GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Kolasib **Period: 08 - 12 July, 2015**

Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	8	6	5	4	4
Max Temp (oC)	29	28	30	31	31
Min Temp (oC)	23	23	23	22	22
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	97	96	98	96
Min RH (%)	84	81	73	60	80
Wind Speed (KmpH)	2	4	2	2	2
***Wind Direction**	S-W	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Ni thum kaltha sik leh sa dinhmun tlangpui

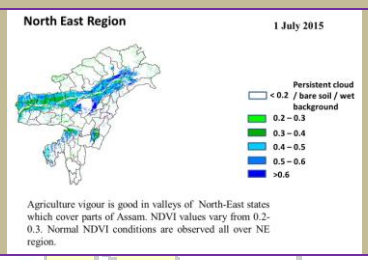
Khua a lum lai berin 29.3-33.0^{0}C leh a vawh lai berin 20.8-22.6^{0}C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 85-89% leh a hniam lai 58-62% ani ang. Ni 3 kal ta chhung a ruah tla zat chu **32.70mm** ani.

July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan

Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 28-31^{0}C a ni ang a.A vawh lai ber in 22-23^{0}C ni tur ah beisei a ni.RH san lai berin 96-99% leh a hniam lai berin 60-84% 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: **27.0mm**

NDVI for Mizoram



NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

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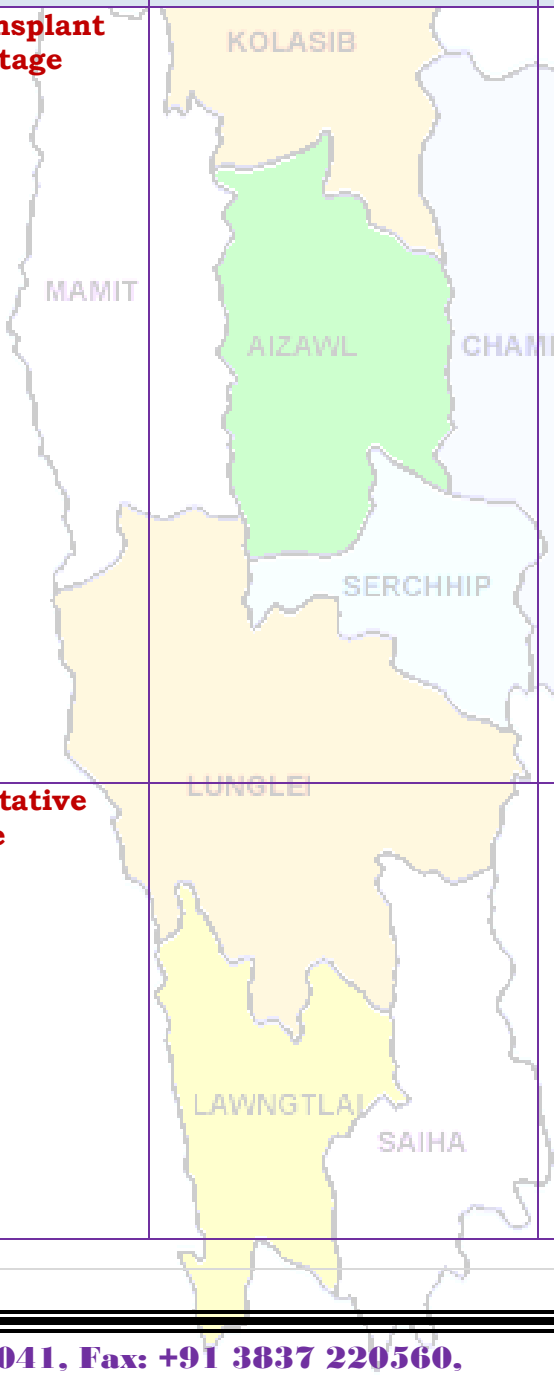
SPI for Mizoram		Extremely/Severely dry conditions experienced in Kolasib, Mizoram	
Thlai/ ran /sangha	**Spat zawng**	**Hmalakna tur/ rannung leh natna hrik awm thei te**	**Agricultural/Horticultural/ animal husbandry atana thurawn**
Khasi Mandarin and acid lime	**Transplant stage**		• A chi: A chi chu 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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight,

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		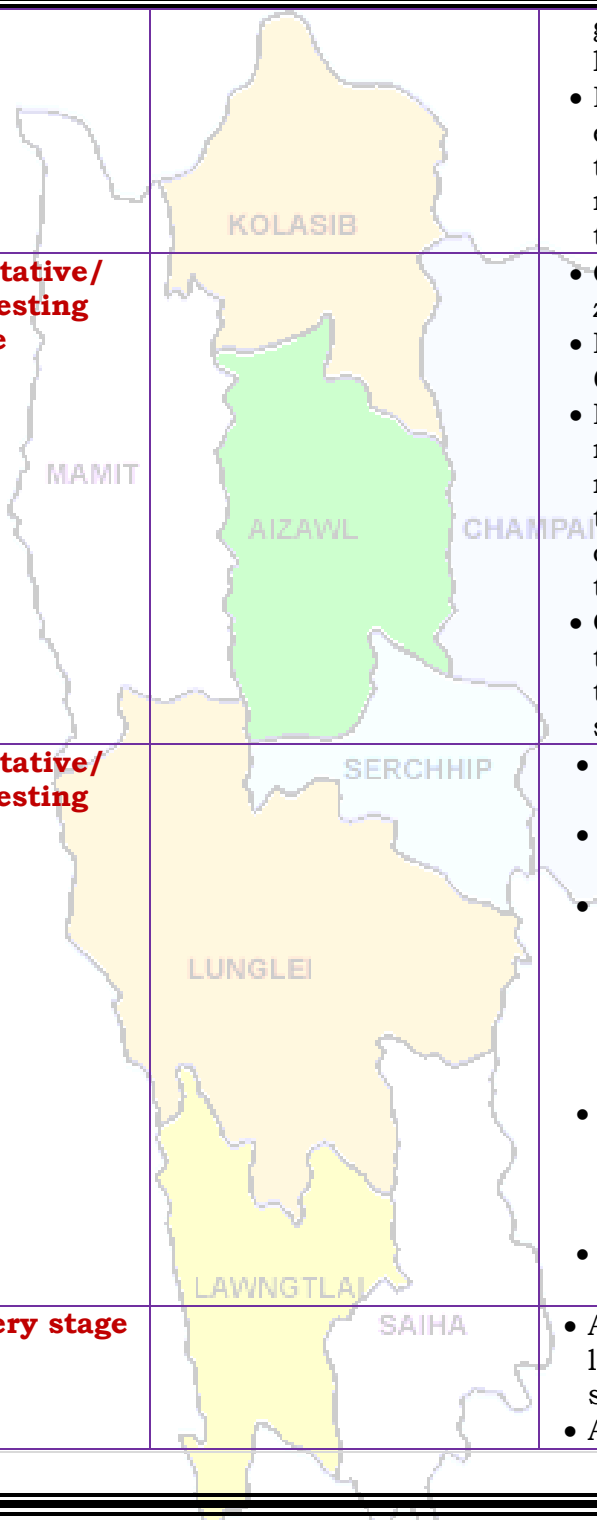	gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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

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			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 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid

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			200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur
		2. Flea beetle	• Pangang tui leh a puitling te chu a kung atangin thin thlak tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur.

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			• Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf blotch	• Tui litre khatah Dithane M-45 chu 2.5g emaw Bavistin chu 1g a pawlhin karkhat danah vawi 2/3 kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea

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			beetle a veng thei
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 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

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			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: Lawngtlai **Period:** 08 - 12 July, 2015

Bulletin No: -533/2015/ Bulletin/English **Date of issue:** 7th July, 2015

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Max RH (%)	97	95	94	95	96
Min RH (%)	87	74	69	78	79
Wind Speed (KmpH)	4	5	5	4	4
*Wind Direction	S-E	S-E	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.

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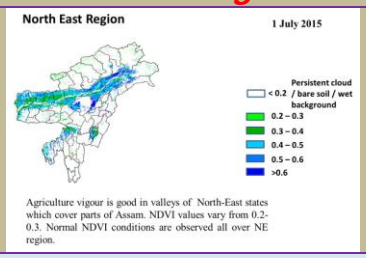
Weather summary of the past three days	Weather forecast valid from 08th July, 2015 To 12th July, 2015.
	There are chances of moderate to light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 29-30^{0}C and 22-23^{0}C. Maximum relative humidity is expected in the range of 94-97% and minimum may from 69-87%. Wind direction would be southeasterly with the wind speed of 4-5 km per hour. Partially cloudy sky will prevail during the next five days.
	Weekly cumulative rainfall: **25.0 mm**

NDVI for Mizoram		NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".



Main	Stage	Cultural practices/	Agricultural / Horticultural/

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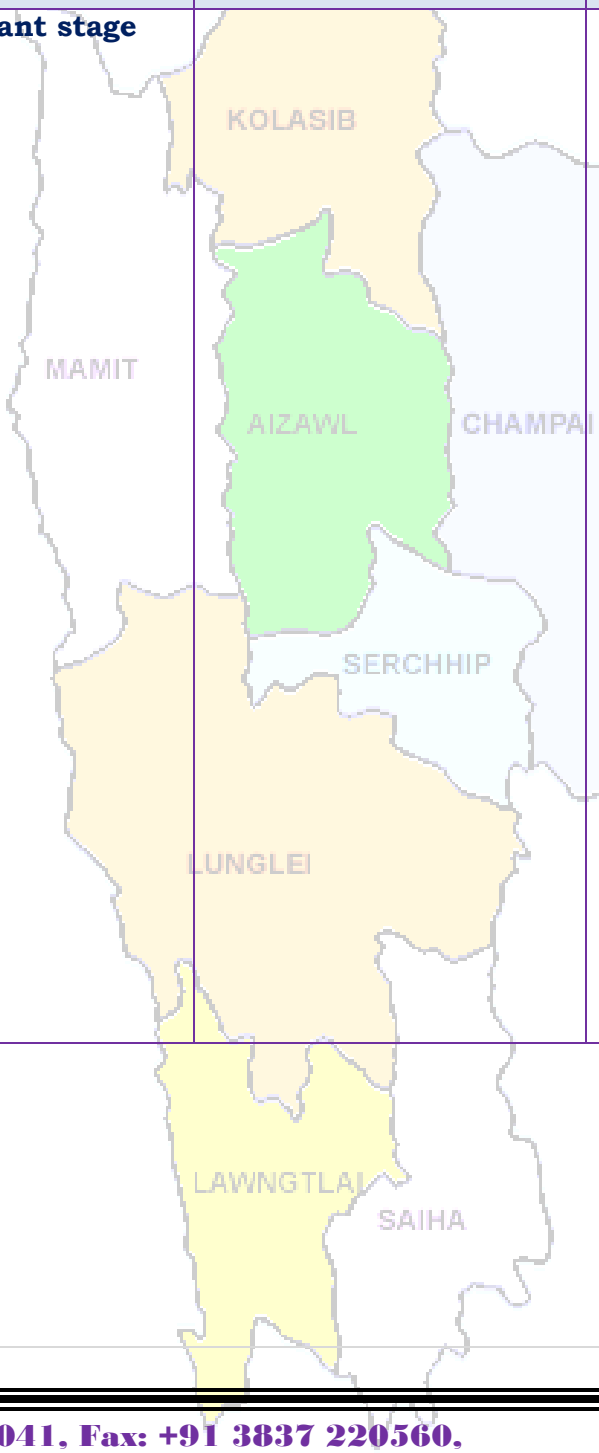
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		• Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. • This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. • Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops • Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.



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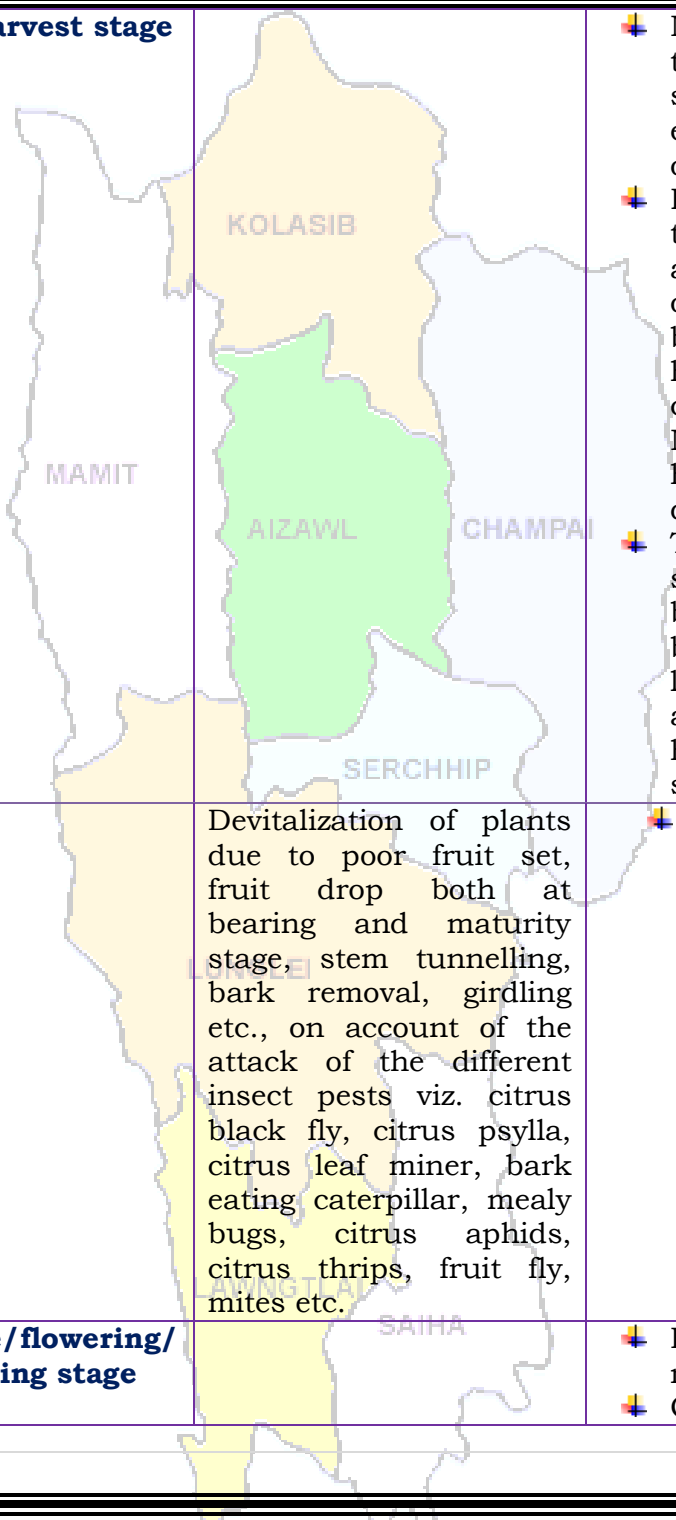
Khasi Mandarin and acid lime	**Flower/Harvest stage**		✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. ✦ Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	✦ Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		✦ Remove all dead plants and replace with healthy seedling. ✦ Cleaning near base of the

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		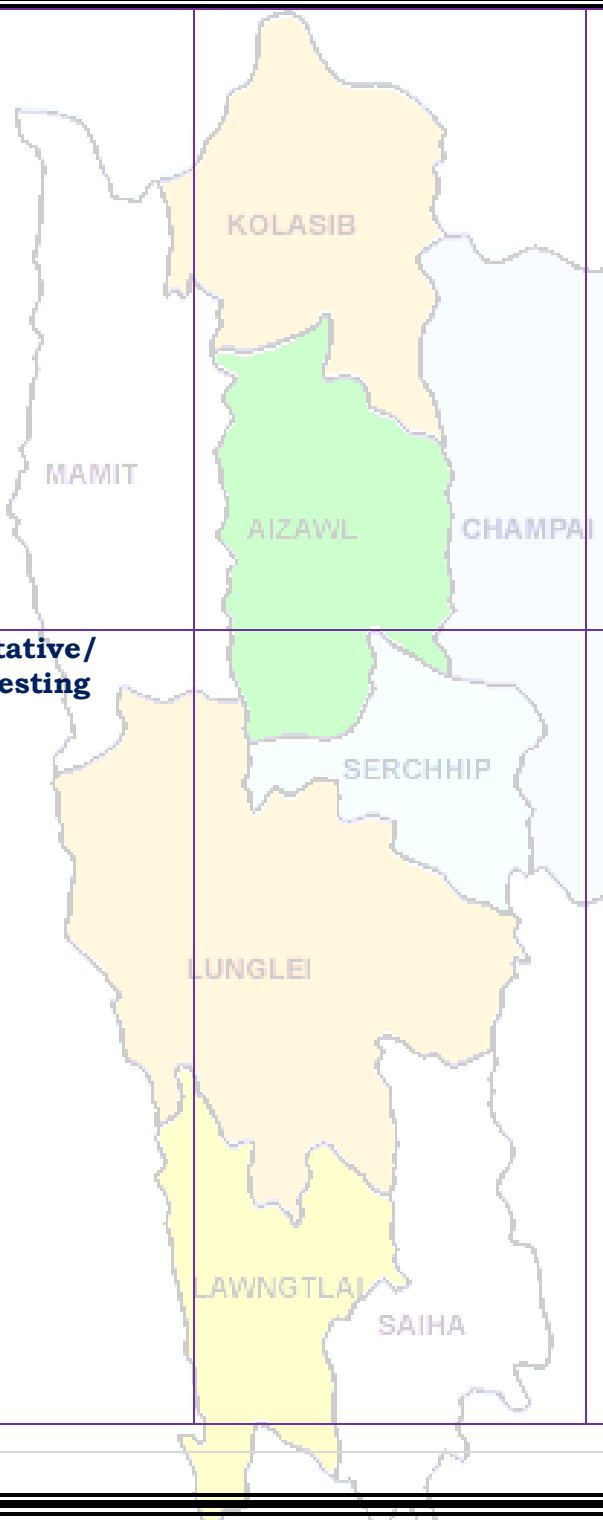	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		- 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. - Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. - Fruits are harvested when they attain full size, develop attractive yellow colour.

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		Comb weevil and stem weevil	▪ Applications of neem powder effectively controlled weevils. ▪ 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. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		▪ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned

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			from green to yellow. • When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. • Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		• It takes only about 10 days from the time of flowering to the time to pick okra. • Picking okra should be done when they are four to five inches long. • Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested

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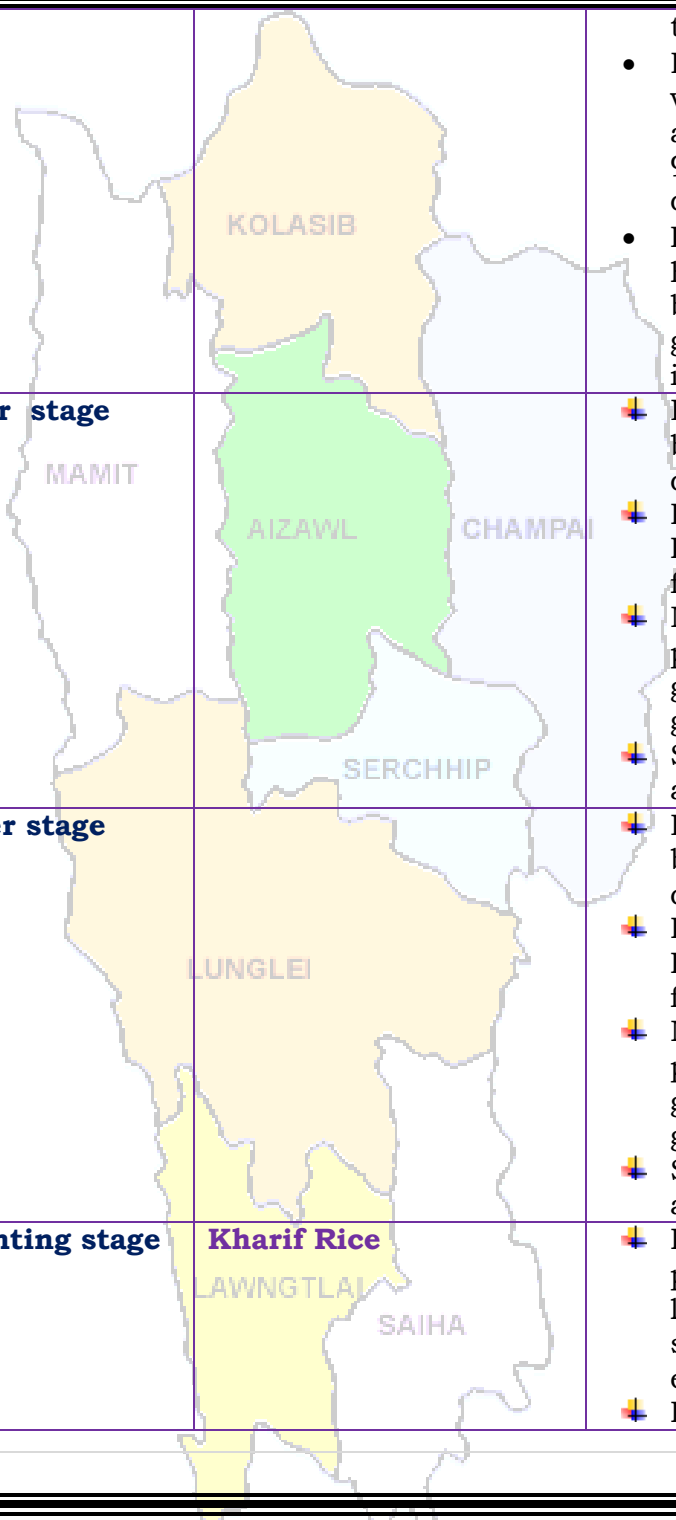
			twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ Remove unwanted plant 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.
Tomato	**Flower stage**		✦ 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.
Rice	**Transplanting stage**	**Kharif Rice**	✦ Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. ✦ Ploughing should be done 3-4



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		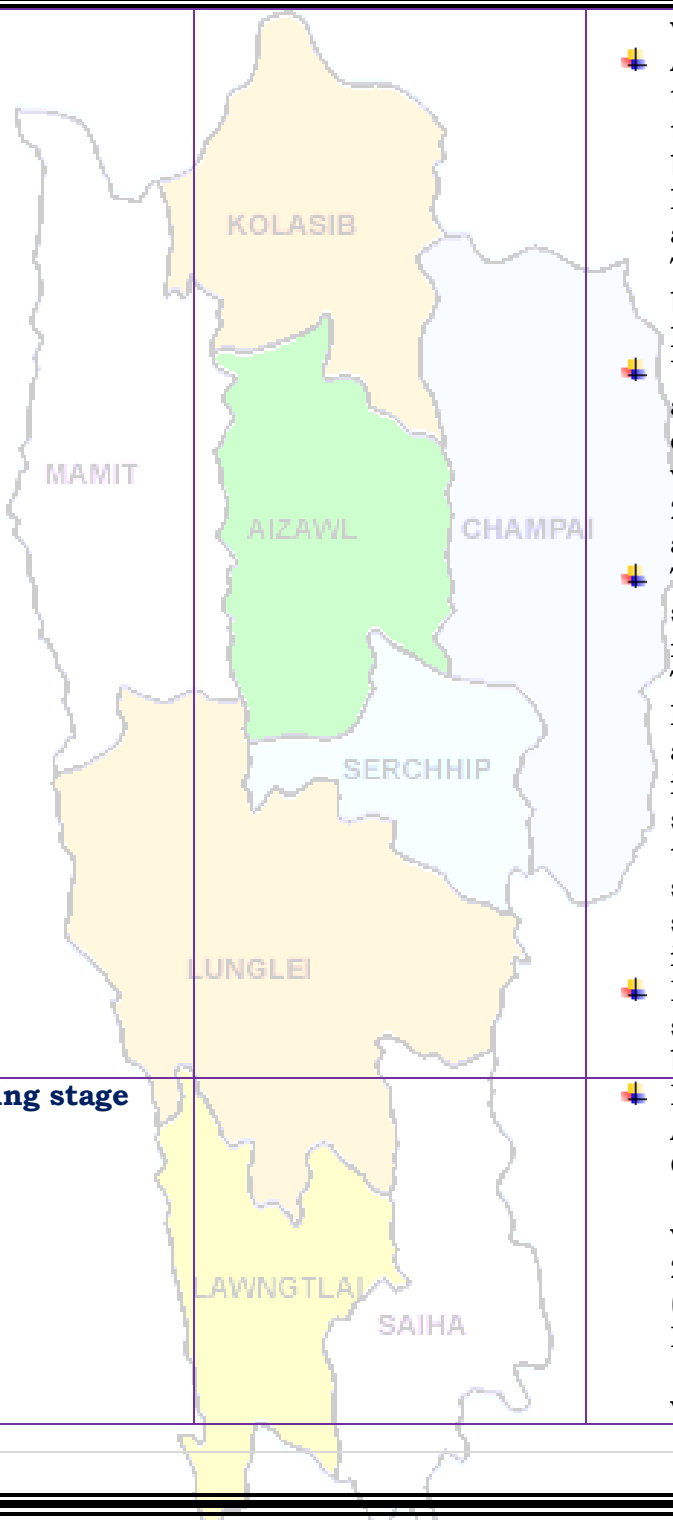	weeks prior to sowing. • After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. • Under good management and adequate nitrogen levels, the optimum 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. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. • Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		• 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

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			annual and broad leaved weeds. - Remove unwanted plant near base of the plant and cut dead branches. - Earting up of soil along with fertilizer mixture. - Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		- Land preparation or sowing in pits - Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. - Use PSB 2g/kg for better germination.
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.
		Thrips	- Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	- Spray Quinalphos or Monocrotophos (2.5 ml/lt) for

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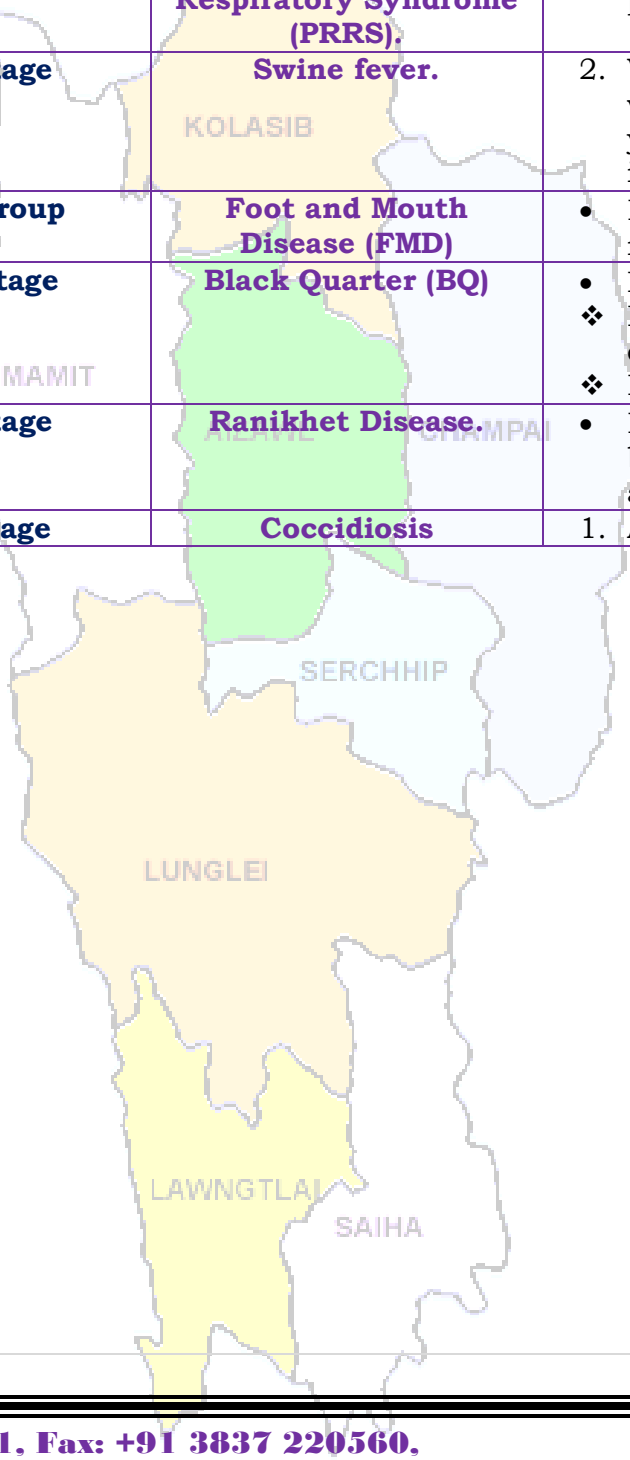
			controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	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: Lawngtlai **Period:** 08 - 12 July, 2015

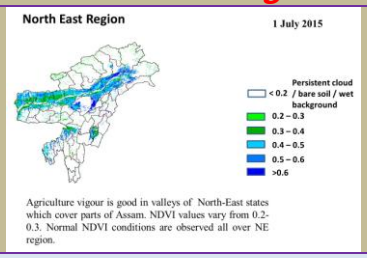
Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue:** 7th July, 2015

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	13	3	3	3	3
Max Temp (oC)	29	29	29	30	29
Min Temp (oC)	23	23	22	22	22
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	97	95	94	95	96
Min RH (%)	87	74	69	78	79
Wind Speed (KmpH)	4	5	5	4	4
*Wind Direction	S-E	S-E	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan
	Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 29-30^{0}C a ni ang a. A vawh lai ber in 22-23^{0}C ni tur ah beisei a ni.RH san lai berin 94-97% leh a hniam lai berin 69-87% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 4-5 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 and SPI	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Thlai/ ran	Spat zawng	Hmalakna tur/ rannung	Agricultural/Horticultural/ animal

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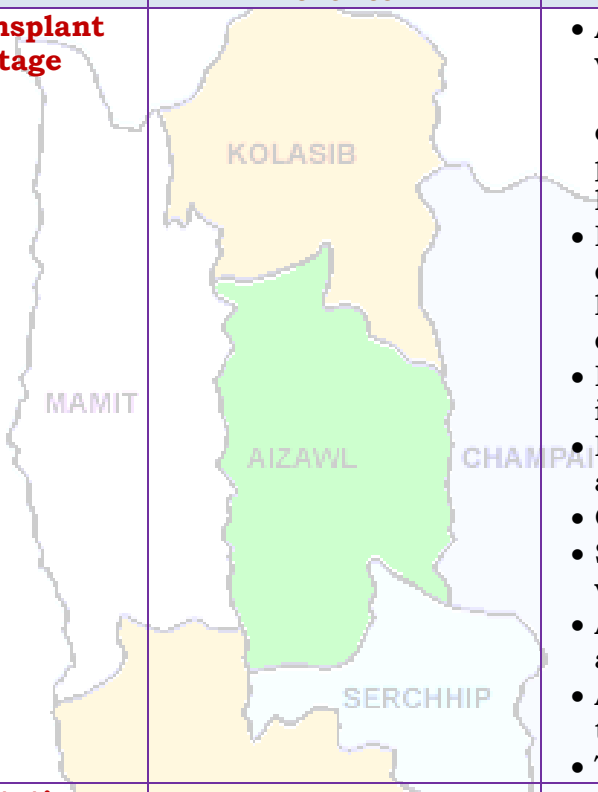
/sangha		leh natna hrik awm thei te	husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		• A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. • Nursery chu rannung 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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek

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		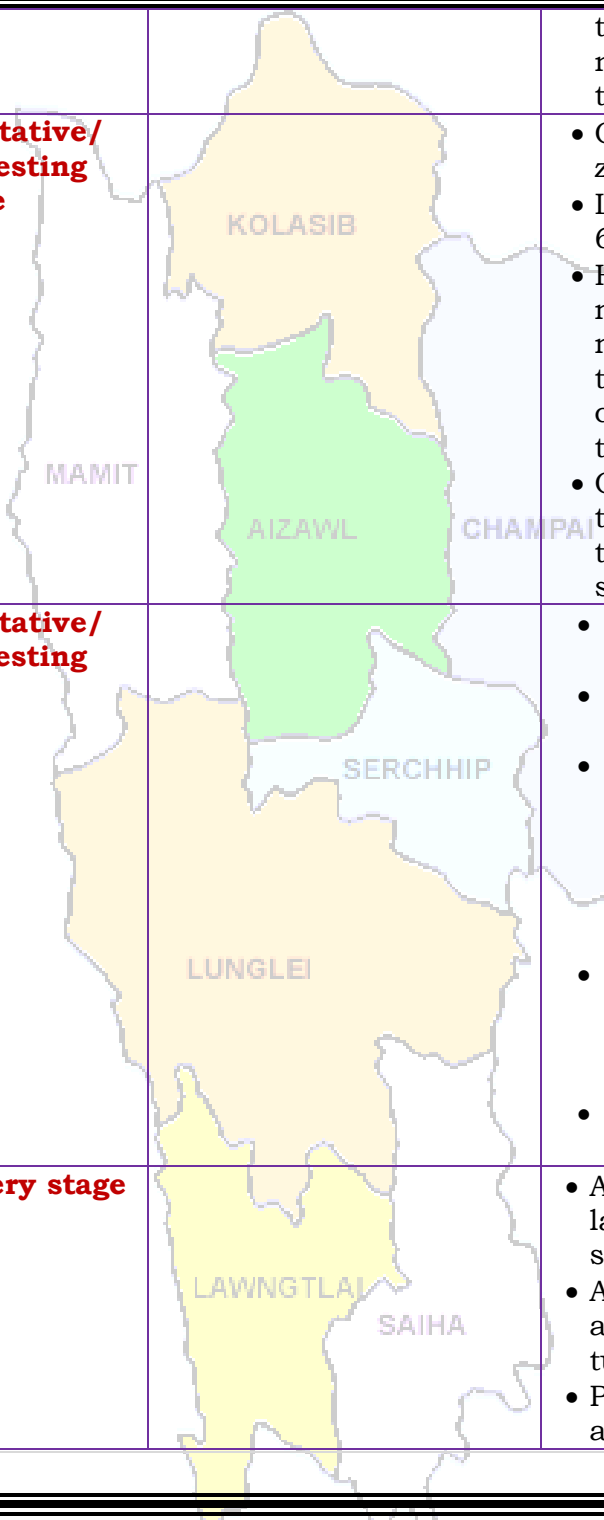	tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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.

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			• Bawngek leitha chu khur khat ah 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur
		2. Flea beetle	• Pangang tui leh a puitling te chu a

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			kung atangin thin thlak tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur. • Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf blotch	• Tui litre khatah Dithane M-45 chu 2.5g emaw Bavistin chu 1g a

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			pawlhin karkhat danah vawi 2/3 kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea beetle a veng thei
Buh	**Nursery stage**	**Pre kharif rice**	• A chi tha leh khat tha chauh hman tur. • Tui litre 10 ah chi (salt) 250g

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			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 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**	1. A natna vei vawk te chu thah a phum tur a ni.

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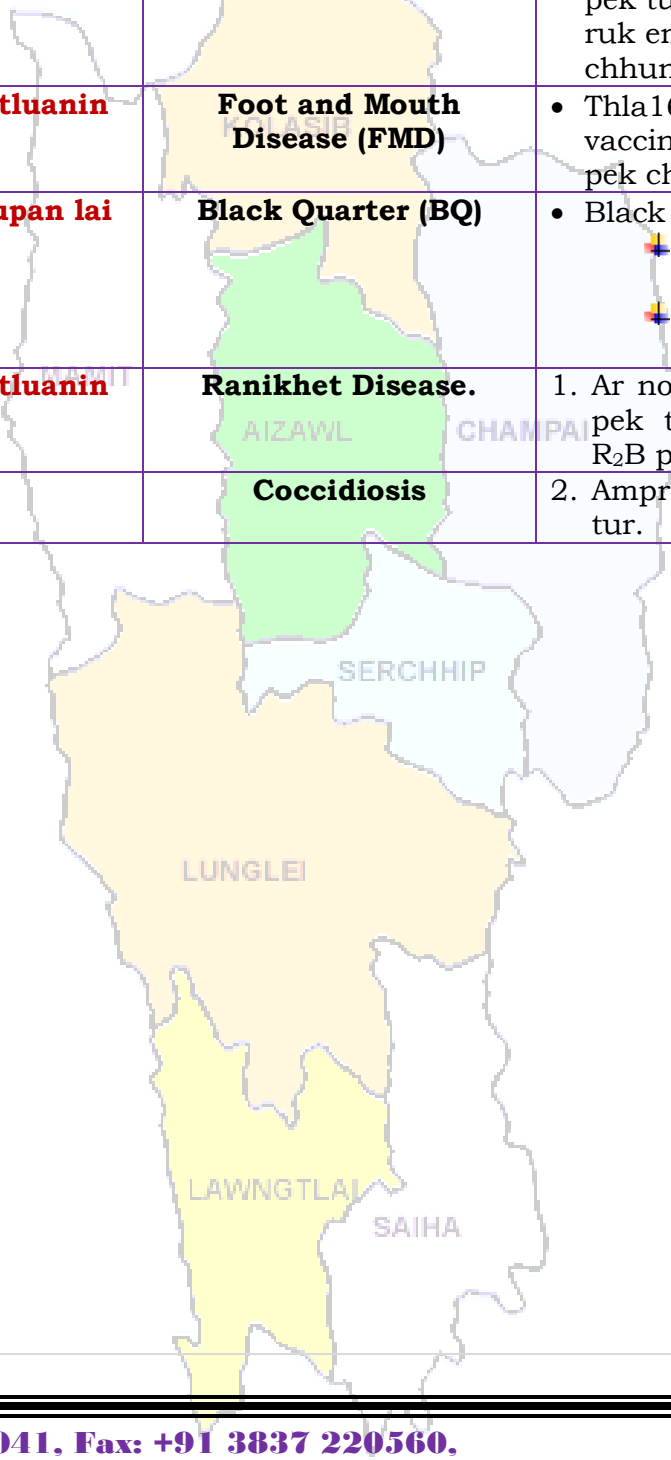
		(PRRS).	
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.

	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: 08 - 12 July, 2015**

Bulletin No: -533/2015/ Bulletin/English **Date of issue: 7th July, 2015**

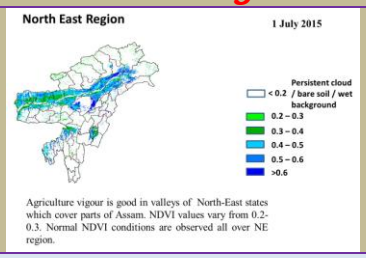
Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	19	0	0	0	4
Max Temp (oC)	29	28	28	30	29
Min Temp (oC)	22	22	21	21	21
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	97	98	97	98
Min RH (%)	88	82	77	83	79
Wind Speed (KmpH)	4	4	3	3	3
*Wind Direction	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Weather summary of the past three days	Weather forecast valid from 08th July, 2015 To 12th July, 2015.
	There are chances of moderate to light rainfall during the next 2 day. The maximum and minimum temperatures for the next 5 days may range for 28-30^{0}C and 21-22^{0}C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 77-88%. Wind direction would be southeasterly with the wind speed of 3-4 km per hour. Partially cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **23.0 mm**
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Main Stage	Cultural practices/	Agricultural / Horticultural/

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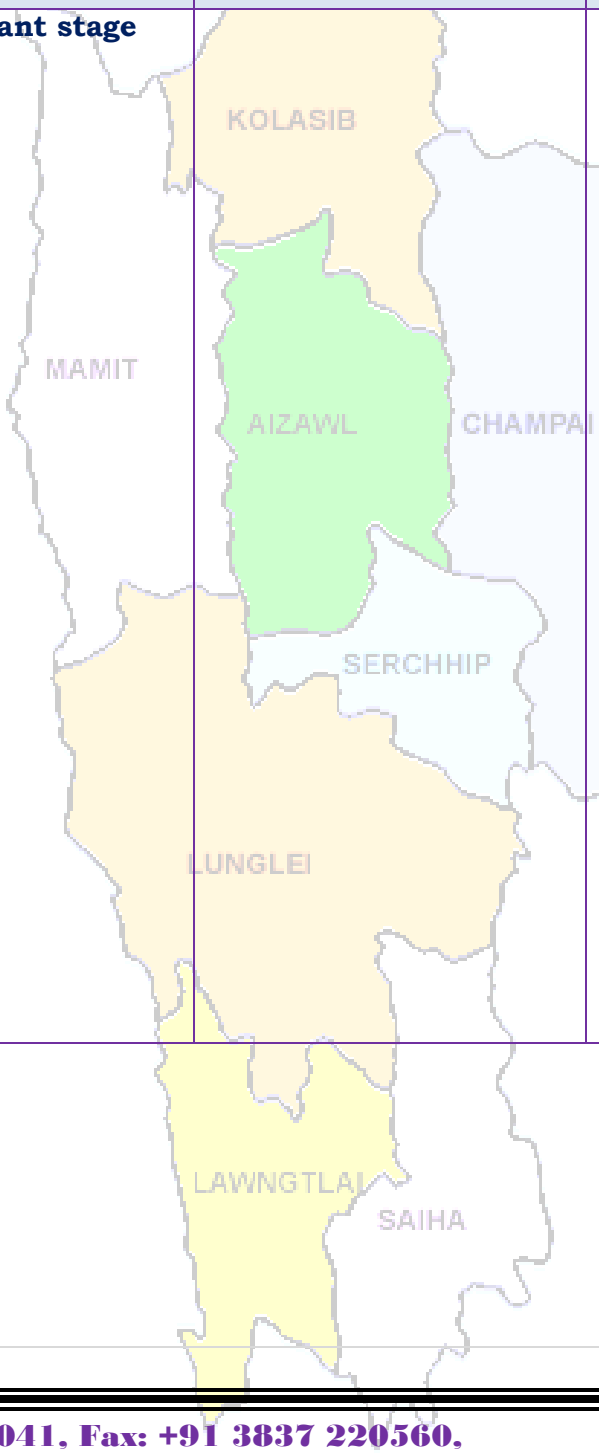
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		• Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. • This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. • Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops • Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.



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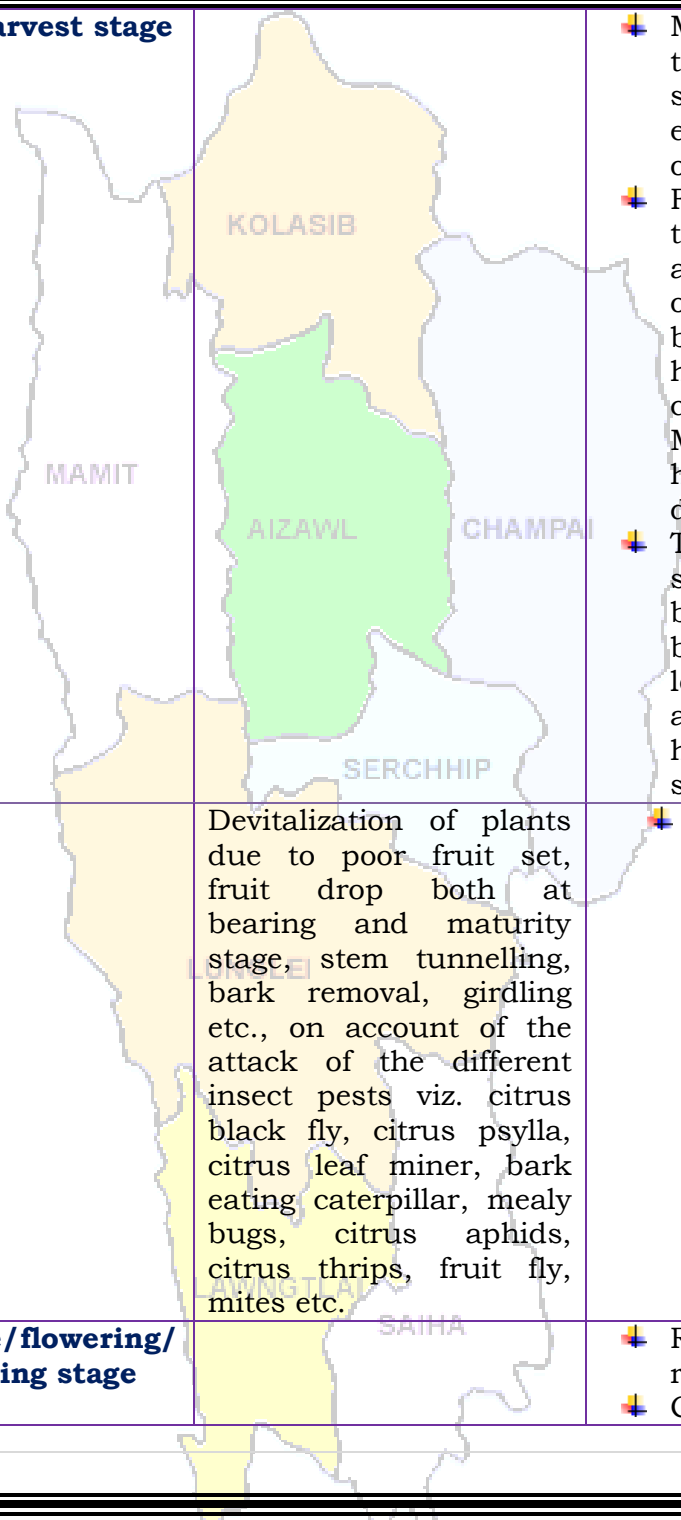
Khasi Mandarin and acid lime	**Flower/Harvest stage**		✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. ✦ Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	✦ Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		✦ Remove all dead plants and replace with healthy seedling. ✦ Cleaning near base of the

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		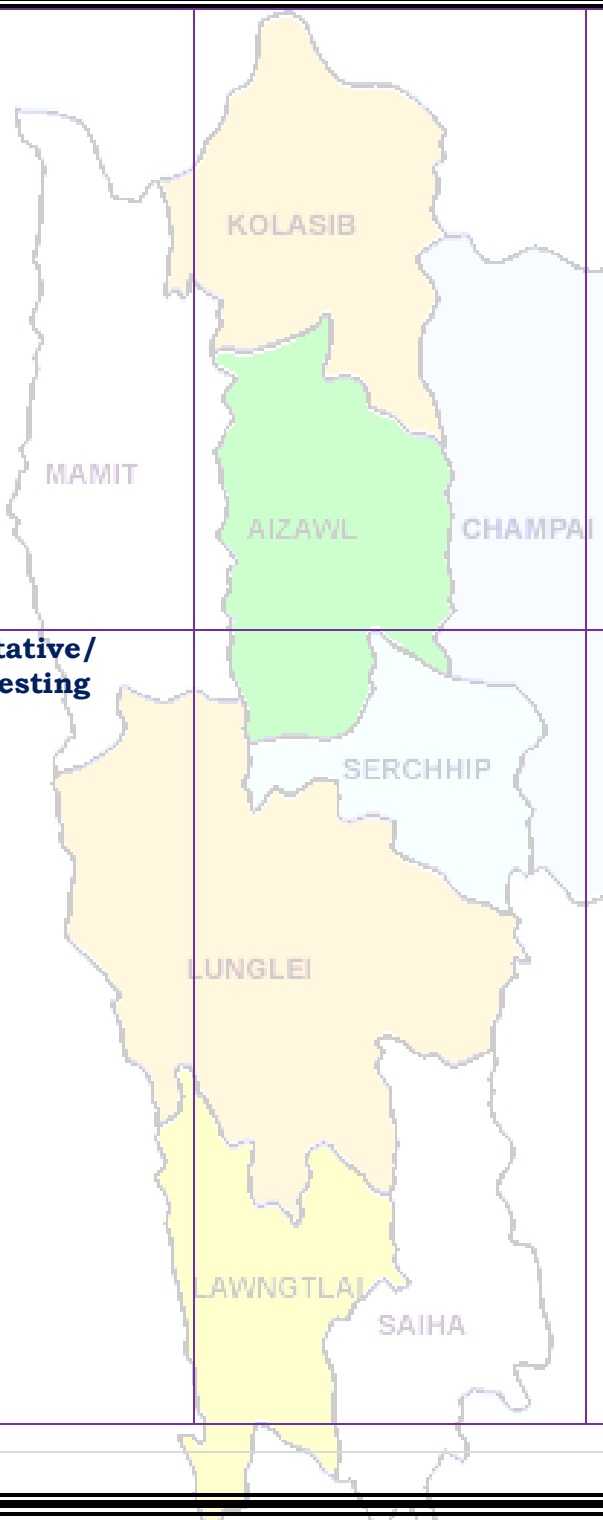	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		- 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. - Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. - Fruits are harvested when they attain full size, develop attractive yellow colour.

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		Comb weevil and stem weevil	▪ Applications of neem powder effectively controlled weevils. ▪ 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. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		▪ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned

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			from green to yellow. • When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. • Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		• It takes only about 10 days from the time of flowering to the time to pick okra. • Picking okra should be done when they are four to five inches long. • Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested

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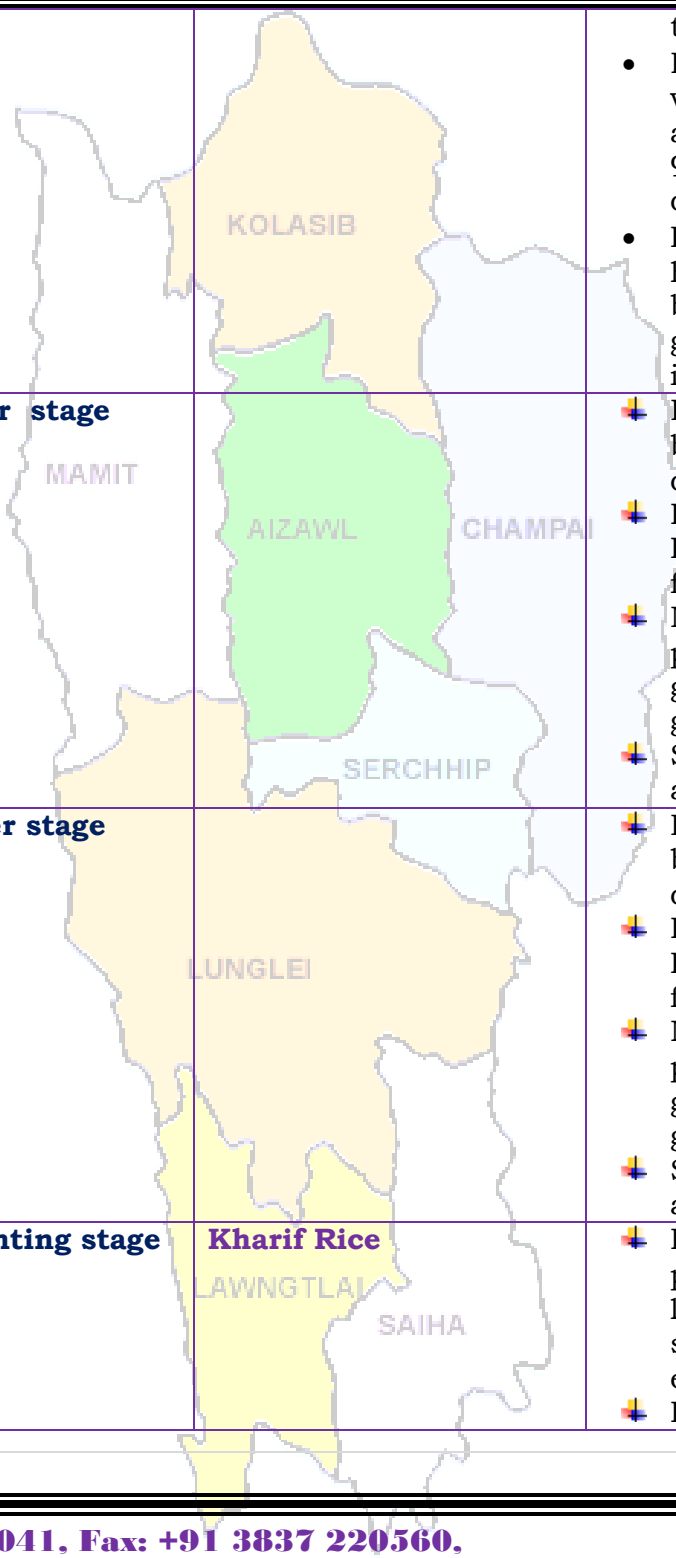
			twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ Remove unwanted plant 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.
Tomato	**Flower stage**		✦ 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.
Rice	**Transplanting stage**	**Kharif Rice**	✦ Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. ✦ Ploughing should be done 3-4



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		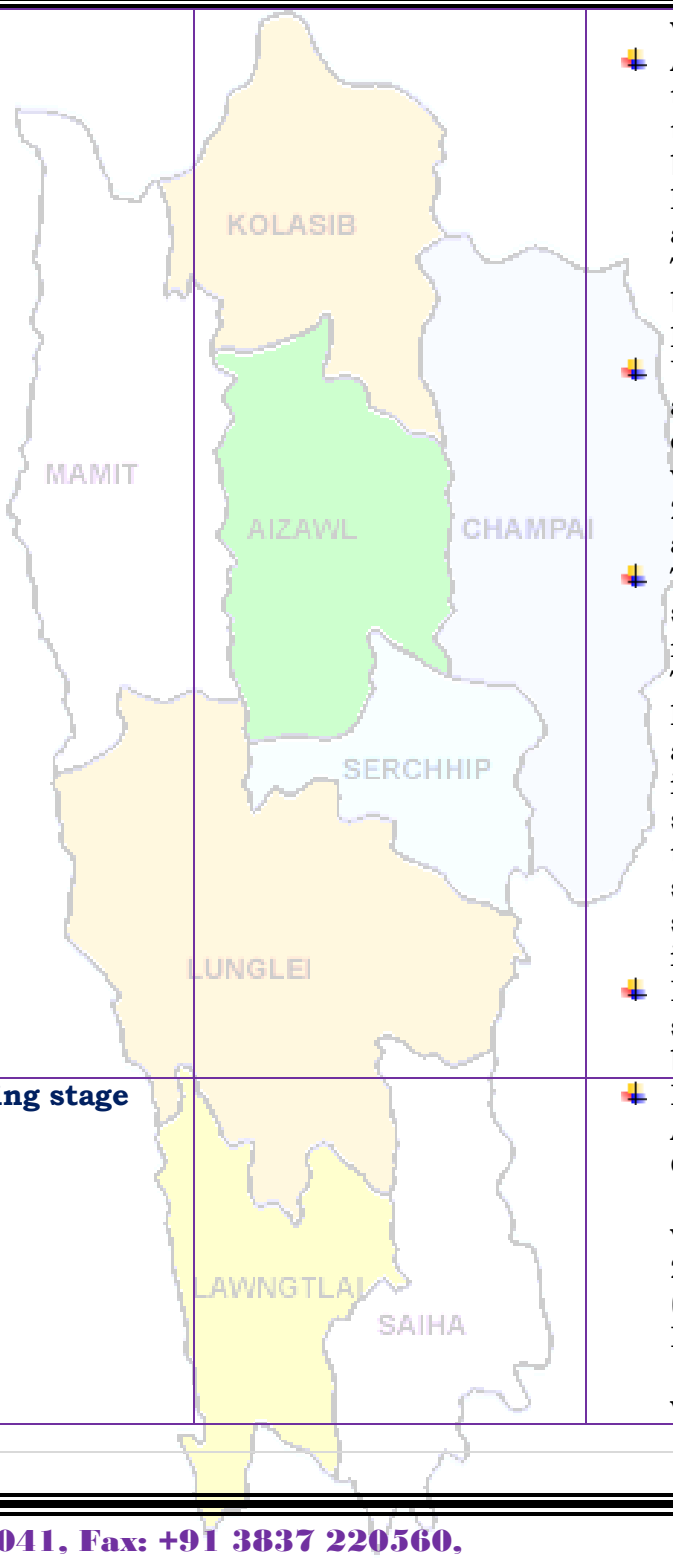	weeks prior to sowing. • After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. • Under good management and adequate nitrogen levels, the optimum 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. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. • Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		• 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

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			annual and broad leaved weeds. - Remove unwanted plant near base of the plant and cut dead branches. - Earting up of soil along with fertilizer mixture. - Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		- Land preparation or sowing in pits - Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. - Use PSB 2g/kg for better germination.
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.
		Thrips	- Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	- Spray Quinalphos or Monocrotophos (2.5 ml/lt) for

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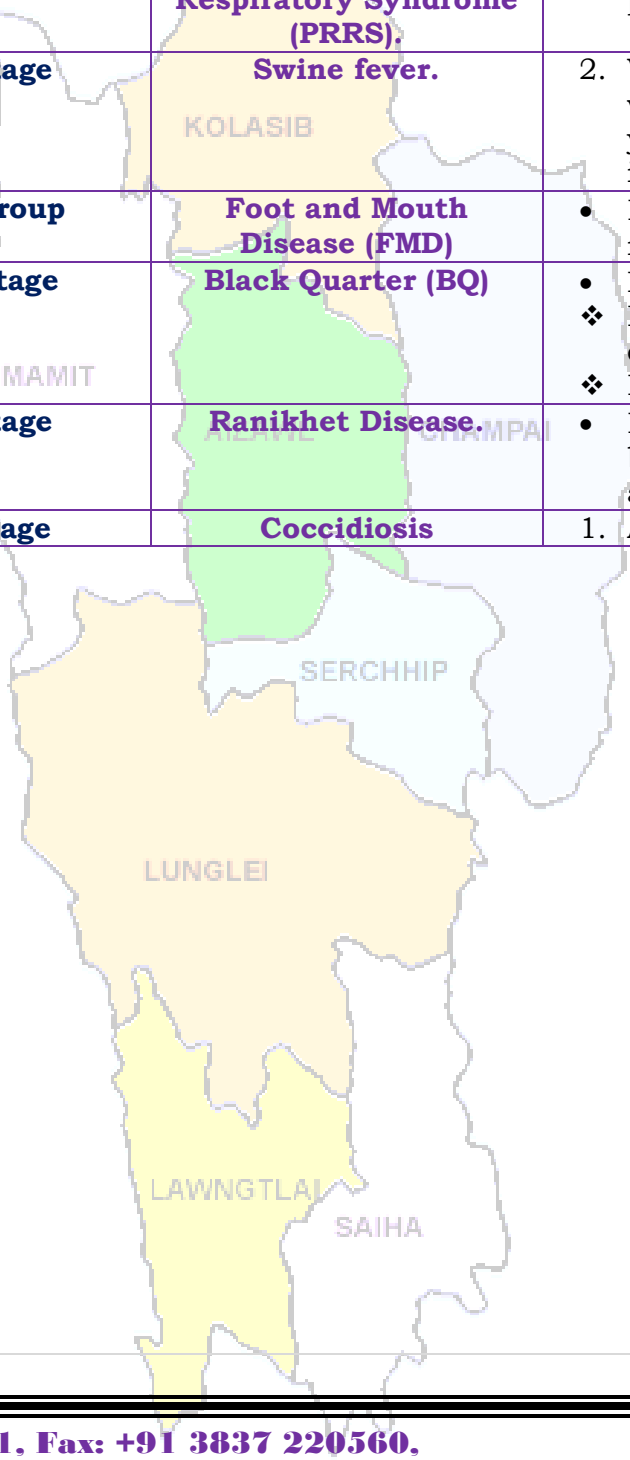
			controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	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: 08 - 12 July, 2015**

Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue: 7th July, 2015**

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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 PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)

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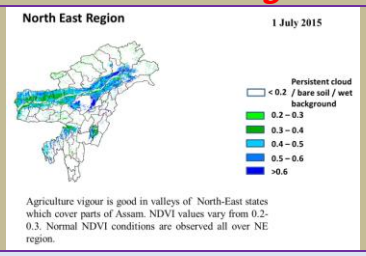
Ni thum kaltha sik leh sa dinhmun tlangpui	July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan
	Ni 2 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 28-30^{0}C a ni ang a.A vawh lai ber in 21-22^{0}C ni tur ah beisei a ni.RH san lai berin 97-99% leh a hniam lai berin 77-88% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 3-4 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni. ***Weekly cumulative rainfall:*** **23.0mm**
NDVI for Mizoram and SPI	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Thlai/ ran	Spat zawng	Hmalakna tur/	Agricultural/Horticultural/ animal

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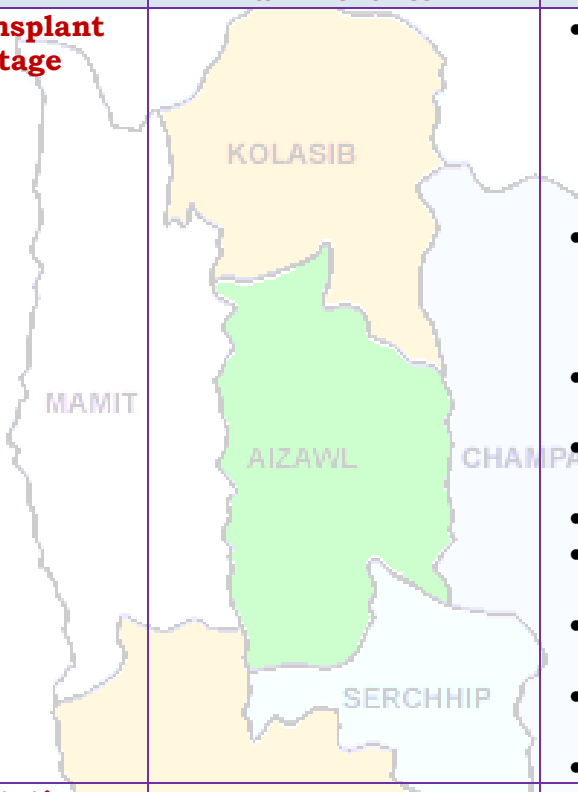
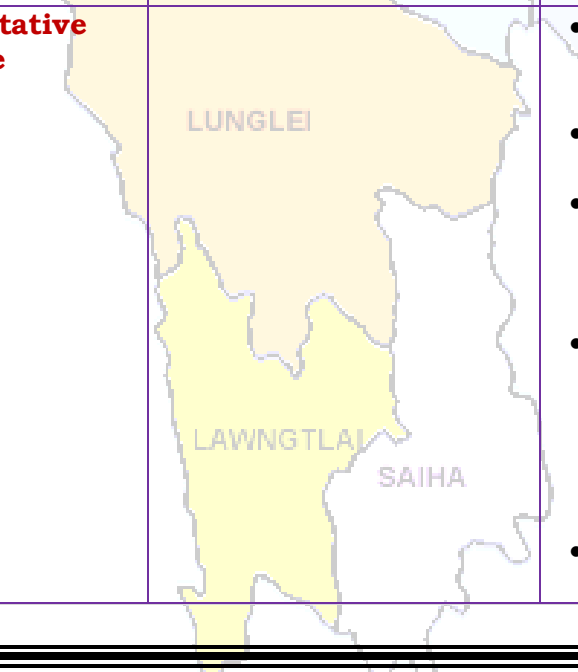
/sangha		rannung leh natna hrik awm thei te	husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		• A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. • Nursery 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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek

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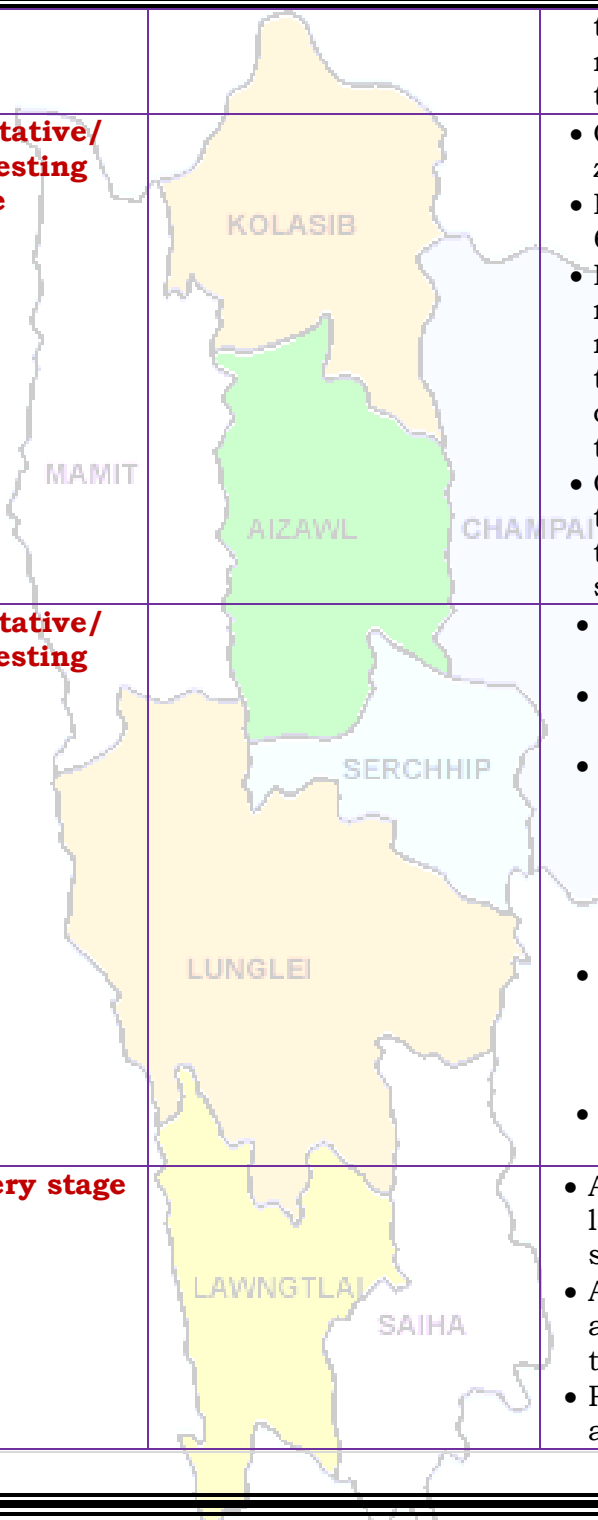
			tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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.

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			• Bawngek leitha chu khur khat ah 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur
		2. Flea beetle	• Pangang tui leh a puitling te chu a

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			kung atangin thin thlak tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur. • Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf blotch	• Tui litre khatah Dithane M-45 chu 2.5g emaw Bavistin chu 1g a

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			pawlhin karkhat danah vawi 2/3 kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea beetle a veng thei
Buh	**Nursery stage**	**Pre kharif rice**	• A chi tha leh khat tha chauh hman tur. • Tui litre 10 ah chi (salt) 250g

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			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 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**	1. A natna vei vawk te chu thah a phum tur a ni.

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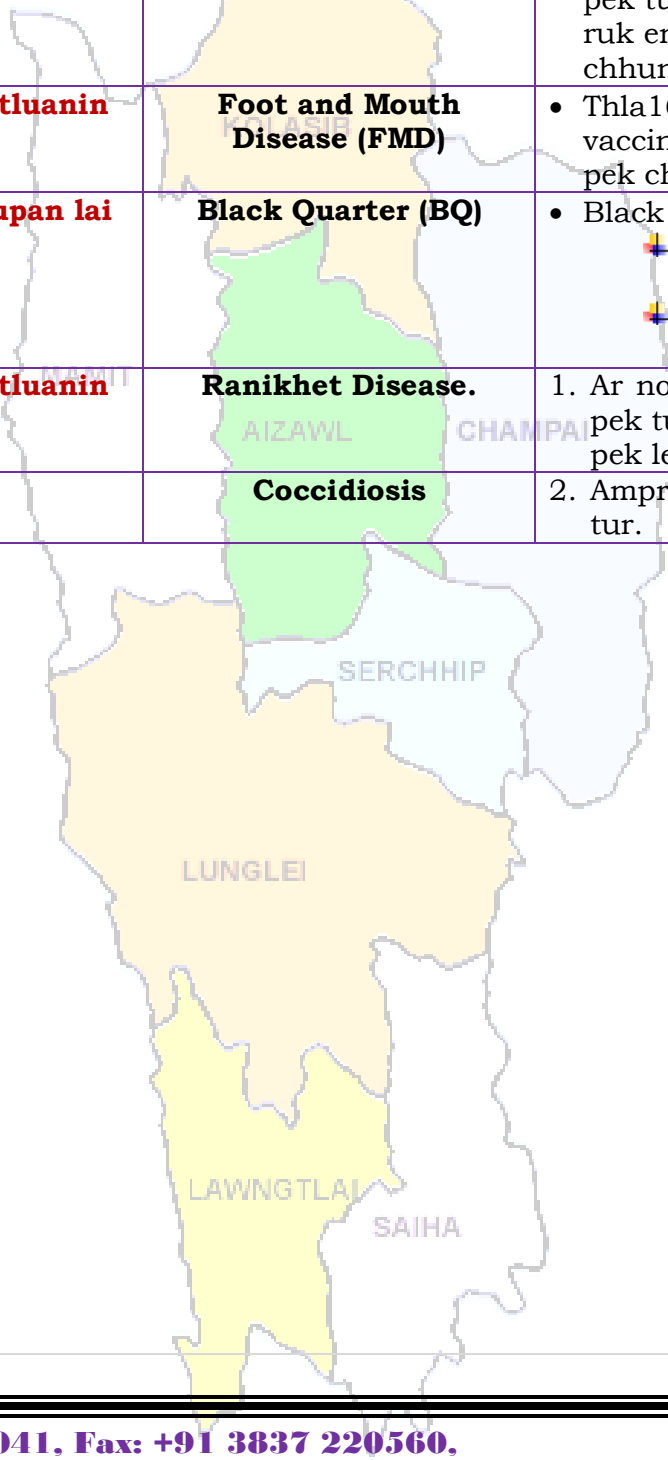
		(PRRS).	
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.

	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:** 08 - 12 July, 2015

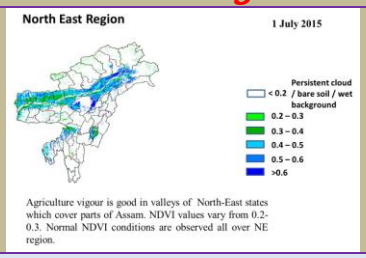
Bulletin No: -533/2015/ Bulletin/English **Date of issue:** 7th July, 2015

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	12	4	5	3	5
Max Temp (oC)	30	29	31	31	31
Min Temp (oC)	23	23	23	23	22
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	94	95	97	95
Min RH (%)	84	80	67	63	75
Wind Speed (KmpH)	4	6	3	4	4
*Wind Direction	S-W	S	E	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Weather summary of the past three days	Weather forecast valid from 08th July, 2015 To 12th July, 2015.
	There are chances of moderate to light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 29-31^{0}C and 22-23^{0}C. Maximum relative humidity is expected in the range of 94-99% and minimum may from 63-84%. Wind direction would be southeasterly with the wind speed of 3-6 km per hour. Partially cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **29.0 mm**
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Main Stage	Cultural practices/	Agricultural / Horticultural/

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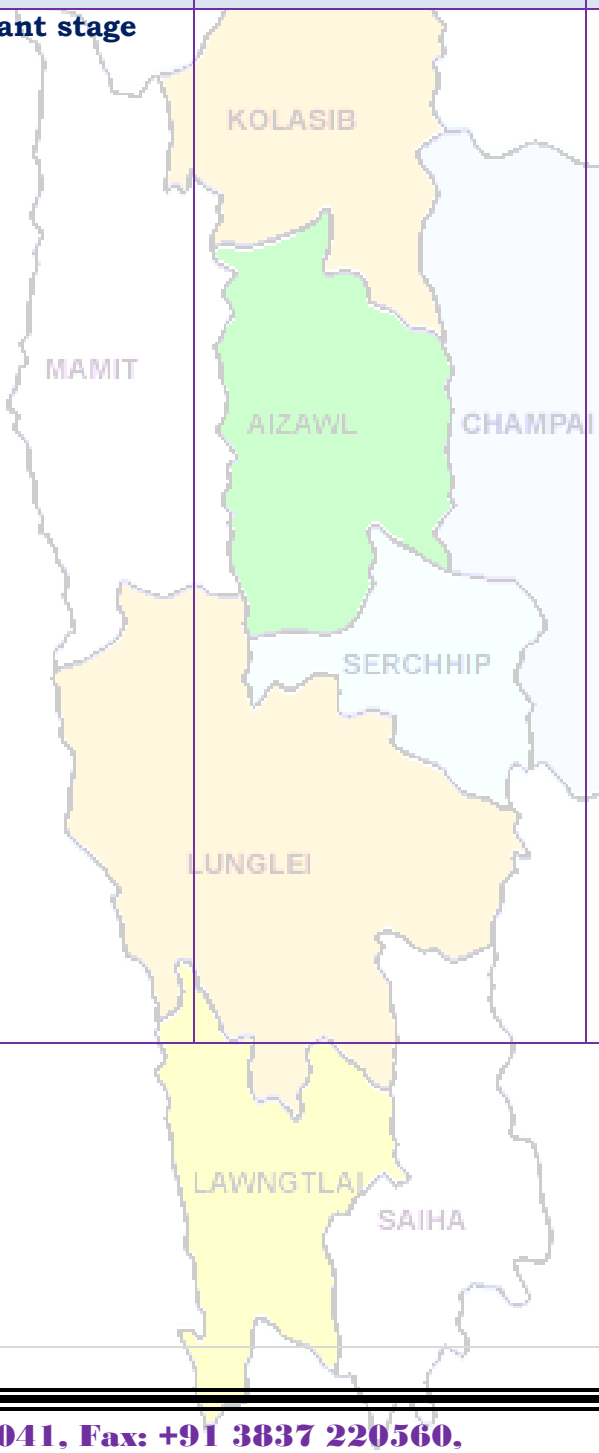
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		• Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. • This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. • Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops • Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.



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Khasi Mandarin and acid lime	**Flower/Harvest stage**		↓ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ↓ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. ↓ Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	↓ Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		↓ Remove all dead plants and replace with healthy seedling. ↓ Cleaning near base of the

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		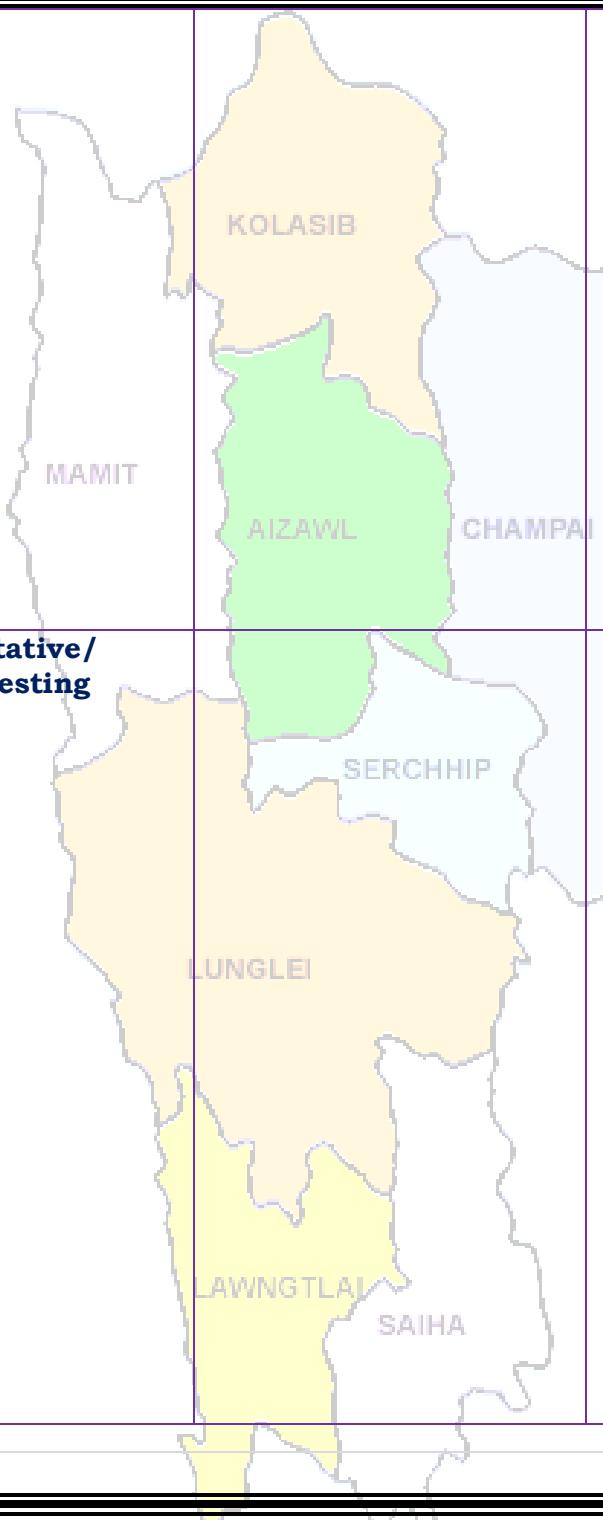	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		- 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. - Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. - Fruits are harvested when they attain full size, develop attractive yellow colour.

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		Comb weevil and stem weevil	▪ Applications of neem powder effectively controlled weevils. ▪ 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. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		▪ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned

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			from green to yellow. • When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. • Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		• It takes only about 10 days from the time of flowering to the time to pick okra. • Picking okra should be done when they are four to five inches long. • Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested

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			twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ 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.
Tomato	**Flower stage**		✦ 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.
Rice	**Transplanting stage**	**Kharif Rice**	✦ Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. ✦ Ploughing should be done 3-4

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		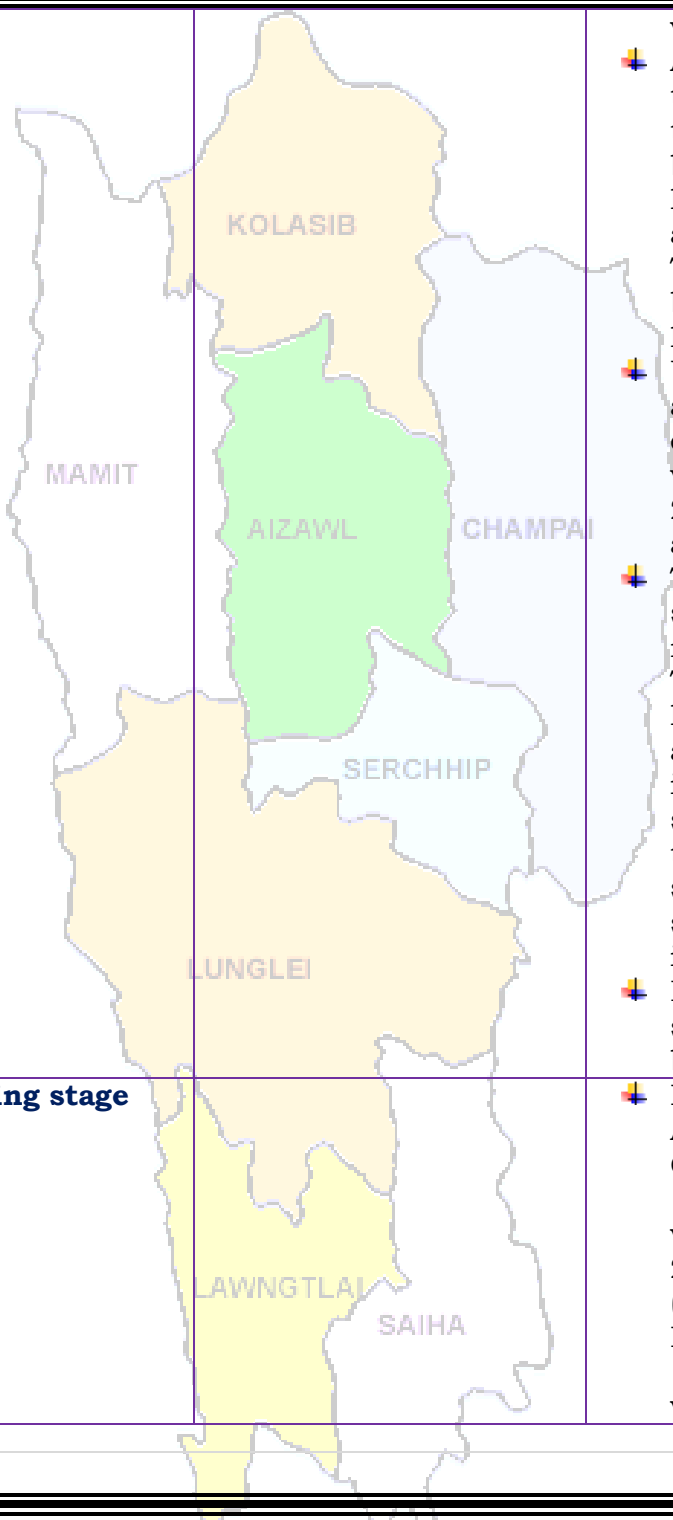	weeks prior to sowing. • After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. • Under good management and adequate nitrogen levels, the optimum 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. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. • Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		• 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

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			annual and broad leaved weeds. - Remove unwanted plant near base of the plant and cut dead branches. - Earting up of soil along with fertilizer mixture. - Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		- Land preparation or sowing in pits - Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. - Use PSB 2g/kg for better germination.
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.
		Thrips	- Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	- Spray Quinalphos or Monocrotophos (2.5 ml/lt) for

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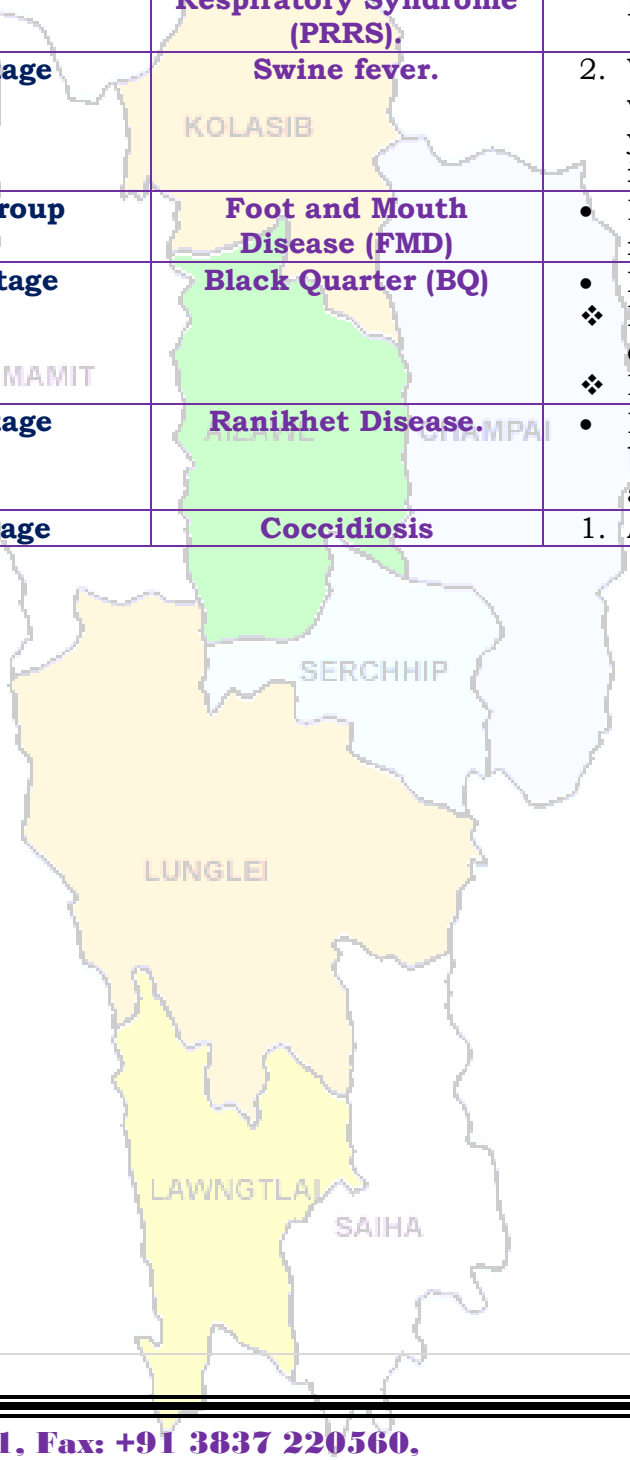
			controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	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: Mamit **Period: 08 - 12 July, 2015**

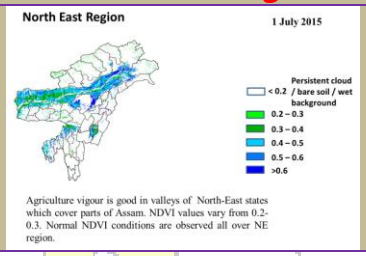
Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	12	4	5	3	5
Max Temp (oC)	30	29	31	31	31
Min Temp (oC)	23	23	23	23	22
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	94	95	97	95
Min RH (%)	84	80	67	63	75
Wind Speed (KmpH)	4	6	3	4	4
*Wind Direction	S-W	S	E	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan
	Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 29-31^{0}C a ni ang a.A vawh lai ber in 22-23^{0}C ni tur ah beisei a ni.RH san lai berin 94-99% leh a hniam lai berin 63-84% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 3-6 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni. ***Weekly cumulative rainfall:*** **29.0mm**
NDVI for Mizoram and SPI	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

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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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1%

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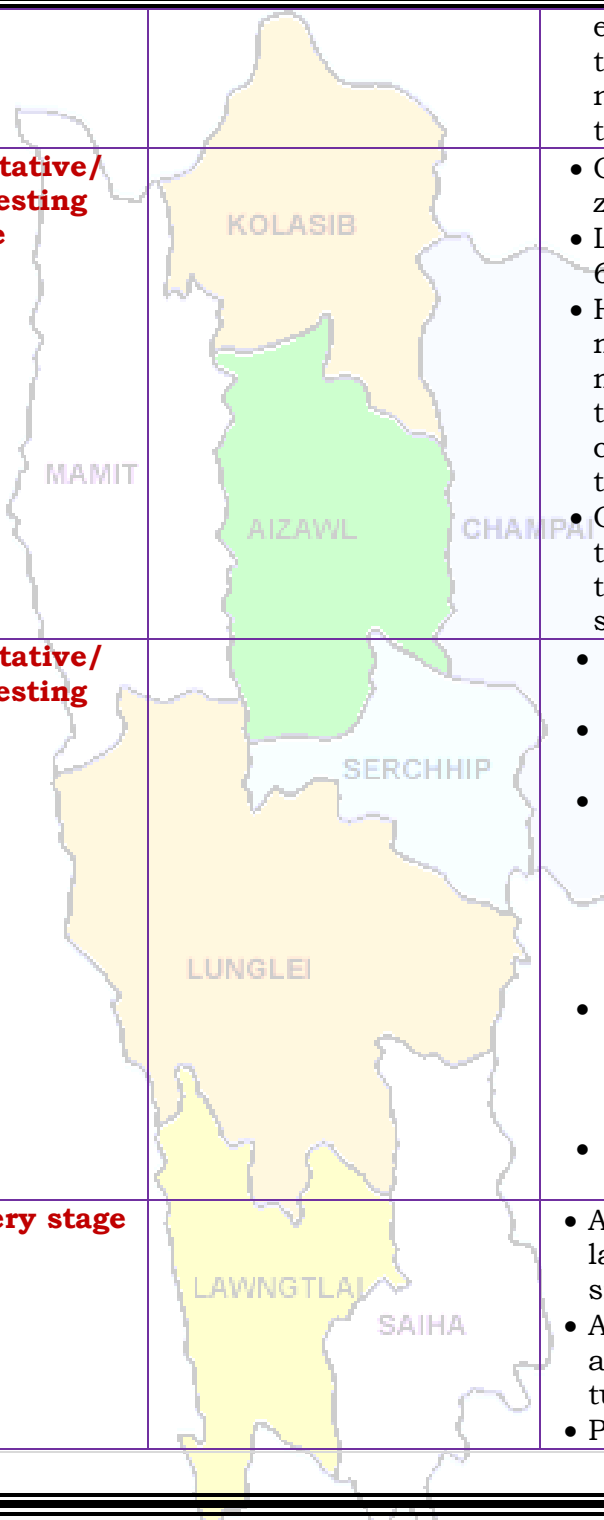
			emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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

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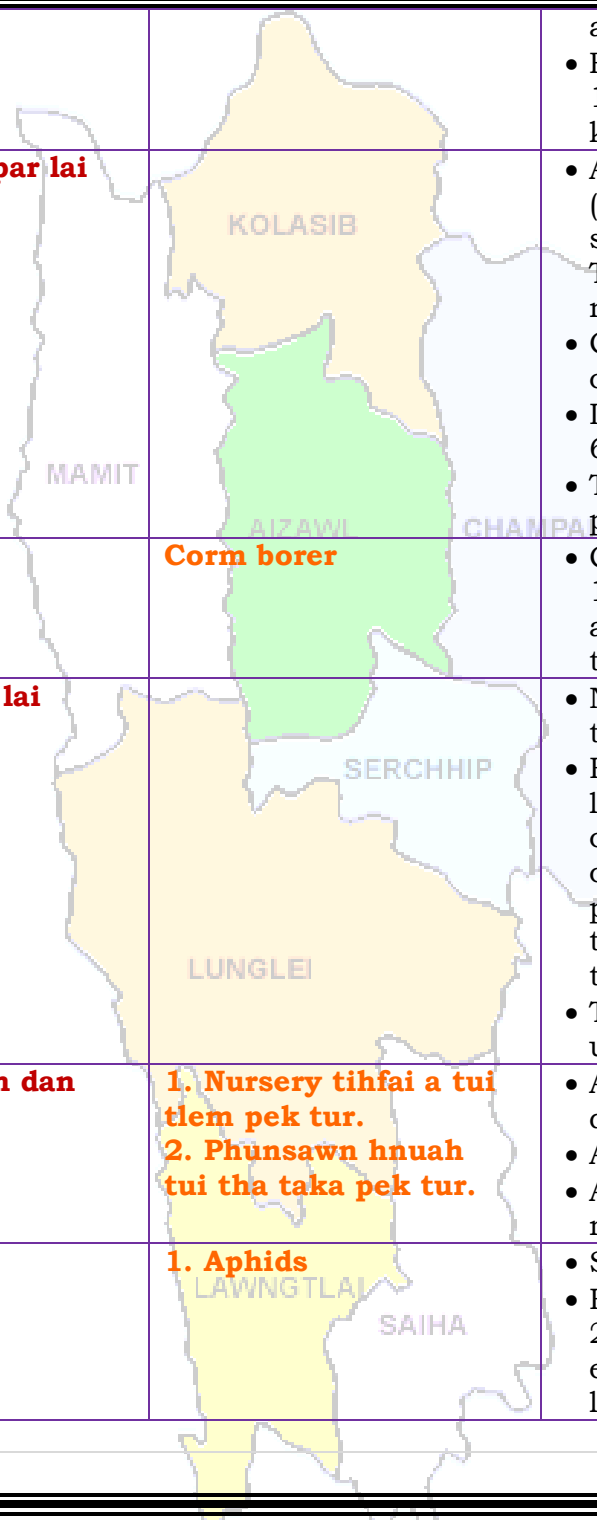
			ah huan ah phun sawn leh tur. • Bawngek leitha chu khur khat ah 15g leh NPK 100:50:100g in kumkhat chhungin pek tur.
Lakhuihthei	**A par lai**		• A par chhuah hma nan chemical (Ethrel 10ppm+2% urea+0.04% sodium carbonate) chu pek tur. Tlai ah emaw thlaiin hnah 32 a neih hunah pek tur. • Chemical pek 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur



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		2. Flea beetle	• Pangang tui leh a puitling te chu a kung atangin thin thlak tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur. • Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf	• Tui litre khatah Dithane M-45 chu

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		blotch	2.5g emaw Bavistin chu 1g a pawlhin karkhat danah vawi 2/3 kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea beetle a veng thei
Buh	**Nursery stage**	**Pre kharif rice**	• A chi tha leh khat tha chauh hman tur.

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			• 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 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**	1. A natna vei vawk te chu thah a

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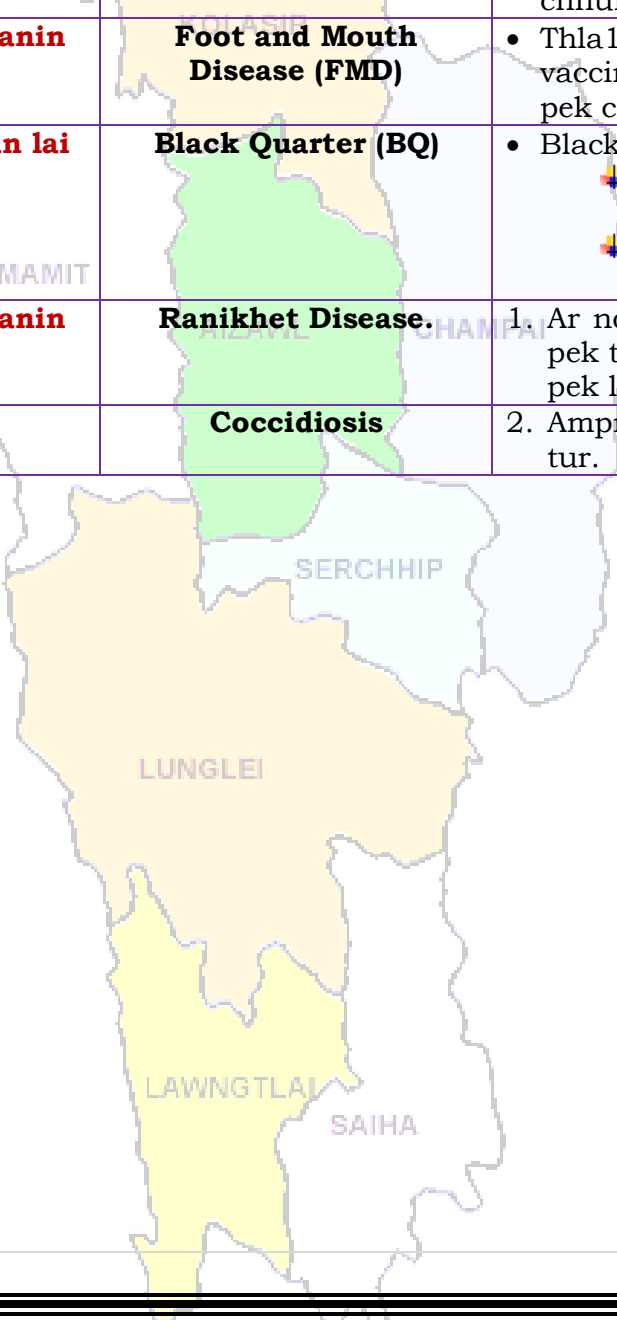
		Respiratory Syndrome (PRRS).	phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah 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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ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: saiha **Period:** 08 - 12 July, 2015

Bulletin No: -533/2015/ Bulletin/English **Date of issue:** 7th July, 2015

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	15	0	0	0	3
Max Temp (oC)	27	27	27	30	29
Min Temp (oC)	22	22	21	21	21
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	98	97	98	99
Min RH (%)	94	79	75	82	83
Wind Speed (KmpH)	2	3	3	2	2
*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.

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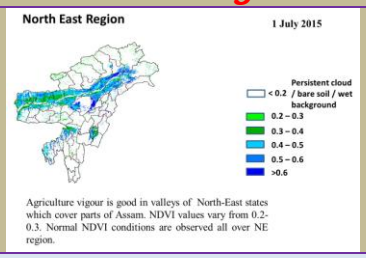
Aizawl- 383.68mm (341.8mm) Champhai- 239.49mm (250.30mm) Saiha- 109.52 mm (87.2mm) Kolasib- 352.38mm (380.9mm)

Lawngtlai-321.51mm (285.5mm) Lunglei-344.00mm (186.21mm) Mamit-449.48mm (442.80mm) Serchhip-411.72mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 08th July, 2015 To 12th July, 2015.
	There are chances of moderate to light rainfall during the next 2 day. The maximum and minimum temperatures for the next 5 days may range for 27-30^{0}C and 21-22^{0}C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 75-94%. Wind direction would be southeasterly with the wind speed of 2-3 km per hour. Partially cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **18.0 mm**
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Main Stage	Cultural practices/	Agricultural / Horticultural/

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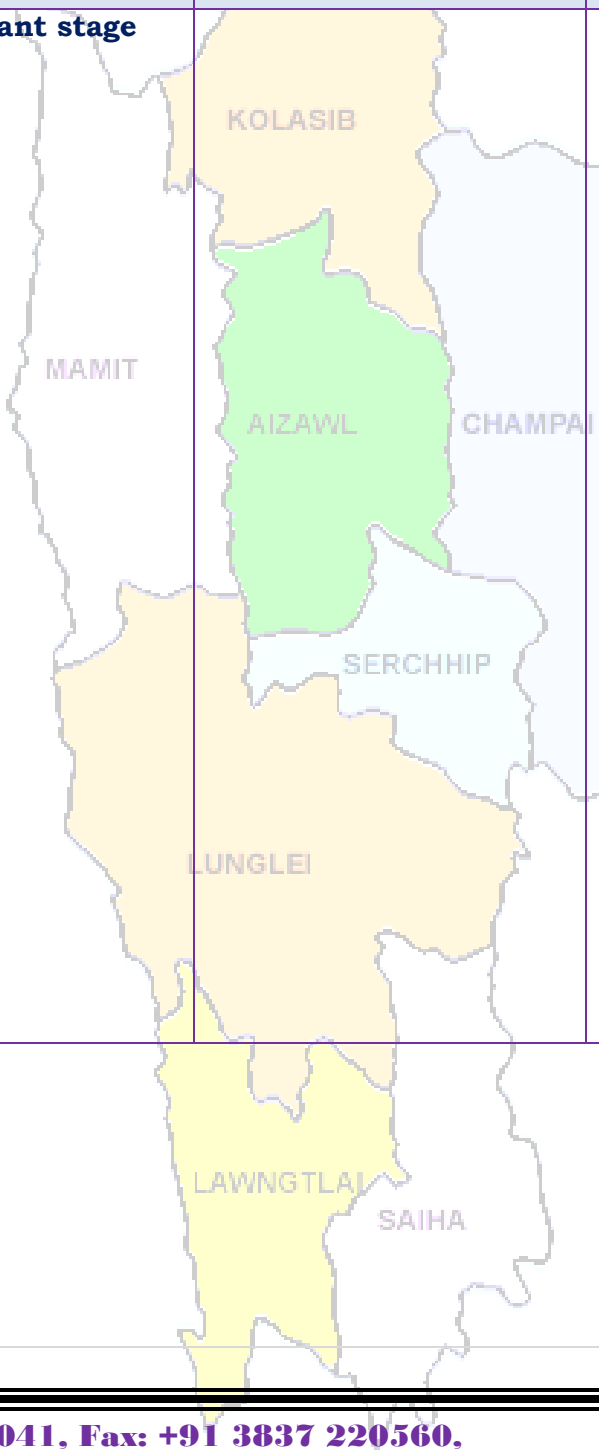
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		• Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. • This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. • Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops • Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.



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Khasi Mandarin and acid lime	**Flower/Harvest stage**		↓ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ↓ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. ↓ Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	↓ Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		↓ Remove all dead plants and replace with healthy seedling. ↓ Cleaning near base of the

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		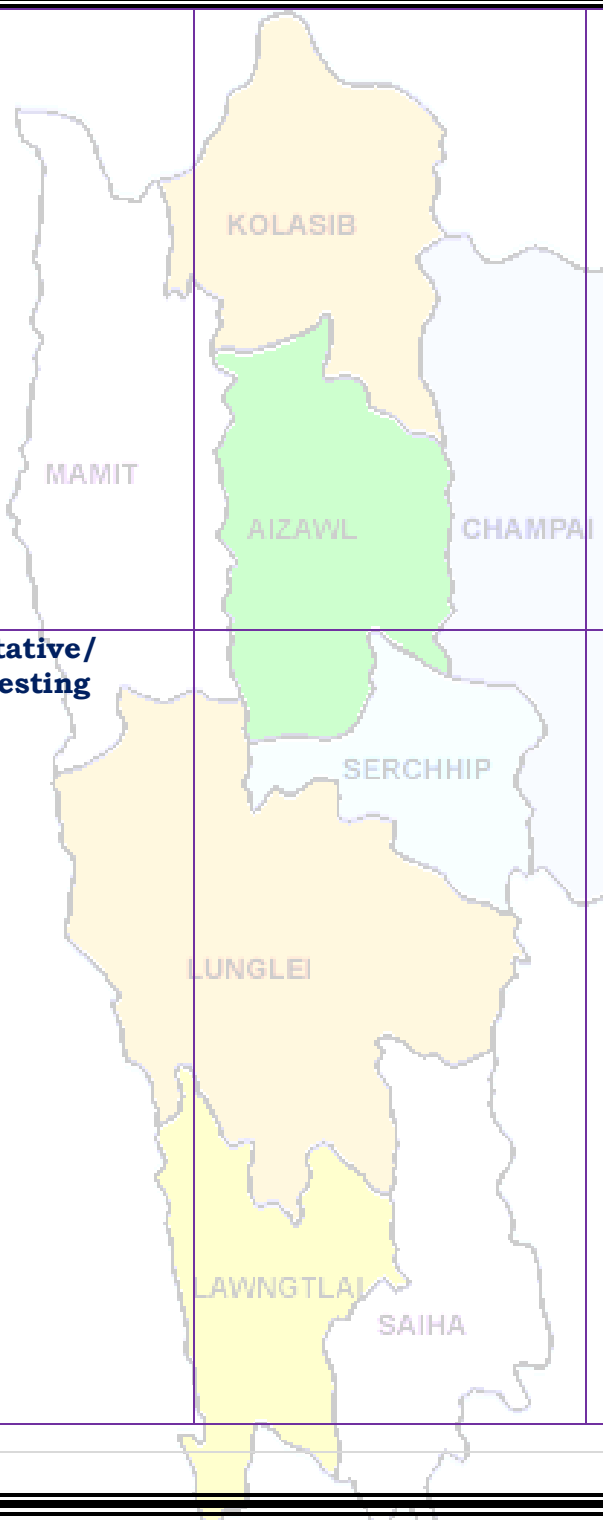	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		- 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. - Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. - Fruits are harvested when they attain full size, develop attractive yellow colour.

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		Comb weevil and stem weevil	▪ Applications of neem powder effectively controlled weevils. ▪ 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. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		▪ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned

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			from green to yellow. • When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. • Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		• It takes only about 10 days from the time of flowering to the time to pick okra. • Picking okra should be done when they are four to five inches long. • Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested

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			twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ 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.
Tomato	**Flower stage**		✦ 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.
Rice	**Transplanting stage**	**Kharif Rice**	✦ Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. ✦ Ploughing should be done 3-4

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		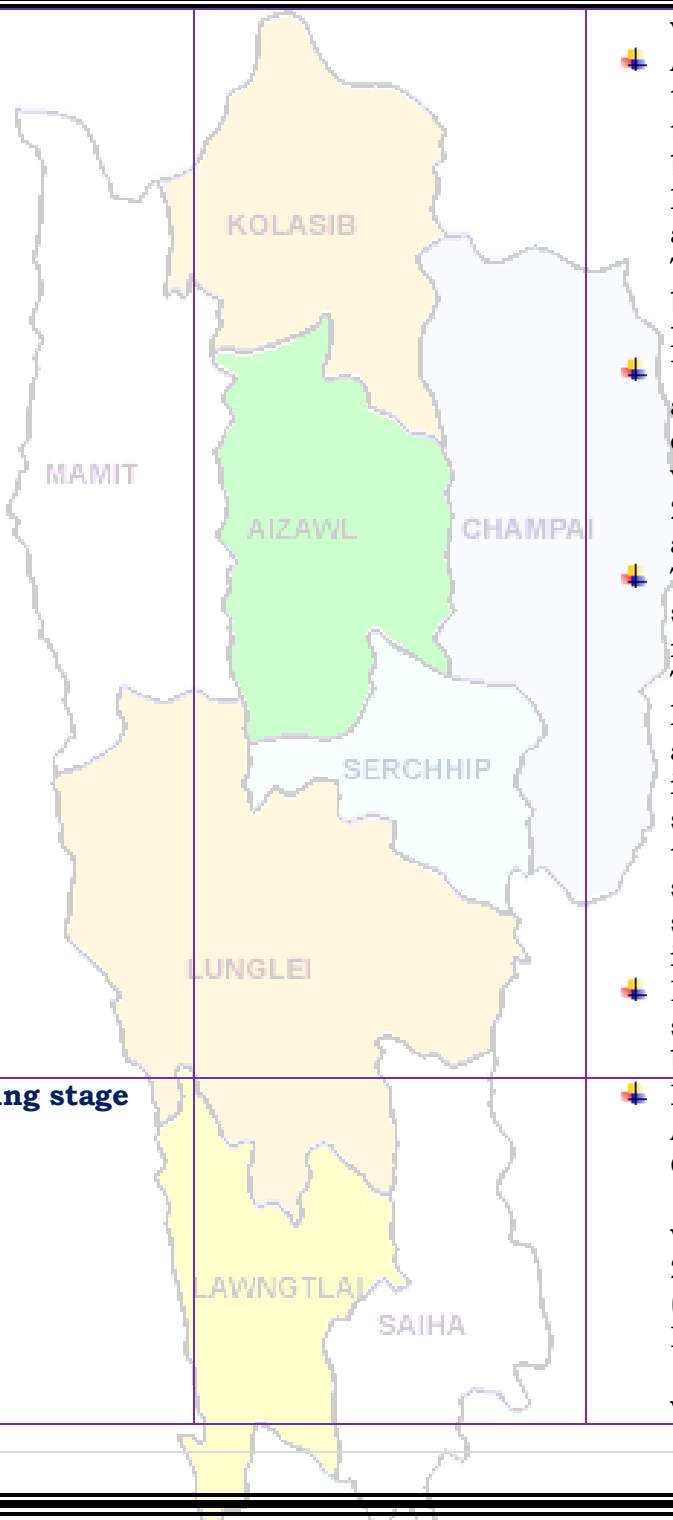	weeks prior to sowing. • After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. • Under good management and adequate nitrogen levels, the optimum 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. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. • Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		• 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

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			annual and broad leaved weeds. - Remove unwanted plant near base of the plant and cut dead branches. - Earting up of soil along with fertilizer mixture. - Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		- Land preparation or sowing in pits - Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. - Use PSB 2g/kg for better germination.
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.
		Thrips	- Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	- Spray Quinalphos or Monocrotophos (2.5 ml/lt) for

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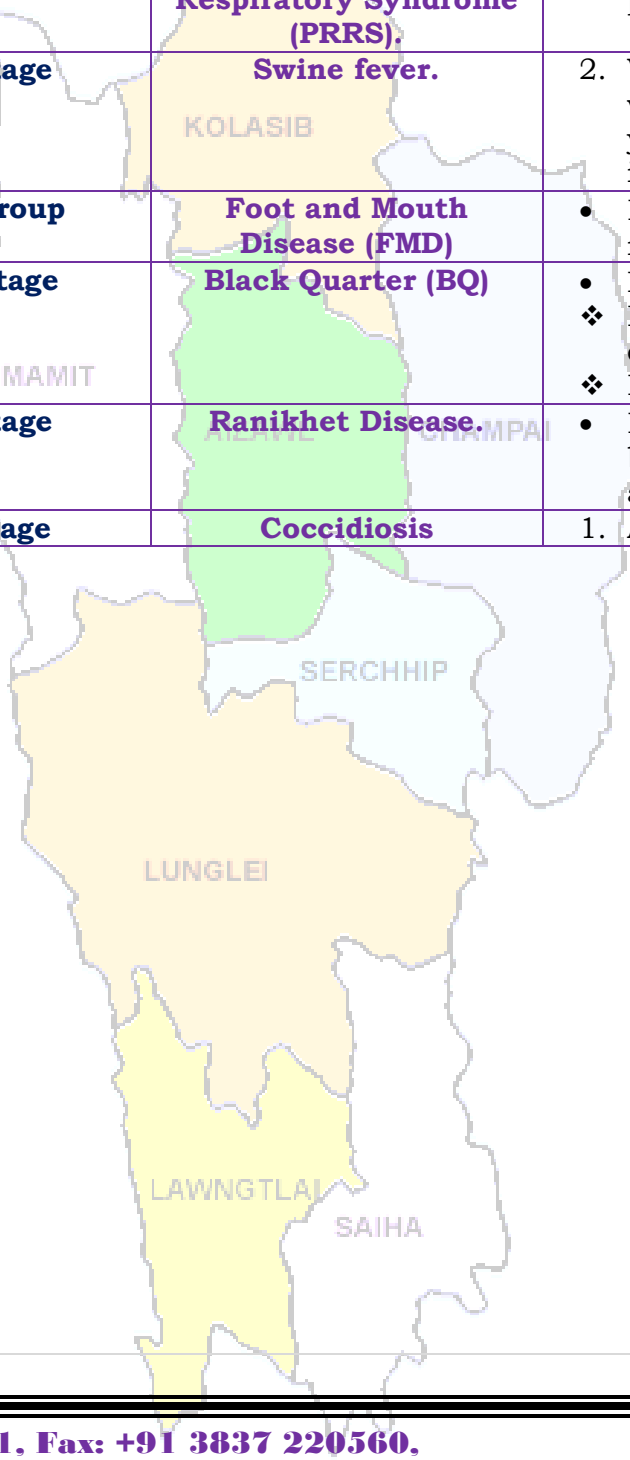
			controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	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: 08 - 12 July, 2015**

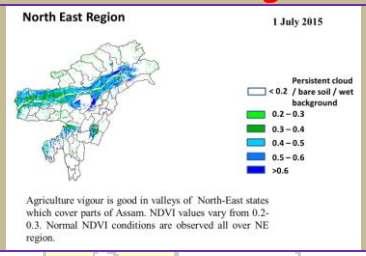
Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	15	0	0	0	3
Max Temp (oC)	27	27	27	30	29
Min Temp (oC)	22	22	21	21	21
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	98	97	98	99
Min RH (%)	94	79	75	82	83
Wind Speed (KmpH)	2	3	3	2	2
*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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan
	Ni 3 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 27-30^{0}C a ni ang a.A vawh lai ber in 21-22^{0}C ni tur ah beisei a ni.RH san lai berin 97-99% leh a hniam lai berin 75-94% 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:*** **18.0mm**
NDVI for Mizoram and SPI	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

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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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1%

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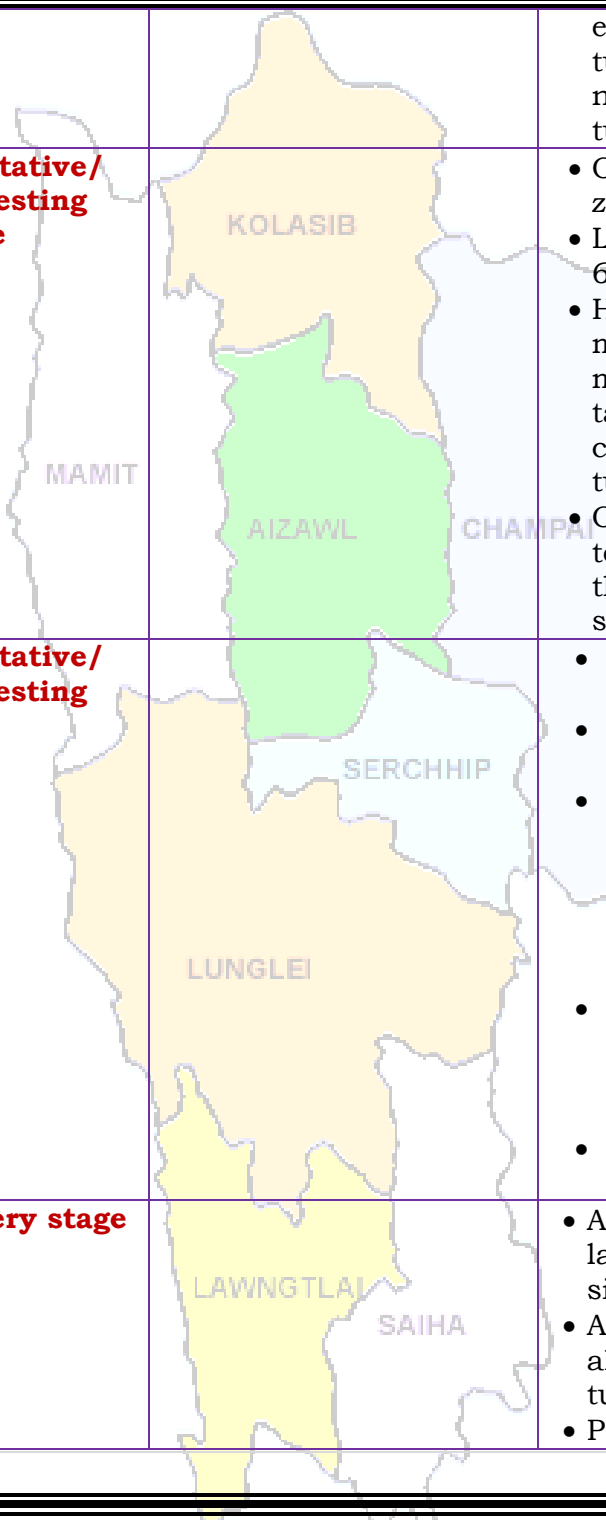
			emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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

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			ah huan ah phun sawn leh tur. • Bawngek leitha chu khur khat ah 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur

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		2. Flea beetle	• Pangang tui leh a puitling te chu a kung atangin thin thlak tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur. • Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf	• Tui litre khatah Dithane M-45 chu

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		blotch	2.5g emaw Bavistin chu 1g a pawlhin karkhat danah vawi 2/3 kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea beetle a veng thei
Buh	**Nursery stage**	**Pre kharif rice**	• A chi tha leh khat tha chauh hman tur.

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			• 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 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**	1. A natna vei vawk te chu thah a

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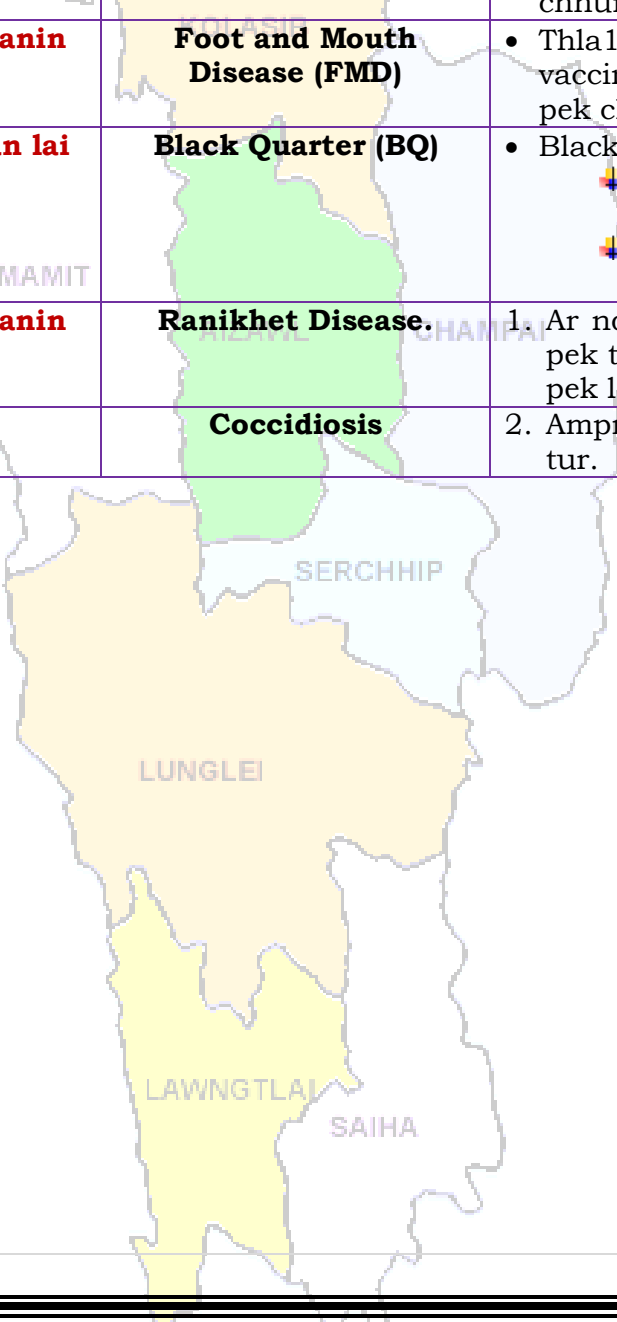
		Respiratory Syndrome (PRRS).	phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah 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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ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Serchhip **Period: 08 - 12 July, 2015**

Bulletin No: -533/2015/ Bulletin/English **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	23	3	3	0	5
Max Temp (oC)	28	26	26	30	28
Min Temp (oC)	21	21	20	20	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	100	100	100	100	99
Min RH (%)	91	89	85	85	81
Wind Speed (KmpH)	2	2	2	2	2
***Wind Direction**	S-W	S	E	S-E	E

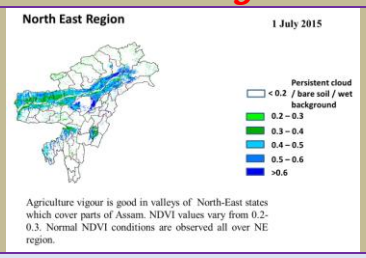
Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Weather summary of the past three days	Weather forecast valid from 08th July, 2015 To 12th July, 2015.
	There are chances of moderate to light rainfall during the next 4 day. The maximum and minimum temperatures for the next 5 days may range for 26-30^{0}C and 20-21^{0}C. Maximum relative humidity is expected in the range of 99-100% and minimum may from 81-91%. Wind direction would be southeasterly with the wind speed of 2 km per hour. Partially cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **34.0 mm**

NDVI for Mizoram		NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".



Main	Stage	Cultural practices/	Agricultural / Horticultural/

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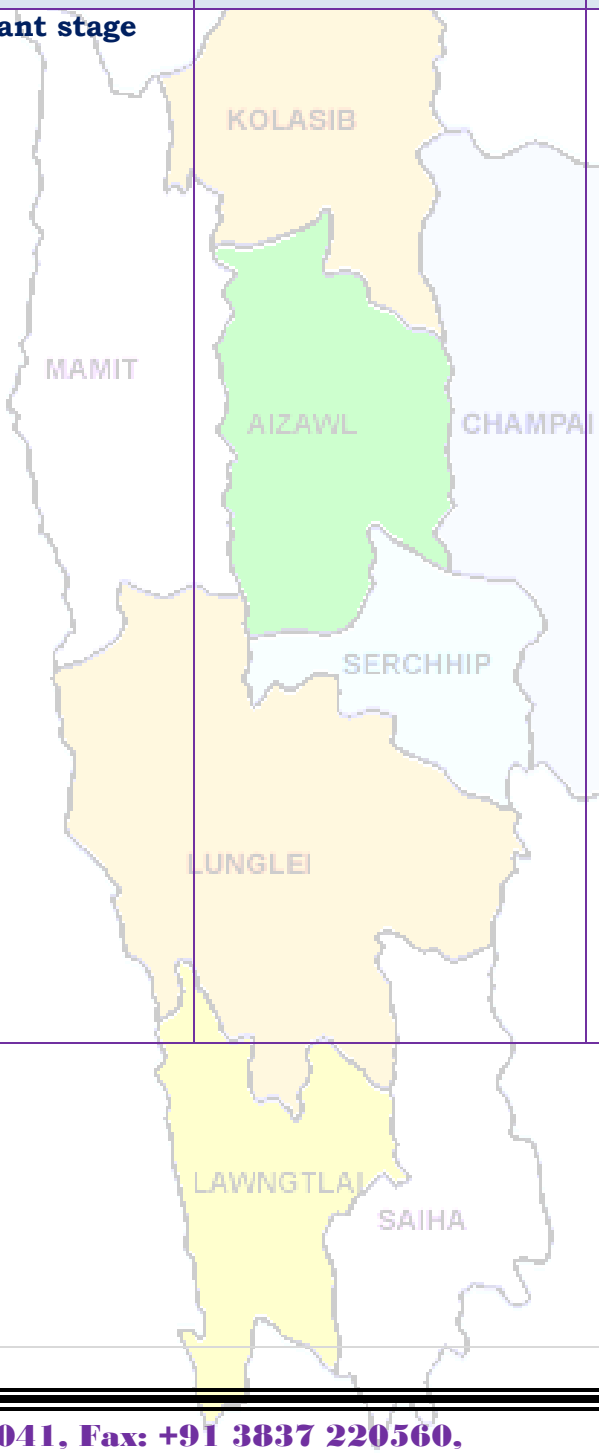
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		• Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. • This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. • Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops • Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.



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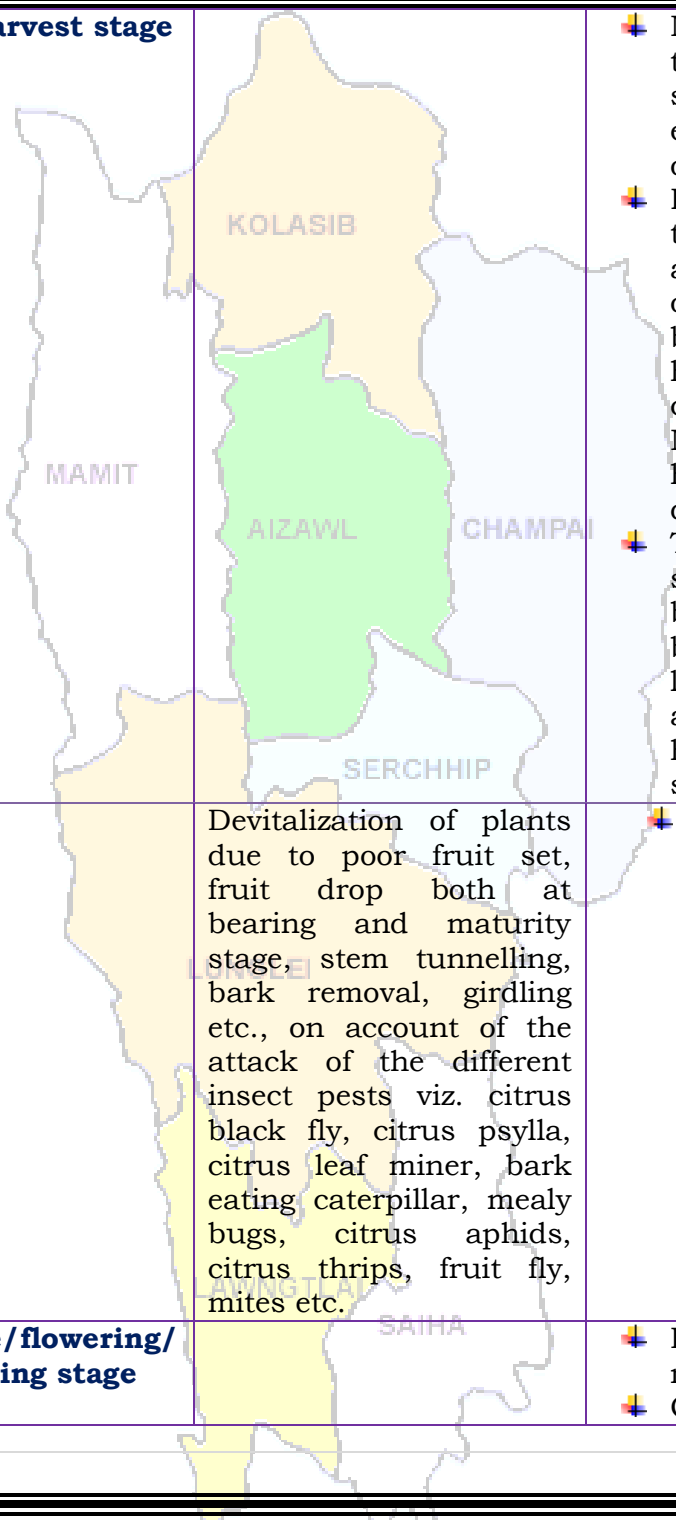
Khasi Mandarin and acid lime	**Flower/Harvest stage**		✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. ✦ Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	✦ Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		✦ Remove all dead plants and replace with healthy seedling. ✦ Cleaning near base of the

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		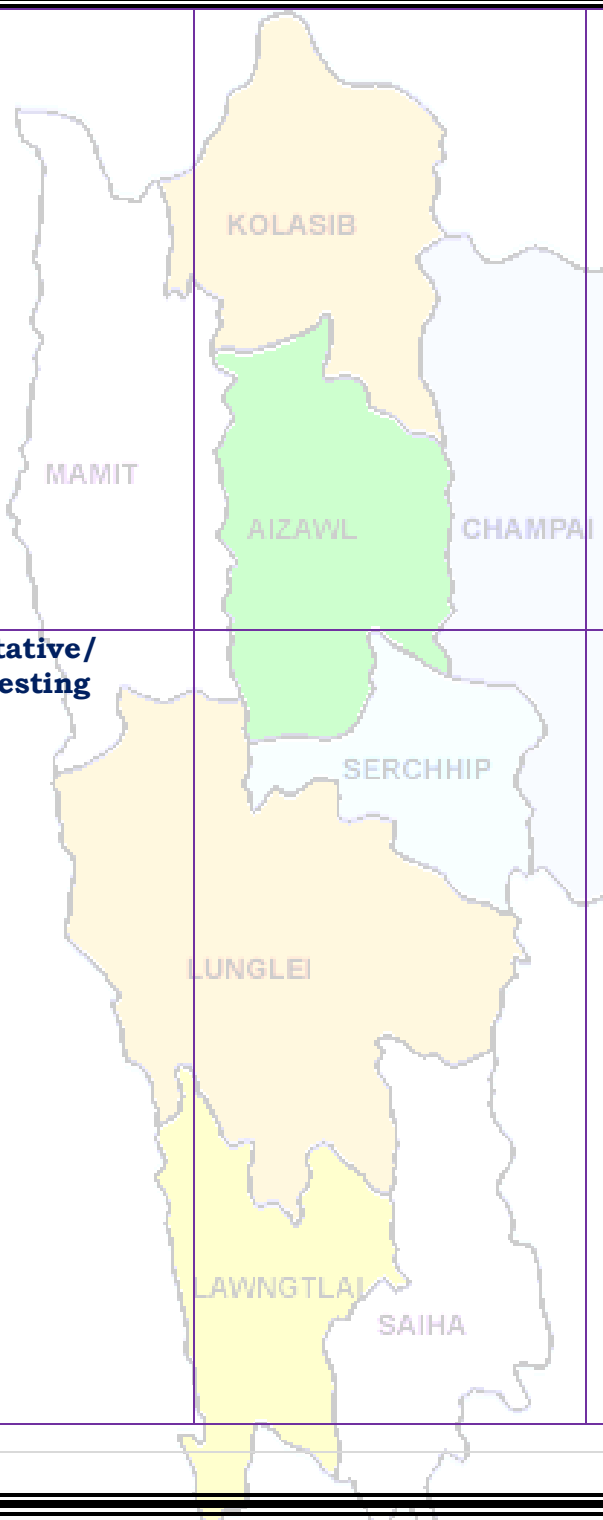	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		- 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. - Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. - Fruits are harvested when they attain full size, develop attractive yellow colour.

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		Comb weevil and stem weevil	▪ Applications of neem powder effectively controlled weevils. ▪ 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. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		▪ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned

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			from green to yellow. • When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. • Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		• It takes only about 10 days from the time of flowering to the time to pick okra. • Picking okra should be done when they are four to five inches long. • Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested

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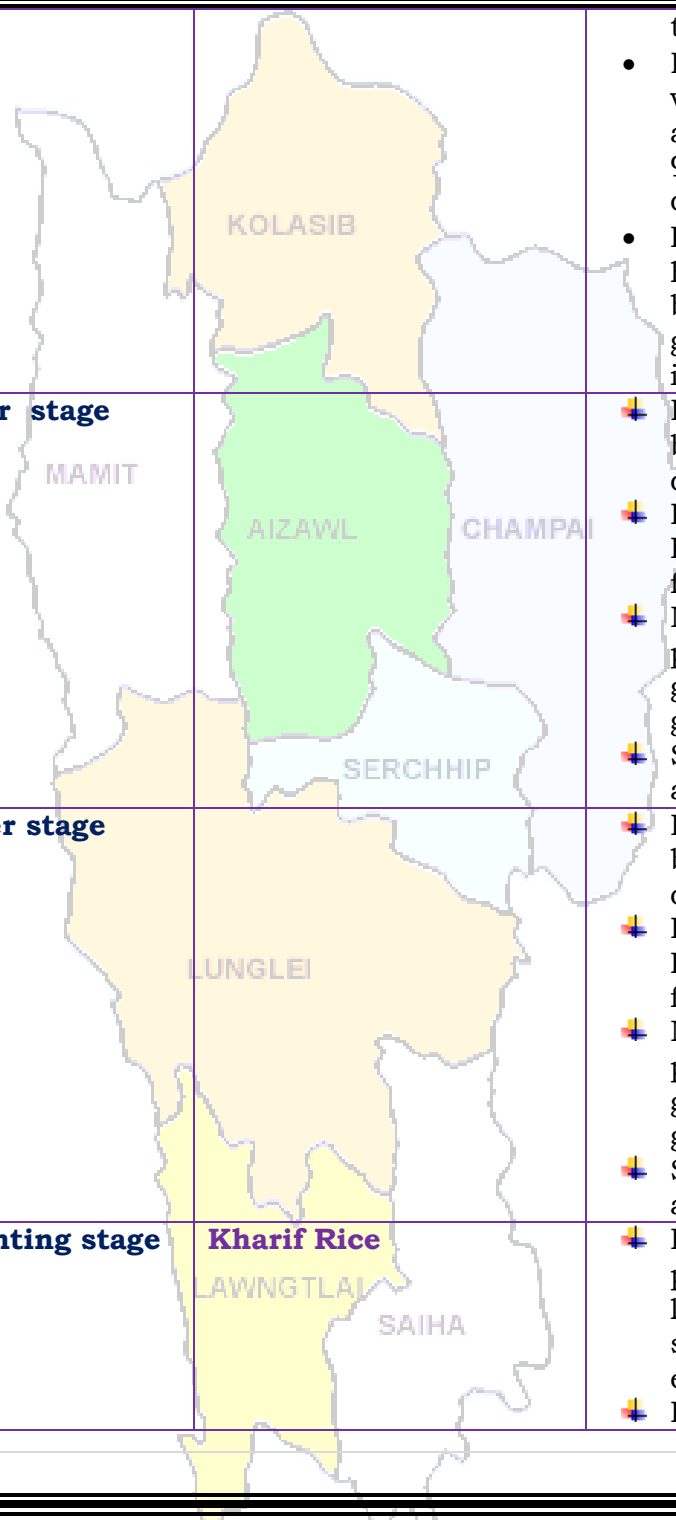
			twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ Remove unwanted plant 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.
Tomato	**Flower stage**		✦ 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.
Rice	**Transplanting stage**	**Kharif Rice**	✦ Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. ✦ Ploughing should be done 3-4



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		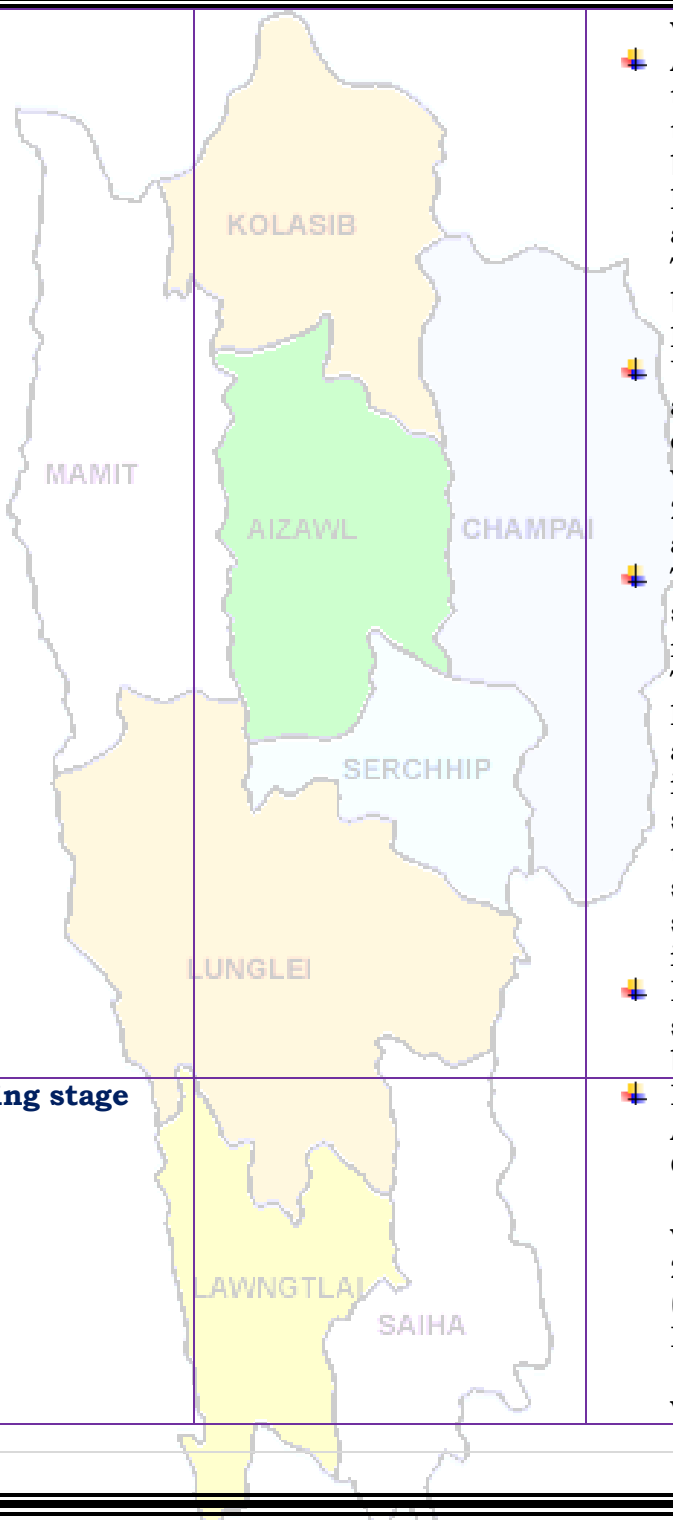	weeks prior to sowing. • After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. • Under good management and adequate nitrogen levels, the optimum 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. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. • Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		• 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

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			annual and broad leaved weeds. - Remove unwanted plant near base of the plant and cut dead branches. - Earting up of soil along with fertilizer mixture. - Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		- Land preparation or sowing in pits - Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. - Use PSB 2g/kg for better germination.
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.
		Thrips	- Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	- Spray Quinalphos or Monocrotophos (2.5 ml/lt) for

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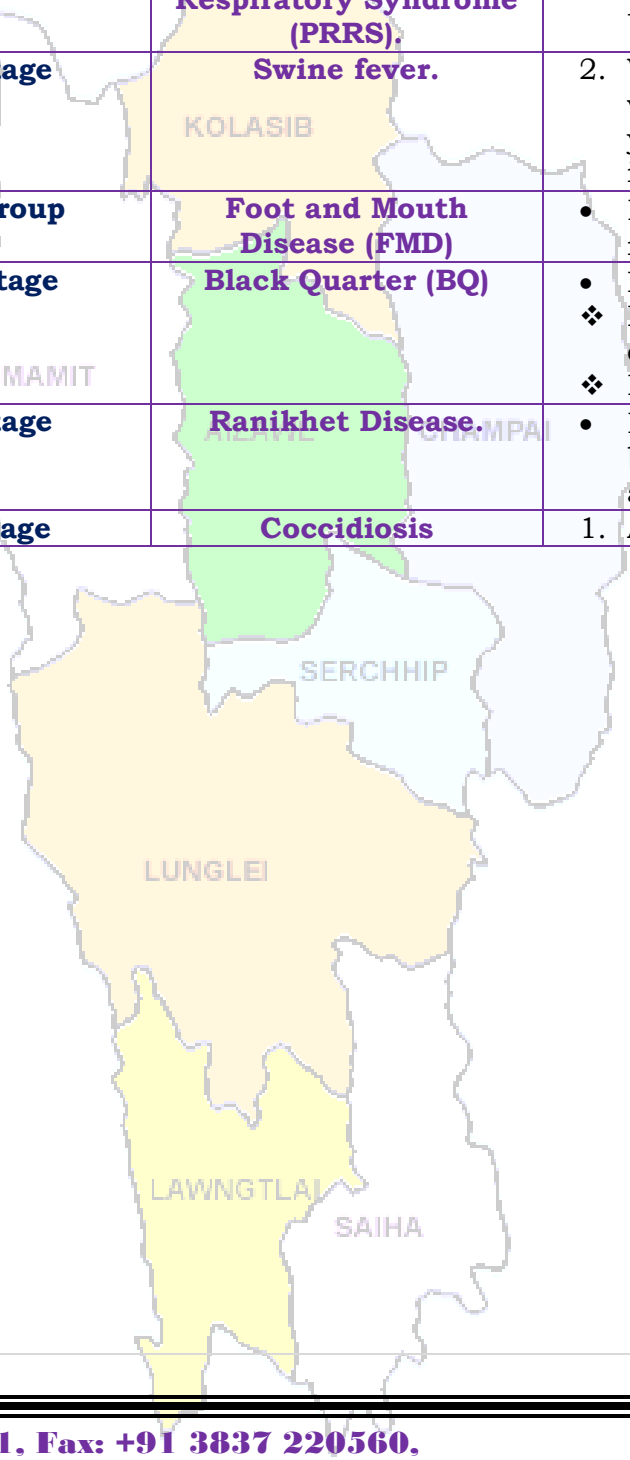
			controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	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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Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Serchhip **Period: 08 - 12 July, 2015**

Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue: 7th July, 2015**

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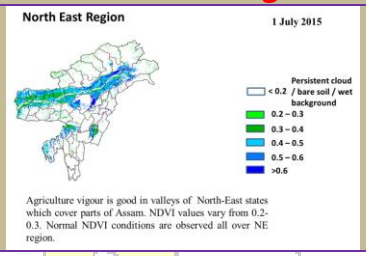
Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan
	Ni 4 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 26-30^{0}C a ni ang a.A vawh lai ber in 20-21^{0}C ni tur ah beisei a ni.RH san lai berin 99-100% leh a hniam lai berin 81-91%ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 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:*** **34.0mm**
NDVI for Mizoram and SPI	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

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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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1%

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		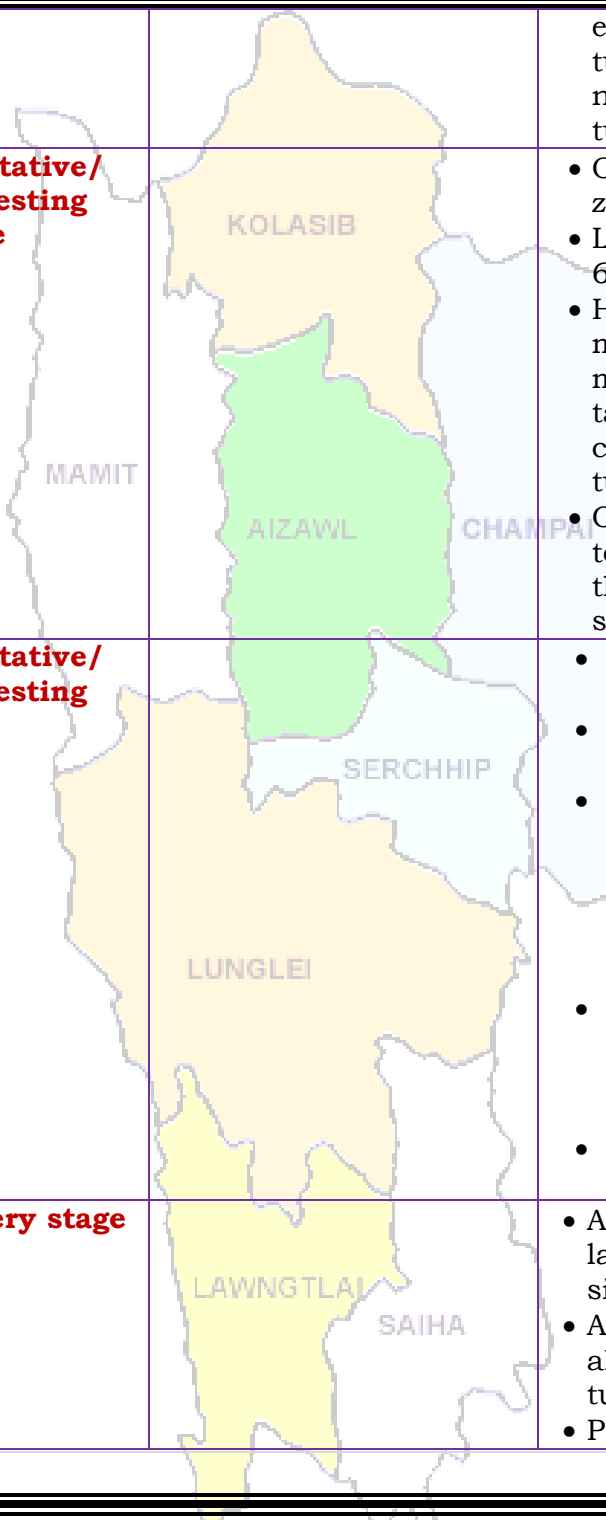	emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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

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			ah huan ah phun sawn leh tur. • Bawngek leitha chu khur khat ah 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur

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		2. Flea beetle	• Pangang tui leh a puitling te chu a kung atangin thin thlak tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur. • Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf	• Tui litre khatah Dithane M-45 chu

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		blotch	2.5g emaw Bavistin chu 1g a pawlhin karkhat danah vawi 2/3 kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea beetle a veng thei
Buh	**Nursery stage**	**Pre kharif rice**	• A chi tha leh khat tha chauh hman tur.

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			• 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 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**	1. A natna vei vawk te chu thah a

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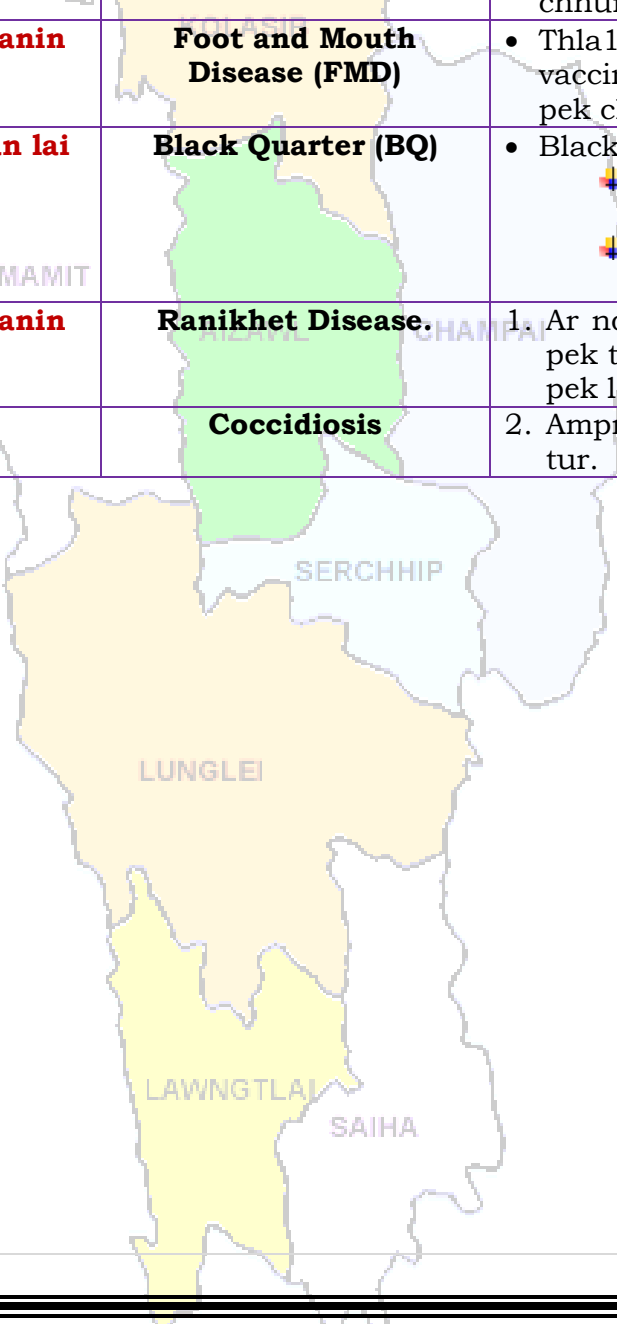
		Respiratory Syndrome (PRRS).	phum tur a ni.
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah 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: 08 - 12 July, 2015**

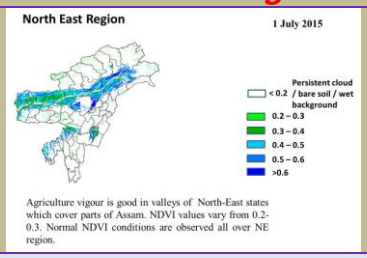
Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	16	4	5	4	5
Max Temp (oC)	28	27	28	30	29
Min Temp (oC)	22	22	21	21	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	97	97	98	97
Min RH (%)	86	83	73	65	81
Wind Speed (KmpH)	3	4	2	2	2
*Wind Direction	W	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan
	Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 27-30^{0}C a ni ang a.A vawh lai ber in 20-22^{0}C ni tur ah beisei a ni.RH san lai berin 97-99% leh a hniam lai berin 65-81% 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:*** **34.0mm**
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Thlai/ ran	Spat zawng	Hmalakna tur/	Agricultural/Horticultural/ animal

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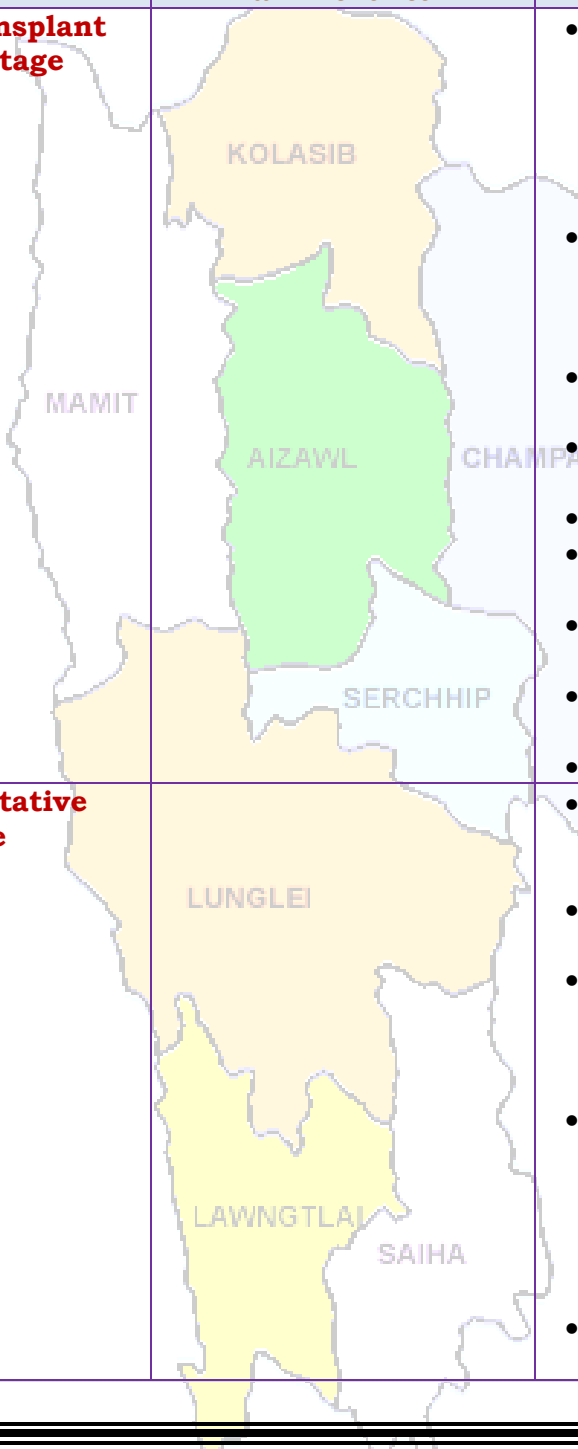
/sangha		rannung leh natna hrik awm thei te	husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		• A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. • Nursery 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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek

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		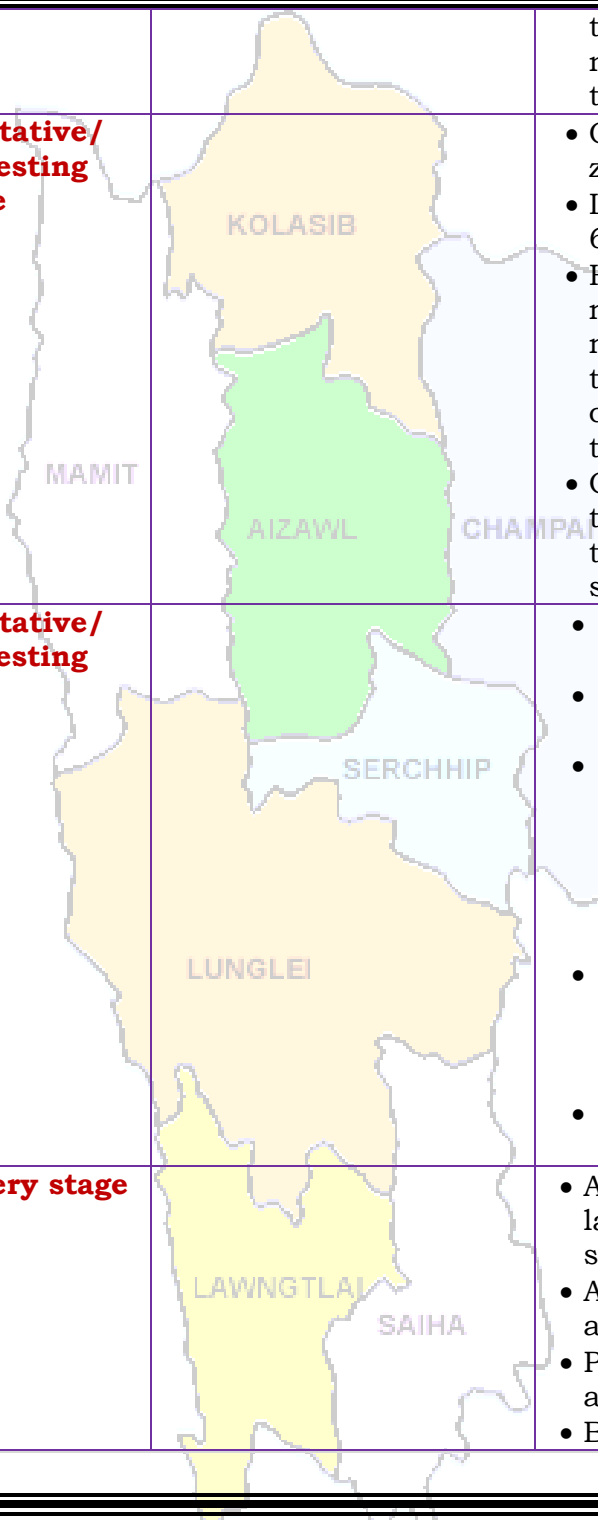	tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur
		2. Flea beetle	• Pangang tui leh a puitling te chu a kung atangin thin thlak tur.

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			• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur. • Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf blotch	• Tui litre khatah Dithane M-45 chu 2.5g emaw Bavistin chu 1g a pawlhin karkhat danah vawi 2/3

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			kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea beetle a veng thei
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.

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			• 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 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.

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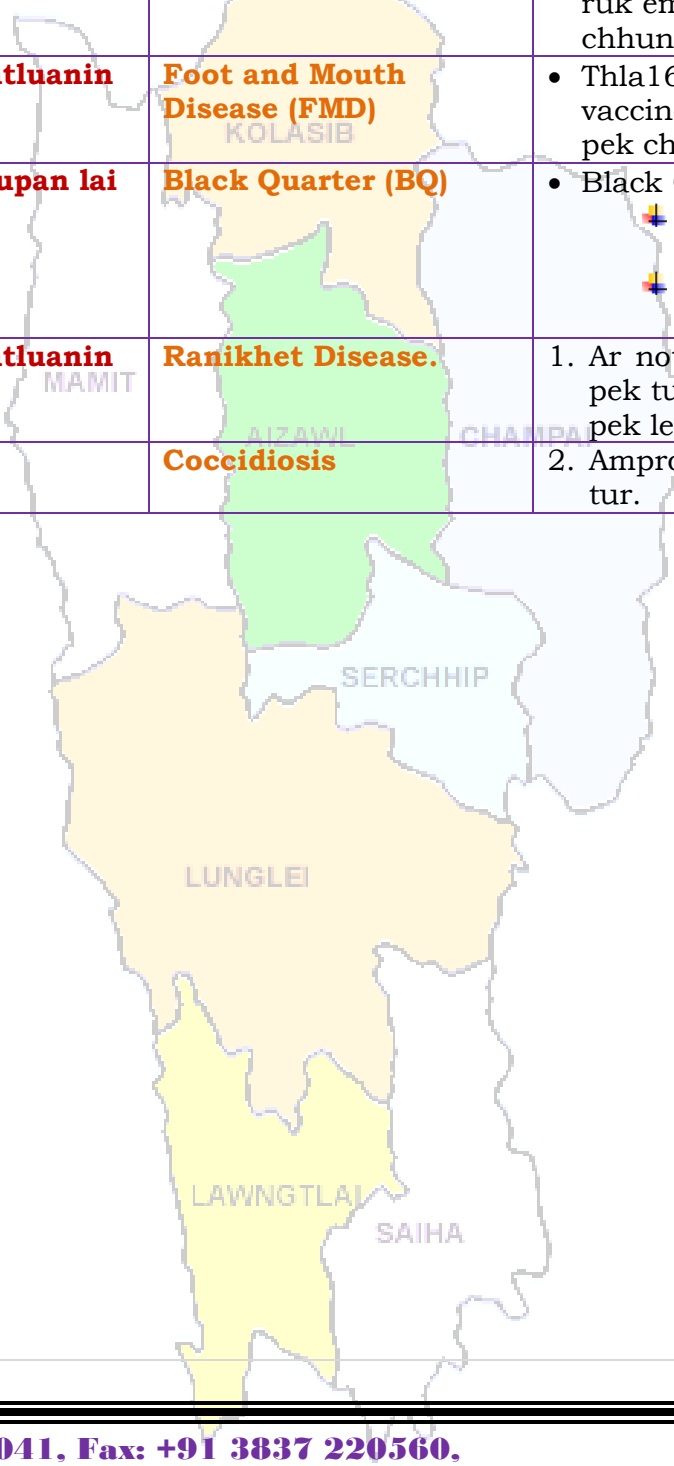
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.

	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: 08 - 12 July, 2015**

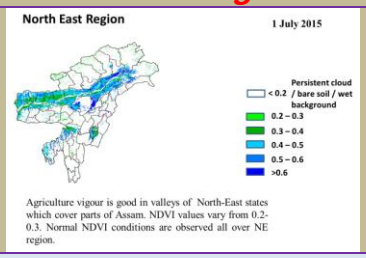
Bulletin No: -533/2015/ Bulletin/English **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	16	4	5	4	5
Max Temp (oC)	28	27	28	30	29
Min Temp (oC)	22	22	21	21	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	97	97	98	97
Min RH (%)	86	83	73	65	81
Wind Speed (KmpH)	3	4	2	2	2
***Wind Direction**	W	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Weather summary of the past three days	Weather forecast valid from 08th July, 2015 To 12th July, 2015.
	There are chances of moderate to light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 27-30^{0}C and 20-22^{0}C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 65-81%. Wind direction would be westerly to southeasterly with the wind speed of 2-4 km per hour. Partially cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **34.0 mm**
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Main Stage	Cultural practices/	Agricultural / Horticultural/

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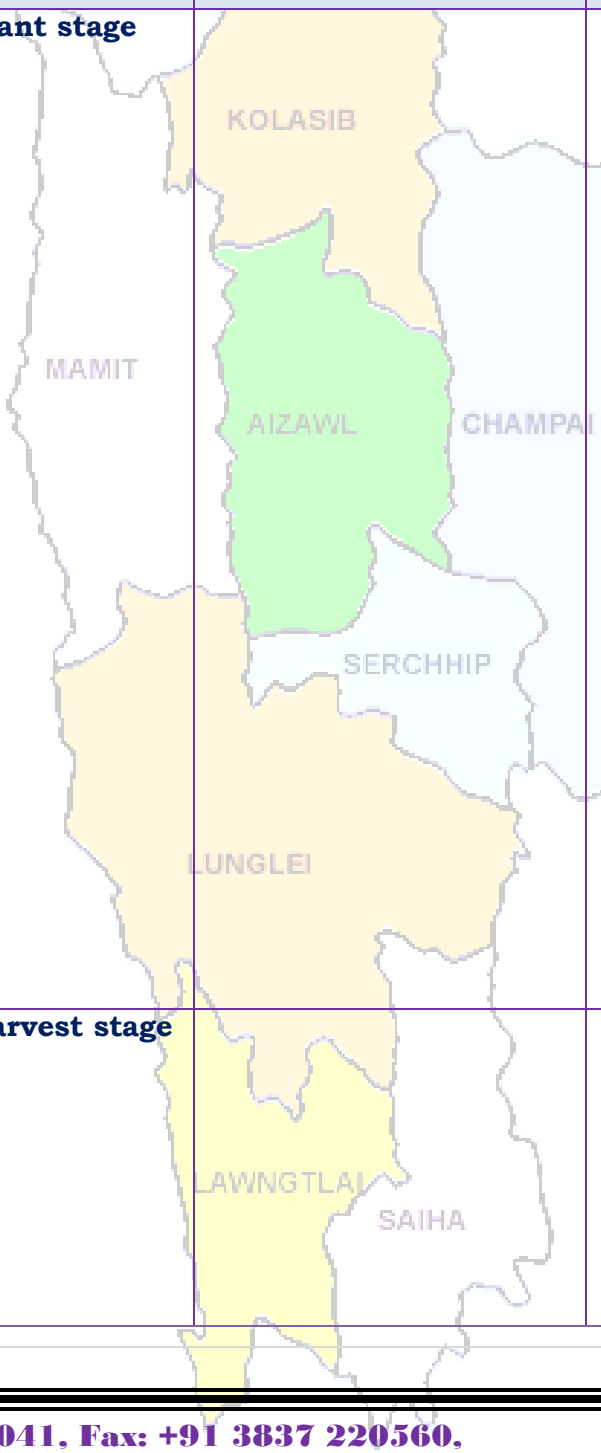
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		• Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. • This root stock has proved very successful for raising some sweet orange and mandarin orange varieties This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. • Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops • Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.
Khasi Mandarin and acid lime	**Flower/Harvest stage**		• Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. • Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid

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			blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		Remove all dead plants and replace with healthy seedling. 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

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		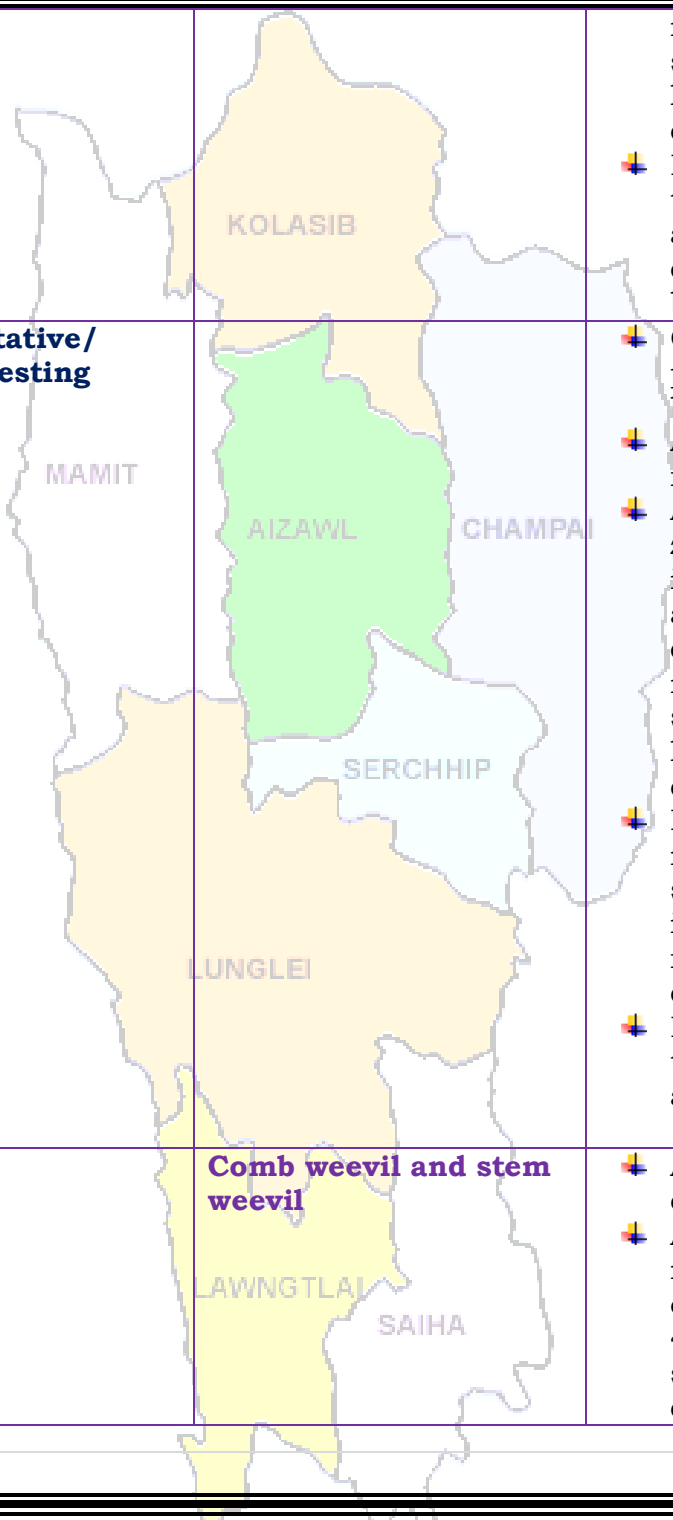	nutrients and also reduce serious disorders which may lead to decline of the whole orchard. Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		Cleaning near base of the plant and cut unwanted branches. Application 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. Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. Fruits are harvested when they attain full size, develop attractive yellow colour.
		Comb weevil and stem weevil	Applications of neem powder effectively controlled weevils. 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.

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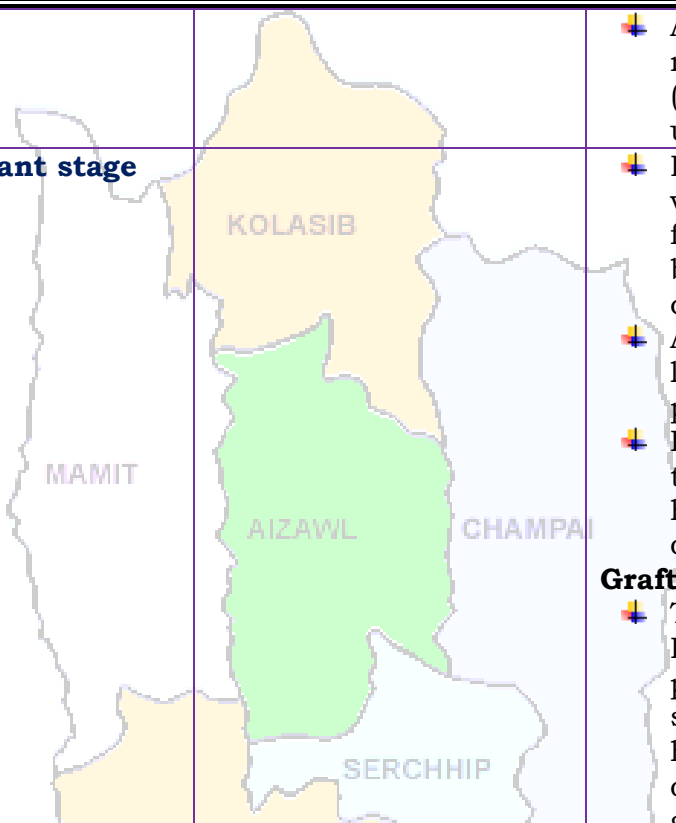
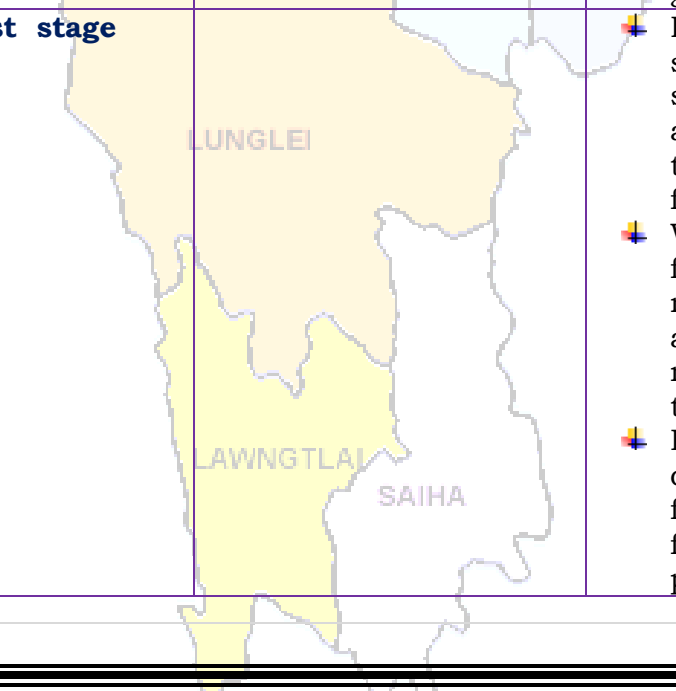
			➢ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		➢ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ➢ A cutting should contain at least 3 buds and must be planted in sand beds. ➢ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ➢ The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		➢ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow. ➢ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. ➢ Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound

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			when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		✦ It takes only about 10 days from the time of flowering to the time to pick okra. ✦ Picking okra should be done when they are four to five inches long. ✦ Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ Remove unwanted plant near

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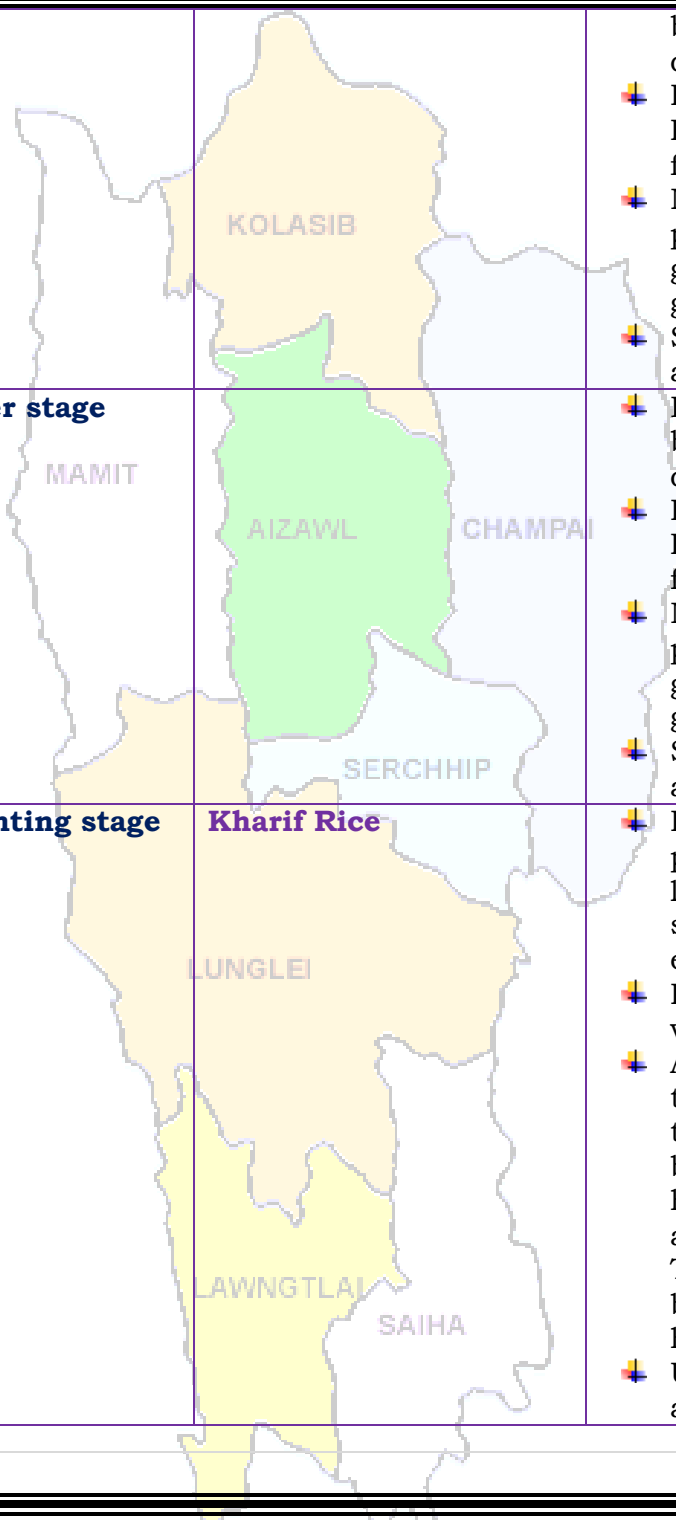
			base of the plant and cut dead branches. - Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. - Mulching with black polythene film reduces weed growth, increases the crop growth. - Split dose of fertilizer application @ 50kg/ha urea.
Tomato	**Flower stage**		- Remove 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.
Rice	**Transplanting stage**	**Kharif Rice**	- Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. - Ploughing should be done 3-4 weeks prior to sowing. - After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. - Under good management and adequate nitrogen levels, the



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		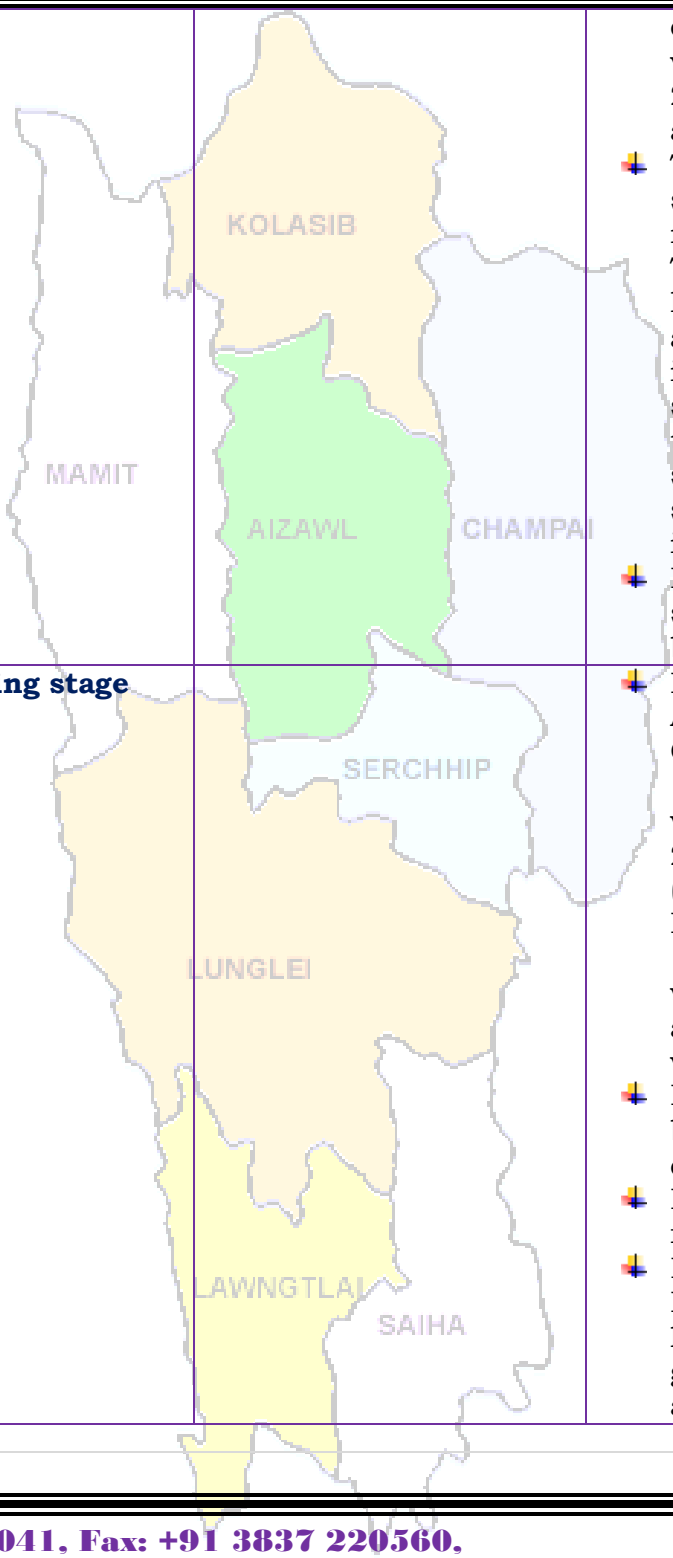	optimum spacing for rice varieties should be around 20x15 cms both for kharif and rabi crops. Transplanting two to three seedlings per hill under normal conditions is enough. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		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. Remove unwanted plant near base of the plant and cut dead branches. Earting up of soil along with fertilizer mixture. Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.

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Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		✦ Land preparation or sowing in pits ✦ Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. ✦ Use PSB 2g/kg for better germination.
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.
		Thrips	✦ Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	✦ Spray Quinalphos or Monocrotophos (2.5 ml/lt) for controlling scales.
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.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month

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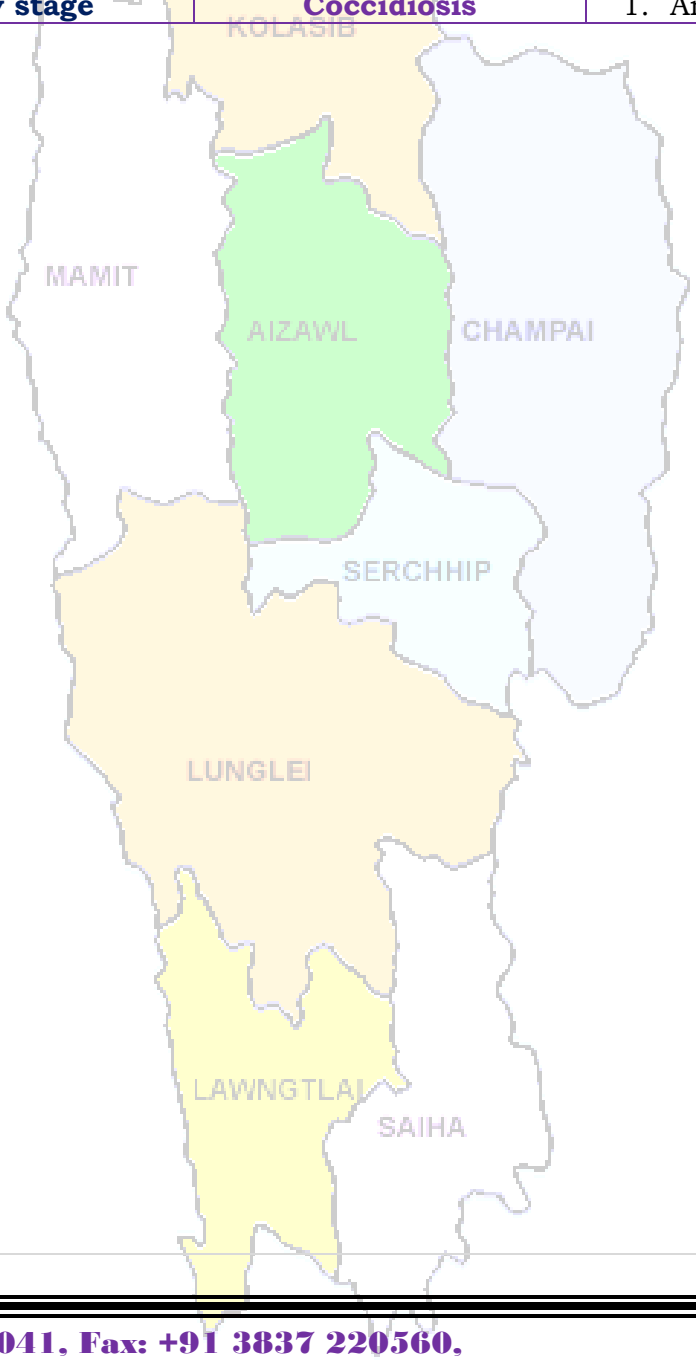
			or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat



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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: 08 - 12 July, 2015**

Bulletin No: -533/2015/ Bulletin/English **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	39	5	5	7	7
Max Temp (oC)	26	26	27	28	28
Min Temp (oC)	21	22	21	21	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	99	99	99	98
Min RH (%)	90	88	82	77	83
Wind Speed (KmpH)	2	2	2	2	2
*Wind Direction	S-W	S-W	S-E	S-E	S-E

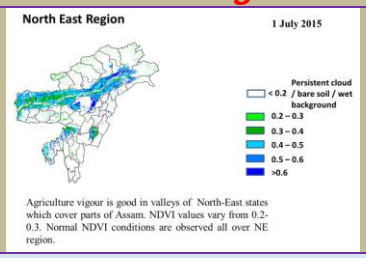
Northerly- N, North-Easterly- N-E, Easterly- E, South-Easterly- S-E, Southerly- S, South-Westerly- S-W, Westerly-W, North-westerly- N-W.

STATUS OF PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Weather summary of the past three days	Weather forecast valid from 08th July, 2015 To 12th July, 2015.
	There are chances of heavy rainfall to light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 26-28^{0}C and 20-22^{0}C. Maximum relative humidity is expected in the range of 98-99% and minimum may from 77-90%. Wind direction would be southeasterly with the wind speed of 2 km per hour. Partially cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **63.0 mm**

NDVI for Mizoram		NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".



Main	Stage	Cultural practices/	Agricultural / Horticultural/

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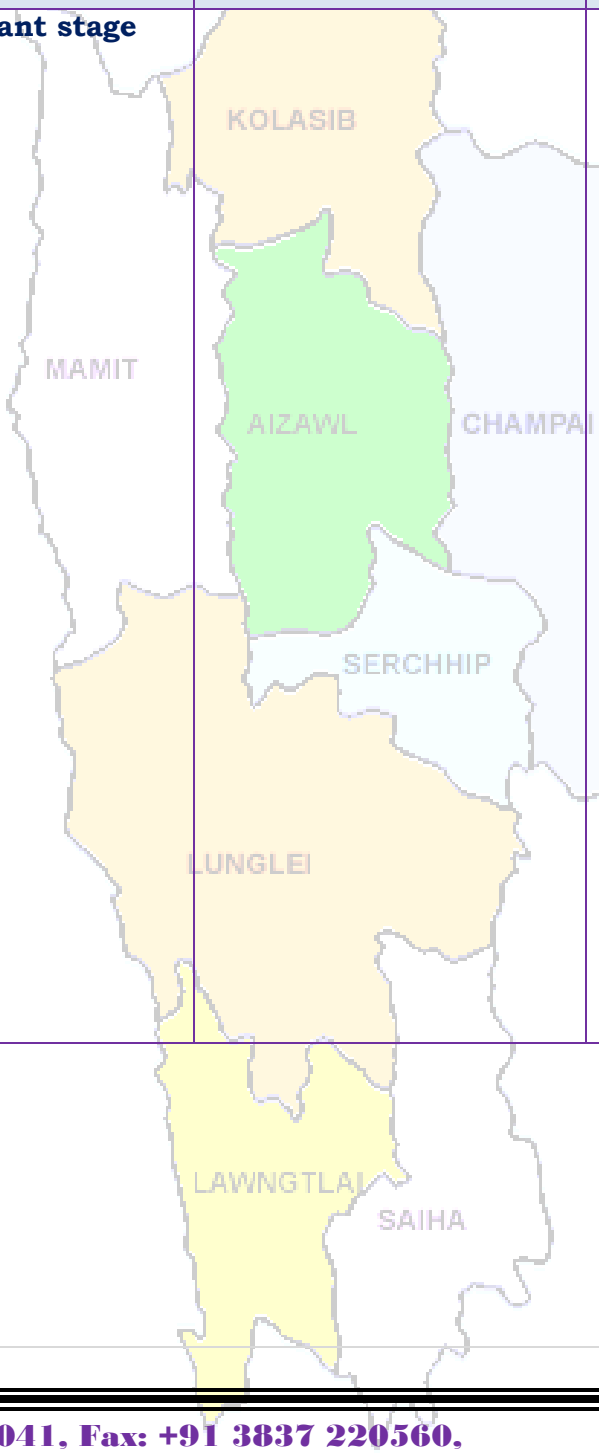
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		• Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. • This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. • Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops • Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.



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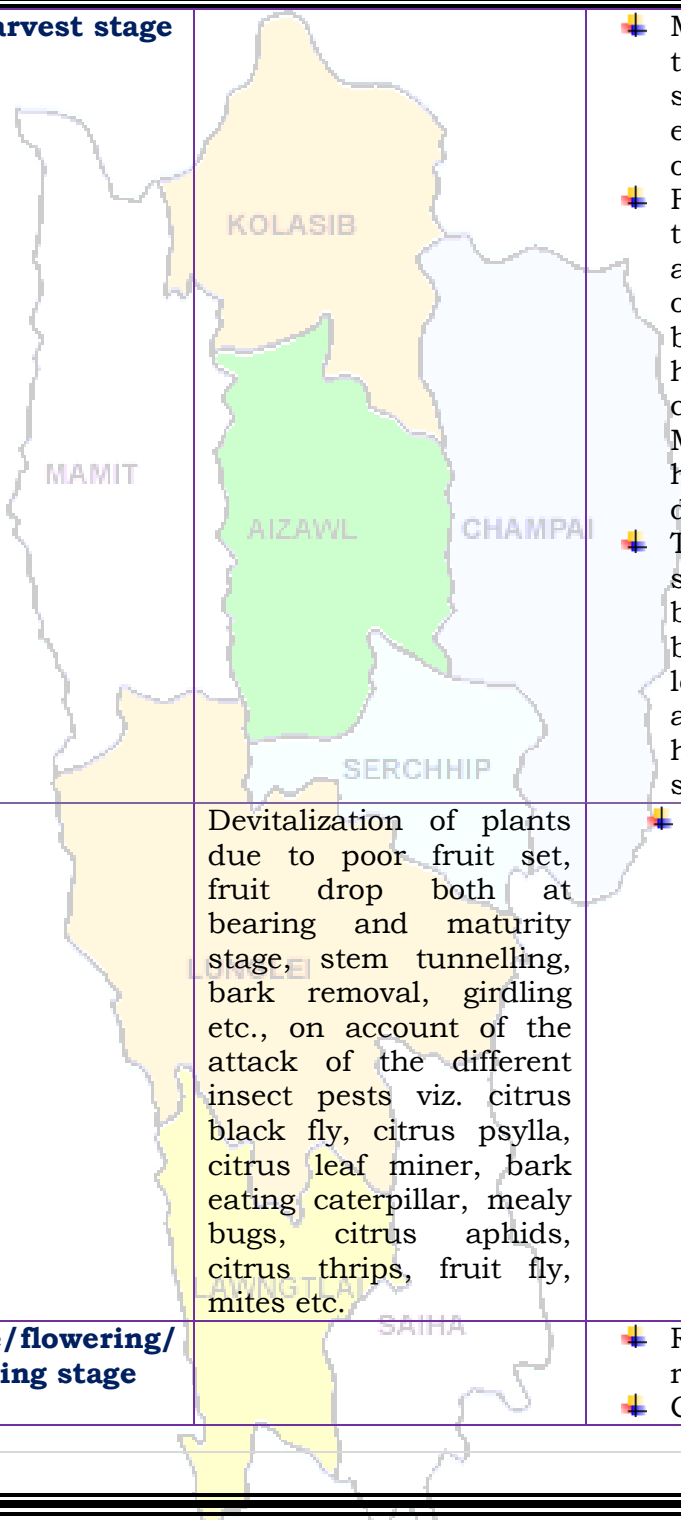
Khasi Mandarin and acid lime	**Flower/Harvest stage**		✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. ✦ Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	✦ Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		✦ Remove all dead plants and replace with healthy seedling. ✦ Cleaning near base of the

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		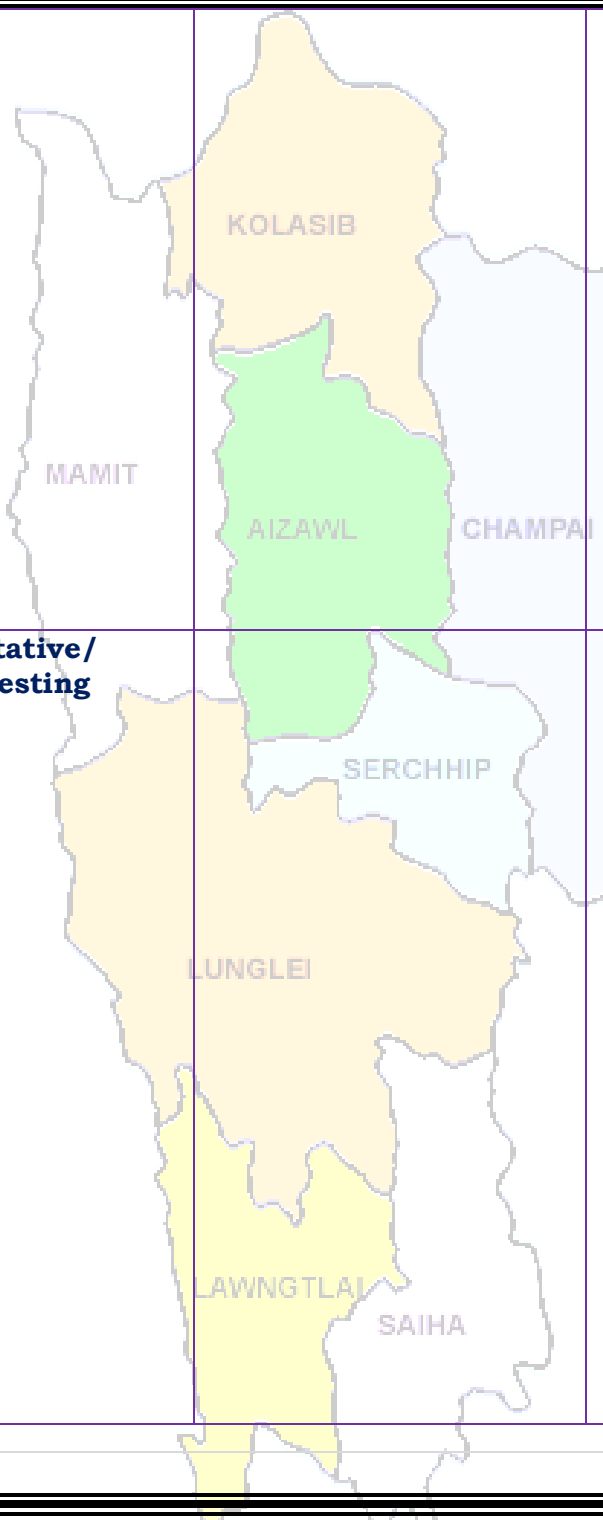	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		- 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. - Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. - Fruits are harvested when they attain full size, develop attractive yellow colour.

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		Comb weevil and stem weevil	▪ Applications of neem powder effectively controlled weevils. ▪ 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. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		▪ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned

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			from green to yellow. • When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. • Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		• It takes only about 10 days from the time of flowering to the time to pick okra. • Picking okra should be done when they are four to five inches long. • Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested

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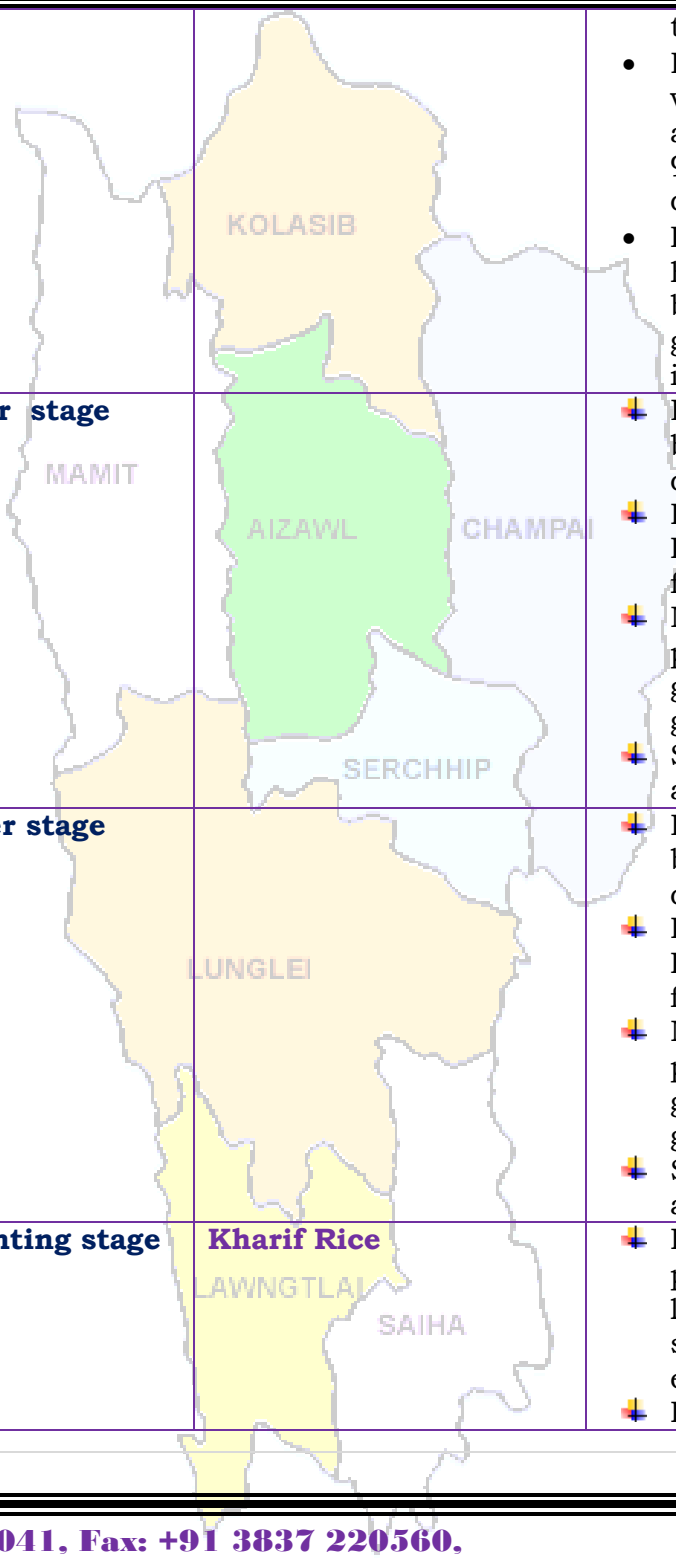
			twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ Remove unwanted plant 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.
Tomato	**Flower stage**		✦ 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.
Rice	**Transplanting stage**	**Kharif Rice**	✦ Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. ✦ Ploughing should be done 3-4



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		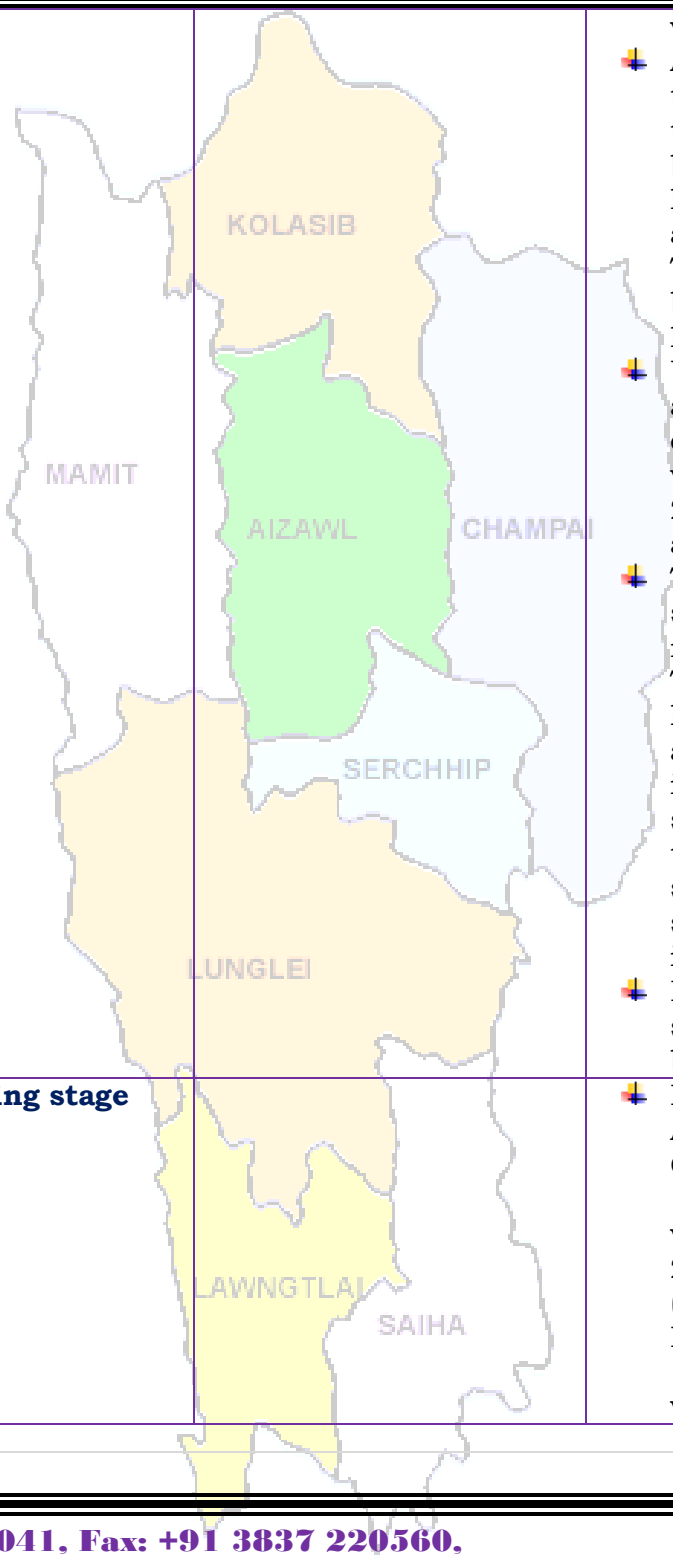	weeks prior to sowing. • After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. • Under good management and adequate nitrogen levels, the optimum 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. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. • Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		• 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

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			annual and broad leaved weeds. - Remove unwanted plant near base of the plant and cut dead branches. - Earting up of soil along with fertilizer mixture. - Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		- Land preparation or sowing in pits - Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. - Use PSB 2g/kg for better germination.
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.
		Thrips	- Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	- Spray Quinalphos or Monocrotophos (2.5 ml/lt) for

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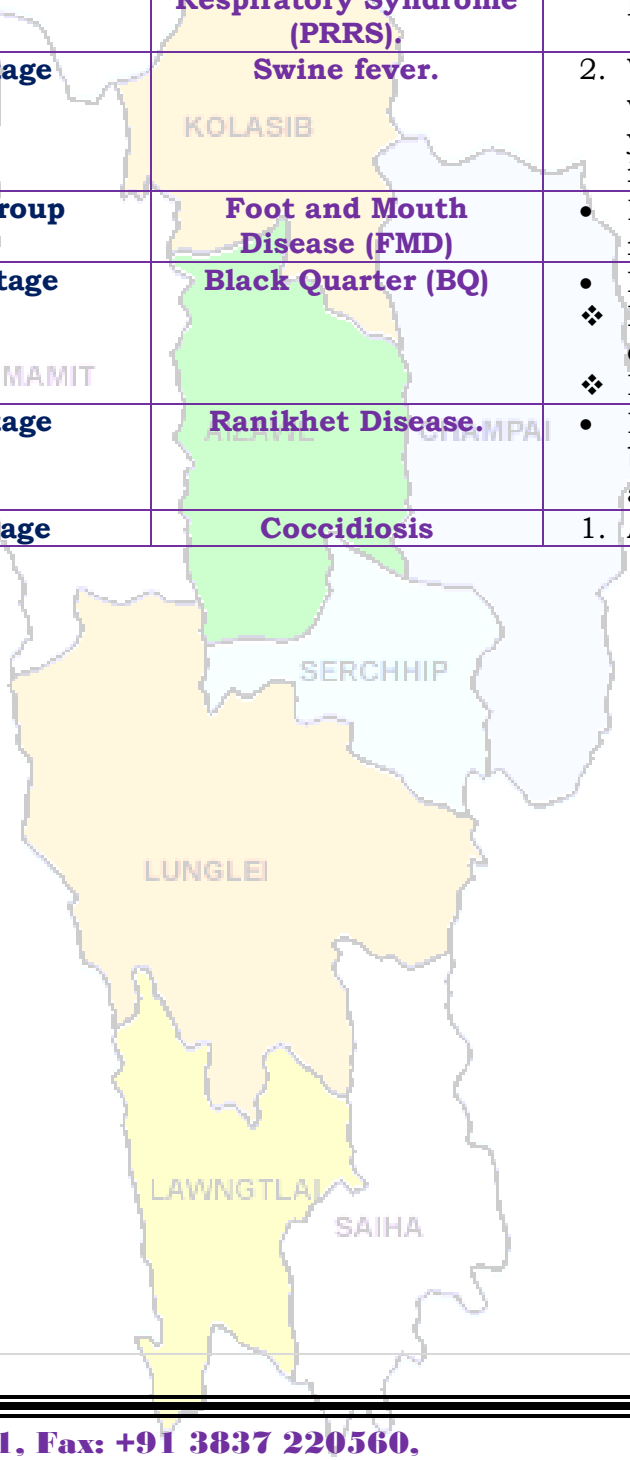
			controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	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: Champhai **Period: 08 - 12 July, 2015**

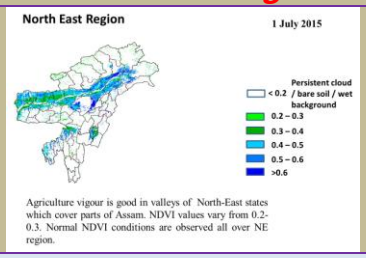
Bulletin No: -533/2015/ Bulletin/Mizo **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	39	5	5	7	7
Max Temp (oC)	26	26	27	28	28
Min Temp (oC)	21	22	21	21	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	99	99	99	98
Min RH (%)	90	88	82	77	83
Wind Speed (KmpH)	2	2	2	2	2
*Wind Direction	S-W	S-W	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Ni thum kaltha sik leh sa dinhmun tlangpui	July 08, 2015 atanga July 12, 2015 sik leh sa dinhmun hmuhlawk dan
	Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 26-28^{0}C a ni ang a.A vawh lai ber in 20-22^{0}C ni tur ah beisei a ni.RH san lai berin 98-99% leh a hniam lai berin 77-90% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 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:*** **63.0mm**
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

Thlai/ ran	Spat zawng	Hmalakna tur/	Agricultural/Horticultural/ animal

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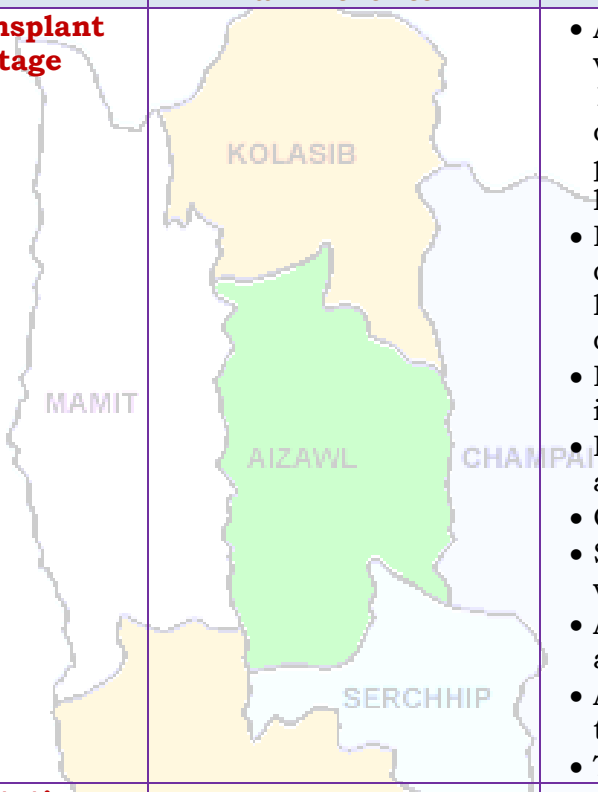
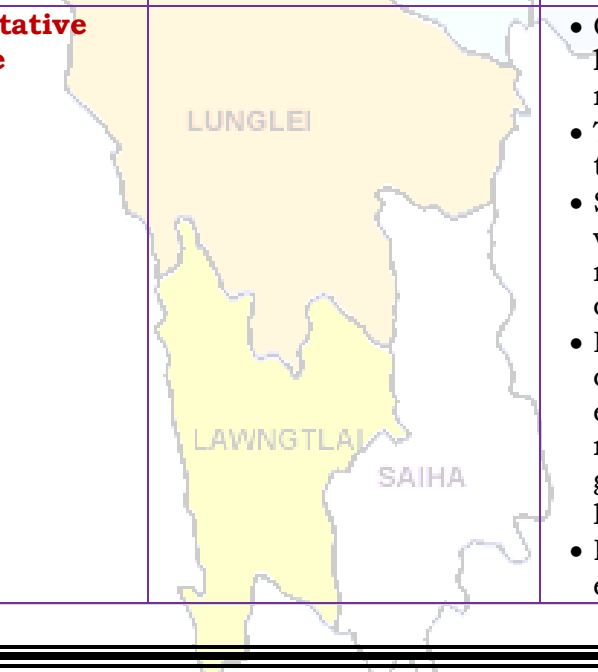
/sangha		rannung leh natna hrik awm thei te	husbandry atana thurawn
Khasi Mandarin and acid lime	**Transplant stage**		• A chi: A chi chu lakchhuah anih veleh nurseey ah a thuk zawng 1.5-2cm leh 10X5cm a inhlat a chin tur. A rawn chawr chu polythene bag ah hnah 4-6 a neih hunah phun sawn tur. • Nursery 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.
	Vegetative stage		• Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur. • Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur. • Ser rah tla hi ser kung khatah vawi 2 a thleng thin a, hemi ven nan hian GA3, urea, benomyl leh carbendazim a hun takah pek tur, • Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur. • Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek

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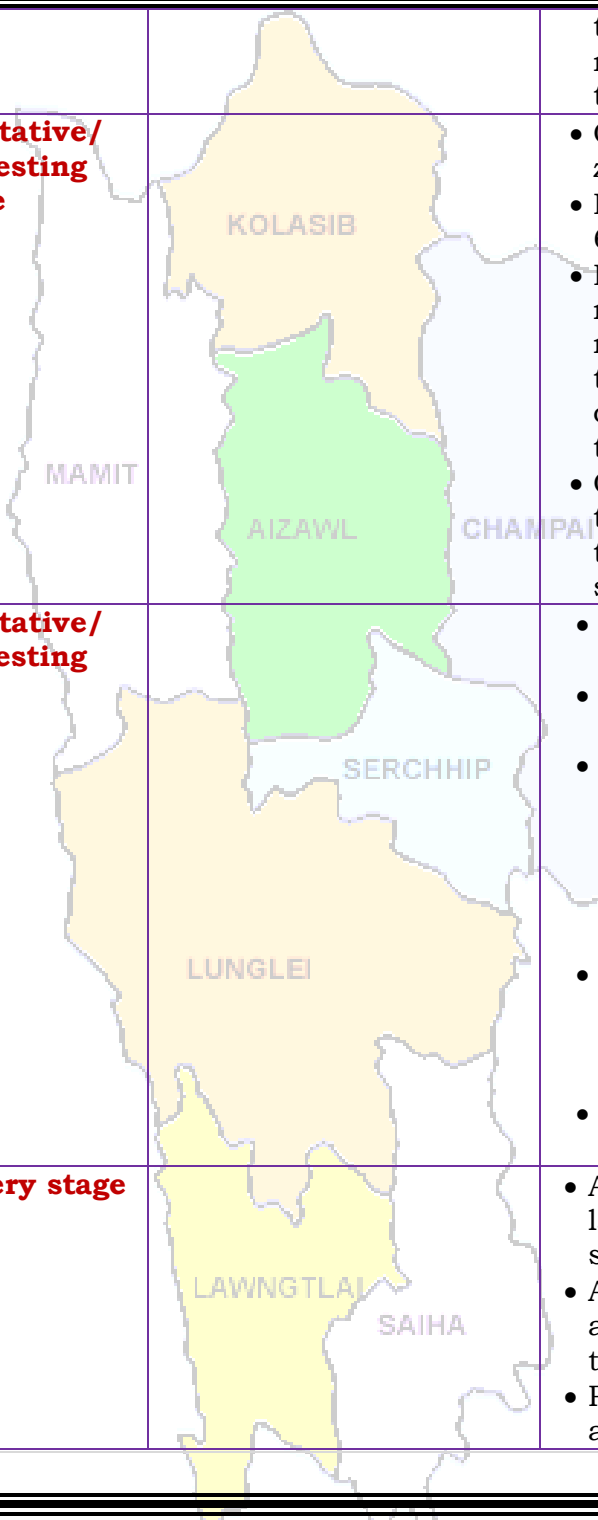
			tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur).
Oil palm	**Vegetative/ harvesting stage**		• Oil palm kung bul chu tihfai a a zar thlak bawk tur. • Leitha chu thlai pakhatah 600:200:100g a pek tur. • Heng micro-nutrients zinc, copper, manganese, iron, boron leh molybdenum te hi 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.
Balhla	**Vegetative/ harvesting**		• 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.
Sapthei	**Nursery 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.

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			• Bawngek leitha chu khur khat ah 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.
		1. Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur
		2. Flea beetle	• Pangang tui leh a puitling te chu a

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			kung atangin thin thlak tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		3. Epilachna beetle	• A hnah a pangang leh a tui awm chu paihfai tur. • Methyl parathion 0.5% emaw Dimethoate 0.3% a kah tur.
		4. Leaf hopper	• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Bacterial wilt	• Huan chu fai taka dah a, thlai damlo te chu paihfai bawk tur. • Thlai damlo enkawl nan copper fungicide (2% Bordeaux mixture) a kah tur.bacterial witl chu root knot nematodes tam naah a awm thin a, hemi nematodes control hian bacterial wilt hi a veng thei. • Streptocycline sulphate chu tui litre khatah 0.3g leh Blitox 50 chu tui litre 15 ah 5g a pek tur.
		Damping off	• Thlai chi chu kg khatah Thiram 3g emaw Trichoderma viride4g+Metalaxyl 4g (Apron) a chiah tur. • Bordeaux mixture 1% emaw 2g Captan emaw 3 copper oxychloride chu tui litre khatah pawlhin a chin atanga ni 10-15 ah leih tur.
		Leaf spot and leaf blotch	• Dithane M-45 chu tui litre khatah 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur. • Leaf spot tan Blitox 3g chu tui litre khata pawlhin kah tur.
		Leaf spot leh leaf blotch	• Tui litre khatah Dithane M-45 chu 2.5g emaw Bavistin chu 1g a

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			pawlhin karkhat danah vawi 2/3 kah thin tur. • Leaf spot ah chuan tui litre khatah Blitox chu 3g pawlh a kah thin 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.
		Blister beetle	• Rannung ho chu mankhawmin thah vek tur. • Cypermethrin 2g chu tui litre khata pawlhin kah thin tur
Bawkbawn	**A chin dan**		• Balu leh leitha chu lei nen a 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.
		Aphids	• Surf tuiin thlai chu kah tur. • Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in emaw Dimethoate 30% EC hi tui litre 10 ah 7ml a kah tur.
		Epilachna beetle	• Methyl parathion 0.5% emaw Dimethoate 0.3% a kah in flea beetle a veng thei
Buh	**Nursery stage**	**Pre kharif rice**	• A chi tha leh khat tha chauh hman tur. • Tui litre 10 ah chi (salt) 250g

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			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 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**	1. A natna vei vawk te chu thah a phum tur a ni.

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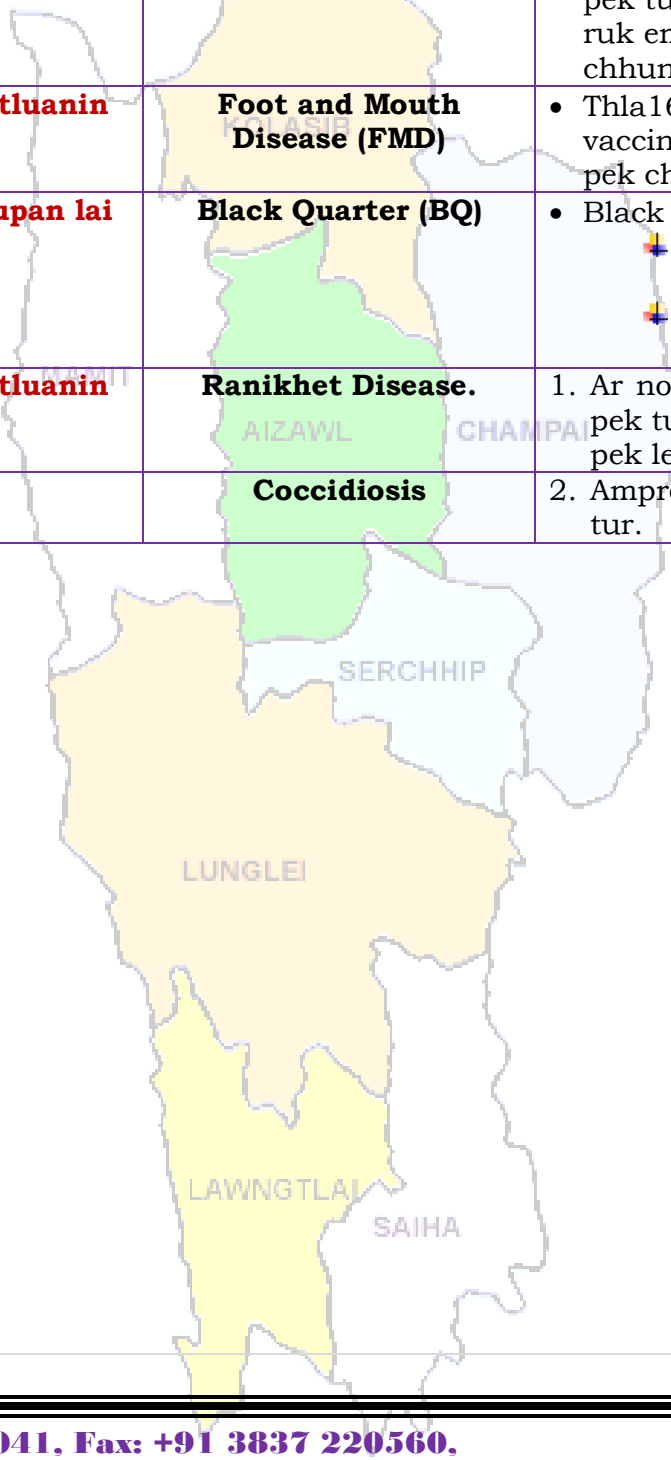
		(PRRS).	
	A puitling hun	**Swine fever.**	2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur
Bawng	**Kumtluanin**	**Foot and Mouth Disease (FMD)**	• Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni.

	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: 08 - 12 July, 2015**

Bulletin No: -533/2015/ Bulletin/English **Date of issue: 7th July, 2015**

Parameters	08.07.2015	09.07.2015	10.07.2015	11.07.2015	12.07.2015
Rainfall (mm)	8	6	5	4	4
Max Temp (oC)	29	28	30	31	31
Min Temp (oC)	23	23	23	22	22
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	97	96	98	96
Min RH (%)	84	81	73	60	80
Wind Speed (KmpH)	2	4	2	2	2
***Wind Direction**	S-W	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 PREMONSOON- May 1-31, 2015 (*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 (25.9mm)

Weather summary of the past three days

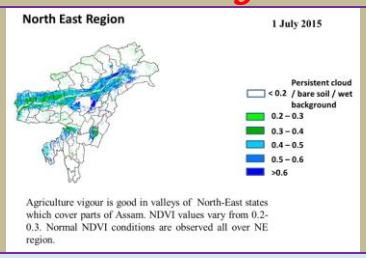
The temperature range for maximum and minimum were 29.3-33.0^{0}C and 20.8-22.6^{0}C respectively. Partially cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 85-89% & minimum of 58-62%. Rainfall recorded for the past three days is **32.70mm.**

Weather forecast valid from 08th July, 2015 To 12th July, 2015.

There are chances of light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 28-31^{0}C and 22-23^{0}C. Maximum relative humidity is expected in the range of 96-99% and minimum may from 60-84%. Wind direction would be southwesterly to southeasterly with the wind speed of 2-4 km per hour. Partially cloudy sky will prevail during the next five days.

Weekly cumulative rainfall: **27.0 mm**

NDVI for Mizoram



NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents “Bare Soil”.

Main	Stage	Cultural practices/	Agricultural / Horticultural/

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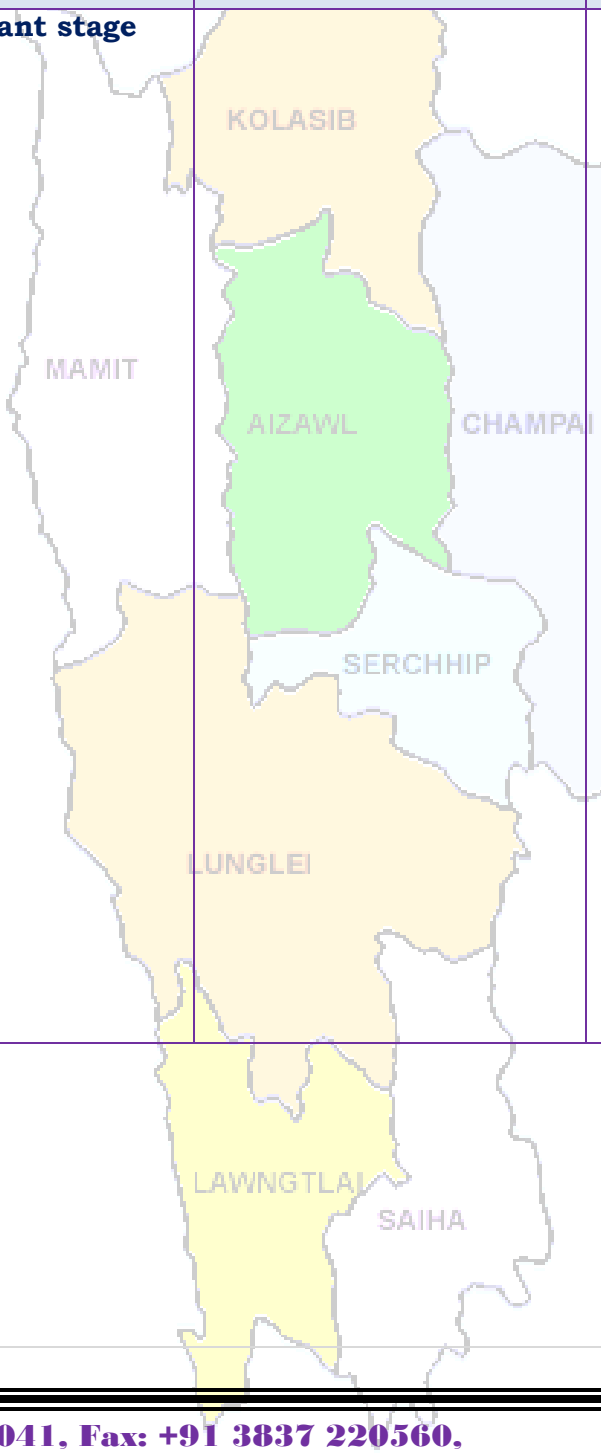
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage** 		▪ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ▪ This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. ▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops ▪ Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.

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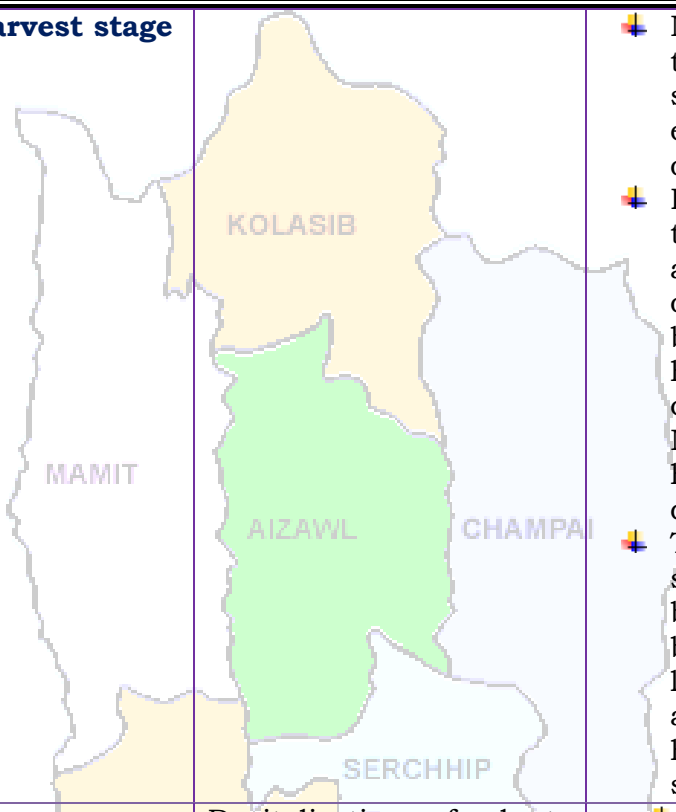
Khasi Mandarin and acid lime	**Flower/Harvest stage**		▪ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ▪ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains. ▪ Trees are trained to single stem with 4-6 well-spaced branches for making the basic framework. The lowermost branches are not allowed to grow below the height of 50 cm. from the soil surface.
		Devitalization of plants due to poor fruit set, fruit drop both at bearing and maturity stage, stem tunnelling, bark removal, girdling etc., on account of the attack of the different insect pests viz. citrus black fly, citrus psylla, citrus leaf miner, bark eating caterpillar, mealy bugs, citrus aphids, citrus thrips, fruit fly, mites etc.	▪ Spraying with insecticides viz. monocrotophos, phosalone, dimethoate, phosphamidon, quinalphos @ 2 ml/lt of water.
Oil plam	**Vegetative/flowering/ Harvesting stage**		▪ Remove all dead plants and replace with healthy seedling. ▪ Cleaning near base of the

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		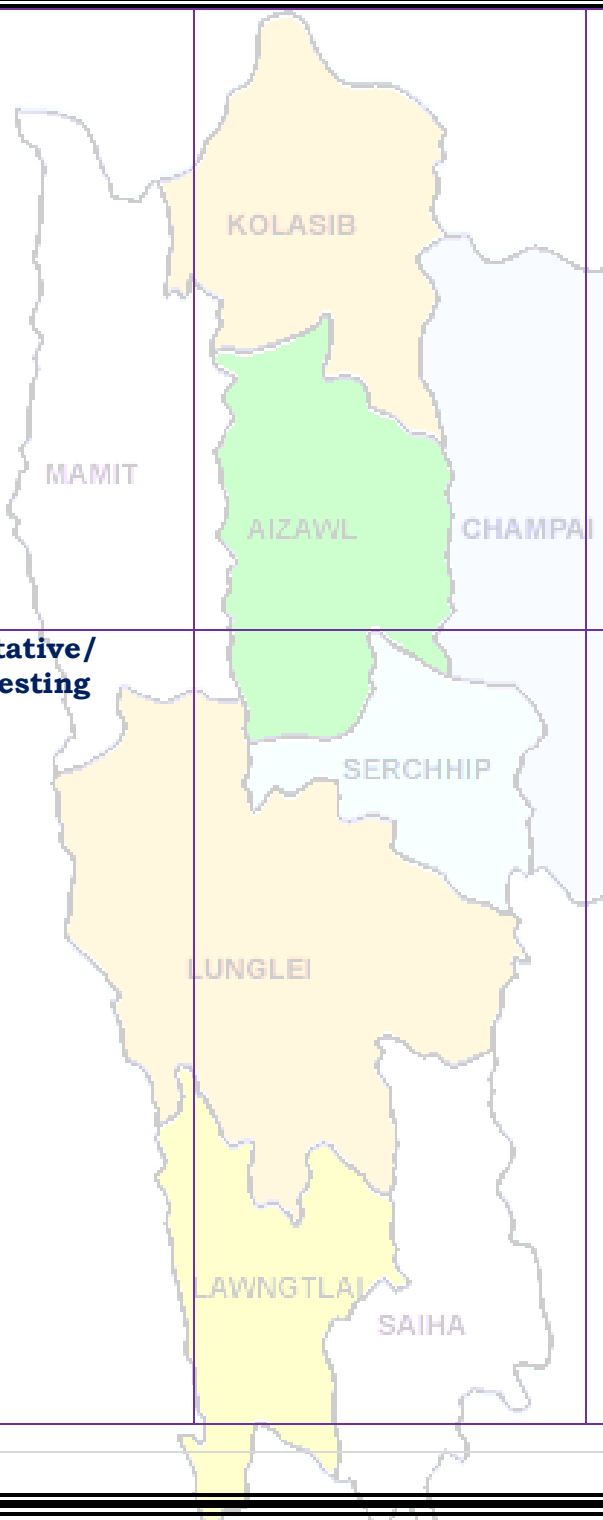	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		- 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. - Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. - Fruits are harvested when they attain full size, develop attractive yellow colour.

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		Comb weevil and stem weevil	▪ Applications of neem powder effectively controlled weevils. ▪ 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. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		▪ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned

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			from green to yellow. • When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. • Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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.
Okra	**Harvest stage**		• It takes only about 10 days from the time of flowering to the time to pick okra. • Picking okra should be done when they are four to five inches long. • Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested

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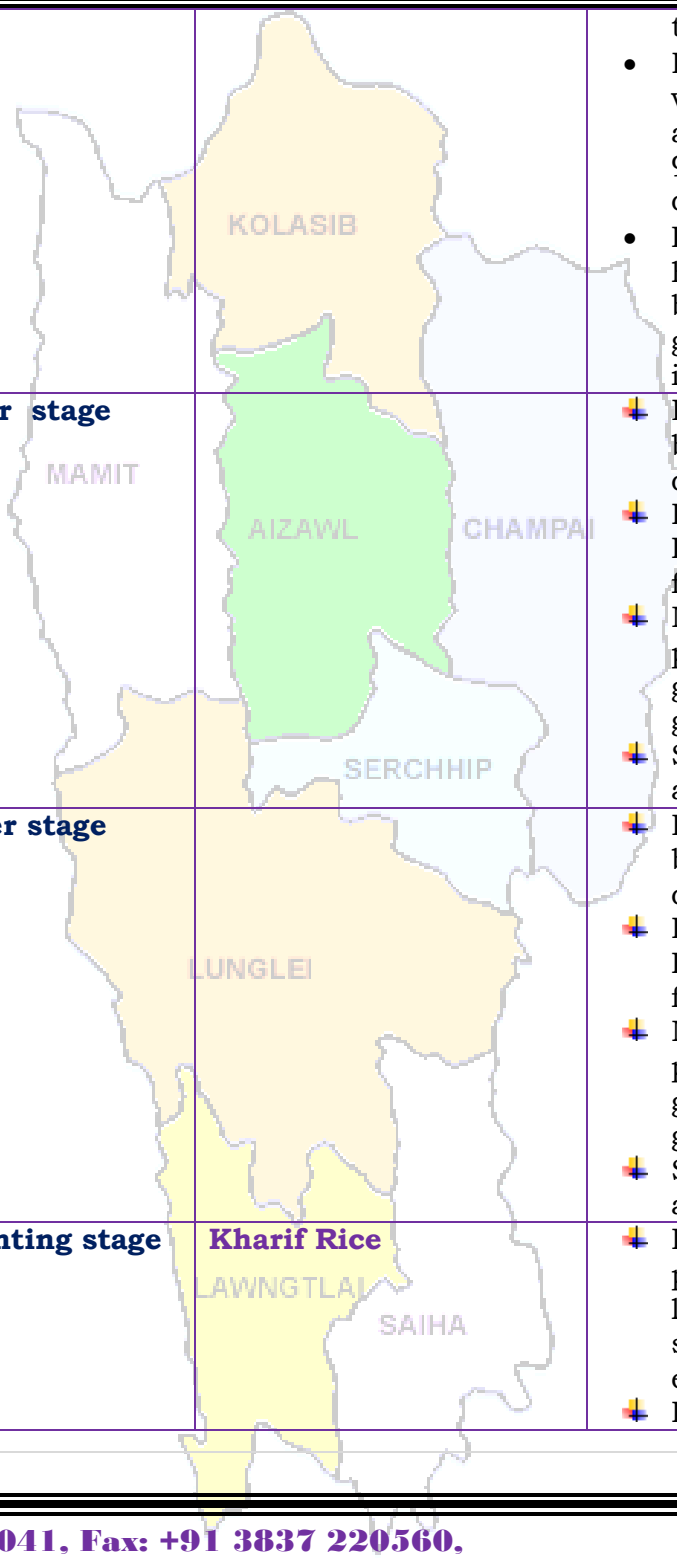
			twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ Remove unwanted plant 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.
Tomato	**Flower stage**		✦ 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.
Rice	**Transplanting stage**	**Kharif Rice**	✦ Land preparation is done by ploughing, harrowing, and levelling the field to make it suitable for crop establishment. ✦ Ploughing should be done 3-4



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		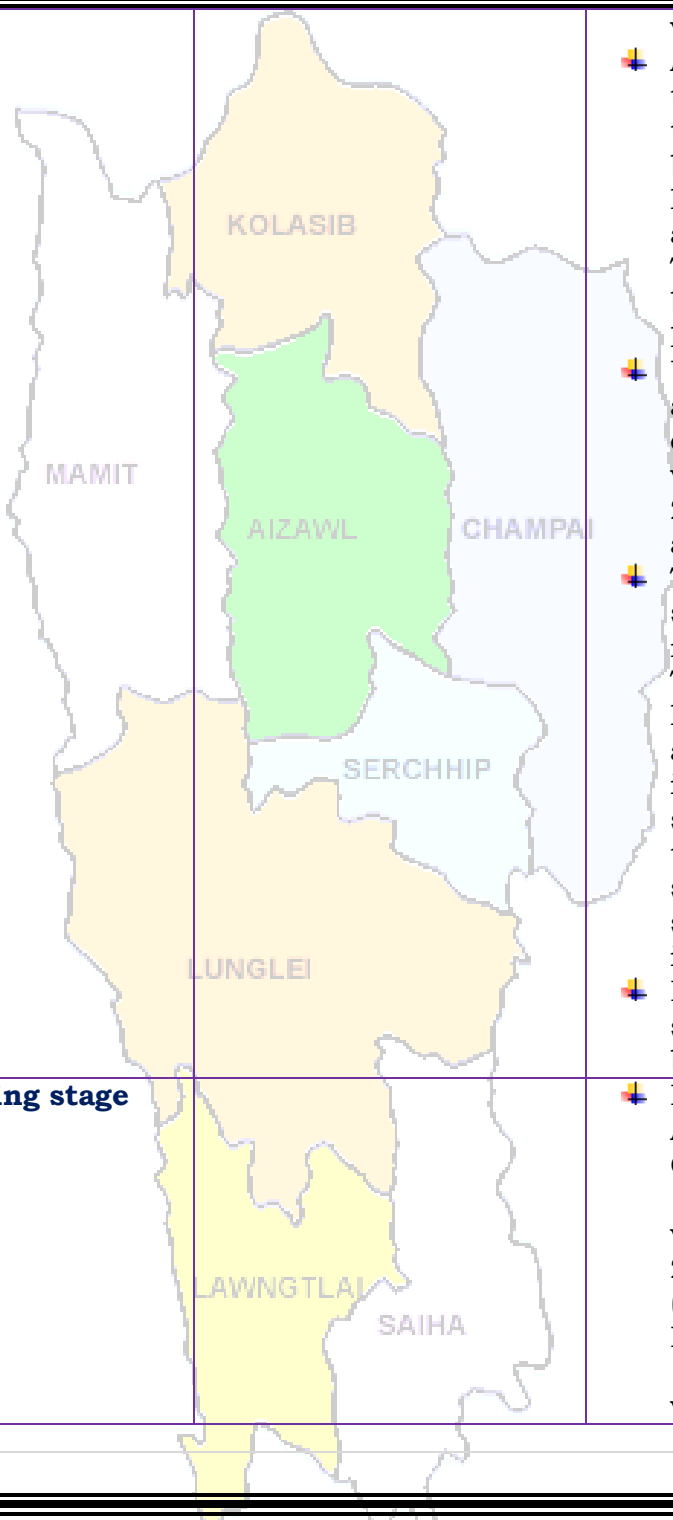	weeks prior to sowing. • After ploughing, harrowing the field should be done twice, with one week gap between the two. First harrowing should be done after 1 week of ploughing. The second harrowing should be done across the first harrowing. • Under good management and adequate nitrogen levels, the optimum 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. The use of more seedlings per hill, besides not being any additional advantage, involves an extra expense on seedlings. In case of transplanting with old seedlings, the number of seedlings per hill can be increased. • Remove the tip of rice seedling which reduces stem borer infestation.
Maize	**Flowering stage**		• 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

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			annual and broad leaved weeds. - Remove unwanted plant near base of the plant and cut dead branches. - Earting up of soil along with fertilizer mixture. - Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Sowing stage**		- Land preparation or sowing in pits - Inorganic fertilizer like Urea, SSP and MOP @ 20: 60: 40 kg. - Use PSB 2g/kg for better germination.
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.
		Thrips	- Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	- Spray Quinalphos or Monocrotophos (2.5 ml/lt) for

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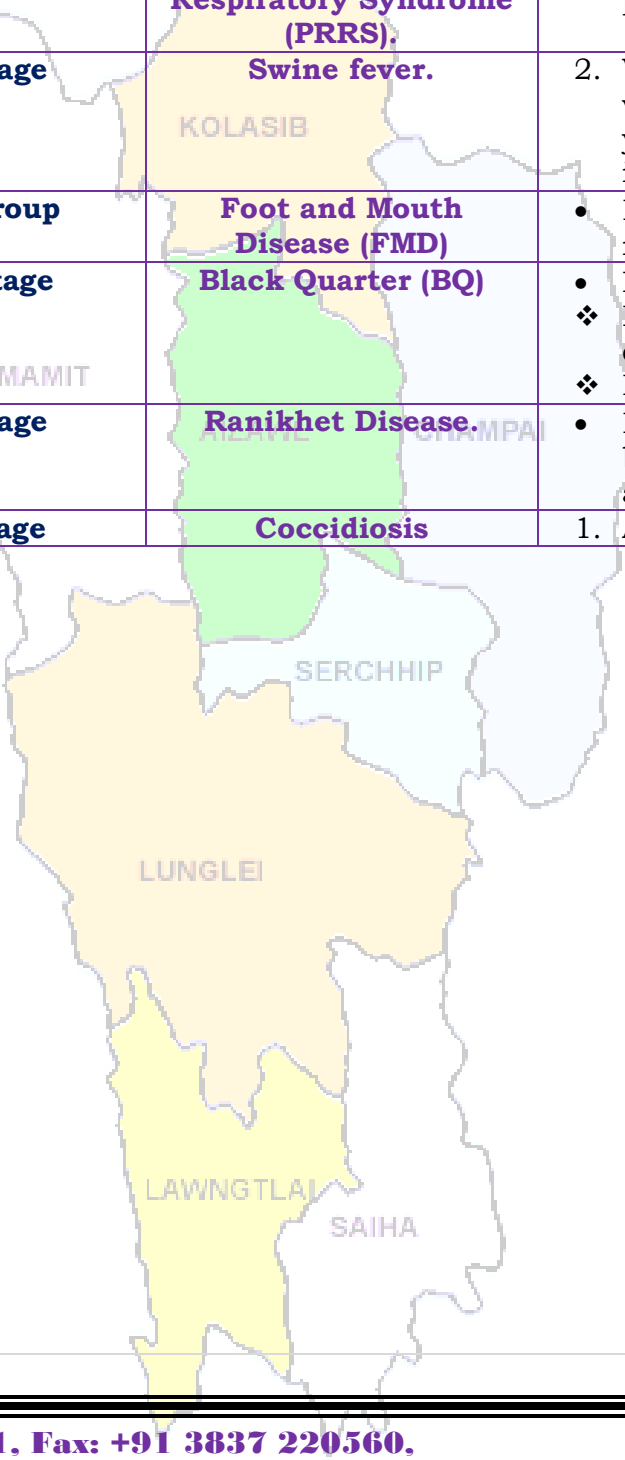
			controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	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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