# 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:** 01- 05 August, 2015

**Bulletin No:** -540/2015/ Bulletin/Mizo **Date of issue:** 31st July, 2015

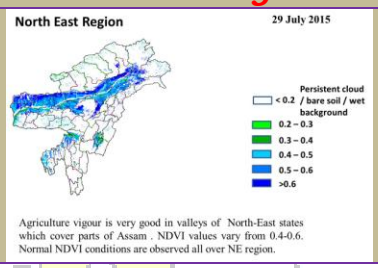
| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 55 | 26 | 6 | 0 | 7 |
| Max Temp (oC) | 24 | 26 | 30 | 29 | 28 |
| Min Temp (oC) | 22 | 20 | 20 | 21 | 21 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Mainly cloudy | Partially clear | Mainly cloudy |
| Max RH (%) | 98 | 95 | 96 | 95 | 97 |
| Min RH (%) | 93 | 89 | 62 | 67 | 78 |
| Wind Speed (KmpH) | 8 | 6 | 5 | 6 | 5 |
| *Wind Direction | E | E | E | E | E |

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

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

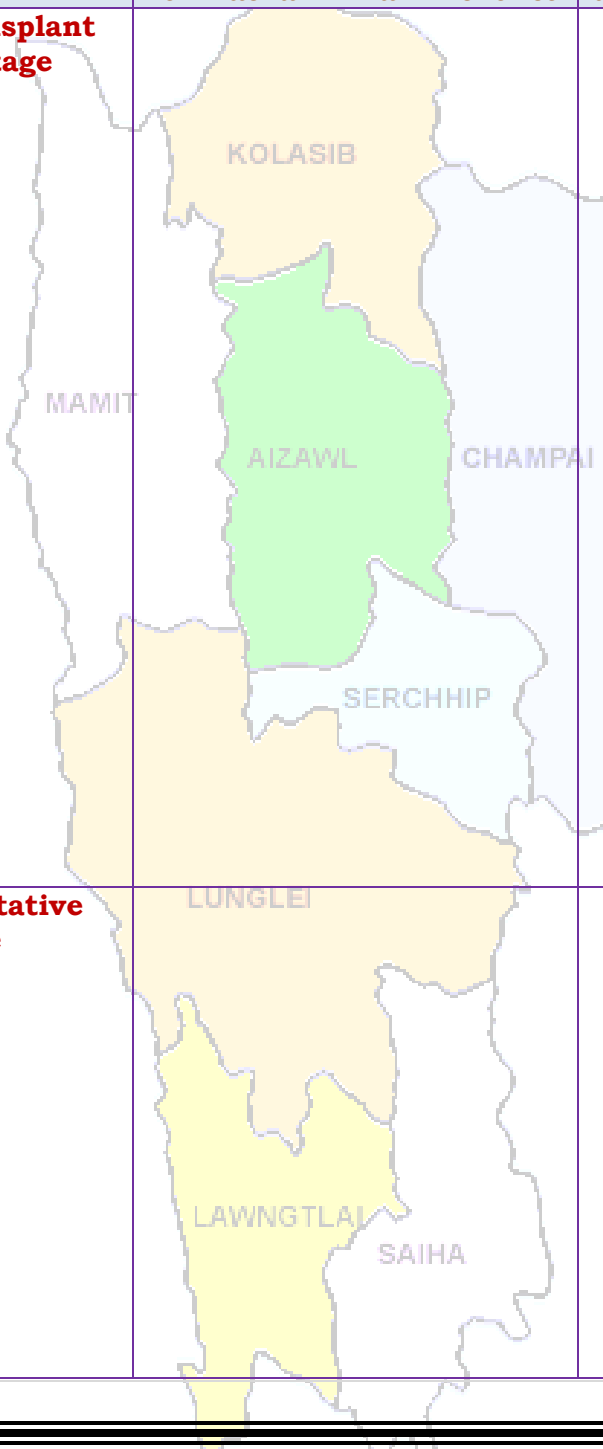
Aizawl- 383.68mm (341.8mm) | Champhai- 239.49mm (250.30mm) | Saiha- 109.52 mm (87.2mm) | Kolasib- 352.38mm (380.9mm)

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 | August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan |
|---|---|
| | Ni 4 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 24-29$^0$C a ni ang a. A vawh lai ber in 20-22$^0$C ni tur ah beisei a ni.RH san lai berin 95-98% leh a hniam lai berin 62-93% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 5-8 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.<br><br>***Weekly cumulative rainfall:*** **94.0mm** |
| **NDVI for Mizoram and SPI** |  NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil". |

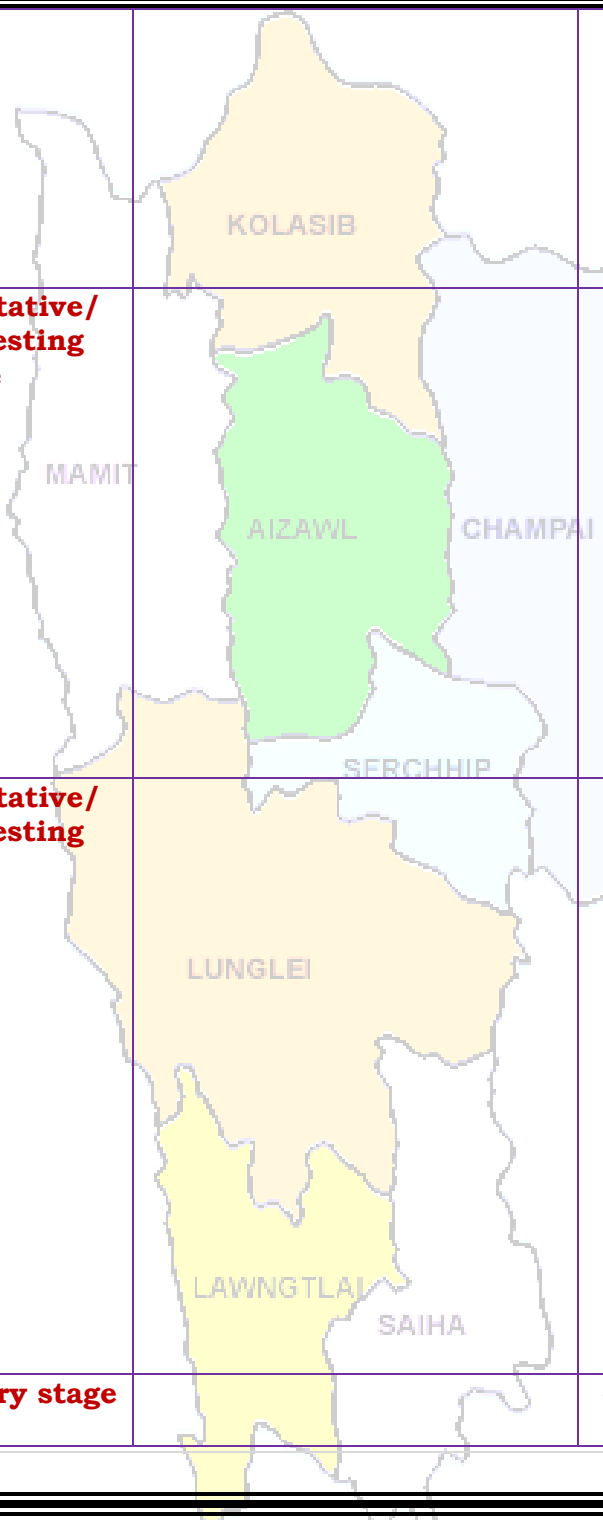


**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: kolasib.amfu@gov.in**

| 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** | | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking |




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

| | | | |
|---|---|---|---|
| | |   | moth, mites, twing blight, gummosis, root rot leh collar rot te hi ven tur.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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 |



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

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| | | | nursery siam tur.<br>• A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui** | • A kung bulthut ah hnim chheh darh tur. |



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| | | **tha taka pek tur.** | • A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |
| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• Bordeaux mixture 1% emaw 2g Captan emaw 3 copper |



**Phone: +91 3837 220041, Fax: +91 3837 220560,**
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| | | | 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.<br>• 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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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). |



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**E-mail: kolasib.amfu@gov.in**

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| | | | • Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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 |




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| | | | 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• Nitrogen leitha chu an mamawh taw kanga pek tur. |
| | | **Thrips** | • Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| | | **Scales** | • Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| **Vawk** | **Kumtluanin** | **Porcine Reproductive Respiratory Syndrome (PRRS).** | 1. A natna vei vawk te chu thah a phum tur a ni. |
| | **A puitling hun** | **Swine fever.** | 2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur |
| **Bawng** | **Kumtluanin** | **Foot and Mouth Disease (FMD)** | • Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni. |
| | **A naupan lai** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQ)<br>  Thla ruk an tlin hunah vaccine lak tan tur.<br>  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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

## ICAR RESEARCH COMPLEX FOR NEH REGION

**Mizoram Centre, Kolasib- 796081, MIZORAM**

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

**District: Lunglei** **Period: 01- 05 August, 2015**

**Bulletin No: -540/2015/ Bulletin/English** **Date of issue: 31st July, 2015**

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| **Rainfall (mm)** | 25 | 10 | 3 | 0 | 5 |
| **Max Temp (oC)** | 23 | 25 | 30 | 29 | 29 |
| **Min Temp (oC)** | 21 | 19 | 19 | 20 | 20 |
| **Cloud Coverage** | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| **Max RH (%)** | 99 | 99 | 98 | 98 | 98 |
| **Min RH (%)** | 95 | 90 | 58 | 63 | 73 |
| **Wind Speed (KmpH)** | 5 | 4 | 3 | 3 | 3 |
| ***Wind Direction** | E | E | E | E | S |

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

**STATUS OF 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)** |
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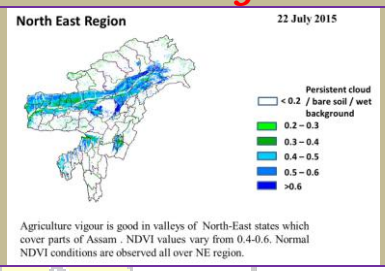
| Weather summary of the past three days | Weather forecast valid from 01st August, 2015 To 05th August, 2015. |
|---|---|
| | There are chances of heavy to moderate and light rainfall during the next 4 day. The maximum and minimum temperatures for the next 5 days may range for 23-30$^0$C and 19-21$^0$C. Maximum relative humidity is expected in the range of 98-99% and minimum may from 58-95%. Wind direction would be southeasterly with the wind speed of 3-5 km per hour. Dense cloudy sky will prevail during the next five days.<br><br>***Weekly cumulative rainfall:*** **43.0 mm** |
| **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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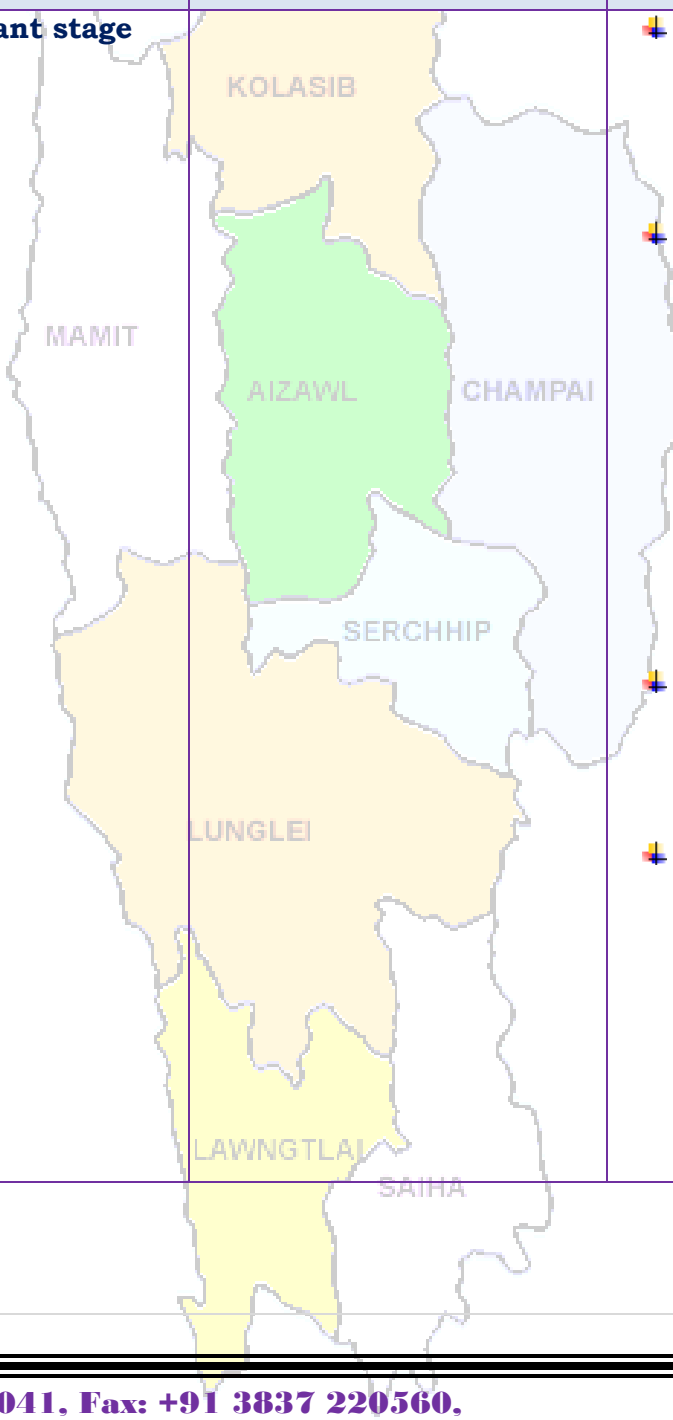
| Main Crop/ Animal /Fisheries | Stage | Cultural practices/ Pest/ Diseases | Agricultural / Horticultural/ animal husbandry advisories |
|---|---|---|---|
| **Khasi Mandarin and acid lime** | **Transplant stage** |  | ▪ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant.<br>▪ 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.<br>▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>▪ 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. |



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

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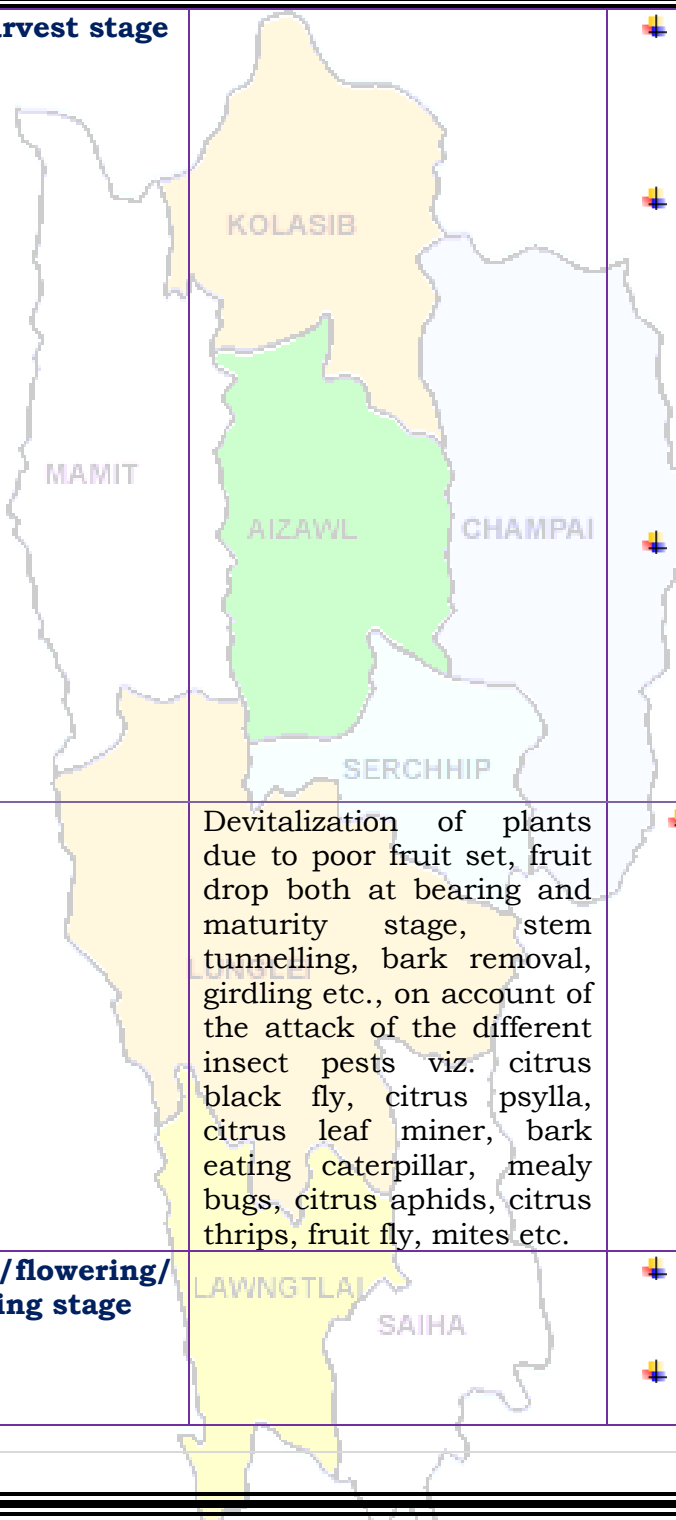
| **Khasi Mandarin and acid lime** | **Flower/Harvest stage** |  | ↓ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards.<br>↓ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains.<br>↓ 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.<br>↓ Cleaning near base of the plant and cut unwanted |



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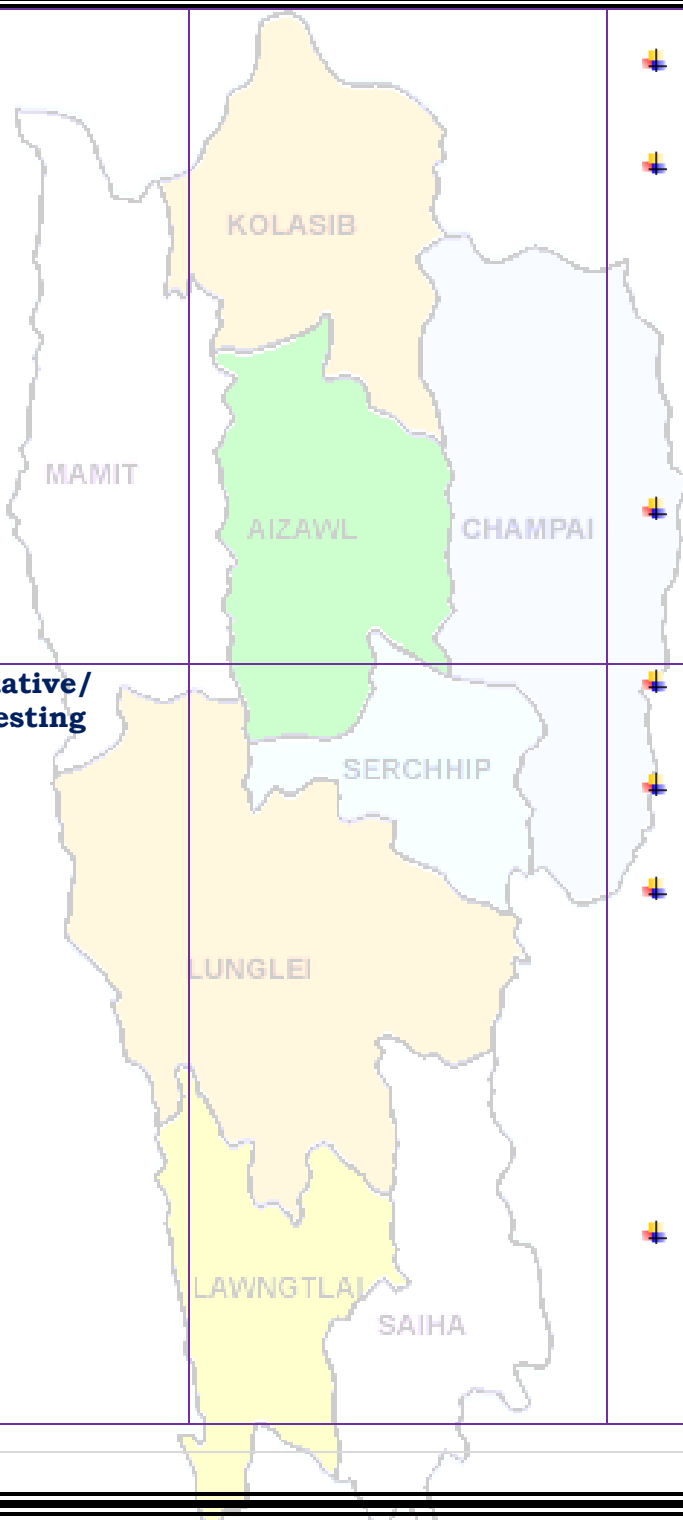
| | |  | branches.<br>▪ Application of split dose of fertilizer 600: 200:100 (g/pt).<br>▪ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.<br>▪ 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.<br>▪ Application of split dose of fertilizer 600: 200:100 (g/pt).<br>▪ 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.<br>▪ Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. |



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

| | | | |
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| | | | ▪ Fruits are harvested when they attain full size, develop attractive yellow colour. |
| | | **Comb weevil and stem weevil** | ▪ Applications of neem powder effectively controlled weevils.<br>▪ 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.<br>▪ 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.<br>▪ A cutting should contain at least 3 buds and must be planted in sand beds.<br>▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>▪ 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 |




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

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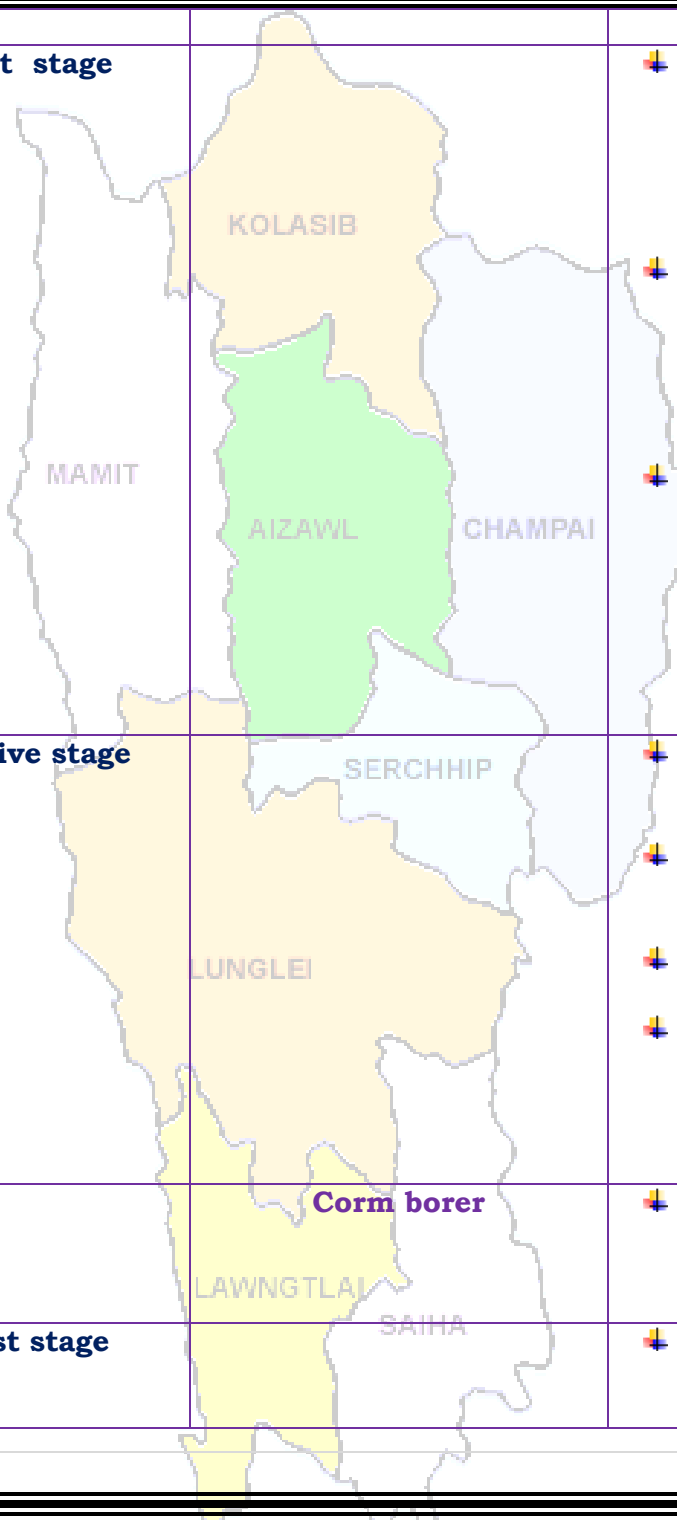
| | | | of grafting. |
| **Pineapple** | **harvest stage** | | ✦ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow.<br>✦ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature.<br>✦ 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.<br>✦ Earthing up soil at base of the plant along with split doses of fertilizer.<br>✦ Proper drainage is required to avoid water logging.<br>✦ 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. |






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

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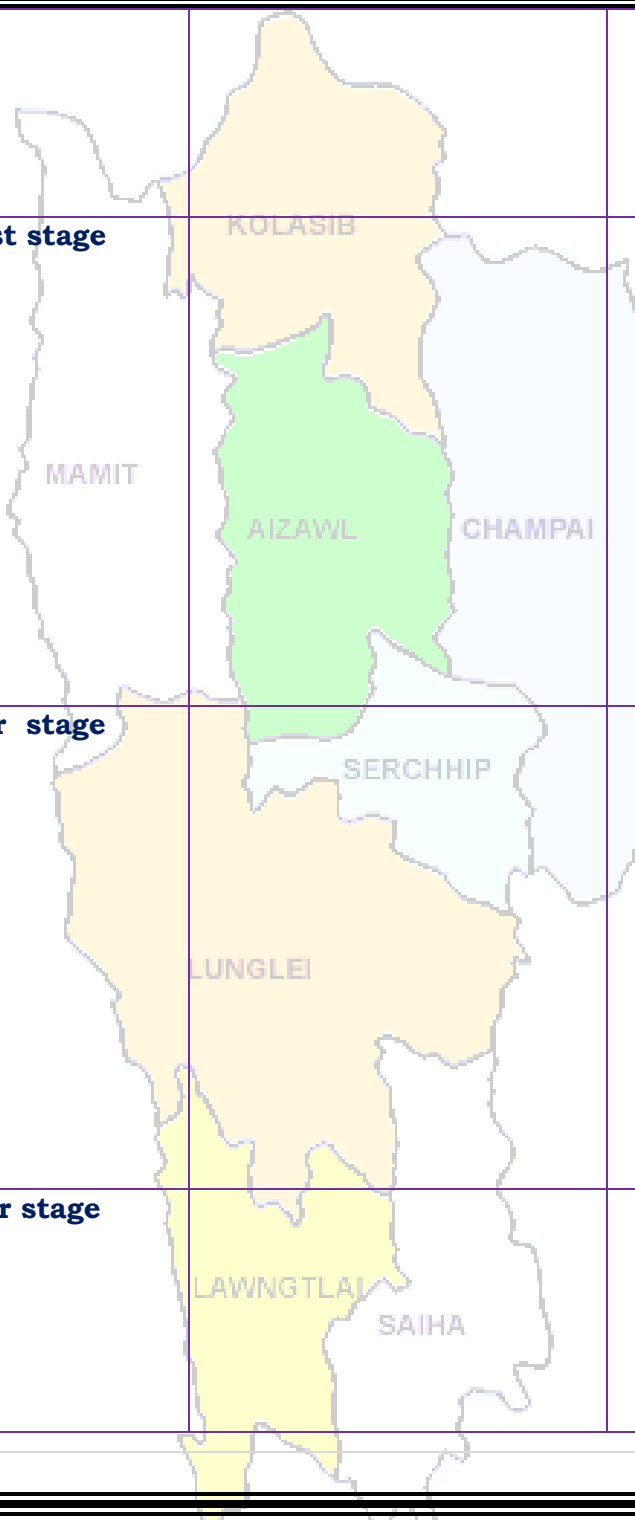
| | | | ↓ Picking okra should be done when they are four to five inches long.<br>↓ Don't leave the fruit too long, they get hard and woody. |
| **French bean** | **harvest stage** |  | • In pole type varieties, mature pods should be harvested twice.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• 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.<br>↓ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>↓ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>↓ Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | ↓ Remove unwanted plant near base of the plant and cut dead branches.<br>↓ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. |



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

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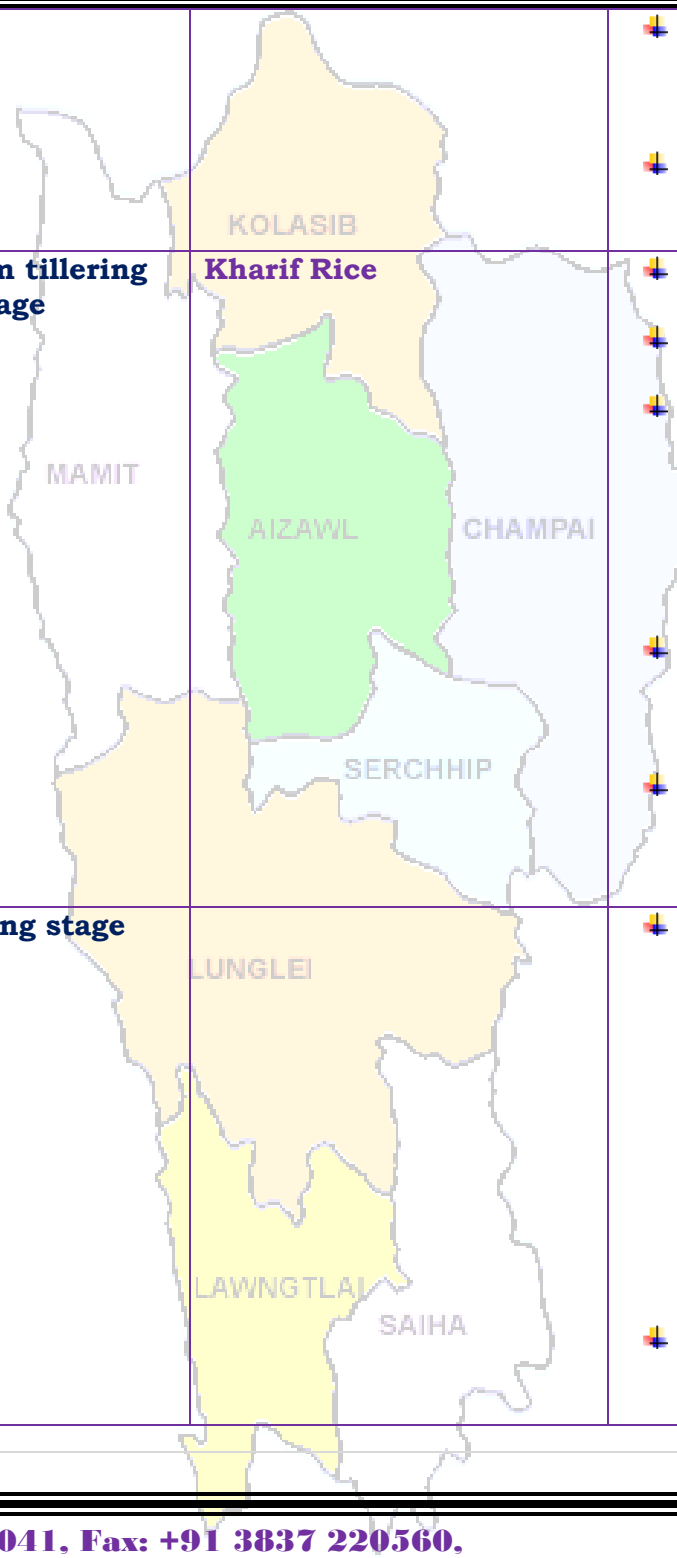
| | | | ▪ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>▪ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering stage** | **Kharif Rice** | ▪ Avoid sowing till sufficient rains have been received<br>▪ If sowing is delayed, plant short duration varieties<br>▪ Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>▪ Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>▪ Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>▪ Remove unwanted plant near base of the plant and cut dead branches. |






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

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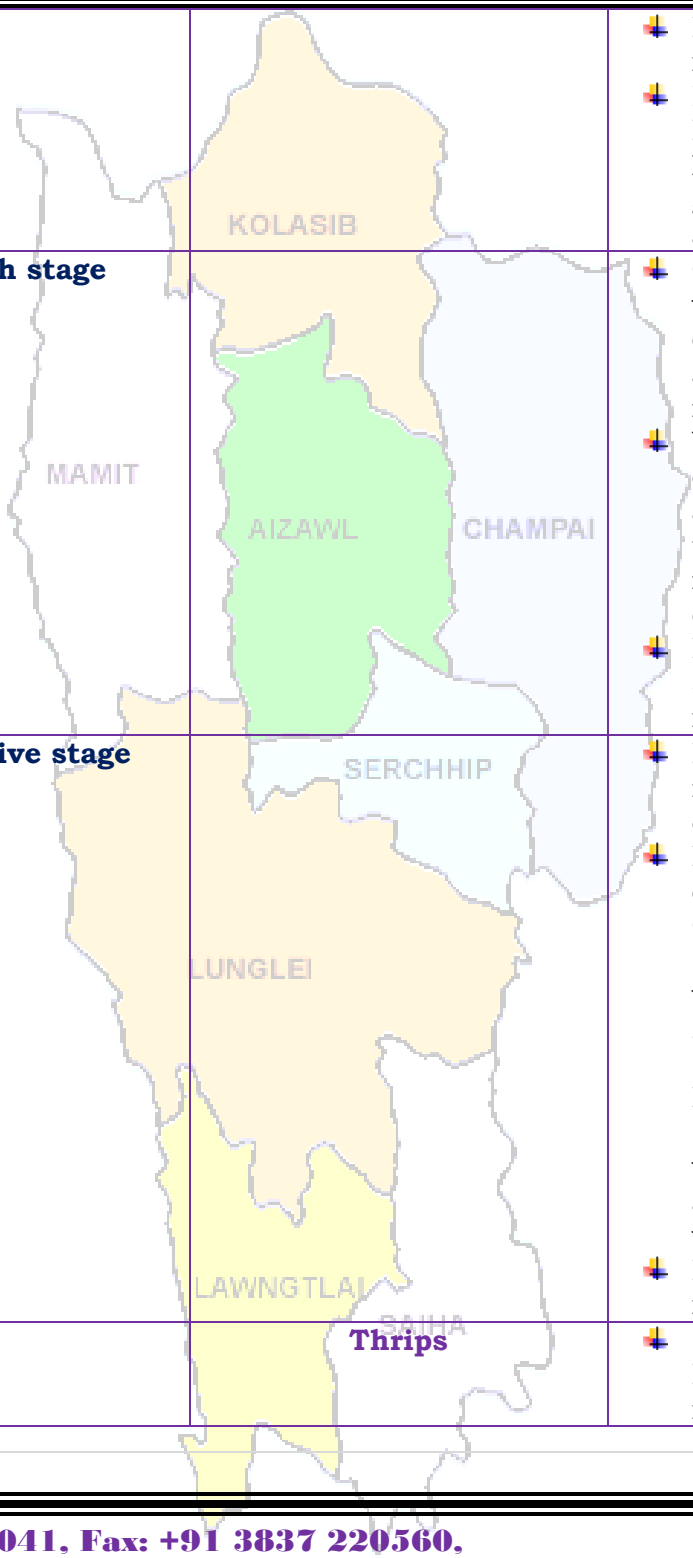
| | | | ▪ Earting up of soil along with fertilizer mixture.<br>▪ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer. |
| **Kharif pulses (Green gram, Black gram and Rajma)** | **Growth stage** | | ▪ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed infestation.<br>▪ Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>▪ Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | ▪ Remove unwanted plant near base of the plant and cut dead branches.<br>▪ 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.<br>▪ Earting up of soil along with fertilizer mixture. |
| | | **Thrips** | ▪ Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips. |






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

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| | | **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).<br>❖ Primary vaccination 6 month or above<br>❖ 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 |



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

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District: Lunglei** **Period: 01- 05 August, 2015**

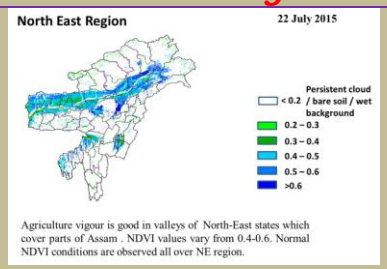
**Bulletin No: -540/2015/ Bulletin/Mizo** **Date of issue: 31st July, 2015**

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 25 | 10 | 3 | 0 | 5 |
| Max Temp (oC) | 23 | 25 | 30 | 29 | 29 |
| Min Temp (oC) | 21 | 19 | 19 | 20 | 20 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| Max RH (%) | 99 | 99 | 98 | 98 | 98 |
| Min RH (%) | 95 | 90 | 58 | 63 | 73 |
| Wind Speed (KmpH) | 5 | 4 | 3 | 3 | 3 |
| *Wind Direction | E | E | E | E | S |

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

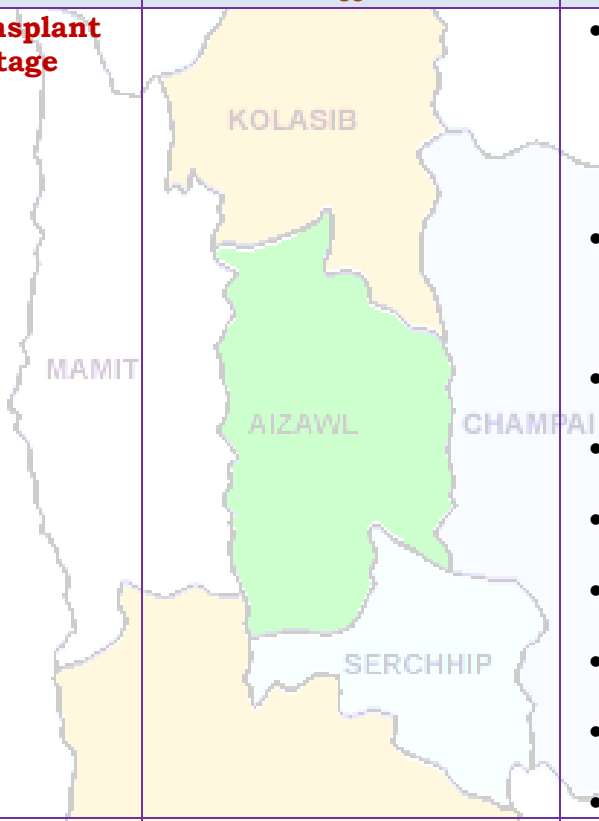
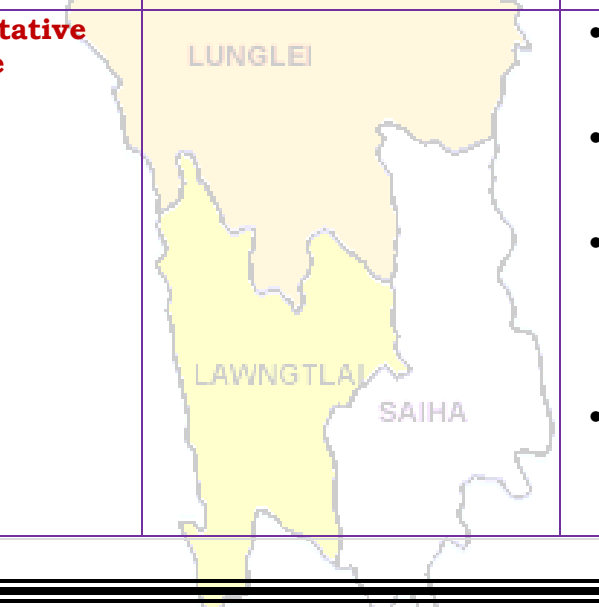
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 | August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan | |
|---|---|---|
| | Ni 4 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 23-30$^0$C a ni ang a.A vawh lai ber in 19-21$^0$C ni tur ah beisei a ni.RH san lai berin 98-99% leh a hniam lai berin 58-95% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 3-5 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.<br><br>***Weekly cumulative rainfall:*** **43.0mm** | |
| **NDVI for Mizoram and SPI** |  | NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil". |



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

| 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** |  | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, |




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

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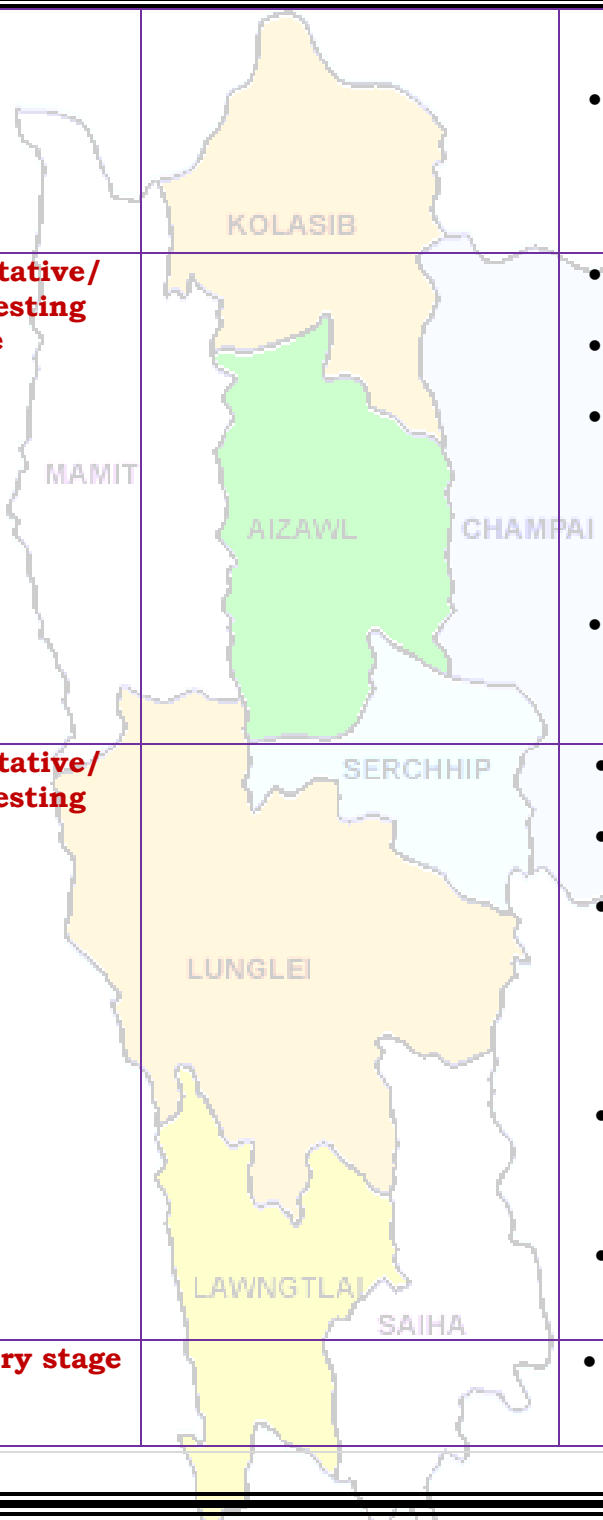
| | |   | gummosis, root rot leh collar rot te hi ven tur.<br>• Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur). |
| **Oil palm** | **Vegetative/ harvesting stage** | | • Oil palm kung bul chu tihfai a a zar thlak bawk tur.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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. |



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

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| | | | • A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui tha taka pek tur.** | • A kung bulthut ah hnim chheh darh tur.<br>• A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |



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

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| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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 |



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

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| | | | 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur.<br>• 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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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).<br>• Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• Heng insecticides Imidacloprid |



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

| | | | |
|---|---|---|---|
| | | | 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.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• Nitrogen leitha chu an mamawh taw kanga pek tur. |



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

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|---|---|---|---|
| | | **Thrips** | • Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| | | **Scales** | • Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| **Vawk** | **Kumtluanin** | **Porcine Reproductive Respiratory Syndrome (PRRS).** | 1. A natna vei vawk te chu thah a phum tur a ni. |
| | **A puitling hun** | **Swine fever.** | 2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur |
| **Bawng** | **Kumtluanin** | **Foot and Mouth Disease (FMD)** | • Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni. |
| | **A naupan lai** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQ)<br>  Thla ruk an tlin hunah vaccine lak tan tur.<br>  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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | basantasinghsoibam@rediffmail.com |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District:** Mamit **Period:** 01- 05 August, 2015

**Bulletin No:** -540/2015/ Bulletin/English **Date of issue:** 31st July, 2015

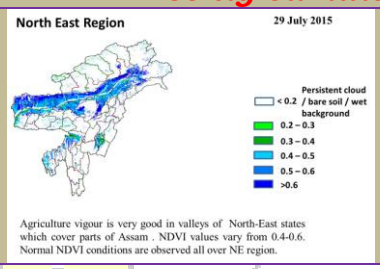
| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 20 | 3 | 0 | 3 | 3 |
| Max Temp (oC) | 25 | 27 | 31 | 31 | 30 |
| Min Temp (oC) | 21 | 21 | 21 | 22 | 22 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| Max RH (%) | 99 | 99 | 96 | 94 | 94 |
| Min RH (%) | 88 | 90 | 54 | 62 | 66 |
| Wind Speed (KmpH) | 4 | 2 | 2 | 4 | 5 |
| *Wind Direction | E | E | E | S-E | S |

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

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

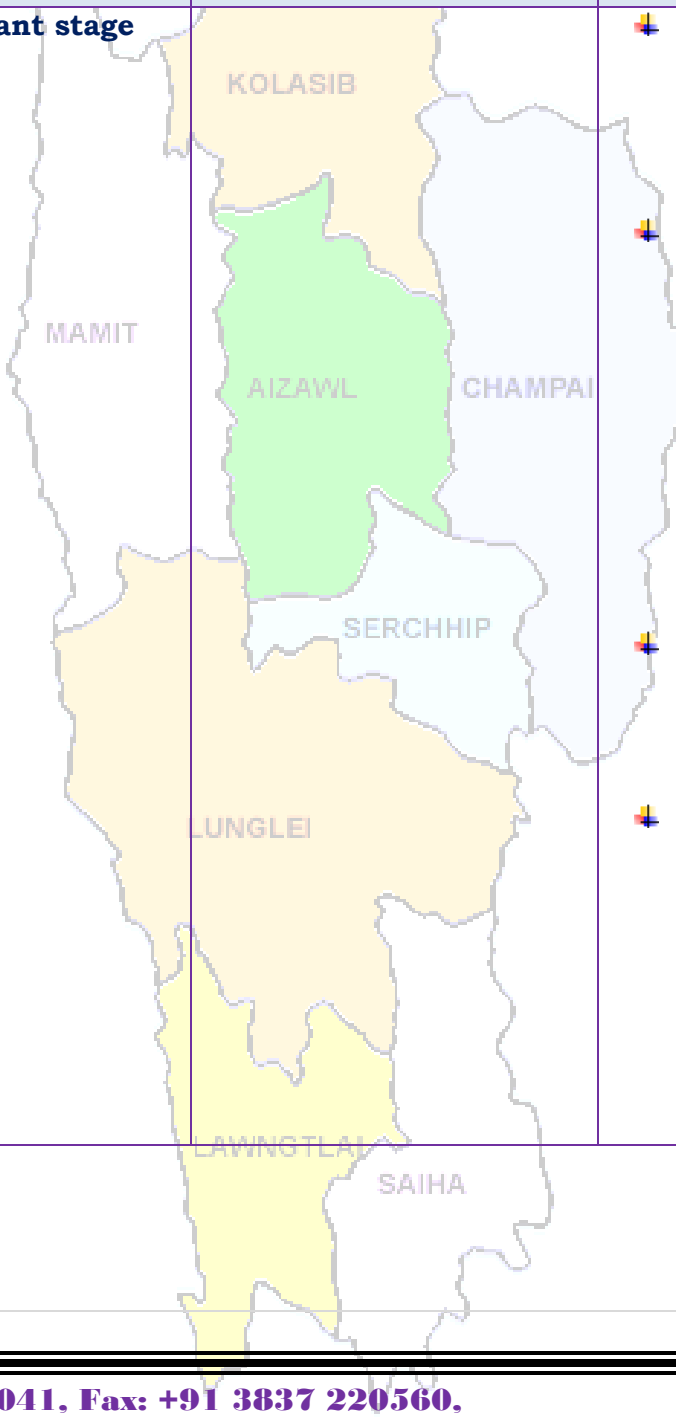
Aizawl- 383.68mm (341.8mm) | Champhai- 239.49mm (250.30mm) | Saiha- 109.52 mm (87.2mm) | Kolasib- 352.38mm (380.9mm)

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 01st August, 2015 To 05th August, 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 25-31$^0$C and 21-22$^0$C. Maximum relative humidity is expected in the range of 94-99% and minimum may from 54-90%. Wind direction would be southeasterly with the wind speed of 2-4 km per hour. Dense cloudy sky will prevail during the next five days.<br><br>***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". |



Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: iaaskolasib@yahoo.in

| Main Crop/ Animal /Fisheries | Stage | Cultural practices/ Pest/ Diseases | Agricultural / Horticultural/ 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.<br>▪ 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.<br>▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>▪ 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. |



**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

| | | | |
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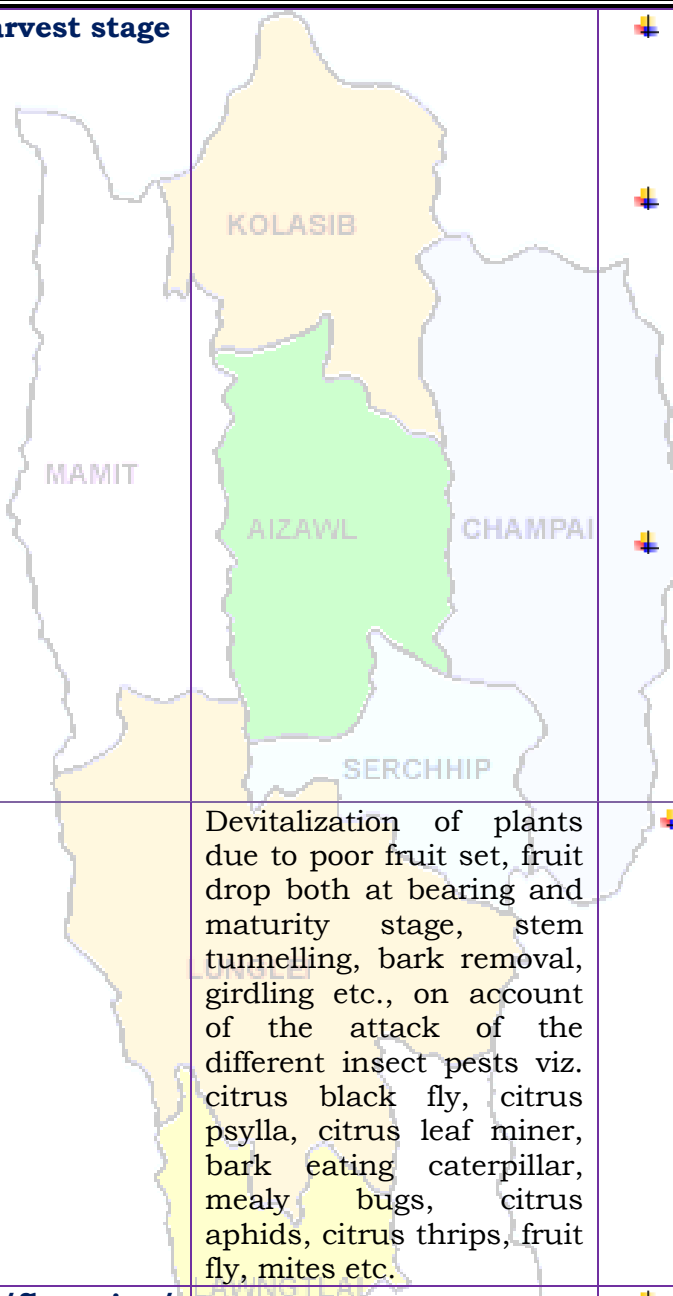
| **Khasi Mandarin and acid lime** | **Flower/Harvest stage** |  | ✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards.<br>✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains.<br>✦ 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.<br>✦ Cleaning near base of the |




**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

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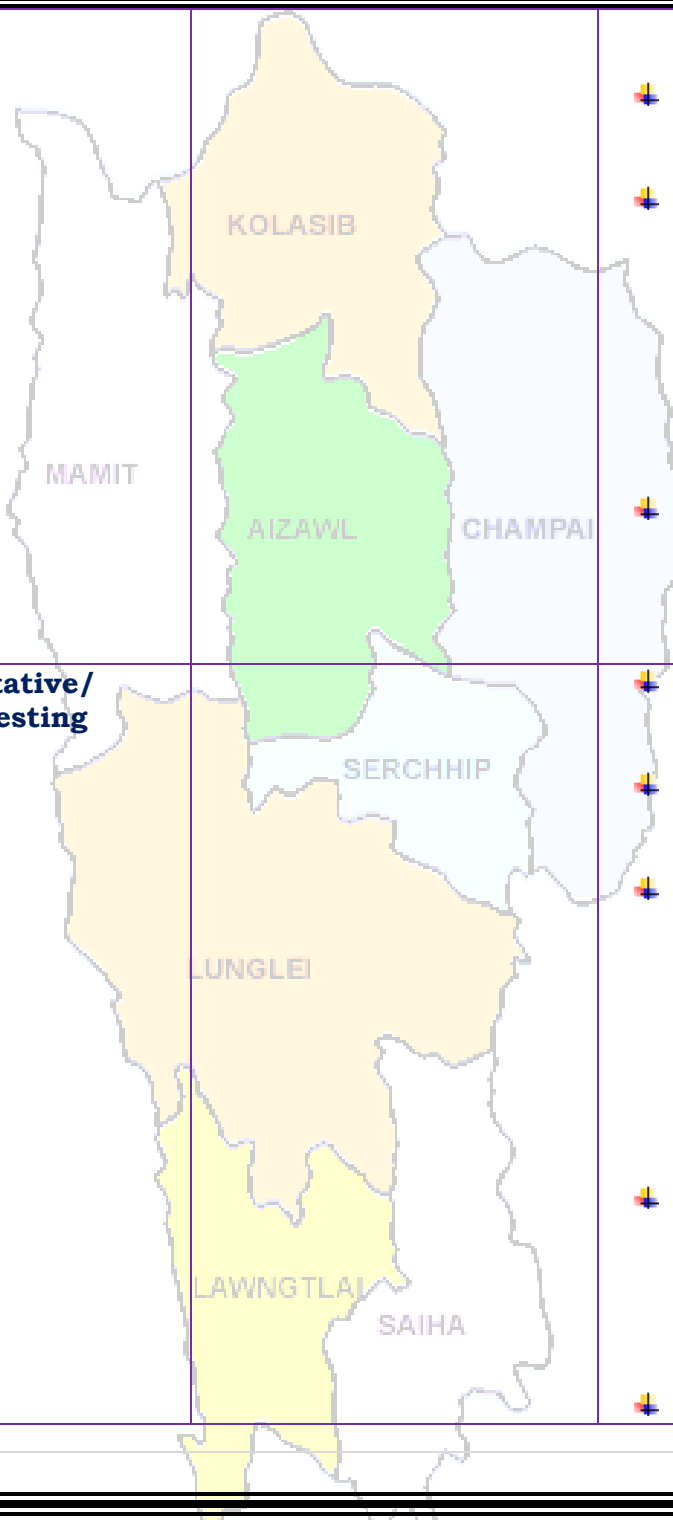
| | |  | plant and cut unwanted branches.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.<br>• 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.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• 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.<br>• Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease.<br>• Fruits are harvested when |



**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

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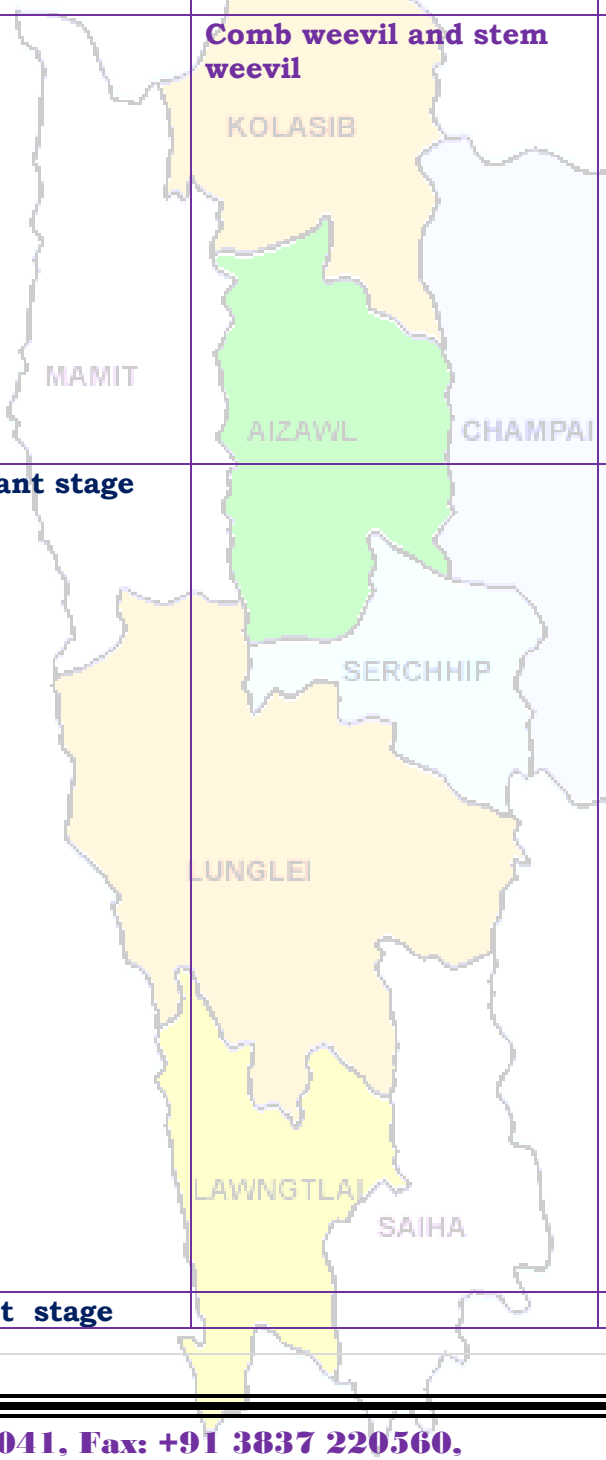
| | | | they attain full size, develop attractive yellow colour. |
| | | **Comb weevil and stem weevil** | ✦ Applications of neem powder effectively controlled weevils.<br>✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields.<br>✦ 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.<br>✦ A cutting should contain at least 3 buds and must be planted in sand beds.<br>✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>✦ 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 |






Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: iaaskolasib@yahoo.in

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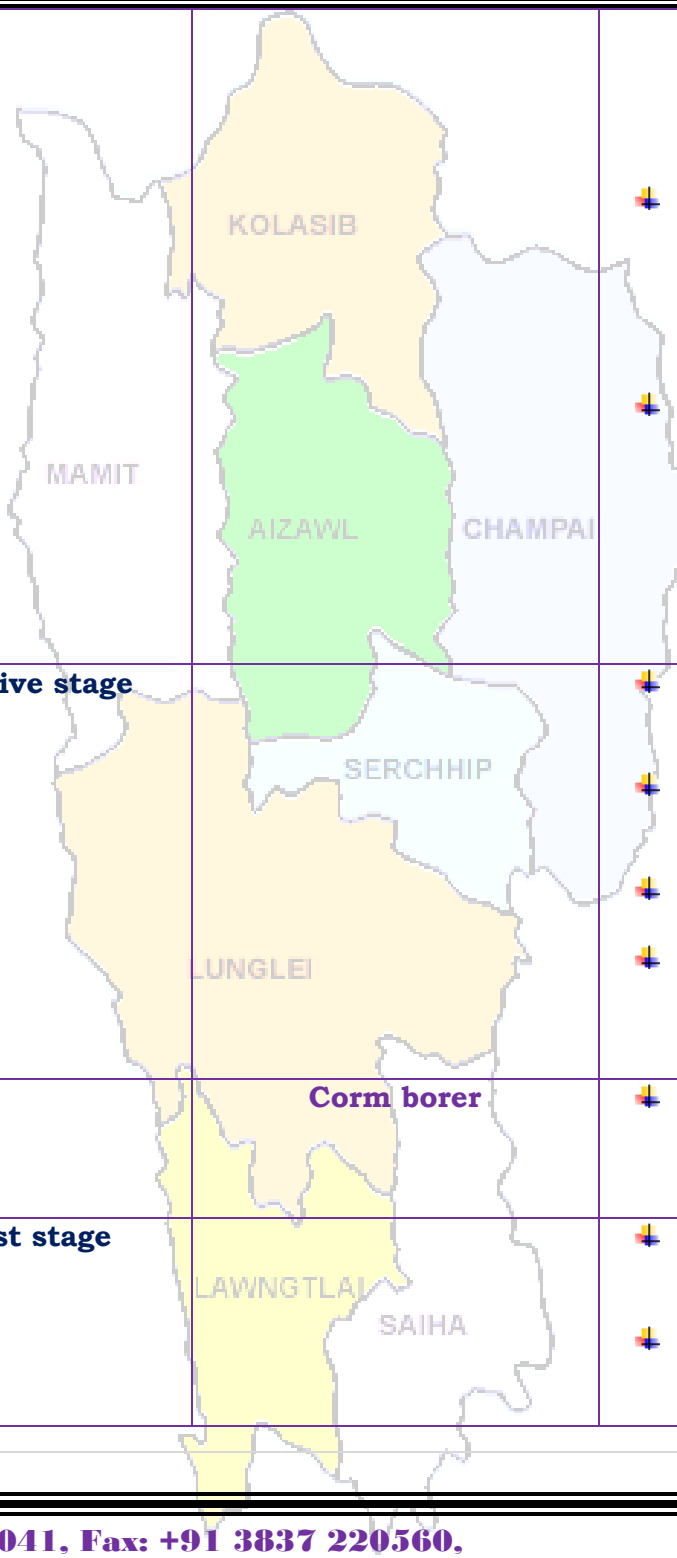
| | | | sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow.<br>When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature.<br>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.<br>Earthing up soil at base of the plant along with split doses of fertilizer.<br>Proper drainage is required to avoid water logging.<br>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.<br>Picking okra should be done when they are four to five inches long. |






**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

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| | | | ✦ 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.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• 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.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | ✦ Remove unwanted plant near base of the plant and cut dead branches.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering stage** | **Kharif Rice** | ✦ Avoid sowing till sufficient rains have been received |



**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

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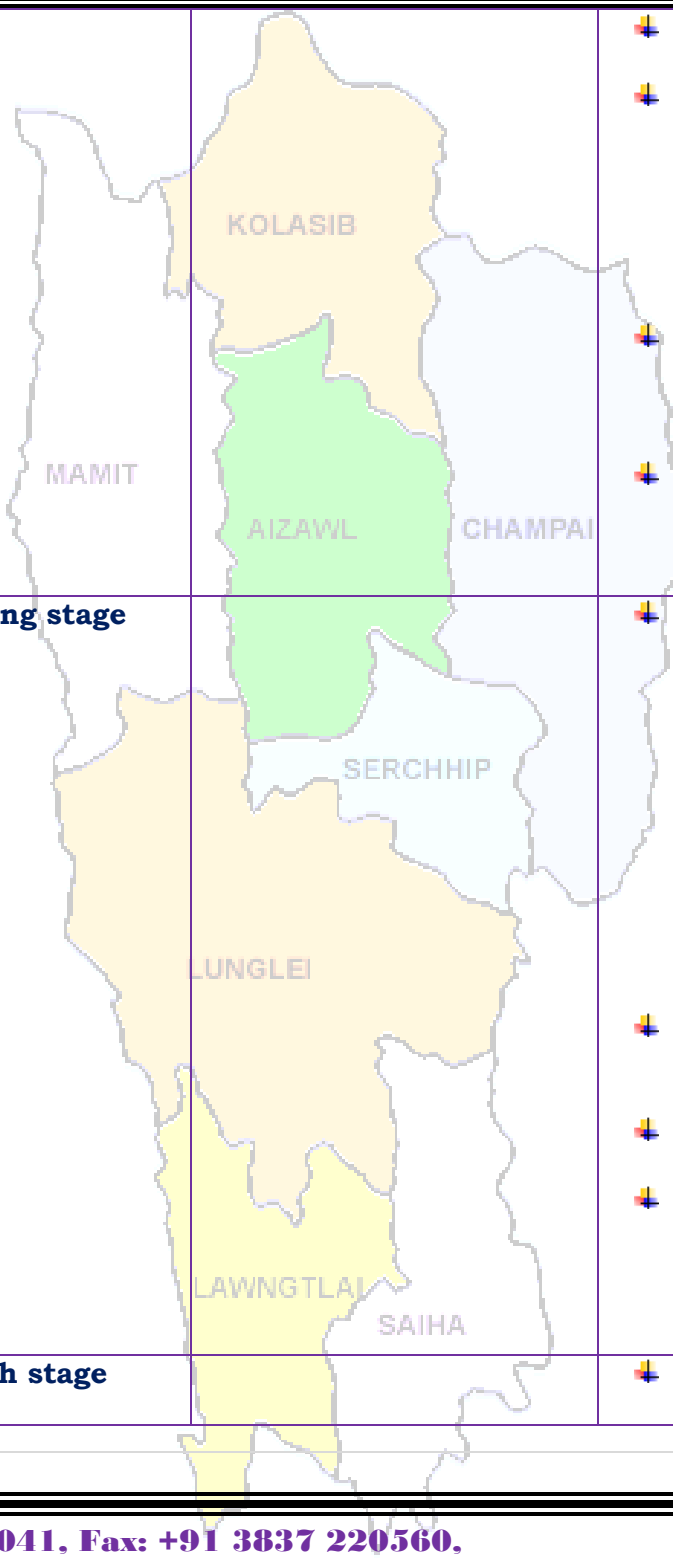
| | |  | ↓ If sowing is delayed, plant short duration varieties<br>↓ Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>↓ Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>↓ Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>↓ Remove unwanted plant near base of the plant and cut dead branches.<br>↓ Earting up of soil along with fertilizer mixture.<br>↓ 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** | **Growth stage** | | ↓ One or two hand hoeing and weeding should be done, |



**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

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| **(Green gram, Black gram and Rajma)** | | | depending upon soil type and extent of weed infestation.<br>- Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>- Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | - Remove unwanted plant near base of the plant and cut dead branches.<br>- 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.<br>- 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 |



**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

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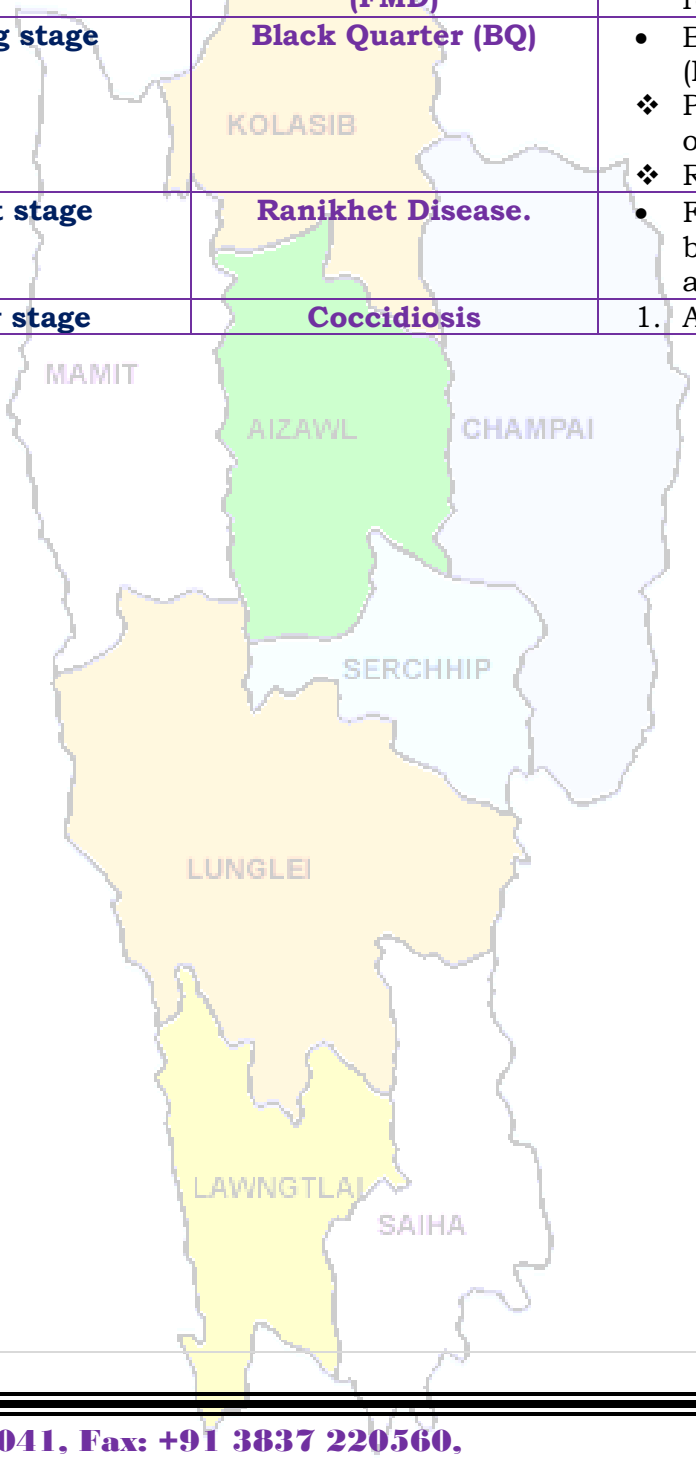
| | | | interval |
| **Cattle** | **All age group** | **Foot and Mouth Disease (FMD)** | • FMD vaccine at 16 week and repeat every 6 month. |
| | **Young stage** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQV).<br>❖ Primary vaccination 6 month or above<br>❖ Revaccination annually |
| **Poultry** | **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 |






**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: iaaskolasib@yahoo.in**

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: iaaskolasib@yahoo.in

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

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**District:** Mamit **Period:** 01- 05 August, 2015

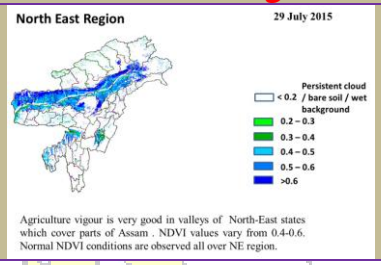
**Bulletin No:** -540/2015/ Bulletin/Mizo **Date of issue:** 31st July, 2015

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 20 | 3 | 0 | 3 | 3 |
| Max Temp (oC) | 25 | 27 | 31 | 31 | 30 |
| Min Temp (oC) | 21 | 21 | 21 | 22 | 22 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| Max RH (%) | 99 | 99 | 96 | 94 | 94 |
| Min RH (%) | 88 | 90 | 54 | 62 | 66 |
| Wind Speed (KmpH) | 4 | 2 | 2 | 4 | 5 |
| *Wind Direction | E | E | E | S-E | S |

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

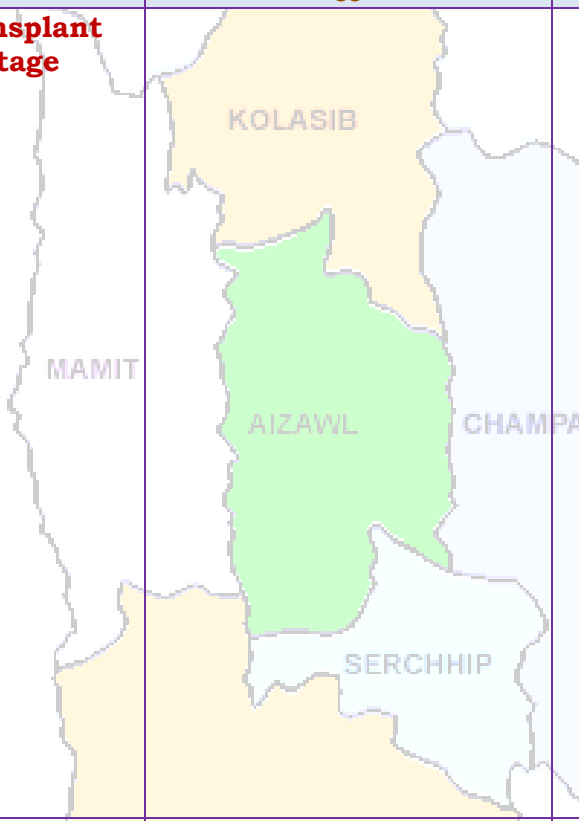
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 | August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan | |
|---|---|---|
| | Ni 4 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 25-31$^0$C a ni ang a.A vawh lai ber in 21-22$^0$C ni tur ah beisei a ni.RH san lai berin 94-99% leh a hniam lai berin 54-90% 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.<br><br>***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". |

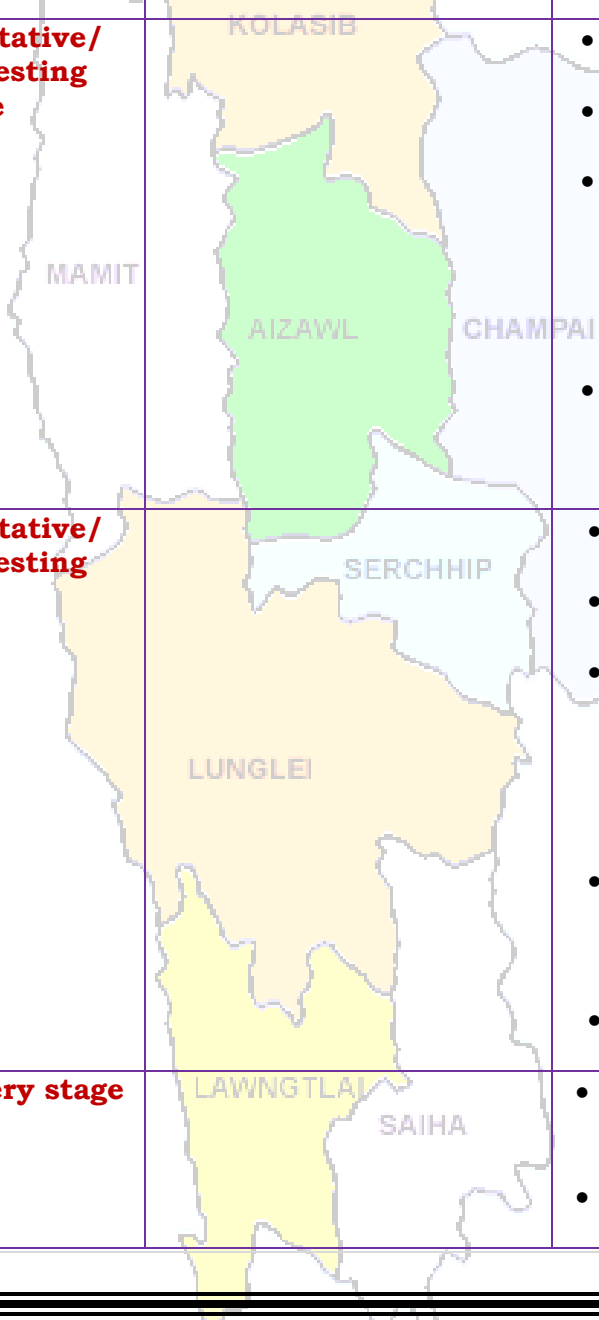


**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: kolasib.amfu@gov.in**

| 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** |  | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot |




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

| | | | |
|---|---|---|---|
| | | | te hi ven tur.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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.<br>• A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn |




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

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| | | | tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui tha taka pek tur.** | • A kung bulthut ah hnim chheh darh tur.<br>• A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |
| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• Heng insecticides Imidacloprid |



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

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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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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. |




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

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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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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).<br>• Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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 |



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

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| | | | 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.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• Nitrogen leitha chu an mamawh taw kanga pek tur. |
| | | **Thrips** | • Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur. |



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

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| | | **Scales** | • Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| **Vawk** | **Kumtluanin** | **Porcine Reproductive Respiratory Syndrome (PRRS).** | 1. A natna vei vawk te chu thah a phum tur a ni. |
| | **A puitling hun** | **Swine fever.** | 2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur |
| **Bawng** | **Kumtluanin** | **Foot and Mouth Disease (FMD)** | • Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni. |
| | **A naupan lai** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQ)<br>  Thla ruk an tlin hunah vaccine lak tan tur.<br>  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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District:** Saiha **Period:** 01- 05 August, 2015

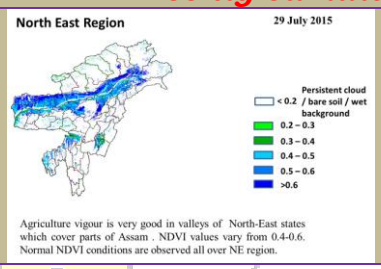
**Bulletin No:** -540/2015/ Bulletin/English **Date of issue:** 31st July, 2015

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 66 | 13 | 0 | 0 | 3 |
| Max Temp (oC) | 22 | 25 | 29 | 28 | 27 |
| Min Temp (oC) | 21 | 19 | 19 | 19 | 19 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Mainly cloudy | Partially cloudy | Mainly cloudy |
| Max RH (%) | 99 | 97 | 98 | 98 | 99 |
| Min RH (%) | 98 | 89 | 60 | 68 | 83 |
| Wind Speed (KmpH) | 4 | 4 | 3 | 3 | 2 |
| *Wind Direction | S-E | E | 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.

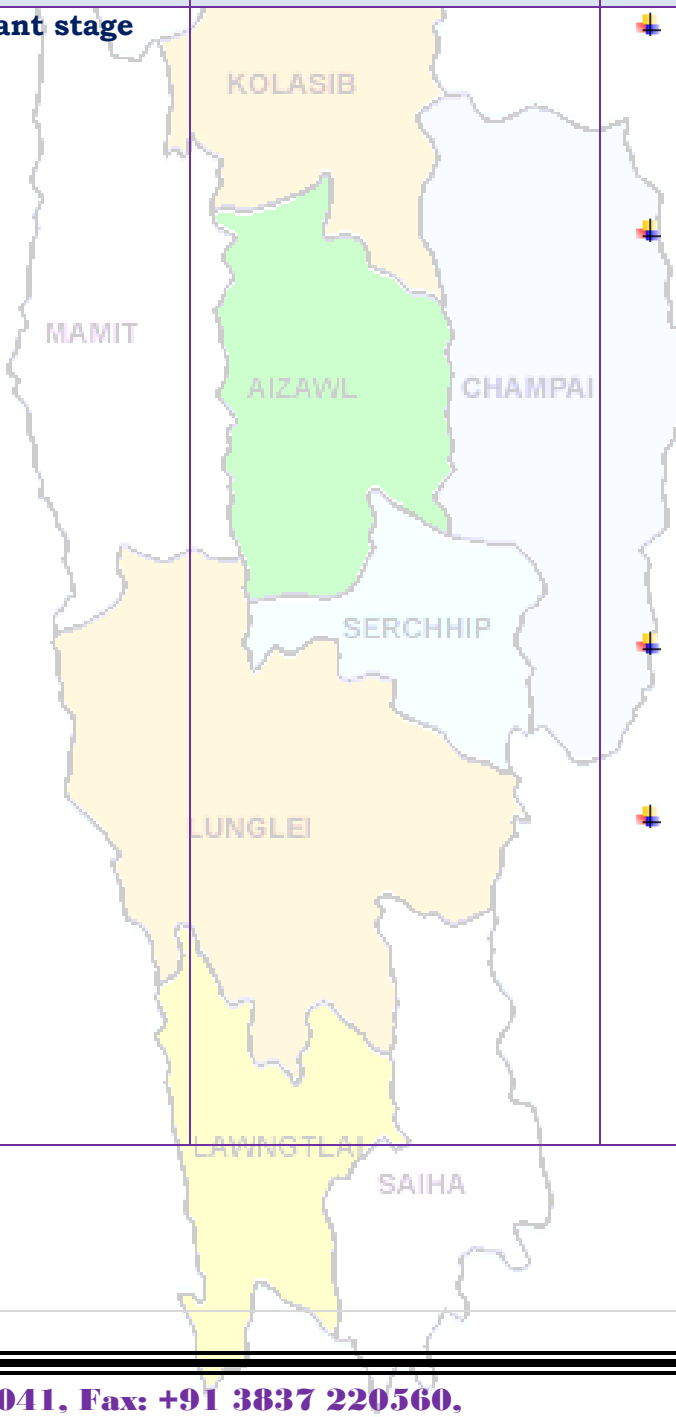
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 01st August, 2015 To 05th August, 2015. |
|---|---|
| | There are chances of very heavy to moderate and light rainfall during the next 3 day. The maximum and minimum temperatures for the next 5 days may range for 22-29$^0$C and 19-21$^0$C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 60-98%. Wind direction would be southeasterly with the wind speed of 2-4 km per hour. Dense cloudy sky will prevail during the next five days.<br><br>***Weekly cumulative rainfall:*** **82.0 mm** |
| **NDVI for Mizoram** |  NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil". |



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

| Main Crop/ Animal /Fisheries | Stage | Cultural practices/ Pest/ Diseases | Agricultural / Horticultural/ animal husbandry advisories |
|---|---|---|---|
| **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.<br>▪ 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.<br>▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>▪ 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. |



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

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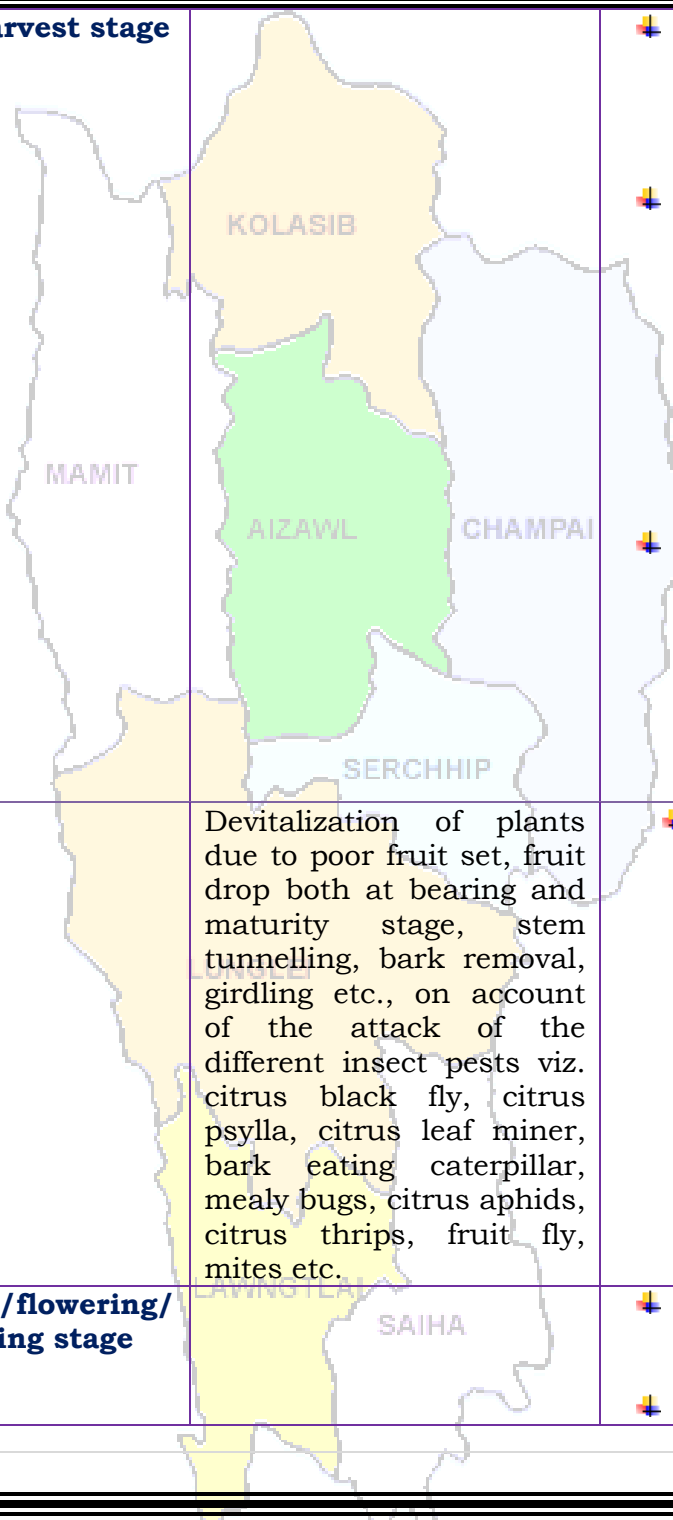
| **Khasi Mandarin and acid lime** | **Flower/Harvest stage** |  | ▪ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards.<br>▪ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains.<br>▪ 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.<br>▪ Cleaning near base of the |



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

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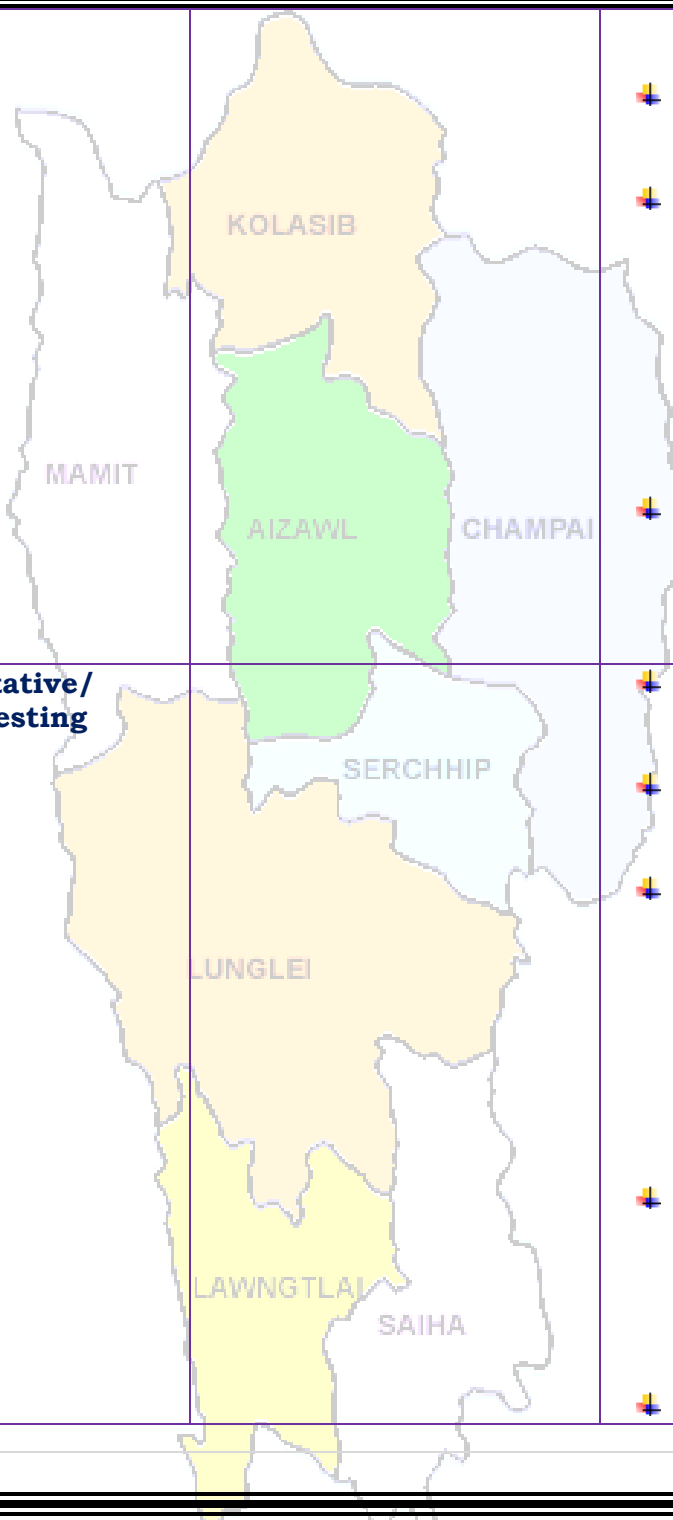
| | |  | plant and cut unwanted branches.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.<br>• 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.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• 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.<br>• Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease.<br>• Fruits are harvested when |



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

| | | | |
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| | | | they attain full size, develop attractive yellow colour. |
| | | **Comb weevil and stem weevil** | ✦ Applications of neem powder effectively controlled weevils.<br>✦ 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.<br>✦ 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.<br>✦ A cutting should contain at least 3 buds and must be planted in sand beds.<br>✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>✦ 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 |



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

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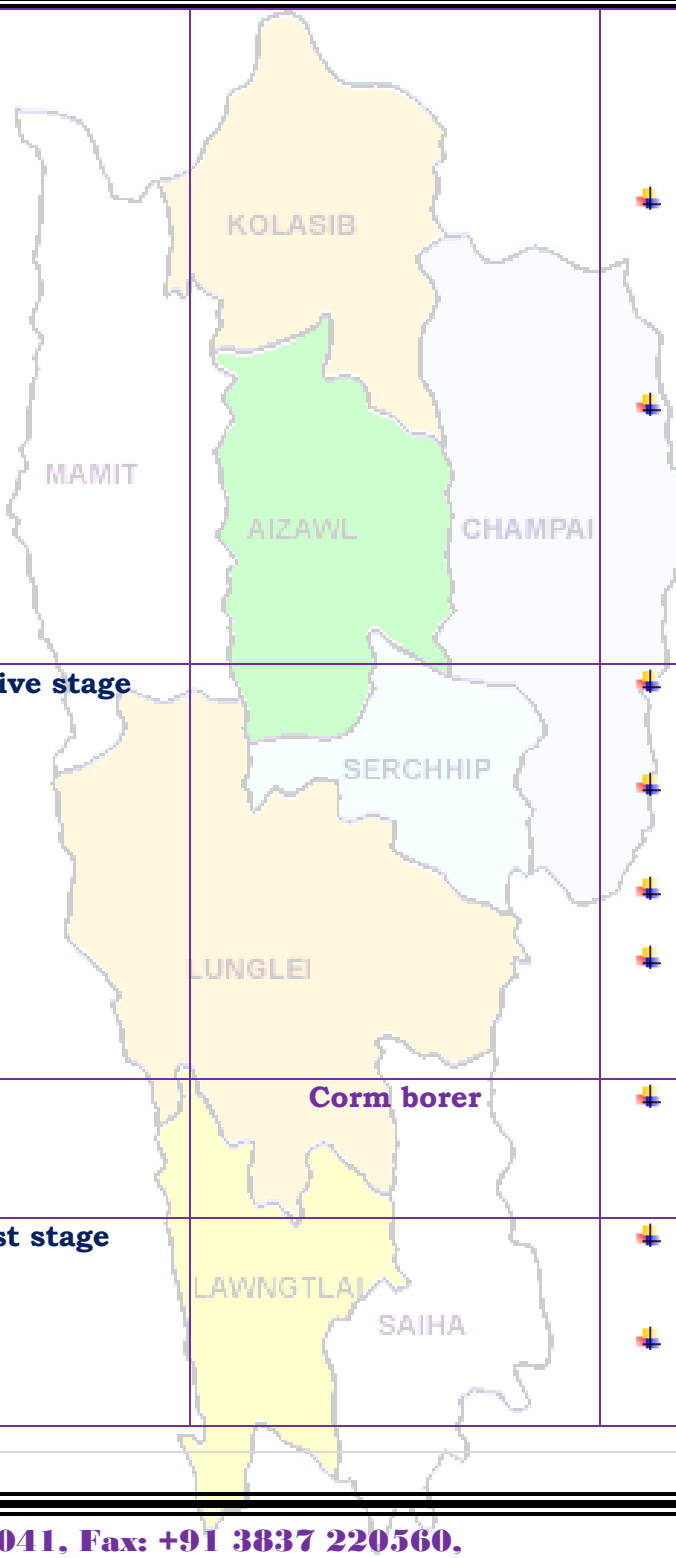
| | | | sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow.<br>When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature.<br>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.<br>Earthing up soil at base of the plant along with split doses of fertilizer.<br>Proper drainage is required to avoid water logging.<br>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.<br>Picking okra should be done when they are four to five inches long. |






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

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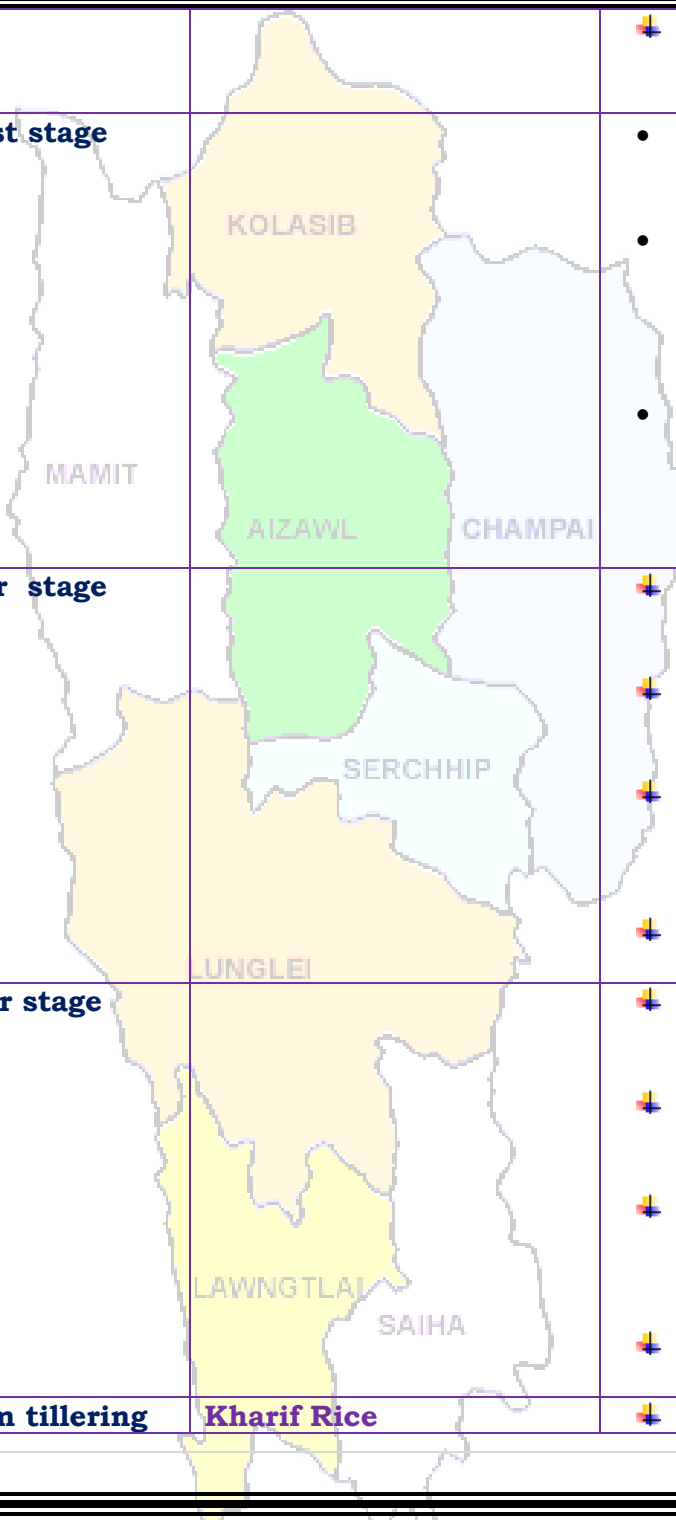
| | | | ➢ Don't leave the fruit too long, they get hard and woody. |
| **French bean** | **harvest stage** | | • In pole type varieties, mature pods should be harvested twice.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• 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.<br>➢ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>➢ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>➢ Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | ➢ Remove unwanted plant near base of the plant and cut dead branches.<br>➢ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>➢ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>➢ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering** | **Kharif Rice** | ➢ Avoid sowing till sufficient |






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

| | | | |
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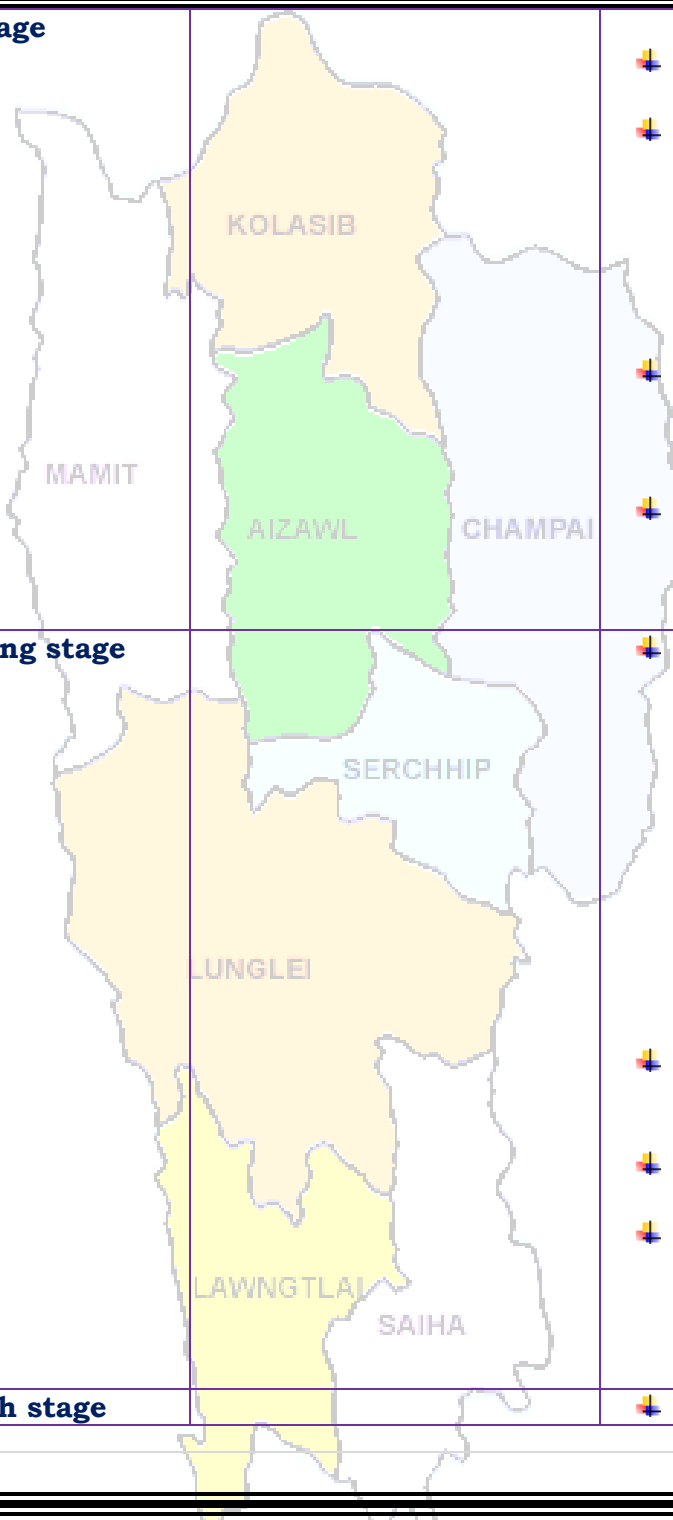
| | **stage** |  | rains have been received<br>If sowing is delayed, plant short duration varieties<br>Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>Remove unwanted plant near base of the plant and cut dead branches.<br>Earting up of soil along with fertilizer mixture.<br>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** | **Growth stage** | | One or two hand hoeing and |



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

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| **pulses (Green gram, Black gram and Rajma)** | | | weeding should be done, depending upon soil type and extent of weed infestation.<br>Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | Remove unwanted plant near base of the plant and cut dead branches.<br>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.<br>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 |



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

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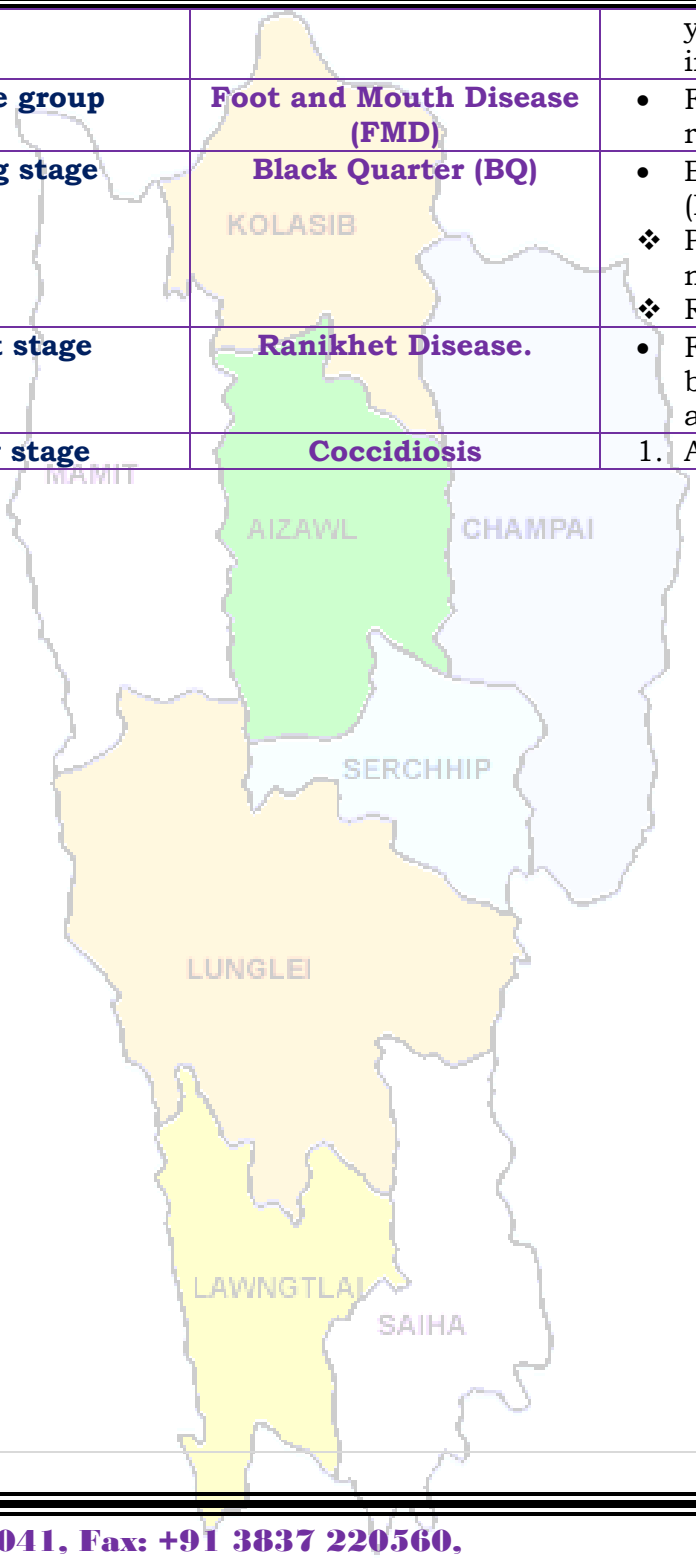
| | | | yearly interval/6 month interval |
| **Cattle** | **All age group** | **Foot and Mouth Disease (FMD)** | • FMD vaccine at 16 week and repeat every 6 month. |
| | **Young stage** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQV).<br>❖ Primary vaccination 6 month or above<br>❖ Revaccination 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 |






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

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

**Mizoram Centre, Kolasib- 796081, MIZORAM**

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

**District: Saiha** **Period: 29 July - 02 August, 2015**

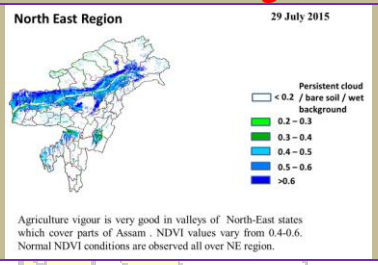
**Bulletin No: -539/2015/ Bulletin/Mizo** **Date of issue: 28th July, 2015**

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 66 | 13 | 0 | 0 | 3 |
| Max Temp (oC) | 22 | 25 | 29 | 28 | 27 |
| Min Temp (oC) | 21 | 19 | 19 | 19 | 19 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Mainly cloudy | Partially cloudy | Mainly cloudy |
| Max RH (%) | 99 | 97 | 98 | 98 | 99 |
| Min RH (%) | 98 | 89 | 60 | 68 | 83 |
| Wind Speed (KmpH) | 4 | 4 | 3 | 3 | 2 |
| *Wind Direction | S-E | E | 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.**

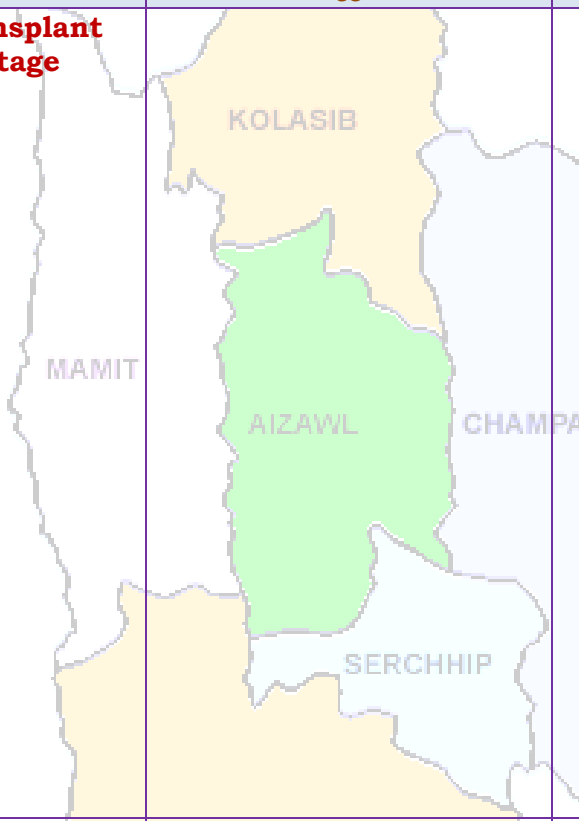
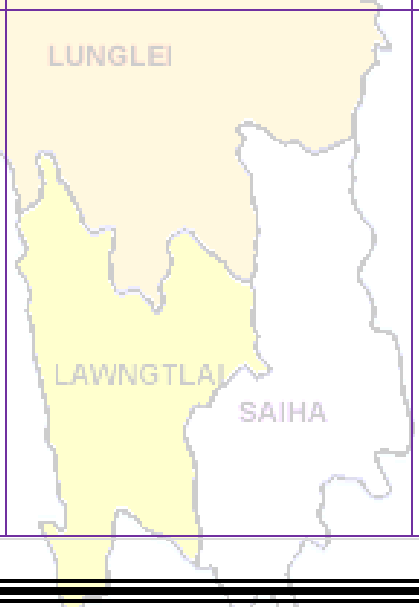
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 | August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan | |
|---|---|---|
| | Ni 3 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 22-29$^0$C a ni ang a.A vawh lai ber in 19-21$^0$C ni tur ah beisei a ni.RH san lai berin 97-99% leh a hniam lai berin 60-98% 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.<br><br>***Weekly cumulative rainfall:*** **82.0mm** | |
| NDVI for Mizoram and SPI |  | NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil". |



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

| 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** |  | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot |




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

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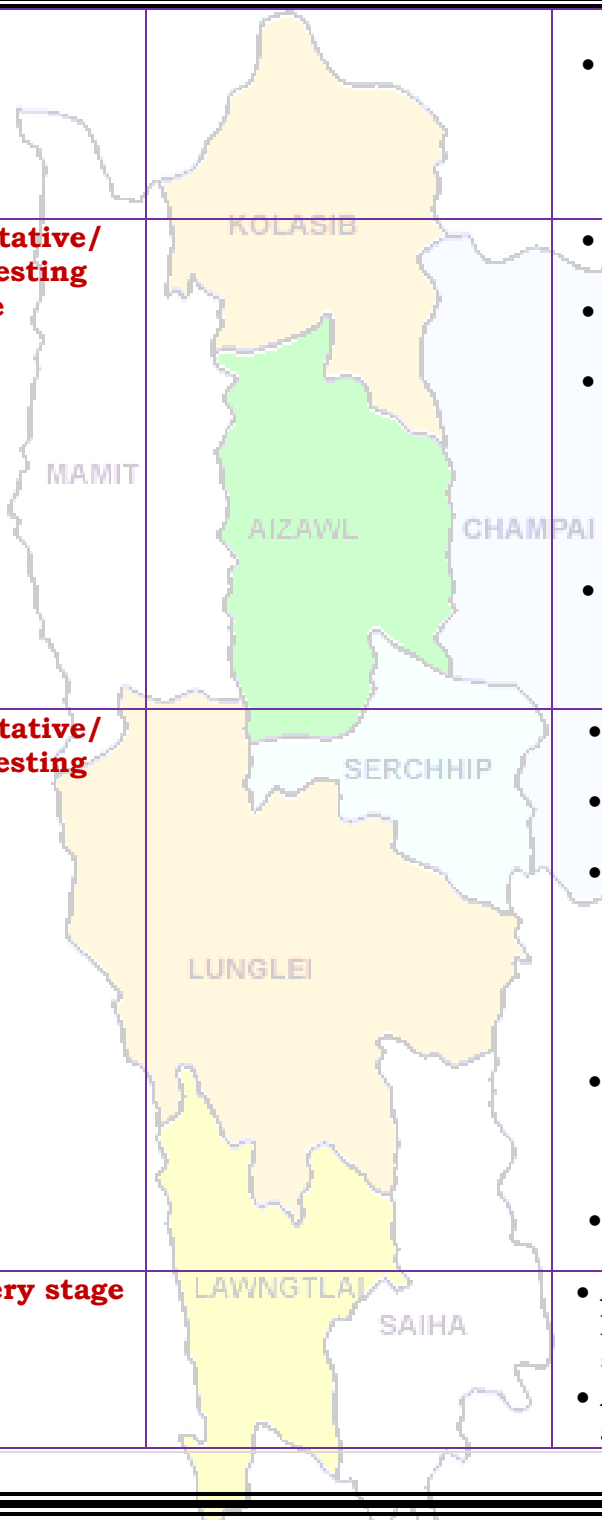
| | | | te hi ven tur.<br>• Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur). |
| **Oil palm** | **Vegetative/ harvesting stage** |  | • Oil palm kung bul chu tihfai a a zar thlak bawk tur.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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.<br>• A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn |




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

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| | | | tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui tha taka pek tur.** | • A kung bulthut ah hnim chheh darh tur.<br>• A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |
| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• Heng insecticides Imidacloprid |



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

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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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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. |




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

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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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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).<br>• Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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 |



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

| | | | |
|---|---|---|---|
| | | | 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.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• Nitrogen leitha chu an mamawh taw kanga pek tur. |
| | | **Thrips** | • Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur. |



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

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| | | **Scales** | • Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| **Vawk** | **Kumtluanin** | **Porcine Reproductive Respiratory Syndrome (PRRS).** | 1. A natna vei vawk te chu thah a phum tur a ni. |
| | **A puitling hun** | **Swine fever.** | 2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur |
| **Bawng** | **Kumtluanin** | **Foot and Mouth Disease (FMD)** | • Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni. |
| | **A naupan lai** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQ)<br>+ Thla ruk an tlin hunah vaccine lak tan tur.<br>+ 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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District:** Serchhip **Period:** 01- 05 August, 2015

**Bulletin No:** -540/2015/ Bulletin/English **Date of issue:** 31st July, 2015

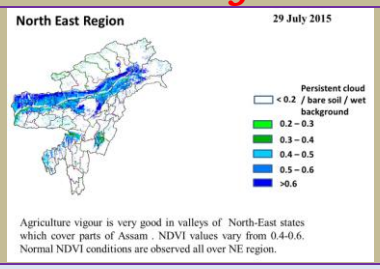
| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 8 | 5 | 0 | 0 | 3 |
| Max Temp (oC) | 21 | 24 | 29 | 29 | 28 |
| Min Temp (oC) | 20 | 18 | 18 | 19 | 19 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| Max RH (%) | 100 | 100 | 100 | 100 | 100 |
| Min RH (%) | 99 | 92 | 54 | 63 | 74 |
| Wind Speed (KmpH) | 2 | 2 | 2 | 2 | 0 |
| *Wind Direction | E | E | E | E | S |

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

**STATUS OF 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 01st August, 2015 To 05th August, 2015. |
|---|---|
| | There are chances of light rainfall during the next 3 day. The maximum and minimum temperatures for the next 5 days may range for 21-29$^0$C and 18-19$^0$C. Maximum relative humidity is expected in the range of 100% and minimum may from 54-99%. Wind direction would be southeasterly with the wind speed of 0-2 km per hour. Dense cloudy sky will prevail during the next five days. |
| | ***Weekly cumulative rainfall:*** **16.0 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/ Pest/** | **Agricultural / Horticultural/** |



Phone: +91 3837 220041, Fax: +91 3837 220560,
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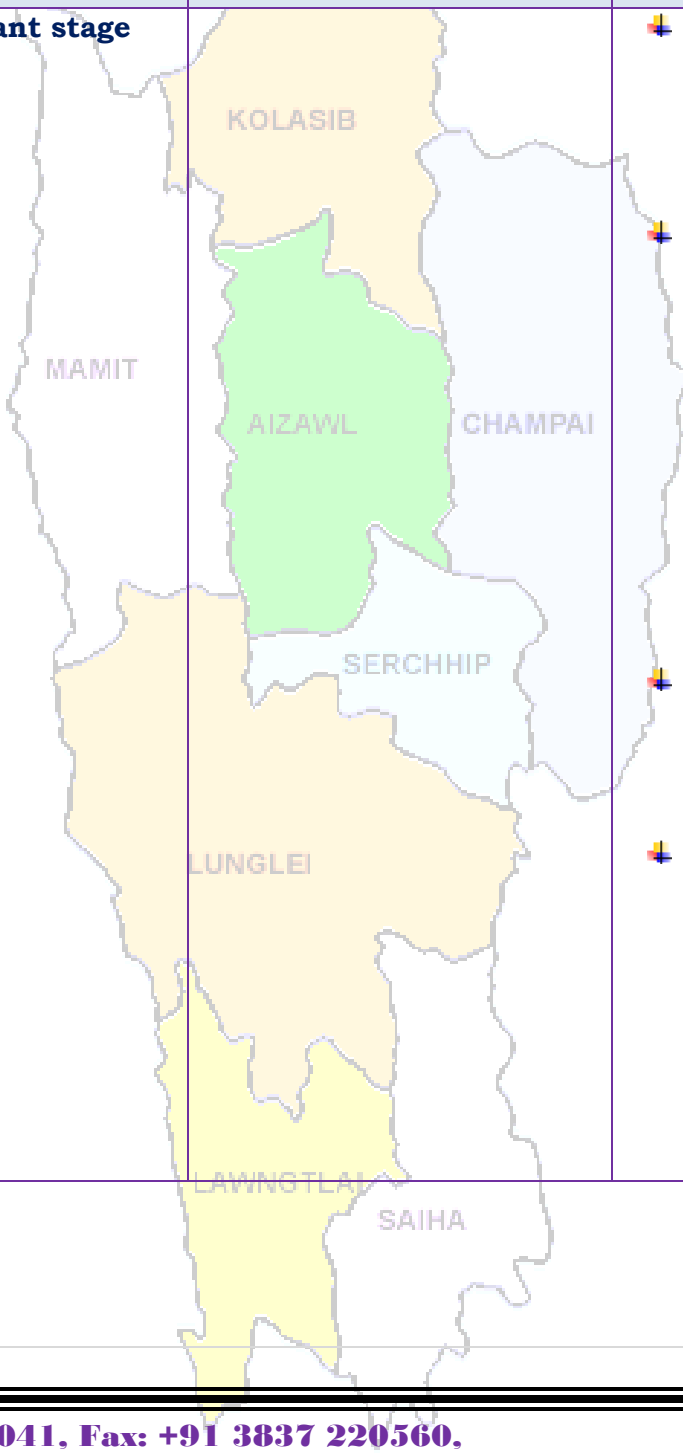
| Crop/ Animal /Fisheries | | Diseases | animal husbandry advisories |
|---|---|---|---|
| **Khasi Mandarin and acid lime** | **Transplant stage** |  | ✚ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant.<br>✚ This root stock 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.<br>✚ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>✚ 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. |



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

| | | | |
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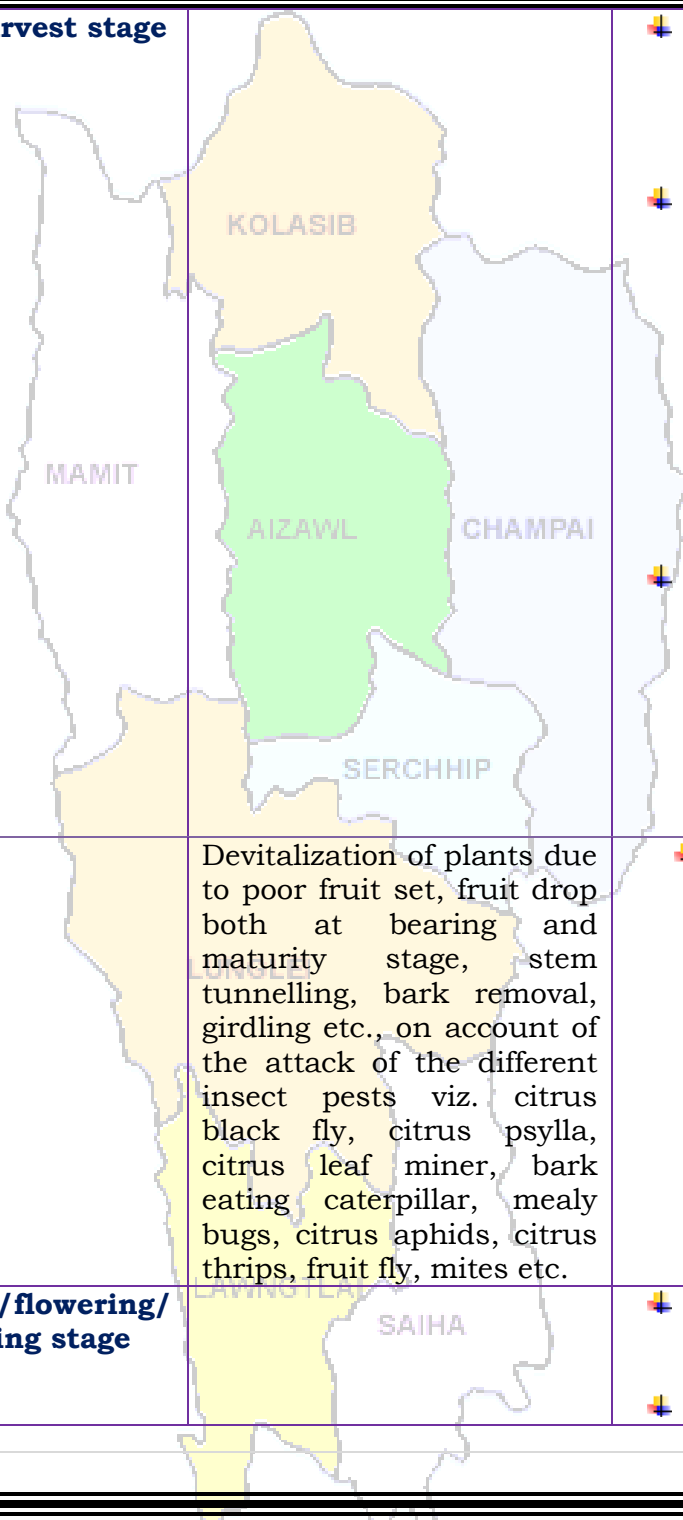
| **Khasi Mandarin and acid lime** | **Flower/Harvest stage** |  | ✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards.<br>✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains.<br>✦ 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.<br>✦ Cleaning near base of the |




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

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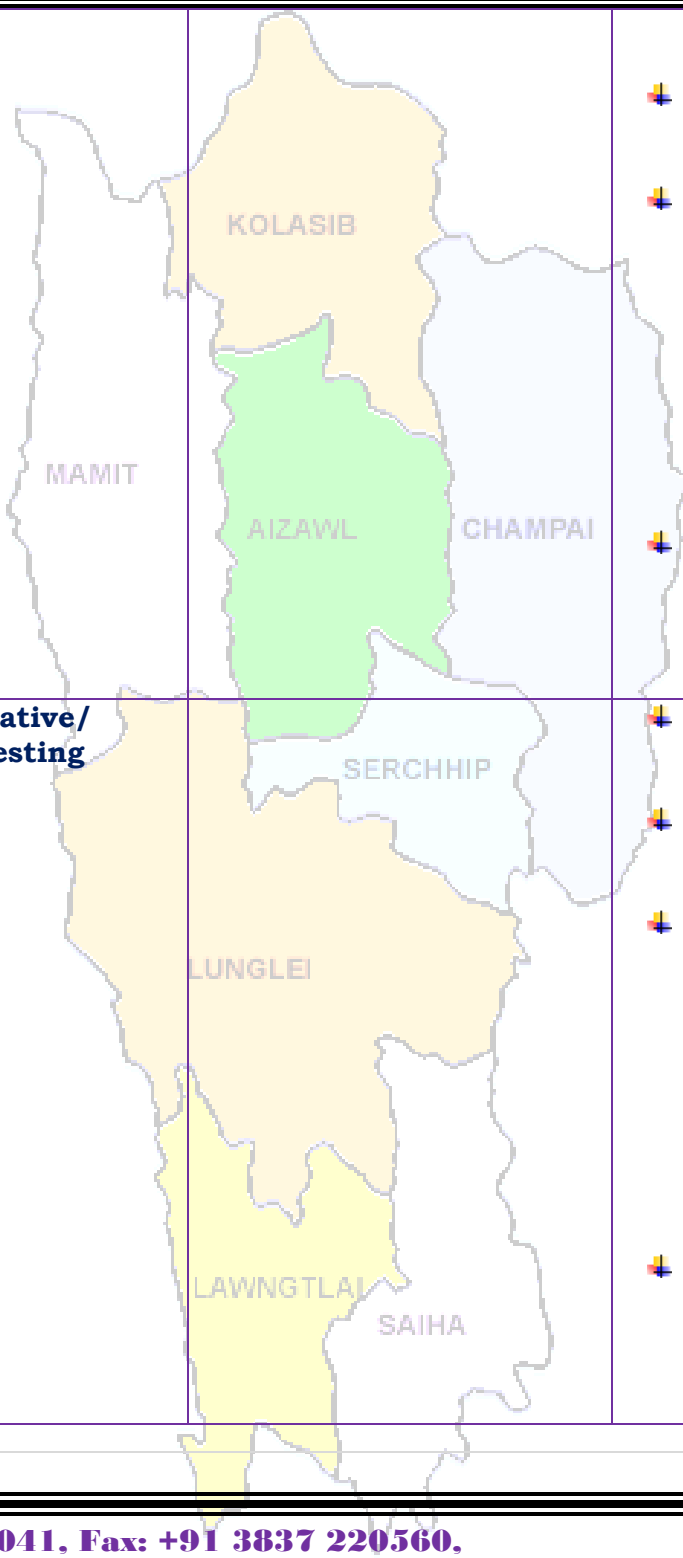
| | |  | plant and cut unwanted branches.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.<br>• 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.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• 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.<br>• Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces |



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

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| | | | pest and disease.<br>Fruits are harvested when they attain full size, develop attractive yellow colour. |
| | | **Comb weevil and stem weevil** | Applications of neem powder effectively controlled weevils.<br>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.<br>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.<br>A cutting should contain at least 3 buds and must be planted in sand beds.<br>Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>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 |



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

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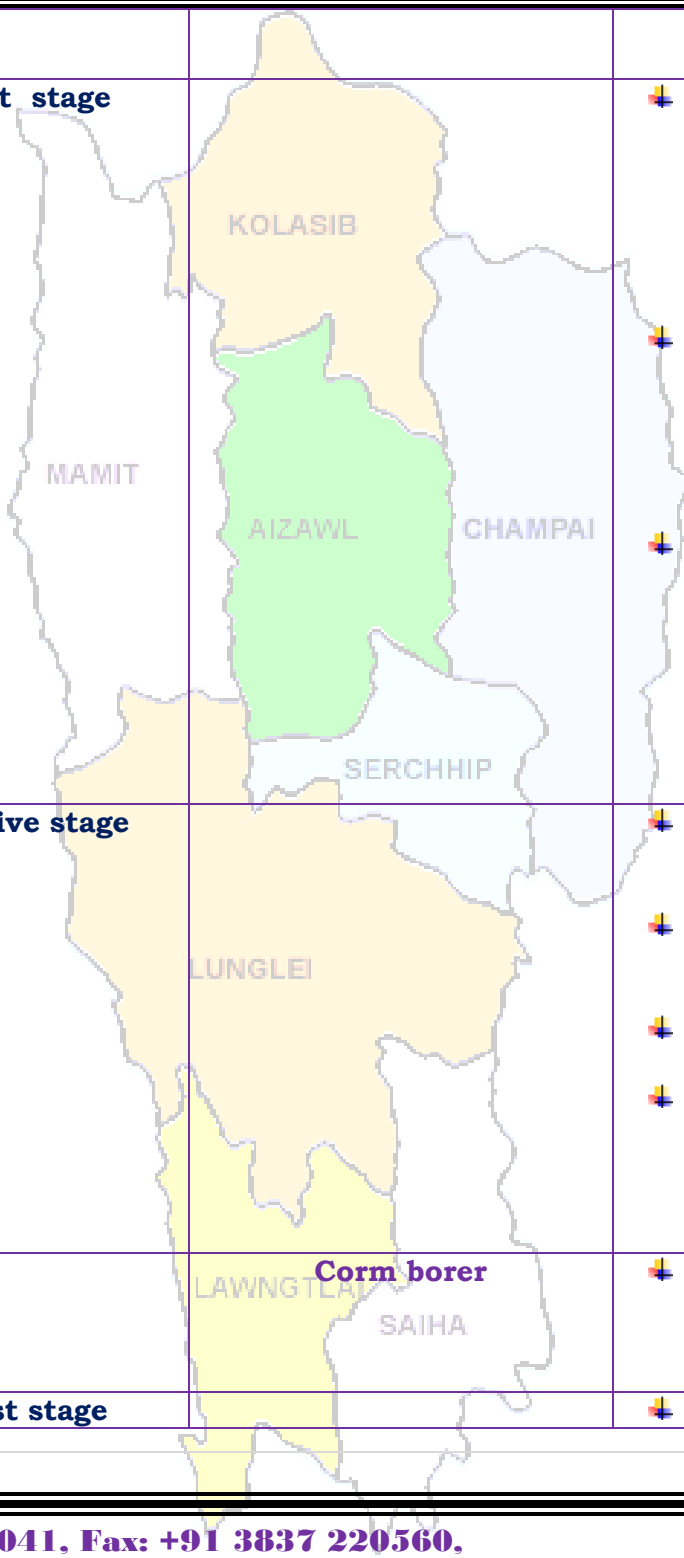
| | | | wedge or approach method of grafting. |
| **Pineapple** | **harvest stage** | | ✦ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow.<br>✦ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature.<br>✦ 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.<br>✦ Earthing up soil at base of the plant along with split doses of fertilizer.<br>✦ Proper drainage is required to avoid water logging.<br>✦ 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 |






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

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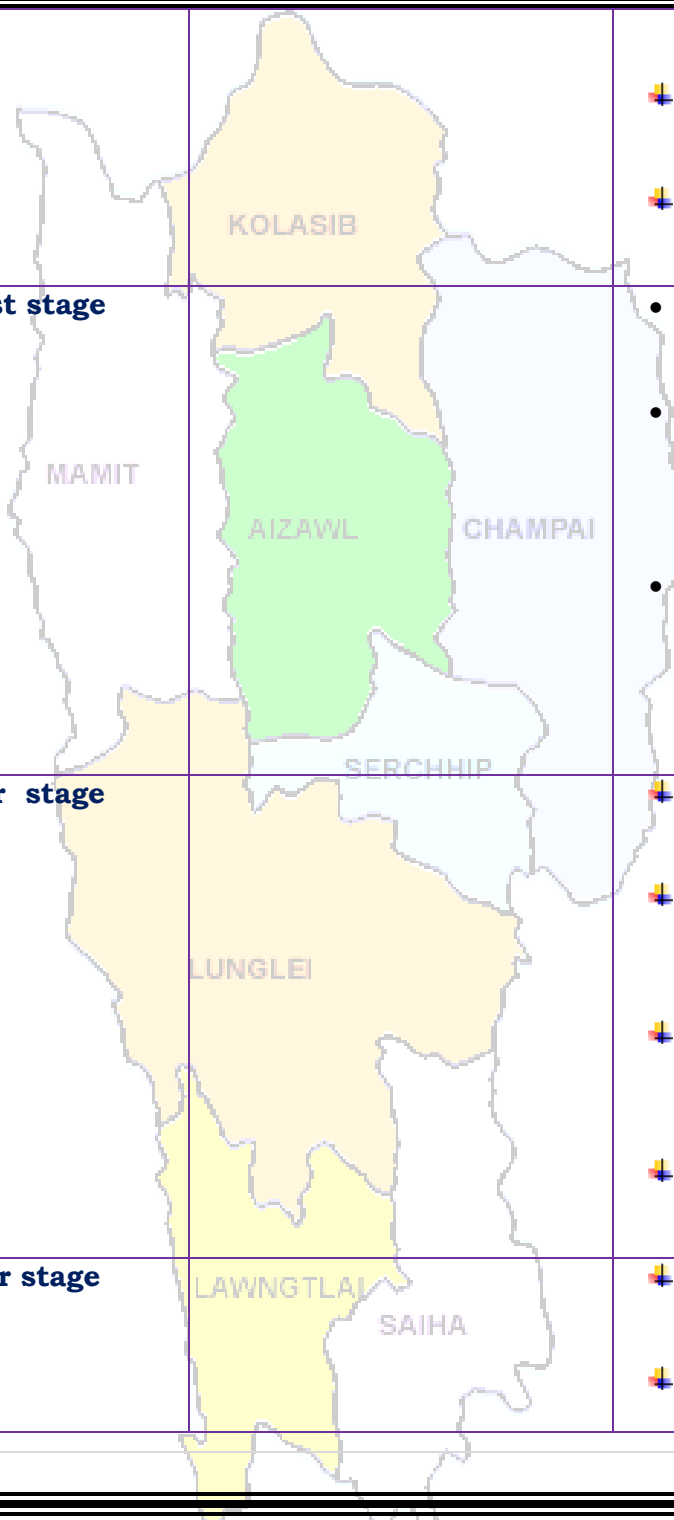
| | |   | from the time of flowering to the time to pick okra.<br>Picking okra should be done when they are four to five inches long.<br>Don't leave the fruit too long, they get hard and woody. |
| **French bean** | **harvest stage** | | • In pole type varieties, mature pods should be harvested twice.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• 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.<br>Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>Mulching with black polythene film reduces weed growth, increases the crop growth.<br>Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | Remove unwanted plant near base of the plant and cut dead branches.<br>Pre emergence application of Basalin @0.5 ml/lit of |



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

| | | | |
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| | | | water for reduce grass type weed.<br>+ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>+ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering stage** | **Kharif Rice** | + Avoid sowing till sufficient rains have been received<br>+ If sowing is delayed, plant short duration varieties<br>+ Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>+ Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>+ Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>+ Remove unwanted plant |



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

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| | | | near base of the plant and cut dead branches.<br>Earting up of soil along with fertilizer mixture.<br>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)** | **Growth stage** | | One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed infestation.<br>Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | Remove unwanted plant near base of the plant and cut dead branches.<br>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.<br>Earting up of soil along with fertilizer mixture. |
| | | **Thrips** | Spray Roger or |



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

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| | | | 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).<br>❖ Primary vaccination 6 month or above<br>❖ 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 |



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

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

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

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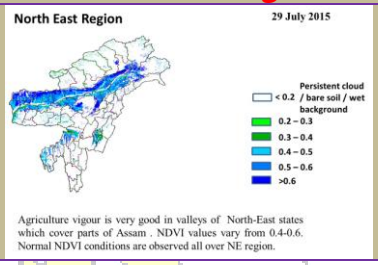
| Max RH (%) | 100 | 100 | 100 | 100 | 100 |
| Min RH (%) | 99 | 92 | 54 | 63 | 74 |
| Wind Speed (KmpH) | 2 | 2 | 2 | 2 | 0 |
| *Wind Direction | E | E | E | E | S |

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

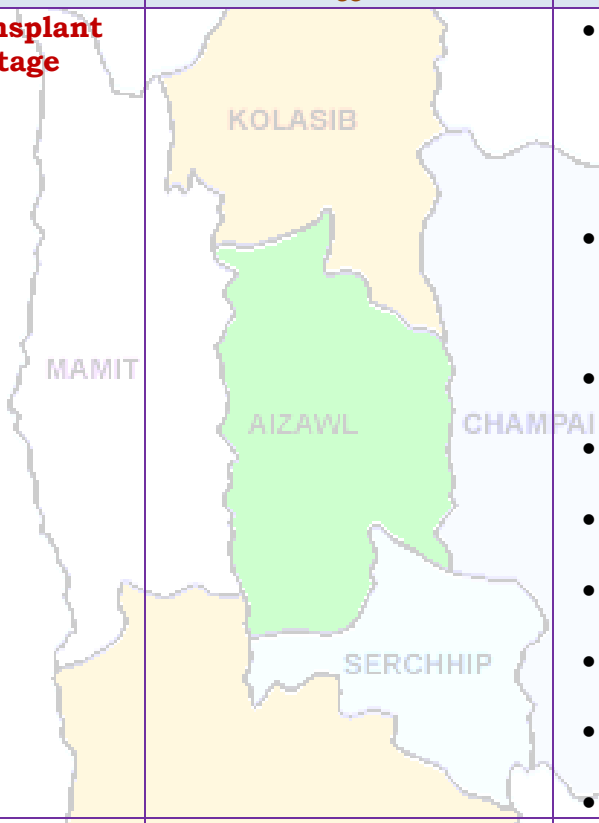
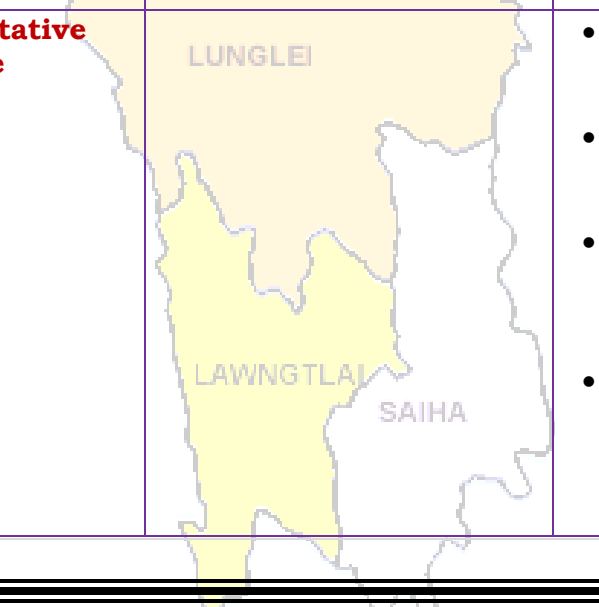
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 | August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan |
|---|---|
| | Ni 5 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 21-29$^0$C a ni ang a.A vawh lai ber in 18-19$^0$C ni tur ah beisei a ni.RH san lai berin 100% leh a hniam lai berin 54-99% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 0-2 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.<br><br>***Weekly cumulative rainfall:*** **16.0mm** |
| NDVI for Mizoram and SPI |  NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil". |

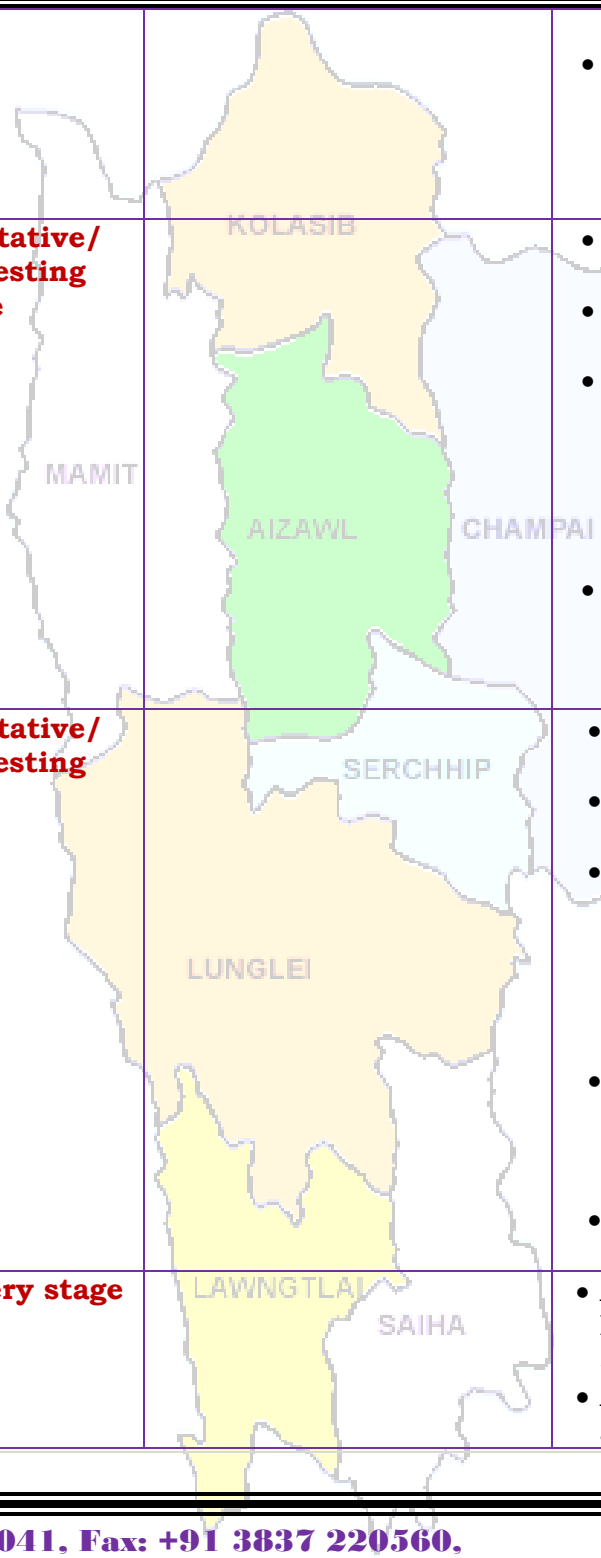


Phone: +91 3837 220041, Fax: +91 3837 220560,
E-mail: kolasib.amfu@gov.in

| 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** |  | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot |




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

| | | | |
|---|---|---|---|
| | | | te hi ven tur.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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.<br>• A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn |

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**E-mail: kolasib.amfu@gov.in**

| | | | |
|---|---|---|---|
| | | | tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui tha taka pek tur.** | • A kung bulthut ah hnim chheh darh tur.<br>• A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |
| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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).<br>• Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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 |



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| | | | |
|---|---|---|---|
| | | | 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.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• Nitrogen leitha chu an mamawh taw kanga pek tur. |
| | | **Thrips** | • Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur. |



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**E-mail: kolasib.amfu@gov.in**

| | | | |
|---|---|---|---|
| | | **Scales** | • Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| **Vawk** | **Kumtluanin** | **Porcine Reproductive Respiratory Syndrome (PRRS).** | 1. A natna vei vawk te chu thah a phum tur a ni. |
| | **A puitling hun** | **Swine fever.** | 2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur |
| **Bawng** | **Kumtluanin** | **Foot and Mouth Disease (FMD)** | • Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni. |
| | **A naupan lai** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQ)<br>✚ Thla ruk an tlin hunah vaccine lak tan tur.<br>✚ 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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | basantasinghsoibam@rediffmail.com |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District:** Aizawl **Period:** 01- 05 August, 2015

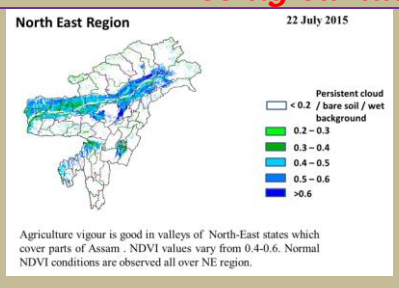
**Bulletin No:** -540/2015/ Bulletin/Mizo **Date of issue:** 31st July, 2015

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 20 | 4 | 0 | 3 | 3 |
| Max Temp (oC) | 22 | 25 | 30 | 29 | 29 |
| Min Temp (oC) | 20 | 18 | 18 | 19 | 20 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| Max RH (%) | 99 | 99 | 98 | 97 | 96 |
| Min RH (%) | 93 | 93 | 54 | 65 | 68 |
| Wind Speed (KmpH) | 3 | 2 | 2 | 2 | 3 |
| *Wind Direction | E | E | E | S-E | S |

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

**STATUS OF 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 | August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan |
|---|---|
| | Ni 4 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 22-30$^0$C a ni ang a.A vawh lai ber in 18-20$^0$C ni tur ah beisei a ni.RH san lai berin 96-99% leh a hniam lai berin 54-93% ni tur a beisei niin. Thli tleh dan kawng zawng chu chhimchhak lam atangin a nat zawng chu darkar 2-6 km ni tur a beisei niin. Ni nga chhung lo awm tur ah hian chhum tlem a lan beisei a ni.<br><br>***Weekly cumulative rainfall:*** **30.0mm** |
| **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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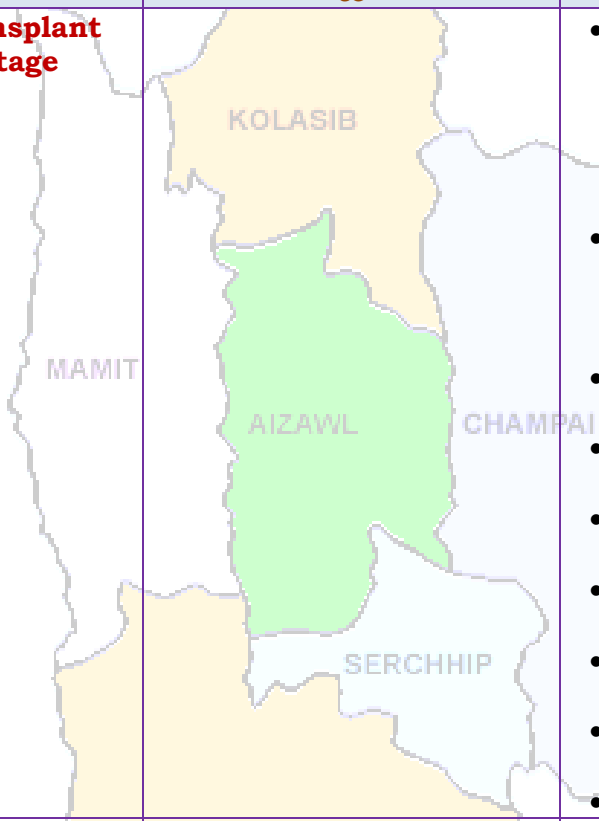
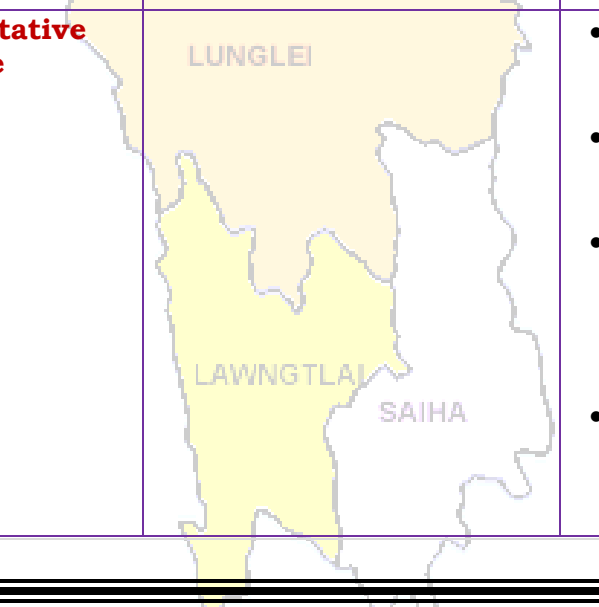
E-mail: kolasib.amfu@gov.in

| 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** |  | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, |

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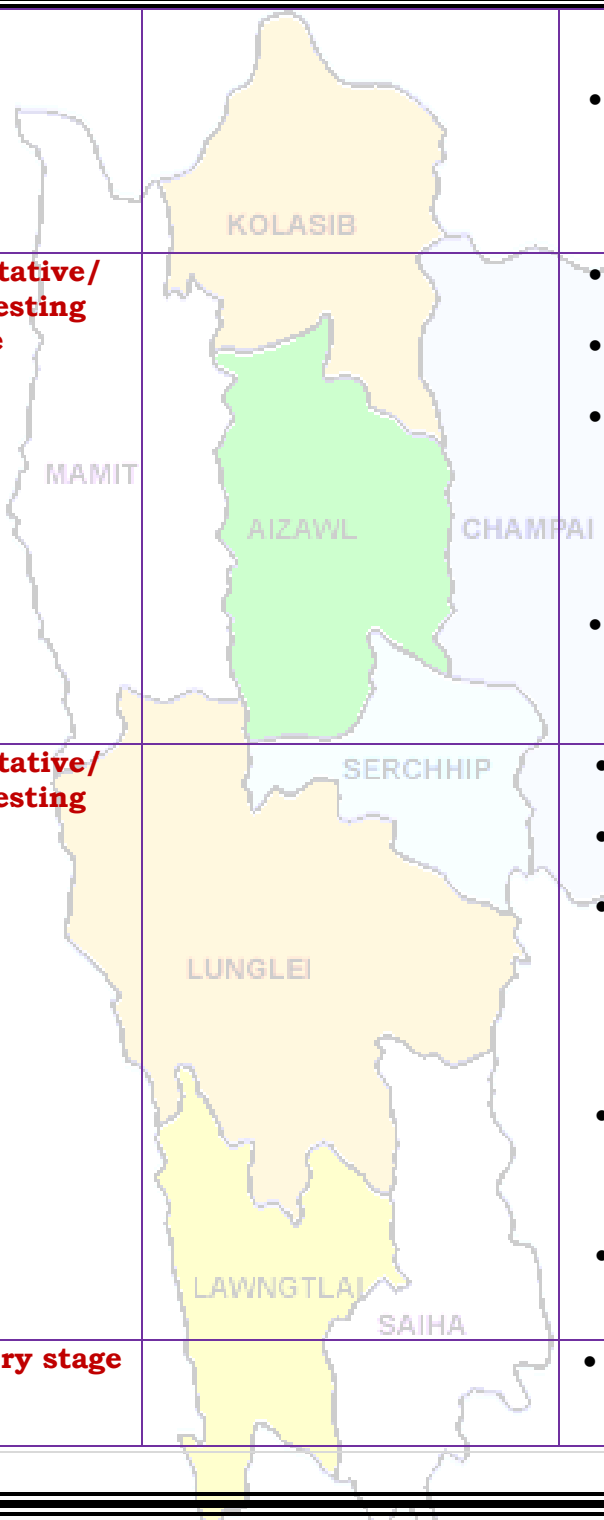
| | | | |
|---|---|---|---|
| | |   | gummosis, root rot leh collar rot te hi ven tur.<br>• Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur). |
| **Oil palm** | **Vegetative/ harvesting stage** | | • Oil palm kung bul chu tihfai a a zar thlak bawk tur.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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. |



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

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| | | | • A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui tha taka pek tur.** | • A kung bulthut ah hnim chheh darh tur.<br>• A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |



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

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| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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 |



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

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| | | | 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur.<br>• 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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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).<br>• Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• Heng insecticides Imidacloprid |



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

| | | | |
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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. |
| | | **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.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• Nitrogen leitha chu an mamawh taw kanga pek tur. |



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

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| | | **Thrips** | • Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| | | **Scales** | • Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| **Vawk** | **Kumtluanin** | **Porcine Reproductive Respiratory Syndrome (PRRS).** | 1. A natna vei vawk te chu thah a phum tur a ni. |
| | **A puitling hun** | **Swine fever.** | 2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur |
| **Bawng** | **Kumtluanin** | **Foot and Mouth Disease (FMD)** | • Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni. |
| | **A naupan lai** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQ)<br>  Thla ruk an tlin hunah vaccine lak tan tur.<br>  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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District: Aizawl** **Period: 01- 05 August, 2015**

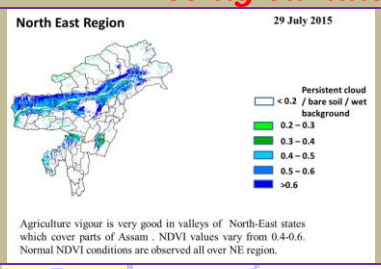
**Bulletin No: -540/2015/ Bulletin/English** **Date of issue: 31st July, 2015**

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| **Rainfall (mm)** | 20 | 4 | 0 | 3 | 3 |
| **Max Temp (oC)** | 22 | 25 | 30 | 29 | 29 |
| **Min Temp (oC)** | 20 | 18 | 18 | 19 | 20 |
| **Cloud Coverage** | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| **Max RH (%)** | 99 | 99 | 98 | 97 | 96 |
| **Min RH (%)** | 93 | 93 | 54 | 65 | 68 |
| **Wind Speed (KmpH)** | 3 | 2 | 2 | 2 | 3 |
| ***Wind Direction** | E | E | E | S-E | S |

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

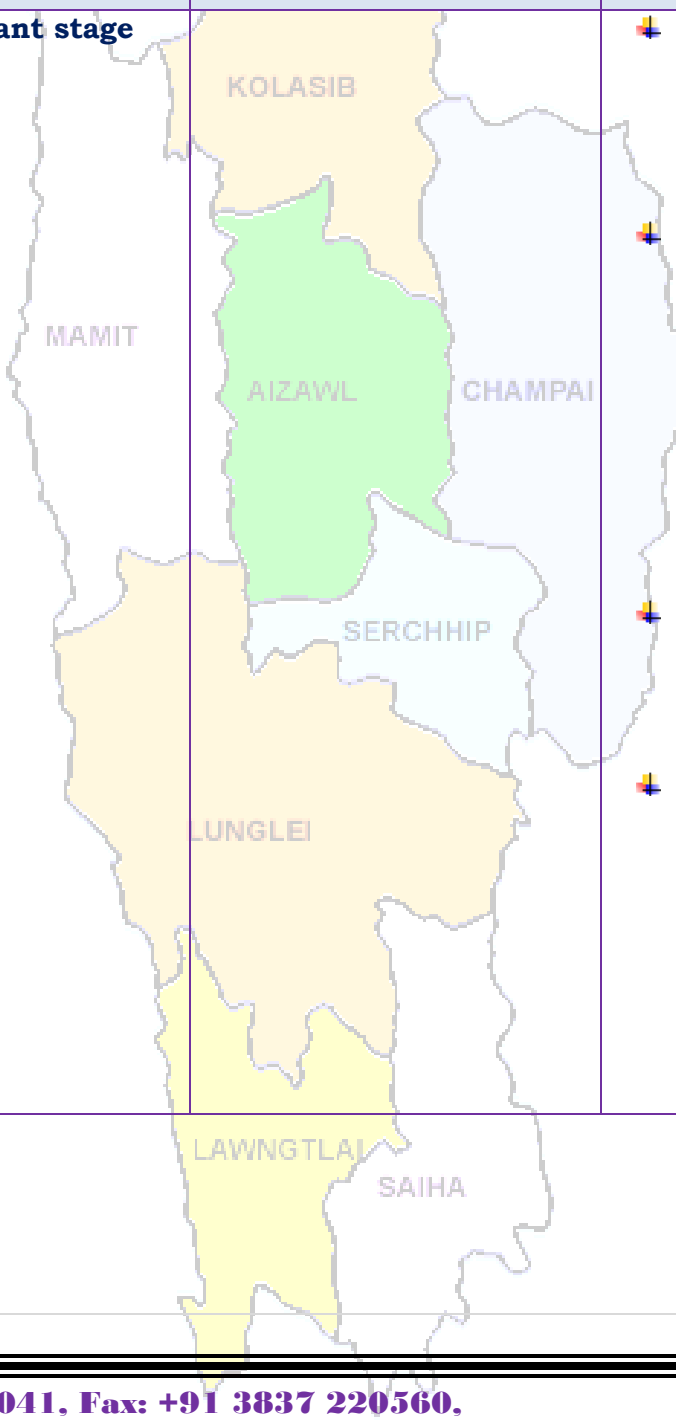
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| **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 01st August, 2015 To 05th August, 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 22-30$^0$C and 18-20$^0$C. Maximum relative humidity is expected in the range of 96-99% and minimum may from 54-93%. Wind direction would be easterly with the wind speed of 2-3 km per hour. Partially cloudy sky will prevail during the next five days.<br><br>***Weekly cumulative rainfall:*** **30.0 mm** |
| **NDVI for Mizoram** |  NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil". |



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

| Main Crop/ Animal /Fisheries | Stage | Cultural practices/ Pest/ Diseases | Agricultural / Horticultural/ animal husbandry advisories |
|---|---|---|---|
| **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.<br>▪ 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.<br>▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>▪ 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. |



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

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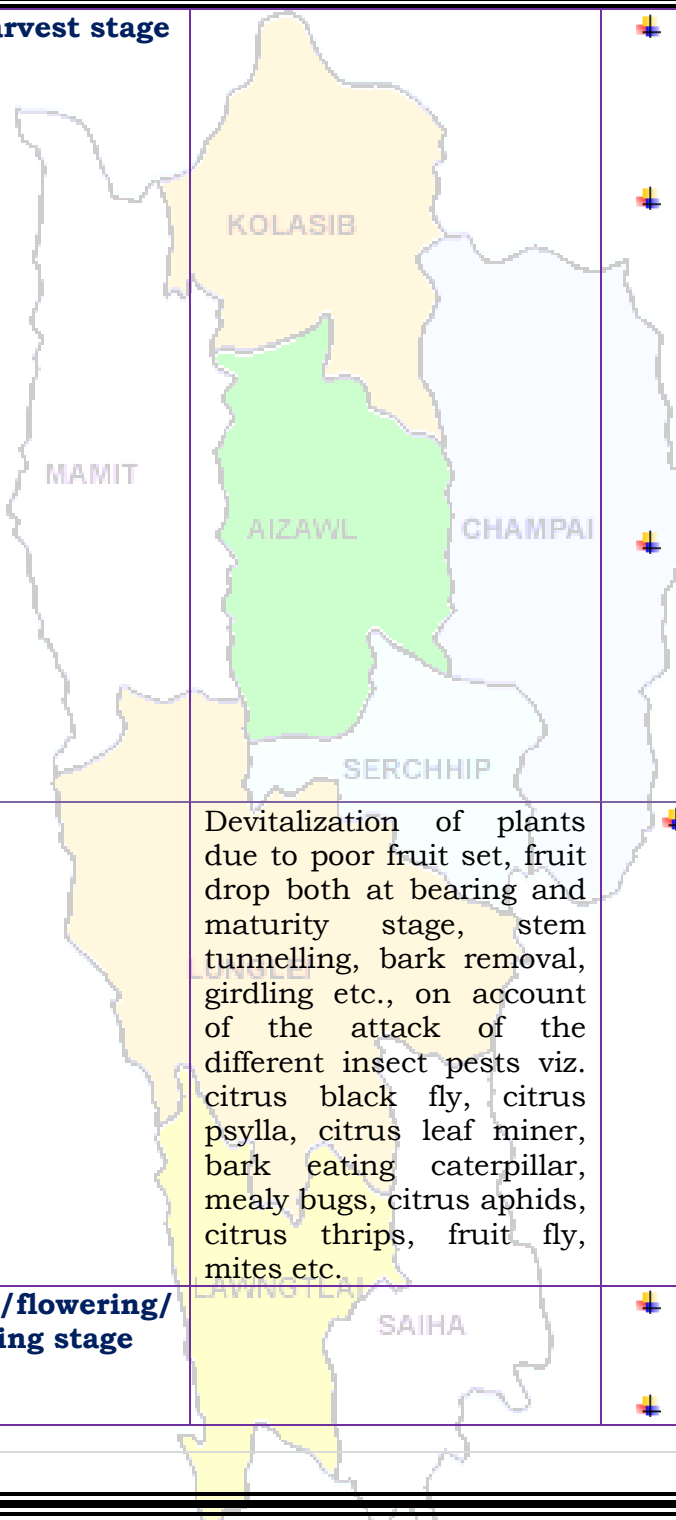
| **Khasi Mandarin and acid lime** | **Flower/Harvest stage** |  | ▪ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards.<br>▪ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains.<br>▪ 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.<br>▪ Cleaning near base of the |



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

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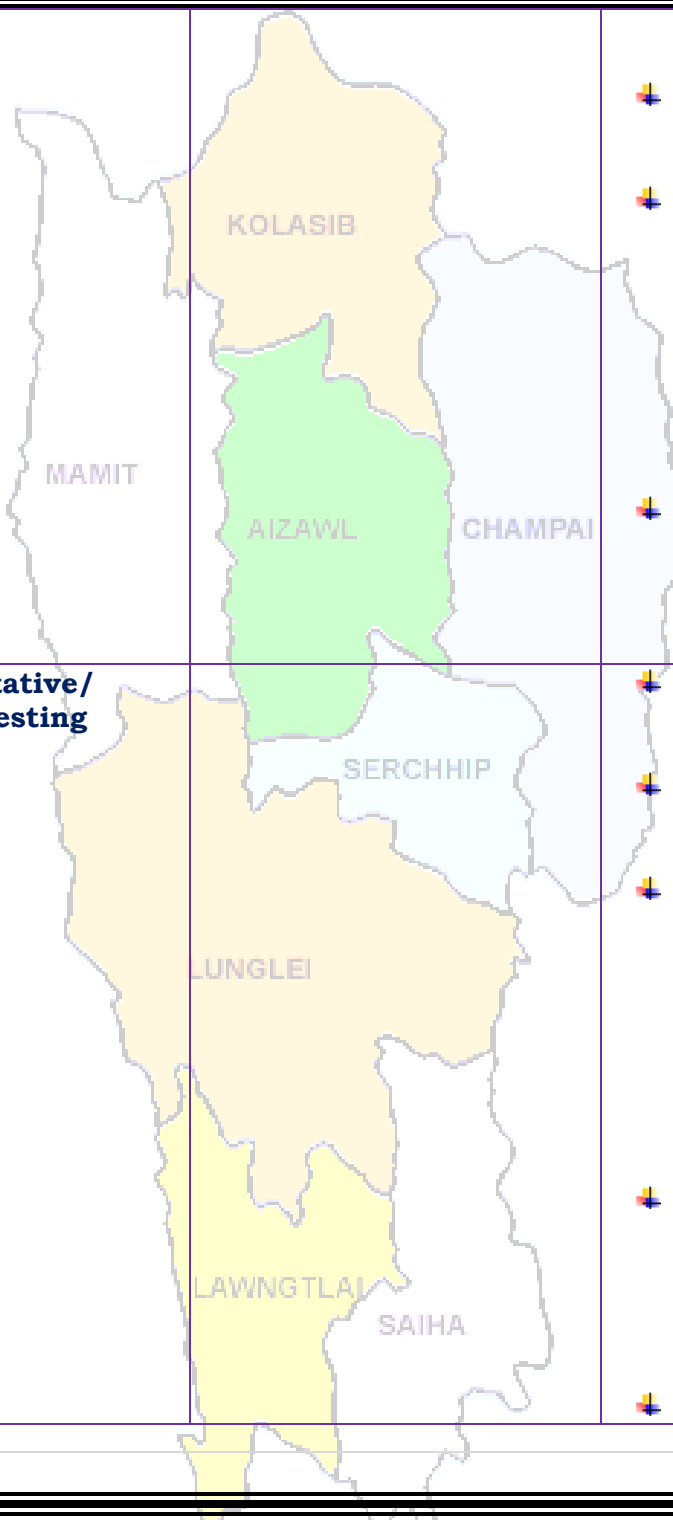
| | |  | plant and cut unwanted branches.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.<br>• 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.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• 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.<br>• Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease.<br>• Fruits are harvested when |



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

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| | | | they attain full size, develop attractive yellow colour. |
| | | **Comb weevil and stem weevil** | ✦ Applications of neem powder effectively controlled weevils.<br>✦ 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.<br>✦ 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.<br>✦ A cutting should contain at least 3 buds and must be planted in sand beds.<br>✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>✦ 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 |



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

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| | | | more of the peel or shell has turned from green to yellow.<br>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.<br>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.<br>Earthing up soil at base of the plant along with split doses of fertilizer.<br>Proper drainage is required to avoid water logging.<br>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.<br>Picking okra should be done when they are four to five inches long.<br>Don't leave the fruit too long, they get hard and woody. |



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

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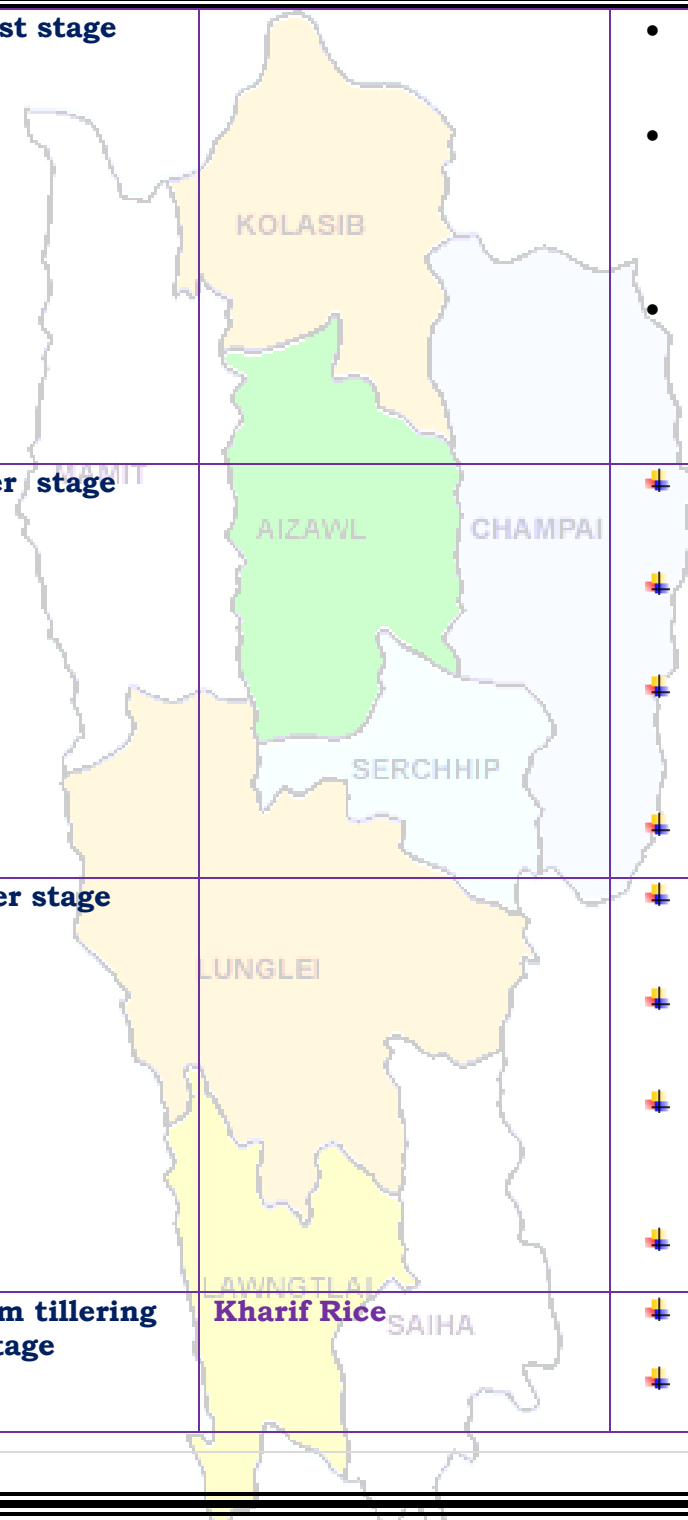
| **French bean** | **harvest stage** | | • In pole type varieties, mature pods should be harvested twice.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity. |
| **Brinjal** | **Flower stage** | | ✦ Remove unwanted plant near base of the plant and cut dead branches.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | ✦ Remove unwanted plant near base of the plant and cut dead branches.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering stage** | **Kharif Rice** | ✦ Avoid sowing till sufficient rains have been received<br>✦ If sowing is delayed, plant short duration varieties |







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

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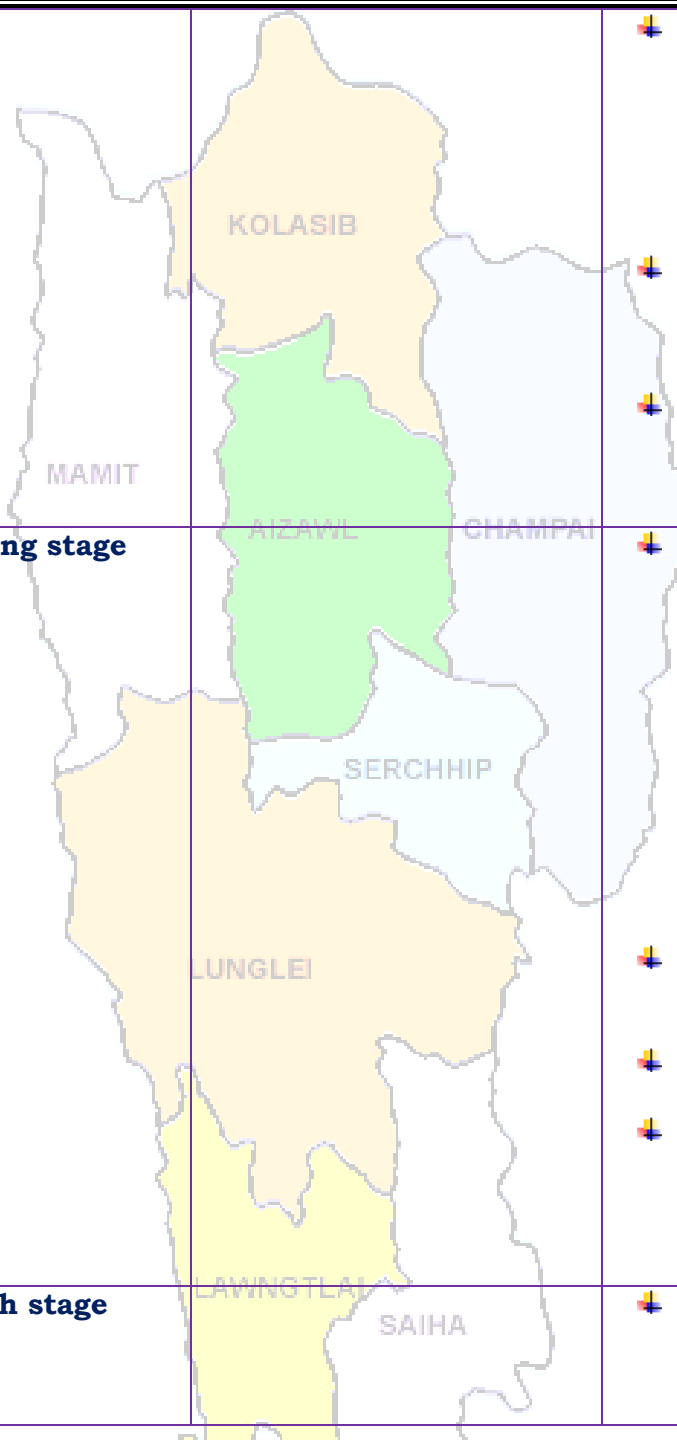
| | |  | ▪ Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>▪ Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>▪ Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>▪ Remove unwanted plant near base of the plant and cut dead branches.<br>▪ Earting up of soil along with fertilizer mixture.<br>▪ 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,** | **Growth stage** | | ▪ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed |



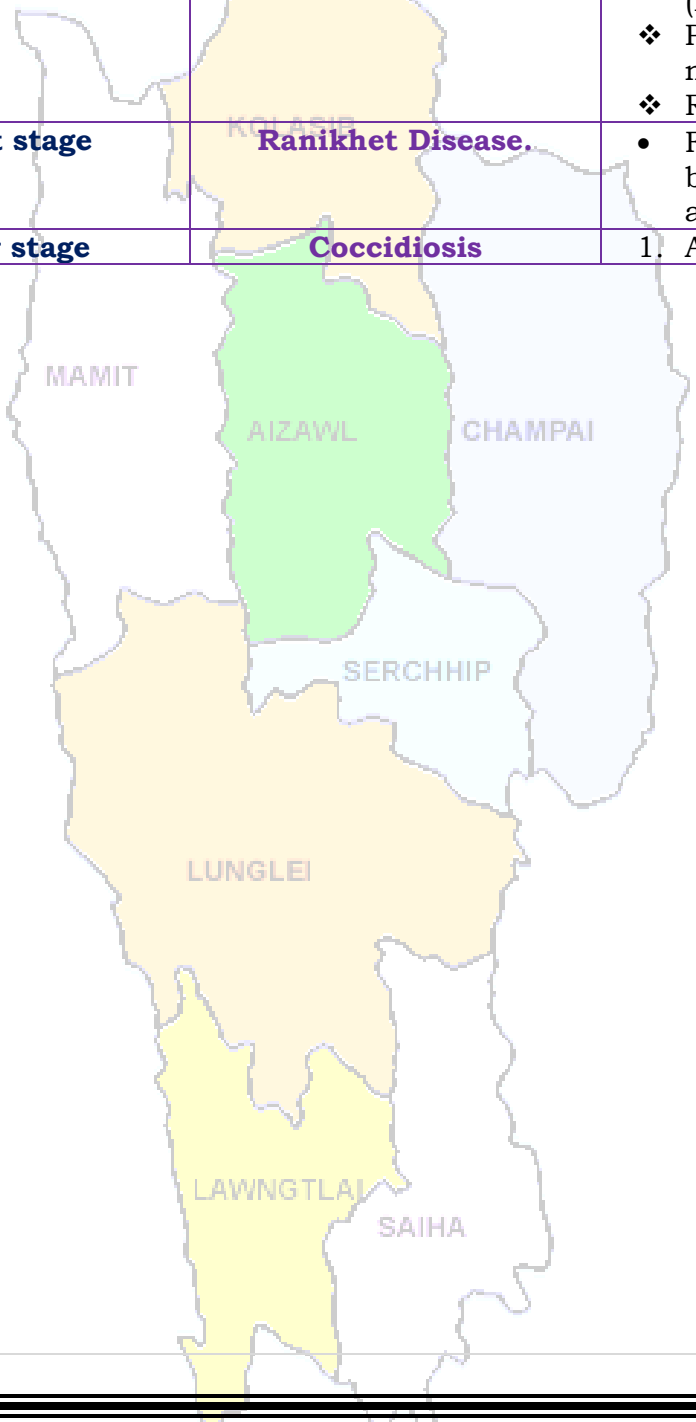
**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: kolasib.amfu@gov.in**

| | | | |
|---|---|---|---|
| **Black gram and Rajma)** | | | infestation.<br>• Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>• Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | • Remove unwanted plant near base of the plant and cut dead branches.<br>• 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.<br>• 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 vaccine at 16 week and |



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

| | | | |
|---|---|---|---|
| | | **(FMD)** | repeat every 6 month. |
| | **Young stage** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQV).<br>❖ Primary vaccination 6 month or above<br>❖ 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 |






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

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District:** Champhai **Period:** 01- 05 August, 2015

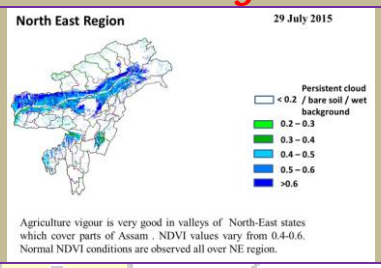
**Bulletin No:** -540/2015/ Bulletin/English **Date of issue:** 31st July, 2015

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 12 | 5 | 0 | 4 | 6 |
| Max Temp (oC) | 21 | 25 | 30 | 29 | 29 |
| Min Temp (oC) | 19 | 18 | 19 | 20 | 20 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Mainly cloudy | Mainly cloudy |
| Max RH (%) | 99 | 100 | 98 | 98 | 98 |
| Min RH (%) | 98 | 92 | 58 | 68 | 71 |
| Wind Speed (KmpH) | 2 | 2 | 2 | 2 | 2 |
| *Wind Direction | S-E | S | S-E | S-E | S-W |

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

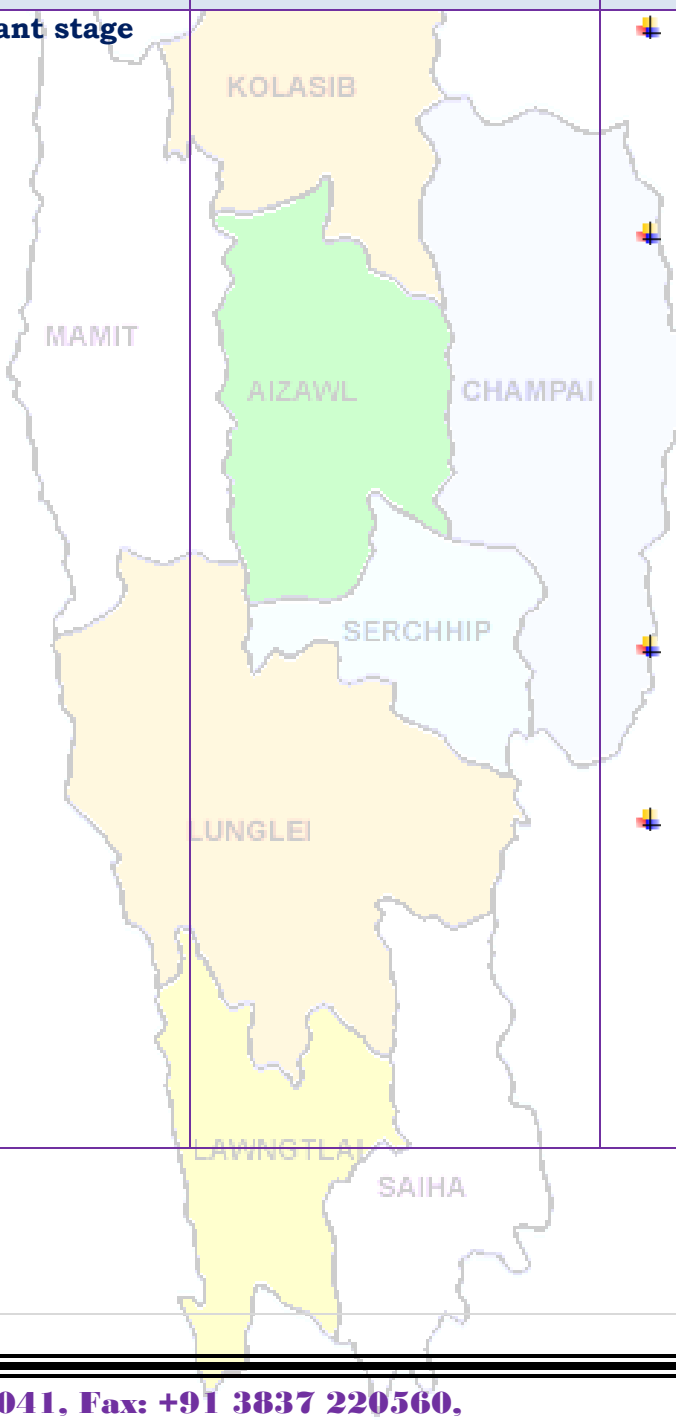
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 01st August, 2015 To 05th August, 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 21-30$^0$C and 19-20$^0$C. Maximum relative humidity is expected in the range of 98-100% and minimum may from 58-98%. Wind direction would be southeasterly to southwesterly with the wind speed of 2 km per hour. Dense cloudy sky will prevail during the next five days.<br><br>***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". |



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

| Main Crop/ Animal /Fisheries | Stage | Cultural practices/ Pest/ Diseases | Agricultural / Horticultural/ animal husbandry advisories |
|---|---|---|---|
| **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.<br>▪ 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.<br>▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>▪ 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. |



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

| | | | |
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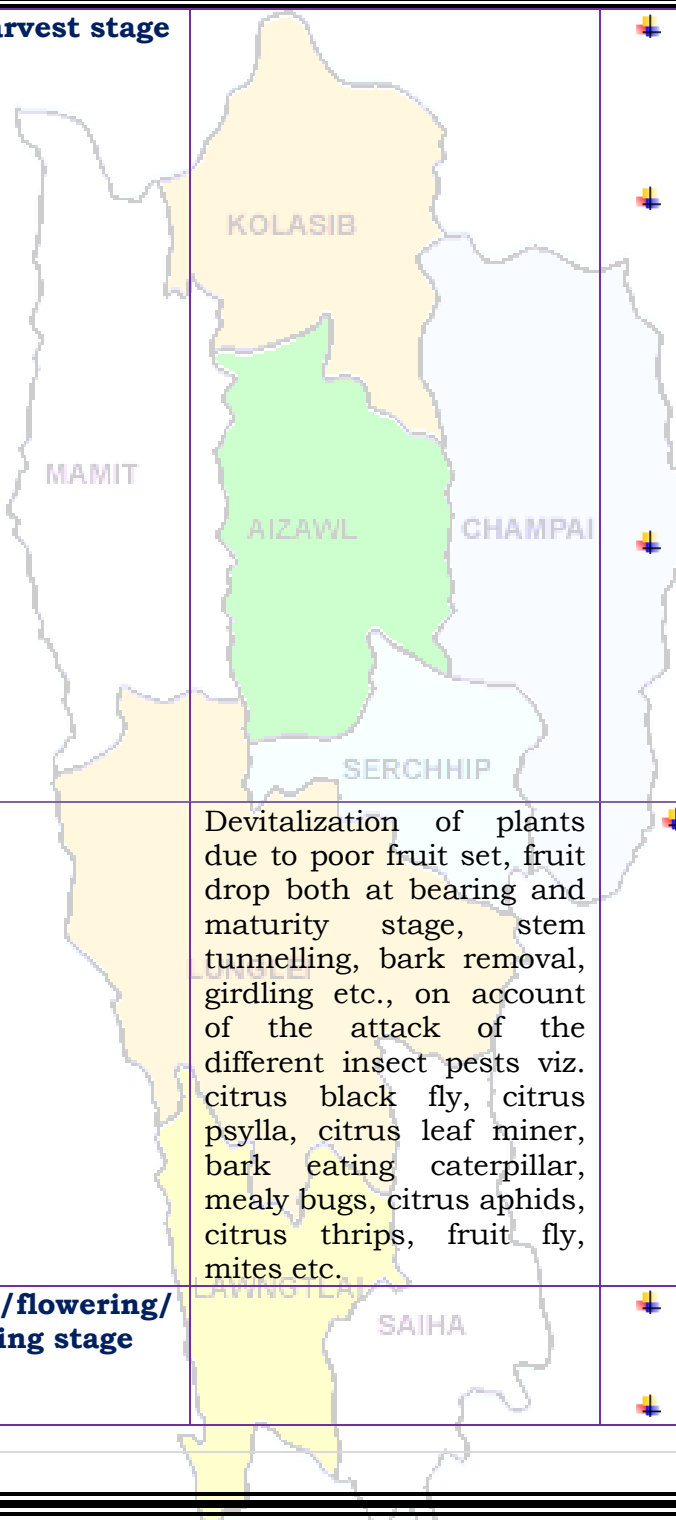
| **Khasi Mandarin and acid lime** | **Flower/Harvest stage** |  | ▪ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards.<br>▪ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains.<br>▪ 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.<br>▪ Cleaning near base of the |



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

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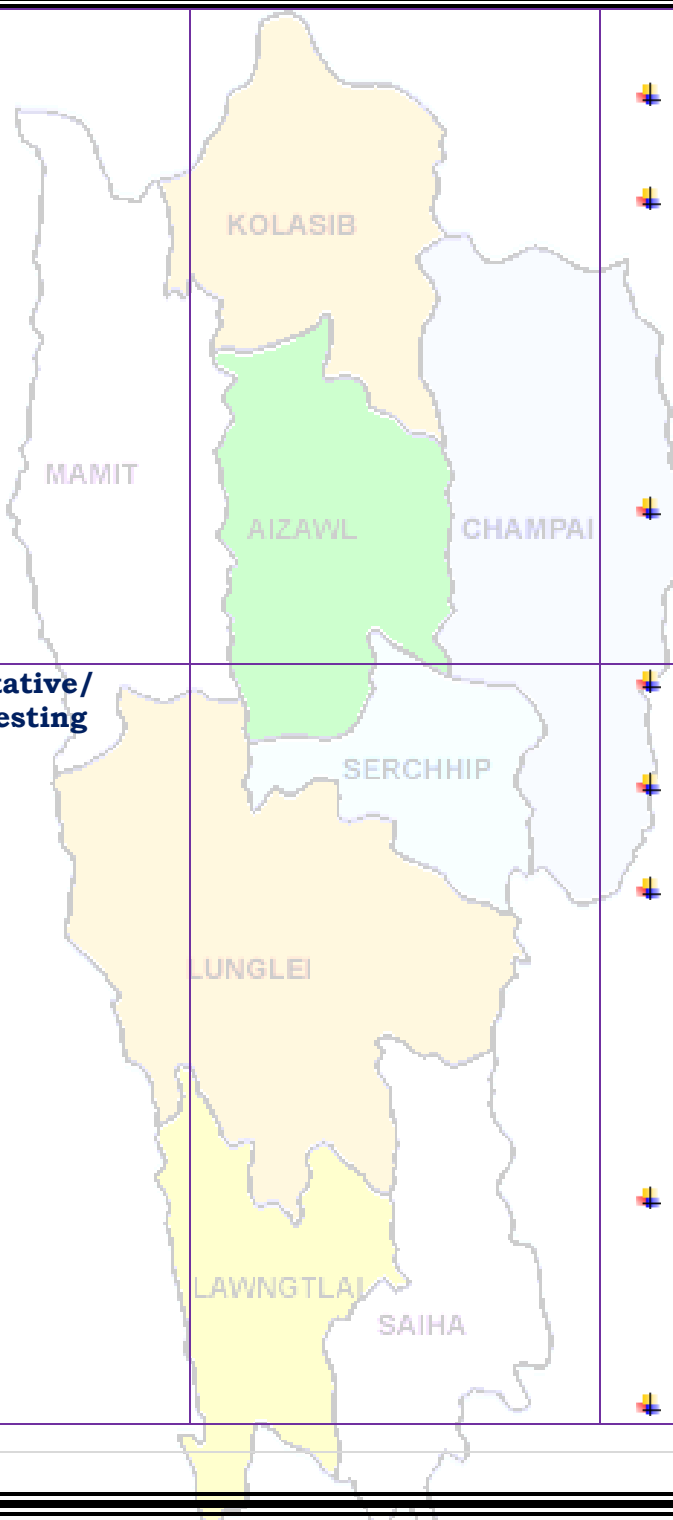
| | |  | plant and cut unwanted branches.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.<br>• 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.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• 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.<br>• Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease.<br>• Fruits are harvested when |



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

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| | | | they attain full size, develop attractive yellow colour. |
| | | **Comb weevil and stem weevil** | ✦ Applications of neem powder effectively controlled weevils.<br>✦ 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.<br>✦ 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.<br>✦ A cutting should contain at least 3 buds and must be planted in sand beds.<br>✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>✦ 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 |



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

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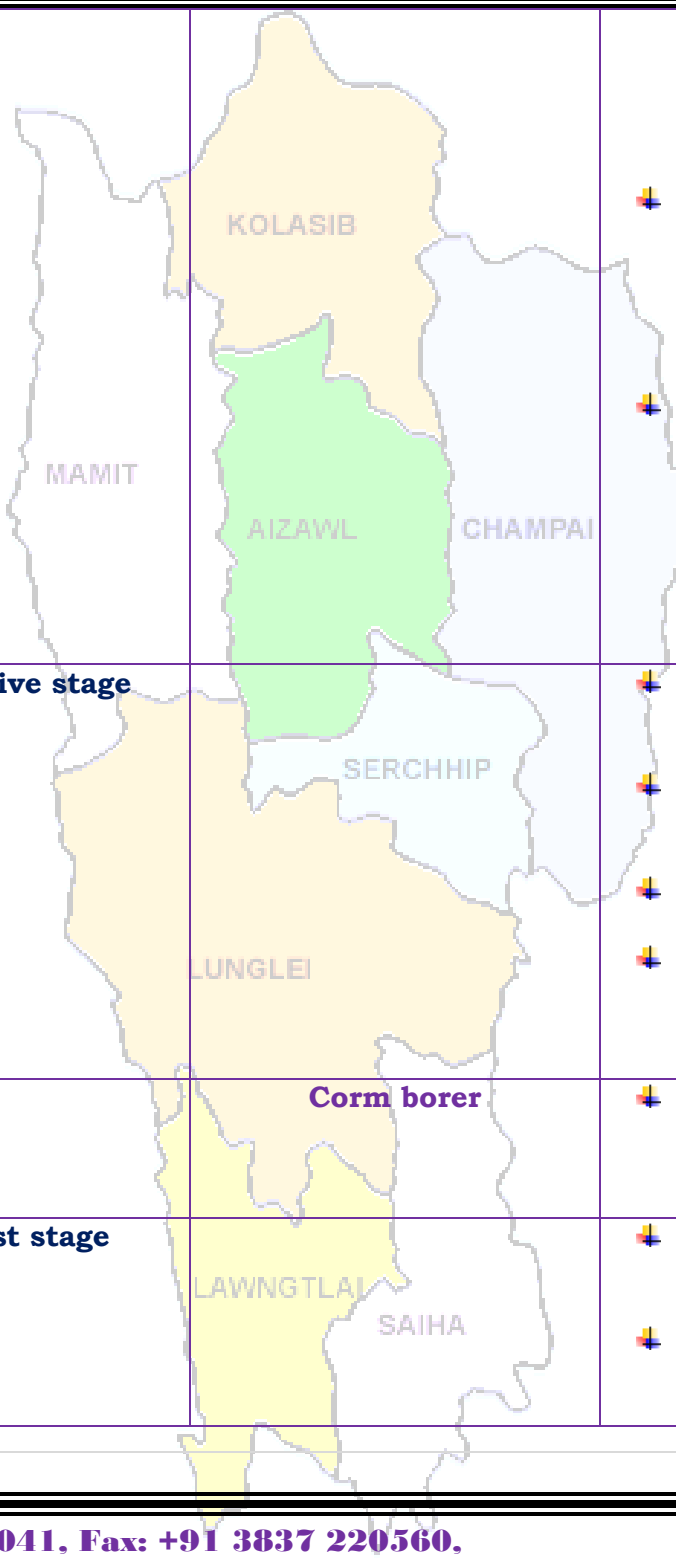
| | | | sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow.<br>When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature.<br>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.<br>Earthing up soil at base of the plant along with split doses of fertilizer.<br>Proper drainage is required to avoid water logging.<br>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.<br>Picking okra should be done when they are four to five inches long. |






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

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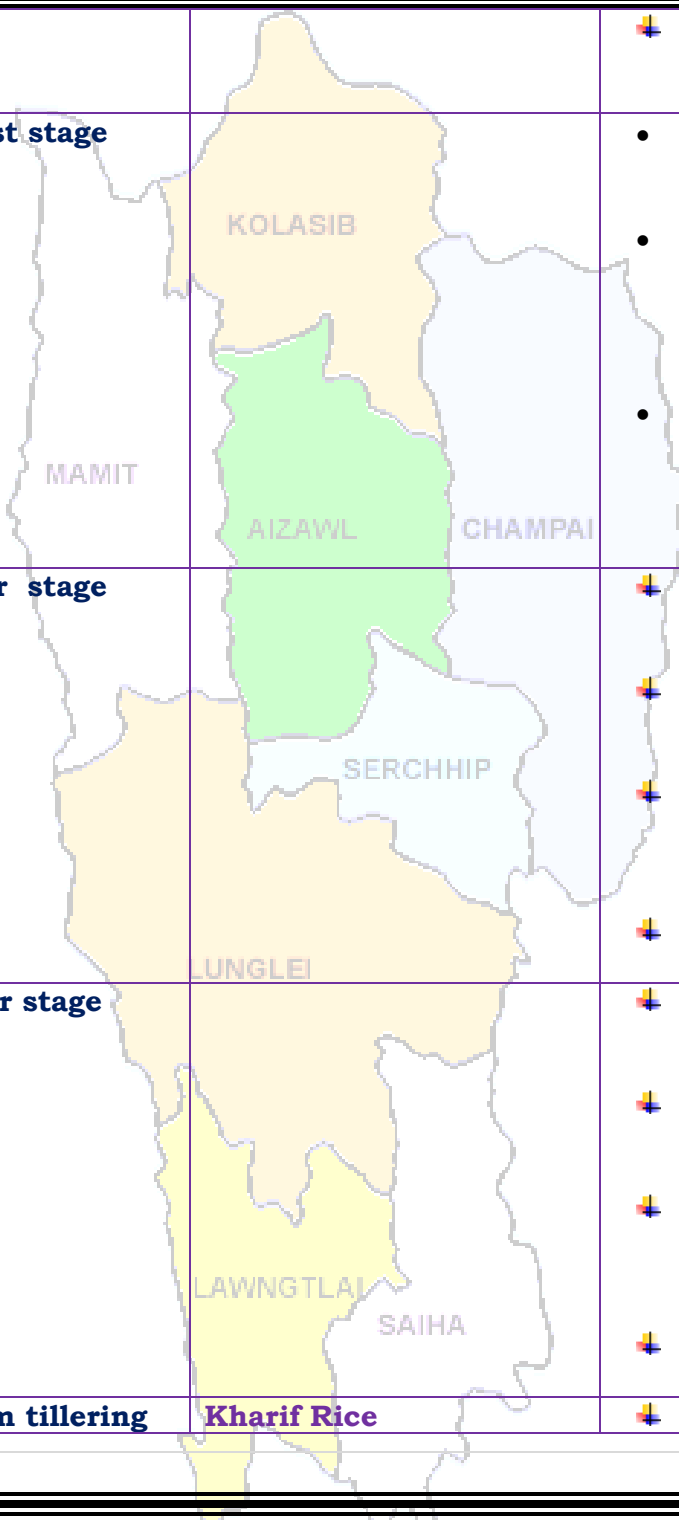
| | | | ✦ Don't leave the fruit too long, they get hard and woody. |
| **French bean** | **harvest stage** | | • In pole type varieties, mature pods should be harvested twice.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• 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.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | ✦ Remove unwanted plant near base of the plant and cut dead branches.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering** | **Kharif Rice** | ✦ Avoid sowing till sufficient |






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

| | | | |
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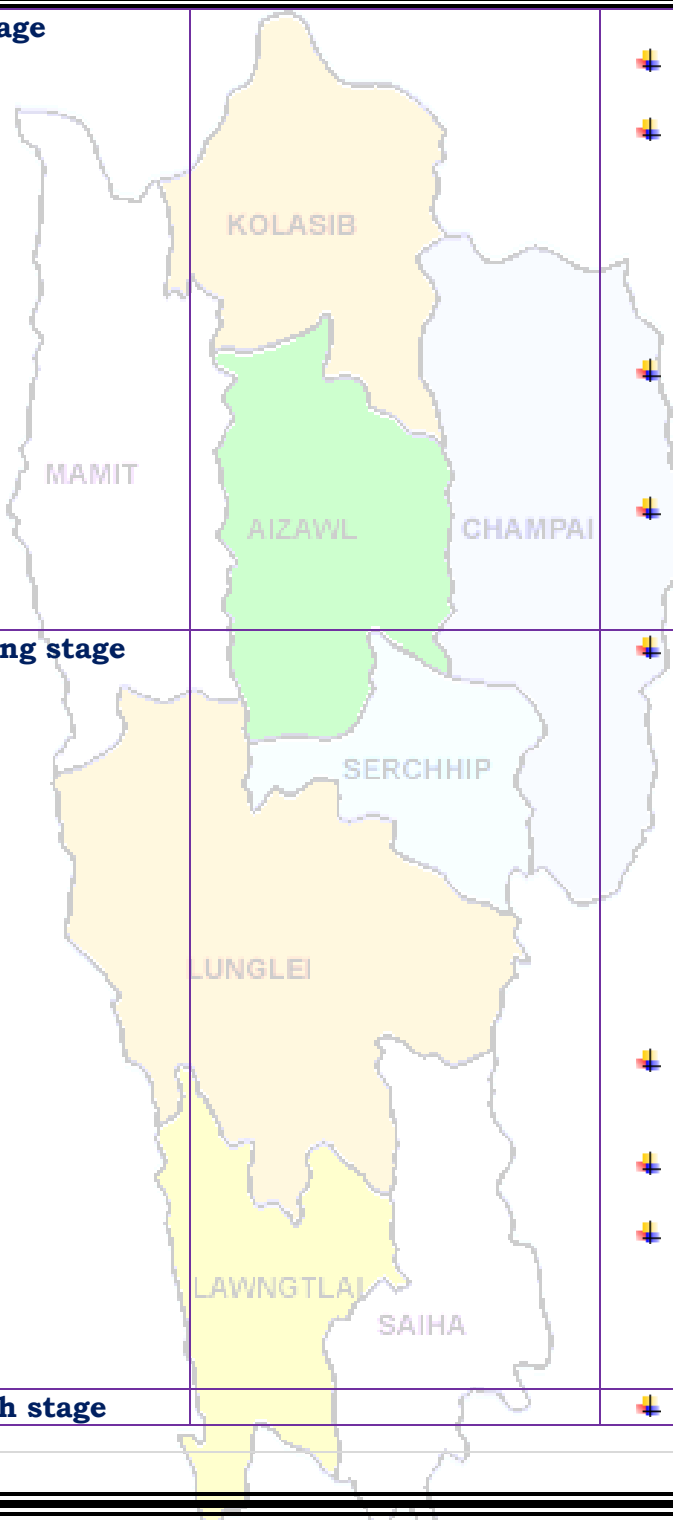
| | **stage** |  | rains have been received<br>• If sowing is delayed, plant short duration varieties<br>• Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>• Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>• Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>• Remove unwanted plant near base of the plant and cut dead branches.<br>• Earting up of soil along with fertilizer mixture.<br>• 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** | **Growth stage** | | • One or two hand hoeing and |



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

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|---|---|---|---|
| **pulses (Green gram, Black gram and Rajma)** | | | weeding should be done, depending upon soil type and extent of weed infestation.<br>Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | Remove unwanted plant near base of the plant and cut dead branches.<br>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.<br>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 |



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

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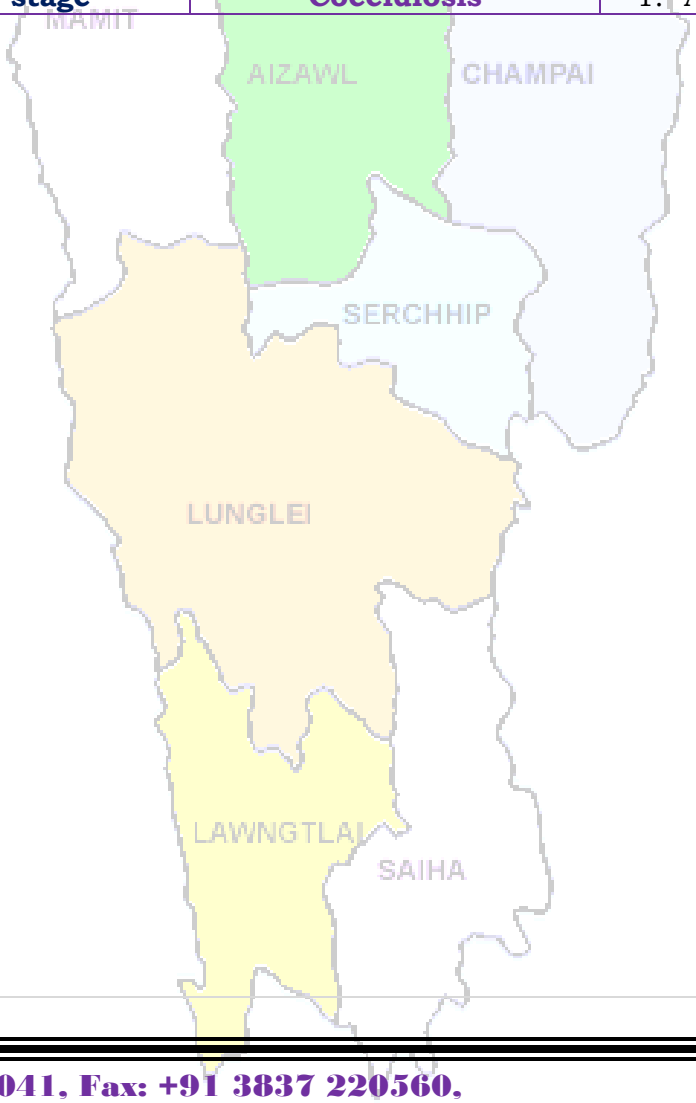
| | | | yearly interval/6 month interval |
| **Cattle** | **All age group** | **Foot and Mouth Disease (FMD)** | • FMD vaccine at 16 week and repeat every 6 month. |
| | **Young stage** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQV).<br>❖ Primary vaccination 6 month or above<br>❖ Revaccination 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 |






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

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
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| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District: Champhai** **Period: 01- 05 August, 2015**

**Bulletin No: -540/2015/ Bulletin/Mizo** **Date of issue: 31st July, 2015**

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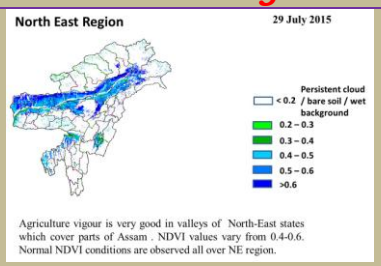
| Max Temp (oC) | 21 | 25 | 30 | 29 | 29 |
| Min Temp (oC) | 19 | 18 | 19 | 20 | 20 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Mainly cloudy | Mainly cloudy |
| Max RH (%) | 99 | 100 | 98 | 98 | 98 |
| Min RH (%) | 98 | 92 | 58 | 68 | 71 |
| Wind Speed (KmpH) | 2 | 2 | 2 | 2 | 2 |
| *Wind Direction | S-E | S | S-E | S-E | S-W |

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

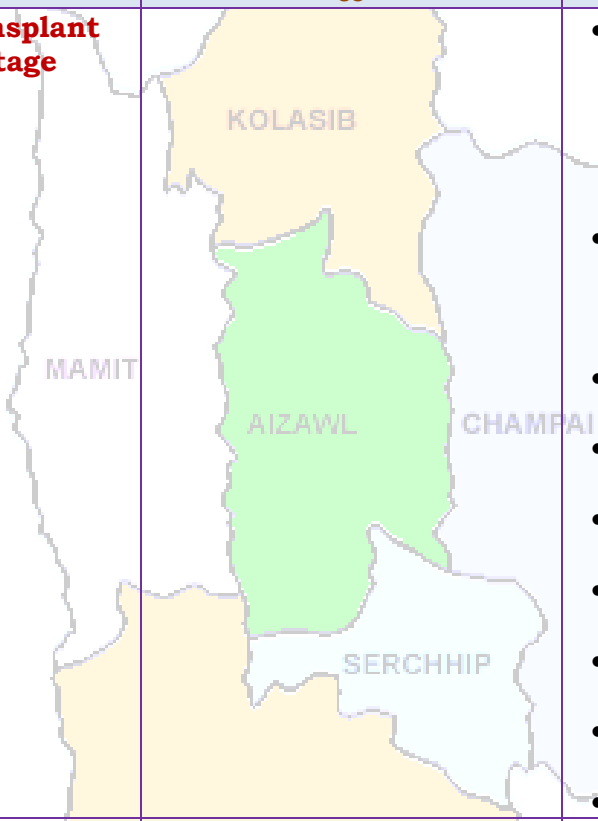
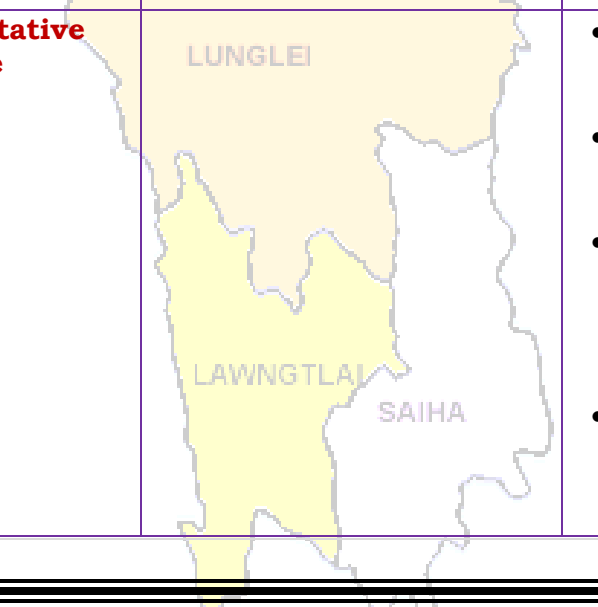
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 | August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan |
|---|---|
| | Ni 4 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 21-30$^0$C a ni ang a.A vawh lai ber in 19-20$^0$C ni tur ah beisei a ni.RH san lai berin 98-100% leh a hniam lai berin 58-98% 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.<br><br>***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". |

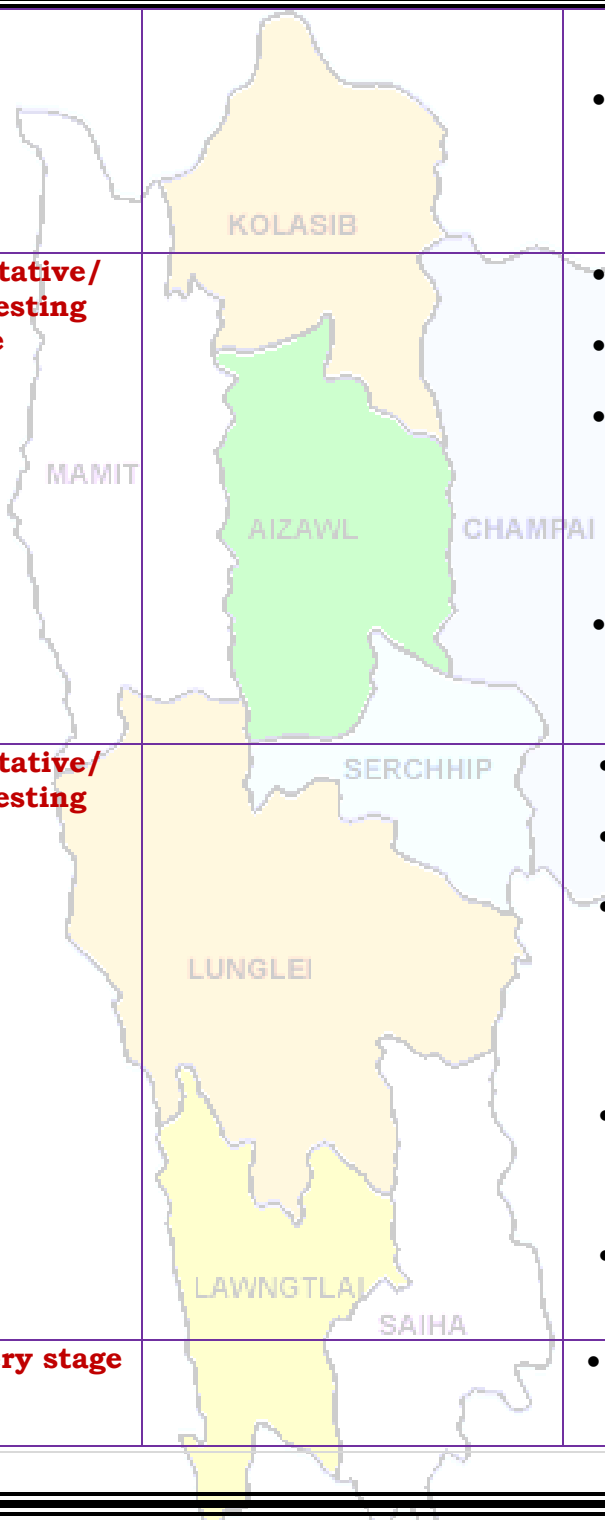


**Phone: +91 3837 220041, Fax: +91 3837 220560,**
**E-mail: kolasib.amfu@gov.in**

| 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** |  | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, |




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

| | | | |
|---|---|---|---|
| | |   | gummosis, root rot leh collar rot te hi ven tur.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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. |



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

| | | | |
|---|---|---|---|
| | | | • A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui tha taka pek tur.** | • A kung bulthut ah hnim chheh darh tur.<br>• A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |



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

| | | | |
|---|---|---|---|
| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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 |



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

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| | | | 2.5g emaw Carbendazim 1g chu tui litre khatah pawlhin karkhat danah vawi 2/3 kah tur.<br>• 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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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).<br>• Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• Heng insecticides Imidacloprid |



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

| | | | |
|---|---|---|---|
| | | | 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.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• Nitrogen leitha chu an mamawh |



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

| | | | |
|---|---|---|---|
| | | | taw kanga pek tur. |
| | | **Thrips** | • Roger emaw Monocrophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| | | **Scales** | • Quinalphos emaw Monocrotophos chu tui litre khatah 2.5ml a pawlhin kah tur. |
| **Vawk** | **Kumtluanin** | **Porcine Reproductive Respiratory Syndrome (PRRS).** | 1. A natna vei vawk te chu thah a phum tur a ni. |
| | **A puitling hun** | **Swine fever.** | 2. Vawk thla hnih a nihin SF vaccine pek tur a ni a, he vaccine hi thla ruk emaw kumtluanin pek chhunzawm tur |
| **Bawng** | **Kumtluanin** | **Foot and Mouth Disease (FMD)** | • Thla16 a upa an rih in FMD vaccine pek tur a nia, thla 6 danah pek chhunzawm tur a ni. |
| | **A naupan lai** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQ)<br>  Thla ruk an tlin hunah vaccine lak tan tur.<br>  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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District:** Kolasib **Period:** 01- 05 August, 2015

**Bulletin No:** -540/2015/ Bulletin/English **Date of issue:** 31st July, 2015

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 12 | 0 | 0 | 0 | 7 |
| Max Temp (oC) | 24 | 27 | 32 | 31 | 30 |
| Min Temp (oC) | 21 | 20 | 20 | 21 | 22 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| Max RH (%) | 99 | 99 | 97 | 96 | 96 |
| Min RH (%) | 89 | 88 | 53 | 65 | 66 |
| Wind Speed (KmpH) | 4 | 2 | 2 | 2 | 4 |
| *Wind Direction | E | E | E | S-E | S |

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

**STATUS OF 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

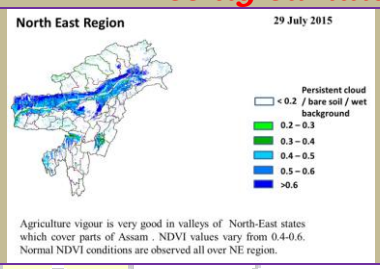
The temperature range for maximum and minimum were 28.0-33.0$^0$C and 21.7-25.0$^0$C respectively. Dense cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 92-98% & minimum of 58-62%. Rainfall recorded for the past three days is **10.40mm.**

### Weather forecast valid from 01st August, 2015 To 05th August, 2015.

There are chances of moderate and light rainfall during the next 2 day. The maximum and minimum temperatures for the next 5 days may range for 24-31$^0$C and 20-22$^0$C. Maximum relative humidity is expected in the range of 96-99% and minimum may from 53-89%. Wind direction would be easterly with the wind speed of 2-4 km per hour. Dense cloudy sky will prevail during the next five days.

***Weekly cumulative rainfall:*** **19.0 mm**

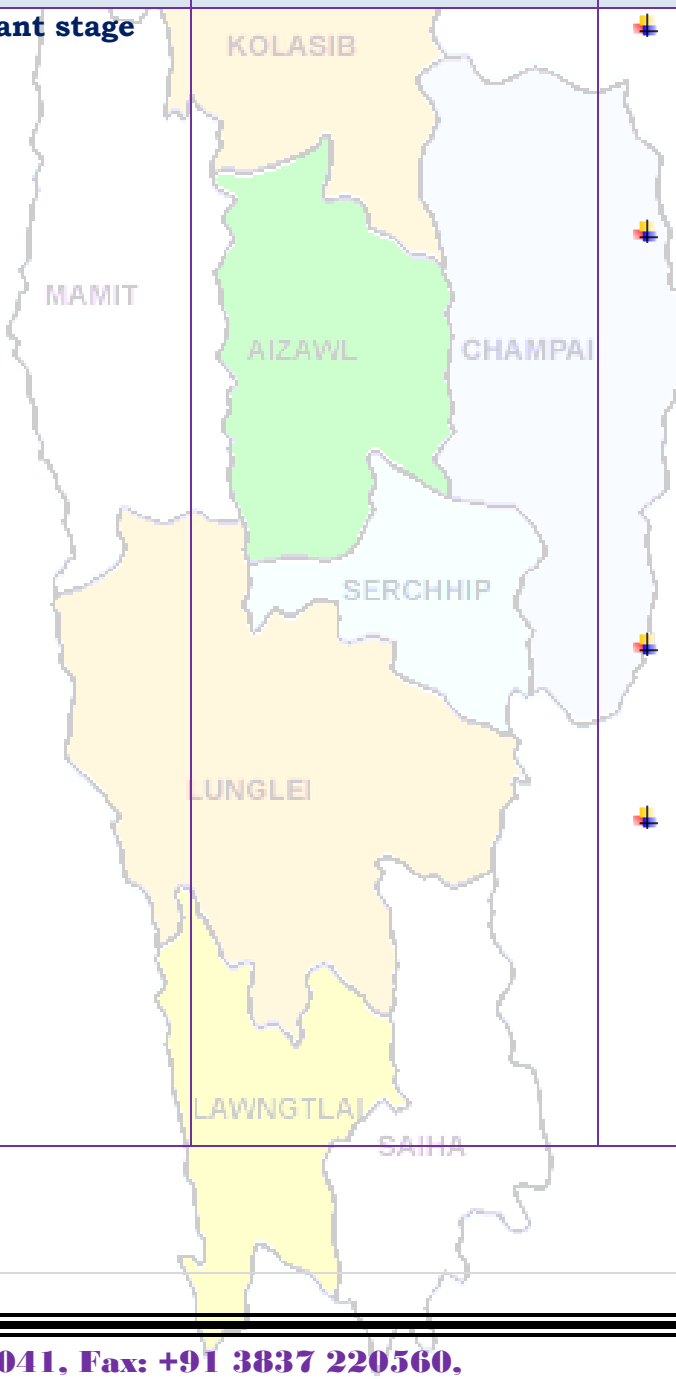
### NDVI for Mizoram




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



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

| SPI for Mizoram | | Moderate rain will occur in Mizoram | |
|---|---|---|---|
| **Main Crop/ Animal /Fisheries** | **Stage** | **Cultural practices/ Pest/ Diseases** | **Agricultural / Horticultural/ 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.<br>✚ 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.<br>✚ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>✚ 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. |



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

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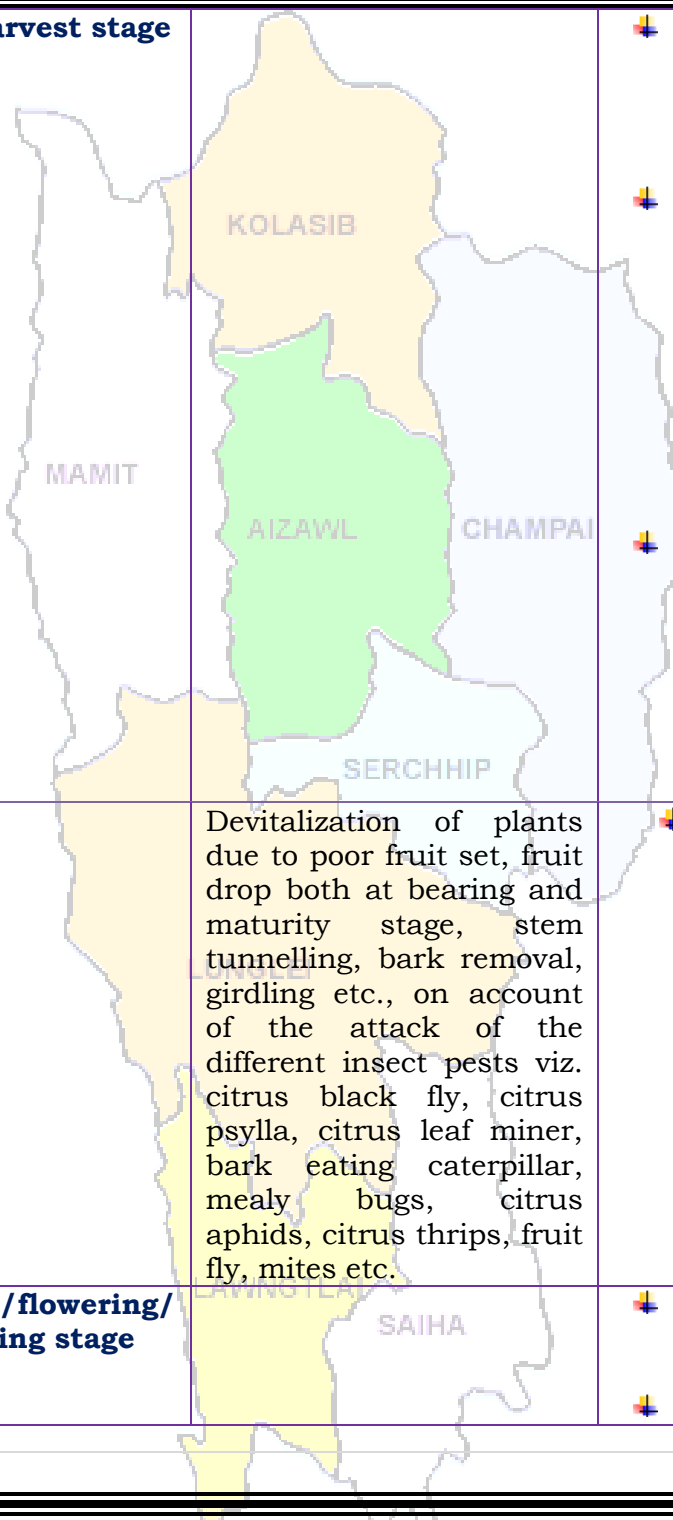
|---|---|---|---|
| **Khasi Mandarin and acid lime** | **Flower/Harvest stage** |  | ✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards.<br>✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested preferably with clipper, shears or secateurs. Mandarins should not be harvested in wet weather or during rains.<br>✦ 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.<br>✦ Cleaning near base of the |



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

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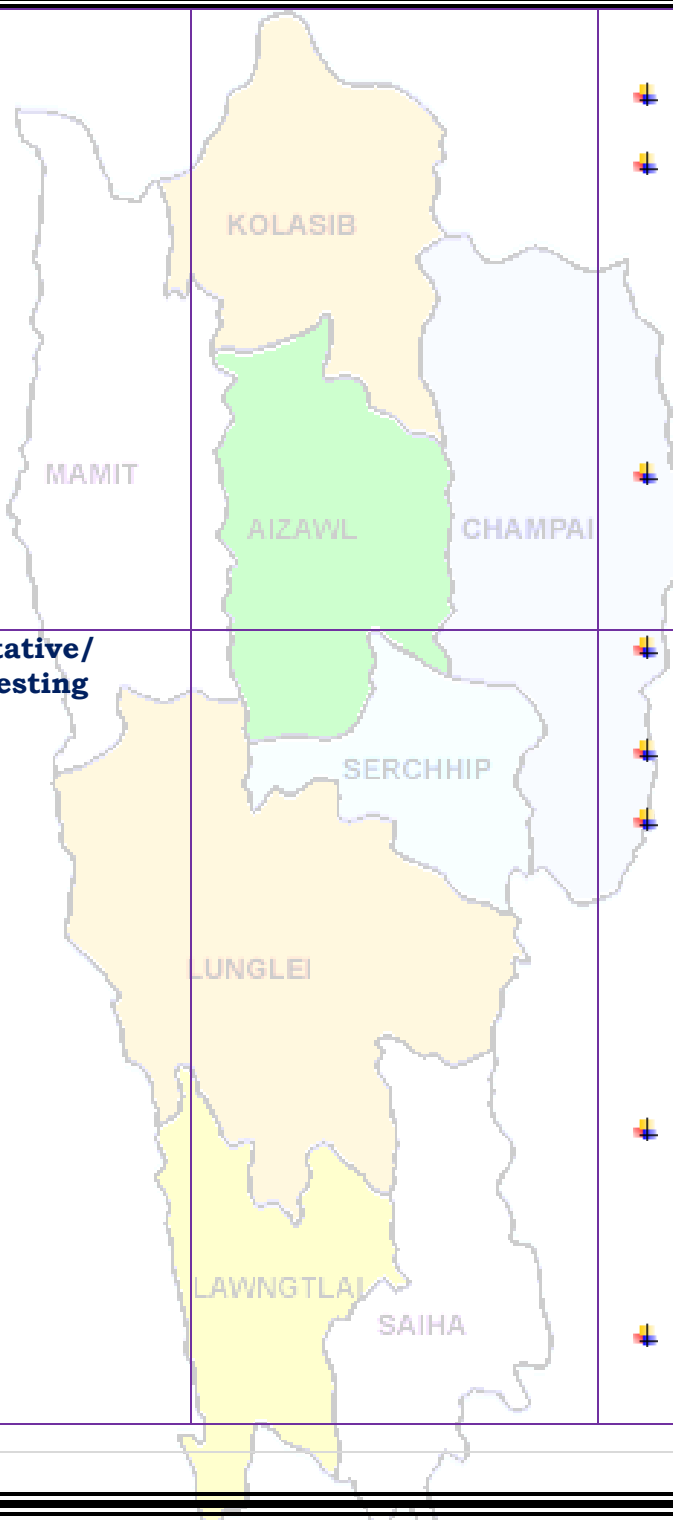
| | |  | plant and cut unwanted branches.<br>• Application of split dose of fertilizer 600: 200:100 (g/pt).<br>• Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to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



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

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| | | **Comb weevil and stem weevil** | ✦ Applications of neem powder effectively controlled weevils.<br>✦ 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.<br>✦ 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.<br>✦ A cutting should contain at least 3 buds and must be planted in sand beds.<br>✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>✦ 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 |



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

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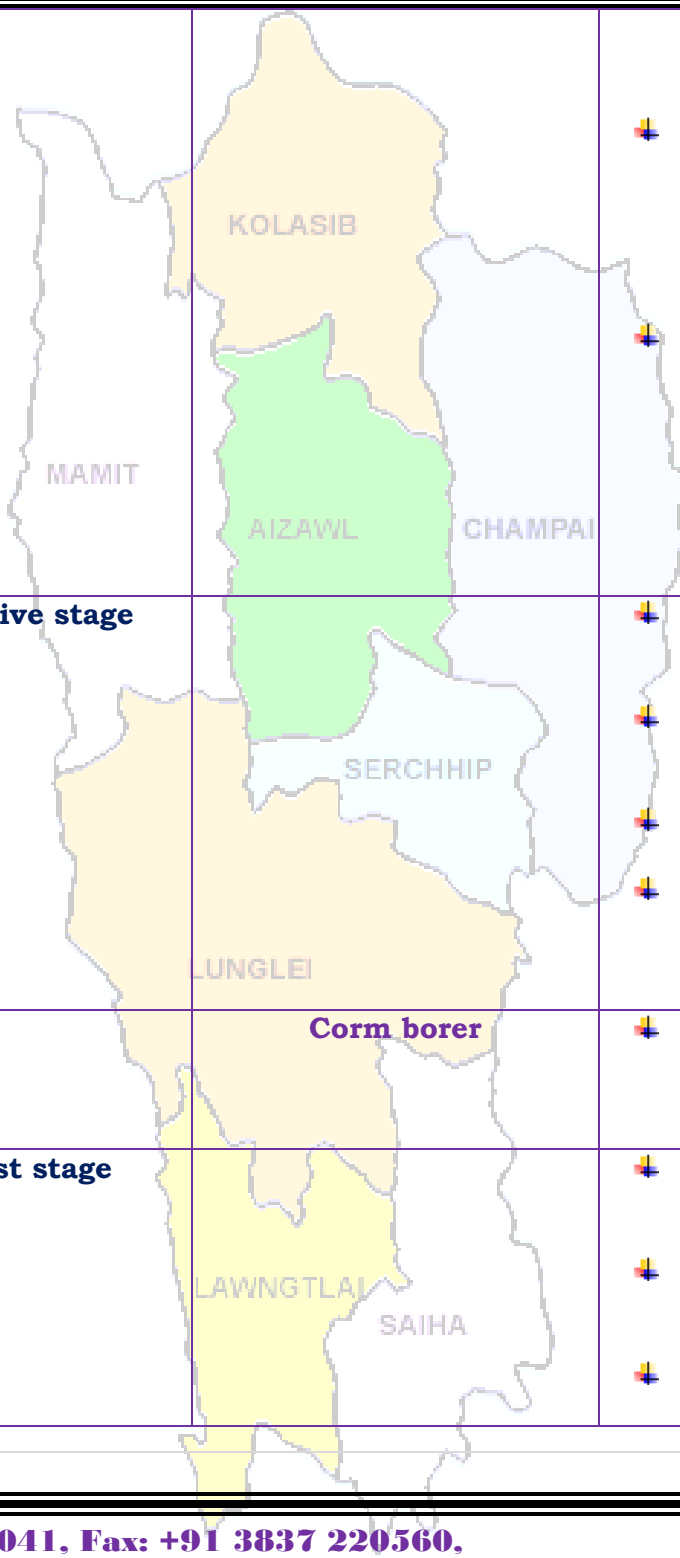
| | | | until at least one-third or more of the peel or shell has turned from green to yellow.<br>When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature.<br>Ripeness can also be determined by snapping 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.<br>Earthing up soil at base of the plant along with split doses of fertilizer.<br>Proper drainage is required to avoid water logging.<br>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.<br>Picking okra should be done when they are four to five inches long.<br>Don't leave the fruit too long, they get hard and woody. |






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

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| **French bean** | **harvest stage** | | • In pole type varieties, mature pods should be harvested twice.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• 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.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | ✦ Remove unwanted plant near base of the plant and cut dead branches.<br>✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>✦ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>✦ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering stage** | **Kharif Rice** | ✦ Avoid sowing till sufficient rains have been received<br>✦ If sowing is delayed, plant short duration varieties |



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

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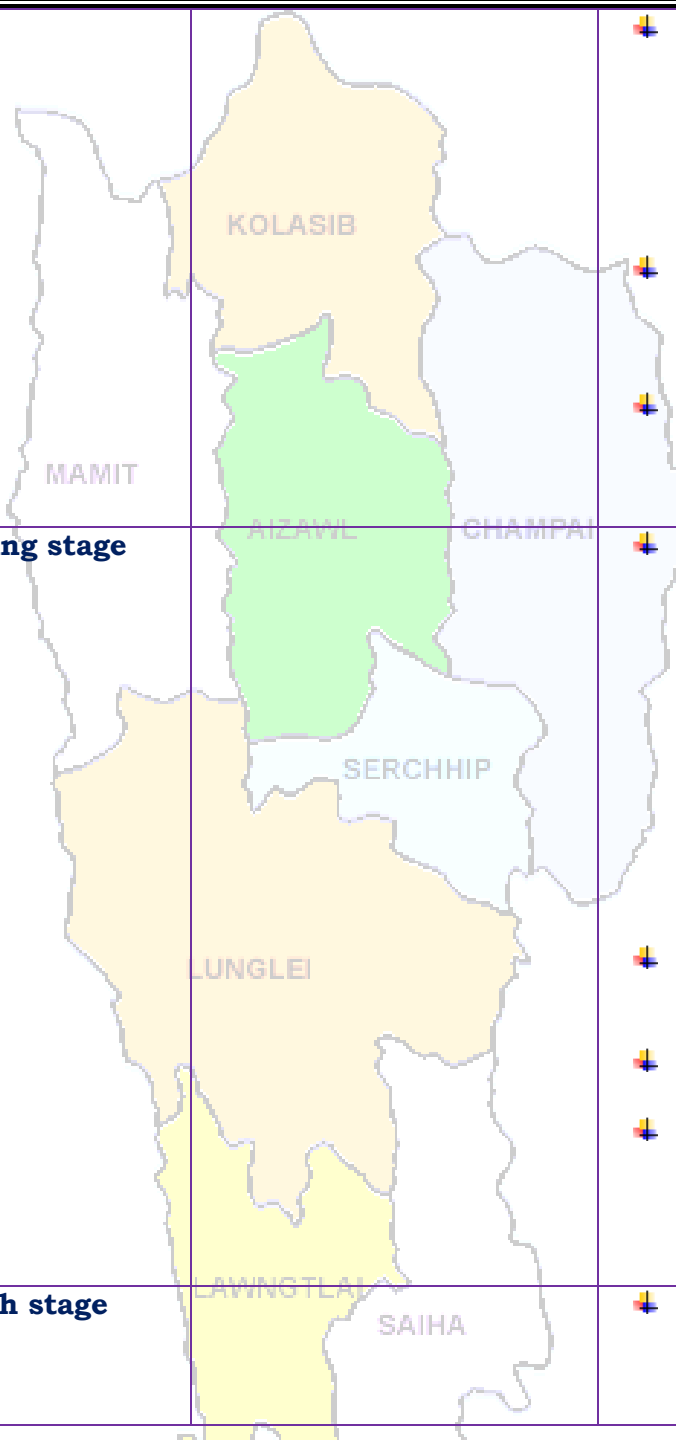
| | |  | ▪ Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>▪ Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>▪ Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>▪ Remove unwanted plant near base of the plant and cut dead branches.<br>▪ Earting up of soil along with fertilizer mixture.<br>▪ 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,** | **Growth stage** | | ▪ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed |



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

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| **Black gram and Rajma)** | | | infestation.<br>Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | Remove unwanted plant near base of the plant and cut dead branches.<br>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.<br>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 vaccine at 16 week and |



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

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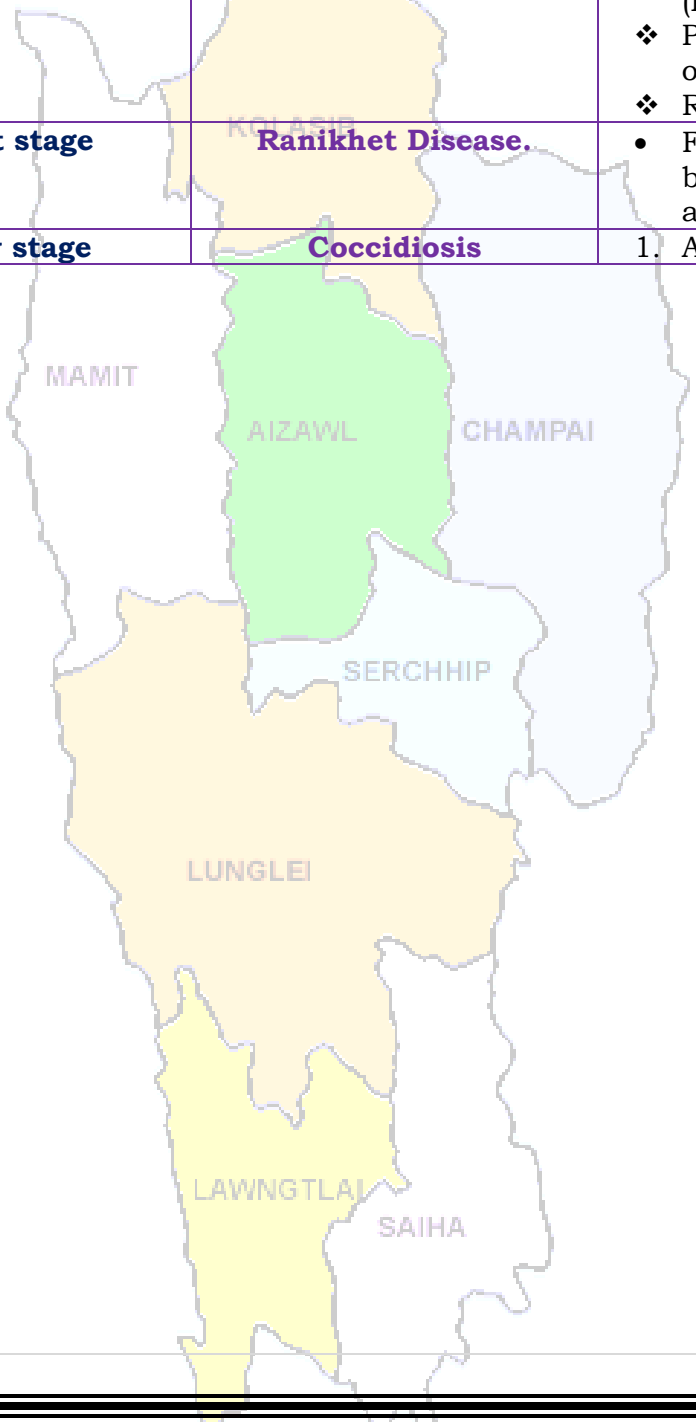
| | | **(FMD)** | repeat every 6 month. |
| | **Young stage** | **Black Quarter (BQ)** | • Black Quarter Vaccine (BQV).<br>❖ Primary vaccination 6 month or above<br>❖ Revaccination annually |
| **Poultry** | **Adult stage** | **Ranikhet Disease.** | • F1 vaccine at (1-6) days of birth and $R_2B$ vaccine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






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

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

**Mizoram Centre, Kolasib- 796081, MIZORAM**

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

**District: Kolasib** **Period: 01- 05 August, 2015**

**Bulletin No: -540/2015/ Bulletin/Mizo** **Date of issue: 31st July, 2015**

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| **Rainfall (mm)** | 12 | 0 | 0 | 0 | 7 |
| **Max Temp (oC)** | 24 | 27 | 32 | 31 | 30 |
| **Min Temp (oC)** | 21 | 20 | 20 | 21 | 22 |
| **Cloud Coverage** | Mainly cloudy | Mainly cloudy | Partially clear | Partially clear | Mainly cloudy |
| **Max RH (%)** | 99 | 99 | 97 | 96 | 96 |
| **Min RH (%)** | 89 | 88 | 53 | 65 | 66 |
| **Wind Speed (KmpH)** | 4 | 2 | 2 | 2 | 4 |
| ***Wind Direction** | E | E | E | S-E | S |

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

**STATUS OF 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

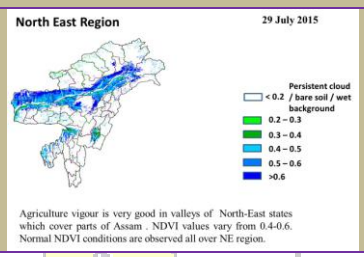
Khua a lum lai berin 28.0-33.0$^0$C leh a vawh lai berin 21.7-25.0$^0$C ani ang a. Chhum tlem a lan beisei ani. Thli tleh dan kawng zawng chu chhim thlang atangin ani a. Maximum RH san lai berin observed 92-98% leh a hniam lai 58-62% ani ang. Ni 3 kal ta chhung a ruah tla zatchu **10.40mm** ani.

## August 01, 2015 atanga August 05, 2015 sik leh sa dinhmun hmuhlawk dan

Ni 2 lo awm turah hian ruahtui a tlak beisei a ni. Khua a lum lai berin 24-31$^0$C a ni ang a.A vawh lai ber in 20-22$^0$C ni tur ah beisei a ni.RH san lai berin 96-99% leh a hniam lai berin 53-89% 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 ch hum tlem a lan beisei a ni.

***Weekly cumulative rainfall:*** **19.0mm**

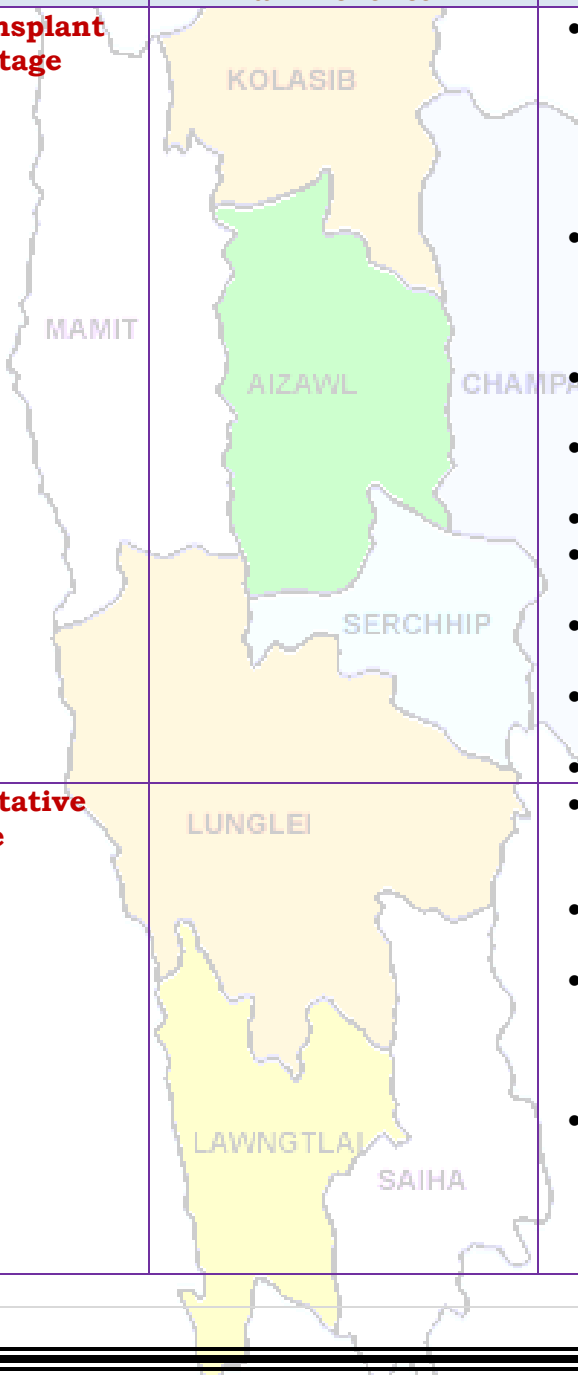
**NDVI for Mizoram**




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



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

| SPI for Mizoram | | Moderate rain will occur in 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.<br>• Nursery chu rannung leh a damlohna dang laka ven nan ser huan atanga meter 500 a hla ah dah tur.<br>• Lei, balu leh bawngek leitha chu a inzat theuha pawlhin pek tur.<br>• Bawngek leitha chu thlai pakhat ah 600:200:100g a pek tur.<br>• Certified thlai chi chauh hman tur.<br>• Ser kung bula tuitling chu paihfai vek tur.<br>• A tiak inchen tlang chauh phun atan hman tur.<br>• A zar tliak leh hnip chu paih fai zel tur.<br>• Thlai chu hrisel taka enkawl tur. |
| | **Vegetative stage** | | • Gibberellins (10ppm) chu a rah khal that nan te, a rawng insiam nan te kah tur.<br>• Thlai in tui tha taka an hmuh theih nan drip irrigation hman tur.<br>• 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,<br>• Heng rannung blackfly(kolshi), citrus psylla, leaf miner, bark eating caterpillar, fruit sucking moth, mites, twing blight, gummosis, root rot leh collar rot te |




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

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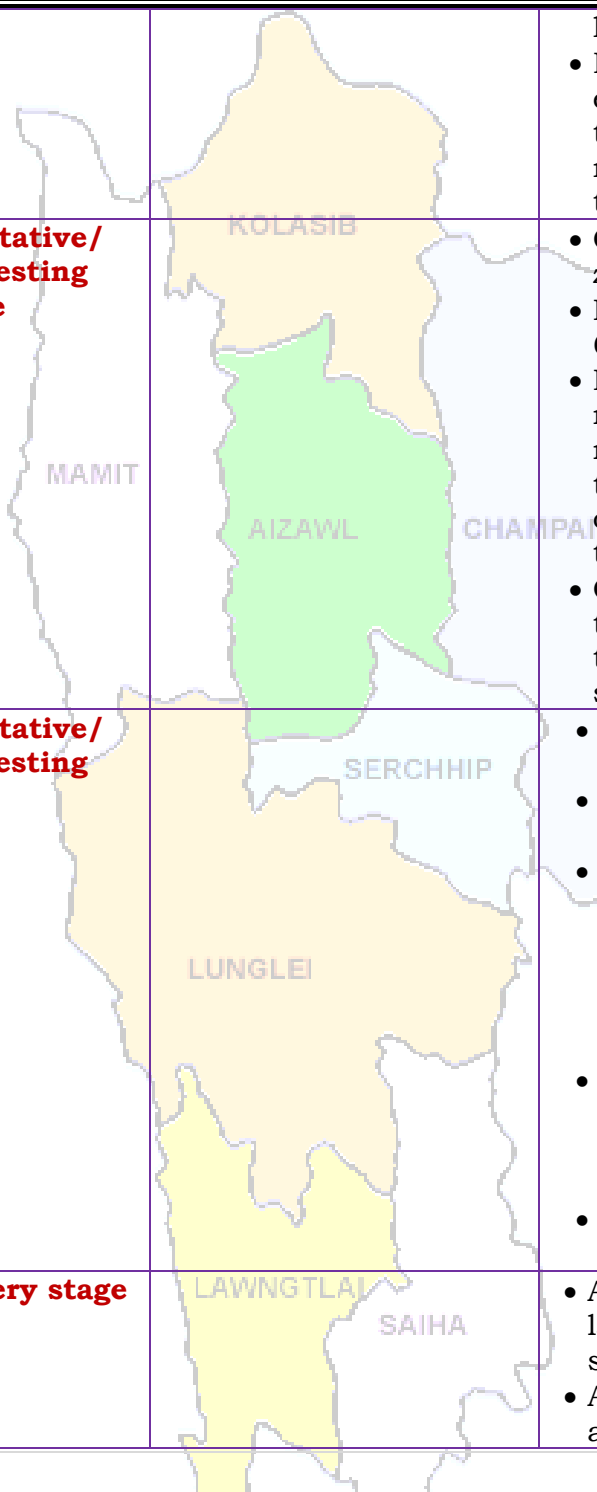
| | | | hi ven tur.<br>• Fungicide Carbendazim (0.1% emaw 1000ppm) a hun takah pek tur (thlakhat naah leh a seng hma ni 15 ah, chu chu vawi hnih kah tur). |
| **Oil palm** | **Vegetative/ harvesting stage** |  | • Oil palm kung bul chu tihfai a a zar thlak bawk tur.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• Leitha chu thlai pakhatah 600:200:100g a pek tur.<br>• 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.<br>• 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.<br>• 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.<br>• A hnah 2/3 a rawn awm tan hnu ah polythene bag ah phunsawn |




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

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| | | | tur.<br>• Polythene bag atangin thla ¾ hnu ah huan ah phun sawn leh tur.<br>• 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.<br>• Chemical pek atangin ni 55-60 chhungin a par a chhuah thei ang.<br>• Leitha chu thlai pakhat ah 60:50:60g a pek tur.<br>• 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.<br>• 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.<br>• Thlai pakhatah a par nasat lain urea chu 70g a pek tur. |
| **Bawrhsaiabe** | **A chin dan** | **1. Nursery tihfai a tui tlem pek tur.**<br>**2. Phunsawn hnuah tui tha taka pek tur.** | • A kung bulthut ah hnim chheh darh tur.<br>• A khat tawkin tui pek tur.<br>• A tiak phunsawn te chu nil eh ruah lakah hliahkhuh tur. |
| | | **1. Aphids** | • Surf tuiin thlai chu kah tur.<br>• Heng insecticides Imidacloprid 200SL hi tui litre khatah 0.25ml in |



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

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| | | | 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• Leaf spot tan Blitox 3g chu tui litre |



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

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| | | | 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.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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.<br>• 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.<br>• 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).<br>• Leitha 10kg leh bawngek leitha 15:15:15 leh carbofuran 2.5g chawhpawlh pek tur. |
| | | **Aphids** | • Surf tuiin thlai chu kah tur.<br>• 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 |



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

| | | | |
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| **Buh** | **Nursery stage** | **Pre kharif rice** | • A chi tha leh khat tha chauh hman tur.<br>• Tui litre 10 ah chi (salt) 250g pawlhin chutah chuan chiah tur.<br>• 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.<br>• 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.<br>• A chi chu a line indawt a chin tur<br>• A chi chu kg khatah Thiram 4g a chiah tur.<br>• Hectare khatah buh chi chu 20-25kg hman tur.<br>• 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.<br>• Lei chu boruak kal that nan laihphut thin tur.<br>• 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 |



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

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| | | | 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)<br>✚ Thla ruk an tlin hunah vaccine lak tan tur.<br>✚ 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. |



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

**Expert committee members:**

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-6) | ramakrishnaiari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |

**Collaborating Department:**

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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

# GRAMIN KRISHI MAUSAM SEWA

## ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

**District:** Lawngtlai **Period:** 01- 05 August, 2015

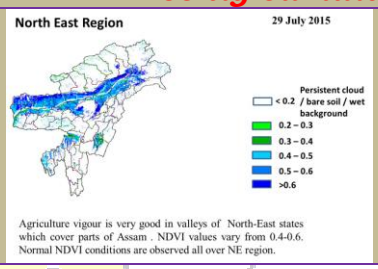
**Bulletin No:** -540/2015/ Bulletin/English **Date of issue:** 31st July, 2015

| Parameters | 01.08.2015 | 02.08.2015 | 03.08.2015 | 04.08.2015 | 05.08.2015 |
|---|---|---|---|---|---|
| Rainfall (mm) | 55 | 26 | 6 | 0 | 7 |
| Max Temp (oC) | 24 | 26 | 30 | 29 | 28 |
| Min Temp (oC) | 22 | 20 | 20 | 21 | 21 |
| Cloud Coverage | Mainly cloudy | Mainly cloudy | Mainly cloudy | Partially clear | Mainly cloudy |
| Max RH (%) | 98 | 95 | 96 | 95 | 97 |
| Min RH (%) | 93 | 89 | 62 | 67 | 78 |
| Wind Speed (KmpH) | 8 | 6 | 5 | 6 | 5 |
| *Wind Direction | E | E | E | E | E |

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

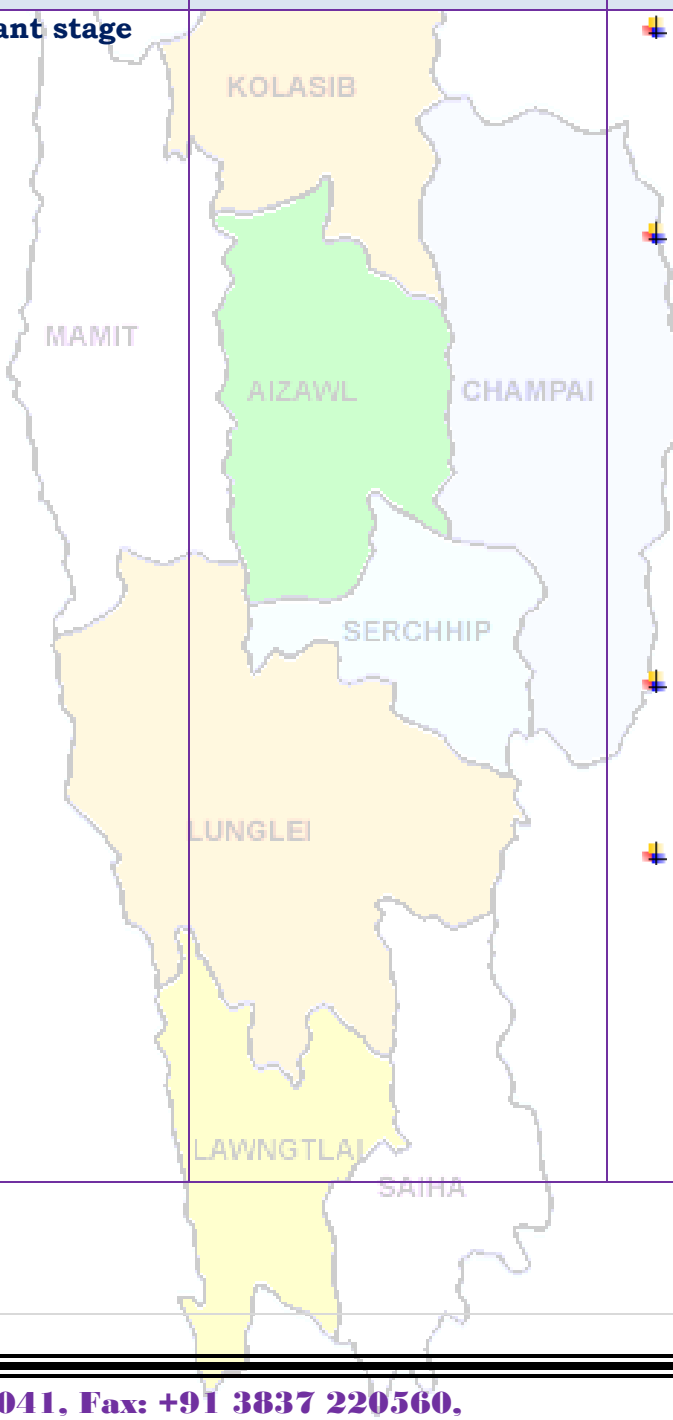
**STATUS OF PREMONSOON- May 1-31, 2015 (*Percent of deviation from normal in parenthesis*)**

| | | | |
|---|---|---|---|
| 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 01st August, 2015 To 05th August, 2015. |
|---|---|
| | There are chances of very heavy to moderate and light rainfall during the next 4 day. The maximum and minimum temperatures for the next 5 days may range for 24-29$^0$C and 20-22$^0$C. Maximum relative humidity is expected in the range of 95-98% and minimum may from 62-93%. Wind direction would be southerly with the wind speed of 5-8 km per hour. Dense cloudy sky will prevail during the next five days.<br><br>***Weekly cumulative rainfall:*** **94.0 mm** |
| **NDVI for Mizoram** |  NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil". |



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

| Main Crop/ Animal /Fisheries | Stage | Cultural practices/ Pest/ Diseases | Agricultural / Horticultural/ animal husbandry advisories |
|---|---|---|---|
| **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.<br>▪ 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.<br>▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops<br>▪ 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. |



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

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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.<br>▪ 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.<br>▪ 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.<br>▪ Cleaning near base of the plant and cut unwanted |



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

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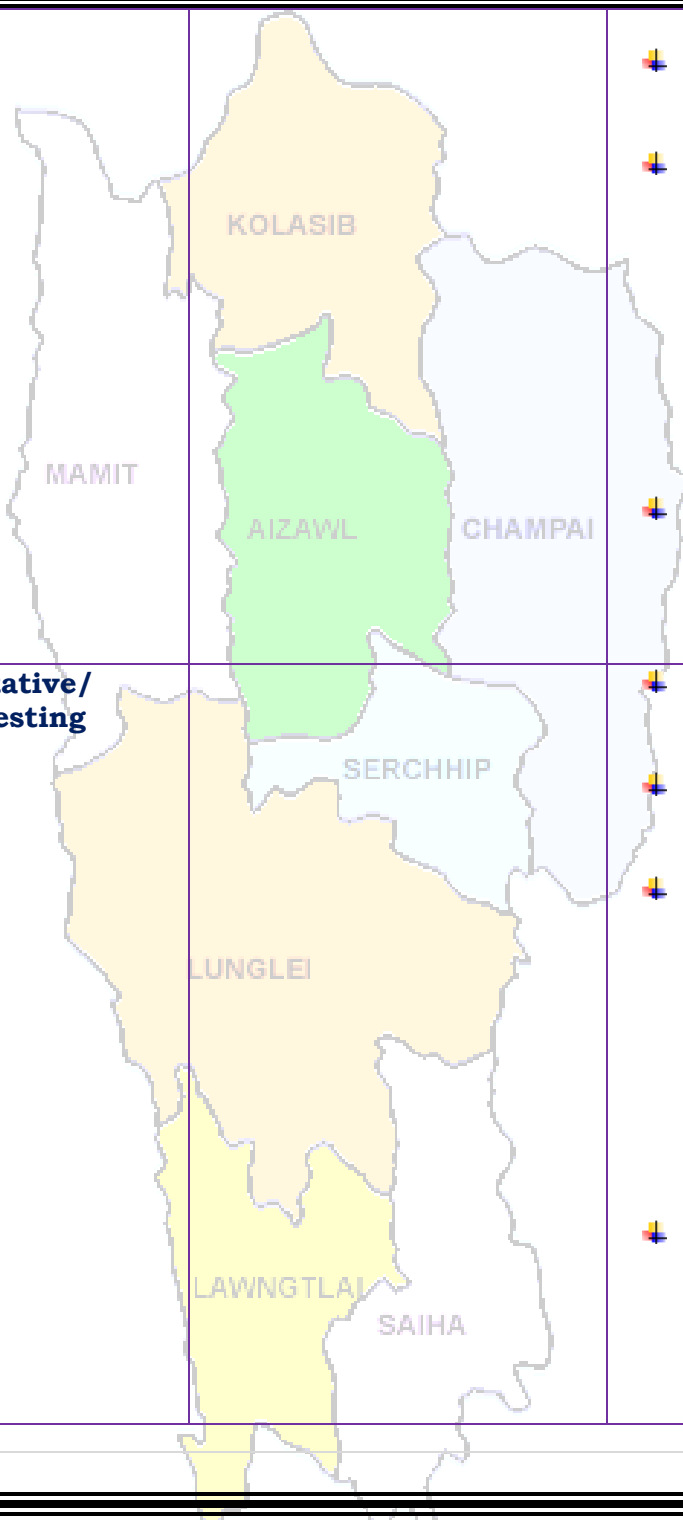
| | |  | branches.<br>▪ Application of split dose of fertilizer 600: 200:100 (g/pt).<br>▪ Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard.<br>▪ 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.<br>▪ Application of split dose of fertilizer 600: 200:100 (g/pt).<br>▪ 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.<br>▪ Pruning on a regular basis removes unwanted or a sucker, keep production mats in optimum condition, saves fertilizer, reduces pest and disease. |



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

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| | | | ▪ Fruits are harvested when they attain full size, develop attractive yellow colour. |
| | | **Comb weevil and stem weevil** | ▪ Applications of neem powder effectively controlled weevils.<br>▪ 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.<br>▪ 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.<br>▪ A cutting should contain at least 3 buds and must be planted in sand beds.<br>▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene.<br>**Grafting:**<br>▪ 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 |




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

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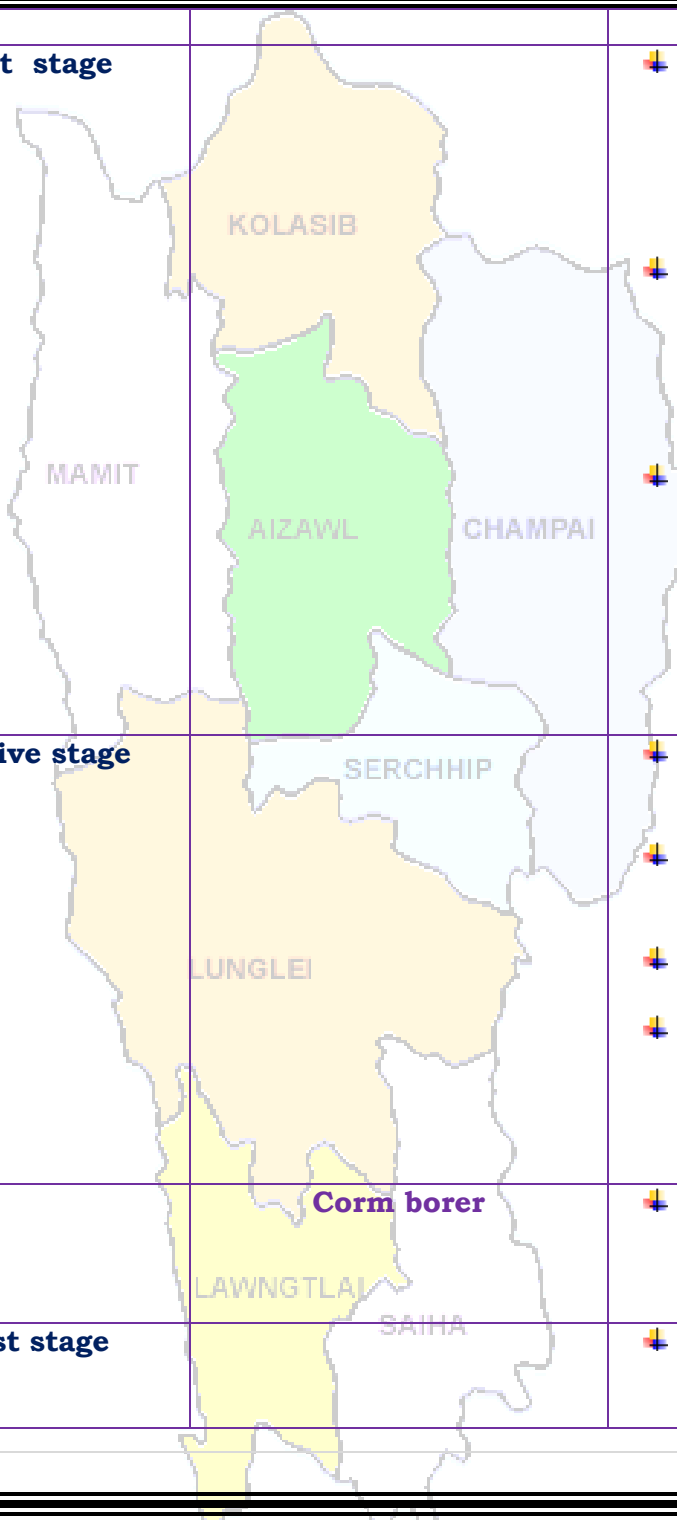
| | | | of grafting. |
| **Pineapple** | **harvest stage** | | ✦ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow.<br>✦ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature.<br>✦ 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.<br>✦ Earthing up soil at base of the plant along with split doses of fertilizer.<br>✦ Proper drainage is required to avoid water logging.<br>✦ 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. |






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

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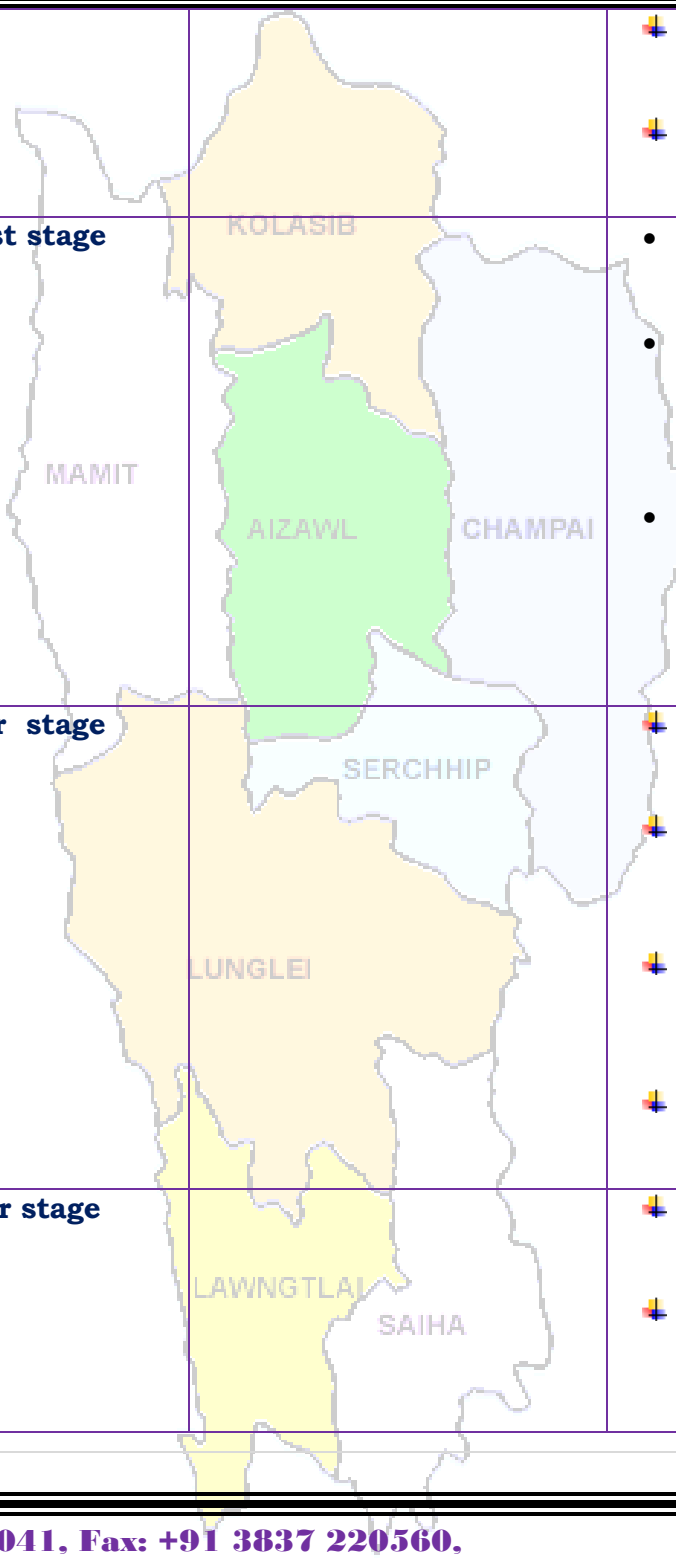
| | | | ↓ Picking okra should be done when they are four to five inches long.<br>↓ Don't leave the fruit too long, they get hard and woody. |
| **French bean** | **harvest stage** |  | • In pole type varieties, mature pods should be harvested twice.<br>• First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry.<br>• 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.<br>↓ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.<br>↓ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>↓ Split dose of fertilizer application @ 50kg/ha urea. |
| **Tomato** | **Flower stage** | | ↓ Remove unwanted plant near base of the plant and cut dead branches.<br>↓ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. |



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

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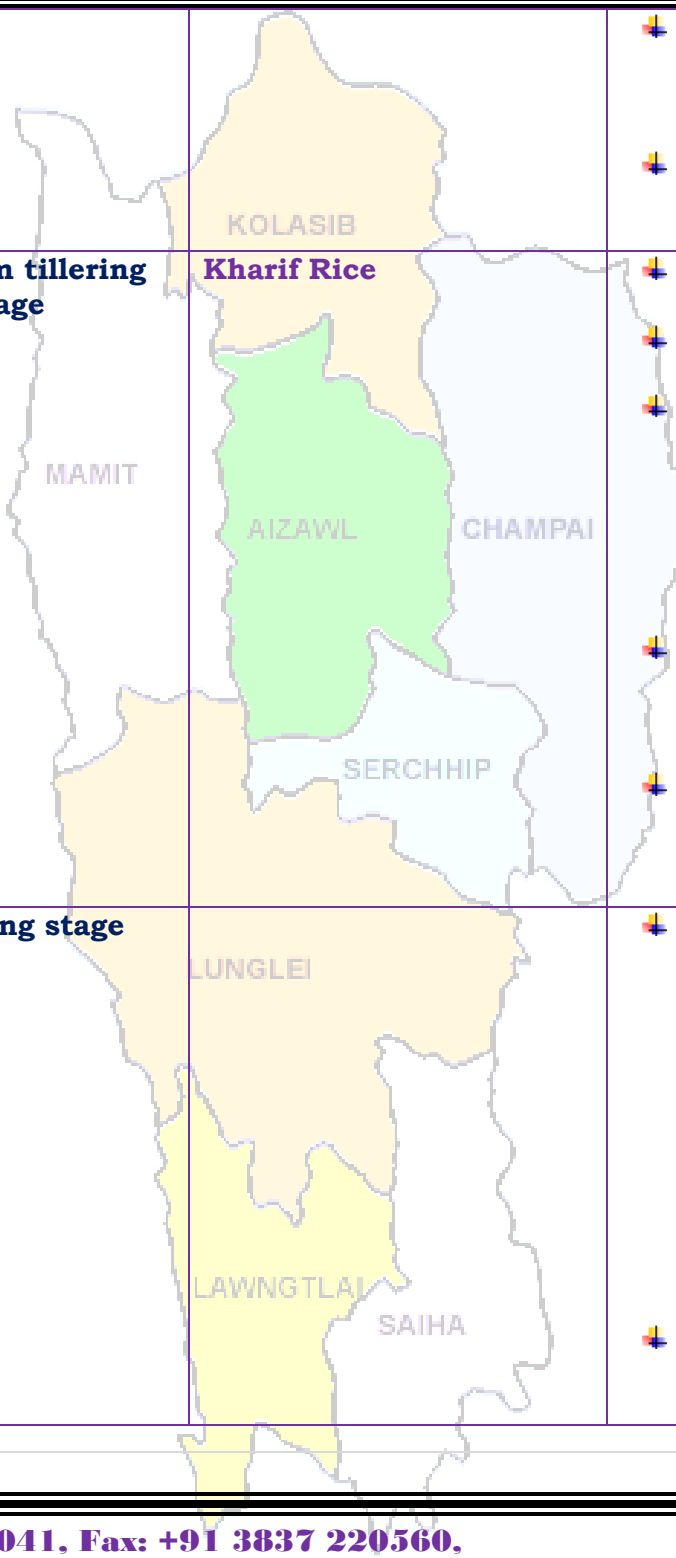
| | | | ▪ Mulching with black polythene film reduces weed growth, increases the crop growth.<br>▪ Split dose of fertilizer application @ 50kg/ha urea. |
| **Rice** | **Maximum tillering stage** | **Kharif Rice** | ▪ Avoid sowing till sufficient rains have been received<br>▪ If sowing is delayed, plant short duration varieties<br>▪ Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice<br>▪ Conserve rain water in ponds/tanks/field for irrigation during critical growth stages<br>▪ Foliar application of nutrients (Urea 2 %) may be done where moisture is a constraint |
| **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.<br>▪ Remove unwanted plant near base of the plant and cut dead branches. |






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

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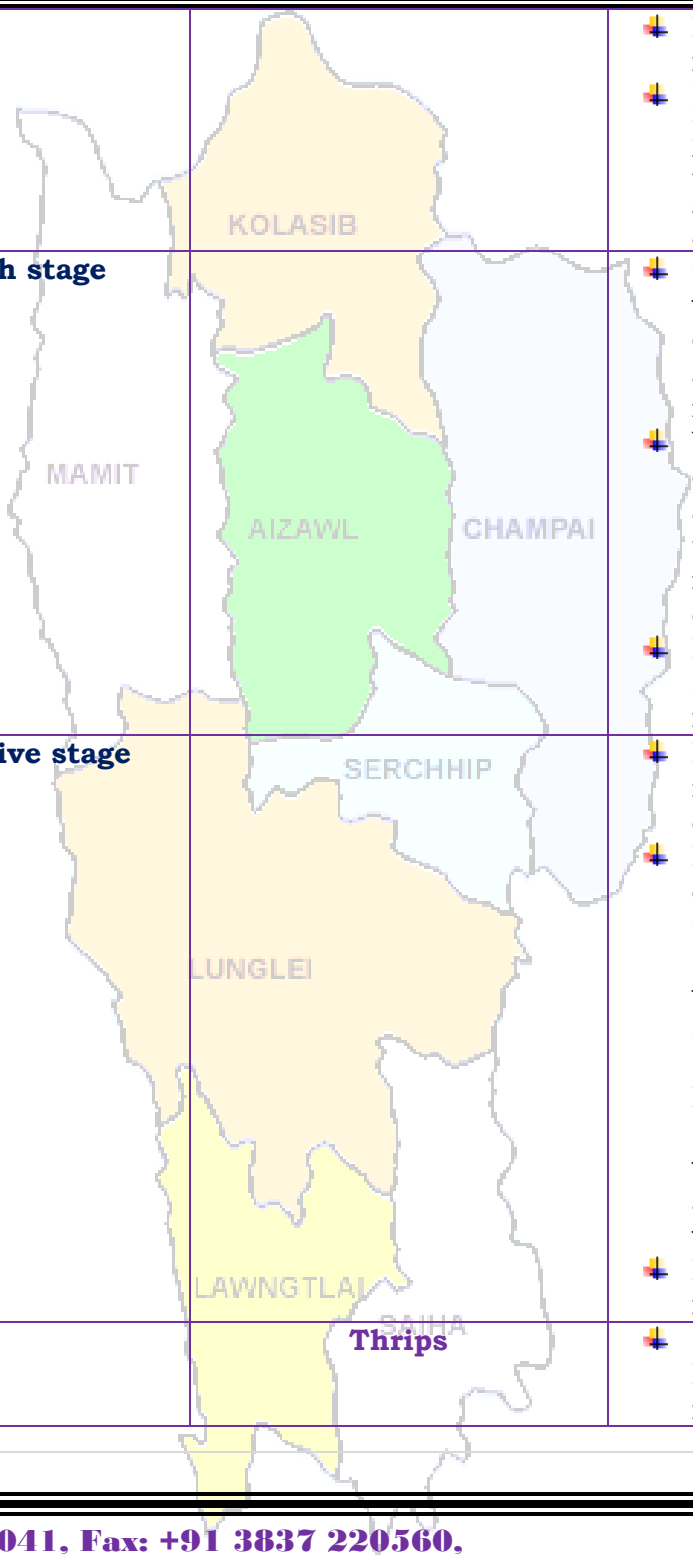
| | | | ▪ Earting up of soil along with fertilizer mixture.<br>▪ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer. |
| **Kharif pulses (Green gram, Black gram and Rajma)** | **Growth stage** | | ▪ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed infestation.<br>▪ Weeds can also be controlled effectively by the application of TOK-E-25 at the rate of 10 ml dissolved in 1 liter of water as pre-emergence spray.<br>▪ Earthing up soil for better support of plant also useful for destroying weeds. |
| **Ginger and turmeric** | **Vegetative stage** | | ▪ Remove unwanted plant near base of the plant and cut dead branches.<br>▪ 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.<br>▪ Earting up of soil along with fertilizer mixture. |
| | | **Thrips** | ▪ Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips. |






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

| | | | |
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| | | **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).<br>❖ Primary vaccination 6 month or above<br>❖ 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 |



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

## Expert committee members:

| | | | |
|---|---|---|---|
| **Dr. S.B. Singh** | : | Joint Director | **basantasinghsoibam@rediffmail.com** |
| **Dr. Saurav Saha** | : | Scientist (Agril. Physics) | sauravs.saha@gmail.com |
| **Dr. T. Boopathi** | : | Scientist (Agril Entomology) | boopathiars@gmail.com |
| **Dr. Sudip Kumar Dutta** | : | Scientist (Hort.) | sudipiari@rediffmail.com |
| **Dr. A. Ratankumar Singh** | : | Scientist (Plant Pathology) | ratanplantpatho@gmail.com |
| **Dr. L. H. Puii** | : | Scientist (Vet. Microbiology) | lpuii@gmail.com |
| **Dr. Lungmuana** | : | Scientist (Soil Fertility) | lmsingson@gmail.com |
| **Dr Y. Ramakrishna** | : | Farm manager (T-7 & 8 ) | ramakrishna_iari@rediffmail.com |
| **Mr. Samik Chowdhury** | : | Technical Officer | samikchowdhury33@gmail.com |
| **Mr. Evans Syiem** | : | Meteorological Observer | evansmeteo@gmail.com |
| **Miss. Malsawmzuali** | : | Research Associate (Mizo language Translator) | mamamralte@yahoo.com |
| **Mrs. Monika Bora** | : | Meteorological Observer (IMD) | boramonika@rediffmail.com |

## Collaborating Department:

| | | | |
|---|---|---|---|
| Dr. Lalmuanzovi | : | PC KVK Lunglei | kvklunglei@gmail.com<br>kvknahthial@gmail.com |
| Mr. C. Lalthlamuana | : | PC KVK, Kolasib | kvkkolasib@gmail.com |
| Mrs. Lalnunpui Parte | : | PC KVK, Serchhip | Mmami997@yahoo.com<br>kvkserchhip@gmail.com |
| Ms. Lalrinawnri Renthlei | : | PC KVK, Champhai | pckvkkhawzawl@rediffmail.com |
| Mr. Lalrosanga Khiangte | : | PC KVK, Lawngtlai | vvl9@rediffmail.com<br>kvklawngtalai@rediffmail.com |
| Ms. C. Racheal | : | PC KVK, Saiha | kvksaiha@gmail.com<br>rachoza@gmail.com |
| Mr. Vanlalhruaia Hnamte | : | PC KVK, Mamit | kvkmamit@yahoo.in |
| Dr. K. P. Chaudhary | | PC KVK, Aizawl | Kpchy@rediffmail.com<br>kvkaizawl@rediffmail.com |



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