Urea after 25-30days after tansplanting.
Onion/ Garlic	Bulb formation to maturity	Leaf minor/ Thrips	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Monocrotophos 76EC @ 1ml/lit of water to protect the crop from infestation of leaf minor. Spray is to be given twice or thrice at an interval of 7 to 10 days.
		Purple Bloch	- Apply 1kg Trichoderma viride/ sangam when there is moisture in soil and avoid excess application of Nitrogen in case of onion and garlic to avoid Purple Bloch.

Animal Sciences

Name of the animal

*** Provide clean drinking water for birds and animals.**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Fowl Pox	Vaccinate against fowl pox.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
Sheep/ Goat	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
Pig	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.
		Milk Fever	Provide minamil/ mineral mixture @ 50-60 gm/ orally in the food.
		Perennial fodder grass	Suckers/ cuttings of hybrid wapier Gunea grass may be transplanted in prepare fields after rains.
		Maize/ Bajra/ Jawar	Maize/ Bajra/ Jawar may be sown for use as green fodder.

Fisheries

- * Encircle ponds to avoid escape of fishes.
- * New fish ponds may be made or old ones may be renovated/ cleaned before for large scale fish culture.
- * Care must be taken for newly rain fed ponds by liming for stocking fish fries/ fingerlings or yearlings.
- * Intensive care must be taken for fish brooders by keeping them in separate ponds. It must be provided with well balanced feed and good quality water.
- * Avoid rain water to get drained directly into the culture pond.

(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**4th April, 2017**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 5th to 9th April, 2017 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (31st March to 3rd April, 2017) Observed mainly cloudy to overcast and observed heavy rainfall of 238.6 mm was recorded during past four days. Maximum temperature range of 19.8 to 28.1 °C and minimum temperature range of 14.5 to 18.0 °C with mean relative humidity 95.0 % max and 79.0 % min was recorded in the past four days. The average wind speed range remained 3.2 to 5.9 km/hr.</p>	<p>Weather forecast for next five days of Imphal East (5th to 9th April, 2017) Likely to have fairly widespread rainfall upto Wednesday than scattered rainfall thereafter over Manipur and mainly cloudy to overcast sky with maximum temp. 22 – 24 °C & minimum temp. 15 - 17 °C. Relative humidity may reach up to 99 % (max RH) & 74 % (min RH). The average wind speed may be 0-3 km/hr.</p>
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Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Tillering (Pre-kharif rice)		<ul style="list-style-type: none"> - Maintain 5-8cm of water level. - Make proper drainage system in and around the crop field to maintain optimum water level. - Drain out excess water accumulated due to heavy rains. - Monitor for insect pest in the crop.
	Land preparation (Main kharif rice)		<ul style="list-style-type: none"> - Prepare main plots for ploughing.
Rabi maize	Flowering		<ul style="list-style-type: none"> - Drain out excess water accumulated due to heavy rains during past two days at earliest possible from the crop field. - Avoid water logging by constructing proper drainage system.
Seeds storage	Post harvest management		<ul style="list-style-type: none"> - 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 seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in godowns.

Horticulture Crops

- * Drain out excess water in crop field to avoid water logging.
- * No culture operation in vegetable crops particularly in low lying area.
- * Solanaceae crops like tomato/ chili is highly susceptibility to excess moisture.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Khasi Mandarin	For grown up		For grown up Khasi Mandarin, apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Kachai Lemon	For grown up		For grown up Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP per plant along with 30 kg cowdung manure compost in the soil surrounding the plant after rains.
Ginger & Turmeric	Planting		<ul style="list-style-type: none"> - Recommended varieties: For turmeric: Megha turmeric For ginger: Nadia - Use healthy mother rhizome of 25-30g weight and plant at a spacing of 1 ft x 1 ft. Treat the seed with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shed before planting. - Planting may be delayed till the field conditions permit.
French Bean	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing may be done after rains. - Spacing: 30x45 cm from seed to seed & row to row for dwarf variety like Anupama and for pole type Local variety (Tangkhu hawaii) at 60x60 cm with 2-3 seeds per hill. Apply 12-13 kg Urea, 94 kg SSP and 20 kg MOP per sangam at the time of sowing.
Cucurbits	Vegetative		<ul style="list-style-type: none"> - Construct proper drainage system to avoid water logging in and around the crop field. Drain out excess water.
Bhindi	Sowing to early vegetative		<ul style="list-style-type: none"> - Sowing of bhindi/ladies finger may be done after rains at the spacing of 30cm x 45cm. Apply 20kg urea, 38kg SSP and 20kg MOP per sangam at final stage of land preparation before sowing. - Recommended varieties are - Arka Anamika and Pusa Sawani



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Chilli/ capsicum	Early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.
Tomato/ Brinjal	Vegetative		- After rains apply 38kg Urea+ 125kg SSP+ 24kg MOP per sangam as basal dose and 25kg Urea after 25-30days after tansplanting.
Onion/ Garlic	Bulb formation to maturity	Leaf minor/ Thrips	- Spray Dichlorovos 36 EC @ 0.5ml/lit of water or Monocrotophos 76EC @ 1ml/lit of water to protect the crop from infestation of leaf minor. Spray is to be given twice or thrice at an interval of 7 to 10 days.
		Purple Bloch	- Apply 1kg Trichoderma viride/ sangam when there is moisture in soil and avoid excess application of Nitrogen in case of onion and garlic to avoid Purple Bloch.

Animal Sciences

Name of the animal

* **Provide clean drinking water for birds and animals.**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Fowl Pox	Vaccinate against fowl pox.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
Sheep/ Goat	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
Pig	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
Cattle	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.
		Milk Fever	Provide minamil/ mineral mixture @ 50-60 gm/ orally in the food.
		Perennial fodder grass	Suckers/ cuttings of hybrid wapiar Gunea grass may be transplanted in prepare fields after rains.
		Maize/ Bajra/ Jawar	Maize/ Bajra/ Jawar may be sown for use as green fodder.

Fisheries

- * Encircle ponds to avoid escape of fishes.
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**MANIPUR BULLETIN**4th April, 2017**Imphal West**

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