



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 26.0 - 32.0 °C and minimum temp. of 17.0 – 21.0 °C. The maximum RH is likely to attain a max value of 100 % and minimum RH of 78 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

I. Meghachandra Singh
Scientist i/c, IAAS



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MANIPUR BULLETIN

24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 28.0 - 35.0 °C and minimum temp. of 18.0 – 21.0 °C. The maximum RH is likely to attain a max value of 98 % and minimum RH of 73 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

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<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 17.0 – 21.0 °C. The maximum RH is likely to attain a max value of 100 % and minimum RH of 83 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

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24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - East (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 27.0 - 31.0 °C and minimum temp. of 15.0 – 19.0 °C. The maximum RH is likely to attain a max value of 100 % and minimum RH of 87 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Main Weather Observation

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Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

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Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
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Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
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24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - West (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 27.0 - 33.0 °C and minimum temp. of 16.0 – 19.0 °C. The maximum RH is likely to attain a max value of 100 % and minimum RH of 91 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

I. Meghachandra Singh
Scientist i/c, IAAS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 25.0 - 29.0 °C and minimum temp. of 12.0 – 17.0 °C. The maximum RH is likely to attain a max value of 100 % and minimum RH of 94 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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Manipur Centre, Lamphelpat, Imphal - 795 004



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Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

I. Meghachandra Singh
Scientist i/c, IAAS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 28.0 - 34.0 °C and minimum temp. of 16.0 – 19.0 °C. The maximum RH is likely to attain a max value of 100 % and minimum RH of 87 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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



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Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

I. Meghachandra Singh
Scientist i/c, IAAS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 26.0 - 31.0 °C and minimum temp. of 18.0 – 21.0 °C. The maximum RH is likely to attain a max value of 100 % and minimum RH of 75 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

I. Meghachandra Singh
Scientist i/c, IAAS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

24th May, 2013

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 25th to 29th May, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (21st to 23rd May, 2013)</u></p> <p>During the past four days the sky was partly cloudy on 21st but mainly cloudy to cloudy on 22 and 23 May. 22.5 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 32.9 °C, range of minimum temperature observed was 20.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 90.67 and 69.0 % respectively. The average wind speed range was 1.2 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (25th to 29th May, 2013)</u></p> <p>It is likely to have thundery showers and light to moderate rains during next five days. The sky is likely to be partly cloudy to cloudy with maximum temp. of 24.0 - 29.0 °C and minimum temp. of 12.0 – 16.0 °C. The maximum RH is likely to attain a max value of 98 % and minimum RH of 73 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Main Weather Observation

Kalpana 1Cloud Imagery at 0530 hrs IST shows low/ medium clouds over parts of northeast

Weather Forecast for next 3 days (upto 0830 hours IST of 27th May, 2013)

Rain/thundershowers would occur at few places over Manipur

Weather warning during next 3 days

Thundersquall would occur at one or two places over Manipur during next 48 hrs

Weather Outlook for subsequent 4 days from 27th to 31st May, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Drain out excess water from crop field.			
Rice	(Pre-kharif) Panicle initiation to grain filling		- Maintain water depth of 5-8 cm. Drain out excess water. - At 45 days of transplanting (panicle initiation stage), apply 33 kg Urea. After top dressing, one or two prophylactic spray(s) in sunny days is advised.
	(Kharif) Nursery		Seed beds may be prepared in terraces and valley. 60 kg seeds may be used to sow in 700 m ² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. Apply 1Kg of Carbofuran 3G along with 5.0 Kg N and 2 Kg K ₂ O.
Maize	Vegetative to flowering (Summer maize)		- Weeding may be done. - Maintain proper drainage system to drain out excess water.
	Cob maturity to harvesting (Rabi maize)		Harvest crops for cobs. For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.
Groundnut	Sowing and early vegetative		- Seed rate for 1 ha: 100-110 Kernels, spacing- 30cm X 10-15cm and at a depth of 6-7 cm in furrows. Treat the groundnut seeds with rhizobium @ 150g / 10 kg seeds just before sowing. Surrounding area must be kept clean.
Soybean	Sowing and early vegetative		- Seed rate for 1 ha: 50 kg. Spacing for sowing- 50cm X 30cm. Drain out excess water from crop field. Surrounding area must be kept clean.
Blackgram	Sowing		- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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“Integrated Agromet Advisory Services”

Horticulture Crops			
For cultivation of vegetables in low lying area, ponds/channels/ drains may be made to drain out water accumulated in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Chilli/ tomato/ brinjal	- Fruiting stage		- No cultural practice is advised as the field is still wet. For seeds mature fruits may be collected without disturbing the plant. Avoid direct contact of fruit with soil.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.
fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Planting		- In hills and upland area preparation of pits for planting fruits may be done
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Pig	Above 3 months of age	- Swine Fever - FMD	- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. Don't use Korean strain vaccine. - Vaccinate all the susceptible animals against the FMD.
Goat	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	All age groups except three months or below	- FMD - Fascioliosis	- Vaccinate all the susceptible animals against the FMD. - Give Tolzan-F 90ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily. - Apply Butox @3ml/lit of water while brushing the animals.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coccidiostat/ Supercox</i> (@ 1g/lit of drinking water) + plus 150gm of Glucose and vit K for 5 to 7 days.
		Pox	- Vaccinate against pox.
		Management	- To prevent protozoan, bacterial, fungal diseases, litter should be kept dry and turned regularly. Apply lime powder @ 2.5 kg per 100 sq. ft. area in litter material.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Brooders	Pond and water	Ensure good quality/ clean water free from unwanted plants and animals with a minimum depth of 1.5 m. Fish feed pellet or rice bran & oil cakes (in ratio 1:1) should be provided @ 3-5% body weight per day in 2-3 splits. Spray CIFAX on the surface of the pond water. Male and female brooders must be kept in separate tanks.
	Breeding	pond	▪ Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 - 0.7 ml/kg of fish.
	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.
	Nurseries	ponds	- Stock 20-30 lakhs spawns in one hectare water. Water depth should be more than 1.0 m. Feed @5-10% body weight/day.

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