GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Aizawl **Period: 08 November – 12 November, 2017**

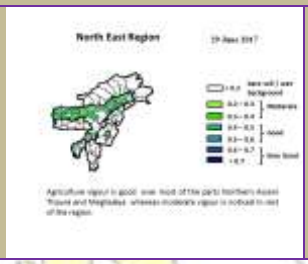
Bulletin No: - 748/2017/ Bulletin/English **Date of issue: 07th November, 2017**

Parameters	08.11.2017	09.11.2017	10.11.2017	11.11.2017	12.11.2017
Rainfall (mm)	0	5	2	0	0
Max Temp (ºC)	28	28	27	27	26
Min Temp (ºC)	16	16	15	15	14
Cloud Coverage	Clear sky	Partially clear	Mainly clear	Clear sky	Clear sky
Max RH (%)	97	96	95	97	98
Min RH (%)	35	40	39	34	33
Wind Speed (KmpH)	4	3	3	4	3
*Wind Direction	E	E	E	E	E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-370.28mm (371.4mm)	Mamit-197.57mm (376.0mm)	Serchhip-247.35mm (301.8mm)

Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC):21-22ºC **Minimum Tem. (ºC):12-13ºC** **Maximum RH (%):88-93%** **Minimum RH (%):71-84%** **Wind Direction: Southeasterly** **Cloud cover: Mainly clear** **Wind speed: 2 km/hr** **Rainfall: 00.0 mm**	There are chances of light rainfall during the next 2 days. The maximum and minimum temperatures for the next 5 days may range for 27-28ºC and 14-16ºC. Maximum relative humidity is expected in the range of 97-98% and minimum may from 33-40%. Wind direction would be easterly with the wind speed of 3-4 km per hour. Mainly clear will prevail during the next five days. ***Weekly cumulative rainfall:* 07.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ▪ Medium to young seedling should be support by bamboo stake. ▪ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ▪ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	▪ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
		Gummosis, citrus canker, citrus greening and Dieback	▪ Due to low temperature and humidity disease appearance will more. Use Bordeaux past in tree trunk, twigs and branches protect healthy plant from soil borne disease.
PLANTATION CROP			
COFFEE	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ▪ Medium to young seedling should be support by bamboo stake. ▪ Replace dead plant with young seedlings.

Phone: +91 3837 220041, Fax: +91 3837 220560,
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			↓ Fertilizer dose should be maintained. **Fruiting stage** ↓ Foliar application of Mepiquat chloride @ 1000 PPM concentration or 0.75% SSP @ 1.5 g per 200 lt of water 15 days interval. ↓ Spray lantana camera leaf paste around 3 kg/16 lt water which will give effective control against drought condition. ↓ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

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			channel for maintain field moisture. - Harvest all mature panicle to reduce bird damage. - Make a channel around the field to drain excess water and also start planning for next crop.
		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

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Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Colocasia	**Harvesting stage**		✓ After this, irrigation has to be withheld to hasten maturity. ✓ Leaves have started turning yellow and some of them have fallen off, signaling the time for harvesting the corms. ✓ Harvesting is done by carefully uprooting the plants and the mother corms and cormels are separated. ✓ One month prior to harvest, all the suckers may be wrapped around the base of the mother plant and covered with soil by earthing up, for arresting further vegetative growth and sprouting of tubers.
Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

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			✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✓ Irrigation must be provide to nursery every alternative days.
Onion	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
French bean	**Sowing stage**		✚ Variable, healthy, well mature and pure seeds should be sown. ✚ Optimum spacing for pole type 60 cm X 30 cm. ✚ Before sowing seed should be treated with Rhizobium vermicompost@10 t/ha.
Capsicum	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

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			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

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			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

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			➢ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ➢ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		➢ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ➢ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ➢ Application of plankton inoculum from other ponds could help in development of plankton production. ➢ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ➢ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ➢ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

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Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

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(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Champhai **Period: 08 November – 12 November, 2017**

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*Wind Direction	E	E	E	E	E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
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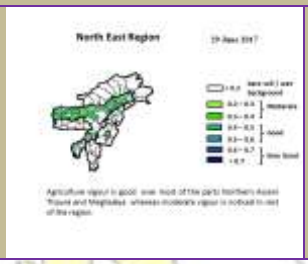
Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC):18-19ºC **Minimum Tem. (ºC):**13ºC **Maximum RH (%):**84-91% **Minimum RH (%):**65-78% **Wind Direction:** Southeasterly **Cloud cover:** Mainly clear **Wind speed:** 2 km/hr **Rainfall:** 00.0 mm	There are chances of light rainfall during the next 2 days. The maximum and minimum temperatures for the next 5 days may range for 26-28ºC and 14-16ºC. Maximum relative humidity is expected in the range of 87-97% and minimum may from 29-42%. Wind direction would be easterly with the wind speed of 4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **04.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

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Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ▪ Medium to young seedling should be support by bamboo stake. ▪ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ▪ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	▪ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
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PLANTATION CROP			
COFFEE	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ▪ Medium to young seedling should be support by bamboo stake. ▪ Replace dead plant with young seedlings.

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Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

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		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

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Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
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Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

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Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			➢ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ➢ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		➢ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ➢ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ➢ Application of plankton inoculum from other ponds could help in development of plankton production. ➢ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ➢ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ➢ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Kolasib **Period: 08 November – 12 November, 2017**

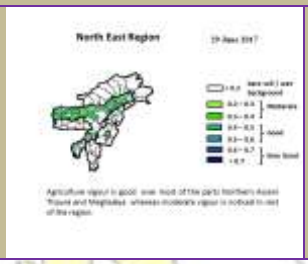
Bulletin No: - 748/2017/ Bulletin/English **Date of issue: 07th November, 2017**

Parameters	08.11.2017	09.11.2017	10.11.2017	11.11.2017	12.11.2017
Rainfall (mm)	0	0	0	0	0
Max Temp (ºC)	30	30	30	29	29
Min Temp (ºC)	17	17	17	16	16
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	90	95	95	98	98
Min RH (%)	40	38	41	39	36
Wind Speed (KmpH)	4	4	3	4	4
***Wind Direction**	S-E	S-E	S-E	S-E	S-E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-370.28mm (371.4mm)	Mamit-197.57mm (376.0mm)	Serchhip-247.35mm (301.8mm)

Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC):27-28ºC **Minimum Tem. (ºC):17-20ºC** **Maximum RH (%):87-94%** **Minimum RH (%):68-80%** **Wind Direction: Southeasterly** **Cloud cover: Mainly clear** **Wind speed: 2 km/hr** **Rainfall: 00.0 mm**	There are no chance of rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 29-30ºC and 16-17ºC. Maximum relative humidity is expected in the range of 90-98% and minimum may from 36-41%. Wind direction would be southeasterly with the wind speed of 3-4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **00.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		✦ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ✦ Medium to young seedling should be support by bamboo stake. ✦ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ✦ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
		Gummosis, citrus canker, citrus greening and Dieback	✦ Due to low temperature and humidity disease appearance will more. Use Bordeaux past in tree trunk, twigs and branches protect healthy plant from soil borne disease.
PLANTATION CROP			
COFFEE	**Fruiting stage**		✦ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ✦ Medium to young seedling should be support by bamboo stake. ✦ Replace dead plant with young seedlings.

Phone: +91 3837 220041, Fax: +91 3837 220560,
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			↓ Fertilizer dose should be maintained. **Fruiting stage** ↓ Foliar application of Mepiquat chloride @ 1000 PPM concentration or 0.75% SSP @ 1.5 g per 200 lt of water 15 days interval. ↓ Spray lantana camera leaf paste around 3 kg/16 lt water which will give effective control against drought condition. ↓ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			channel for maintain field moisture. - Harvest all mature panicle to reduce bird damage. - Make a channel around the field to drain excess water and also start planning for next crop.
		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Colocasia	**Harvesting stage**		✓ After this, irrigation has to be withheld to hasten maturity. ✓ Leaves have started turning yellow and some of them have fallen off, signaling the time for harvesting the corms. ✓ Harvesting is done by carefully uprooting the plants and the mother corms and cormels are separated. ✓ One month prior to harvest, all the suckers may be wrapped around the base of the mother plant and covered with soil by earthing up, for arresting further vegetative growth and sprouting of tubers.
Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✓ Irrigation must be provide to nursery every alternative days.
Onion	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
French bean	**Sowing stage**		✚ Variable, healthy, well mature and pure seeds should be sown. ✚ Optimum spacing for pole type 60 cm X 30 cm. ✚ Before sowing seed should be treated with Rhizobium vermicompost@10 t/ha.
Capsicum	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

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			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

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			➢ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ➢ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		➢ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ➢ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ➢ Application of plankton inoculum from other ponds could help in development of plankton production. ➢ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ➢ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ➢ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

Phone: +91 3837 220041, Fax: +91 3837 220560,
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GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Lawngtlai **Period:** 08 November – 12 November, 2017

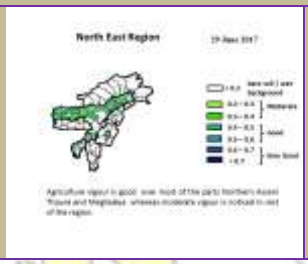
Bulletin No: - 748/2017/ Bulletin/English **Date of issue:** 07th November, 2017

Parameters	08.11.2017	09.11.2017	10.11.2017	11.11.2017	12.11.2017
Rainfall (mm)	0	2	2	0	0
Max Temp (ºC)	28	28	27	27	26
Min Temp (ºC)	16	16	15	15	14
Cloud Coverage	Clear sky	Partially clear	Partially clear	Clear sky	Clear sky
Max RH (%)	96	94	95	96	97
Min RH (%)	40	40	42	40	40
Wind Speed (KmpH)	4	4	3	4	4
*Wind Direction	E	E	E	E	E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-370.28mm (371.4mm)	Mamit-197.57mm (376.0mm)	Serchhip-247.35mm (301.8mm)

Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC):23-25ºC **Minimum Tem. (ºC):**13-15ºC **Maximum RH (%):**85-93% **Minimum RH (%):**68-72% **Wind Direction:** Southeasterly **Cloud cover:** Mainly clear **Wind speed:** 2 km/hr **Rainfall:** 00.0 mm	There are chances of light rainfall during the next 2 days. The maximum and minimum temperatures for the next 5 days may range for 26-28ºC and 14-16ºC. Maximum relative humidity is expected in the range of 94-97% and minimum may from 40-42%. Wind direction would be easterly with the wind speed of 3-4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **04.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

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E-mail: kolasib.amfu@gov.in

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ▪ Medium to young seedling should be support by bamboo stake. ▪ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ▪ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	▪ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
		Gummosis, citrus canker, citrus greening and Dieback	▪ Due to low temperature and humidity disease appearance will more. Use Bordeaux past in tree trunk, twigs and branches protect healthy plant from soil borne disease.
PLANTATION CROP			
COFFEE	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ▪ Medium to young seedling should be support by bamboo stake. ▪ Replace dead plant with young seedlings.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			↓ Fertilizer dose should be maintained. **Fruiting stage** ↓ Foliar application of Mepiquat chloride @ 1000 PPM concentration or 0.75% SSP @ 1.5 g per 200 lt of water 15 days interval. ↓ Spray lantana camera leaf paste around 3 kg/16 lt water which will give effective control against drought condition. ↓ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			channel for maintain field moisture. - Harvest all mature panicle to reduce bird damage. - Make a channel around the field to drain excess water and also start planning for next crop.
		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Colocasia	**Harvesting stage**		✓ After this, irrigation has to be withheld to hasten maturity. ✓ Leaves have started turning yellow and some of them have fallen off, signaling the time for harvesting the corms. ✓ Harvesting is done by carefully uprooting the plants and the mother corms and cormels are separated. ✓ One month prior to harvest, all the suckers may be wrapped around the base of the mother plant and covered with soil by earthing up, for arresting further vegetative growth and sprouting of tubers.
Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

Phone: +91 3837 220041, Fax: +91 3837 220560,
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			✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✓ Irrigation must be provide to nursery every alternative days.
Onion	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
French bean	**Sowing stage**		✚ Variable, healthy, well mature and pure seeds should be sown. ✚ Optimum spacing for pole type 60 cm X 30 cm. ✚ Before sowing seed should be treated with Rhizobium vermicompost@10 t/ha.
Capsicum	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

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			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			➢ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ➢ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		➢ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ➢ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ➢ Application of plankton inoculum from other ponds could help in development of plankton production. ➢ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ➢ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ➢ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Lunglei **Period:** 08 November – 12 November, 2017

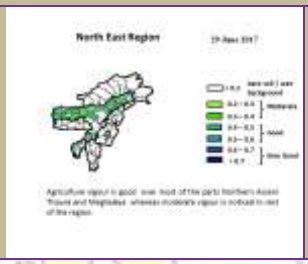
Bulletin No: - 748/2017/ Bulletin/English **Date of issue:** 07th November, 2017

Parameters	08.11.2017	09.11.2017	10.11.2017	11.11.2017	12.11.2017
Rainfall (mm)	0	0	0	0	0
Max Temp (ºC)	29	29	29	28	28
Min Temp (ºC)	17	16	16	16	15
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	88	99	95	94	96
Min RH (%)	34	37	39	33	35
Wind Speed (KmpH)	4	4	4	4	4
*Wind Direction	E	E	E	E	E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-370.28mm (371.4mm)	Mamit-197.57mm (376.0mm)	Serchhip-247.35mm (301.8mm)

Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC): 17-19ºC **Minimum Tem. (ºC):** 12-14ºC **Maximum RH (%):** 84-93% **Minimum RH (%):** 65-78% **Wind Direction:** Southeasterly **Cloud cover:** Mainly clear **Wind speed:** 2 km/hr **Rainfall:** 00.0 mm	There are no chances of light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 27-28ºC and 13-15ºC. Maximum relative humidity is expected in the range of 88-99% and minimum may from 33-97%. Wind direction would be easterly with the wind speed of 4 km per hour. Partially clear will prevail during the next five days. ***Weekly cumulative rainfall:*** **00.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ▪ Medium to young seedling should be support by bamboo stake. ▪ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ▪ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	▪ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
		Gummosis, citrus canker, citrus greening and Dieback	▪ Due to low temperature and humidity disease appearance will more. Use Bordeaux past in tree trunk, twigs and branches protect healthy plant from soil borne disease.
PLANTATION CROP			
COFFEE	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ▪ Medium to young seedling should be support by bamboo stake. ▪ Replace dead plant with young seedlings.

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			↓ Fertilizer dose should be maintained. **Fruiting stage** ↓ Foliar application of Mepiquat chloride @ 1000 PPM concentration or 0.75% SSP @ 1.5 g per 200 lt of water 15 days interval. ↓ Spray lantana camera leaf paste around 3 kg/16 lt water which will give effective control against drought condition. ↓ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

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			channel for maintain field moisture. - Harvest all mature panicle to reduce bird damage. - Make a channel around the field to drain excess water and also start planning for next crop.
		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Colocasia	**Harvesting stage**		✓ After this, irrigation has to be withheld to hasten maturity. ✓ Leaves have started turning yellow and some of them have fallen off, signaling the time for harvesting the corms. ✓ Harvesting is done by carefully uprooting the plants and the mother corms and cormels are separated. ✓ One month prior to harvest, all the suckers may be wrapped around the base of the mother plant and covered with soil by earthing up, for arresting further vegetative growth and sprouting of tubers.
Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

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			✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✓ Irrigation must be provide to nursery every alternative days.
Onion	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
French bean	**Sowing stage**		✚ Variable, healthy, well mature and pure seeds should be sown. ✚ Optimum spacing for pole type 60 cm X 30 cm. ✚ Before sowing seed should be treated with Rhizobium vermicompost@10 t/ha.
Capsicum	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

Phone: +91 3837 220041, Fax: +91 3837 220560,
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			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

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			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

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			↓ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ↓ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		↓ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ↓ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ↓ Application of plankton inoculum from other ponds could help in development of plankton production. ↓ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ↓ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ↓ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Mamit **Period:** 08 November – 12 November, 2017

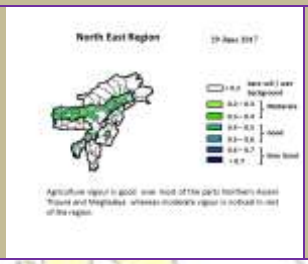
Bulletin No: - 748/2017/ Bulletin/English **Date of issue:** 07th November, 2017

Parameters	08.11.2017	09.11.2017	10.11.2017	11.11.2017	12.11.2017
Rainfall (mm)	0	0	0	0	0
Max Temp (ºC)	29	29	29	28	28
Min Temp (ºC)	17	17	17	16	16
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	96	100	97	95	100
Min RH (%)	38	39	40	37	35
Wind Speed (KmpH)	4	3	3	4	3
*Wind Direction	E	E	E	E	E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-370.28mm (371.4mm)	Mamit-197.57mm (376.0mm)	Serchhip-247.35mm (301.8mm)

Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC):27-29ºC **Minimum Tem. (ºC):**22-24ºC **Maximum RH (%):**84-92% **Minimum RH (%):**71-80% **Wind Direction:** Southeasterly **Cloud cover:** Mainly clear **Wind speed:** 2 km/hr **Rainfall:** 00.0 mm	There are no chances of rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 28-29ºC and 16-17ºC. Maximum relative humidity is expected in the range of 95-100% and minimum may from 35-40%. Wind direction would be easterly with the wind speed of 3-4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **00.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ▪ Medium to young seedling should be support by bamboo stake. ▪ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ▪ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	▪ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
		Gummosis, citrus canker, citrus greening and Dieback	▪ Due to low temperature and humidity disease appearance will more. Use Bordeaux past in tree trunk, twigs and branches protect healthy plant from soil borne disease.
PLANTATION CROP			
COFFEE	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ▪ Medium to young seedling should be support by bamboo stake. ▪ Replace dead plant with young seedlings.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			↓ Fertilizer dose should be maintained. **Fruiting stage** ↓ Foliar application of Mepiquat chloride @ 1000 PPM concentration or 0.75% SSP @ 1.5 g per 200 lt of water 15 days interval. ↓ Spray lantana camera leaf paste around 3 kg/16 lt water which will give effective control against drought condition. ↓ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			channel for maintain field moisture. - Harvest all mature panicle to reduce bird damage. - Make a channel around the field to drain excess water and also start planning for next crop.
		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Colocasia	**Harvesting stage**		✓ After this, irrigation has to be withheld to hasten maturity. ✓ Leaves have started turning yellow and some of them have fallen off, signaling the time for harvesting the corms. ✓ Harvesting is done by carefully uprooting the plants and the mother corms and cormels are separated. ✓ One month prior to harvest, all the suckers may be wrapped around the base of the mother plant and covered with soil by earthing up, for arresting further vegetative growth and sprouting of tubers.
Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✓ Irrigation must be provide to nursery every alternative days.
Onion	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
French bean	**Sowing stage**		✚ Variable, healthy, well mature and pure seeds should be sown. ✚ Optimum spacing for pole type 60 cm X 30 cm. ✚ Before sowing seed should be treated with Rhizobium vermicompost@10 t/ha.
Capsicum	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			➢ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ➢ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		➢ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ➢ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ➢ Application of plankton inoculum from other ponds could help in development of plankton production. ➢ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ➢ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ➢ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

Phone: +91 3837 220041, Fax: +91 3837 220560,
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GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Saiha **Period: 08 November – 12 November, 2017**

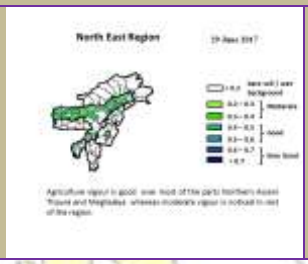
Bulletin No: - 748/2017/ Bulletin/English **Date of issue: 07th November, 2017**

Parameters	08.11.2017	09.11.2017	10.11.2017	11.11.2017	12.11.2017
Rainfall (mm)	0	3	0	0	0
Max Temp (ºC)	29	29	29	28	28
Min Temp (ºC)	17	17	17	16	16
Cloud Coverage	Clear sky	Partially clear	Clear sky	Clear sky	Clear sky
Max RH (%)	95	98	94	94	90
Min RH (%)	37	41	39	36	37
Wind Speed (KmpH)	4	4	4	4	4
*Wind Direction	E	E	E	E	E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-370.28mm (371.4mm)	Mamit-197.57mm (376.0mm)	Serchhip-247.35mm (301.8mm)

Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC):19-21ºC **Minimum Tem. (ºC):13-14ºC** **Maximum RH (%):84-93%** **Minimum RH (%):71-83%** **Wind Direction: Southeasterly** **Cloud cover: Mainly clear** **Wind speed: 2 km/hr** **Rainfall: 00.0 mm**	There is a chance of rainfall during the next 1 day. The maximum and minimum temperatures for the next 5 days may range for 28-29ºC and 16-17ºC. Maximum relative humidity is expected in the range of 90-98% and minimum may from 36-41%. Wind direction would be easterly with the wind speed of 4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:* 00.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ▪ Medium to young seedling should be support by bamboo stake. ▪ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ▪ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	▪ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
		Gummosis, citrus canker, citrus greening and Dieback	▪ Due to low temperature and humidity disease appearance will more. Use Bordeaux past in tree trunk, twigs and branches protect healthy plant from soil borne disease.
PLANTATION CROP			
COFFEE	**Fruiting stage**		▪ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ▪ Medium to young seedling should be support by bamboo stake. ▪ Replace dead plant with young seedlings.

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			↓ Fertilizer dose should be maintained. **Fruiting stage** ↓ Foliar application of Mepiquat chloride @ 1000 PPM concentration or 0.75% SSP @ 1.5 g per 200 lt of water 15 days interval. ↓ Spray lantana camera leaf paste around 3 kg/16 lt water which will give effective control against drought condition. ↓ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

Phone: +91 3837 220041, Fax: +91 3837 220560,
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			channel for maintain field moisture. - Harvest all mature panicle to reduce bird damage. - Make a channel around the field to drain excess water and also start planning for next crop.
		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Colocasia	**Harvesting stage**		✓ After this, irrigation has to be withheld to hasten maturity. ✓ Leaves have started turning yellow and some of them have fallen off, signaling the time for harvesting the corms. ✓ Harvesting is done by carefully uprooting the plants and the mother corms and cormels are separated. ✓ One month prior to harvest, all the suckers may be wrapped around the base of the mother plant and covered with soil by earthing up, for arresting further vegetative growth and sprouting of tubers.
Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✓ Irrigation must be provide to nursery every alternative days.
Onion	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
French bean	**Sowing stage**		✚ Variable, healthy, well mature and pure seeds should be sown. ✚ Optimum spacing for pole type 60 cm X 30 cm. ✚ Before sowing seed should be treated with Rhizobium vermicompost@10 t/ha.
Capsicum	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			➢ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ➢ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		➢ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ➢ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ➢ Application of plankton inoculum from other ponds could help in development of plankton production. ➢ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ➢ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ➢ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Serchhip **Period:** 08 November – 12 November, 2017

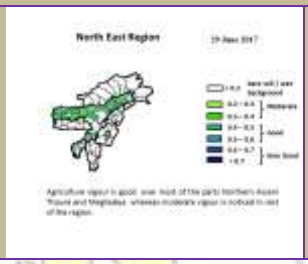
Bulletin No: - 748/2017/ Bulletin/English **Date of issue:** 07th November, 2017

Parameters	08.11.2017	09.11.2017	10.11.2017	11.11.2017	12.11.2017
Rainfall (mm)	0	0	0	0	0
Max Temp (ºC)	28	28	28	27	27
Min Temp (ºC)	14	14	13	13	12
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	92	95	95	96	92
Min RH (%)	31	38	37	29	33
Wind Speed (KmpH)	4	4	4	4	4
*Wind Direction	E	E	E	E	E

Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF MONSOON- August 1-31, 2017 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 268.78mm (301.30mm)	Saiha- 216.20 mm (367.7mm)	Kolasib- 247.17mm (372.0mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-370.28mm (371.4mm)	Mamit-197.57mm (376.0mm)	Serchhip-247.35mm (301.8mm)

Weather summary of the past three days	Weather forecast valid from 08th November, 2017 To 12th November, 2017.
Maximum Tem. (ºC):23-26ºC **Minimum Tem. (ºC):**15-17ºC **Maximum RH (%):**84-92% **Minimum RH (%):**71-78% **Wind Direction:** Southeasterly **Cloud cover:** Mainly clear **Wind speed:** 2 km/hr **Rainfall:** 00.0 mm	There are no chances of light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 27-28ºC and 12-14ºC. Maximum relative humidity is expected in the range of 92-96% and minimum may from 29-38%. Wind direction would be easterly with the wind speed of 4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **00.0 mm**
NDVI for Mizoram	 Moderately wet mildly dry/mildly wet conditions

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
FRUITS CROPS			
KHASI MANDARIN AND ACID LIME **BANANA** **STAR FRUIT** **PLUM AND PEACH**	**Fruiting stage**		✦ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ✦ Medium to young seedling should be support by bamboo stake. ✦ To increase the fruit set, spray 2, 4 – D @ 20 ppm during flowering stage. For fruit retention, spray 2, 4 – D @ 20 ppm or NAA @ 30 ppm after fruit set (marble size). ✦ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of leaf rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
		Fruit fly	✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation.
		Gummosis, citrus canker, citrus greening and Dieback	✦ Due to low temperature and humidity disease appearance will more. Use Bordeaux past in tree trunk, twigs and branches protect healthy plant from soil borne disease.
PLANTATION CROP			
COFFEE	**Fruiting stage**		✦ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. **Replanting of new seedling** ✦ Medium to young seedling should be support by bamboo stake. ✦ Replace dead plant with young seedlings.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			↓ Fertilizer dose should be maintained. **Fruiting stage** ↓ Foliar application of Mepiquat chloride @ 1000 PPM concentration or 0.75% SSP @ 1.5 g per 200 lt of water 15 days interval. ↓ Spray lantana camera leaf paste around 3 kg/16 lt water which will give effective control against drought condition. ↓ Due to high humidity, high temperature and less rainfall in hilly region of the district probability of rust will be high. So apply Hexaconazole @ 1 ml/10 lt of water.
Rubber	**Vegetative stage**		↓ According to forecast and past weather record, there is no probability of rainfall. So weekly irrigation is required for upcoming week or use straw mulch reduces soil water loss. ↓ Use grass or straw mulch to prevent from waterloss. ↓ Medium to young seedling should be support by bamboo stake. ↓ 10-12 kg of well rotten organic manure and 225 gm rock phosphate should be apply at time of planting to each pit as basal dose application.
Strawberry	**Transplanting stage**		↓ Plough the field properly. ↓ Make bun in the field and cover with black mulch to reduce water transpiration and also weed control. ↓ Make hole in the upper side of the bun and mix FYM with soil properly. ↓ Apply water in every holes of the bun. ↓ Transplant young suckers in the bun.
CEREALS AND PULSE CROPS			
Kharif Rice	**Physiological maturity stage**		↓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			channel for maintain field moisture. - Harvest all mature panicle to reduce bird damage. - Make a channel around the field to drain excess water and also start planning for next crop.
		Gandhi bug	- Weed sanitation and eradication of alternate hosts from rice fields and surrounding areas can help prevent the multiplication of the Gandhi bug. - Mechanical control measures such as smoking the field, hand-picking of adults and nymphs have also been advocated.
Rabi Maize	**Germination stage**		- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Greengram and blackgram	**Germination stage**	**Zero tillage**	- Thinning must be done where more population was observed. - Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out. - Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
Zero tillage Soybean cultivation in *Jhum*	**Vegetative stage**	**Zero tillage**	- Irrigation should be provide 3 days interval - Apply 2% urea solution for better growth. - Weeding and earthing up should be carried out.
Zero tillage	**Sowing stage**	**Zero tillage**	- Thinning must be done where more

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Toria			population was observed. ✓ Irrigation should be provide 3 days interval ✓ Apply 2% urea solution for better growth. ✓ Weeding and earthing up should be carried out with proper doses of fertilizer. ✓ Leaf and stem cutter insect will be more so apply any contact poison for reducing pest populatin.
VEGETABLE CROP			
Ginger and turmeric	**Vegetative stage**		✓ According to forecast and past weather record, probability of rain will be less and temperature will be high. So drainage channel shall be block the channel for maintain field moisture. ✓ Earthing up soil near the base of the plant along with fertilizer for better growth and development. ✓ Due to high humidity, probability of shoot borer infestation will be high. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Colocasia	**Harvesting stage**		✓ After this, irrigation has to be withheld to hasten maturity. ✓ Leaves have started turning yellow and some of them have fallen off, signaling the time for harvesting the corms. ✓ Harvesting is done by carefully uprooting the plants and the mother corms and cormels are separated. ✓ One month prior to harvest, all the suckers may be wrapped around the base of the mother plant and covered with soil by earthing up, for arresting further vegetative growth and sprouting of tubers.
Early cole crop	**Nursery stage**	**Land preparation**	✓ Nursery preparation for cabbage, cauliflower, broccoli and knolkhol.

Phone: +91 3837 220041, Fax: +91 3837 220560,
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			✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✓ Irrigation must be provide to nursery every alternative days.
Onion	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
French bean	**Sowing stage**		✚ Variable, healthy, well mature and pure seeds should be sown. ✚ Optimum spacing for pole type 60 cm X 30 cm. ✚ Before sowing seed should be treated with Rhizobium vermicompost@10 t/ha.
Capsicum	**Nursery stage**	**Poly house**	✚ Raised bed, nursery bed solarisation. ✚ Bed should be 1m width and conventional length. ✚ Application of FYM (1.5-2.0 kg/ m^2) ✚ Line sowing of seeds (7-10cm) ✚ Irrigation must be provide to nursery every alternative days.
			✚ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✚ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
Brinjal	**Nursery stage**		✚ Nursery preparation for Brinjal.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Chilli	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
Tomato	**Nursery stage**		✦ Nursery preparation for tomato. ✦ Raised bed, nursery bed solarisation. ✦ Bed should be 1m width and conventional length. ✦ Application of FYM (1.5-2.0 kg/ m^2) ✦ Line sowing of seeds (7-10cm) ✦ Irrigation must be provide to nursery every alternative days.
		Damping off	✦ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✦ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
ANIMAL HUSBENDARY			
Pig	**All stages**		✦ Animals must keep in dry place or kept in alleviated area and dry bedding (straw) to be provided to young animals. ✦ 1st injection at 6 months of age and 2nd injection at 12 months of age followed by annual vaccination under

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			vet supervision against FMD. - Reduce concentrate diet up to 5%. - Provide adequate potable water. - In present weather conditions vaccinate against swine fever (Vaccines available in State Veterinary Departs)
		Porcine Reproductive Respiratory Syndrome (PRRS).	1. Culling of positive pigs or piglets.
Cattle	**All age group**		- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. - Provide UMB/Molases if possible in the feed - Provide 10-30 ml of vitamin B-Complex in feed - 1st injection at 6-8 weeks of age, 2nd injection after 6 months of 1st injection followed by annual vaccination under vet supervision. - Separate sick animals. - The animal should be washed with lukewarm water added with little potash (KMnO4) or neem leaves. - Long hair near the udder/stomach/back legs should be teamed short.
Poultry	**All age group**		- Provide preventive dose of anti-coccidial drugs to poultry. - Proper ventilation of shed. - Provide glucose/electral along with vitamin supplements (@5- 6ml/100 birds) with adequate potable water - Avoid overcrowding. - Provide broad-spectrum antihelminthic drugs under vet supervision and recommended doses.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

			➢ Vaccination as per the schedule with proper consultation with vet. ➢ Day old chick: HVT Marek disease vaccine, 4-7 days:¬ F/Lasota, 14-18 days: Intermediate plus/IBD vaccine, 35 days: F/Lasota, 6-7 weeks: Chicken embryo adopted fowl pox vaccine and 56-70 days: RD R-2B strain. ➢ Remove wet litter.
FISHERY			
	Monitoring of fish in pond		➢ Application of lime not only helps in maintaining the water pH but also aid in preventing diseases associated with low pH. ➢ Manure need to be applied in case of high transparency in the water to avoid growth of aquatic weeds. ➢ Application of plankton inoculum from other ponds could help in development of plankton production. ➢ The fishes should be observed regularly for sign of disease outbreak especially Epizootic ulcerative syndrome during cold season. In case of EUS outbreak, CIFAX @1litre/ha may be applied in the pond. ➢ Growth of aquatic weed could be controlled by stocking of few common carps which would de-root the aquatic weeds. ➢ Monthly sampling using cast net or suitable net needs to be continued to study the growth, the health of fish and adjust the feeding rate.

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

Expert committee members:

Dr. S.B. Singh	:	Joint Director	**basantasinghsoibam@rediffmail.com**
Dr. Saurav Saha	:	Scientist (Agril. Physics)	sauravs.saha@gmail.com
Dr. T. Boopathi	:	Scientist (Agril Entomology)	boopathiars@gmail.com
Dr. A. Ratankumar Singh	:	Scientist (Plant Pathology)	ratanplantpatho@gmail.com
Dr. Lungmuana	:	Scientist (Soil Fertility)	lmsingson@gmail.com
Mr. P.L. Lalrinsanga	:	Scientist (Aquaculture)	viensky2@gmail.com
Dr. Dr. V. Dayal	:	Scientist (Horticulture)	Vishambhai5009@gmail.com
Dr. Samuel Lalliansanga	:	Head & Sr. Scientist	samuelpachuau10@gmail.com
Mr. Samik Chowdhury	:	Technical Officer	samikchowdhury33@gmail.com
Mr. Evans Syiem	:	Meteorological Observer	evansmeteo@gmail.com

Collaborating Department:

Name of the KVK		Programme Coordinator Name and Designation	KVK Email Id	Phone no/ Mobile no
KVK Lunglei	:	**Dr. Lalmuanzovi** Head & Sr. Scientist	kvkhnahthial@gmail.com	9862803750 9436154614
KVK, Kolasib	:	**Mr. Lalrosamga Khiangte** Head & Sr. Scientist	kvkkolasib@gmail.com	9436152440
KVK, Serchhip	:	**Mr. K. Laltlanmawia** Head & Sr. Scientist	kvkserchhip@gmail.com	9436146115 9615389293
KVK, Champhai	:	**Mrs. Lalrinawmi Renthlei** Head & Sr. Scientist	kvkkhawzawl@gmail.com	9436159788
KVK, Lawngtlai	:	**Dr. Michel Lallawmkimi** Head & Sr. Scientist	kvklawntlai@gmail.com	9436155858
KVK, Saiha	:	**Dr. Vanlalhruaia Hnampe** Head & Sr. Scientist	kvksaiha@gmail.com	8974656509
KVK, Mamit	:	**Dr. Samuel Lalliansanga** Head & Sr. Scientist	kvkmamit@gmail.com	9436147625
KVK, Aizawl	:	**Dr. K. P. Chaudhary** Head & Sr. Scientist	Kpchy@rediffmail.com kvkaizawl@rediffmail.com	9436351669

Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in