



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

**MANIPUR BULLETIN****23<sup>rd</sup> May, 2017****Senapati**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 24<sup>th</sup> to 28<sup>th</sup> May, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)**

Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and **46.1 mm** rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.

**Weather forecast for next five days of Senapati (24<sup>th</sup> to 28<sup>th</sup> May, 2017)**

Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 29 - 31 °C & minimum temp. 20 - 21 °C. Relative humidity may reach up to 95 % (max RH) & 41 % (min RH). The average wind speed may be 2-3 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
<b>Groundnut</b>	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. - Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.
<b>Kharif Maize</b>	Sowing		Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Blackgram &amp; Rice bean</b>	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in <b>godowns</b> .
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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<b>French Bean/ Bhindi</b>	Vegetative to flowering		- Weeding may be done to avoid insect pest infestation.
<b>Turmeric/ Ginger</b>	Vegetative		- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.
<b>Cucurbits</b>	Flowering & fruiting	Red Pumpkin Beetle	Use Methyl Euginol as trap @ 4-10 traps/ sangam. - To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
<b>Tomato/ Brinjal</b>	Vegetative to flowering		- Apply 25kg Urea after 25-30days of transplanting. - Weeding may be done to avoid insect pest infestation.
<b>Chilli/ capsicum</b>	Vegetative to flowering		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation.

**Animal Sciences**

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

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening. - Avoid caking of litter materials.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Vaccination	- Vaccinate against Enterotoxaemia and sheep pox.
		Management	- Pregnant animal (more than 6 months) should be given additional feed.
		Mineral feeding to protect (PICA)	- Mineral mixtures are to be supplemented.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against FMD after the age of 3 months.
		Mineral feeding	➤ Provide mineral mixture.
<b>Cattle</b>	All age groups excepts the young ones	Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Fodder cultivation	➤ Maize/ Jowar/ Bajra sown as fodder crop may be harvested after 45-50 days.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
Management	- Some female animals may get agitated due to the heat especially during night time, protect and take care of it.		

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



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**MANIPUR BULLETIN**

**23<sup>rd</sup> May, 2017**

**Tamenglong**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 24<sup>th</sup> to 28<sup>th</sup> May, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)</b>          Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and <b>46.1 mm</b> rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.</p>	<p><b>Weather forecast for next five days of Tamenglong (24<sup>th</sup> to 28<sup>th</sup> May, 2017)</b>          Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 31 - 32 °C &amp; minimum temp. 21 - 22 °C. Relative humidity may reach up to 98 % (max RH) &amp; 54 % (min RH). The average wind speed may be 2 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
<b>Groundnut</b>	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. - Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.
<b>Kharif Maize</b>	Sowing		Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Blackgram &amp; Rice bean</b>	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in <b>godowns</b> .
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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<b>Turmeric/ Ginger</b>	Vegetative		- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.
<b>Cucurbits</b>	Flowering & fruiting	Red Pumpkin Beetle	Use Methyl Euginol as trap @ 4-10 traps/ sangam. - To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
<b>Tomato/ Brinjal</b>	Vegetative to flowering		- Apply 25kg Urea after 25-30days of transplanting. - Weeding may be done to avoid insect pest infestation.
<b>Chilli/ capsicum</b>	Vegetative to flowering		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation.

**Animal Sciences**

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

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening. - Avoid caking of litter materials.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Vaccination	- Vaccinate against Enterotoxaemia and sheep pox.
		Management	- Pregnant animal (more than 6 months) should be given additional feed.
		Mineral feeding to protect (PICA)	- Mineral mixtures are to be supplemented.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against FMD after the age of 3 months.
		Mineral feeding	➤ Provide mineral mixture.
<b>Cattle</b>	All age groups excepts the young ones	Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Fodder cultivation	➤ Maize/ Jowar/ Bajra sown as fodder crop may be harvested after 45-50 days.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
Management	- Some female animals may get agitated due to the heat especially during night time, protect and take care of it.		

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**MANIPUR BULLETIN**

**23<sup>rd</sup> May, 2017**

**Thoubal**

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<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)</b>                  Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and <b>46.1 mm</b> rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.</p>	<p><b>Weather forecast for next five days of Thoubal (24<sup>th</sup> to 28<sup>th</sup> May, 2017)</b>                  Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 31 - 33 °C &amp; minimum temp. 22 - 23 °C. Relative humidity may reach up to 97 % (max RH) &amp; 55 % (min RH). The average wind speed may be 4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
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<b>Horticulture Crops</b>			
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<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
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**23<sup>rd</sup> May, 2017**

**Ukhrul**

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<b>Field Crops</b>			
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<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
<b>Groundnut</b>	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. - Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.
<b>Kharif Maize</b>	Sowing		Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Blackgram &amp; Rice bean</b>	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in <b>godowns</b> .

<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**



<b>French Bean/ Bhindi</b>	Vegetative to flowering		- Weeding may be done to avoid insect pest infestation.
<b>Turmeric/ Ginger</b>	Vegetative		- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.
<b>Cucurbits</b>	Flowering & fruiting	Red Pumpkin Beetle	Use Methyl Eugenol as trap @ 4-10 traps/ sangam. - To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
<b>Tomato/ Brinjal</b>	Vegetative to flowering		- Apply 25kg Urea after 25-30days of transplanting. - Weeding may be done to avoid insect pest infestation.
<b>Chilli/ capsicum</b>	Vegetative to flowering		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation.

**Animal Sciences**

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

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening. - Avoid caking of litter materials.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Vaccination	- Vaccinate against Enterotoxaemia and sheep pox.
		Management	- Pregnant animal (more than 6 months) should be given additional feed.
		Mineral feeding to protect (PICA)	- Mineral mixtures are to be supplemented.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against FMD after the age of 3 months.
		Mineral feeding	➤ Provide mineral mixture.
<b>Cattle</b>	All age groups excepts the young ones	Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Fodder cultivation	➤ Maize/ Jowar/ Bajra sown as fodder crop may be harvested after 45-50 days.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
Management	- Some female animals may get agitated due to the heat especially during night time, protect and take care of it.		

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



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



**MANIPUR BULLETIN**

**23<sup>rd</sup> May, 2017**

**Imphal East**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 24<sup>th</sup> to 28<sup>th</sup> May, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)</b>          Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and <b>46.1 mm</b> rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.</p>	<p><b>Weather forecast for next five days of Imphal East (24<sup>th</sup> to 28<sup>th</sup> May, 2017)</b>          Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 29 - 31 °C &amp; minimum temp. 18 - 19 °C. Relative humidity may reach up to 99 % (max RH) &amp; 45 % (min RH). The average wind speed may be 2-3 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
<b>Groundnut</b>	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. - Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.
<b>Kharif Maize</b>	Sowing		Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Blackgram &amp; Rice bean</b>	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in <b>godowns</b> .

<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**



<b>French Bean/ Bhindi</b>	Vegetative to flowering		- Weeding may be done to avoid insect pest infestation.
<b>Turmeric/ Ginger</b>	Vegetative		- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.
<b>Cucurbits</b>	Flowering & fruiting	Red Pumpkin Beetle	Use Methyl Eugenol as trap @ 4-10 traps/ sangam. - To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
<b>Tomato/ Brinjal</b>	Vegetative to flowering		- Apply 25kg Urea after 25-30days of transplanting. - Weeding may be done to avoid insect pest infestation.
<b>Chilli/ capsicum</b>	Vegetative to flowering		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation.

**Animal Sciences**

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

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening. - Avoid caking of litter materials.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Vaccination	- Vaccinate against Enterotoxaemia and sheep pox.
		Management	- Pregnant animal (more than 6 months) should be given additional feed.
		Mineral feeding to protect (PICA)	- Mineral mixtures are to be supplemented.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against FMD after the age of 3 months.
		Mineral feeding	➤ Provide mineral mixture.
<b>Cattle</b>	All age groups excepts the young ones	Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Fodder cultivation	➤ Maize/ Jowar/ Bajra sown as fodder crop may be harvested after 45-50 days.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
Management	- Some female animals may get agitated due to the heat especially during night time, protect and take care of it.		

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



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

**MANIPUR BULLETIN****23<sup>rd</sup> May, 2017****Imphal West**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 24<sup>th</sup> to 28<sup>th</sup> May, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)**

Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and **46.1 mm** rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.

**Weather forecast for next five days of Imphal West (24<sup>th</sup> to 28<sup>th</sup> May, 2017)**

Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 29 - 33 °C & minimum temp. 21 - 23 °C. Relative humidity may reach up to 99 % (max RH) & 49 % (min RH). The average wind speed may be 2 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
<b>Groundnut</b>	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. - Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.
<b>Kharif Maize</b>	Sowing		Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Blackgram &amp; Rice bean</b>	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in <b>godowns</b> .
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**



<b>French Bean/ Bhindi</b>	Vegetative to flowering		- Weeding may be done to avoid insect pest infestation.
<b>Turmeric/ Ginger</b>	Vegetative		- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.
<b>Cucurbits</b>	Flowering & fruiting	Red Pumpkin Beetle	Use Methyl Eugenol as trap @ 4-10 traps/ sangam. - To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
<b>Tomato/ Brinjal</b>	Vegetative to flowering		- Apply 25kg Urea after 25-30days of transplanting. - Weeding may be done to avoid insect pest infestation.
<b>Chilli/ capsicum</b>	Vegetative to flowering		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation.

**Animal Sciences**

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

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening. - Avoid caking of litter materials.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Vaccination	- Vaccinate against Enterotoxaemia and sheep pox.
		Management	- Pregnant animal (more than 6 months) should be given additional feed.
		Mineral feeding to protect (PICA)	- Mineral mixtures are to be supplemented.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against FMD after the age of 3 months.
		Mineral feeding	➤ Provide mineral mixture.
<b>Cattle</b>	All age groups excepts the young ones	Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Fodder cultivation	➤ Maize/ Jowar/ Bajra sown as fodder crop may be harvested after 45-50 days.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
Management	- Some female animals may get agitated due to the heat especially during night time, protect and take care of it.		

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



**MANIPUR BULLETIN**

**23<sup>rd</sup> May, 2017**

**Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 24<sup>th</sup> to 28<sup>th</sup> May, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)</b>          Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and <b>46.1 mm</b> rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.</p>	<p><b>Weather forecast for next five days of Bishnupur (24<sup>th</sup> to 28<sup>th</sup> May, 2017)</b>          Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 31 - 33 °C &amp; minimum temp. 22 - 23 °C. Relative humidity may reach up to 97 % (max RH) &amp; 55 % (min RH). The average wind speed may be 2-4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
<b>Groundnut</b>	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. - Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.
<b>Kharif Maize</b>	Sowing		Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Blackgram &amp; Rice bean</b>	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in <b>godowns</b> .

<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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



<b>French Bean/ Bhindi</b>	Vegetative to flowering		- Weeding may be done to avoid insect pest infestation.
<b>Turmeric/ Ginger</b>	Vegetative		- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.
<b>Cucurbits</b>	Flowering & fruiting	Red Pumpkin Beetle	Use Methyl Euginol as trap @ 4-10 traps/ sangam. - To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
<b>Tomato/ Brinjal</b>	Vegetative to flowering		- Apply 25kg Urea after 25-30days of transplanting. - Weeding may be done to avoid insect pest infestation.
<b>Chilli/ capsicum</b>	Vegetative to flowering		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation.

**Animal Sciences**

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

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening. - Avoid caking of litter materials.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Vaccination	- Vaccinate against Enterotoxaemia and sheep pox.
		Management	- Pregnant animal (more than 6 months) should be given additional feed.
		Mineral feeding to protect (PICA)	- Mineral mixtures are to be supplemented.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against FMD after the age of 3 months.
		Mineral feeding	➤ Provide mineral mixture.
<b>Cattle</b>	All age groups excepts the young ones	Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Fodder cultivation	➤ Maize/ Jowar/ Bajra sown as fodder crop may be harvested after 45-50 days.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
Management	- Some female animals may get agitated due to the heat especially during night time, protect and take care of it.		

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



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

**MANIPUR BULLETIN****23<sup>rd</sup> May, 2017****Chandel**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 24<sup>th</sup> to 28<sup>th</sup> May, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)**

Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and **46.1 mm** rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.

**Weather forecast for next five days of Chandel (24<sup>th</sup> to 28<sup>th</sup> May, 2017)**

Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 31 - 33 °C & minimum temp. 21 - 23 °C. Relative humidity may reach up to 91 % (max RH) & 56 % (min RH). The average wind speed may be 3-4 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
		Leaf folder and case worm etc	Apply Lambdacythothrin 5% @ 15 ml/ 15 litres of water, if case worm infested drain out the field immediately.
	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
<b>Soybean</b>	Sowing		Sowing may be done at spacing of 45 cm x 30 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Seed rate of soybean is 40-45 kg/ha or 10-11 kg of seed /sangam. - Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.
<b>Groundnut</b>	Sowing		Seed rate is 100-110 kg of Kernal/ha and the recommended varieties are ICGS-75 and JL-24. Sowing may be done at spacing of 30 cm x 15 cm. It is recommended to apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. - Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.
<b>Kharif Maize</b>	Sowing		Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Blackgram &amp; Rice bean</b>	Land preparation to sowing		Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling after rains. Treat the seed with Thiram or Captan.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% in <b>godowns</b> .
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Cauliflower</b>	Nursery		- Preparation of nursery 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.
<b>Tree bean</b>	Planting		Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.



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**“Gramin Krishi Mausam Seva”**



<b>French Bean/ Bhindi</b>	Vegetative to flowering		- Weeding may be done to avoid insect pest infestation.
<b>Turmeric/ Ginger</b>	Vegetative		- Before planting treat seed rhizome with Sixer @ 2g/ kg seed or Trichoderma harzianum @ 10g/ kg seed or Carbendazim @ 2g/ kg seed. Maintain spacing at 25cm X 40-45cm.
<b>Cucurbits</b>	Flowering & fruiting	Red Pumpkin Beetle	Use Methyl Euginol as trap @ 4-10 traps/ sangam. - To prevent mite in the lower surface of leaves, use Neem oil @ 2-3 ml / litre of water.
<b>Tomato/ Brinjal</b>	Vegetative to flowering		- Apply 25kg Urea after 25-30days of transplanting. - Weeding may be done to avoid insect pest infestation.
<b>Chilli/ capsicum</b>	Vegetative to flowering		- In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains. - Weeding may be done to avoid insect pest infestation.

**Animal Sciences**

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

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
			- Bleaching powder may be spread near farm premises. - To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening. - Avoid caking of litter materials.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Vaccination	- Vaccinate against Enterotoxaemia and sheep pox.
		Management	- Pregnant animal (more than 6 months) should be given additional feed.
		Mineral feeding to protect (PICA)	- Mineral mixtures are to be supplemented.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against FMD after the age of 3 months.
		Mineral feeding	➤ Provide mineral mixture.
<b>Cattle</b>	All age groups excepts the young ones	Care and management	Provide clean water (drinking). Add antibiotics in feed and water. Vaccinate against FMD.
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Fodder cultivation	➤ Maize/ Jowar/ Bajra sown as fodder crop may be harvested after 45-50 days.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
Management	- Some female animals may get agitated due to the heat especially during night time, protect and take care of it.		

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 Scientist i/c, GKMS



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**MANIPUR BULLETIN**

**23<sup>rd</sup> May, 2017**

**Churachandpur**

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<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (19<sup>th</sup> to 22<sup>nd</sup> May, 2017)</b>                  Observed mainly cloudy to cloudy sky upto 21<sup>st</sup> morning and mainly clear to partly cloudy thereafter and <b>46.1 mm</b> rainfall was recorded during past four days. Maximum temperature range of 27.2 to 30.4 °C and minimum temperature range of 19.4 to 21.0 °C with mean relative humidity 91 % max and 67.5 % min was recorded in the past four days.</p>	<p><b>Weather forecast for next five days of Churachandpur (24<sup>th</sup> to 28<sup>th</sup> May, 2017)</b>                  Likely to have fairly widespread rainfall over Manipur during Friday to Sunday with partly cloudy to mainly cloudy sky and maximum temp. 30 - 32 °C &amp; minimum temp. 22 - 23 °C. Relative humidity may reach up to 97 % (max RH) &amp; 62 % (min RH). The average wind speed may be 2-4 km/hr.</p>
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<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle initiation (Pre-kharif rice)		- Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. - If the crop is at panicle initiation stage, apply 33 kg Urea/ha after complete removal of water. Irrigate field after 48 hrs of top dressing.
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	Nursery (Main kharif rice)		- Raise community nursery in upland area/ terrace so that it may be least affected with the rains. Prepare 700m <sup>2</sup> of land is for a hectare. Seed rate is 40 – 60 Kg /ha for transplanting of rice. - Soak seeds and incubate before sowing. - Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.
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**Animal Sciences**

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