

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

"Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

# 20<sup>th</sup> September, 2018

# Imphal East

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> September, 2018 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (18 <sup>th</sup> and 19 <sup>th</sup> September, 2018)
Observed <b>14.0 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> .
Maximum temperature recorded ranged from 30.4 to 33.7 °C and
minimum of 21.7 to 21.9 °C with mean relative humidity 91.0 %
max and 63.5 % min was recorded in the past three days &
average wind speed was 2.1-2.6 km/ hr.

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 32-35 °C & minimum temp. 23 °C. Relative humidity may reach upto 99 % (max RH) & 83 % (min RH). The average wind speed may be 2-4 km/hr.

Weather forecast for next five days of Imphal East

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
	8		- Maintain water level at 5-8 cm.
Rice	Milky and dough stage	Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
		Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/	Fruiting to seed		Weeding may be done if weed population is high after rains.
Groundnut	maturity		Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice	Fruiting to seed		Weeding may be done if weed population is high after rains.
Bean	maturity		Prepare wind breaks to avoid high speed winds.
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops	•		·
		0g/ 5 lit water for 30 mi	in before transplanting in raised beds.
* Wind breaks may be	prepared for young pl	ants of nursery in open f	fields.
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting after rains.
Tree bean	Trees above 7yrs		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
Tree beam	age/ Bearing plants		Apply (orgin DAT + 10g WOT + 20g Carboratan 507 per plant.
Cauliflower	Vegetative stage of main season crop	Plutella Diamondback moth	<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> </ul>
	nursery of late crop		<ul> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> </ul>
			- Mix seeds with soil for better distribution of seeds while broadcasting and
Potato	Land preparation to planting		



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French Bean,		Land preparat	ion	- After harvesting of colocasia/ cucurbits, raised beds may now be prepared as
	coad bean & Pea		1011	for sowing of pea/ french bean/ broad bean.
broau bean &	. r ea			- Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted
Ginger/ Turmeric Rhizome initia		tion Shoot borer	at a spacing of 10 cm x 30cm. - Spray Nimbicidine @ 2-5ml/lit water.	
Animal Scienc				- Spray Runoledine @ 2-5mi/nt water.
		water for hirds	and animals Drainage may	y be constructed well around the birds or animals sheds to avoid water logging.
			s of birds and animals.	be constructed with around the birds of annuals sheas to avoid water logging.
Name of bird/			Disease and	Agro-meteorological advisories
animal		0	Management	
Poultry	All age	groups	<ul> <li>Vaccination</li> </ul>	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)			Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Contingency plan and management	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.	
Sheep/ Goat	Sheep/ Goat All age groups		Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
			• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	<ul> <li>Protect from thunder showers. Protect from after winds (loo).</li> <li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li> </ul>	
Pig	Pig     All age groups except the young ones		• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
			• Coccidial infection (Diarrhea)	• Ofloxacine tab twice daily for 5 days.
			• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			<ul> <li>Vaccination</li> </ul>	• Vaccinate against FMD.
			Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle		groups	Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excepts ones	the young	• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
			• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
			Care & Management	• Give mineral mixture @ 30-50g daily.
			• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.



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"Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

# 20<sup>th</sup> September, 2018

# Imphal West

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> September, 2018 as below:

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minimum of <b>21.7</b> to <b>21.9</b> °C with mean relative humidity <b>91.0</b> %
max and 63.5 % min was recorded in the past three days &
average wind speed was $2.1-2.6$ km/ hr.

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 32-35 °C & minimum temp. 23 °C. Relative humidity may reach upto 98 % (max RH) & 70 % (min RH). The average wind speed may be 0-6 km/hr.

Weather forecast for next five days of Imphal West

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
runie or the crop	Singe	i est una aisease	- Maintain water level at 5-8 cm.
Rice	Milky and dough stage	Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
		Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/	Fruiting to seed		Weeding may be done if weed population is high after rains.
Groundnut	maturity		Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice	Fruiting to seed		Weeding may be done if weed population is high after rains.
Bean	maturity		Prepare wind breaks to avoid high speed winds.
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
	ot in Carbendazim @ 1	0g/ 5 lit water for 30 mi	n before transplanting in raised beds.
* Wind breaks may be	prepared for young pla	ants of nursery in open f	ïelds.
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting after rains.
Tree bean	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
Cauliflower	Vegetative stage of main season crop	Plutella Diamondback moth	<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> </ul>
	nursery of late crop		<ul> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> </ul>
Potato	Land preparation to planting		- Prepare land with fertile and sandy loam soil. Planting may be done after rains. Treat seeds before planting.
	Nursery	1	Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier



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



French Bean, Broad bean & Pea		ion		<ul> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.</li> </ul>	
<b>Ginger/ Turm</b>	Ginger/ Turmeric Rhizome initi		ation S	ation Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.
Animal Science		L			
* Provide clean * Check for the					be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/ animal		Stage		Disease and Ianagement	Agro-meteorological advisories
Poultry	All ag	ge groups	• Vacc	ination	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)			• Dewo	orming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
			ingency plan and gement	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.	
Sheep/ Goat	Sheep/ Goat All age groups		Vaccination		• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
			• Fasc	ioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Mana	agement	<ul><li>Protect from thunder showers. Protect from after winds (loo).</li><li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li></ul>	
Pig	g All age groups except the young		• De-w	vorming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones			cidial infection	• Ofloxacine tab twice daily for 5 days.
			• Tick	S	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Vacc	ination	Vaccinate against FMD.
				agement	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle		ge groups	• Vacc	ination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excep ones	ots the young	• Dewo	orming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
				parasite/ parasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
			• Care	& Management	• Give mineral mixture @ 30-50g daily.
			• Milk	fever	• Give 100-150ml of mixture calcium and phosphorous daily.



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

"Gramin Krishi Mausam Seva"



#### **MANIPUR BULLETIN**

# 20<sup>th</sup> September, 2018

#### Senapati

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minimum of 21.7 to 21.9 °C with mean relative humidity 91.0 %
max and 63.5 % min was recorded in the past three days &
average wind speed was $2.1-2.6$ km/ hr.

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 30-33 °C & minimum temp. 20-22 °C. Relative humidity may reach upto 99 % (max RH) & 85 % (min RH). The average wind speed may be 3-4 km/hr.

Weather forecast for next five days of Senapati

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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
			- Maintain water level at 5-8 cm.
Rice		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
	Milky and dough stage	Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/ Groundnut	Fruiting to seed maturity		Weeding may be done if weed population is high after rains. Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice Bean	Fruiting to seed maturity		Weeding may be done if weed population is high after rains. Prepare wind breaks to avoid high speed winds.
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops	<u>.</u>	I	
			n before transplanting in raised beds.
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
Cauliflower			
	Vegetative stage of main season crop	Plutella Diamondback moth	<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> </ul>
	of main season		<ul> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and</li> </ul>
French Bean, Broad bean & Pea	of main season crop nursery of late		<ul> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted of a spacing of 30cm x 45cm.</li> </ul>
French Bean,	of main season crop nursery of late crop		<ul> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm with 2-3 seeds per hill). For broad bean, plant local</li> </ul>

• Care & Management

• Milk fever



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



# Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry	All age groups	Vaccination	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)	• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.	
		Contingency plan and management	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.
Sheep/ Goat A	All age groups	Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Management	<ul> <li>Protect from thunder showers. Protect from after winds (loo).</li> <li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li> </ul>
Pig	All age groups except the young	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones	• Coccidial infection (Diarrhea)	• Ofloxacine tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Vaccination	Vaccinate against FMD.
		Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle	All age groups	Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excepts the young ones	• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.

• Give mineral mixture @ 30-50g daily.

• Give 100-150ml of mixture calcium and phosphorous daily.



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"Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

# 20<sup>th</sup> September, 2018

### **Tamenglong**

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max and 63.5 % min was recorded in the past three days &
average wind speed was 2.1–2.6 km/ hr.

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 33-36 °C & minimum temp. 24-25 °C. Relative humidity may reach upto 99 % (max RH) & 73 % (min RH). The average wind speed may be 2-5 km/hr.

Weather forecast for next five days of Tamenglong

	CL.		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
			- Maintain water level at 5-8 cm.
Rice	Milky and dough stage	Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
		Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/	Fruiting to seed		Weeding may be done if weed population is high after rains.
Groundnut	maturity		Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice	Fruiting to seed		Weeding may be done if weed population is high after rains.
Bean	maturity		Prepare wind breaks to avoid high speed winds.
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops		1	
	ot in Carbendazim @ 1	$\Omega_{\rm II}$ / 5 lit water for 30 mi	
			in perore transplanting in raised beds.
			in before transplanting in raised beds. ields.
		ants of nursery in open f Pest and disease	ields. Agro-meteorological advisories
* Wind breaks may be	prepared for young pl	ants of nursery in open f	Tields.           Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.
* Wind breaks may be Name of the crop Rabi vegetables	prepared for young pl Stage Land preparation	ants of nursery in open f	Tields.           Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.           Prepare land for sowing or planting after rains.
* Wind breaks may be Name of the crop	Stage         Land preparation         Trees above 7yrs age/ Bearing plants	ants of nursery in open f Pest and disease	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
* Wind breaks may be Name of the crop Rabi vegetables	Stage         Land preparation         Trees above 7yrs age/ Bearing plants         Vegetative stage of main season crop	ants of nursery in open f	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.         - To kill early weeds shallow cultivation should be given using hoe or khurpi.         - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
* Wind breaks may be Name of the crop Rabi vegetables Tree bean	Stage         Land preparation         Trees above 7yrs age/ Bearing plants         Vegetative stage of main season	ants of nursery in open f Pest and disease Plutella	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.         - To kill early weeds shallow cultivation should be given using hoe or khurpi.         - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.         - Raise late crop cauliflower nursery.         - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.         - Mix seeds with soil for better distribution of seeds while broadcasting and
* Wind breaks may be Name of the crop Rabi vegetables Tree bean	Stage         Land preparation         Trees above 7yrs age/ Bearing plants         Vegetative stage of main season crop         nursery of late	ants of nursery in open f Pest and disease Plutella	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.         - To kill early weeds shallow cultivation should be given using hoe or khurpi.         - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.         - Raise late crop cauliflower nursery.         - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.



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



French Bean, Broad bean & Pea		ion		<ul> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.</li> </ul>	
Ginger/ Turm	Ginger/ Turmeric Rhizome initia		ation	tion Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.
Animal Science	es	•			
* Provide clean * Check for the					be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/ animal		Stage		Disease and Management	Agro-meteorological advisories
Poultry	All ag	ge groups	• Va	ccination	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)			• De	eworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
			ntingency plan and magement	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.	
Sheep/ Goat	All ag	ge groups	• Va	accination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
			• Fa	scioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Ma	anagement	<ul> <li>Protect from thunder showers. Protect from after winds (loo).</li> <li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li> </ul>	
Pig	Pig All age groups except the young		• De	e-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones			occidial infection	• Ofloxacine tab twice daily for 5 days.
			• Ti	cks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			• Va	ccination	Vaccinate against FMD.
			• Ma	anagement	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle		ge groups	• Va	ccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excep ones	ots the young	• De	eworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
				doparasite/ toparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
			• Ca	re & Management	• Give mineral mixture @ 30-50g daily.
			• M	ilk fever	• Give 100-150ml of mixture calcium and phosphorous daily.



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

"Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

# 20<sup>th</sup> September, 2018

### <u>Thoubal</u>

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> September, 2018 as below:

	Significant past weather for the preceding bi-weekly of
	Imphal - West (18 <sup>th</sup> and 19 <sup>th</sup> September, 2018)
	Observed <b>14.0 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> .
	Maximum temperature recorded ranged from 30.4 to 33.7 °C and
	minimum of <b>21.7</b> to <b>21.9</b> °C with mean relative humidity <b>91.0</b> %
	max and 63.5 % min was recorded in the past three days &
I	average wind speed was $2.1 - 2.6$ km/ hr.

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 32-35 °C & minimum temp. 23 °C. Relative humidity may reach upto 100 % (max RH) & 93 % (min RH). The average wind speed may be 3-6 km/hr.

Weather forecast for next five days of Thoubal

NT 0.41	C(		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
		A 1'1 1 1	- Maintain water level at 5-8 cm.
Rice		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
	Milky and dough stage	Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/	Fruiting to seed		Weeding may be done if weed population is high after rains.
Groundnut	maturity		Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice	Fruiting to seed		Weeding may be done if weed population is high after rains.
Bean	maturity		Prepare wind breaks to avoid high speed winds.
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
		0g/5 lit water for 30 mi	n before transplanting in raised beds.
		ants of nursery in open f	
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting after rains.
<b>T</b>			
	Trees above 7yrs		Apply (60 gm DAP $\pm$ 10 g MOP $\pm$ 20 g Carbofuran 3G / per plant
Tree bean	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
	age/ Bearing plants Vegetative stage of main season crop	Plutella Diamondback moth	<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> </ul>
	age/ Bearing plants Vegetative stage of main season		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and</li> </ul>
Tree bean Cauliflower Potato	age/ Bearing plants Vegetative stage of main season crop nursery of late		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> </ul>



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



French Bean, Broad bean & Pea		Land preparation			<ul> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.</li> </ul>
<b>Ginger/ Turm</b>	eric	Rhizome initiation		hoot borer	- Spray Nimbicidine @ 2-5ml/lit water.
Animal Science		L			
* Provide clean * Check for the					be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/ animal		Stage		Disease and Ianagement	Agro-meteorological advisories
Poultry	All ag	ge groups	• Vacc	ination	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)			• Dewo	orming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
				ingency plan and gement	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	<b>P/ Goat</b> All age groups		• Vacc	ination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
			• Fasc	ioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
				agement	<ul><li>Protect from thunder showers. Protect from after winds (loo).</li><li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li></ul>
Pig		ge groups ot the young	• De-w	vorming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones			cidial infection	• Ofloxacine tab twice daily for 5 days.
			• Tick	S	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			• Vacc	ination	Vaccinate against FMD.
				agement	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle		ge groups	• Vacc	ination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excep ones	ots the young	• Dewo	orming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
				parasite/ parasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
			• Care	& Management	• Give mineral mixture @ 30-50g daily.
			• Milk	fever	• Give 100-150ml of mixture calcium and phosphorous daily.



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





#### **MANIPUR BULLETIN**

## 20<sup>th</sup> September, 2018

# **Ukhrul**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> September, 2018 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (18 <sup>th</sup> and 19 <sup>th</sup> September, 2018)
Observed <b>14.0 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> .
Maximum temperature recorded ranged from <b>30.4</b> to <b>33.7</b> °C and
minimum of 21.7 to 21.9 °C with mean relative humidity 91.0 %
max and 63.5 % min was recorded in the past three days &
average wind speed was 2.1-2.6 km/ hr.

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 30-33 °C & minimum temp. 20-22 °C. Relative humidity may reach upto 98 % (max RH) & 82 % (min RH). The average wind speed may be 3-5 km/hr.

Weather forecast for next five days of Ukhrul

	C.		
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
	Milky and dough stage		- Maintain water level at 5-8 cm.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of
Rice		DI UI	water after rains.
		Plant Hoppers or	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of
		Thrips Sheath blight/	infestation. Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of
		Bakani	water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering
		Sindt disease of fice	stage after rains.
Soybean/	Fruiting to seed		Weeding may be done if weed population is high after rains.
Groundnut	maturity		Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice	Fruiting to seed		Weeding may be done if weed population is high after rains.
Bean	maturity		Prepare wind breaks to avoid high speed winds.
Seeds storage	maturity		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and
Seeus storage			cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for
	Post-harvest		moisture content or weight of charcoal and dry if required.
	management		For grains, store grains in well ventilated godowns after drying properly. Spray
			Malathion 1% on the walls of stores.
Horticulture Crops			
			n before transplanting in raised beds.
* Wind breaks may be			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Tree bean	Trees above 7yrs		
			Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
	age/ Bearing		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
	age/ Bearing plants		
Cauliflower	age/ Bearing plants Vegetative stage	Plutella	- To kill early weeds shallow cultivation should be given using hoe or khurpi.
	age/ Bearing plants Vegetative stage of main season	Plutella Diamondback moth	<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the</li> </ul>
	age/ Bearing plants Vegetative stage		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides</li> </ul>
	age/ Bearing plants Vegetative stage of main season crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> </ul>
	age/ Bearing plants Vegetative stage of main season crop nursery of late		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> </ul>
	age/ Bearing plants Vegetative stage of main season crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for</li> </ul>
	age/ Bearing plants Vegetative stage of main season crop nursery of late		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per</li> </ul>
	age/ Bearing plants Vegetative stage of main season crop nursery of late		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> </ul>
	age/ Bearing plants Vegetative stage of main season crop nursery of late		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and</li> </ul>
Cauliflower	age/ Bearing plants Vegetative stage of main season crop nursery of late		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> </ul>
Cauliflower French Bean,	age/ Bearing plants Vegetative stage of main season crop nursery of late crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> </ul>
Cauliflower	age/ Bearing plants Vegetative stage of main season crop nursery of late crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be</li> </ul>
Cauliflower French Bean,	age/ Bearing plants Vegetative stage of main season crop nursery of late crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted</li> </ul>
Cauliflower French Bean,	age/ Bearing plants Vegetative stage of main season crop nursery of late crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local</li> </ul>
Cauliflower French Bean,	age/ Bearing plants Vegetative stage of main season crop nursery of late crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted</li> </ul>
Cauliflower French Bean, Broad bean & Pea	age/ Bearing plants Vegetative stage of main season crop nursery of late crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.</li> </ul>
Cauliflower French Bean,	age/ Bearing plants Vegetative stage of main season crop nursery of late crop		<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.</li> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted</li> </ul>

• Care & Management

• Milk fever



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



# Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
Poultry	All age groups	Vaccination	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Contingency plan and management	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	All age groups	Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Management	<ul> <li>Protect from thunder showers. Protect from after winds (loo).</li> <li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li> </ul>
Pig	All age groups except the young	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones	• Coccidial infection (Diarrhea)	• Ofloxacine tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Vaccination	Vaccinate against FMD.
		Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle	All age groups	Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excepts the young ones	• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.

• Give mineral mixture @ 30-50g daily.

• Give 100-150ml of mixture calcium and phosphorous daily.



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

"Gramin Krishi Mausam Seva"



#### MANIPUR BULLETIN

# 20<sup>th</sup> September, 2018

# <u>Bishnupur</u>

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> September, 2018 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (18 <sup>th</sup> and 19 <sup>th</sup> September, 2018)
Observed <b>14.0 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> .
Maximum temperature recorded ranged from 30.4 to 33.7 °C and
minimum of <b>21.7</b> to <b>21.9</b> °C with mean relative humidity <b>91.0</b> %
max and 63.5 % min was recorded in the past three days &
average wind speed was $2.1-2.6$ km/ hr.

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 28-35 °C & minimum temp. 22-24 °C. Relative humidity may reach upto 100 % (max RH) & 83 % (min RH). The average wind speed may be 2-4 km/hr.

Weather forecast for next five days of Bishnupur

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice		Aphid, mealy bugs	- Maintain water level at 5-8 cm. Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
Inte	Milky and dough stage	Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/ Groundnut	Fruiting to seed maturity		Weeding may be done if weed population is high after rains. Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice Bean	Fruiting to seed maturity		Weeding may be done if weed population is high after rains. Prepare wind breaks to avoid high speed winds.
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
Horticulture Crops		0g/5 lit water for 20 m	n before transplanting in raised beds.
		ants of nursery in open f	
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting after rains.
Tree bean	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
Cauliflower	Vegetative stage of main season crop	Plutella Diamondback moth	<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> </ul>
	nursery of late crop		<ul> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and</li> </ul>
Potato	Land preparation to planting		<ul><li>maintain a spacing of 2 inches between rows.</li><li>Prepare land with fertile and sandy loam soil. Planting may be done after rains. Treat seeds before planting.</li></ul>
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.



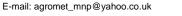
# ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"



Broad bean & Pea		Land preparat	ion	<ul> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.</li> </ul>
<b>Ginger/ Turm</b>		Rhizome initia	ation Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.
Animal Science				
* Provide clean * Check for the	drinking good co	g water for birds indition of sheds	s and animals. Drainage mass of birds and animals.	ay be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/ animal		Stage	Disease and Management	Agro-meteorological advisories
Poultry	All ag	ge groups	Vaccination	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)			• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
			<ul> <li>Contingency plan and management</li> </ul>	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	eep/ Goat All age gro		Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
			Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
			• Management	<ul> <li>Protect from thunder showers. Protect from after winds (loo).</li> <li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li> </ul>
Pig		ge groups ot the young	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones		• Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.
			• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Vaccination	Vaccinate against FMD.
			Management	Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow     @ 20g and 20ml resp. in feed.
Cattle		ge groups	Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excep ones	ots the young	• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
			• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
			Care & Management	Give mineral mixture @ 30-50g daily.
			• Milk fever	Give 100-150ml of mixture calcium and phosphorous daily.



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





#### MANIPUR BULLETIN

## 20<sup>th</sup> September, 2018

# <u>Chandel</u>

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> September, 2018 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (14 <sup>th</sup> to 17 <sup>th</sup> September, 2018)
Observed <b>0.2 mm</b> rainfall with <b>mainly clear to partly cloudy</b>
<b>sky</b> but <b>mainly cloudy</b> during morning hours of 14 <sup>th</sup> and 16 <sup>th</sup>
Sept. Maximum temperature recorded ranged from <b>31.3</b> to <b>32.7</b>
<sup>o</sup> C and minimum of <b>20.3</b> to <b>21.6</b> <sup>o</sup> C with mean relative humidity
85.5 % max and 59.0 % min was recorded in the past three days
& average wind speed was $2.1-3.5$ km/ hr.

#### (19<sup>th</sup> to 23<sup>rd</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 29-36 °C & minimum temp. 22-25 °C. Relative humidity may reach upto 99 % (max RH) & 87 % (min RH). The average wind speed may be 2-6 km/hr.

Weather forecast for next five days of Chandel

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
			- Maintain water level at 5-8 cm.
Rice	Milky and dough stage	Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
		Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/	Fruiting to seed		Weeding may be done if weed population is high after rains.
Groundnut	maturity		Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice	Fruiting to seed		Weeding may be done if weed population is high after rains.
Bean	maturity		Prepare wind breaks to avoid high speed winds.
Seeds storage			For seed purpose store the seeds in RC-Seed Bin after proper drying and
	D. (1)		cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for
	Post-harvest		moisture content or weight of charcoal and dry if required.
	management		For grains, store grains in well ventilated godowns after drying properly. Spray
			Malathion 1% on the walls of stores.
Horticulture Crops			
* For nurseries, dip roc * Wind breaks may be	ot in Carbendazim @ 1 prepared for young pl	.0g/ 5 lit water for 30 mi ants of nursery in open f	n before transplanting in raised beds. Tields
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Name of the crop Rabi vegetables	Stage Land preparation	Pest and disease	
Rabi vegetables	U	Pest and disease	Agro-meteorological advisories Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage,
	U	Pest and disease	Agro-meteorological advisories Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.
	U	Pest and disease	Agro-meteorological advisories Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage,
Rabi vegetables	Land preparation Trees above 7yrs age/ Bearing plants	Pest and disease Plutella	Agro-meteorological advisoriesProcure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.Prepare land for sowing or planting after rains.Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
Rabi vegetables	Land preparation Trees above 7yrs age/ Bearing		Agro-meteorological advisories Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting after rains.
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage	Plutella	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.         - To kill early weeds shallow cultivation should be given using hoe or khurpi.         - Check for infestation of Plutella Diamondback moth in young plants. If the
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season	Plutella	Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.           Prepare land for sowing or planting after rains.           Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.           - To kill early weeds shallow cultivation should be given using hoe or khurpi.           - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season crop	Plutella	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.         - To kill early weeds shallow cultivation should be given using hoe or khurpi.         - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.         - Raise late crop cauliflower nursery.
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season	Plutella	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.         - To kill early weeds shallow cultivation should be given using hoe or khurpi.         - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.         - Raise late crop cauliflower nursery.
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season crop nursery of late	Plutella	Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.           Prepare land for sowing or planting after rains.           Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.           - To kill early weeds shallow cultivation should be given using hoe or khurpi.           - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.           - Raise late crop cauliflower nursery.           - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season crop nursery of late	Plutella	Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.           Prepare land for sowing or planting after rains.           Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.           - To kill early weeds shallow cultivation should be given using hoe or khurpi.           - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.           - Raise late crop cauliflower nursery.           - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season crop nursery of late	Plutella	Agro-meteorological advisories         Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.         Prepare land for sowing or planting after rains.         Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.         - To kill early weeds shallow cultivation should be given using hoe or khurpi.         - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.         - Raise late crop cauliflower nursery.         - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.         - Mix seeds with soil for better distribution of seeds while broadcasting and
Rabi vegetables Tree bean Cauliflower	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season crop nursery of late crop	Plutella	Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.           Prepare land for sowing or planting after rains.           Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.           - To kill early weeds shallow cultivation should be given using hoe or khurpi.           - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.           - Raise late crop cauliflower nursery.           - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.           - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.
Rabi vegetables Tree bean Cauliflower	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season crop nursery of late crop Land preparation	Plutella	Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.           Prepare land for sowing or planting after rains.           Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.           - To kill early weeds shallow cultivation should be given using hoe or khurpi.           - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.           - Raise late crop cauliflower nursery.           - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.           - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.           - Prepare land with fertile and sandy loam soil. Planting may be done after rains.
Rabi vegetables Tree bean	Land preparation Trees above 7yrs age/ Bearing plants Vegetative stage of main season crop nursery of late crop	Plutella	Agro-meteorological advisories           Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc.           Prepare land for sowing or planting after rains.           Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.           - To kill early weeds shallow cultivation should be given using hoe or khurpi.           - Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.           - Raise late crop cauliflower nursery.           - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.           - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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



Broad bean & Pea		Land preparat	ion	<ul> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.</li> </ul>
<b>Ginger/ Turm</b>		Rhizome initia	ation Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.
Animal Science				
* Provide clean * Check for the	drinking good co	g water for birds indition of sheds	s and animals. Drainage mass of birds and animals.	ay be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/ animal		Stage	Disease and Management	Agro-meteorological advisories
Poultry	All ag	ge groups	Vaccination	Vaccinate birds against Fowl Pox.
(Chicken/ Duck)			• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
			<ul> <li>Contingency plan and management</li> </ul>	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	eep/ Goat All age gro		Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
			Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
			• Management	<ul> <li>Protect from thunder showers. Protect from after winds (loo).</li> <li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li> </ul>
Pig		ge groups ot the young	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones		• Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.
			• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Vaccination	Vaccinate against FMD.
			Management	Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow     @ 20g and 20ml resp. in feed.
Cattle		ge groups	Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excep ones	ots the young	• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.
			• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
			Care & Management	Give mineral mixture @ 30-50g daily.
			• Milk fever	Give 100-150ml of mixture calcium and phosphorous daily.



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

"Gramin Krishi Mausam Seva"



#### **MANIPUR BULLETIN**

## 20<sup>th</sup> September, 2018

# Churachandpur

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> September, 2018 as below:

Significant past weather for the preceding bi-weekly of				
Imphal - West (18 <sup>th</sup> and 19 <sup>th</sup> September, 2018)				
Observed <b>14.0 mm</b> rainfall with <b>mainly cloudy to overcast sky</b> .				
Maximum temperature recorded ranged from 30.4 to 33.7 °C and				
minimum of 21.7 to 21.9 °C with mean relative humidity 91.0 %				
max and 63.5 % min was recorded in the past three days &				
average wind speed was $2.1 - 2.6$ km/ hr.				

(21<sup>st</sup> to 25<sup>th</sup> September, 2018) Likely to have thunderstorm accompanied with lightning at isolated places on Friday and mainly cloudy sky with maximum temp. 29-36 °C & minimum temp. 22-25 °C. Relative humidity may reach upto 99 % (max RH) & 87 % (min RH). The average wind speed may be 2-6 km/hr.

Weather forecast for next five days of Churachandpur

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice		Aphid, mealy bugs	- Maintain water level at 5-8 cm. Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water after rains.
	Milky and dough stage	Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water after rains at the early stage of infestation.
		Sheath blight/ Bakani	Carbendazim @ 30-40g/ 15 lit of water or Hexaclonazole @ 15ml/ 15 lit of water after rains.
		Smut disease of rice	Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage after rains.
Soybean/ Groundnut	Fruiting to seed maturity		Weeding may be done if weed population is high after rains. Prepare wind breaks to avoid high speed winds.
Blackgram/ Rice Bean	Fruiting to seed maturity		Weeding may be done if weed population is high after rains. Prepare wind breaks to avoid high speed winds.
Seeds storage	Post-harvest management		For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
* For purseries dip ro		$\Omega g / 5$ lit water for 30 mi	n before transplanting in raised beds.
		ants of nursery in open f	
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rabi vegetables	Land preparation		Procure good quality seeds of carrot, raddish, coriander, cauliflower, cabbage, broccoli, etc. Prepare land for sowing or planting after rains.
Tree bean	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G / per plant.
Cauliflower	Vegetative stage of main season crop	Plutella Diamondback moth	<ul> <li>To kill early weeds shallow cultivation should be given using hoe or khurpi.</li> <li>Check for infestation of Plutella Diamondback moth in young plants. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.</li> </ul>
	nursery of late crop		<ul> <li>Raise late crop cauliflower nursery.</li> <li>Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice.</li> <li>Mix seeds with soil for better distribution of seeds while broadcasting and</li> </ul>
Potato	Land preparation to planting		<ul><li>maintain a spacing of 2 inches between rows.</li><li>Prepare land with fertile and sandy loam soil. Planting may be done after rains. Treat seeds before planting.</li></ul>
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red) in slightly cooler and drier area in bright sunshine.



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



French Bean, Land preparat Broad bean & Pea		ion		<ul> <li>After harvesting of colocasia/ cucurbits, raised beds may now be prepared as for sowing of pea/ french bean/ broad bean.</li> <li>Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.</li> </ul>	
Ginger/ Turmeric Rhizome init		ation	Shoot borer	- Spray Nimbicidine @ 2-5ml/lit water.	
Animal Science	es	•			
* Provide clean * Check for the					be constructed well around the birds or animals sheds to avoid water logging.
Name of bird/ animal		Stage		Disease and Management	Agro-meteorological advisories
Poultry A (Chicken/ Duck)	All ag	All age groups		accination	Vaccinate birds against Fowl Pox.
			• De	eworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
				ontingency plan and anagement	Give ENROX liq. @ 2ml/ 10 kg body weight for 5 days. Give green grasses sufficiently & mix with ground maize/ rice bran. Add mineral mixture & vitamins either in feed or water or both. Start keeping new batch chicks in case of layer variety.
Sheep/ Goat	All ag	All age groups		accination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
				scioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
				anagement	<ul> <li>Protect from thunder showers. Protect from after winds (loo).</li> <li>Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.</li> </ul>
		All age groups except the young		e-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
	ones			occidial infection Diarrhea)	• Ofloxacine tab twice daily for 5 days.
			• Ti	,	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			• Va	accination	Vaccinate against FMD.
			• Ma	anagement	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle		All age groups	• Va	accination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
	excepts the young ones	• De	eworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20- 30ml for 100 kg body weight.	
				doparasite/ toparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
			• Ca	re & Management	• Give mineral mixture @ 30-50g daily.
			• Mi	ilk fever	• Give 100-150ml of mixture calcium and phosphorous daily.