Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

Pest and disease

Stage

E-mail: agromet_mnp@yahoo.co.uk ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"



MANIPUR BULLETIN 13th December, 2016

Tamenglong

Name of the crop

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (9 th to 12 th December, 2016)	Weather forecast for next five days of Tamenglong (14 th to 18 th December, 2016)
	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at
Observed clear sky and no rainfall in the past four days. Maximum	isolated places during next 2-3 days and mainly clear sky during day time
temperature range of 23.3 to 25.0 °C & Minimum temperature of 5.8 to	with maximum temp. $22 - 24$ ° C & minimum temp. 5 - 6 ° C. Relative
5.4 ° C with mean relative humidity 89.7 % max and 49 % min was	humidity may reach up to 100 % (max RH) & 45 % (min RH). The average
ecorded in the past three days. The average wind speed range remained	wind speed may be 3-4 km/hr. Wind direction may be South Easterly
2.1 to 3.5 km/hr.	during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2days

Agro-meteorological advisories

rume of the crop	Stuge	i est una aiseuse	rigio meteorological autisories
Field Crops			
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative	Aphid	 Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning. Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. For organic control against aphid, sprays that consist of azadirachtin, neem oil
			or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. It may be intercropped with rapeseed/ lentil/ pea.
Seeds storage	Post harvest management		For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Light watering duri	ng morning hours is adv erennial vegetables, app		er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early		- Garlic bulblets may be planted.
Guine	vegetative Transplanting		 Give light irrigation during morning and evening hours to keep soil moist. Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with

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





Cauliflower Coriander Spinach (Palak	Sowing to e vegetative Sowing to e vegetative	arly	 Transplanting of 26-30 days old seedlings may be done. Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply <i>Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.</i> Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m. Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science	-	L	, ,
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts 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.
Pig	All age groups except the young ones	Care and management Mites infestation Deworming	 Mineral mixture be added in feed @10-20 g/adult animal. Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds Spray with Skin Heal Spray in sufficient quantity. Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD Ectoparasites Care & management Mastitis Diarrhoea & Acidosis	 Forver i pertazine inquide e for form ortany once omy. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. Butox@ 2ml/lit of water at forth night. Oat/ Bersum seeds must be sown from the middle of this month. Adequate care must be taken to prevent occurrence of Masitis. Limited quantity of green fodder must be given in animal feed.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance		 Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. Feeds should be provided @ 3 % body weight per day. Well balanced feed fortified with vitamins and minerals should be provided. Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri

Pest and disease

Stage

MINIFE ICAR

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

E-mail: agromet_mnp@yahoo.co.uk

Agro-meteorological advisories



MANIPUR BULLETIN 13th December, 2016

Thoubal

Name of the crop

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (9 th to 12 th December, 2016)	Weather forecast for next five days of Thoubal (14 th to 18 th December, 2016)
	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at
Observed clear sky and no rainfall in the past four days. Maximum	isolated places during next 2-3 days and mainly clear sky during day time
temperature range of 23.3 to 25.0 ° C & Minimum temperature of 5.8 to	with maximum temp. $22 - 24$ ° C & minimum temp. 5 - 6 ° C. Relative
6.4 °C with mean relative humidity 89.7 % max and 49 % min was	humidity may reach up to 100 % (max RH) & 48 % (min RH). The average
recorded in the past three days. The average wind speed range remained	wind speed may be 2-4 km/hr. Wind direction may be South Easterly
2.1 to 3.5 km/hr.	during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2days

realite of the crop	Blage	i est and disease	Agro-incicol ological advisories
Field Crops			·
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative		Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.Plant to plant distance may be maintained by thinning.
		Aphid	 Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Seeds storage	Post harvest management		 -It may be intercropped with rapeseed/ lentil/ pea. For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content of weight of seeds. After proper drying, store grains in well ventilated godowns Spray Malathion 1% in godowns.
Horticulture Crops			
* Light watering duri	ng morning hours is adv erennial vegetables, app		er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early vegetative Transplanting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
			> Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with



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





Cauliflower	Transplanti	ng to	- Transplanting of 26-30 days old seedlings may be done.
	early vegeta		- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf
			curling, development of purple coloured vein due to absence of micronutrient. If
			required repeat it after 10 days.
			* Apply Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage
			infested by cut-worms.
Coriander	Sowing to e vegetative	arly	- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect
			seeds from ant and other insects.
			- Apply 200-250 kg of FYM (@ 1/2 cart load) in 100 sq. m and mix thoroughly to
			improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak	() Sowing to e	arly	- Avoid damping off by adding Captan 50WP in the soil of bed.
	vegetative		Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100
	N		sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian
(Chicken/			cloth during night. Proper ventilation must be provided to protect from moisture inside
Turkey/ Duck)			the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts the	De-worming	> De-worming of animals should be done using Abendazole/ Levamisole @7.5
	young ones		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
	except the		Treat drinking water with potassium permanganate/ sanitizer.
	young ones		Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups		If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
	young ones	Ectoparasites	Butox@ 2ml/lit of water at forth night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
T ! 1		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:	T	1	
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri

Pest and disease

Stage



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

E-mail: agromet_mnp@yahoo.co.uk

Agro-meteorological advisories



MANIPUR BULLETIN 13th December, 2016

Ukhrul

Name of the crop

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (9 th to 12 th December, 2016)	Weather forecast for next five days of Ukhrul (14 th to 18 th December, 2016)
	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at
Observed clear sky and no rainfall in the past four days. Maximum	isolated places during next 2-3 days and mainly clear sky during day time
emperature range of 23.3 to 25.0 °C & Minimum temperature of 5.8 to	with maximum temp. $18 - 20$ ° C & minimum temp. 2 - 4 ° C. Relative
5.4 ° C with mean relative humidity 89.7 % max and 49 % min was	humidity may reach up to 98 % (max RH) & 47 % (min RH). The average
recorded in the past three days. The average wind speed range remained	wind speed may be 2-4 km/hr. Wind direction may be South Easterly
2.1 to 3.5 km/hr.	during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2days

realite of the crop	Blage	i est and disease	Agro-incicol ological advisories
Field Crops			·
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative		Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.Plant to plant distance may be maintained by thinning.
		Aphid	 Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Seeds storage	Post harvest management		 -It may be intercropped with rapeseed/ lentil/ pea. For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content of weight of seeds. After proper drying, store grains in well ventilated godowns Spray Malathion 1% in godowns.
Horticulture Crops			
* Light watering duri	ng morning hours is adv erennial vegetables, app		er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early vegetative		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Broccoli	Transplanting		> Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with



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





Cauliflower	Transplantir early vegeta	tive	 Transplanting of 26-30 days old seedlings may be done. Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply <i>Chloropyriphos (1.5%) dust @</i>25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
Coriander	Sowing to e vegetative		 Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak) Sowing to e vegetative	arly	- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science	S		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts 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.
Pig	All age groups except the young ones	Care and management	 Mineral mixture be added in feed @10-20 g/adult animal. Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the	B.Q./ H.S/FMD	If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
	young ones	Ectoparasites	Butox@ 2ml/lit of water at forth night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock		 Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. Feeds should be provided @ 3 % body weight per day.
maintenance			 Well balanced feed fortified with vitamins and minerals should be provided. Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri

Lakliba Yumjakeisa faoba nong leite.Ishing watpa loufamda ishing thajinbiduna leibakta ishing wattanaba semsabiyu amadi yaribamakhei ishing yoknaba hotnabiyu.Henna kungna houjinba hangam singdagee panbi khara satokpiyu.Kobi mana chathokpa tin ngakthoknaba ha amada 25kgChloropyriphos(1.5%)dust chaibiyu

(I. Meghachandra Singh) Scientist i/c, GKMS Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

Pest and disease

Stage

E-mail: agromet_mnp@yahoo.co.uk ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"



MANIPUR BULLETIN 13th December, 2016

Imphal East

Name of the crop

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (9 th to 12 th December, 2016)	Weather forecast for next five days of Imphal East (14 th to 18 th December, 2016)
Observed clear sky and no rainfall in the past four days. Maximum	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at isolated places during next 2-3 days and mainly clear sky during day time
temperature range of 23.3 to 25.0 ° C & Minimum temperature of 5.8 to	with maximum temp. $24 - 25$ ° C & minimum temp. 5 - 7 ° C. Relative
6.4 ° C with mean relative humidity 89.7 % max and 49 % min was recorded in the past three days. The average wind speed range remained	humidity may reach up to 100 % (max RH) & 42 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North East Easterly
2.1 to 3.5 km/hr.	to Easterly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2days

Agro-meteorological advisories

realite of the crop	Blage	i est and disease	Agro-increor orogical advisories
Field Crops		-	·
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative		 Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Aphid	 Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Seeds storage	Post harvest management		 -It may be intercropped with rapeseed/ lentil/ pea. For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
* Light watering duri	ng morning hours is adv erennial vegetables, app		er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early vegetative		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Broccoli	Transplanting	1	▶ Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with

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





Cauliflower	Transplantir		- Transplanting of 26-30 days old seedlings may be done.
	early vegeta	tive	- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days.
			* Apply <i>Chloropyriphos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage
			infested by cut-worms.
Coriander	Sowing to e vegetative	arly	- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect
			seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to
		1	improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak	() Sowing to e	ariy	- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100
	vegetative		sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science	2		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
Turney, Duch)		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts 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.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
0	except the	C C	Treat drinking water with potassium permanganate/ sanitizer.
	young ones		Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups		➢ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
	young ones	Ectoparasites	Butox@ 2ml/lit of water at forth night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:	1	Γ	
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock		 Feeds should be provided @ 3 % body weight per day. Well balanced feed fortified with vitamins and minerals should be provided.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.
			- Appry Linic & 50-55 kg/lia at 500ays interval.

SMS Manipuri

Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

E-mail: agromet_mnp@yahoo.co.uk ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"



MANIPUR BULLETIN 13th December, 2016

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (9 th to 12 th December, 2016)	Weather forecast for next five days of Imphal West (14 th to 18 th December, 2016)
Observed clear sky and no rainfall in the past four days. Maximum temperature range of 23.3 to 25.0 $^{\circ}$ C & Minimum temperature of 5.8 to 6.4 $^{\circ}$ C with mean relative humidity 89.7 % max and 49 % min was recorded in the past three days. The average wind speed range remained 2.1 to 3.5 km/hr.	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at isolated places during next 2-3 days and mainly clear sky during day time with maximum temp. $24 - 25$ ° C & minimum temp. $5 - 7$ ° C. Relative

Weather Forecast for next 5 days * upto 0830 hours IST of 14th December, 2016

Shallow to moderate fog at few places over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	1		
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative		Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.Plant to plant distance may be maintained by thinning.
		Aphid	 Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. It may be intercropped with rapeseed/ lentil/ pea.
Seeds storage	Post harvest management		 For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
* In fruit crops and pe the soil temperature.			er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early vegetative		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
	Transplanting		> Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with



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

"Gramin Krishi Mausam Seva"



			30x45 cm plant spacing.
Cauliflower	Transplantir	ng to	- Transplanting of 26-30 days old seedlings may be done.
	early vegeta	tive	- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf
			curling, development of purple coloured vein due to absence of micronutrient. If
			required repeat it after 10 days.
			* Apply Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage
			infested by cut-worms.
Coriander	Sowing to e	arly	- Select area with full sunshine rich in organic matter for preparing beds. Treat
	vegetative		soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect
			seeds from ant and other insects.
			- Apply 200-250 kg of FYM (@ 1/2 cart load) in 100 sq. m and mix thoroughly to
			improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak) Sowing to e	arly	- Avoid damping off by adding Captan 50WP in the soil of bed.
	vegetative		Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100
			sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science	S	<u>u</u>	
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal			
Poultry	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian
(Chicken/			cloth during night. Proper ventilation must be provided to protect from moisture inside
Turkey/ Duck)			the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water
			for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts the	De-worming	De-worming of animals should be done using Abendazole/ Levamisole @7.5
	young ones		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
	except the		Treat drinking water with potassium permanganate/ sanitizer.
	young ones		Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups		➢ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
	young ones	Ectoparasites	Butox@ 2ml/lit of water at forth night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
	_		- Stocking of fish for next year may be done in ponds having 1.5m water depth @
Carp/ Catfish	Harvesting and		10,000/ ha.
culture	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri

Lakliba Yumjakeisa faoba nong leite.Ishing watpa loufamda ishing thajinbiduna leibakta ishing wattanaba semsabiyu amadi yaribamakhei ishing yoknaba hotnabiyu.Henna kungna houjinba hangam singdagee panbi khara satokpiyu.Kobi mana chathokpa tin ngakthoknaba ha amada 25kgChloropyriphos(1.5%)dust chaibiyu

(I. Meghachandra Singh) Scientist i/c, GKMS Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

Pest and disease

Stage

E-mail: agromet_mnp@yahoo.co.uk ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"



MANIPUR BULLETIN 13th December, 2016

Bishnupur

Name of the crop

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Bishnupur
Imphal - West (9 th to 12 th December, 2016)	(14 th to 18 th December, 2016)
	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at
Observed clear sky and no rainfall in the past four days. Maximum	isolated places during next 2-3 days and mainly clear sky during day time
temperature range of 23.3 to 25.0 °C & Minimum temperature of 5.8 to	with maximum temp. $23 - 25$ ° C & minimum temp. 6 - 7 ° C. Relative
6.4 ° C with mean relative humidity 89.7 % max and 49 % min was	humidity may reach up to 100 % (max RH) & 48 % (min RH). The average
recorded in the past three days. The average wind speed range remained	wind speed may be 2-4 km/hr. Wind direction may be South Easterly
2.1 to 3.5 km/hr.	during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2 days

Agro-meteorological advisories

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Field Crops			
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative	Aphid	 Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning. Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against
			aphid.For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. It may be intercropped with rapeseed/ lentil/ pea.
Seeds storage	Post harvest management		For seed purpose dry, clean and store the seeds in RC-seed bins after prope drying of seeds along with charcoal at 80:20. Check for moisture content o weight of seeds. After proper drying, store grains in well ventilated godowns Spray Malathion 1% in godowns.
Horticulture Crops			
* Light watering duri * In fruit crops and p the soil temperature.	ing morning hours is adv erennial vegetables, app	ised. ly organic mulches afte	er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
		1	
Garlic	Planting to early vegetative		 Garlic bulblets may be planted. Give light irrigation during morning and evening hours to keep soil moist. Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with



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





Cauliflower	Transplantir	ng to	- Transplanting of 26-30 days old seedlings may be done.
early vegetative		tive	- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf
			curling, development of purple coloured vein due to absence of micronutrient. If
			required repeat it after 10 days.
			* Apply <i>Chloropyriphos (1.5%) dust @</i> 25 kg /ha to the cauliflower/ cabbage
<u>a : 1</u>		1	infested by cut-worms.
Coriander	Sowing to e vegetative	arly	- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect
			seeds from ant and other insects.
			- Apply 200-250 kg of FYM (@ ¹ / ₂ cart load) in 100 sq. m and mix thoroughly to
		1	improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak	() Sowing to e	arly	- Avoid damping off by adding Captan 50WP in the soil of bed.
	vegetative		Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science	5		Tursery faising may be done.
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal	0g-		
Poultry	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian
(Chicken/			cloth during night. Proper ventilation must be provided to protect from moisture inside
Turkey/ Duck)			the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	 Vaccinate against sheep/ goat pox and Enterotoxaemia.
_	excepts the	De-worming	> De-worming of animals should be done using Abendazole/ Levamisole @7.5
	young ones	C C	mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
	except the		Treat drinking water with potassium permanganate/ sanitizer.
	young ones		Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups		> If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
	young ones	Ectoparasites	Butox@ 2ml/lit of water at forth night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
T ' 1		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:	1		
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri

Pest and disease

Stage

E-mail: agromet_mnp@yahoo.co.uk

Agro-meteorological advisories



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



MANIPUR BULLETIN 13th December, 2016

Chandel

Name of the crop

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Chandel
Imphal - West (9 th to 12 th December, 2016)	(14 th to 18 th December, 2016)
	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at
Observed clear sky and no rainfall in the past four days. Maximum	isolated places during next 2-3 days and mainly clear sky during day time
temperature range of 23.3 to 25.0 °C & Minimum temperature of 5.8 to	with maximum temp. 22 - 24 ° C & minimum temp. 5 - 6 ° C. Relative
6.4 ° C with mean relative humidity 89.7 % max and 49 % min was	humidity may reach up to 99 % (max RH) & 51 % (min RH). The average
recorded in the past three days. The average wind speed range remained	wind speed may be 2-4 km/hr. Wind direction may be South Easterly
2.1 to 3.5 km/hr.	during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2days

Nume of the crop	Diage	I est and disease	Agro-increorological autisories
Field Crops		-	·
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative	Aphid	 Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning. Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against
		Арши	aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Seeds storage	Post harvest management		 -It may be intercropped with rapeseed/ lentil/ pea. For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content of weight of seeds. After proper drying, store grains in well ventilated godowns Spray Malathion 1% in godowns.
Horticulture Crops			
	ng morning hours is adv erennial vegetables, app		er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early vegetative		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Broccoli	Transplanting	1	▶ Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with



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





Cauliflower	Transplanti	ng to	- Transplanting of 26-30 days old seedlings may be done.
	early vegeta		- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf
			curling, development of purple coloured vein due to absence of micronutrient. If
			required repeat it after 10 days.
			* Apply Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage
			infested by cut-worms.
Coriander	Sowing to e vegetative	arly	- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect
			seeds from ant and other insects.
			- Apply 200-250 kg of FYM (@ 1/2 cart load) in 100 sq. m and mix thoroughly to
			improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak	() Sowing to e	arly	- Avoid damping off by adding Captan 50WP in the soil of bed.
	vegetative		Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100
	N		sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian
(Chicken/			cloth during night. Proper ventilation must be provided to protect from moisture inside
Turkey/ Duck)			the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts the	De-worming	> De-worming of animals should be done using Abendazole/ Levamisole @7.5
	young ones		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
	except the		Treat drinking water with potassium permanganate/ sanitizer.
	young ones		Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups		> If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
	young ones	Ectoparasites	Butox@ 2ml/lit of water at forth night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri

Phone: 2414654, 2414260, 2414749 ; Fax : (0385) 2414654, 2414749

Pest and disease

E-mail: agromet_mnp@yahoo.co.uk ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004 "Gramin Krishi Mausam Seva"



MANIPUR BULLETIN 13th December, 2016

Churachandpur

Name of the crop

Stage

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (9 th to 12 th December, 2016)	Weather forecast for next five days of Churachandpur (14 th to 18 th December, 2016)
	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at
Observed clear sky and no rainfall in the past four days. Maximum	isolated places during next 2-3 days and mainly clear sky during day time
temperature range of 23.3 to 25.0 °C & Minimum temperature of 5.8 to	with maximum temp. $23 - 24$ ° C & minimum temp. 4 - 6 ° C. Relative
6.4 ° C with mean relative humidity 89.7 % max and 49 % min was	humidity may reach up to 100 % (max RH) & 50 % (min RH). The average
recorded in the past three days. The average wind speed range remained	wind speed may be 2-4 km/hr. Wind direction may be South Easterly
2.1 to 3.5 km/hr.	during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2 days

Agro-meteorological advisories

rume of the crop	Stuge	i est una aisease	rigio meteorological advisories
Field Crops			
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative	Aphid	 Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning. Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. It may be intercropped with rapeseed/ lentil/ pea.
Seeds storage	Post harvest management		For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops	ł	.,L	
	ing morning hours is adv erennial vegetables, app		er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early vegetative		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Broccoli	Transplanting		▶ Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with

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





Cauliflower	Transplantin		- Transplanting of 26-30 days old seedlings may be done.
	early vegeta	tive	- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If
			required repeat it after 10 days.
			* Apply Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage
			infested by cut-worms.
Coriander	Sowing to e vegetative	arly	- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect
			seeds from ant and other insects.
			- Apply 200-250 kg of FYM (@ 1/2 cart load) in 100 sq. m and mix thoroughly to
			improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak) Sowing to e	arly	- Avoid damping off by adding Captan 50WP in the soil of bed.
	vegetative		Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100
			sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian
(Chicken/			cloth during night. Proper ventilation must be provided to protect from moisture inside
Turkey/ Duck)			the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts the	De-worming	> De-worming of animals should be done using Abendazole/ Levamisole @7.5
	young ones		mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
	except the young ones		Treat drinking water with potassium permanganate/ sanitizer.
			Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups		▶ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
	young ones	Ectoparasites	Butox@ 2ml/lit of water at forth night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri

Agro-meteorological advisories



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



MANIPUR BULLETIN 13th December, 2016

Senapati

Name of the crop

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 14th to 18th December, 2016 as below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Senapati
Imphal - West (9 th to 12 th December, 2016)	(14 th to 18 th December, 2016)
	Likely to have no rain upto Sunday. Shallow to moderate fog very likely at
Observed clear sky and no rainfall in the past four days. Maximum	isolated places during next 2-3 days and mainly clear sky during day time
temperature range of 23.3 to 25.0 °C & Minimum temperature of 5.8 to	with maximum temp. 18 - 20 ° C & minimum temp. 2 - 4 ° C. Relative
6.4 ° C with mean relative humidity 89.7 % max and 49 % min was	humidity may reach up to 99 % (max RH) & 41 % (min RH). The average
recorded in the past three days. The average wind speed range remained	wind speed may be 2-4 km/hr. Wind direction may be South Easterly
2.1 to 3.5 km/hr.	during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 14 th December, 2016
Shallow to moderate fog at few places over Manipur during next 2days

Pest and disease

Stage

Name of the crop	Stage	i est anu uisease	Agro-incicol ological advisories
Field Crops		,	
Potato	Early vegetative		- Light watering during morning hours may be done to keep soil moist for good early vegetative growth.
Rapeseed/ Mustard	Vegetative		 After 10-15 days of sowing thining may be if the plant population is high. Apply foliar application of urea {5 pumps per sangam @ 10g/pump}. If soil is dry and irrigation facility is available, irrigate the field to maintain soil moisture status.
Pulses	Vegetative		Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.Plant to plant distance may be maintained by thinning.
		Aphid	 Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation		 Land preparation for sowing rabi maize may be started. Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Seeds storage	Post harvest management		 -It may be intercropped with rapeseed/ lentil/ pea. For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. Check for moisture content of weight of seeds. After proper drying, store grains in well ventilated godowns Spray Malathion 1% in godowns.
Horticulture Crops			
* Light watering duri	ng morning hours is adv erennial vegetables, app		er earthing up and weeding to conserve residual soil moisture as well as to maintain
Rabi Vegetable (cole crops)	Transplanting and early vegetative		 If yellowing of leaves of mature seedlings is observed, spray Carbendazim @ 1g/ lit of water. Transplant 26-30 days old seedlings (4 leaves stage) cole crops. If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
Broad bean	Early vegetative		- Broad bean may be sown. Avoid sowing in damped and shed area as the crops are prone to fungal disease.
Colocassia	Maturity to harvesting		- Mature crops may be harvested.
Onion	Transplanting of raised seedlings and early vegetative		 - 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
Garlic	Planting to early vegetative		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Broccoli	Transplanting		> Transplanting of 25-30 days old broccoli having 3-4 leafs may be done with



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Cauliflower	Transplanti	ng to	- Transplanting of 26-30 days old seedlings may be done.
	early vegeta		- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf
			curling, development of purple coloured vein due to absence of micronutrient. If
			required repeat it after 10 days.
			* Apply Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage
			infested by cut-worms.
Coriander	Sowing to e vegetative	arly	- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect
			seeds from ant and other insects.
			- Apply 200-250 kg of FYM (@ 1/2 cart load) in 100 sq. m and mix thoroughly to
			improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak	() Sowing to e	arly	- Avoid damping off by adding Captan 50WP in the soil of bed.
	vegetative		Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100
	N		sq m. If broadcasting is done, double the dose is required.
Tomato	Nursery		Nursery raising may be done.
Animal Science			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian
(Chicken/			cloth during night. Proper ventilation must be provided to protect from moisture inside
Turkey/ Duck)			the shed. Litter must be kept dry.
		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.
		Coccidiosis	Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
Sheep/ Goat	All age groups	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts the	De-worming	> De-worming of animals should be done using Abendazole/ Levamisole @7.5
	young ones	-	mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
	except the young ones		Treat drinking water with potassium permanganate/ sanitizer.
			Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups		➢ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
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		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.

SMS Manipuri