



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

**MANIPUR BULLETIN****23rd June, 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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Imphal East (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 30 - 33 °C & minimum temp. 21 - 22 °C. Relative humidity may reach up to 100 % (max RH) & 76 % (min RH). The average wind speed may be 0 - 2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.



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



Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
---	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 2017****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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Imphal West (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 31 - 33 °C & minimum temp. 21 - 22 °C. Relative humidity may reach up to 99 % (max RH) & 72 % (min RH). The average wind speed may be 0 - 2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
--	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Bishnupur (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 31 - 32 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 100 % (max RH) & 78 % (min RH). The average wind speed may be 0 - 2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.



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



Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
---	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Chandel (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 29 - 31 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 99% (max RH) & 85% (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	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.



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



Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
---	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 2017****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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Churachandpur (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 31 - 32 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 100% (max RH) & 83% (min RH). The average wind speed may be 0-2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
---	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Senapati (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 30 - 32 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 99% (max RH) & 70% (min RH). The average wind speed may be 2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
--	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Tamenglong (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 31 - 32 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 100% (max RH) & 70% (min RH). The average wind speed may be 0-2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
--	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Thoubal (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 31 - 32 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 100% (max RH) & 81% (min RH). The average wind speed may be 0 - 2 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
--	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(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****23rd June, 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 21st to 25th June, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th June, 2017)

Observed mainly cloudy to overcast sky and **9.0 mm** rainfall was recorded during past three days. Maximum temperature range of 29.0 to 29.4 °C and minimum temperature range of 21.8 to 22.9 °C with mean relative humidity 94.3 % max and 71.3 % min was recorded in the past three days.

Weather forecast for next five days of Ukhrul (21st to 25th June, 2017)

Likely to have heavy rainfall at isolated places over Manipur upto Monday with partly cloudy to overcast sky and maximum temp. 29 - 32 °C & minimum temp. 23 °C. Relative humidity may reach up to 98% (max RH) & 77% (min RH). The average wind speed may be 2-3 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Maturity (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains.
	Nursery to land preparation for transplanting (kharif rice)		- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling. - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing. - Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.
	Direct seeding with drum seeder		- Treat seed treatment with Humicil @ 5ml/kg seed. - Puddle the field properly and level it. - Drain out water 24 hrs before sowing. - Use just pre-germinated seeds.
Maize	Vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha. - At knee height stage, apply urea @ 43 kg Urea/ ha.
Soybean / Groundnut	Vegetative to sowing (if not done)		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Blackgram & Rice bean	Sowing to vegetative		- Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds. - Avoid sowing in water logged fields.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Colocasia	Vegetative		- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam. - As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.
Cowpea	Vegetative to pre-flowering		Avoid water logging in and around the crop field. Weeding may be after rains.
Ginger/ Turmeric	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water after rains.
			After rains, weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP per hectare at 2-3 months after planting.
Chilli/ capsicum	Flowering and fruiting to harvesting		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation after rains. - Retain healthy disease free fruits for seeds.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 st year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.
--	----------	--	--

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

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft ² area.
Sheep/ Goat	All age groups	Vaccination	- Sheep should be vaccinated against B.Q.
Pig	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
Cattle	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q. & H.S.
		Deworming	Deworm with Tolzan- F
		Management	➤ Provide wholesome water. ➤ Protection from high temp may be ensured. ➤ Electrolytes in the form of powder/ liquid may be given. ➤ Increase salt level in feed.

Fishery:

* Encircle pond with happa net or raise the pond dyke height to avoid escape of fishes.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.
	Seed production		Maintain good quality water having p ^H 7-8, Dissolved Oxygen: 5-8ppm; CO ₂ : Nil – 0.3ppm and alkalinity 70-110 ppm.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

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