



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 32.0 °C and minimum temp. of 17.0 – 20.0 °C. The maximum RH is likely to attain a max value of 98 % and minimum RH of 67 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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 accumulated water in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Ginger/ Turmeric	Vegetative		Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 30.0 - 35.0 °C and minimum temp. of 21.0 – 24.0 °C. The maximum RH is likely to attain a max value of 97 % and minimum RH of 69 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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 accumulated water in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Ginger/ Turmeric	Vegetative		Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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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MANIPUR BULLETIN

31st May, 2013

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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 30.0 - 33.0 °C and minimum temp. of 18.0 – 21.0 °C. The maximum RH is likely to attain a max value of 99 % and minimum RH of 64 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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 accumulated water in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Ginger/ Turmeric	Vegetative		Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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 Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - East (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 18.0 – 20.0 °C. The maximum RH is likely to attain a max value of 99 % and minimum RH of 64 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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			
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French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
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Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - West (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 31.0 °C and minimum temp. of 17.0 – 21.0 °C. The maximum RH is likely to attain a max value of 99 % and minimum RH of 63 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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 accumulated water in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Ginger/ Turmeric	Vegetative		Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 31.0 °C and minimum temp. of 17.0 – 20.0 °C. The maximum RH is likely to attain a max value of 97 % and minimum RH of 60 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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 accumulated water in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Ginger/ Turmeric	Vegetative		Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 30.0 - 33.0 °C and minimum temp. of 18.0 – 21.0 °C. The maximum RH is likely to attain a max value of 99 % and minimum RH of 62 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 2013

Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<i>Field Crops</i>			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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 accumulated water in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Ginger/ Turmeric	Vegetative		Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 29.0 - 32.0 °C and minimum temp. of 17.0 – 20.0 °C. The maximum RH is likely to attain a max value of 99 % and minimum RH of 70 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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 accumulated water in the field and the soil from it may be used to raise the beds level.			
French Bean	Flowering to fruiting and harvesting		- At this stage, surrounding area of the crop fields must be kept clean to avoid hairy caterpillars. Proper drainage must be maintained.
Ginger/ Turmeric	Vegetative		Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
Colocassia	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
Cauliflower	Nursery		- Preparation for early cauliflower in the upland area may be done.
Fruit plants like Orange, Lime, Lemon, Litchi, etc./ Tree bean	Preparation of pit for planting		- Prepare the pit of size 2x2x2 ft for planting of these fruit plants. Use FYM and before planting, soil drenching should be done to protect from soil borne diseases. Use healthy planting material.
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			
* Encircle the ponds with Happas to avoid escape of fishes during overflow of water due to heavy rains.			
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

31st 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 1st to 5th June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th to 30th May, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 24.0 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.6 – 30.2 °C, range of minimum temperature observed was 22.0 – 23.0 °C, mean relative humidity observed in morning and afternoon were 87.3 and 72.0 % respectively. The average wind speed range was 1.7 – 3.5 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (1st to 5th June, 2013)</u></p> <p>It is likely to have light/ moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 26.0 - 30.0 °C and minimum temp. of 16.0 – 19.0 °C. The maximum RH is likely to attain a max value of 96 % and minimum RH of 64 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Weather Forecast for next 3 days (upto 0830 hours IST of 3rd June, 2013)

Rain/thundershowers would occur at few places over northeastern states during next 24 hrs and increase thereafter

Weather Outlook for subsequent 4 days from 3rd to 7th June, 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			
* There is forecast for light / moderate rains during next five days, check if the drainage system in and around the crop field is well maintained so that excess water is drained out before adverse effects in crops are observed due to water logging.			
Rice	(Pre-kharif) Flowering to grain filling		<ul style="list-style-type: none"> - Maintain water depth of 5-8 cm. - After top dressing, one or two prophylactic spray(s) in sunny days is advised. - Roughing is recommended to remove rice off-types before they mature. Also cutting inflorescence of weeds is suggested to prevent build-up of weeds in the succeeding crops.
	(Kharif) Nursery		<ul style="list-style-type: none"> - Select good quality seeds free from weed seeds, seed-borne diseases, pathogens, insects, or other matter for good yield. 60 kg seeds may be used to sow in 700 m² nursery area to transplant seedlings for one hectare. Soak then incubate and sow sprouted seeds. - Land preparation lays the foundation for good water management afterwards. It may be taken up in field for transplanting.
Maize	Vegetative to flowering (Summer maize)		<ul style="list-style-type: none"> - 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 before rains if 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 weed free.
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