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:** 13 July - 17 July, 2016

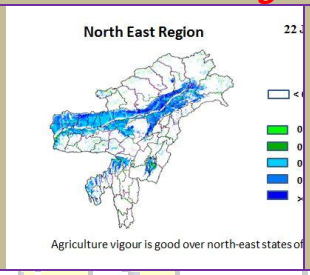
Bulletin No: - 618/2016/ Bulletin/English **Date of issue:** 12th July, 2016

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	7	3	3	17	6
Max Temp (ºC)	32	31	31	31	30
Min Temp (ºC)	24	24	24	24	24
Cloud Coverage	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	96	97	96	97	95
Min RH (%)	75	75	69	90	75
Wind Speed (KmpH)	5	5	6	5	5
*Wind Direction	E	S-E	S-E	S-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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days	Weather forecast valid from 13th June, 2016 To 17th June, 2016.
	There are chances of moderate to light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 30-32ºC and 24ºC. Maximum relative humidity is expected in the range of 95-97% and minimum may from 69-90%. Wind direction would be easterly to southeasterly and easterly with the wind speed of 5-6 km per hour. Mainly cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **36.0 mm**
NDVI for Mizoram	 NDVI of soil moisture for Mizoram is moderate wet condition.

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Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplanting stage**		▪ Citrus trees should be planted in a sunny and wind-protected area. ▪ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ▪ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ▪ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ▪ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	▪ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection. ▪ Control minor infections limited to a small area of the tree by pruning away the affected parts. ▪ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	▪ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which

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			coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of

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			fruit drop off easily. - The top most leaf starts drying as the bunch matures. - Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	- Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		- Trail semi hard wood stem to bower structure - Clean near the base of the plant. - In dry spell apply mulch with grass. - Trellises are in the north-south direction to minimize the shades during early morning and late evening. - Young vines are trained to grow along the wire support of the trellises.
		Aphid	- Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		- Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. - The flowering emergence will come out after 55-60 days after chemical spraying. - Apply split doses of fertilizer @ 60: 50:60 g per plant. - Remove all unwanted leaves, branches and weed near to the plant.
Pineapple	**Harvest stage**		- A basal golden yellow coloration at the base is the sign of a ripe fruit. - Fresh fruits destined for the local market are plucked when almost ripe. - Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative**		- Remove unwanted plant near base of

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	stage		the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application Weeding can be done by hoeing as and when necessary. Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. Harvest all mature fruit.
		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.
Okra	**Vegetative to flowering stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Harvest all mature fruit.
		Okra leafroller	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found

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			beneficial for both reducing the weed and increasing the yield. Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea. Harvest all mature fruit.
		Shoot and fruit borer	Collect and destroy infected parts of the plant. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		Select disease free seedling with 3-5 leaf stage. Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.
Pre kharif Rice	**Maximum tillering stage**		Remove unwanted plant by hand weeding. Apply split dose of fertilizer. Proper drainage is required to avoid water logging
		Rice yellow stem borer	Cut leaf tip from the seedling. Collect and destroy infected parts of the plant. 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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Maize	**Tassling and silking stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earting up of soil along with fertilizer mixture. ✦ Apply split dose of fertilizer.
		Maize cob borer	✦ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✦ Earting up of soil along with fertilizer mixture.
		Turmeric shoot borer	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✦ Remove unwanted plant from the base of the plant. ✦ Earthing up near base of the plant. ✦ Remove all infected pant and burn it.
		Aphid and bug	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every

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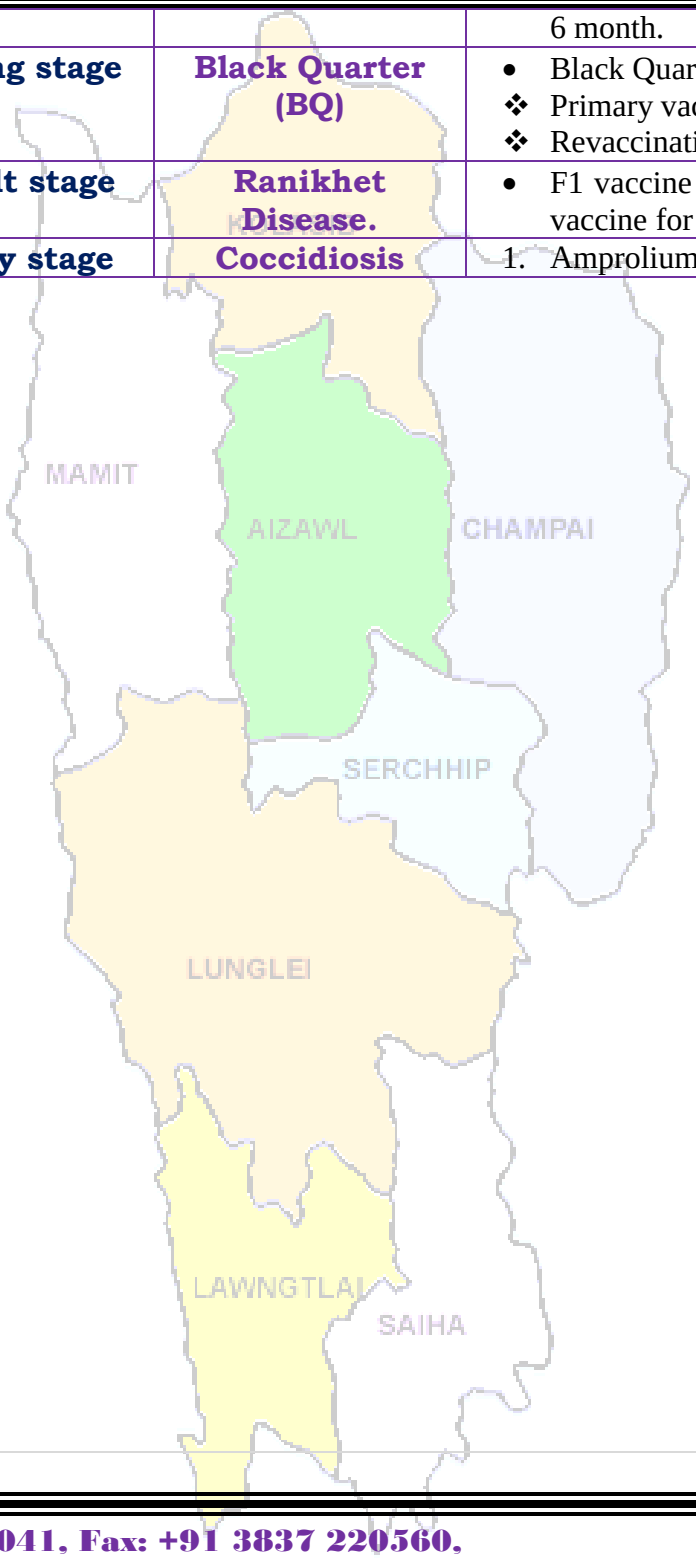
			6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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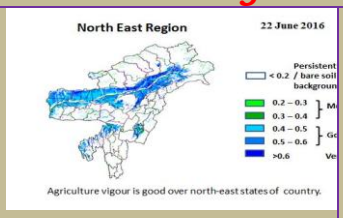
Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	7	3	3	17	6
Max Temp (oC)	32	31	31	31	30
Min Temp (oC)	24	24	24	24	24
Cloud Coverage	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	96	97	96	97	95
Min RH (%)	75	75	69	90	75
Wind Speed (KmpH)	5	5	6	5	5
*Wind Direction	E	S-E	S-E	S-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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	Champhai- 239.49mm (250.30mm)	Saiha- 109.52 mm (87.2mm)	Kolasib- 352.38mm (380.9mm)
Lawngtlai-321.51mm (285.5mm)	Lunglei-344.00mm (186.21mm)	Mamit-449.48mm (442.80mm)	Serchhip-411.72mm (259.63mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan	
	Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 30-32^{0}C a ni ang a.A vawh lai ber in 24^{0}C ni tur ah beisei a ni.RH san lai berin 95-97% leh a hniam lai berin 69-90% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 5-6 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni. ***Weekly cumulative rainfall:*** **36.0mm**	
NDVI for Mizoram		NDVI of soil moisture for Mizoram is moderate wet condition.

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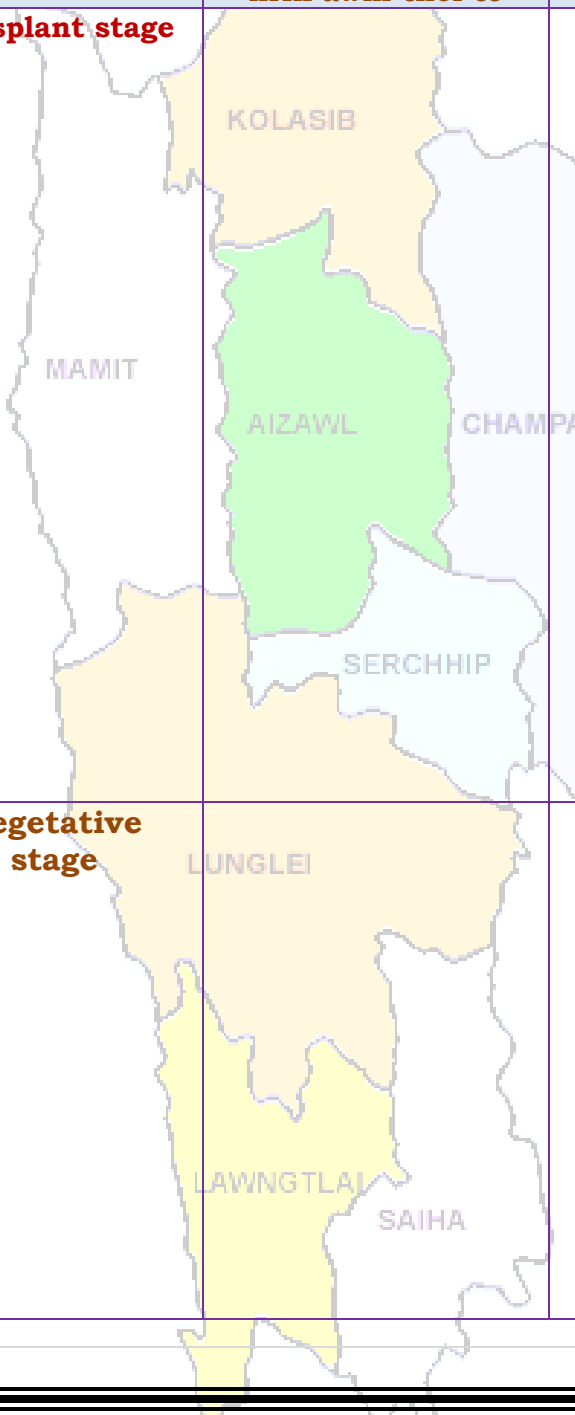
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur.

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			✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		✦ Balhla kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. ✦ A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		✦ A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. ✦ A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. ✦ Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. ✦ Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in

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			kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✦ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✦ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✦ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✦ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✦ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✦ Ni 7 danah tui chu tha taka pek tur. ✦ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✦ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur.** **2. Phunsawn hnuah tui tha taka pek tur.**	✦ A kung bulthut ah hnim chheh darh tur. ✦ A khat tawkin tui pek tur. ✦ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✦ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✦ Balu leh leitha chu lei nen a chawhpawlh hnu in 75-100cm a

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			zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim chin hma in lei nen tihpawlh

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			tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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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: Lunglei **Period: 13 July - 17 July, 2016**

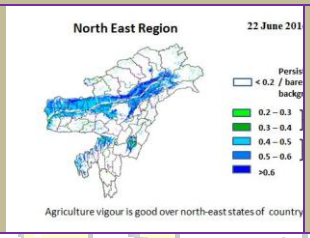
Bulletin No: - 618/2016/ Bulletin/English **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	5	5	10	3
Max Temp (ºC)	33	31	31	31	30
Min Temp (ºC)	23	24	24	24	24
Cloud Coverage	Partially clear	Partially clear	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	98	98	97	98	97
Min RH (%)	74	70	67	92	75
Wind Speed (KmpH)	4	4	4	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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days	Weather forecast valid from 13th June, 2016 To 17th June, 2016.
The temperature range for maximum and minimum were 22.8-24.1ºC and 18.3-19.8ºC respectively. Mainly cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 92-98% & minimum of 70-91%. Rainfall recorded for the past three days is **18.20 mm. (Source-NICRA, AWS, Network)**	There are chances of moderate to light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 30-33ºC and 23-24ºC. Maximum relative humidity is expected in the range of 97-98% and minimum may from 67-92%. Wind direction would be southeasterly with the wind speed of 4 km per hour. Mainly clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **26.0 mm**
NDVI for Mizoram	 NDVI of soil moisture for Mizoram is moderate wet condition.

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Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplanting stage**		▪ Citrus trees should be planted in a sunny and wind-protected area. ▪ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ▪ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ▪ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ▪ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	▪ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection. ▪ Control minor infections limited to a small area of the tree by pruning away the affected parts. ▪ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	▪ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which

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			coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of

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			fruit drop off easily. - The top most leaf starts drying as the bunch matures. - Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	- Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		- Trail semi hard wood stem to bower structure - Clean near the base of the plant. - In dry spell apply mulch with grass. - Trellises are in the north-south direction to minimize the shades during early morning and late evening. - Young vines are trained to grow along the wire support of the trellises.
		Aphid	- Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		- Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. - The flowering emergence will come out after 55-60 days after chemical spraying. - Apply split doses of fertilizer @ 60: 50:60 g per plant. - Remove all unwanted leaves, branches and weed near to the plant.
Pineapple	**Harvest stage**		- A basal golden yellow coloration at the base is the sign of a ripe fruit. - Fresh fruits destined for the local market are plucked when almost ripe. - Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative**		- Remove unwanted plant near base of

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	stage		the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application Weeding can be done by hoeing as and when necessary. Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. Harvest all mature fruit.
		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.
Okra	**Vegetative to flowering stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Harvest all mature fruit.
		Okra leafroller	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found

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			beneficial for both reducing the weed and increasing the yield. Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea. Harvest all mature fruit.
		Shoot and fruit borer	Collect and destroy infected parts of the plant. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		Select disease free seedling with 3-5 leaf stage. Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.
Pre kharif Rice	**Maximum tillering stage**		Remove unwanted plant by hand weeding. Apply split dose of fertilizer. Proper drainage is required to avoid water logging
		Rice yellow stem borer	Cut leaf tip from the seedling. Collect and destroy infected parts of the plant. 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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Maize	**Tassling and silking stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earting up of soil along with fertilizer mixture. ✦ Apply split dose of fertilizer.
		Maize cob borer	✦ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✦ Earting up of soil along with fertilizer mixture.
		Turmeric shoot borer	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✦ Remove unwanted plant from the base of the plant. ✦ Earthing up near base of the plant. ✦ Remove all infected pant and burn it.
		Aphid and bug	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every

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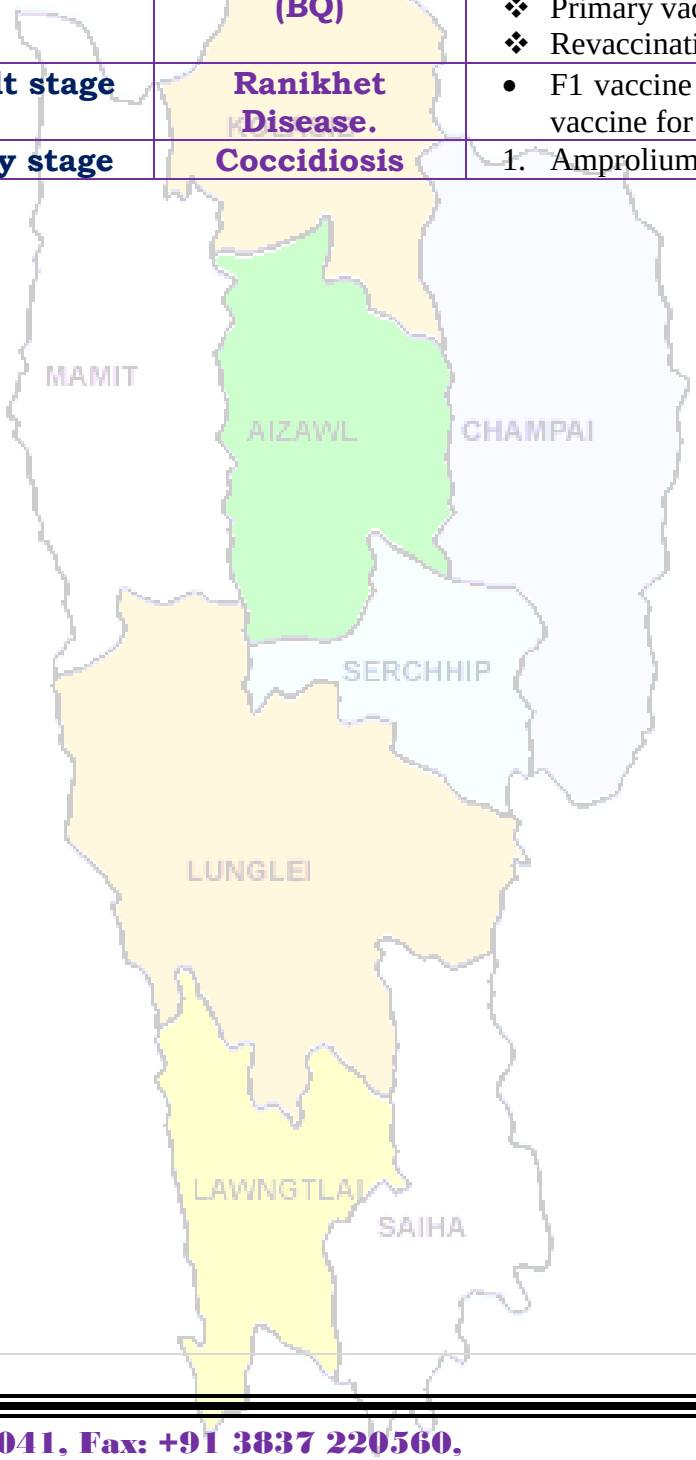
			6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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

District: Lunglei **Period:** 13 July - 17 July, 2016

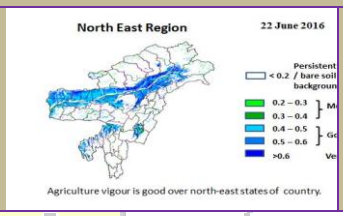
Bulletin No: - 618/2016/ Bulletin/Mizo **Date of issue:** 12th July, 2016

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	5	5	10	3
Max Temp (oC)	33	31	31	31	30
Min Temp (oC)	23	24	24	24	24
Cloud Coverage	Partially clear	Partially clear	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	98	98	97	98	97
Min RH (%)	74	70	67	92	75
Wind Speed (KmpH)	4	4	4	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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	Champhai- 239.49mm (250.30mm)	Saiha- 109.52 mm (87.2mm)	Kolasib- 352.38mm (380.9mm)
Lawngtlai-321.51mm (285.5mm)	Lunglei-344.00mm (186.21mm)	Mamit-449.48mm (442.80mm)	Serchhip-411.72mm (259.63mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan
Khua a lum lai berin 22.8-24.1^{0}C leh a vawh lai berin 18.3-19.8^{0}C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 92-98% leh a hniam lai 70-91% ani ang. Ni 3 kal ta chhung a ruah tla zatchu **18.20 mm** ani. **(Source-NICRA, AWS, Network)**	Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 30-33^{0}C a ni ang a.A vawh lai ber in 23-24^{0}C ni tur ah beisei a ni.RH san lai berin 97-98% leh a hniam lai berin 67-92% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 4 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni. ***Weekly cumulative rainfall:*** **26.0mm**
NDVI for Mizoram	 NDVI of soil moisture for Mizoram is moderate wet condition.

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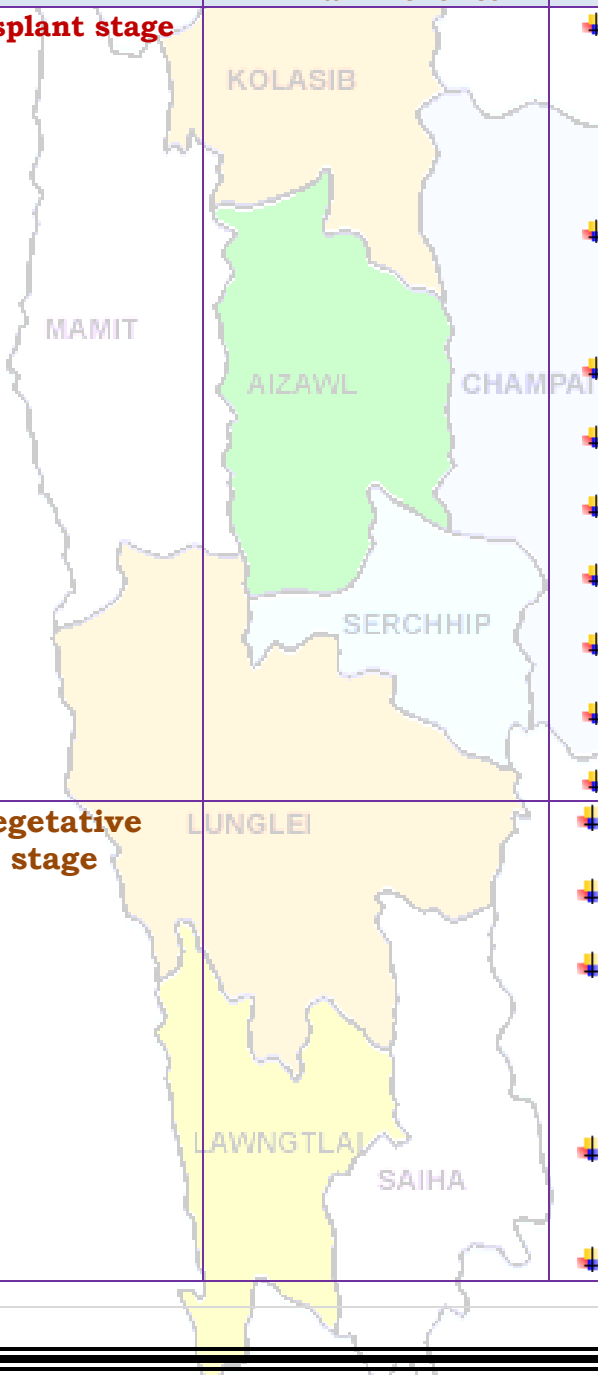
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar

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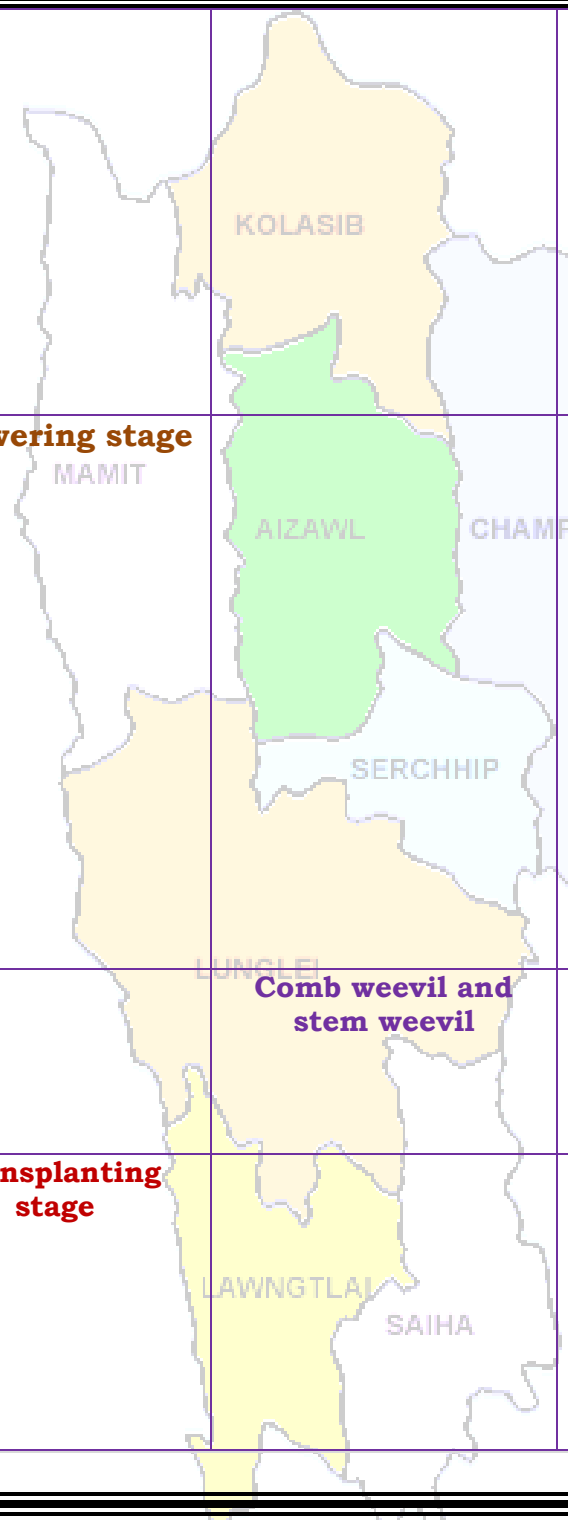
			thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. • Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		• Balhla kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. • A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. • A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	• Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		• A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. • A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. • Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. • Bawngek leitha chu khur khat ah



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			15g leh NPK 100:50:100g in kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✦ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✦ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✦ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✦ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✦ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✦ Ni 7 danah tui chu tha taka pek tur. ✦ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✦ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur. 2. Phunsawn hnuah tui tha taka pek tur.**	✦ A kung bulthut ah hnim chheh darh tur. ✦ A khat tawkin tui pek tur. ✦ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✦ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✦ Balu leh leitha chu lei nen a

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			chawhpawlh hnu in 75-100cm a zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim

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			chin hma in lei nen tihpawlh tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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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: Mamit **Period: 13 July - 17 July, 2016**

Bulletin No: - 618/2016/ Bulletin/English **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	4	5	7	3
Max Temp (ºC)	31	31	31	30	30
Min Temp (ºC)	23	23	23	24	24
Cloud Coverage	Mainly cloudy	Partially clear	Partially clear	Mainly cloudy	Mainly cloudy
Max RH (%)	93	93	92	99	97
Min RH (%)	69	72	69	75	79
Wind Speed (KmpH)	4	6	6	6	4
***Wind Direction**	S-E	S	S	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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days

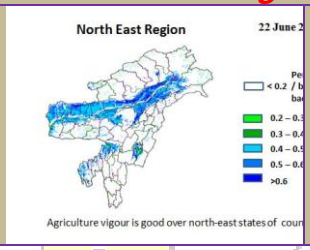
The temperature range for maximum and minimum were 28.2-31.6ºC and 22.1-24.4ºC respectively. Mainly cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 92-97% & minimum of 65-85%. Rainfall recorded for the past three days is **23.40 mm. (Source-mosdac.gov.in)**

Weather forecast valid from 13th June, 2016 To 17th June, 2016.

There are chances of moderate to light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 30-31ºC and 23-24ºC. Maximum relative humidity is expected in the range of 92-97% and minimum may from 69-79%. Wind direction would be southeasterly to southerly and southeasterly with the wind speed of 4-6 km per hour. Mainly cloudy sky will prevail during the next five days.

Weekly cumulative rainfall: **22.0 mm**

NDVI for Mizoram



NDVI of soil moisture for Mizoram is moderate wet condition.

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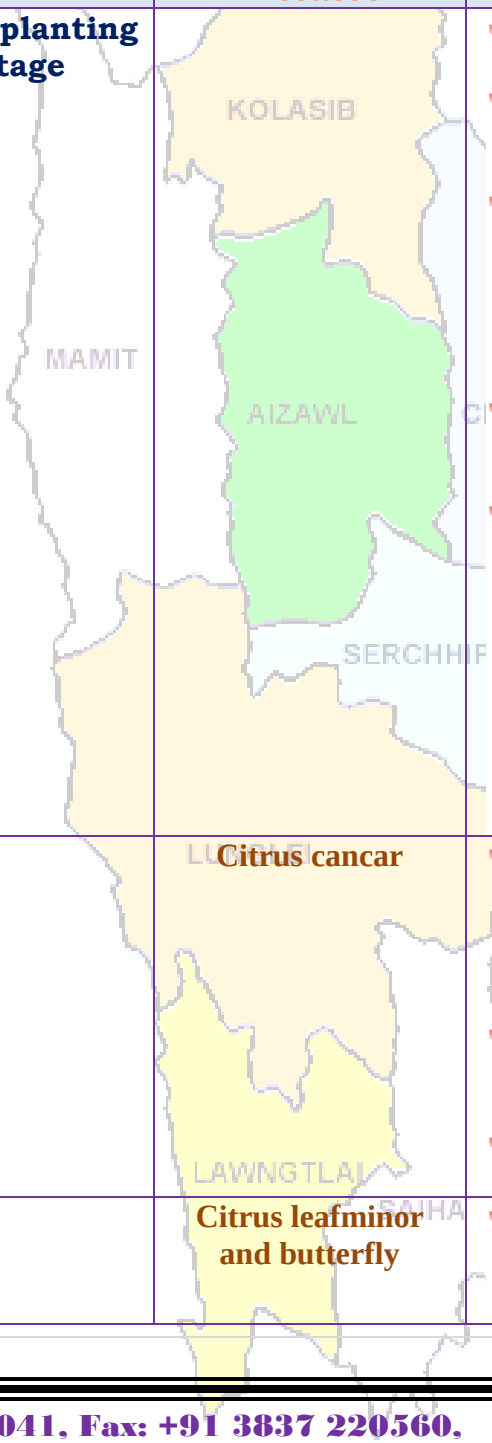
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplanting stage**		✦ Citrus trees should be planted in a sunny and wind-protected area. ✦ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ✦ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ✦ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ✦ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	✦ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection. ✦ Control minor infections limited to a small area of the tree by pruning away the affected parts. ✦ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which

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			coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of

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			fruit drop off easily. The top most leaf starts drying as the bunch matures. Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		Trail semi hard wood stem to bower structure Clean near the base of the plant. In dry spell apply mulch with grass. Trellises are in the north-south direction to minimize the shades during early morning and late evening. Young vines are trained to grow along the wire support of the trellises.
		Aphid	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. The flowering emergence will come out after 55-60 days after chemical spraying. Apply split doses of fertilizer @ 60: 50:60 g per plant. Remove all unwanted leaves, branches and weed near to the plant.
Pineapple	**Harvest stage**		A basal golden yellow coloration at the base is the sign of a ripe fruit. Fresh fruits destined for the local market are plucked when almost ripe. Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative**		Remove unwanted plant near base of

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	stage		the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application Weeding can be done by hoeing as and when necessary. Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. Harvest all mature fruit.
		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.
Okra	**Vegetative to flowering stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Harvest all mature fruit.
		Okra leafroller	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found

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			beneficial for both reducing the weed and increasing the yield. Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea. Harvest all mature fruit.
		Shoot and fruit borer and	Collect and destroy infected parts of the plant. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		Select disease free seedling with 3-5 leaf stage. Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.
Pre kharif Rice	**Maximum tillering stage**		Remove unwanted plant by hand weeding. Apply split dose of fertilizer. Proper drainage is required to avoid water logging
		Rice yellow stem borer	Cut leaf tip from the seedling. Collect and destroy infected parts of the plant. 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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Maize	**Tassling and silking stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earting up of soil along with fertilizer mixture. ✦ Apply split dose of fertilizer.
		Maize cob borer	✦ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✦ Earting up of soil along with fertilizer mixture.
		Turmeric shoot borer	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✦ Remove unwanted plant from the base of the plant. ✦ Earthing up near base of the plant. ✦ Remove all infected pant and burn it.
		Aphid and bug	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.

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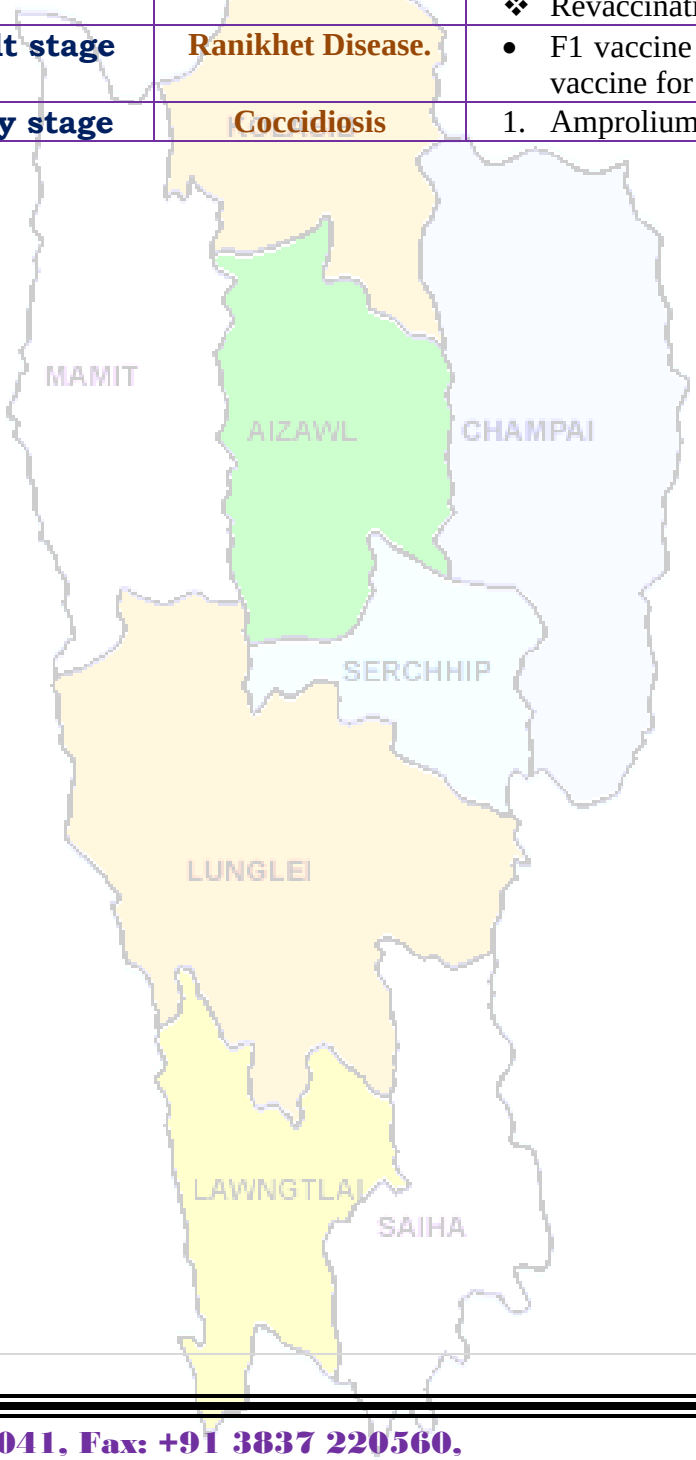
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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District: Mamit **Period: 13 July - 17 July, 2016**

Bulletin No: - 618/2016/ Bulletin/Mizo **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	4	5	7	3
Max Temp (oC)	31	31	31	30	30
Min Temp (oC)	23	23	23	24	24
Cloud Coverage	Mainly cloudy	Partially clear	Partially clear	Mainly cloudy	Mainly cloudy
Max RH (%)	93	93	92	99	97
Min RH (%)	69	72	69	75	79
Wind Speed (KmpH)	4	6	6	6	4
***Wind Direction**	S-E	S	S	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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	**Champhai- 239.49mm (250.30mm)**	**Saiha- 109.52 mm (87.2mm)**	**Kolasib- 352.38mm (380.9mm)**
Lawngtlai-321.51mm (285.5mm)	**Lunglei-344.00mm (186.21mm)**	**Mamit-449.48mm (442.80mm)**	**Serchhip-411.72mm (259.63mm)**

Ni thum kaltha sik leh sa dinhmun tlangpui

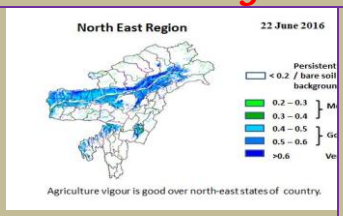
Khua a lum lai berin 28.2-31.6^{0}C leh a vawh lai berin 22.1-24.4^{0}C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 92-97% leh a hniam lai 65-85% ani ang. Ni 3 kal ta chhung a ruah tla zatchu **23.40 mm** ani. **(Source- Mosdac.gov.in)**

July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan

Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 30-31^{0}C a ni ang a.A vawh lai ber in 23-24^{0}C ni tur ah beisei a ni.RH san lai berin 92-97% leh a hniam lai berin 69-79% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 4-6 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.

***Weekly cumulative rainfall:* 22.0mm**

NDVI for Mizoram



NDVI of soil moisture for Mizoram is moderate wet condition.

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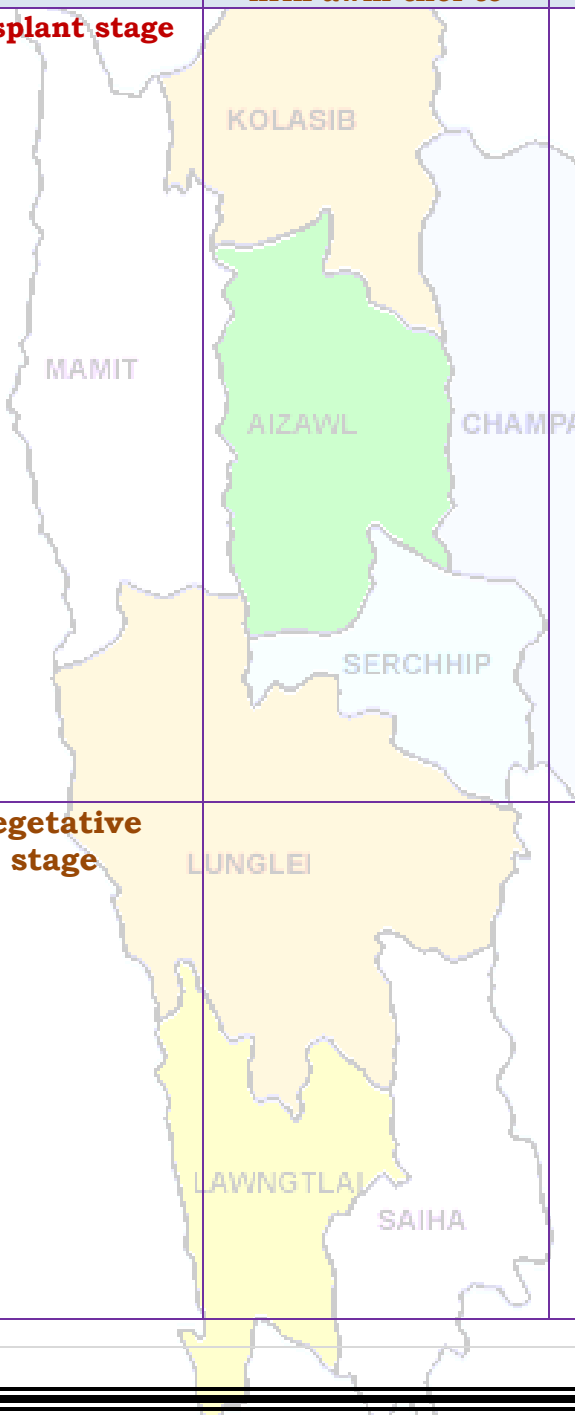
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur.

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			✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		✦ Balhla kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. ✦ A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		✦ A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. ✦ A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. ✦ Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. ✦ Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in

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			kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✚ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✚ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✚ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✚ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✚ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✚ Ni 7 danah tui chu tha taka pek tur. ✚ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✚ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur. 2. Phunsawn hnuah tui tha taka pek tur.**	✚ A kung bulthut ah hnim chheh darh tur. ✚ A khat tawkin tui pek tur. ✚ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✚ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✚ Lei chu boruak kal that nan laihphut thin tur. ✚ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✚ Balu leh leitha chu lei nen a chawhpawlh hnu in 75-100cm a

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			zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim chin hma in lei nen tihpawlh

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			tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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

District: Saiha **Period: 13 July - 17 July, 2016**

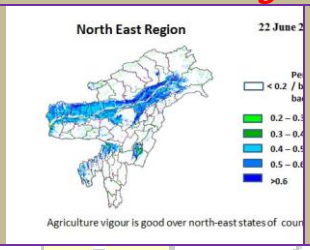
Bulletin No: - 618/2016/ Bulletin/English **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	0	5	5	10	5
Max Temp (ºC)	32	32	31	31	31
Min Temp (ºC)	23	24	24	24	24
Cloud Coverage	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	99	98	97	97
Min RH (%)	77	78	70	94	77
Wind Speed (KmpH)	2	3	3	3	4
***Wind Direction**	E	S-E	S-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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days	Weather forecast valid from 13th June, 2016 To 17th June, 2016.
The temperature range for maximum and minimum were 17.1-18.4ºC and 11.5-14.5ºC respectively. Mainly cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 98-100% & minimum of 65-91%. Rainfall recorded for the past three days is **15.00 mm. (Source-mosdac.gov.in)**	There are chances of light rainfall during the next 4 days. The maximum and minimum temperatures for the next 5 days may range for 31-32ºC and 23-24ºC. Maximum relative humidity is expected in the range of 97-99% and minimum may from 70-94%. Wind direction would be easterly to southeasterly and easterly with the wind speed of 2-4 km per hour. Mainly clear sky will prevail during the next five days. ***Weekly cumulative rainfall:* 25.0 mm**
NDVI for Mizoram	 NDVI of soil moisture for Mizoram is moderate wet condition.

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Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplanting stage**		▪ Citrus trees should be planted in a sunny and wind-protected area. ▪ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ▪ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ▪ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ▪ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	▪ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection. ▪ Control minor infections limited to a small area of the tree by pruning away the affected parts. ▪ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	▪ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which

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			coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of

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			fruit drop off easily. - The top most leaf starts drying as the bunch matures. - Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	- Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		- Trail semi hard wood stem to bower structure - Clean near the base of the plant. - In dry spell apply mulch with grass. - Trellises are in the north-south direction to minimize the shades during early morning and late evening. - Young vines are trained to grow along the wire support of the trellises.
		Aphid	- Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		- Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. - The flowering emergence will come out after 55-60 days after chemical spraying. - Apply split doses of fertilizer @ 60: 50:60 g per plant. - Remove all unwanted leaves, branches and weed near to the plant.
Pineapple	**Harvest stage**		- A basal golden yellow coloration at the base is the sign of a ripe fruit. - Fresh fruits destined for the local market are plucked when almost ripe. - Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative**		- Remove unwanted plant near base of

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	stage		the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application Weeding can be done by hoeing as and when necessary. Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. Harvest all mature fruit.
		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.
Okra	**Vegetative to flowering stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Harvest all mature fruit.
		Okra leafroller	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found

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			beneficial for both reducing the weed and increasing the yield. Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea. Harvest all mature fruit.
		Shoot and fruit borer	Collect and destroy infected parts of the plant. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		Select disease free seedling with 3-5 leaf stage. Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.
Pre kharif Rice	**Maximum tillering stage**		Remove unwanted plant by hand weeding. Apply split dose of fertilizer. Proper drainage is required to avoid water logging
		Rice yellow stem borer	Cut leaf tip from the seedling. Collect and destroy infected parts of the plant. 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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Maize	**Tassling and silking stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earting up of soil along with fertilizer mixture. ✦ Apply split dose of fertilizer.
		Maize cob borer	✦ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✦ Earting up of soil along with fertilizer mixture.
		Turmeric shoot borer	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✦ Remove unwanted plant from the base of the plant. ✦ Earthing up near base of the plant. ✦ Remove all infected pant and burn it.
		Aphid and bug	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.

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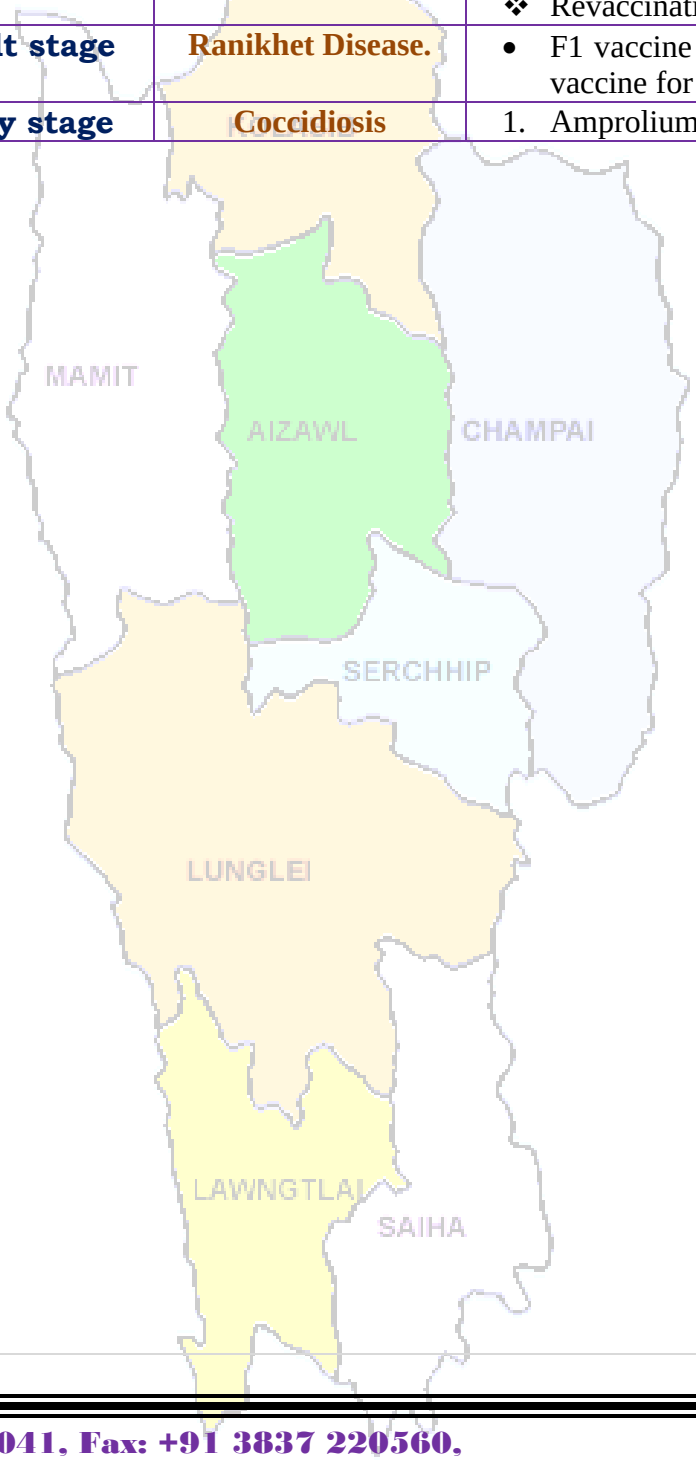
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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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:** 13 July - 17 July, 2016

Bulletin No: - 618/2016/ Bulletin/Mizo **Date of issue:** 12th July, 2016

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	0	5	5	10	5
Max Temp (oC)	32	32	31	31	31
Min Temp (oC)	23	24	24	24	24
Cloud Coverage	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	99	98	97	97
Min RH (%)	77	78	70	94	77
Wind Speed (KmpH)	2	3	3	3	4
*Wind Direction	E	S-E	S-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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	Champhai- 239.49mm (250.30mm)	Saiha- 109.52 mm (87.2mm)	Kolasib- 352.38mm (380.9mm)
Lawngtlai-321.51mm (285.5mm)	Lunglei-344.00mm (186.21mm)	Mamit-449.48mm (442.80mm)	Serchhip-411.72mm (259.63mm)

Ni thum kaltha sik leh sa dinhmun tlangpui

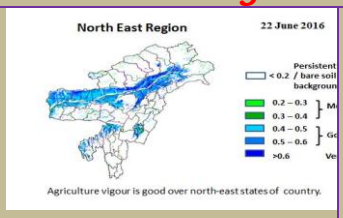
Khua a lum lai berin 17.1-18.4^{0}C leh a vawh lai berin 11.5-14.5^{0}C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 98-100% leh a hniam lai 65-91% ani ang. Ni 3 kal ta chhung a ruah tla zatchu **15.00 mm** ani. **(Source- Mosdac.gov.in)**

July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan

Ni 4 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 31-32^{0}C a ni ang a.A vawh lai ber 23-24^{0}C ni tur ah beisei a ni.RH san lai berin 97-99% leh a hniam lai berin 70-94% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 2-4 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.

Weekly cumulative rainfall: **25.0mm**

NDVI for Mizoram



NDVI of soil moisture for Mizoram is moderate wet condition.

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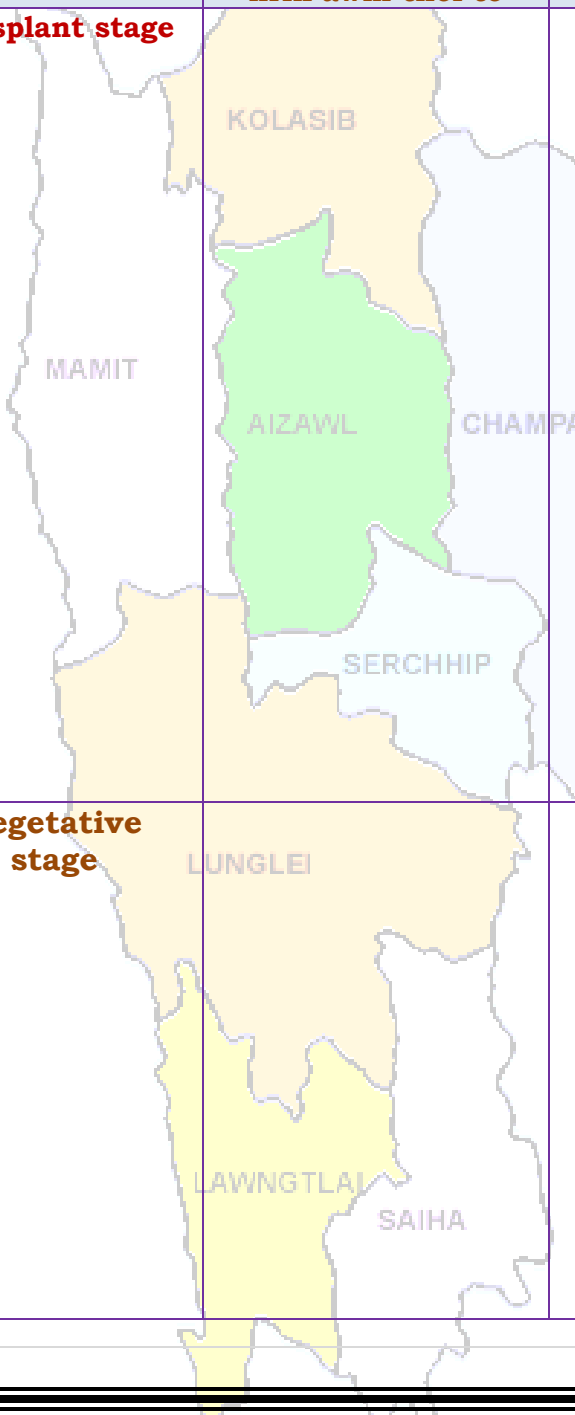
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur.

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			✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		✦ Balhla kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. ✦ A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		✦ A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. ✦ A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. ✦ Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. ✦ Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in

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			kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✦ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✦ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✦ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✦ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✦ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✦ Ni 7 danah tui chu tha taka pek tur. ✦ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✦ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur. 2. Phunsawn hnuah tui tha taka pek tur.**	✦ A kung bulthut ah hnim chheh darh tur. ✦ A khat tawkin tui pek tur. ✦ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✦ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✦ Balu leh leitha chu lei nen a chawhpawlh hnu in 75-100cm a

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			zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim chin hma in lei nen tihpawlh

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			tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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

District: Serchhip **Period:** 13 July - 17 July, 2016

Bulletin No: - 618/2016/ Bulletin/English **Date of issue:** 12th July, 2016

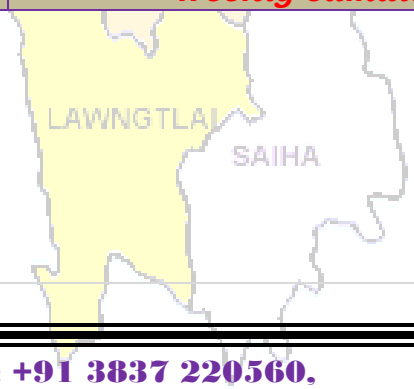
Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	0	3	0	5	0
Max Temp (ºC)	32	32	32	31	31
Min Temp (ºC)	25	25	25	25	25
Cloud Coverage	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy
Max RH (%)	100	100	100	100	99
Min RH (%)	77	71	70	65	75
Wind Speed (KmpH)	2	2	2	0	2
*Wind Direction	E	S-E	S-E	S-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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days	Weather forecast valid from 13th June, 2016 To 17th June, 2016.
	There are chances of light rainfall during the next 2 days. The maximum and minimum temperatures for the next 5 days may range for 31-32ºC and 25ºC. Maximum relative humidity is expected in the range of 99-100% and minimum may from 65-77%. Wind direction would be to easterly to southeasterly and easterly with the wind speed of 0-2 km per hour. Mainly cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **08.0 mm**



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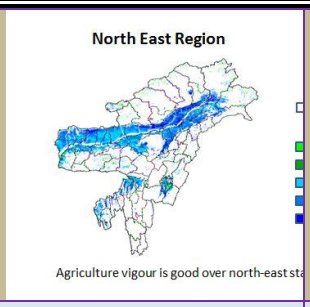
NDVI for Mizoram			NDVI of soil moisture for Mizoram is moderate wet condition.
Main Crop/ Animal /Fisheries	**Stage**	**Cultural practices/ Pest/ Diseases**	**Agricultural / Horticultural/ animal husbandry advisories**
Khasi Mandarin and acid lime	**Transplanting stage**		▪ Citrus trees should be planted in a sunny and wind-protected area. ▪ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ▪ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ▪ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ▪ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	▪ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection.

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			✦ Control minor infections limited to a small area of the tree by pruning away the affected parts. ✦ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy

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			them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of fruit drop off easily. ✦ The top most leaf starts drying as the bunch matures. ✦ Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	✦ Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		✦ Trail semi hard wood stem to bower structure ✦ Clean near the base of the plant. ✦ In dry spell apply mulch with grass. ✦ Trellises are in the north-south direction to minimize the shades during early morning and late evening. ✦ Young vines are trained to grow along the wire support of the trellises.
		Aphid	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		✦Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. ✦The flowering emergence will come out after 55-60 days after chemical spraying. ✦Apply split doses of fertilizer @ 60: 50:60 g per plant. ✦Remove all unwanted leaves, branches and weed near to the plant.

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Pineapple	**Harvest stage**		✦ A basal golden yellow coloration at the base is the sign of a ripe fruit. ✦ Fresh fruits destined for the local market are plucked when almost ripe. ✦ Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earthing up soil at base of the plant along with split doses of fertilizer. ✦ Proper drainage is required to avoid water logging. ✦ Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	✦ Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		✦ Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application ✦ Weeding can be done by hoeing as and when necessary. ✦ Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. ✦ Harvest all mature fruit.
		Fruit fly and	✦ 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.
Okra	**Vegetative to flowering stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earthing up soil at base of the plant along with split doses of fertilizer. ✦ Proper drainage is required to avoid water logging. ✦ Harvest all mature fruit.
		Okra leafroller	✦ Apply insecticide like imidacloprid 0.5 ml or

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			phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		✚ Remove unwanted plant near base of the plant and cut dead branches. ✚ Earthing up soil at base of the plant along with split doses of fertilizer. ✚ Proper drainage is required to avoid water logging. ✚ Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield. ✚ Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		✚ Remove unwanted plant near base of the plant and cut dead branches. ✚ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. ✚ Mulching with black polythene film reduces weed growth, increases the crop growth. ✚ Split dose of fertilizer application @ 50kg/ha urea. ✚ Harvest all mature fruit.
		Shoot and fruit borer and	✚ Collect and destroy infected parts of the plant. ✚ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	✚ Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		✚ Select disease free seedling with 3-5 leaf stage. ✚ Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. ✚ Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. ✚ Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.

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Pre kharif Rice	**Maximum tillering stage**		✦ Remove unwanted plant by hand weeding. ✦ Apply split dose of fertilizer. ✦ Proper drainage is required to avoid water logging
		Rice yellow stem borer	✦ Cut leaf tip from the seedling. ✦ Collect and destroy infected parts of the plant. ✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Maize	**Tassling and silking stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earting up of soil along with fertilizer mixture. ✦ Apply split dose of fertilizer.
		Maize cob borer	✦ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✦ Earting up of soil along with fertilizer mixture.
		Turmeric shoot borer	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✦ Remove unwanted plant from the base of the plant. ✦ Earthing up near base of the plant. ✦ Remove all infected pant and burn it.
		Aphid and bug	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine**	1. Culling of positive pigs or piglets.

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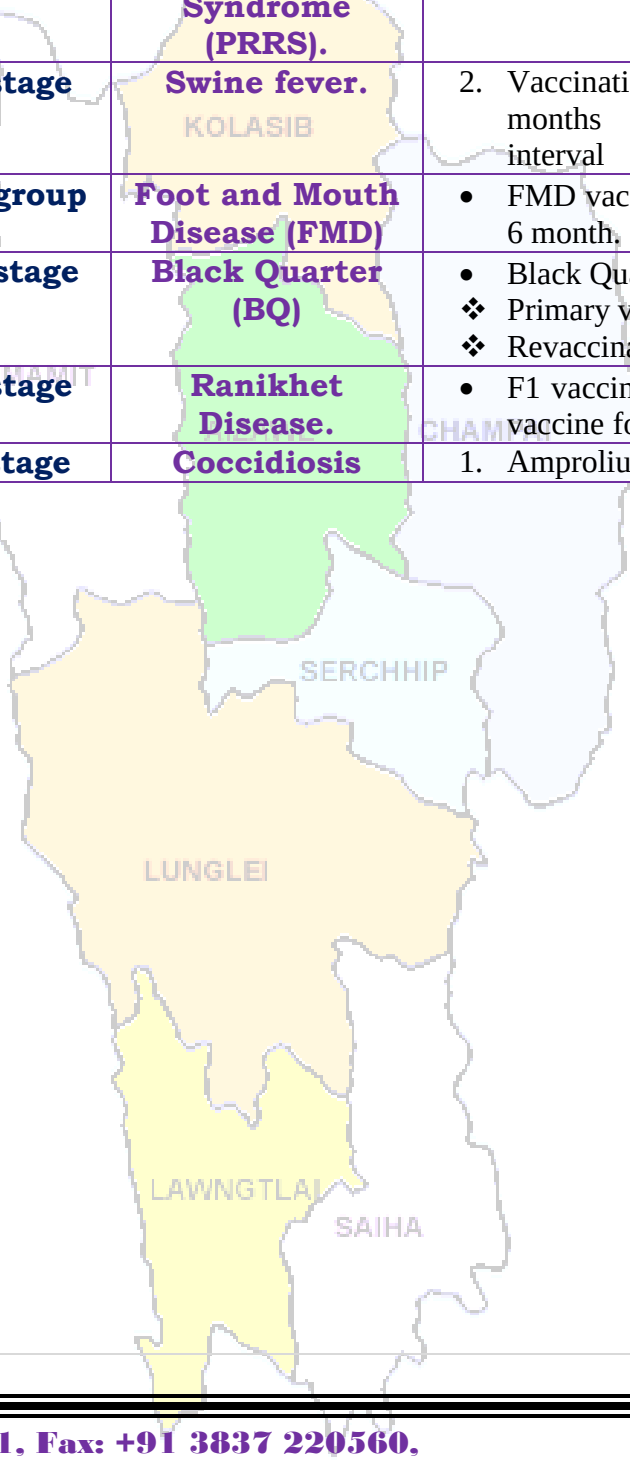
		Reproductive Respiratory Syndrome (PRRS).	
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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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:** 13 July - 17 July, 2016

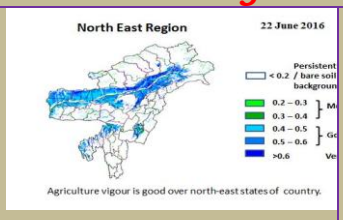
Bulletin No: - 618/2016/ Bulletin/Mizo **Date of issue:** 12th July, 2016

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	0	3	0	5	0
Max Temp (oC)	32	32	32	31	31
Min Temp (oC)	25	25	25	25	25
Cloud Coverage	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy
Max RH (%)	100	100	100	100	99
Min RH (%)	77	71	70	65	75
Wind Speed (KmpH)	2	2	2	0	2
*Wind Direction	E	S-E	S-E	S-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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	Champhai- 239.49mm (250.30mm)	Saiha- 109.52 mm (87.2mm)	Kolasib- 352.38mm (380.9mm)
Lawngtlai-321.51mm (285.5mm)	Lunglei-344.00mm (186.21mm)	Mamit-449.48mm (442.80mm)	Serchhip-411.72mm (259.63mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan	
	Ni 2 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 31-32^{0}C a ni ang a.A vawh lai ber in 25^{0}C ni tur ah beisei a ni.RH san lai berin 99-100% leh a hniam lai berin 65-77% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 0-2 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni. ***Weekly cumulative rainfall:*** **08.0mm**	
NDVI for Mizoram		NDVI of soil moisture for Mizoram is moderate wet condition.

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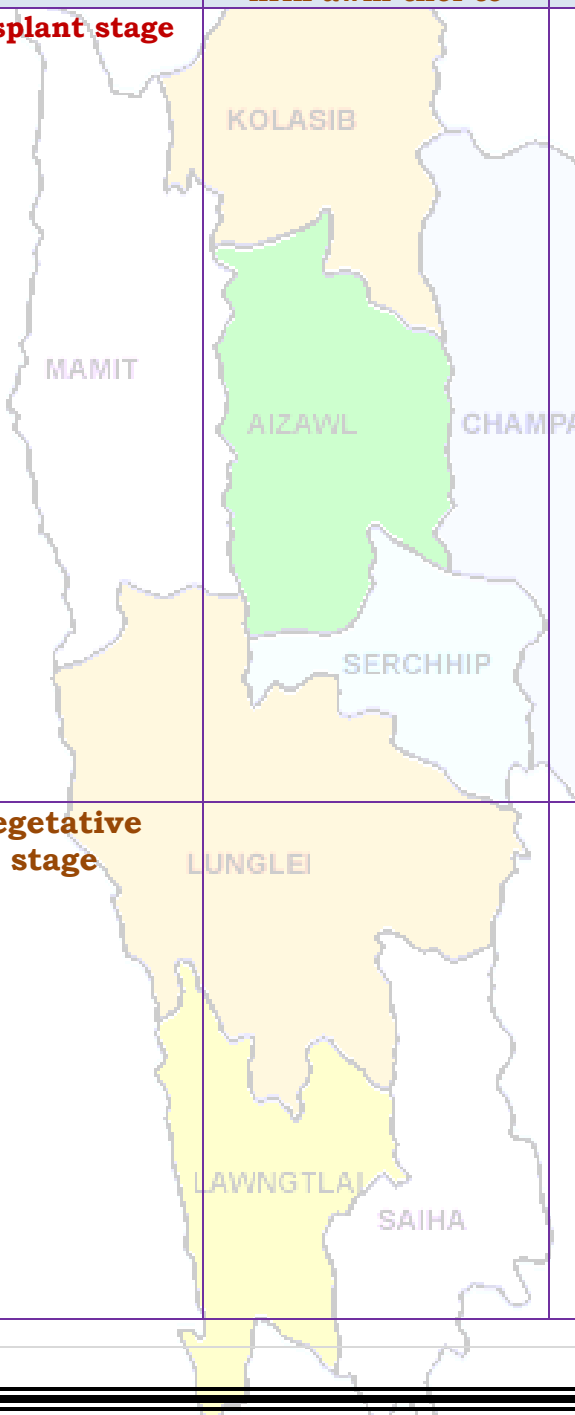
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur.

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			✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		✦ Balhla kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. ✦ A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		✦ A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. ✦ A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. ✦ Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. ✦ Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in

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			kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✦ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✦ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✦ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✦ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✦ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✦ Ni 7 danah tui chu tha taka pek tur. ✦ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✦ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur. 2. Phunsawn hnuah tui tha taka pek tur.**	✦ A kung bulthut ah hnim chheh darh tur. ✦ A khat tawkin tui pek tur. ✦ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✦ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✦ Balu leh leitha chu lei nen a chawhpawlh hnu in 75-100cm a

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			zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim chin hma in lei nen tihpawlh

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			tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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

District: Aizawl **Period: 13 July - 17 July, 2016**

Bulletin No: - 618/2016/ Bulletin/Mizo **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	5	4	7	3
Max Temp (oC)	33	32	32	32	31
Min Temp (oC)	24	25	25	25	25
Cloud Coverage	Mainly cloudy	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy
Max RH (%)	97	96	96	99	98
Min RH (%)	73	76	73	78	81
Wind Speed (KmpH)	3	5	4	4	3
*Wind Direction	S-E	S-E	S	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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	Champhai- 239.49mm (250.30mm)	Saiha- 109.52 mm (87.2mm)	Kolasib- 352.38mm (380.9mm)
Lawngtlai-321.51mm (285.5mm)	Lunglei-344.00mm (186.21mm)	Mamit-449.48mm (442.80mm)	Serchhip-411.72mm (259.63mm)

Ni thum kaltha sik leh sa dinhmun tlangpui

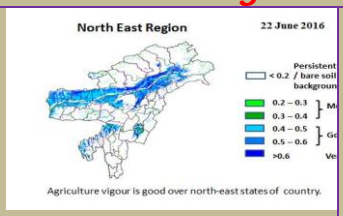
Khua a lum lai berin 25.4-26.8^{0}C leh a vawh lai berin 20.3-21.8^{0}C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 94-98% leh a hniam lai 70-89% ani ang. Ni 3 kal ta chhung a ruah tla zatchu **21.20 mm** ani. **(Source- Mosdac.gov.in)**

July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan

Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 31-33^{0}C a ni ang a.A vawh lai ber in 24-25^{0}C ni tur ah beisei a ni.RH san lai berin 96-99% leh a hniam lai berin 73-81% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 3-5 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.

***Weekly cumulative rainfall:* 22.0mm**

NDVI for Mizoram



NDVI of soil moisture for Mizoram is moderate wet condition.

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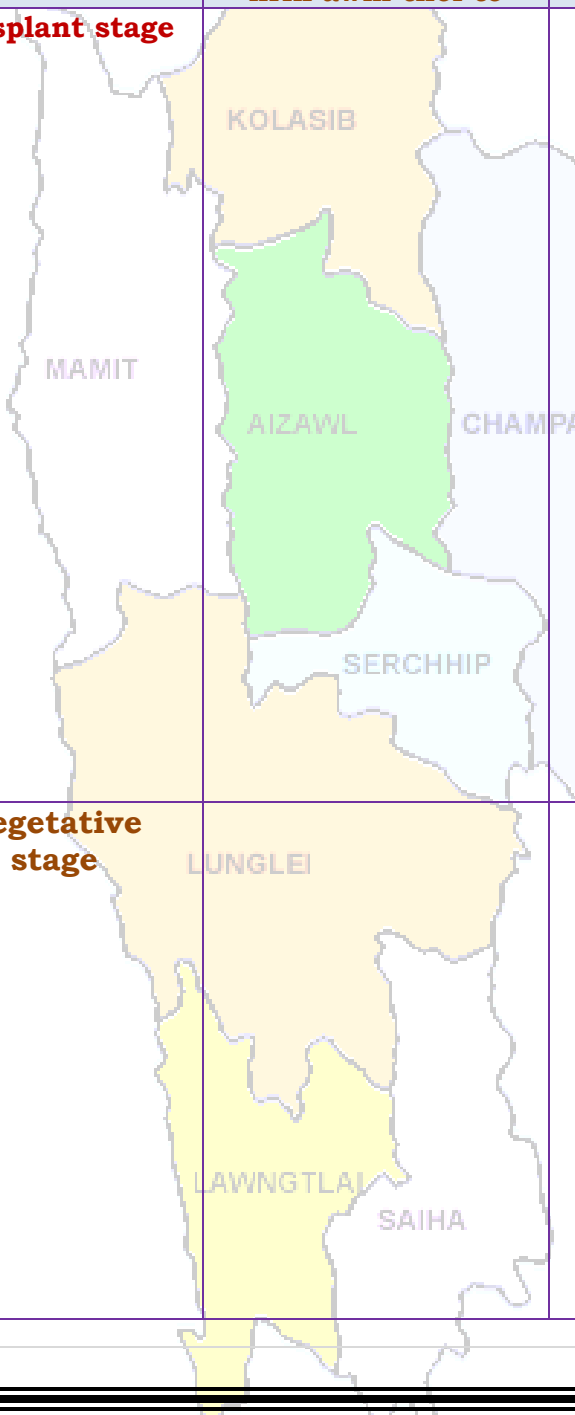
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur.

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			✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		✦ Balhla kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. ✦ A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		✦ A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. ✦ A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. ✦ Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. ✦ Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in

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			kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✦ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✦ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✦ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✦ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✦ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✦ Ni 7 danah tui chu tha taka pek tur. ✦ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✦ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur. 2. Phunsawn hnuah tui tha taka pek tur.**	✦ A kung bulthut ah hnim chheh darh tur. ✦ A khat tawkin tui pek tur. ✦ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✦ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✦ Balu leh leitha chu lei nen a chawhpawlh hnu in 75-100cm a

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			zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim chin hma in lei nen tihpawlh

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			tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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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: Aizawl **Period: 13 July - 17 July, 2016**

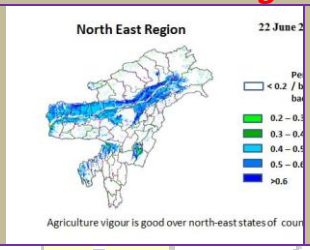
Bulletin No: - 618/2016/ Bulletin/English **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	5	4	7	3
Max Temp (ºC)	33	32	32	32	31
Min Temp (ºC)	24	25	25	25	25
Cloud Coverage	Mainly cloudy	Partially clear	Mainly cloudy	Mainly cloudy	Mainly cloudy
Max RH (%)	97	96	96	99	98
Min RH (%)	73	76	73	78	81
Wind Speed (KmpH)	3	5	4	4	3
***Wind Direction**	S-E	S-E	S	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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days	Weather forecast valid from 13th June, 2016 To 17th June, 2016.
The temperature range for maximum and minimum were 25.4-26.8ºC and 20.3-21.8ºC respectively. Mainly cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 94-98% & minimum of 70-89%. Rainfall recorded for the past three days is **21.20 mm. (Source-mosdac.gov.in)**	There are chances of light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 31-33ºC and 24-25ºC. Maximum relative humidity is expected in the range of 96-99% and minimum may from 73-81%. Wind direction would be southeasterly to southerly and southeasterly with the wind speed of 3-5 km per hour. Mainly cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:* 22.0 mm**
NDVI for Mizoram	 NDVI of soil moisture for Mizoram is moderate wet condition.

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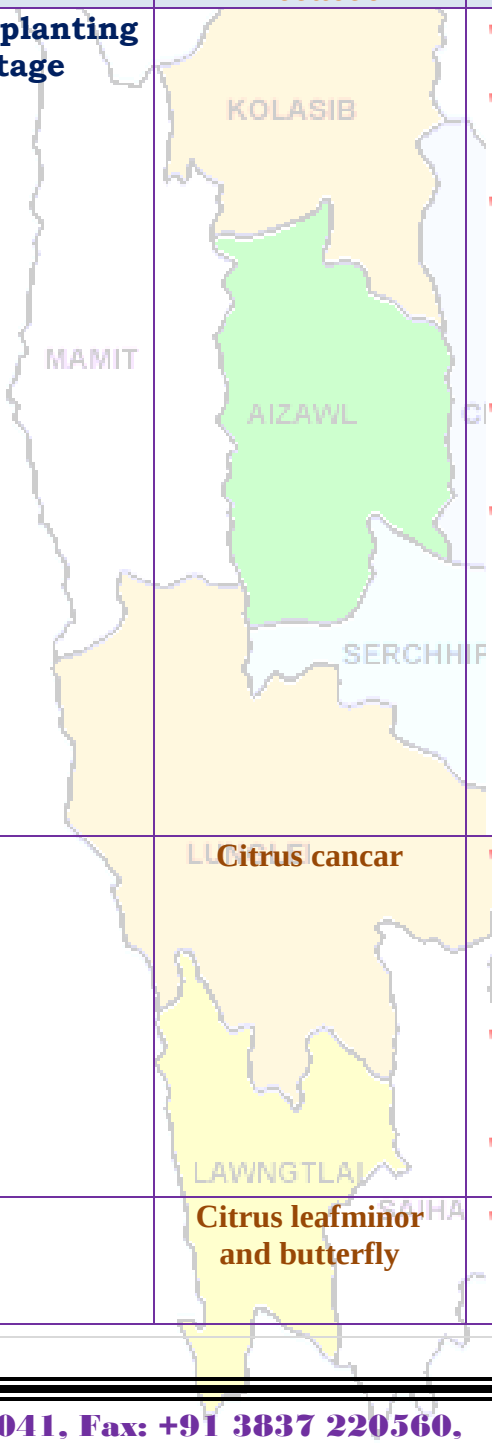
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplanting stage**		✦ Citrus trees should be planted in a sunny and wind-protected area. ✦ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ✦ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ✦ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ✦ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	✦ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection. ✦ Control minor infections limited to a small area of the tree by pruning away the affected parts. ✦ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which

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			coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of

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			fruit drop off easily. - The top most leaf starts drying as the bunch matures. - Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	- Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		- Trail semi hard wood stem to bower structure - Clean near the base of the plant. - In dry spell apply mulch with grass. - Trellises are in the north-south direction to minimize the shades during early morning and late evening. - Young vines are trained to grow along the wire support of the trellises.
		Aphid	- Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		- Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. - The flowering emergence will come out after 55-60 days after chemical spraying. - Apply split doses of fertilizer @ 60: 50:60 g per plant. - Remove all unwanted leaves, branches and weed near to the plant.
Pineapple	**Harvest stage**		- A basal golden yellow coloration at the base is the sign of a ripe fruit. - Fresh fruits destined for the local market are plucked when almost ripe. - Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative**		- Remove unwanted plant near base of

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	stage		the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application Weeding can be done by hoeing as and when necessary. Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. Harvest all mature fruit.
		Fruit fly and	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.
Okra	**Vegetative to flowering stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Harvest all mature fruit.
		Okra leafroller	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found

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			beneficial for both reducing the weed and increasing the yield. Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea. Harvest all mature fruit.
		Shoot and fruit borer and	Collect and destroy infected parts of the plant. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		Select disease free seedling with 3-5 leaf stage. Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.
Pre kharif Rice	**Maximum tillering stage**		Remove unwanted plant by hand weeding. Apply split dose of fertilizer. Proper drainage is required to avoid water logging
		Rice yellow stem borer	Cut leaf tip from the seedling. Collect and destroy infected parts of the plant. 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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Maize	**Tassling and silking stage**		✚ Remove unwanted plant near base of the plant and cut dead branches. ✚ Earting up of soil along with fertilizer mixture. ✚ Apply split dose of fertilizer.
		Maize cob borer	✚ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✚ Remove unwanted plant near base of the plant and cut dead branches. ✚ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✚ Earting up of soil along with fertilizer mixture.
		Turmeric shoot borer	✚ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✚ Remove unwanted plant from the base of the plant. ✚ Earthing up near base of the plant. ✚ Remove all infected pant and burn it.
		Aphid and bug	✚ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every

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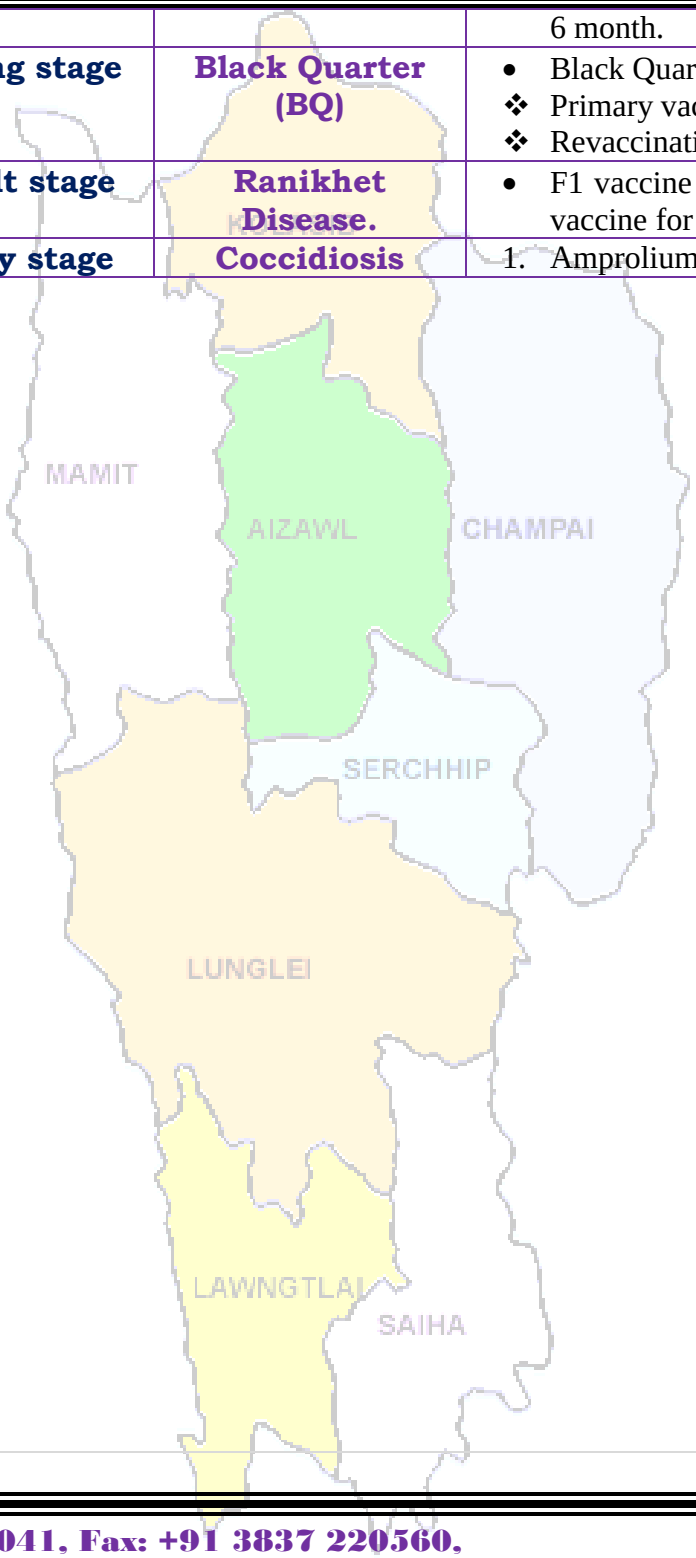
			6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Champhai **Period: 13 July - 17 July, 2016**

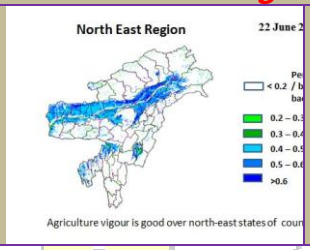
Bulletin No: - 618/2016/ Bulletin/English **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	5	5	5	10	5
Max Temp (ºC)	32	31	31	30	30
Min Temp (ºC)	24	24	24	24	24
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy
Max RH (%)	98	97	99	99	98
Min RH (%)	76	74	71	86	80
Wind Speed (KmpH)	2	3	2	2	3
***Wind Direction**	S	S	S	S	S

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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days	Weather forecast valid from 13th June, 2016 To 17th June, 2016.
The temperature range for maximum and minimum were 24.1-27.8ºC and 17.4-20.1ºC respectively. Mainly cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 95-97% & minimum of 71-86%. Rainfall recorded for the past three days is **09.10 mm. (Source-mosdac.gov.in)**	There are chances of moderate to light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 30-32ºC and 24ºC. Maximum relative humidity is expected in the range of 97-99% and minimum may from 71-86%. Wind direction would be southerly with the wind speed of 2-3 km per hour. Mainly cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:* 30.0 mm**
NDVI for Mizoram	 NDVI of soil moisture for Mizoram is moderate wet condition.

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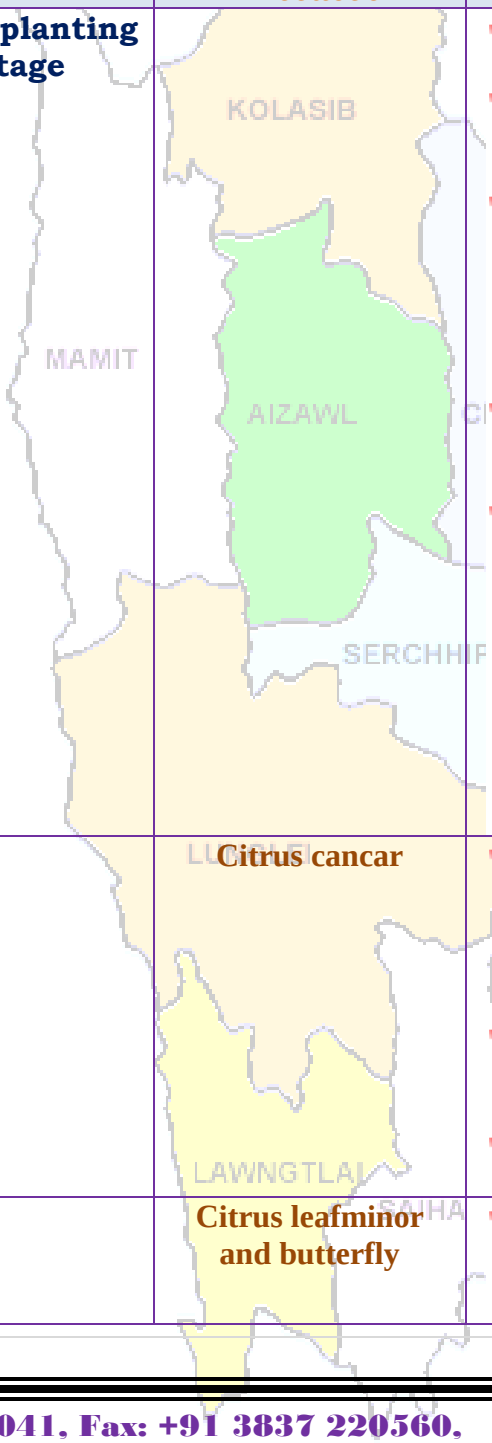
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplanting stage**		✦ Citrus trees should be planted in a sunny and wind-protected area. ✦ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ✦ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ✦ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ✦ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	✦ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection. ✦ Control minor infections limited to a small area of the tree by pruning away the affected parts. ✦ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which

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			coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of

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			fruit drop off easily. The top most leaf starts drying as the bunch matures. Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		Trail semi hard wood stem to bower structure Clean near the base of the plant. In dry spell apply mulch with grass. Trellises are in the north-south direction to minimize the shades during early morning and late evening. Young vines are trained to grow along the wire support of the trellises.
		Aphid	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. The flowering emergence will come out after 55-60 days after chemical spraying. Apply split doses of fertilizer @ 60: 50:60 g per plant. Remove all unwanted leaves, branches and weed near to the plant.
Pineapple	**Harvest stage**		A basal golden yellow coloration at the base is the sign of a ripe fruit. Fresh fruits destined for the local market are plucked when almost ripe. Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative**		Remove unwanted plant near base of

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	stage		the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application Weeding can be done by hoeing as and when necessary. Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. Harvest all mature fruit.
		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.
Okra	**Vegetative to flowering stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Harvest all mature fruit.
		Okra leafroller	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found

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			beneficial for both reducing the weed and increasing the yield. Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea. Harvest all mature fruit.
		Shoot and fruit borer	Collect and destroy infected parts of the plant. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		Select disease free seedling with 3-5 leaf stage. Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.
Pre kharif Rice	**Maximum tillering stage**		Remove unwanted plant by hand weeding. Apply split dose of fertilizer. Proper drainage is required to avoid water logging
		Rice yellow stem borer	Cut leaf tip from the seedling. Collect and destroy infected parts of the plant. 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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Maize	**Tassling and silking stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earting up of soil along with fertilizer mixture. ✦ Apply split dose of fertilizer.
		Maize cob borer	✦ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✦ Earting up of soil along with fertilizer mixture.
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Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✦ Remove unwanted plant from the base of the plant. ✦ Earthing up near base of the plant. ✦ Remove all infected pant and burn it.
		Aphid and bug	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every

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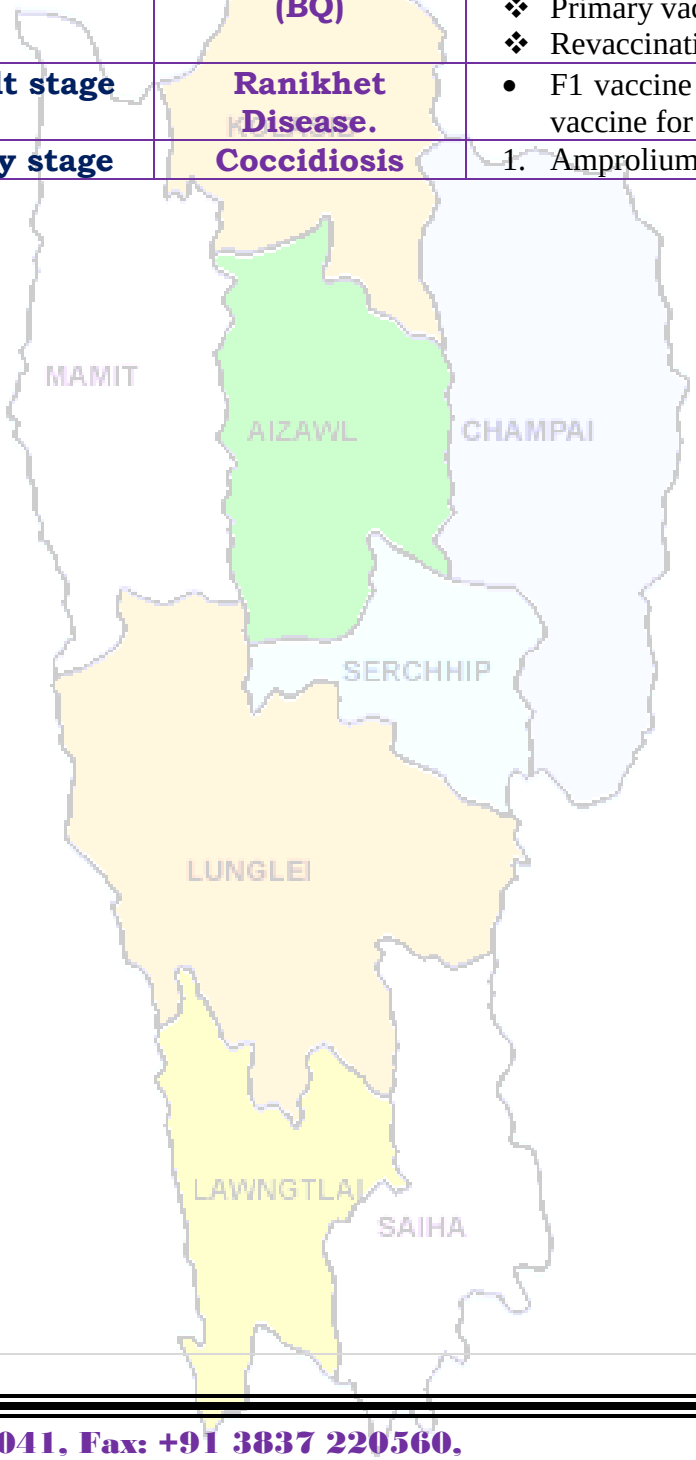
			6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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ICAR RESEARCH COMPLEX FOR NEH REGION

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

District: Champhai **Period:** 13 July - 17 July, 2016

Bulletin No: - 618/2016/ Bulletin/Mizo **Date of issue:** 12th July, 2016

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	5	5	5	10	5
Max Temp (oC)	32	31	31	30	30
Min Temp (oC)	24	24	24	24	24
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy
Max RH (%)	98	97	99	99	98
Min RH (%)	76	74	71	86	80
Wind Speed (KmpH)	2	3	2	2	3
*Wind Direction	S	S	S	S	S

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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	Champhai- 239.49mm (250.30mm)	Saiha- 109.52 mm (87.2mm)	Kolasib- 352.38mm (380.9mm)
Lawngtlai-321.51mm (285.5mm)	Lunglei-344.00mm (186.21mm)	Mamit-449.48mm (442.80mm)	Serchhip-411.72mm (259.63mm)

Ni thum kaltha sik leh sa dinhmun tlangpui

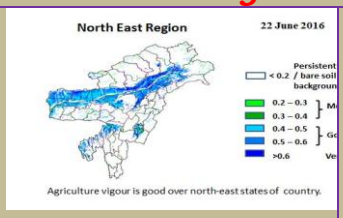
Khua a lum lai berin 24.1-27.8^{0}C leh a vawh lai berin 17.4-20.1^{0}C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 95-97% leh a hniam lai 71-86% ani ang. Ni 3 kal ta chhung a ruah tla zatchu **09.10 mm** ani. **(Source- Mosdac.gov.in)**

July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan

Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 30-32^{0}C a ni ang a.A vawh lai ber in 24^{0}C ni tur ah beisei a ni.RH san lai berin 97-99% leh a hniam lai berin 71-86% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 2-3 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.

Weekly cumulative rainfall: **30.0mm**

NDVI for Mizoram



NDVI of soil moisture for Mizoram is moderate wet condition.

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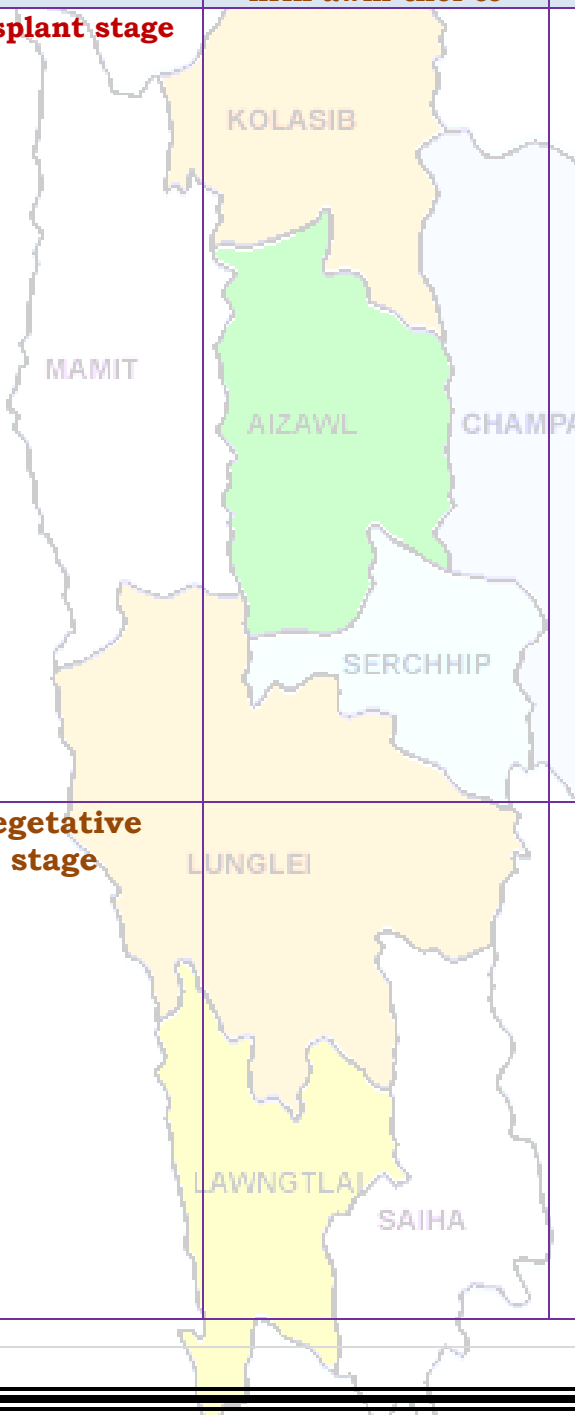
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur.

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			✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		✦ Balhla kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. ✦ A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		✦ A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. ✦ A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. ✦ Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. ✦ Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in

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			kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✦ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✦ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✦ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✦ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✦ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✦ Ni 7 danah tui chu tha taka pek tur. ✦ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✦ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur.** **2. Phunsawn hnuah tui tha taka pek tur.**	✦ A kung bulthut ah hnim chheh darh tur. ✦ A khat tawkin tui pek tur. ✦ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✦ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✦ Balu leh leitha chu lei nen a chawhpawlh hnu in 75-100cm a

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			zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim chin hma in lei nen tihpawlh

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			tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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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: Kolasib **Period: 13 July - 17 July, 2016**

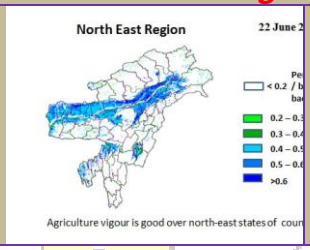
Bulletin No: - 618/2016/ Bulletin/English **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	4	3	12	3
Max Temp (ºC)	32	30	30	29	29
Min Temp (ºC)	24	25	25	25	25
Cloud Coverage	Mainly cloudy	Partially clear	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	96	96	96	99	99
Min RH (%)	70	76	73	75	84
Wind Speed (KmpH)	2	5	4	4	4
***Wind Direction**	S-E	S-E	S	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- June 1-30, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 384.87mm (430.2mm)	Champhai- 105.48mm (359.89mm)	Saiha- 307.40 mm (507.7mm)	Kolasib- 236.00mm (428.1mm)
Lawngtlai-291.20mm (453.1mm)	Lunglei-326.00mm (465.14mm)	Mamit-204.87mm (442.80mm)	Serchhip-411.72mm (259.62mm)

Weather summary of the past three days	Weather forecast valid from 13th June, 2016 To 17th June, 2016.
The temperature range for maximum and minimum were 29.0-30.1ºC and 22.5-23.1ºC respectively. Mainly cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 91-99% & minimum of 83-92%. Rainfall recorded for the past three days is **21.40 mm. (Source-mosdac.gov.in)**	There are chances of moderate to light rainfall during the next 5 days. The maximum and minimum temperatures for the next 5 days may range for 29-32ºC and 24-25ºC. Maximum relative humidity is expected in the range of 96-99% and minimum may from 70-84%. Wind direction would be southeasterly to southerly and southeasterly with the wind speed of 2-5 km per hour. Mainly cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:* 25.0 mm**
NDVI for Mizoram	 NDVI of soil moisture for Mizoram is moderate wet condition.

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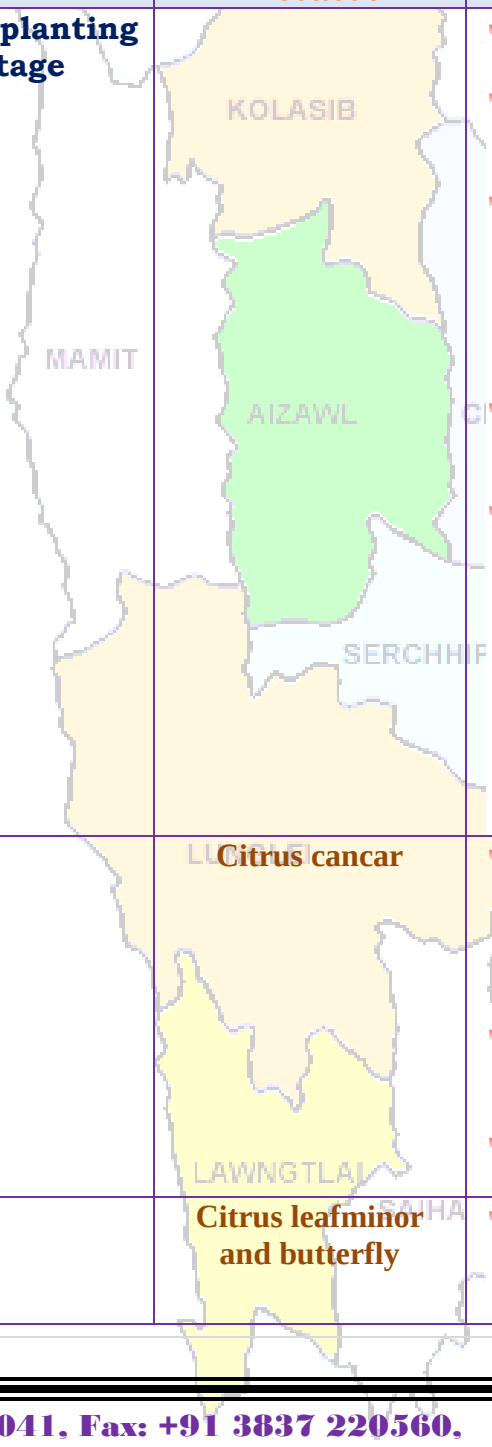
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplanting stage**		✦ Citrus trees should be planted in a sunny and wind-protected area. ✦ In the citrus belt, trees can be planted at any time, however, spring is the best time for container grown plants. ✦ Standard-size trees should be spaced 12 to 25 feet apart and dwarf trees should be set 6 to 10 feet apart. The exact distance depends on the variety. The bigger the fruit, the farther the distance. ✦ If the soil is not well-drained, plant the trees on a slight mound to prevent water logging. ✦ To plant citrus trees inside from seeds, remove the seeds from the desired fruit. Soak the seeds overnight in water and plant them ½ inch deep in moist potting soil. Cover the pot with a plastic bag or wrap and let it sit in a warm and sunny spot for a few weeks until the seeds start to grow. Then, remove the plastic but keep the pot near a warm and sunny window.
		Citrus cancar	✦ Copper- based fungicides Copper Oxy Chloride 50%WP @ 2g/lt or bactericides Blitox 50 WG @ 0.01g/lt can provide a barrier against infection, but they will not treat an existing infection. ✦ Control minor infections limited to a small area of the tree by pruning away the affected parts. ✦ Severely infected trees should be destroyed to prevent infecting healthy trees nearby.
		Citrus leafminor and butterfly	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which

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			coincides with I Fortnight of July.
Oil plam	**Vegetative stage**		✦ Cleaning near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Flowering stage**		✦ Clear near base of the plant and cut unwanted branches. ✦ Application of split dose of fertilizer 600: 200:100 (g/pt). ✦ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.
		Banana Rhizome weevil	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml /l at 50% egg hatching stage when 1st instars predominate which coincides with I Fortnight of July.
		Banana panama wilt	✦ Use disease free planting material. Roughing of infected plant and destroy them. Removing of excess male buds prevent disease spread. Disinfect the farm equipments.
Banana	**Maturity stage**		✦ Fruits usually mature in 120 to 140 days after flowering. ✦ The fruit bunch is harvested when the ridges on their surface changes from angular to round. ✦ The dried parts of flowers at the top of

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			fruit drop off easily. - The top most leaf starts drying as the bunch matures. - Colour of fruits or fingers changes from dark green to pale green.
		Banana fruit caterpillar	- Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Passion Fruit	**Vegetative stage**		- Trail semi hard wood stem to bower structure - Clean near the base of the plant. - In dry spell apply mulch with grass. - Trellises are in the north-south direction to minimize the shades during early morning and late evening. - Young vines are trained to grow along the wire support of the trellises.
		Aphid	- Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pineapple	**Flowering stage**		- Apply flowering inducing chemical (Ethrel 10 PPM+2% urea+0.04% Sodium Carbonate) should be applied in the heart of the plant. In evening and only when plants have at least 32 leaves. - The flowering emergence will come out after 55-60 days after chemical spraying. - Apply split doses of fertilizer @ 60: 50:60 g per plant. - Remove all unwanted leaves, branches and weed near to the plant.
Pineapple	**Harvest stage**		- A basal golden yellow coloration at the base is the sign of a ripe fruit. - Fresh fruits destined for the local market are plucked when almost ripe. - Fresh pineapples destined for export are harvested green-ripe (beginning to turn yellow-green at the base of the fruit).
Colocasia	**Vegetative**		- Remove unwanted plant near base of

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	stage		the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Cucurbitaceous crop	**Harvesting stage**		Apply a dose of 100:200:100 gm NPK/plant throughout the cropping period through split application Weeding can be done by hoeing as and when necessary. Fruit rot during rainy season can be checked by training the plants over the bamboo stick or dried branches. Harvest all mature fruit.
		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.
Okra	**Vegetative to flowering stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Harvest all mature fruit.
		Okra leafroller	Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Cowpea	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found

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			beneficial for both reducing the weed and increasing the yield. Harvest all mature fruit.
Brinjal	**Fruit initiation to harvest**		Remove unwanted plant near base of the plant and cut dead branches. Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea. Harvest all mature fruit.
		Shoot and fruit borer	Collect and destroy infected parts of the plant. Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
		Brinjal leaf beetle	Apply contact insecticide like Acephate (Orthene), carbaryl (Sevin), fipronil (Over 'N Out), pyrethrins @ 1 to 1.5 ml/lt of water.
Kharif Rice	**Transplanting stage**		Select disease free seedling with 3-5 leaf stage. Treat seedling with Bavistin 50 WP @ 0.1% (2 g/lt) solution. Under good management and adequate nitrogen levels, the optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. Remove the tip of rice seedling which reduces stem borer infestation.
Pre kharif Rice	**Maximum tillering stage**		Remove unwanted plant by hand weeding. Apply split dose of fertilizer. Proper drainage is required to avoid water logging
		Rice yellow stem borer	Cut leaf tip from the seedling. Collect and destroy infected parts of the plant. 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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Maize	**Tassling and silking stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earting up of soil along with fertilizer mixture. ✦ Apply split dose of fertilizer.
		Maize cob borer	✦ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Ginger and turmeric	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✦ Earting up of soil along with fertilizer mixture.
		Turmeric shoot borer	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Kharif pulses (Green gram, Black gram and Rajma)	**Flower initiation stage**		✦ Remove unwanted plant from the base of the plant. ✦ Earthing up near base of the plant. ✦ Remove all infected pant and burn it.
		Aphid and bug	✦ Apply insecticide like imidacloprid 0.5 ml or phosolone 1.5 ml or acephate 1.0 g or dimethoate 2 ml/lt of water.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every

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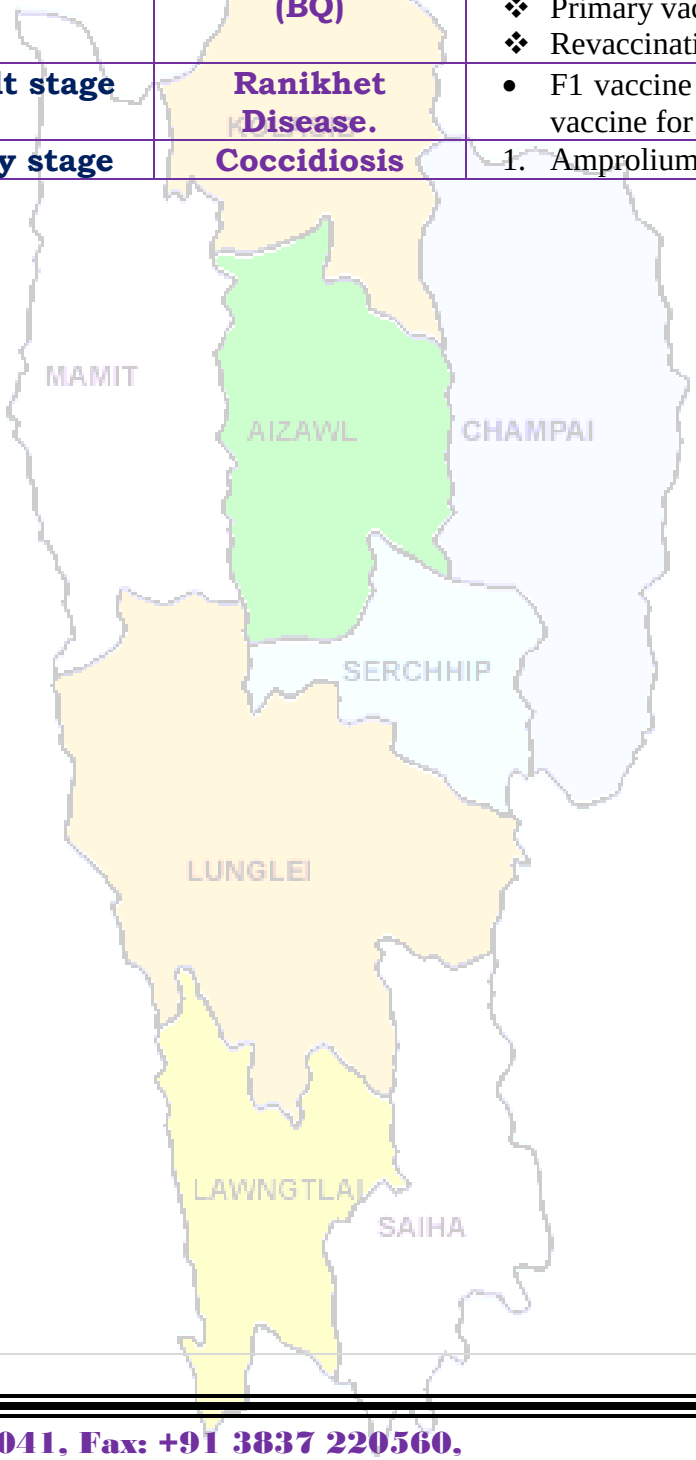
			6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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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: Kolasib **Period: 13 July - 17 July, 2016**

Bulletin No: - 618/2016/ Bulletin/Mizo **Date of issue: 12th July, 2016**

Parameters	13.07.2016	14.07.2016	15.07.2016	16.07.2016	17.07.2016
Rainfall (mm)	3	4	3	12	3
Max Temp (oC)	32	30	30	29	29
Min Temp (oC)	24	25	25	25	25
Cloud Coverage	Mainly cloudy	Partially clear	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	96	96	96	99	99
Min RH (%)	70	76	73	75	84
Wind Speed (KmpH)	2	5	4	4	4
***Wind Direction**	S-E	S-E	S	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- May 1-31, 2016 (*Percent of deviation from normal in parenthesis*)

Aizawl- 383.68mm (341.8mm)	Champhai- 239.49mm (250.30mm)	Saiha- 109.52 mm (87.2mm)	Kolasib- 352.38mm (380.9mm)
Lawngtlai-321.51mm (285.5mm)	Lunglei-344.00mm (186.21mm)	Mamit-449.48mm (442.80mm)	Serchhip-411.72mm (259.63mm)

Ni thum kaltha sik leh sa dinhmun tlangpui

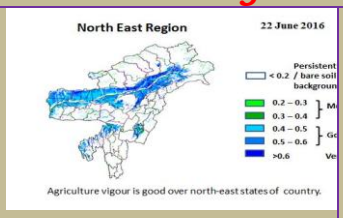
Khua a lum lai berin 29.0-30.1^{0}C leh a vawh lai berin 22.5-23.1^{0}C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 91-99% leh a hniam lai 83-92% ani ang. Ni 3 kal ta chhung a ruah tla zatchu **21.40 mm** ani. **(Source- Mosdac.gov.in)**

July 13, 2016 atanga July 17, 2016 sik leh sa dinhmun hmuhlawk dan

Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 29-32^{0}C a ni ang a.A vawh lai ber in 24-25^{0}C ni tur ah beisei a ni.RH san lai berin 96-99% leh a hniam lai berin 70-84% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 2-5 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.

***Weekly cumulative rainfall:* 25.0mm**

NDVI for Mizoram



NDVI of soil moisture for Mizoram is moderate wet condition.

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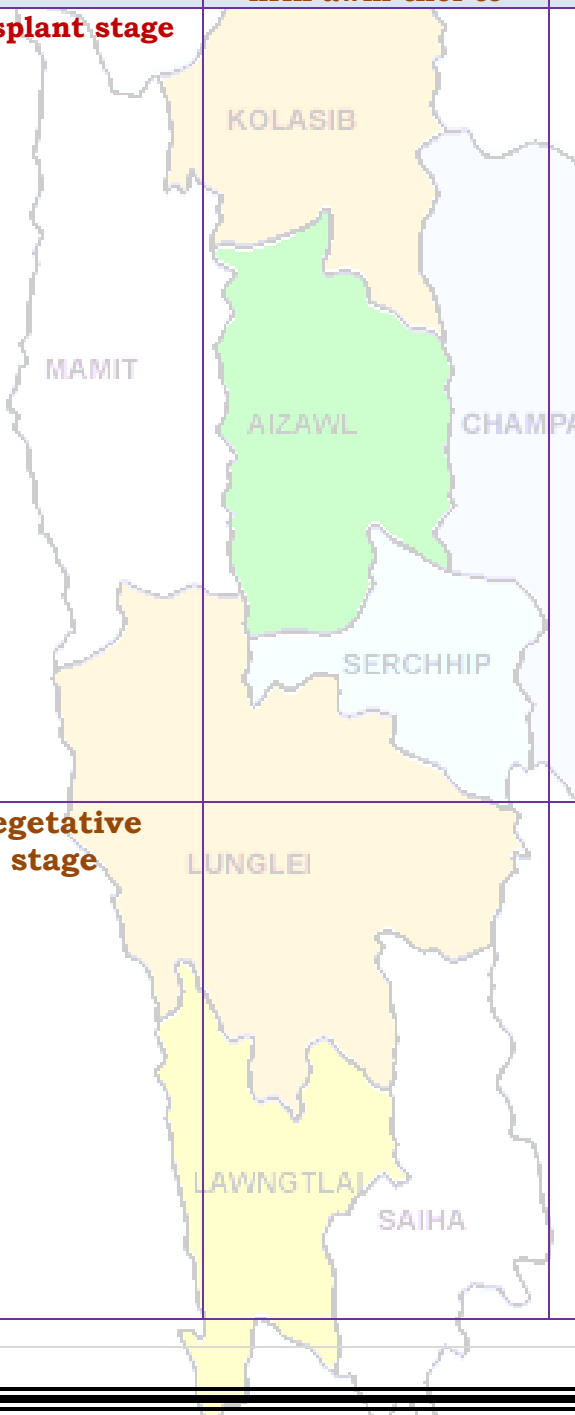
Thlai/ ran /sangha	Spat zawng	Hmalakna tur/ rannung leh natna hrik awm thei te	Agricultural/Horticultural/ animal husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		✦ A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. ✦ Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur. ✦ Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur. ✦ Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur. ✦ Certified thlai chi chauh hman tur. ✦ Ser kung bula tuitling chu paihfai vek tur. ✦ A tiak inchen tlang chauh phun atan hman tur. ✦ A zar tliak leh hnip chu paih fai zel tur. ✦ Thlai chu hrisel taka enkawl tur.
Oil palm	**Vegetative stage**		✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.. ✦ Oil palm kung bul chu tihfai a a zar thlak bawk tur.

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			✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ Oil palm rah chu a puitlin hunah te, a rawng inthlak hunah leh a thlum leh thur a pai tam hunah seng tur.
Balhla	**Flowering stage**		✦ Balhla kung bul chu tihfai a a zar thlak bawk tur. ✦ Leitha chu thlai pakhatah 600:200:100g a pek tur. ✦ Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi an mamawh tawka pek tur, a huan pum a chhiat vek loh nan ven that bawk tur. ✦ A zar thlak ngun hian rannung leh natna lakah a veng a, chubak ah leitha a hek lova, thlai thar a ti tam bawk ani. ✦ A rah chu a puitlin hunah leh a rawng eng a nih hunah seng tur.
		Comb weevil and stem weevil	✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.
Sapthei	**Transplanting stage**		✦ A chi chu a rah hmin tha atanga lak ni se, ni 15-20 hnuah nursery siam tur. ✦ A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur. ✦ Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur. ✦ Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in

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			kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		✚ A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. ✚ Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang. ✚ Leitha chu thlai pakhat ah 60:50:60g a pek tur. ✚ Thlai hnah leh a zar thi te chu paihfai a, hnim te tihfai bawk tur.
		Corm borer	✚ Carbofuran 3G chu hectare khatah 1.5kga.i a pek tur. Hemi hi a zung ah a tuina hnuhma a awmin pek tur
Cucurbitaceous crops	**A rah lai**		✚ Ni 7 danah tui chu tha taka pek tur. ✚ Huan zau thamah chuan fruitfly leh pumpkin beetle ven nan carbaryl 0.2% leh malathion 0.15% chu chini tui litre khatah 10g a pawlhin kar khat danah leh a par tan tirhah leh a rah tan hunah kah tur. ✚ Thlai pakhatah a par nasat lain urea chu 70g a pek tur.
Bawrhsaiabe	**A chin dan**	**1. Nursery tihfai a tui tlem pek tur. 2. Phunsawn hnuah tui tha taka pek tur.**	✚ A kung bulthut ah hnim chheh darh tur. ✚ A khat tawkin tui pek tur. ✚ A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur.
French bean	**A par lai**		✚ Bean hnah, a tang ro leh hnim te chu paihfai vek tur. ✚ Lei chu boruak kal that nan laihphut thin tur. ✚ A chin atanga ni 20-25 ah bean kung chu mau in a zamna siam tur.
Bawkbawn	**A chin dan**		✚ Balu leh leitha chu lei nen a chawhpawlh hnu in 75-100cm a

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			zau ah a phunna tur siam tur. A chinna lai chu Blue copper 100g tui litre 40 ah emaw formaldehyde nen a pawlhin leih tur. A chi chu 5cm a inhlat a tuh in lei pangngai a vur leh tur.
Tomato	**A chin dan**		Nursery tur chu lei dip tha darh leh tlema pawng tur (0.8m a zau leh 15cm a sei ni se). Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur.
Buh	**Nursery stage**	**Pre kharif rice**	A chi tha leh khat tha chauh hman tur. Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur. Bavistin 50WP @0.1% chu tui litre khatah 2g a pawlhin a chi chu chiah tur.
		Raised bed method	A chin na tur chu 10m a sei ni se, 1.25m a zau leh tui luanna tur 20-30cm a zau siam tur. Hei hian a chi kal ral mai mai tur a veng. Leitha pek hnu ah a chi damdawi a chiah te chu theh tur.
Vaimim	**A chin dan**		Lei chu vawi 2/3 laihphut phawt tur. A chi chu a line indawt a chin tur A chi chu kg khatah Thiram 4g a chiah tur. Hectare khatah buh chi chu 20-25kg hman tur. Bawngek leitha chu hectare khatah 5-10t chu 80:60:40kg N, P2O5 leh K20 hman tur. Vaimim chin hma in lei nen tihpawlh

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			tur. Nitrogen chu a dose chanve in a chin hnu ah pek tur, a bang 25% chu a hnu thlakhat ah leh a dang 25% chu a par hunah pek tur.
Sawhthing leh Aieng	**Land preparation**		✦ Thlai hnah, a tang ro leh hnim te chu paihfai vek tur. ✦ Lei chu boruak kal that nan laihphut thin tur. ✦ Nitrogen leitha chu an mamawh taw kanga pek tur.
		Thrips	✦ Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur.
		Scales	✦ Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur.
Vawk	**Kumtluanin**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. A natna vei vawk te chu thah a phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.
	A naupan lai	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQ) ✦ Thla ruk an tlin hunah vaccine lak tan tur. ✦ Kumkhat hnu ah vaccine pek leh tur.
Ar	**Kumtluanin**	**Ranikhet Disease.**	1. Ar note an pian hlimin F_1 vaccine pek tur a nia an puitlin hunah R_2B pek leh tur a ni.
		Coccidiosis	2. Amprolium emaw coccidiostat pek tur.

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