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: 12- 16 August, 2015**

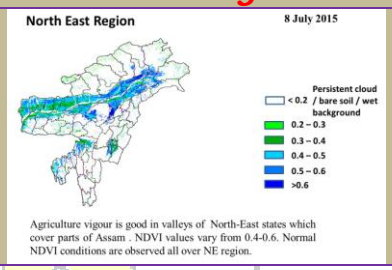
Bulletin No: -543/2015/ Bulletin/English **Date of issue: 11th August, 2015**

Parameters	12.08.2015	13.08.2015	14.08.2015	15.08.2015	16.08.2015
Rainfall (mm)	15	13	3	3	0
Max Temp (oC)	33	30	32	31	30
Min Temp (oC)	22	22	21	21	21
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy
Max RH (%)	99	99	99	98	98
Min RH (%)	60	76	53	62	69
Wind Speed (KmpH)	2	2	3	3	3
*Wind Direction	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 MONSOON- July 1-31, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 412.50mm (341.8mm)	Champhai- 105.47mm (250.30mm)	Saiha- 307.78 mm (87.2mm)	Kolasib- 331.10mm (380.9mm)
Lawngtlai-291.28mm (285.5mm)	Lunglei-326.52mm (186.21mm)	Mamit-204.84mm (442.80mm)	Serchhip-189.57mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 12th August, 2015 To 16th 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 30-33^{0}C and 21-22^{0}C. Maximum relative humidity is expected in the range of 98-99% and minimum may from 53-76%. Wind direction would be easterly to southeasterly with the wind speed of 2-3 km per hour. Dense cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **34.0 mm**
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

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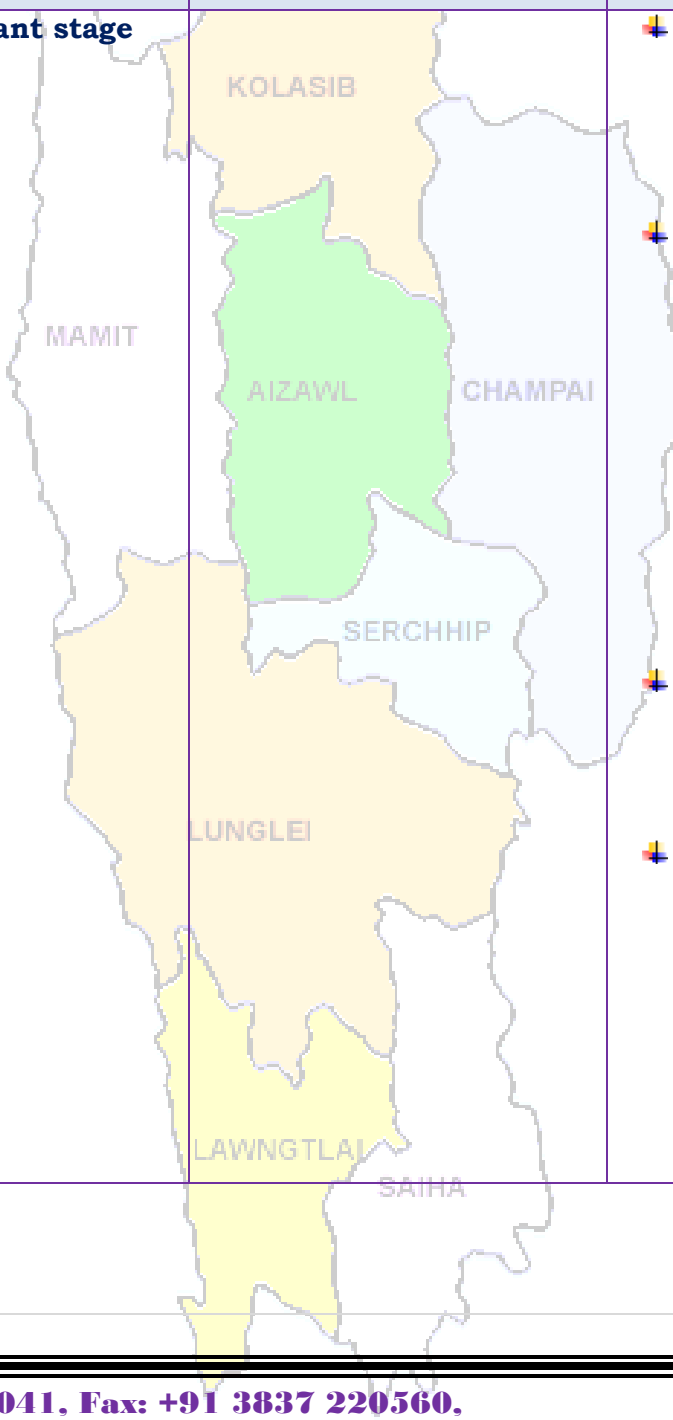
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		✦ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant.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

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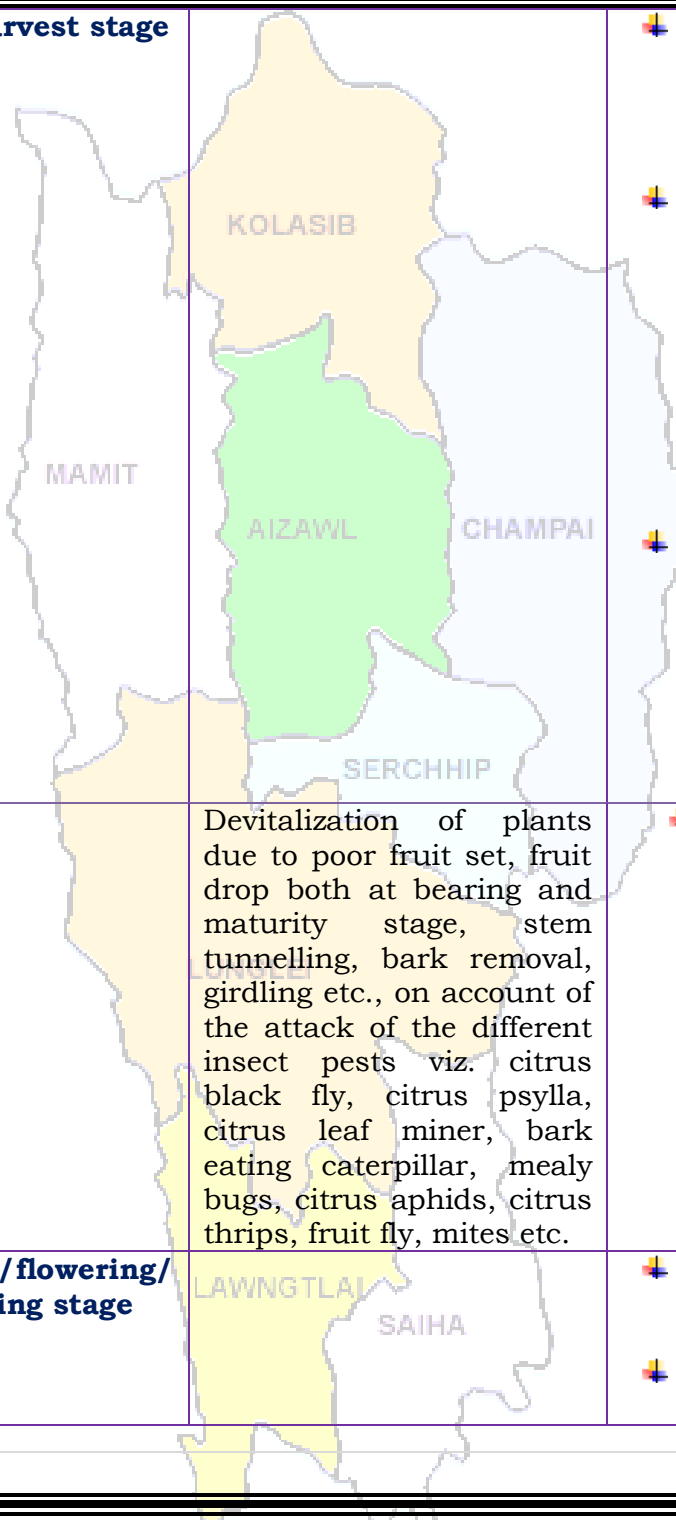
Khasi Mandarin and acid lime	**Flower/Harvest stage**		↓ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ↓ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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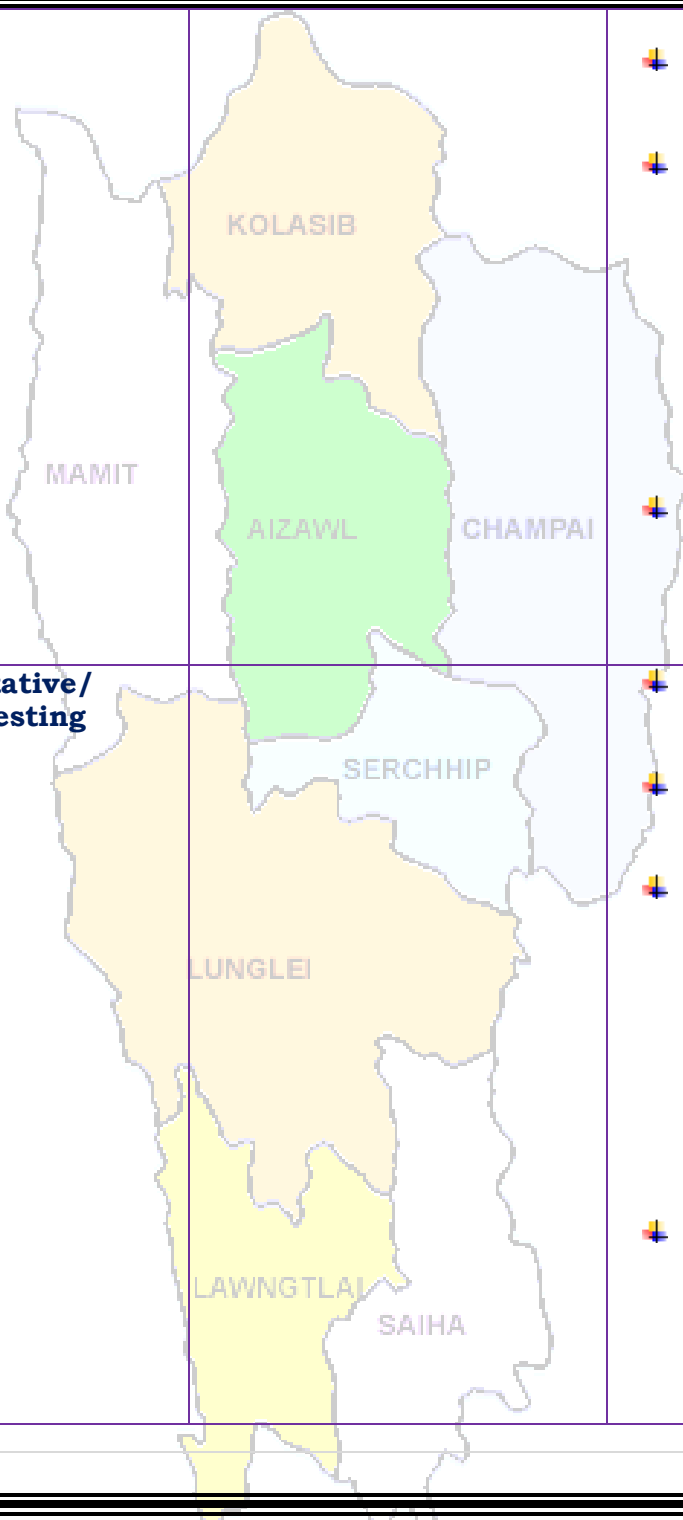	branches. • Application of split dose of fertilizer 600: 200:100 (g/pt). • Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. • Fruits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

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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. ▪ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields. ▪ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		▪ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ▪ A cutting should contain at least 3 buds and must be planted in sand beds. ▪ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ▪ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method

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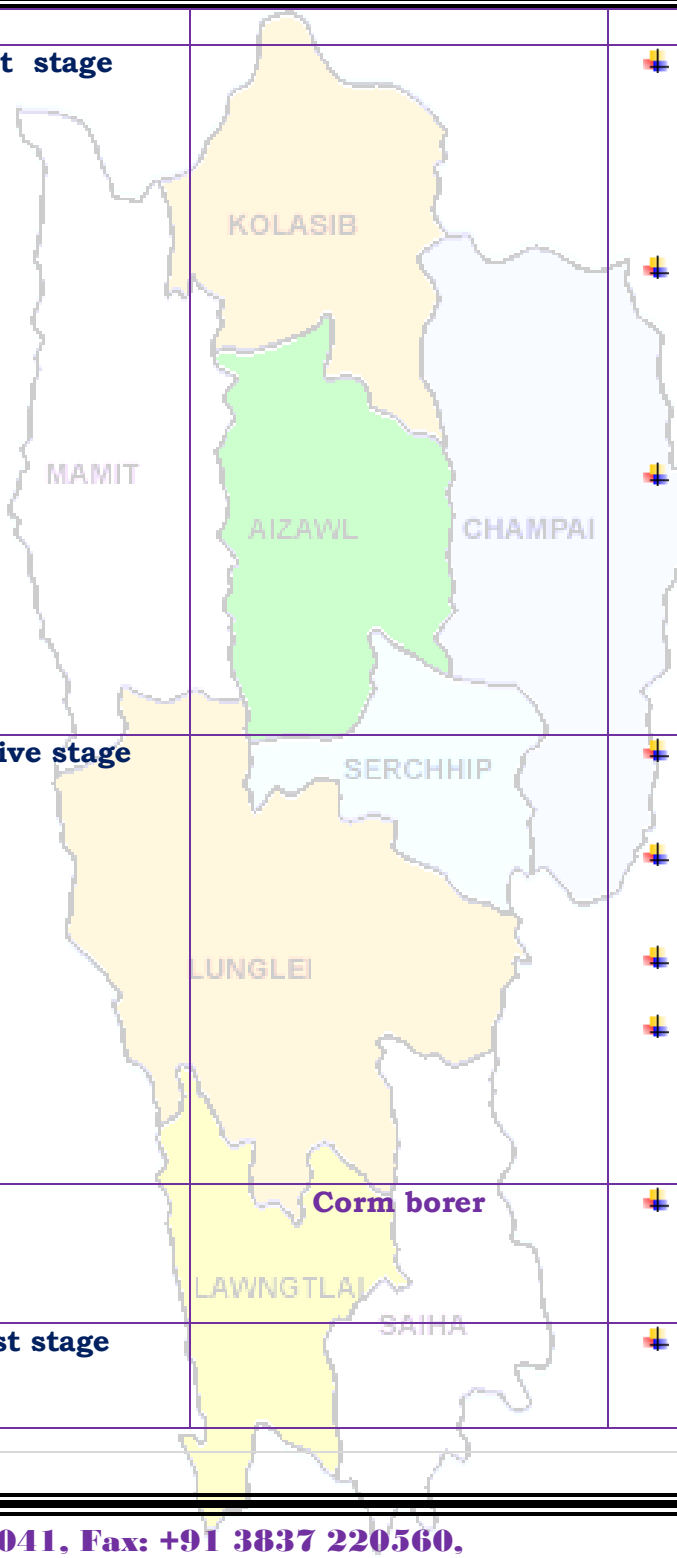
			of grafting.
Pineapple	**harvest stage**		✚ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow. ✚ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. ✚ Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
Colocasia	**Vegetative stage**		✚ Remove unwanted plant near base of the plant and cut dead branches. ✚ Earthing up soil at base of the plant along with split doses of fertilizer. ✚ Proper drainage is required to avoid water logging. ✚ Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	✚ Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Okra	**Harvest stage**		✚ It takes only about 10 days from the time of flowering to the time to pick okra.



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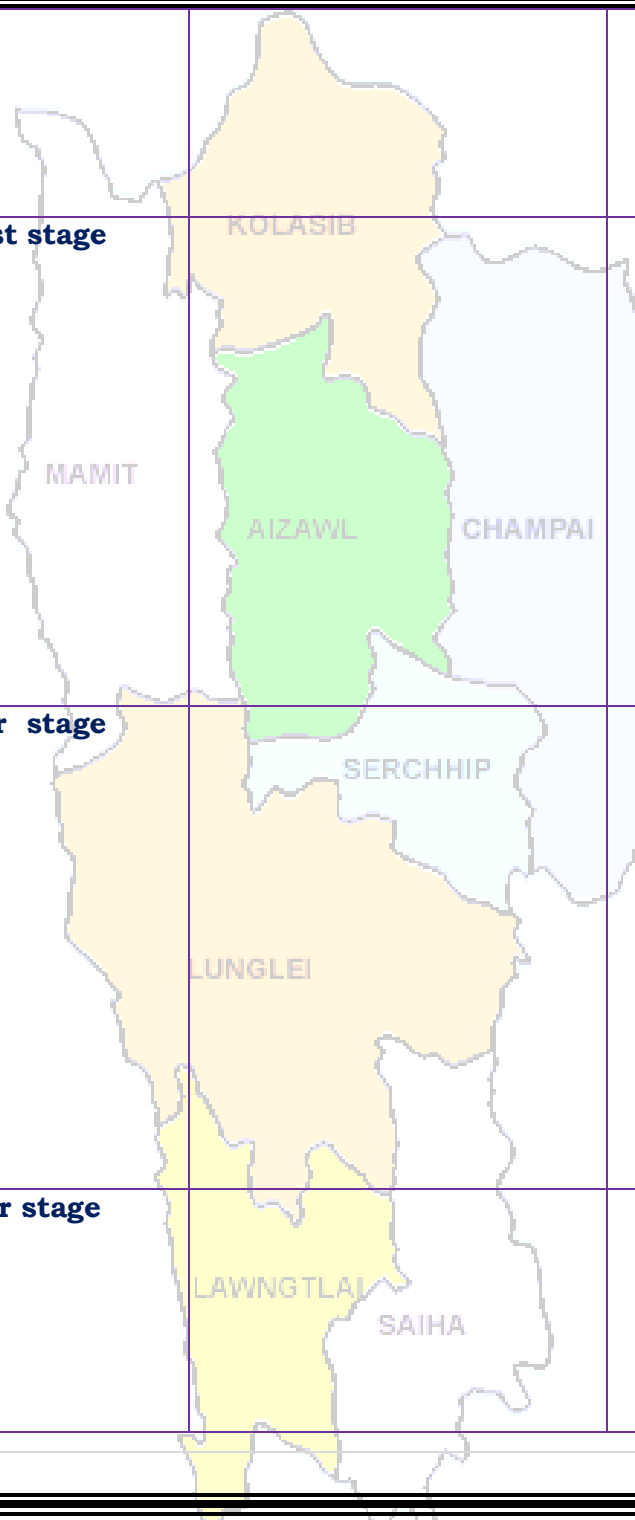
			↓ Picking okra should be done when they are four to five inches long. ↓ Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done when two third pods look dry and second harvest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

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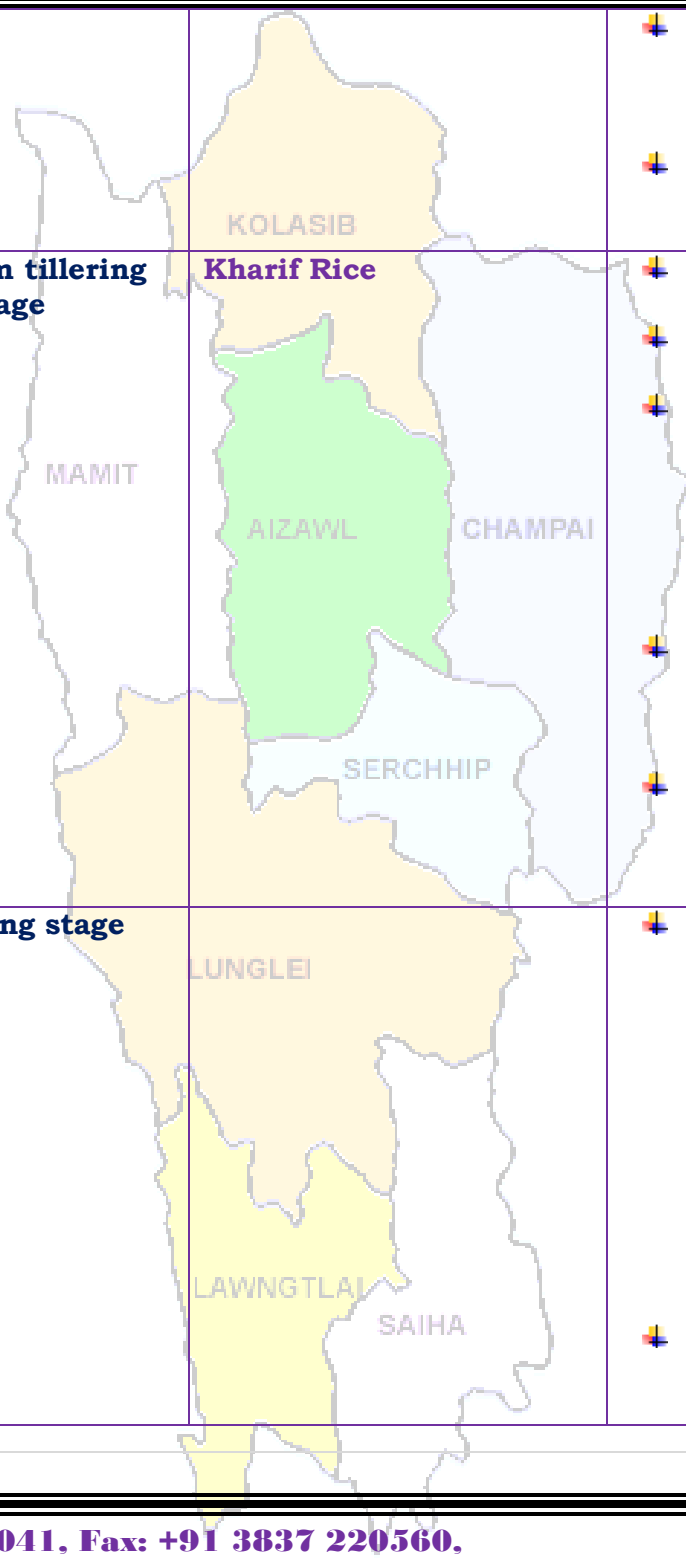
			▪ Mulching with black polythene film reduces weed growth, increases the crop growth. ▪ Split dose of fertilizer application @ 50kg/ha urea.
Rice	**Maximum tillering stage**	**Kharif Rice**	▪ Avoid sowing till sufficient rains have been received ▪ If sowing is delayed, plant short duration varieties ▪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



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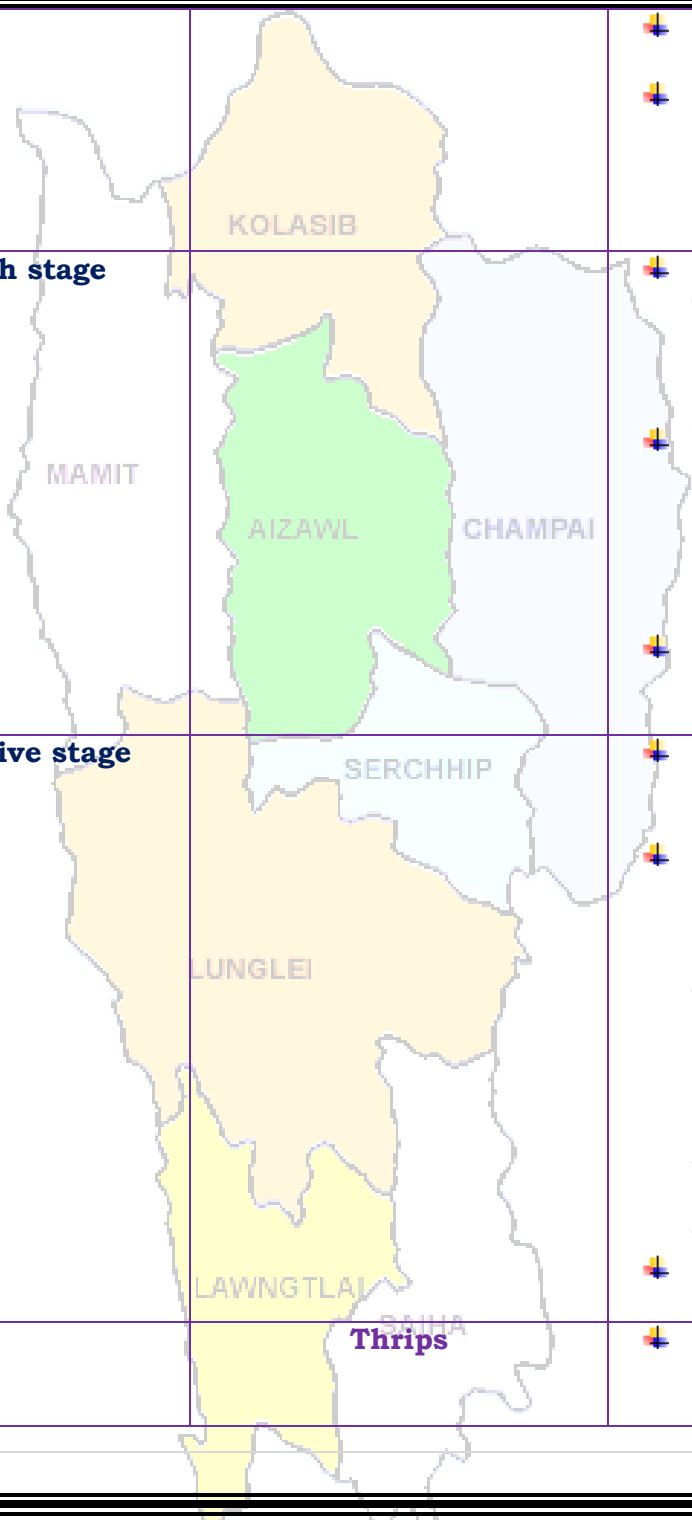
			▪ Earting up of soil along with fertilizer mixture. ▪ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Growth stage**		▪ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed infestation. ▪ 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. ▪ 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. ▪ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ▪ Earting up of soil along with fertilizer mixture.
		Thrips	▪ Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.



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

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Wind Speed (KmpH)	2	2	3	4	4
***Wind Direction**	S-E	S-E	S-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 MONSOON- July 1-31, 2015 (*Percent of deviation from normal in parenthesis*)

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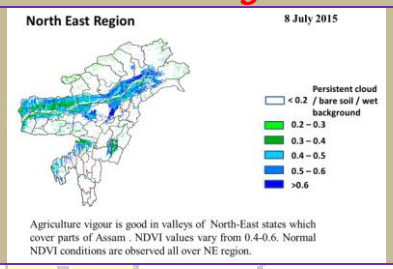
NDVI for Mizoram	 NDVI for Mizoram is less than normal NDVI. Value shown that NDVI is zero. So, it represents "Bare Soil".

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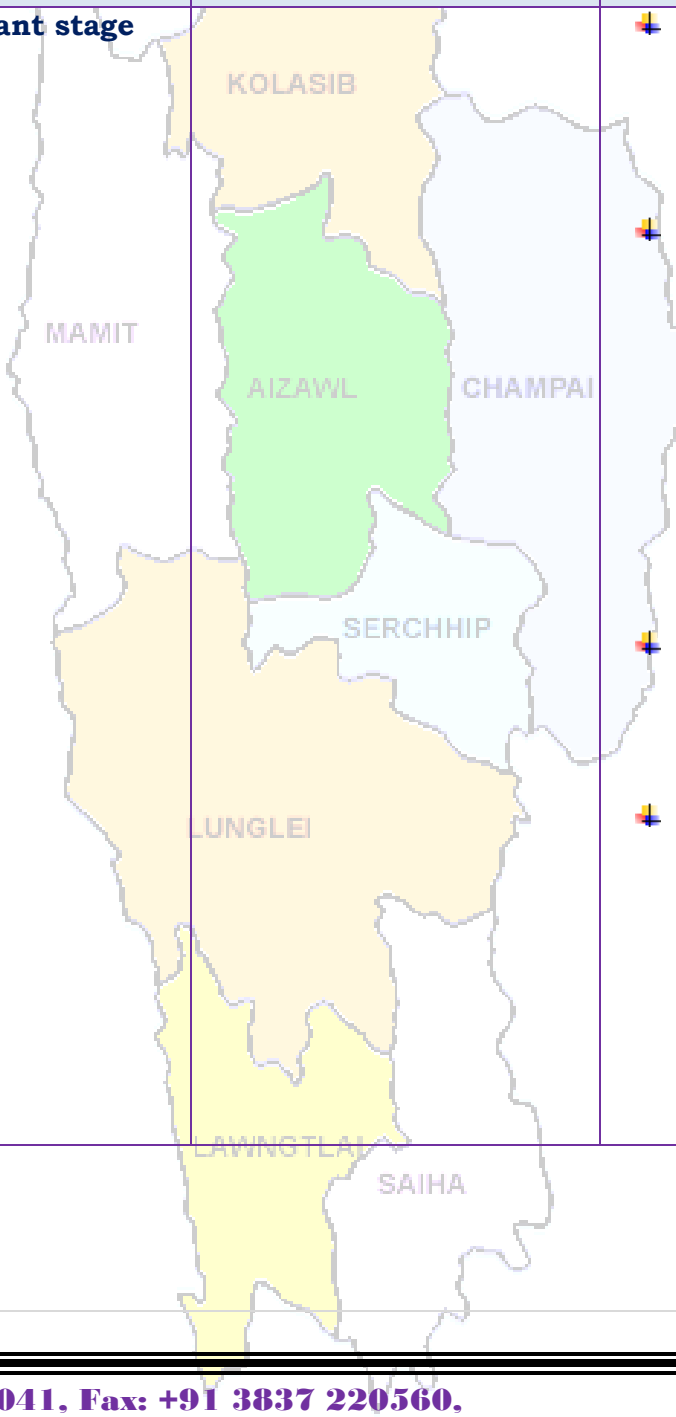
Khasi Mandarin and acid lime	**Transplant stage**		▪ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ▪ This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra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

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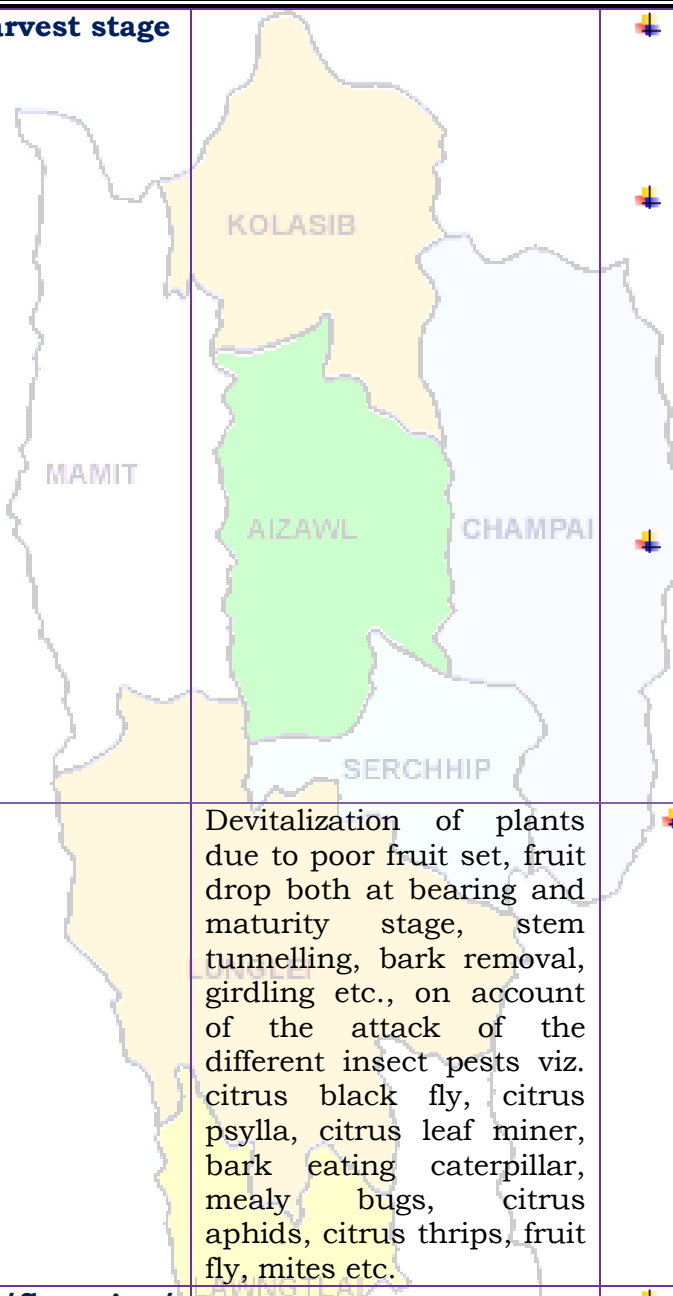
Khasi Mandarin and acid lime	**Flower/Harvest stage**		↓ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ↓ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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		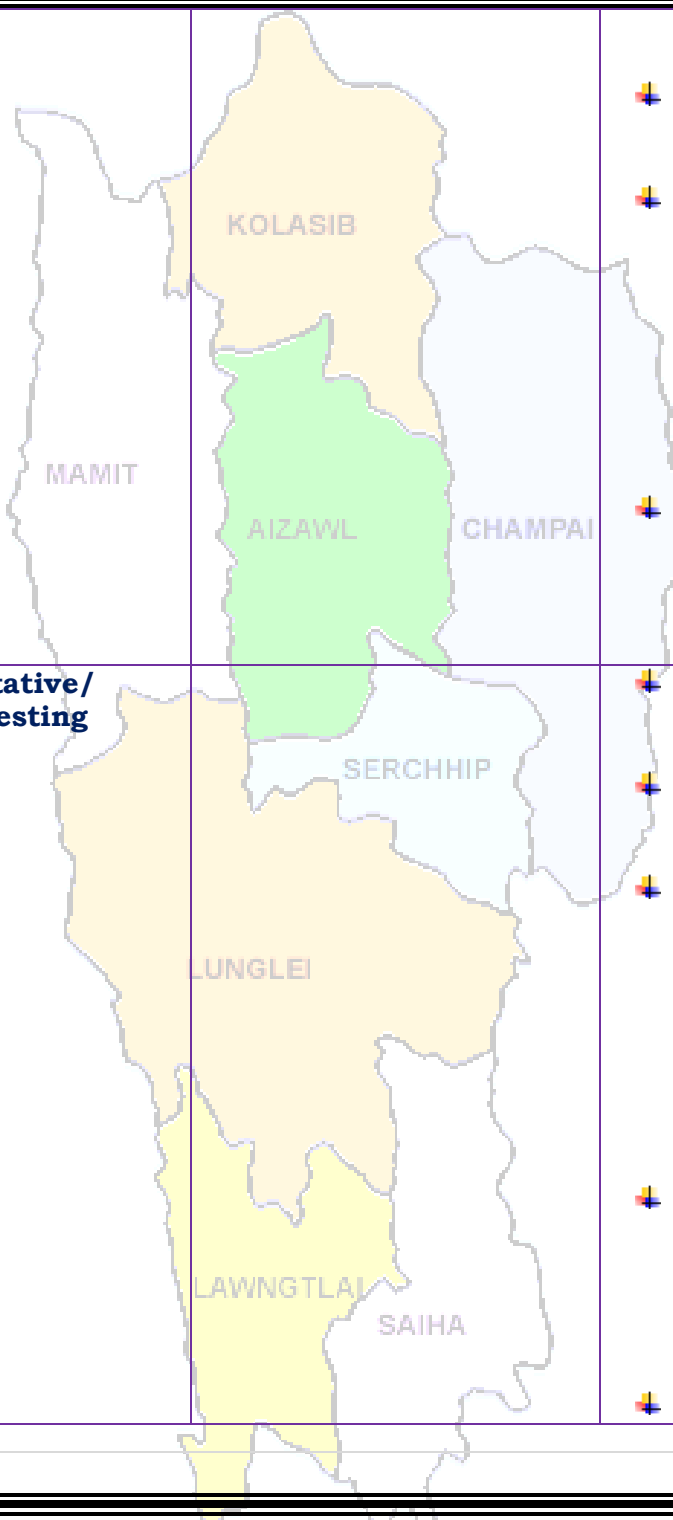	plant and cut unwanted branches. • Application of split dose of fertilizer 600: 200:100 (g/pt). • Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. • Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
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Pineapple	**harvest stage**		✦ For optimum quality and

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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. When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
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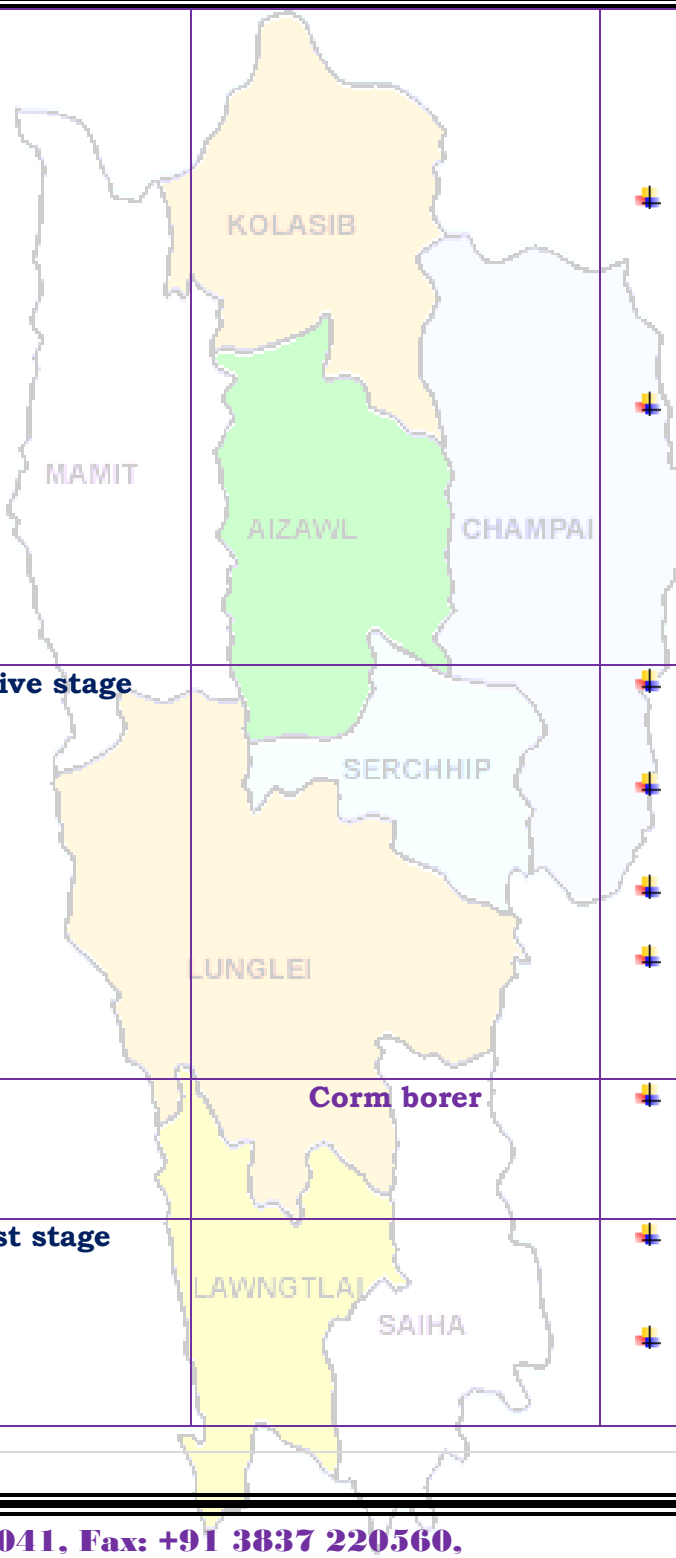
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Okra	**Harvest stage**		It takes only about 10 days from the time of flowering to the time to pick okra. Picking okra should be done when they are four to five inches long.



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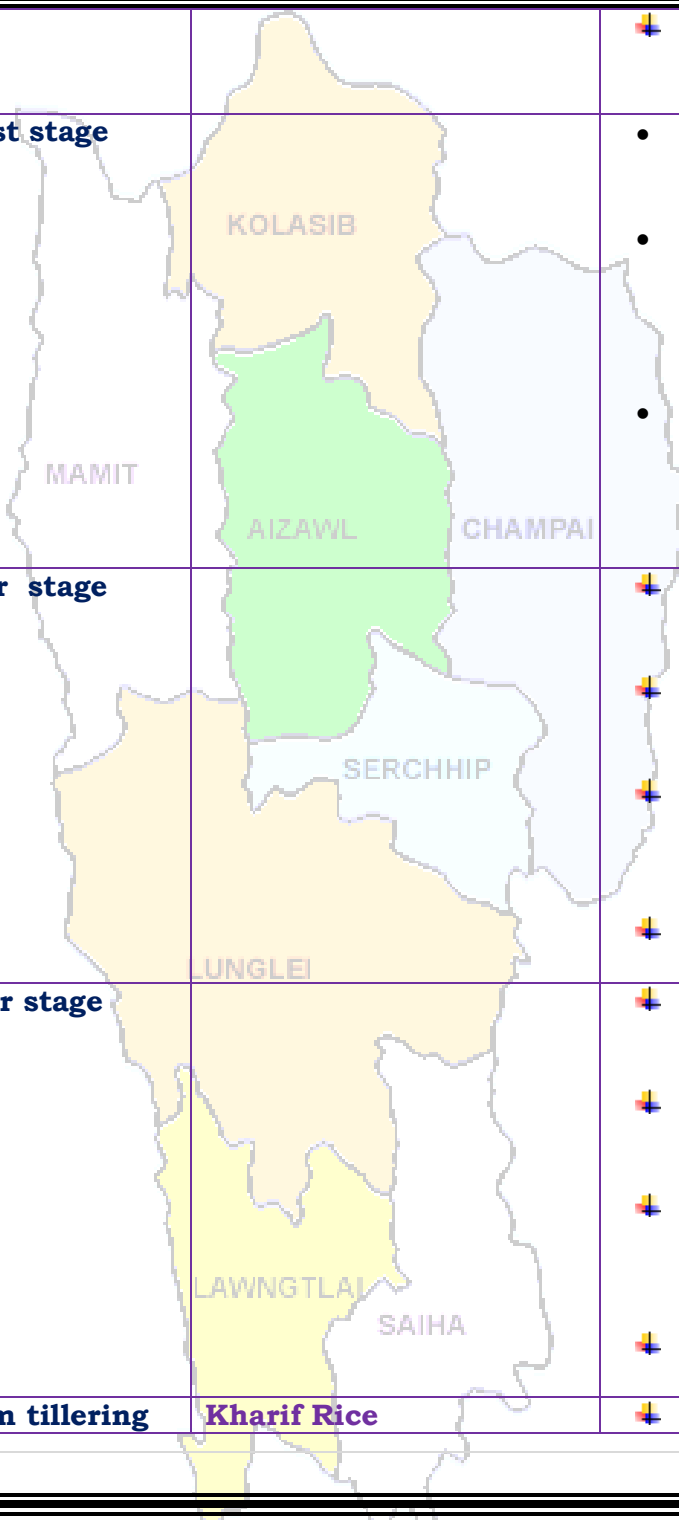
			✦ Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties,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



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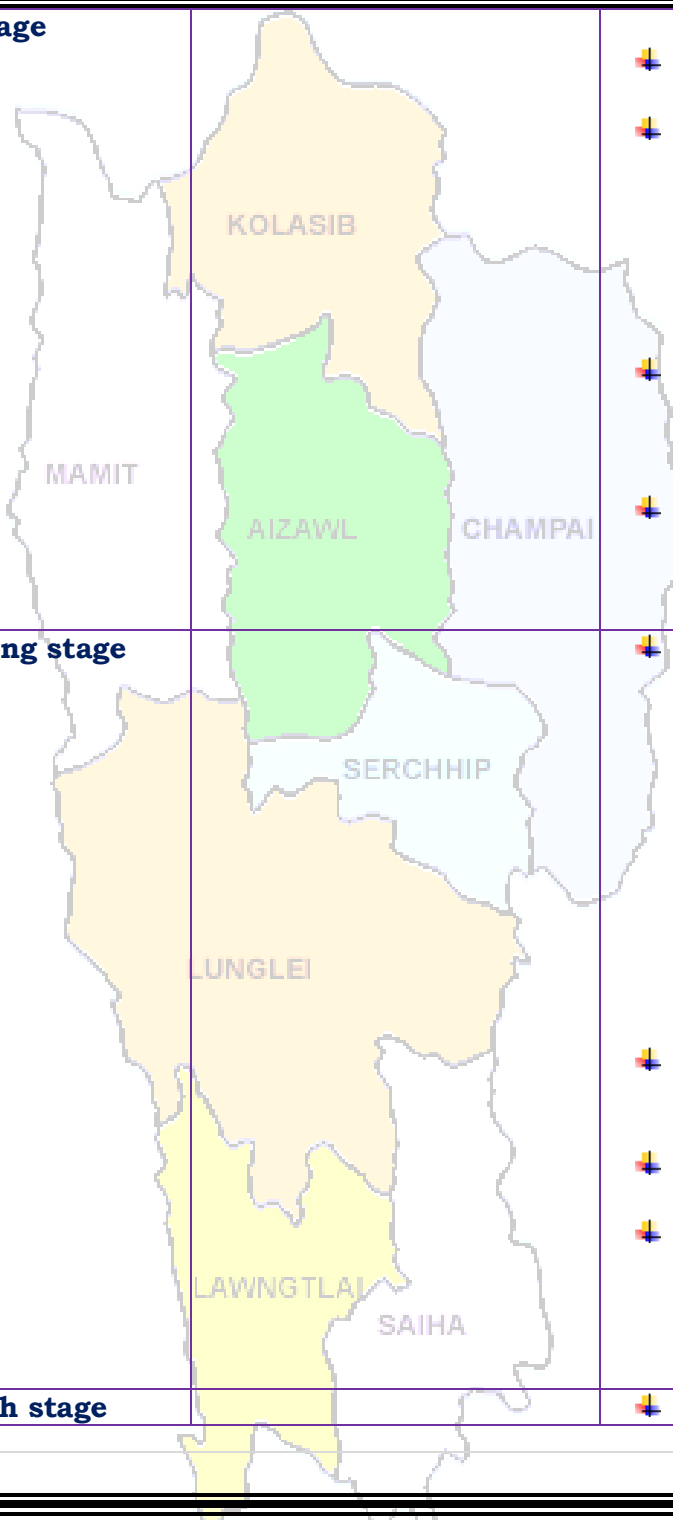
	stage		rains have been received If sowing is delayed, plant short duration varieties Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice Conserve rain water in ponds/tanks/field for irrigation during critical growth stages 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-1large effective way for control of many annual and broad leaved weeds. Remove unwanted plant near base of the plant and cut dead branches. Earting up of soil along with fertilizer mixture. Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif	**Growth stage**		One or two hand hoeing and

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pulses (Green gram, Black gram and Rajma)			weeding should be done, depending upon soil type and extent of weed infestation. 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. 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. Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. Earting up of soil along with fertilizer mixture.
		Thrips	Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	Spray Quinalphos or Monocrotophos (2.5 ml/lt) for controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and

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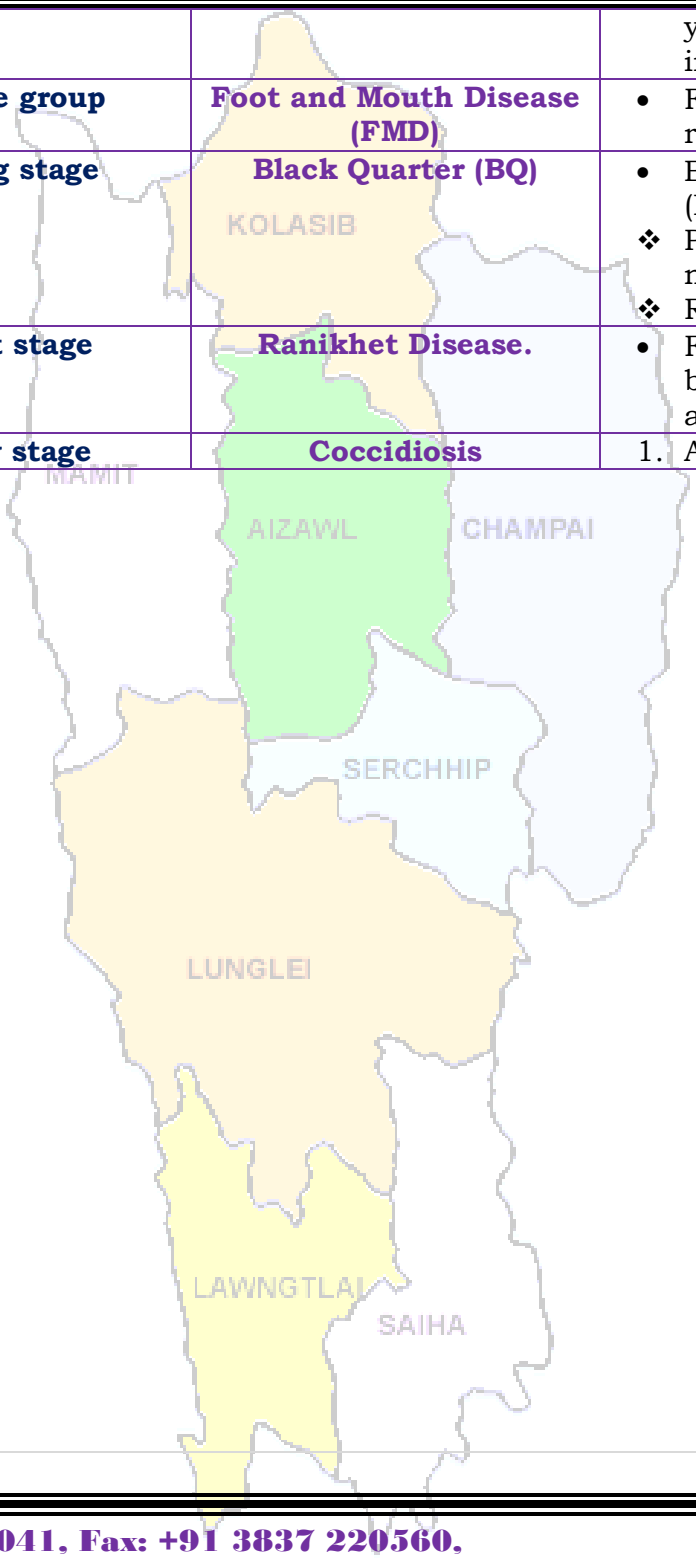
			yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet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



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ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Saiha **Period:** 12- 16 August, 2015

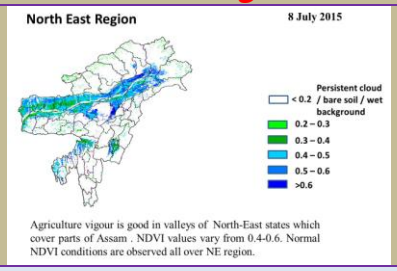
Bulletin No: -543/2015/ Bulletin/English **Date of issue:** 11th August, 2015

Parameters	12.08.2015	13.08.2015	14.08.2015	15.08.2015	16.08.2015
Rainfall (mm)	10	9	0	0	0
Max Temp (oC)	31	29	31	30	29
Min Temp (oC)	22	21	21	20	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Partially clear	Mainly cloudy	Partially clear
Max RH (%)	99	98	98	99	97
Min RH (%)	64	67	57	64	69
Wind Speed (KmpH)	2	2	2	2	2
*Wind Direction	E	E	E	E	E

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

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

Aizawl- 412.50mm (341.8mm)	Champhai- 105.47mm (250.30mm)	Saiha- 307.78 mm (87.2mm)	Kolasib- 331.10mm (380.9mm)
Lawngtlai-291.28mm (285.5mm)	Lunglei-326.52mm (186.21mm)	Mamit-204.84mm (442.80mm)	Serchhip-189.57mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 12th August, 2015 To 16th August, 2015.
	There are chances of moderate to light rainfall during the next 2 day. The maximum and minimum temperatures for the next 5 days may range for 29-31^{0}C and 20-22^{0}C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 57-69%. Wind direction would be easterly with the wind speed of 2 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".

Main	Stage	Cultural practices/	Agricultural / Horticultural/

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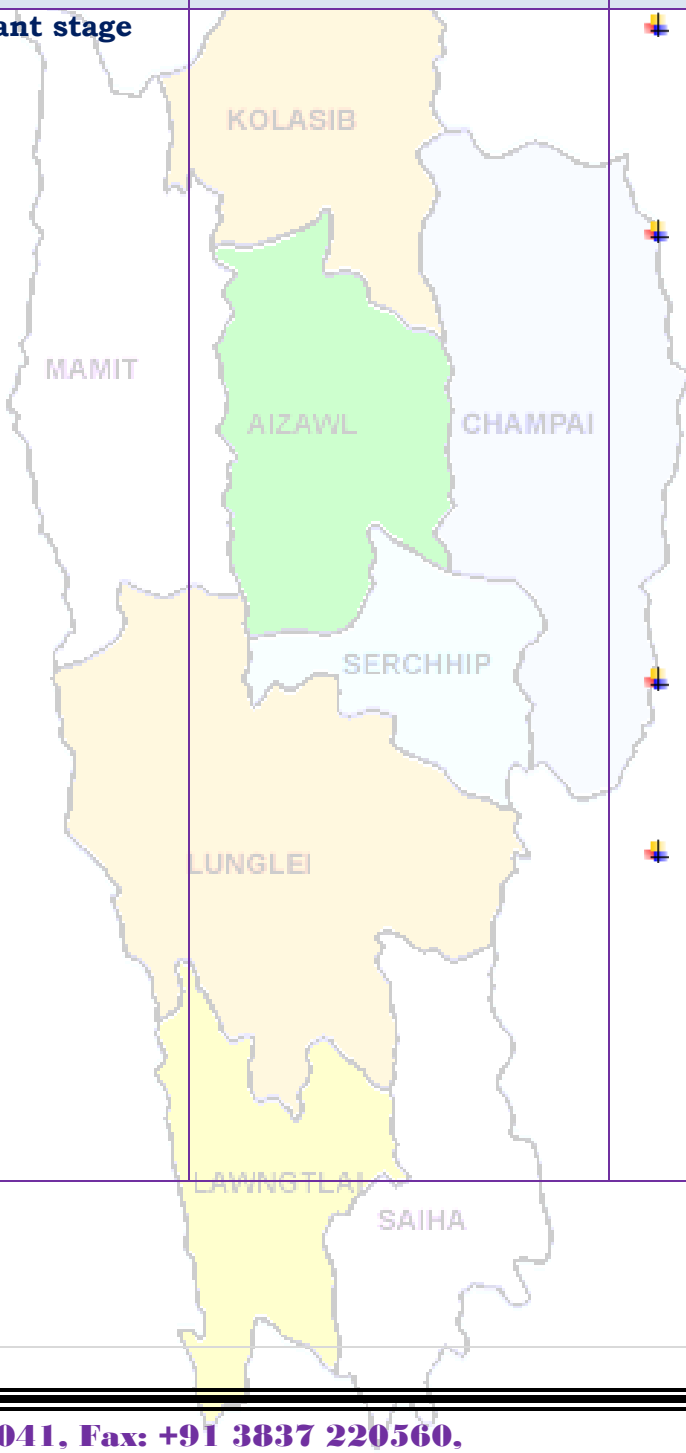
Crop/ Animal /Fisheries		Pest/ Diseases	animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		▪ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ▪ This root stock has proved very successful for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

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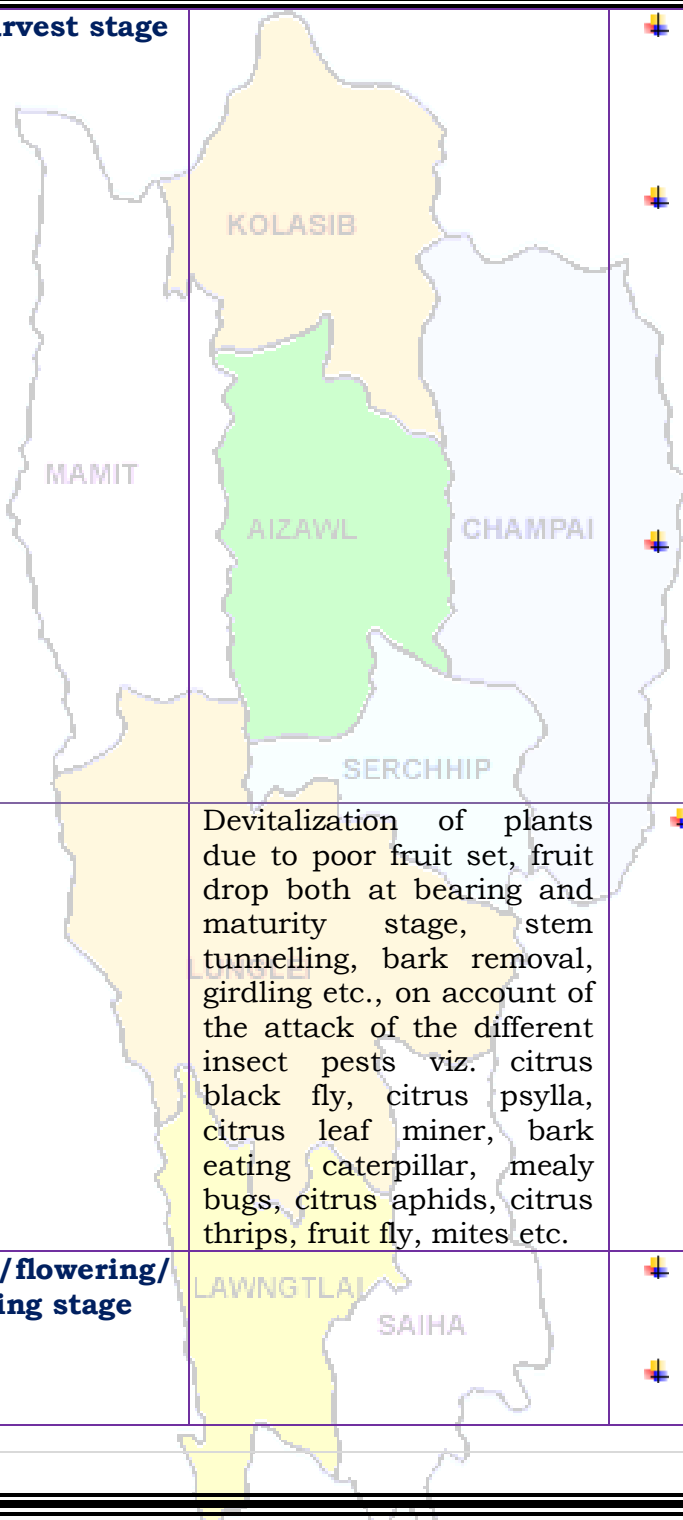
Khasi Mandarin and acid lime	**Flower/Harvest stage**		✦ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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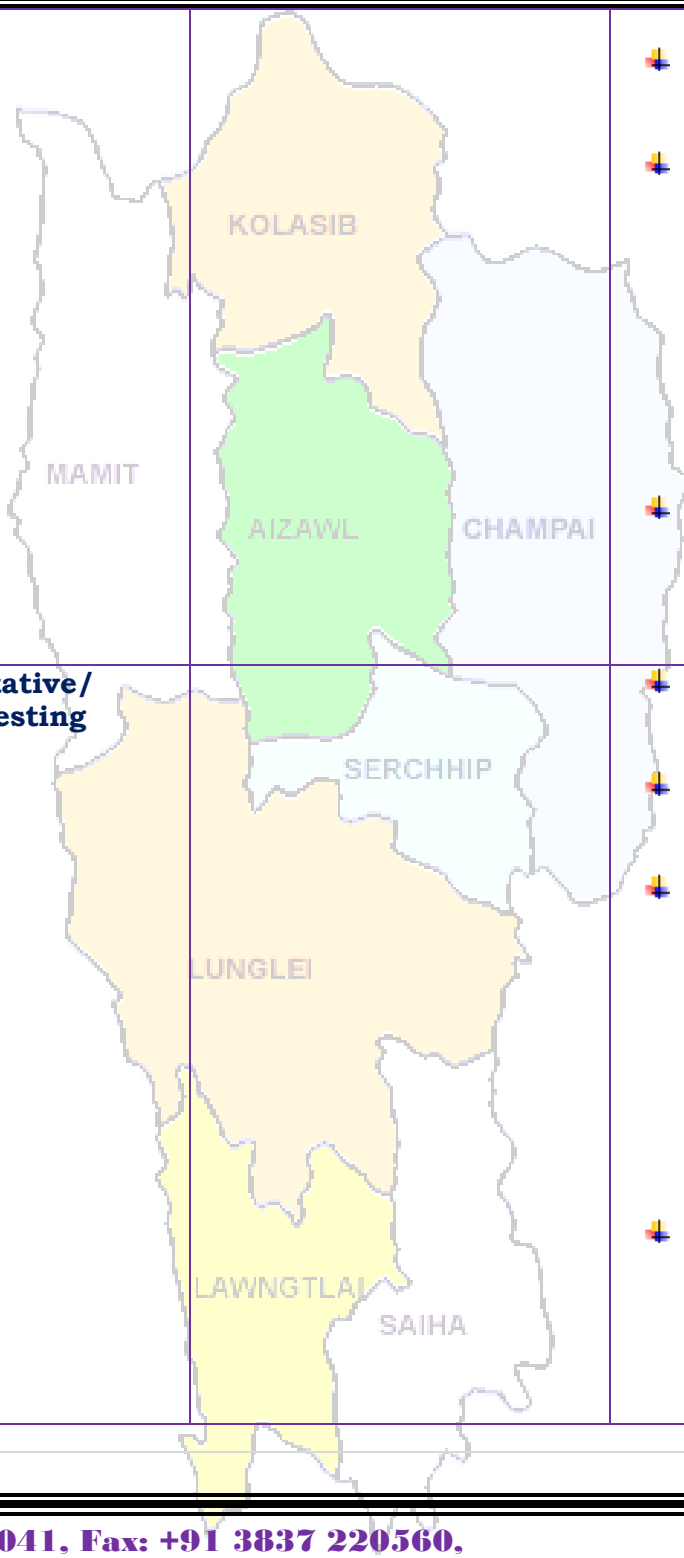	branches. • Application of split dose of fertilizer 600: 200:100 (g/pt). • Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. • Fruits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

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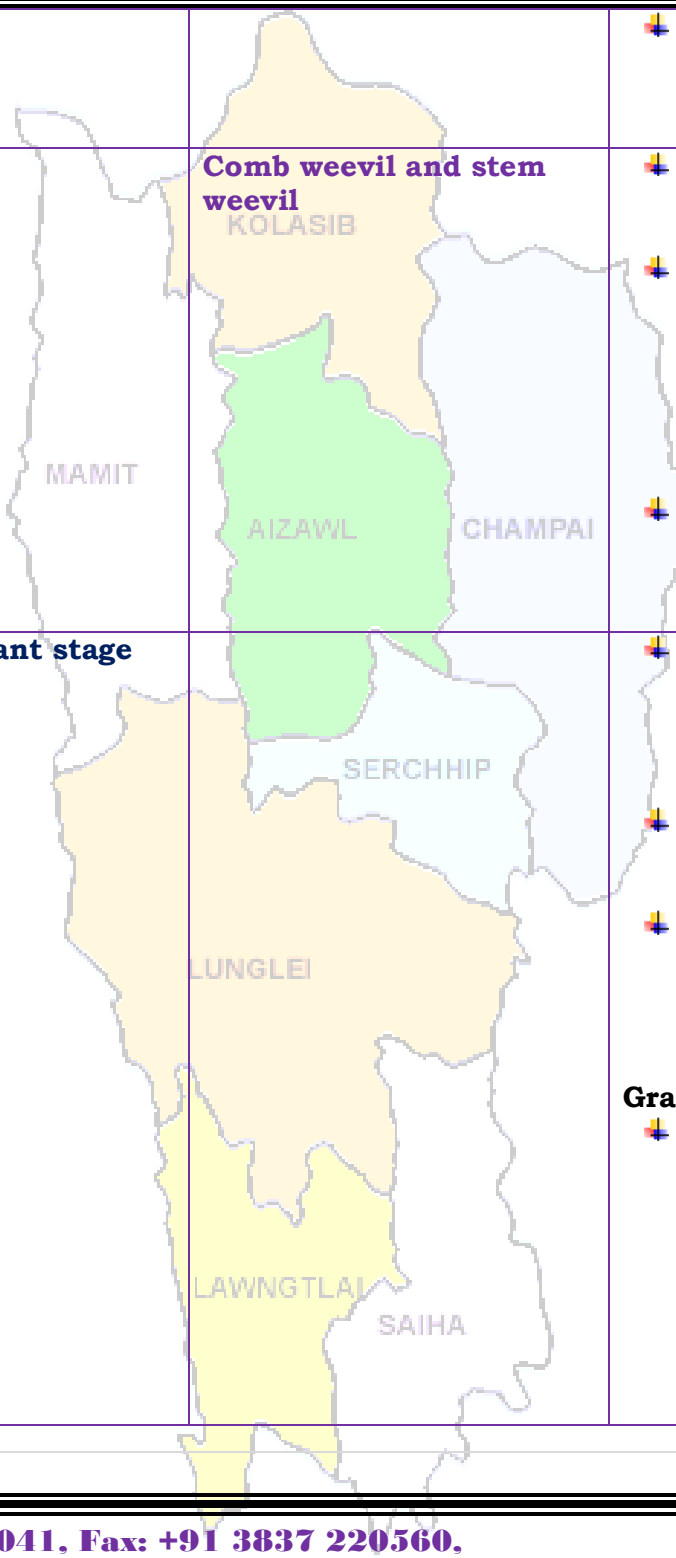
			↓ Fruits are harvested when they attain full size, develop attractive yellow colour.
		Comb weevil and stem weevil	↓ Applications of neem powder effectively controlled weevils. ↓ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields. ↓ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		↓ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ↓ A cutting should contain at least 3 buds and must be planted in sand beds. ↓ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ↓ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method



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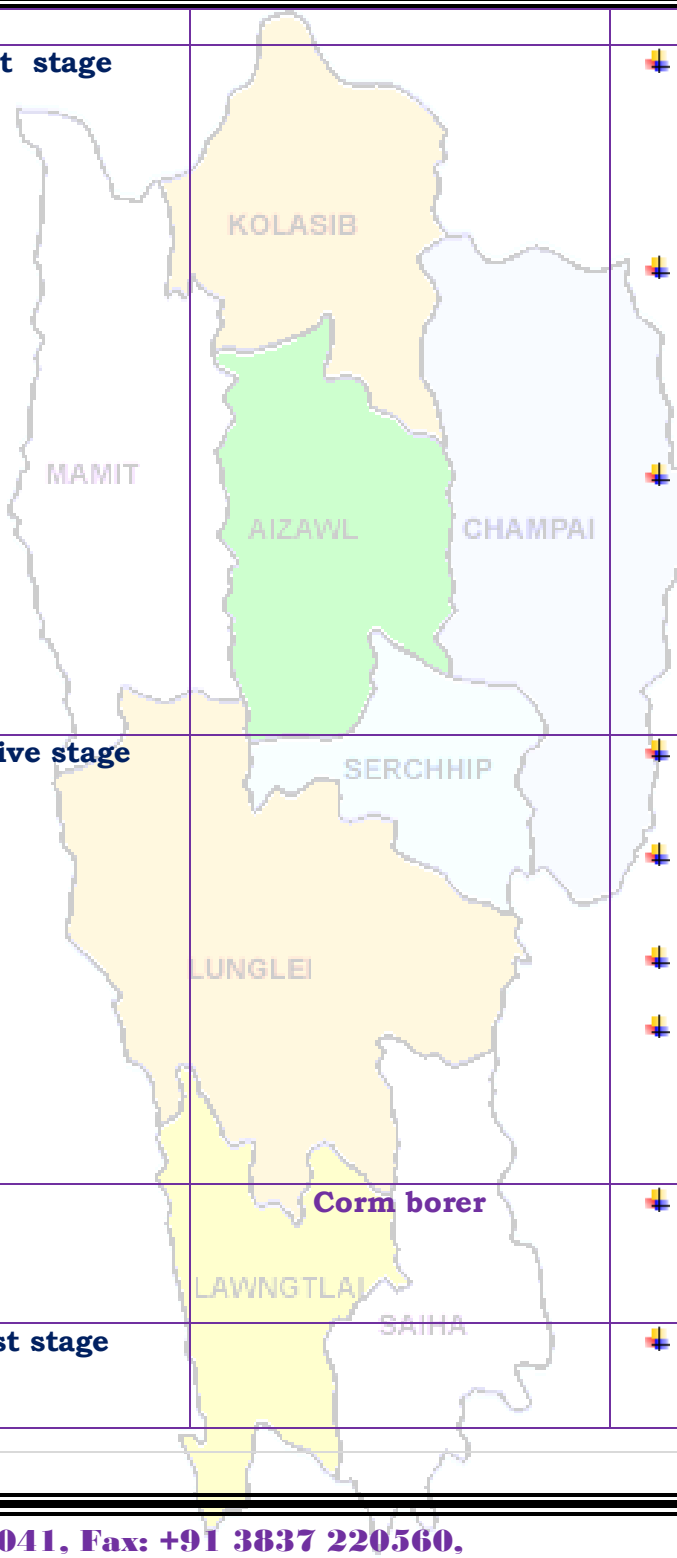
			of grafting.
Pineapple	**harvest stage**		✦ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow. ✦ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. ✦ Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
Colocasia	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earthing up soil at base of the plant along with split doses of fertilizer. ✦ Proper drainage is required to avoid water logging. ✦ Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	✦ Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Okra	**Harvest stage**		✦ It takes only about 10 days from the time of flowering to the time to pick okra.



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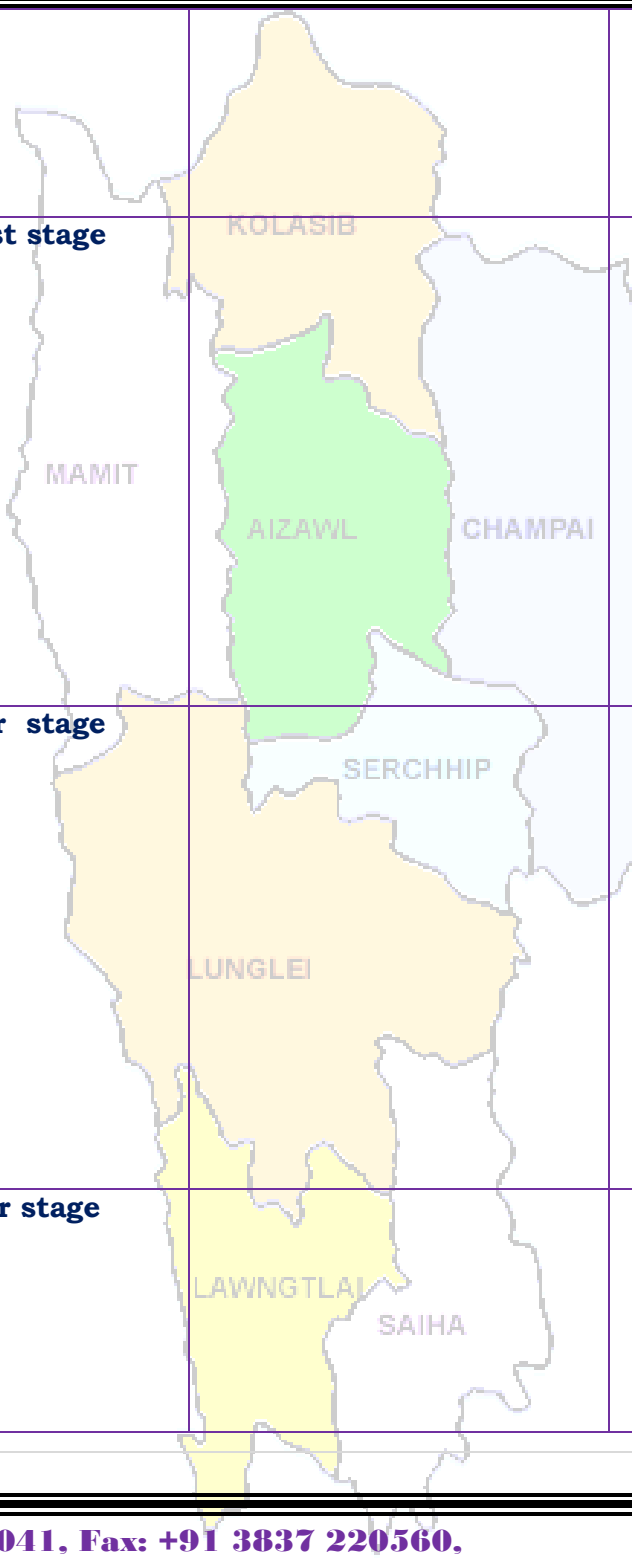
			✦ Picking okra should be done when they are four to five inches long. ✦ Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
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Tomato	**Flower stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed.

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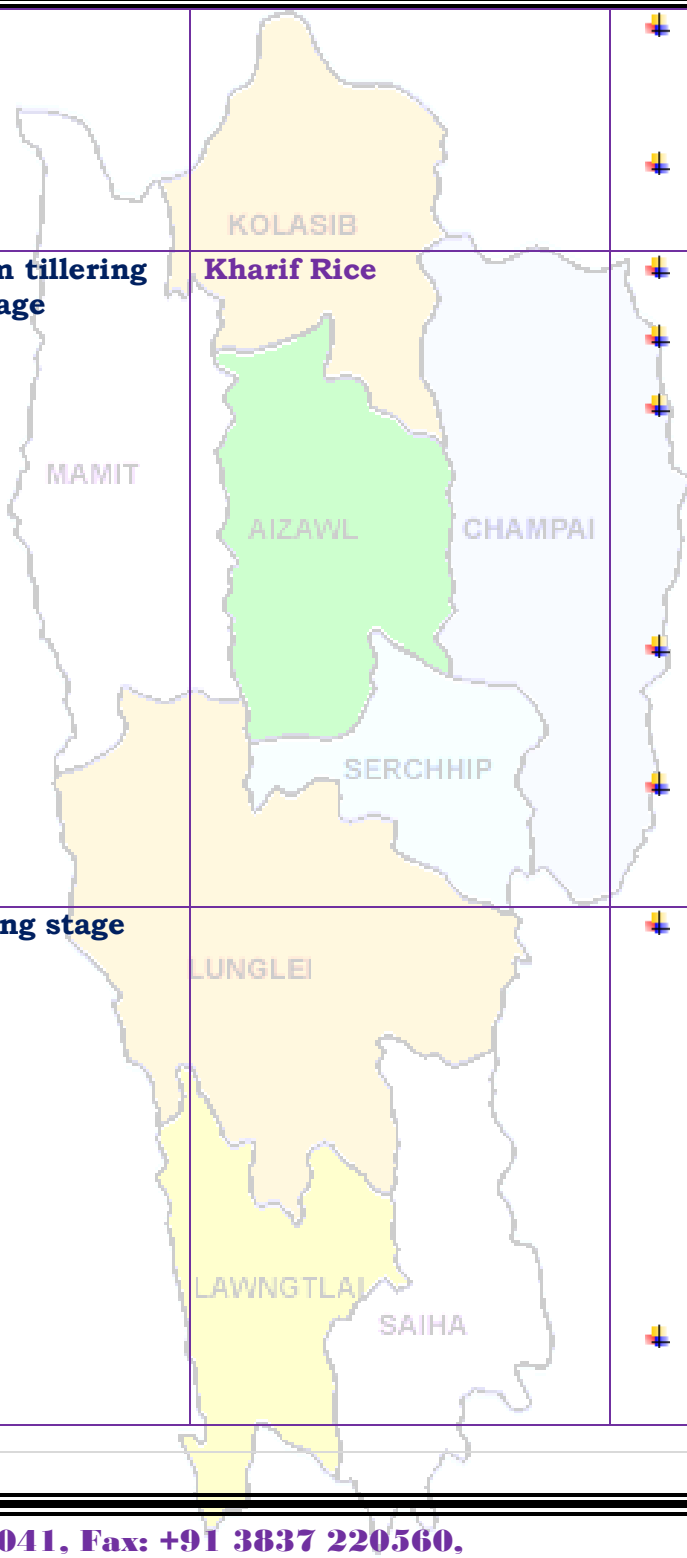	▪ Mulching with black polythene film reduces weed growth, increases the crop growth. ▪ Split dose of fertilizer application @ 50kg/ha urea.
Rice	**Maximum tillering stage**	**Kharif Rice**	▪ Avoid sowing till sufficient rains have been received ▪ If sowing is delayed, plant short duration varieties ▪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

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			✓ Earting up of soil along with fertilizer mixture. ✓ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Growth stage**		✓ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed infestation. ✓ 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. ✓ 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. ✓ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ✓ Earting up of soil along with fertilizer mixture.
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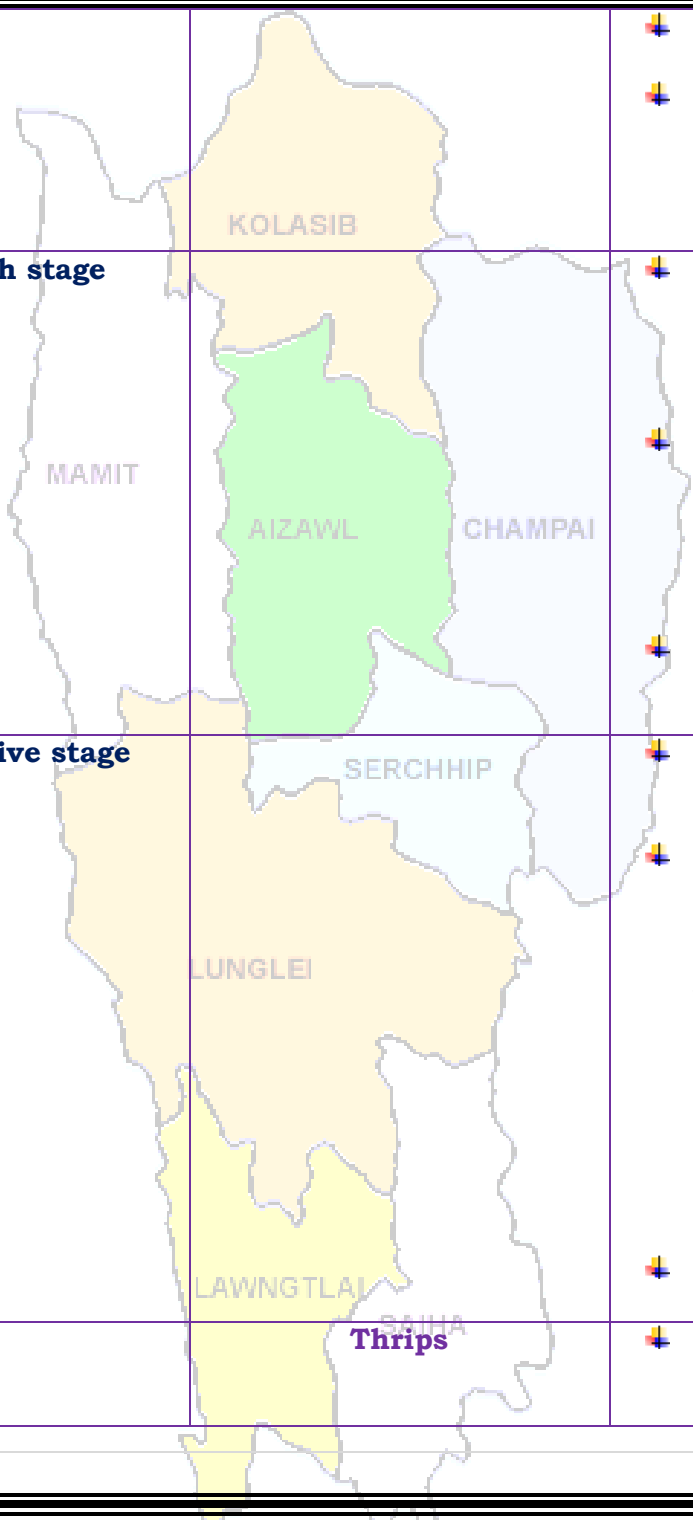

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		Scales	✦ Spray Quinalphos or Monocrotophos (2.5 ml/lt) for controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with 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). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
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(Prepared based on District wise Weather Forecast received from IMD, Guwahati)

District: Serchhip **Period: 12- 16 August, 2015**

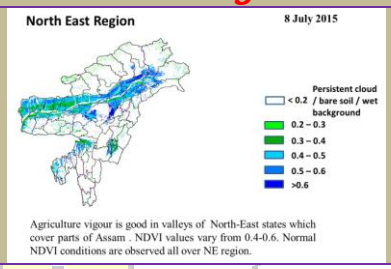
Bulletin No: -543/2015/ Bulletin/English **Date of issue: 11th August, 2015**

Parameters	12.08.2015	13.08.2015	14.08.2015	15.08.2015	16.08.2015
Rainfall (mm)	20	17	4	4	0
Max Temp (oC)	32	28	31	30	29
Min Temp (oC)	21	21	21	19	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Partially clear	Partially clear	Partially clear
Max RH (%)	100	100	99	99	100
Min RH (%)	62	83	53	63	73
Wind Speed (KmpH)	0	2	2	2	2
***Wind Direction**	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 MONSOON- July 1-31, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 412.50mm (341.8mm)	Champhai- 105.47mm (250.30mm)	Saiha- 307.78 mm (87.2mm)	Kolasib- 331.10mm (380.9mm)
Lawngtlai-291.28mm (285.5mm)	Lunglei-326.52mm (186.21mm)	Mamit-204.84mm (442.80mm)	Serchhip-189.57mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 12th August, 2015 To 16th 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 28-32^{0}C and 19-21^{0}C. Maximum relative humidity is expected in the range of 99-100% and minimum may from 53-83%. Wind direction would be easterly to southwesterly with the wind speed of 0-2 km per hour. Dense cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **45.0 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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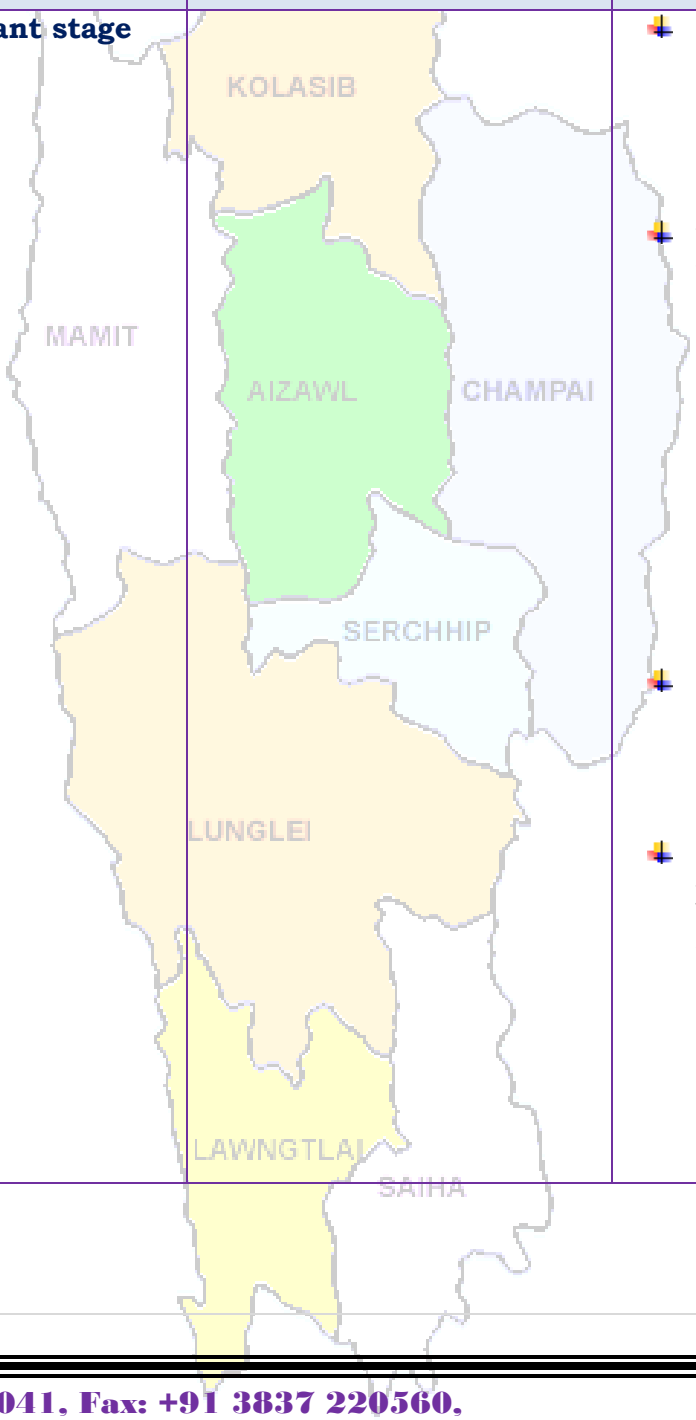
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		✦ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ✦ This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. ✦ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops ✦ Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.

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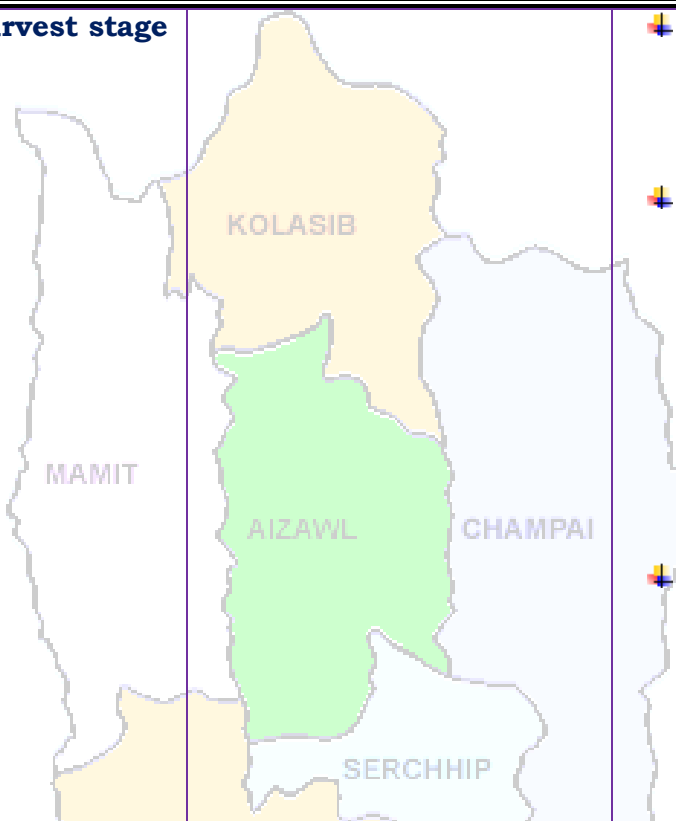
Khasi Mandarin and acid lime	**Flower/Harvest stage**		✚ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ✚ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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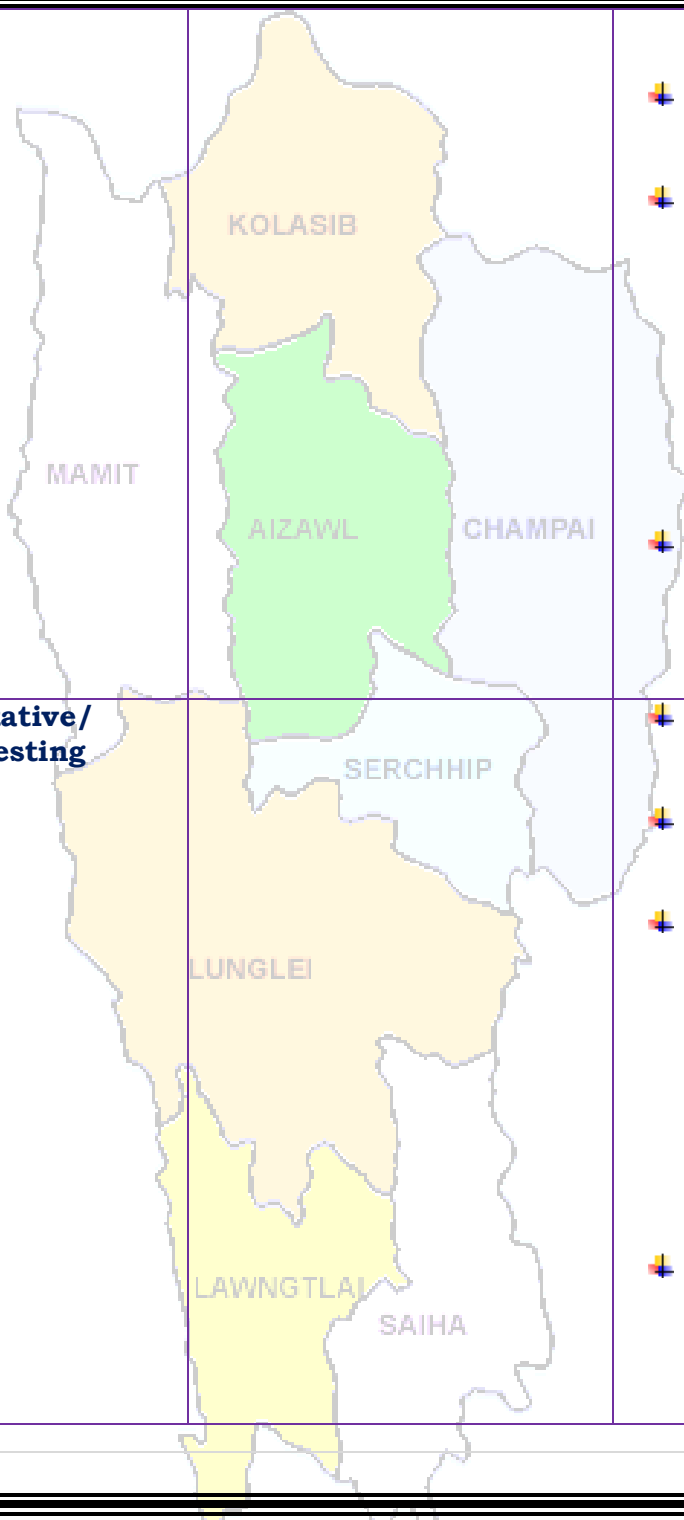	plant and cut unwanted branches. + Application of split dose of fertilizer 600: 200:100 (g/pt). + Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the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

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			pest and disease. Fruits are harvested when they attain full size, develop attractive yellow colour.
		Comb weevil and stem weevil	Applications of neem powder effectively controlled weevils. Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields. Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. A cutting should contain at least 3 buds and must be planted in sand beds. Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using

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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. ✚ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. ✚ Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
Colocasia	**Vegetative stage**		✚ Remove unwanted plant near base of the plant and cut dead branches. ✚ Earthing up soil at base of the plant along with split doses of fertilizer. ✚ Proper drainage is required to avoid water logging. ✚ Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	✚ Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Okra	**Harvest stage**		✚ It takes only about 10 days

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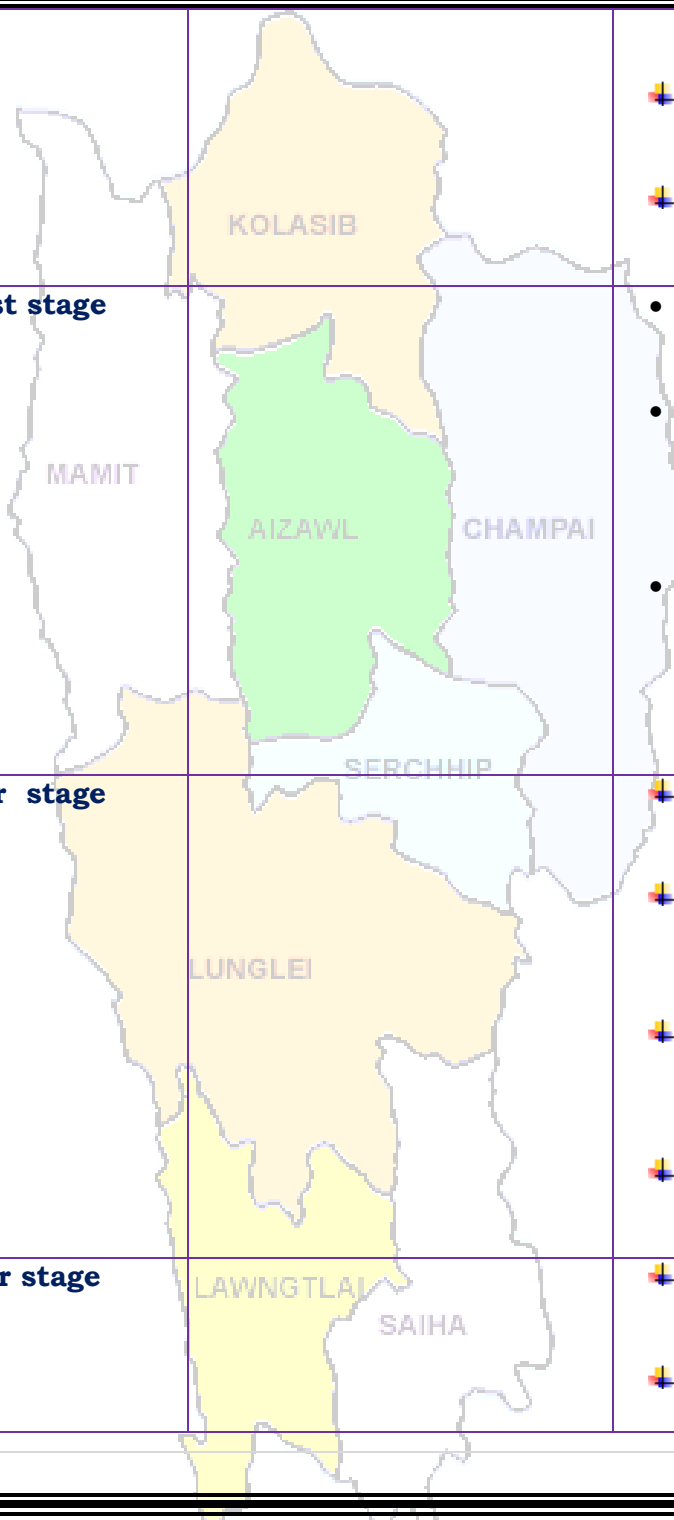	from the time of flowering to the time to pick okra. Picking okra should be done when they are four to five inches long. Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done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

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			water for reduce grass type weed. - Mulching with black polythene film reduces weed growth, increases the crop growth. - Split dose of fertilizer application @ 50kg/ha urea.
Rice	**Maximum tillering stage**	**Kharif Rice**	- Avoid sowing till sufficient rains have been received - If sowing is delayed, plant short duration varieties - Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice - Conserve rain water in ponds/tanks/field for irrigation during critical growth stages - 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. - Remove unwanted plant

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			near base of the plant and cut dead branches. Earting up of soil along with fertilizer mixture. Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Growth stage**		One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed infestation. 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. 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. Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. Earting up of soil along with fertilizer mixture.
		Thrips	Spray Roger or

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

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

District: Aizawl **Period: 12- 16 August, 2015**

Bulletin No: -543/2015/ Bulletin/English **Date of issue: 11th August, 2015**

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Rainfall (mm)	17	11	4	0	3
Max Temp (oC)	31	30	29	29	29
Min Temp (oC)	22	21	21	20	20
Cloud Coverage	Mainly cloudy	Mainly cloudy	Partially clear	Mainly cloudy	Partially clear
Max RH (%)	98	99	98	99	100
Min RH (%)	77	79	86	71	83
Wind Speed (KmpH)	3	3	2	2	2
*Wind Direction	E	E	E	S-E	S-E

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

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

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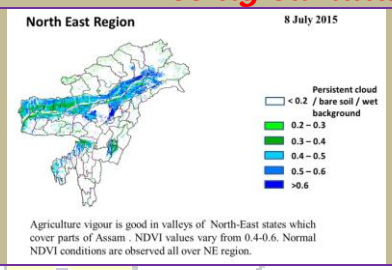
	There is a chance of moderate to light rainfall during the next 4 days. The maximum and minimum temperatures for the next 5 days may range for 29-31^{0}C and 20-22^{0}C. Maximum relative humidity is expected in the range of 98-100% and minimum may from 71-83%. Wind direction would be southeasterly with the wind speed of 2-3 km per hour. Mainly cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **35.0 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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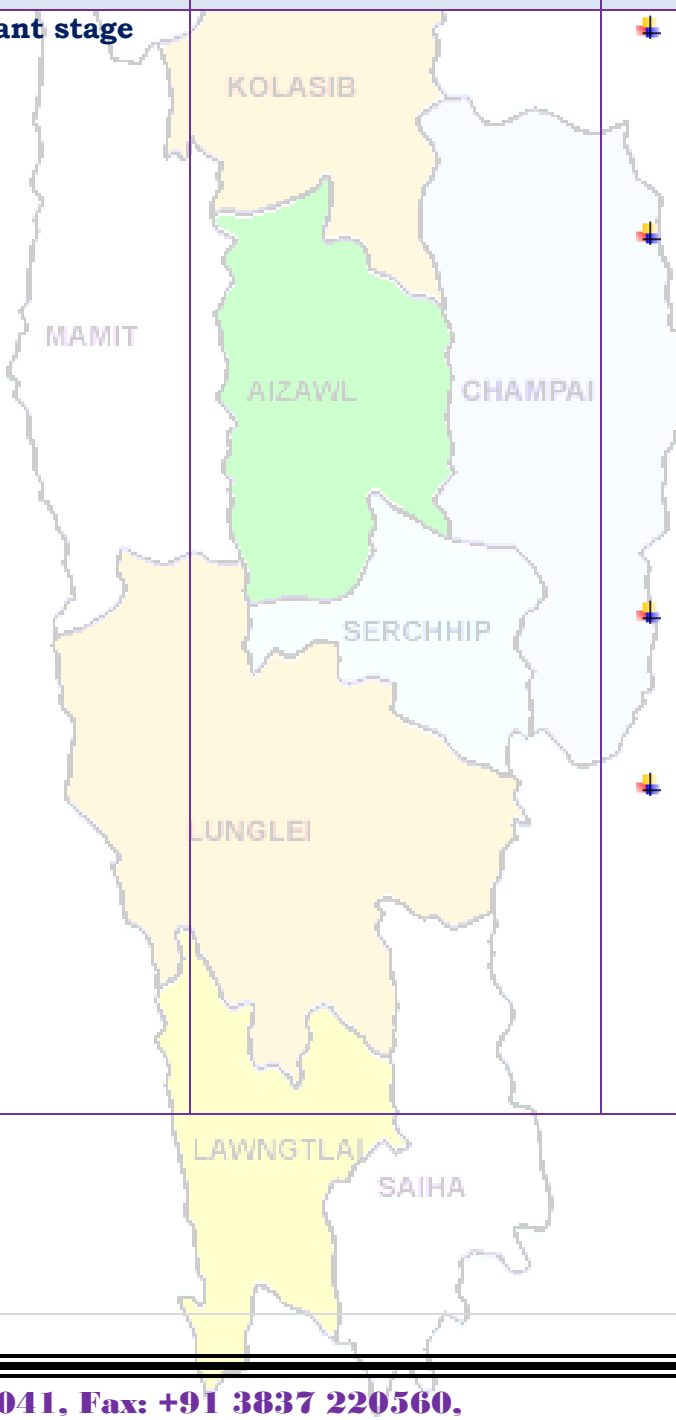
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		▪ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ▪ This root stock has proved very successful for raising some sweet orange and mandarin orange varieties This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. ▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops ▪ Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.

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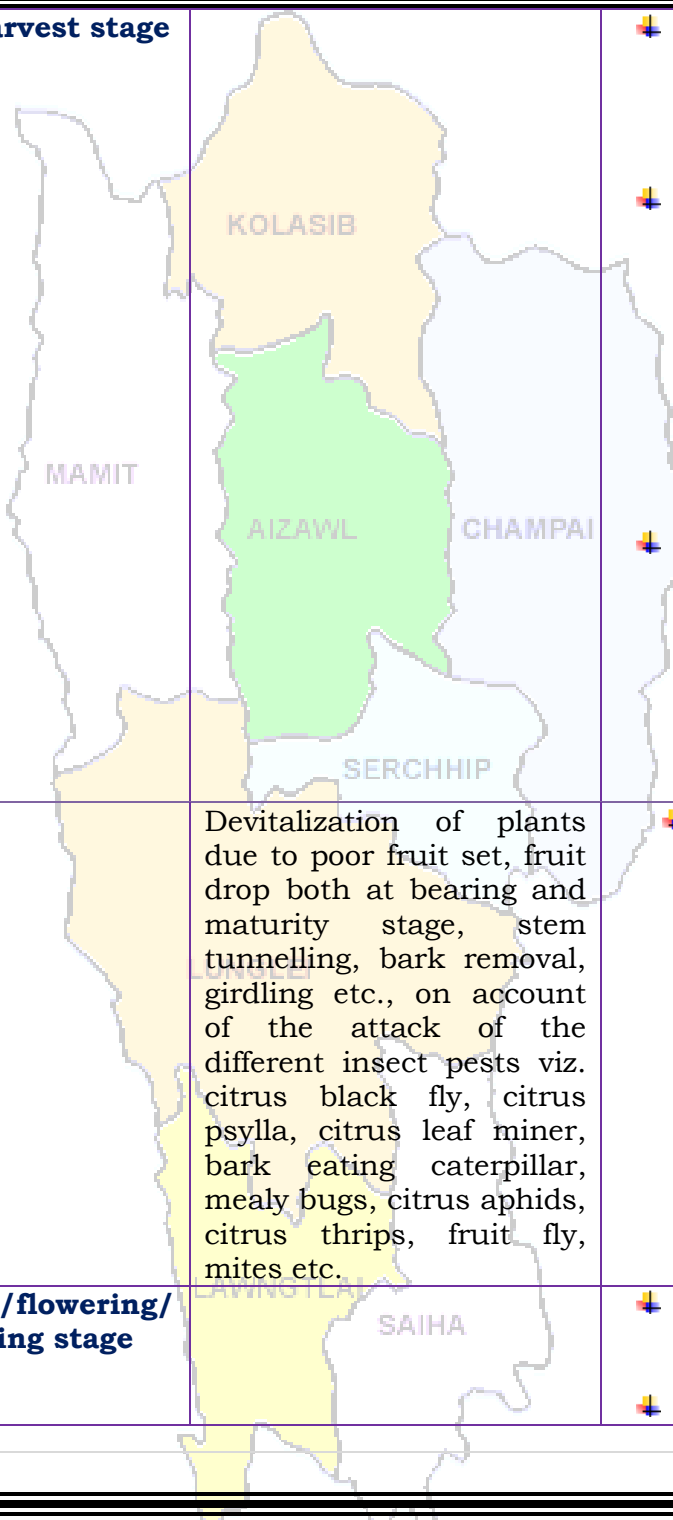
Khasi Mandarin and acid lime	**Flower/Harvest stage**		▪ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ▪ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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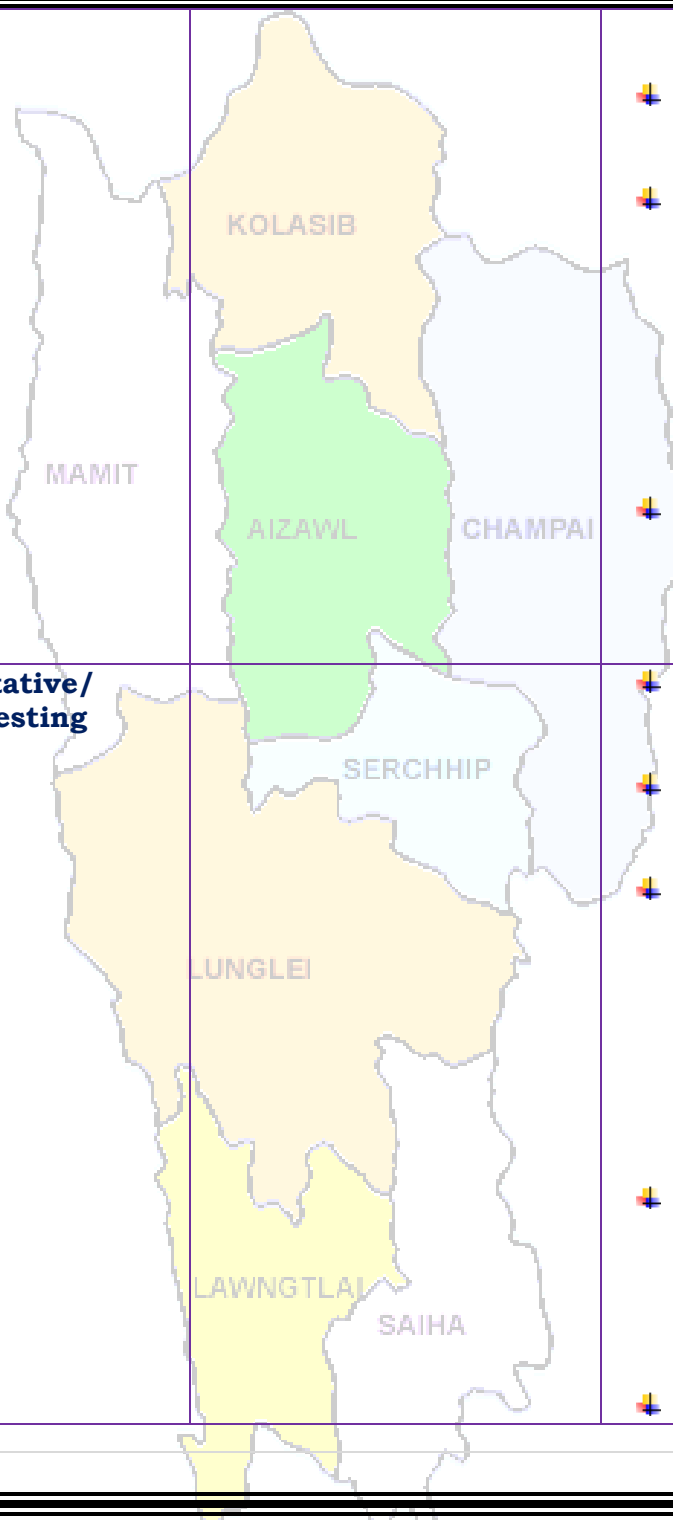	plant and cut unwanted branches. • Application of split dose of fertilizer 600: 200:100 (g/pt). • Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the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

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			they attain full size, develop attractive yellow colour.
		Comb weevil and stem weevil	✦ Applications of neem powder effectively controlled weevils. ✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields. ✦ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		✦ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ✦ A cutting should contain at least 3 buds and must be planted in sand beds. ✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ✦ The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		✦ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or

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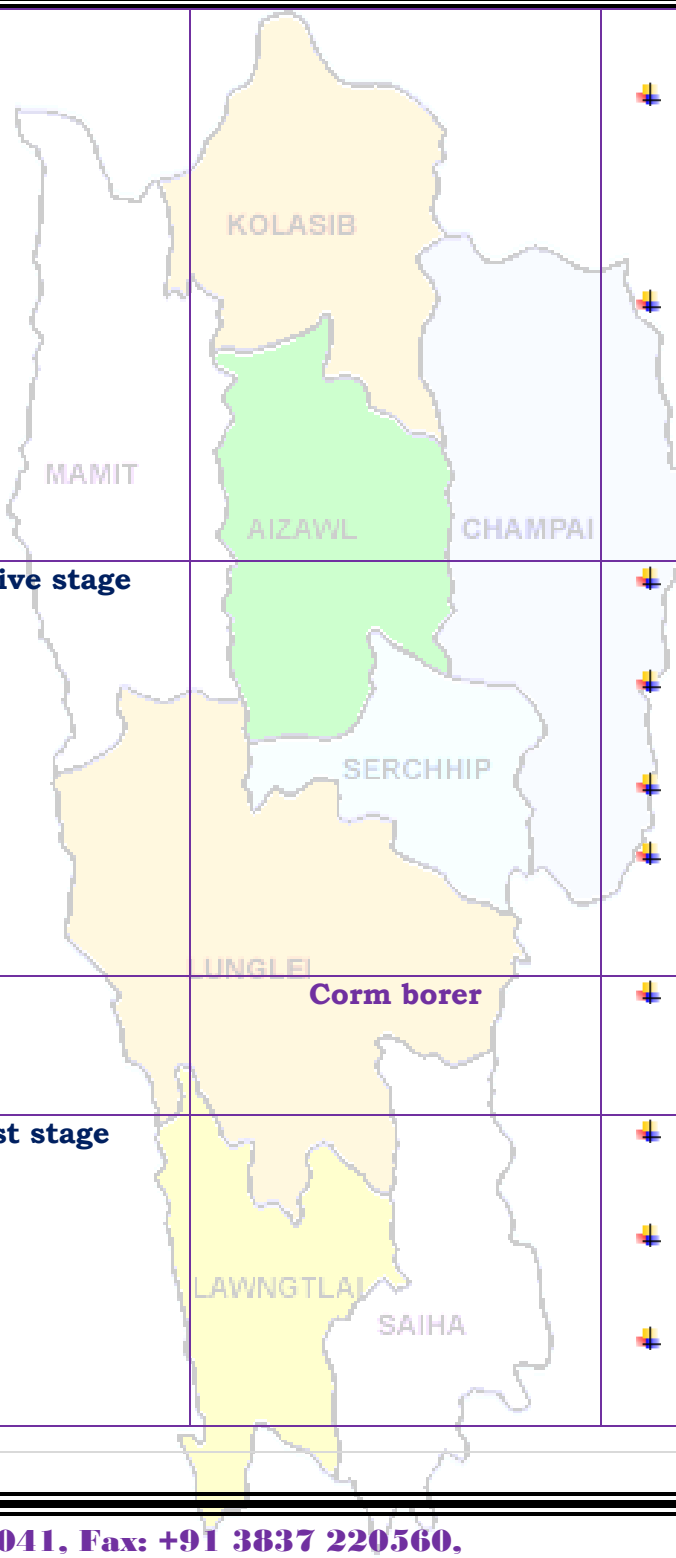
			more of the peel or shell has turned from green to yellow. When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
Colocasia	**Vegetative stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Okra	**Harvest stage**		It takes only about 10 days from the time of flowering to the time to pick okra. Picking okra should be done when they are four to five inches long. Don't leave the fruit too long, they get hard and woody.



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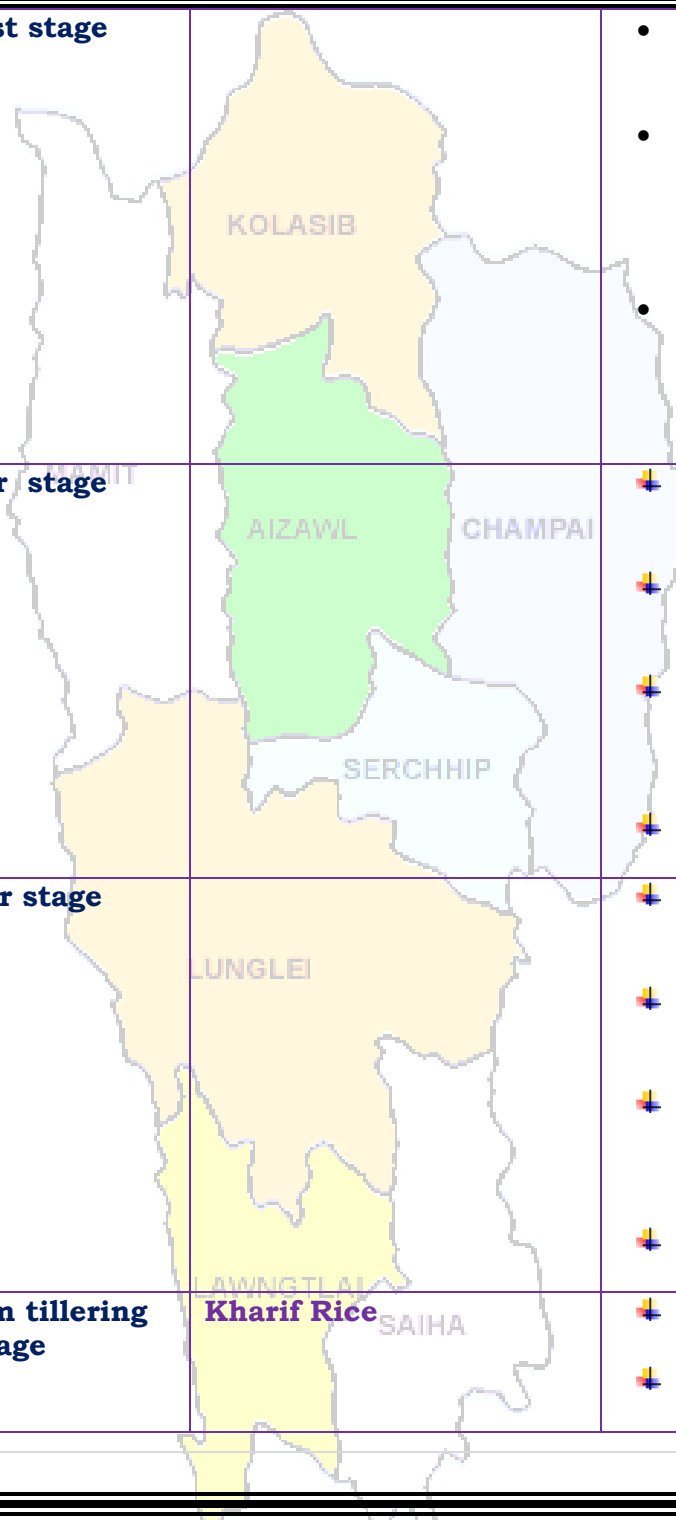
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth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



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		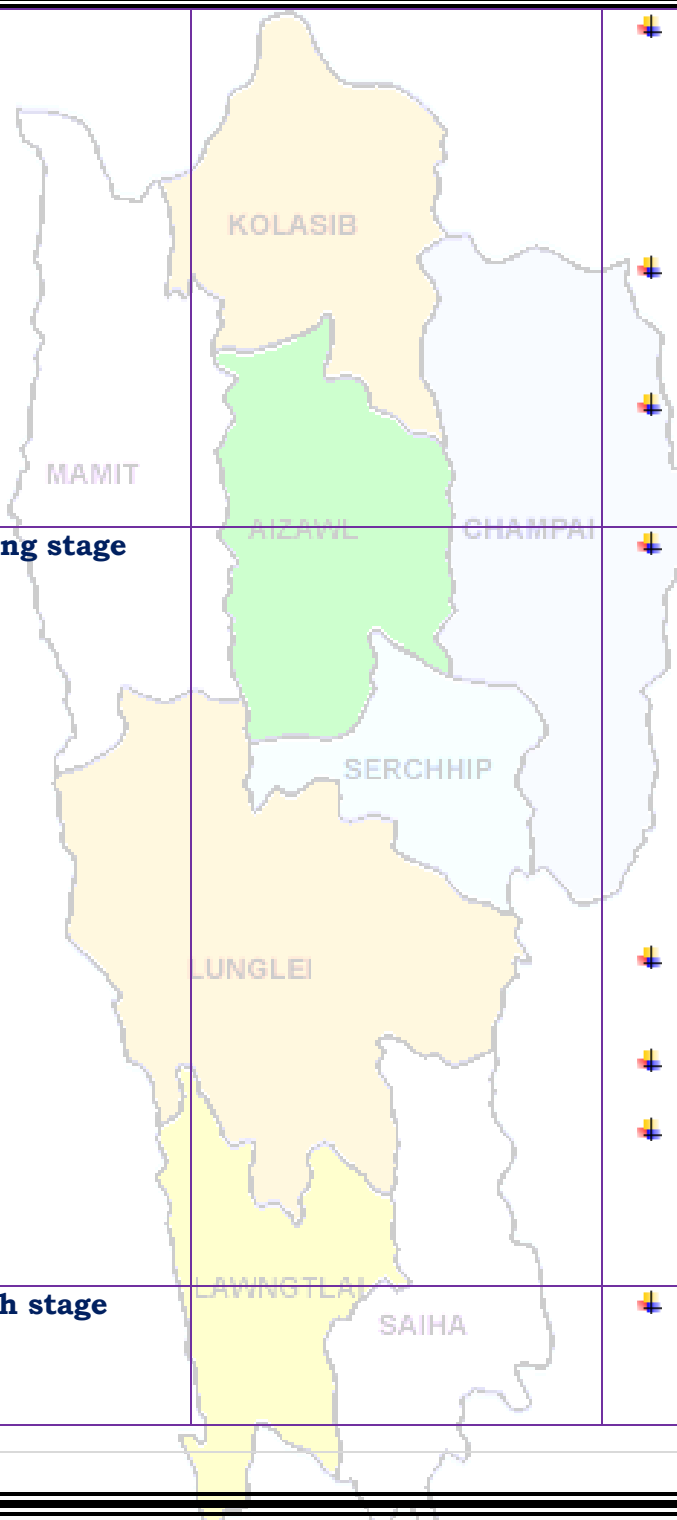	▪ Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice ▪ Conserve rain water in ponds/tanks/field for irrigation during critical growth stages ▪ Foliar application of nutrients (Urea 2 %) may be done where 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. ▪ Remove unwanted plant near base of the plant and cut dead branches. ▪ Earting up of soil along with fertilizer mixture. ▪ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram,	**Growth stage**		▪ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed

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Black gram and Rajma)			infestation. • 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. • 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. • Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. • Earting up of soil along with fertilizer mixture.
		Thrips	• Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	• Spray Quinalphos or Monocrotophos (2.5 ml/lt) for controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease**	• FMD vaccine at 16 week and

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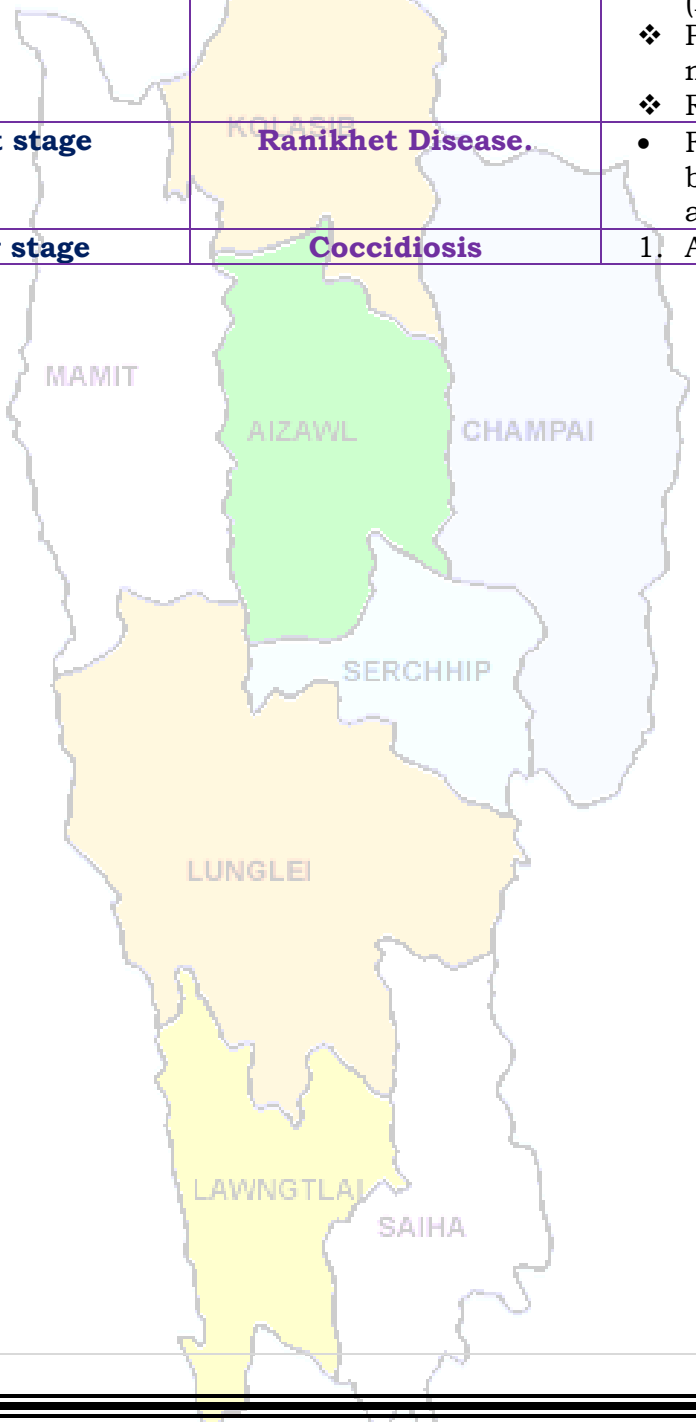
		(FMD)	repeat every 6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**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



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GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Champhai **Period: 12- 16 August, 2015**

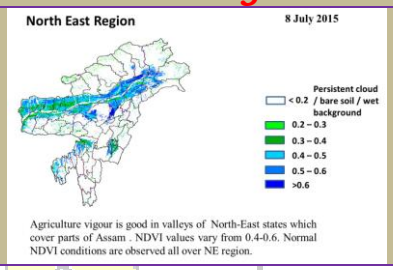
Bulletin No: -543/2015/ Bulletin/English **Date of issue: 11th August, 2015**

Parameters	12.08.2015	13.08.2015	14.08.2015	15.08.2015	16.08.2015
Rainfall (mm)	17	16	14	5	4
Max Temp (oC)	30	29	29	29	29
Min Temp (oC)	21	21	21	20	21
Cloud Coverage	Mainly cloudy	Mainly cloudy	Partially clear	Mainly cloudy	Partially clear
Max RH (%)	99	98	97	97	98
Min RH (%)	66	75	66	68	70
Wind Speed (KmpH)	0	2	2	2	2
*Wind Direction	S-E	S-E	S-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 MONSOON- July 1-31, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 412.50mm (341.8mm)	Champhai- 105.47mm (250.30mm)	Saiha- 307.78 mm (87.2mm)	Kolasib- 331.10mm (380.9mm)
Lawngtlai-291.28mm (285.5mm)	Lunglei-326.52mm (186.21mm)	Mamit-204.84mm (442.80mm)	Serchhip-189.57mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 12th August, 2015 To 16th August, 2015.
	There are chances of moderate to light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 29-30^{0}C and 20-21^{0}C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 66-75%. Wind direction would be easterly to southwesterly with the wind speed of 0-2 km per hour. Dense cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **56.0 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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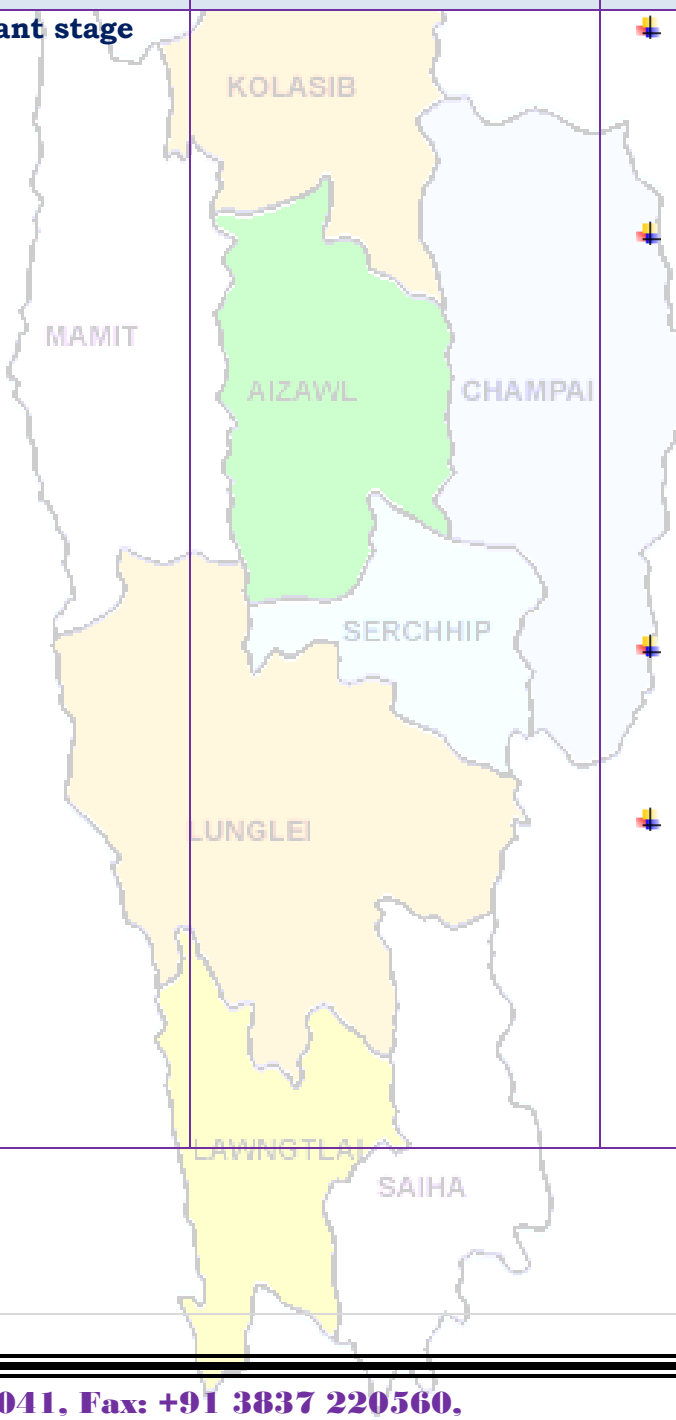
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		▪ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ▪ This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. ▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops ▪ Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.

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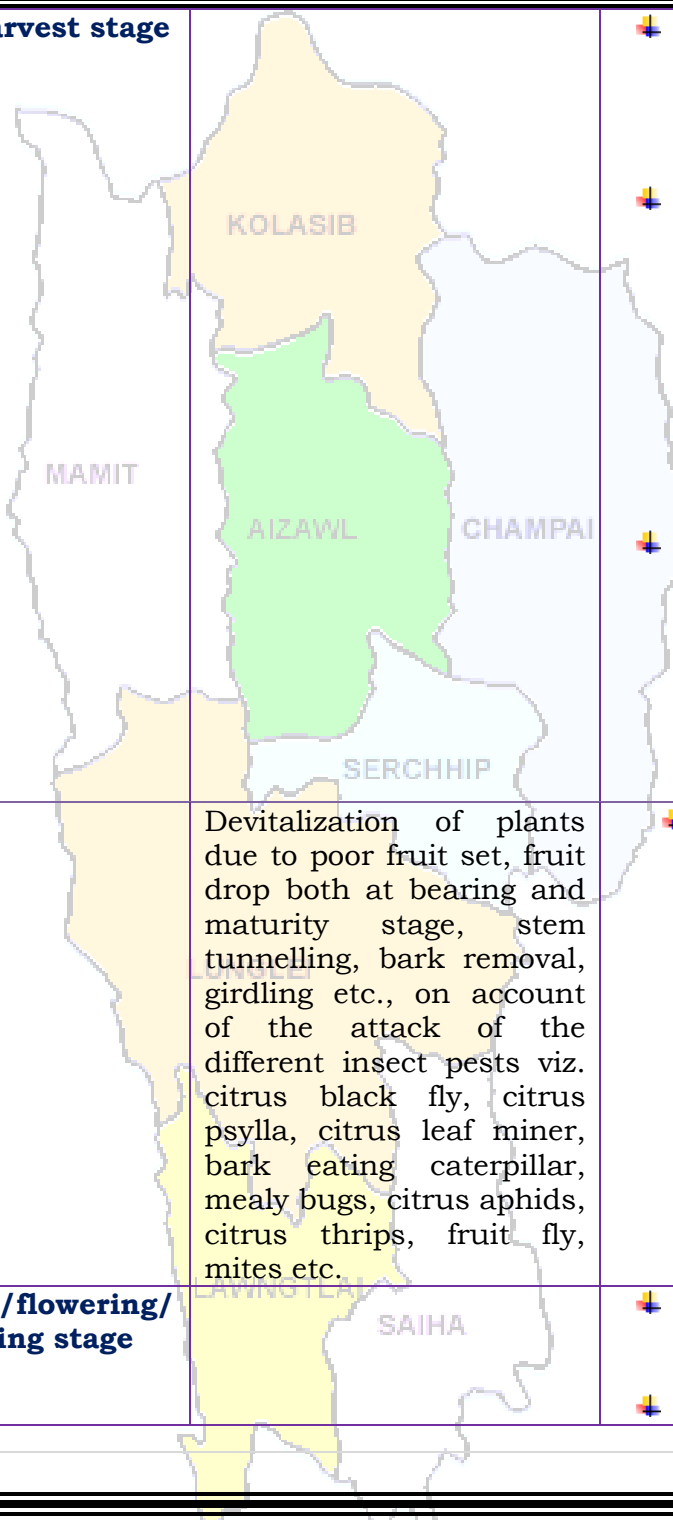
Khasi Mandarin and acid lime	**Flower/Harvest stage**		▪ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ▪ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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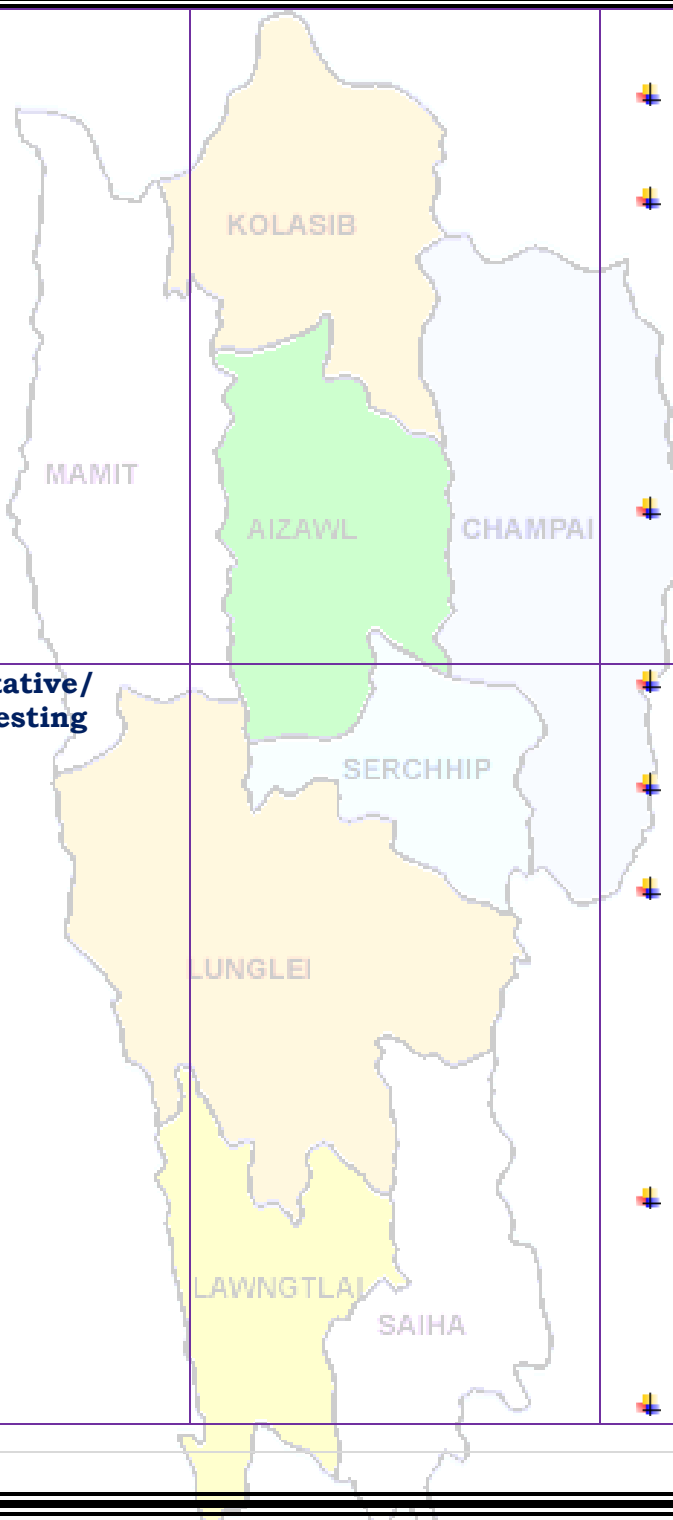	plant and cut unwanted branches. • Application of split dose of fertilizer 600: 200:100 (g/pt). • Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the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

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			they attain full size, develop attractive yellow colour.
		Comb weevil and stem weevil	✦ Applications of neem powder effectively controlled weevils. ✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields. ✦ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		✦ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ✦ A cutting should contain at least 3 buds and must be planted in sand beds. ✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ✦ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		✦ For optimum quality and

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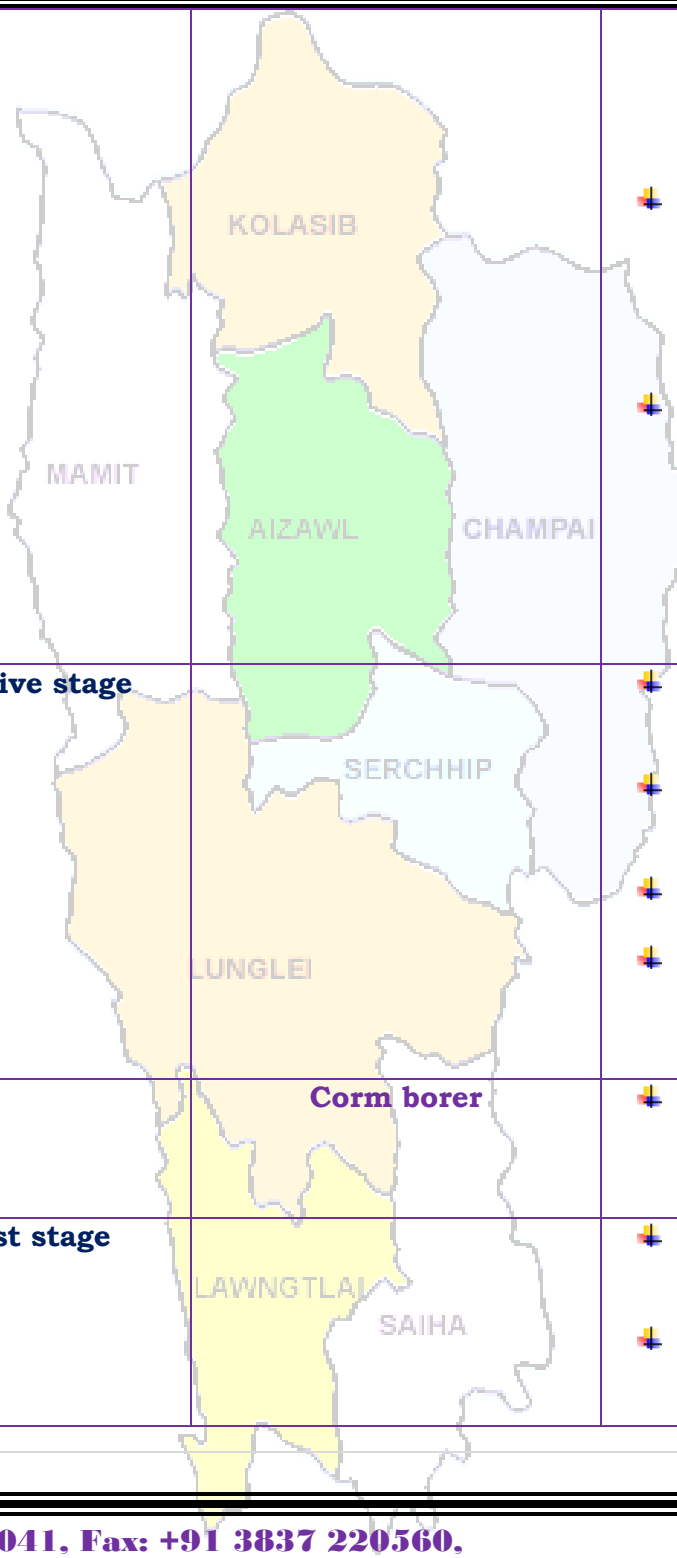
			sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow. When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
Colocasia	**Vegetative stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Okra	**Harvest stage**		It takes only about 10 days from the time of flowering to the time to pick okra. Picking okra should be done when they are four to five inches long.



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

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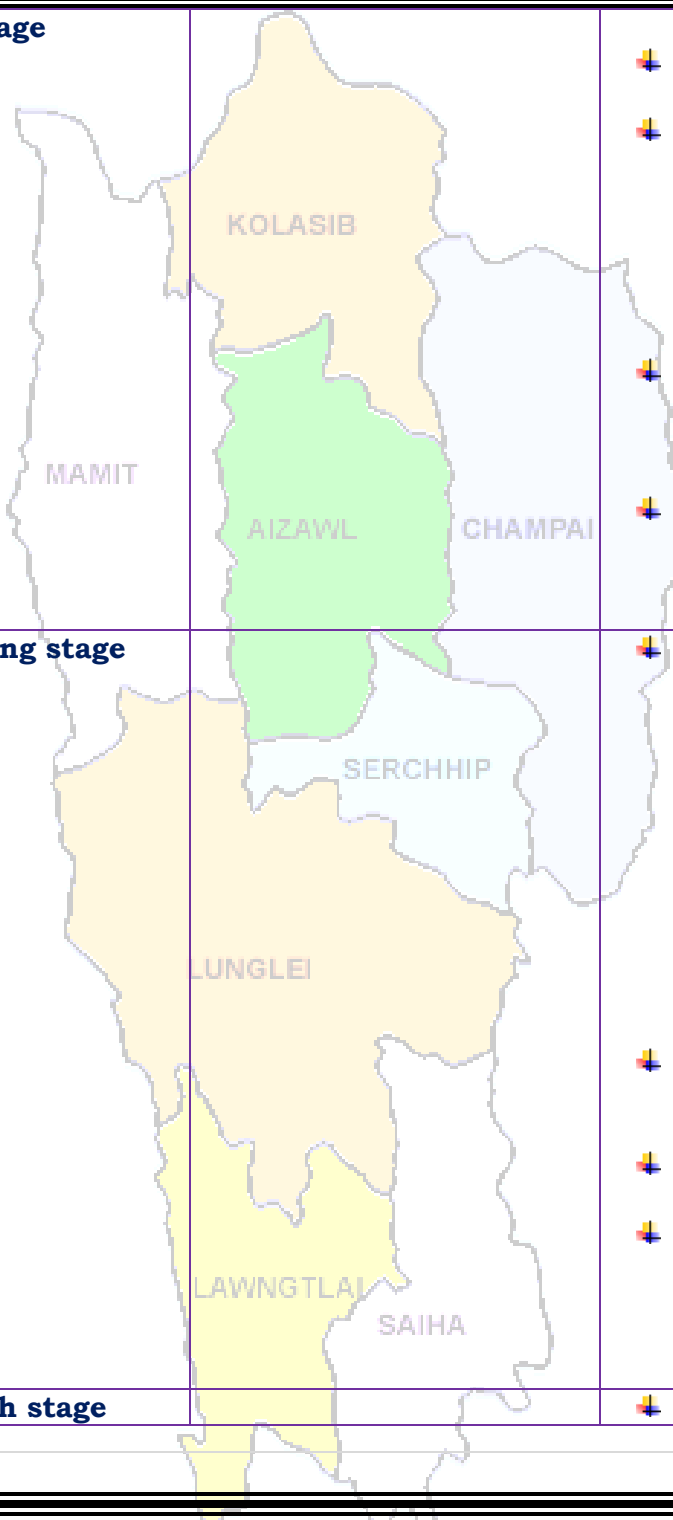
	stage		rains have been received If sowing is delayed, plant short duration varieties Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice Conserve rain water in ponds/tanks/field for irrigation during critical growth stages 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. Remove unwanted plant near base of the plant and cut dead branches. Earting up of soil along with fertilizer mixture. Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif	**Growth stage**		One or two hand hoeing and

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pulses (Green gram, Black gram and Rajma)			weeding should be done, depending upon soil type and extent of weed infestation. 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. 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. Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. Earting up of soil along with fertilizer mixture.
		Thrips	Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	Spray Quinalphos or Monocrotophos (2.5 ml/lt) for controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and

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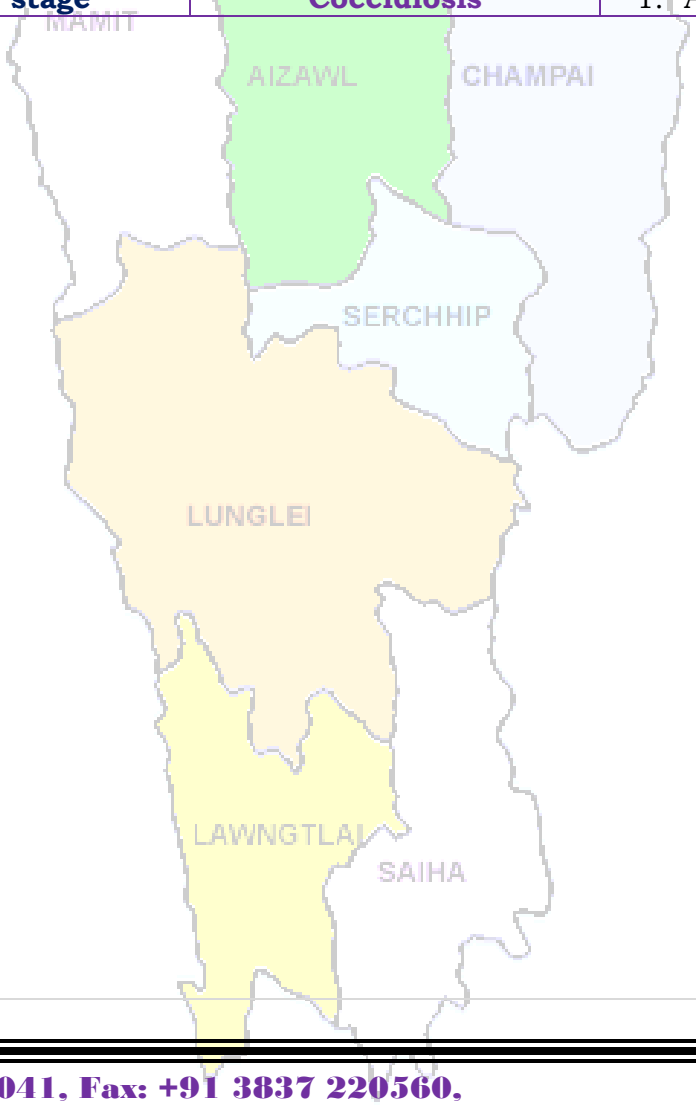
			yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet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



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ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Kolasib **Period: 12- 16 August, 2015**

Bulletin No: -543/2015/ Bulletin/English **Date of issue: 11th August, 2015**

Parameters	12.08.2015	13.08.2015	14.08.2015	15.08.2015	16.08.2015
Rainfall (mm)	11	6	5	5	8
Max Temp (oC)	32	32	31	30	30
Min Temp (oC)	23	22	23	22	22
Cloud Coverage	Mainly cloudy	Mainly cloudy	Mainly cloudy	Mainly cloudy	Partially clear
Max RH (%)	99	99	99	97	97
Min RH (%)	63	62	71	75	68
Wind Speed (KmpH)	2	2	2	2	4
***Wind Direction**	E	S-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 MONSOON- July 1-31, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 412.50mm (341.8mm)	**Champhai- 105.47mm (250.30mm)**	**Saiha- 307.78 mm (87.2mm)**	**Kolasib- 331.10mm (380.9mm)**
Lawngtlai-291.28mm (285.5mm)	**Lunglei-326.52mm (186.21mm)**	**Mamit-204.84mm (442.80mm)**	**Serchhip-189.57mm (25.9mm)**

Weather summary of the past three days

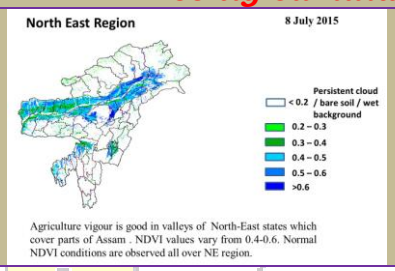
The temperature range for maximum and minimum were 30.8-32.6^{0}C and 17.2-22.5^{0}C respectively. Dense cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 88-98% & minimum of 49-57%. Rainfall recorded for the past three days is **112.50mm.**

Weather forecast valid from 12th August, 2015 To 16th August, 2015.

There are chances of moderate to light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 30-32^{0}C and 22-23^{0}C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 62-75%. Wind direction would be easterly to southeasterly with the wind speed of 2-4 km per hour. Dense cloudy sky will prevail during the next five days.

Weekly cumulative rainfall: **36.0 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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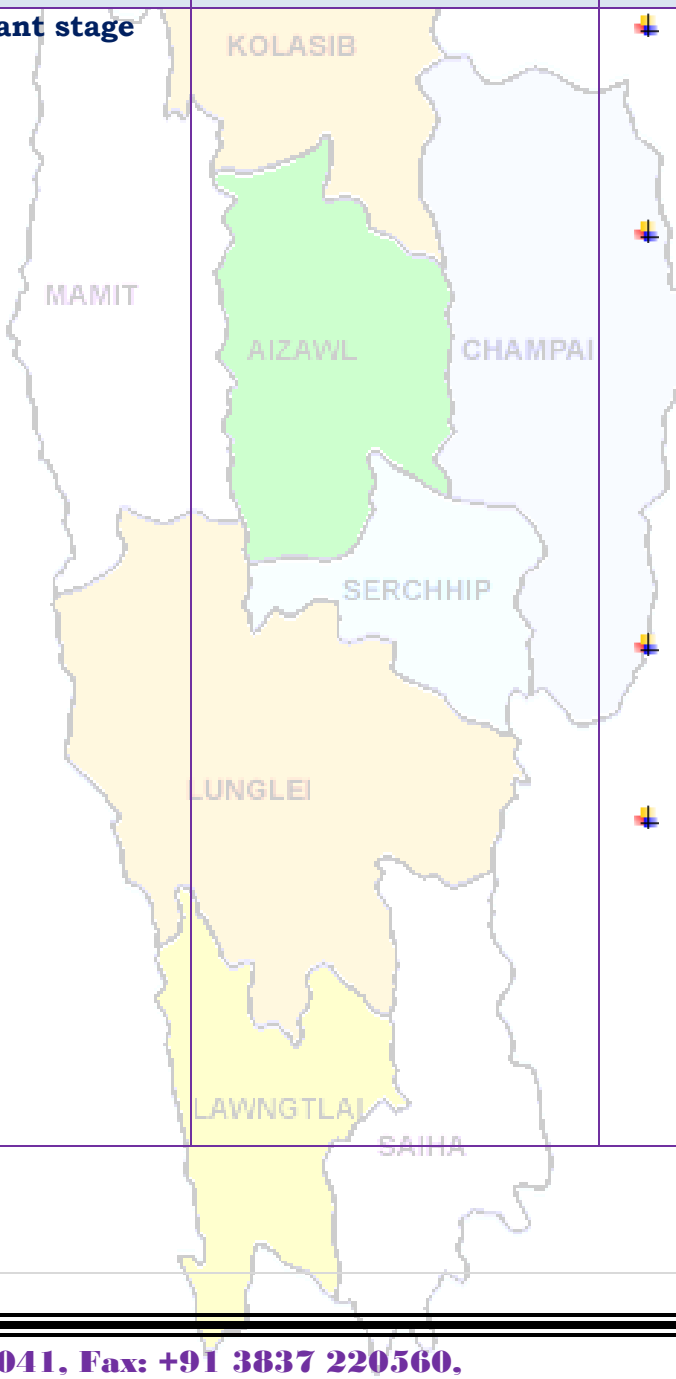
SPI for Mizoram		Moderate rain will occur in Mizoram	
Main Crop/ Animal /Fisheries	**Stage**	**Cultural practices/ Pest/ Diseases**	**Agricultural / Horticultural/ animal husbandry advisories**
Khasi Mandarin and acid lime	**Transplant stage**		✚ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ✚ This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. ✚ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops ✚ Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.

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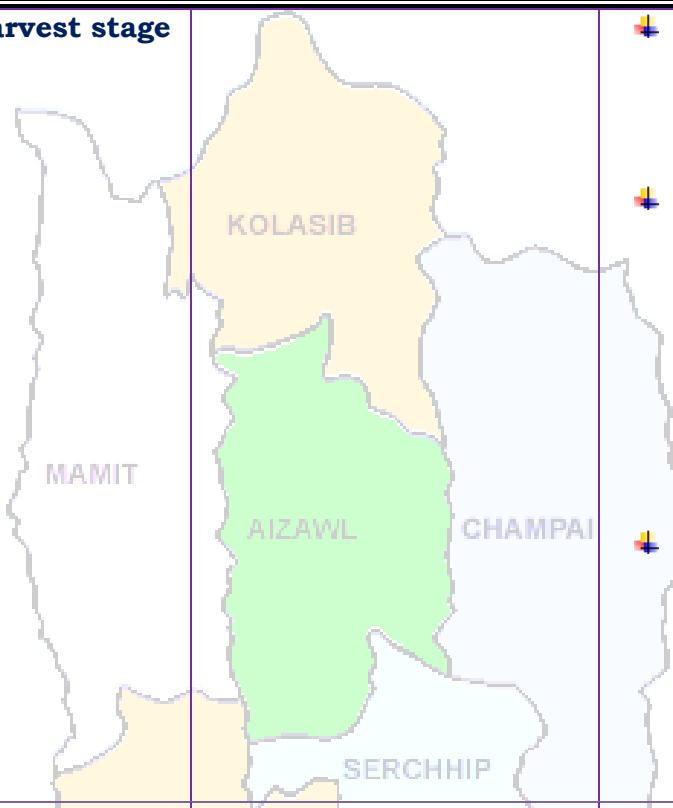
Khasi Mandarin and acid lime	**Flower/Harvest stage**		↓ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ↓ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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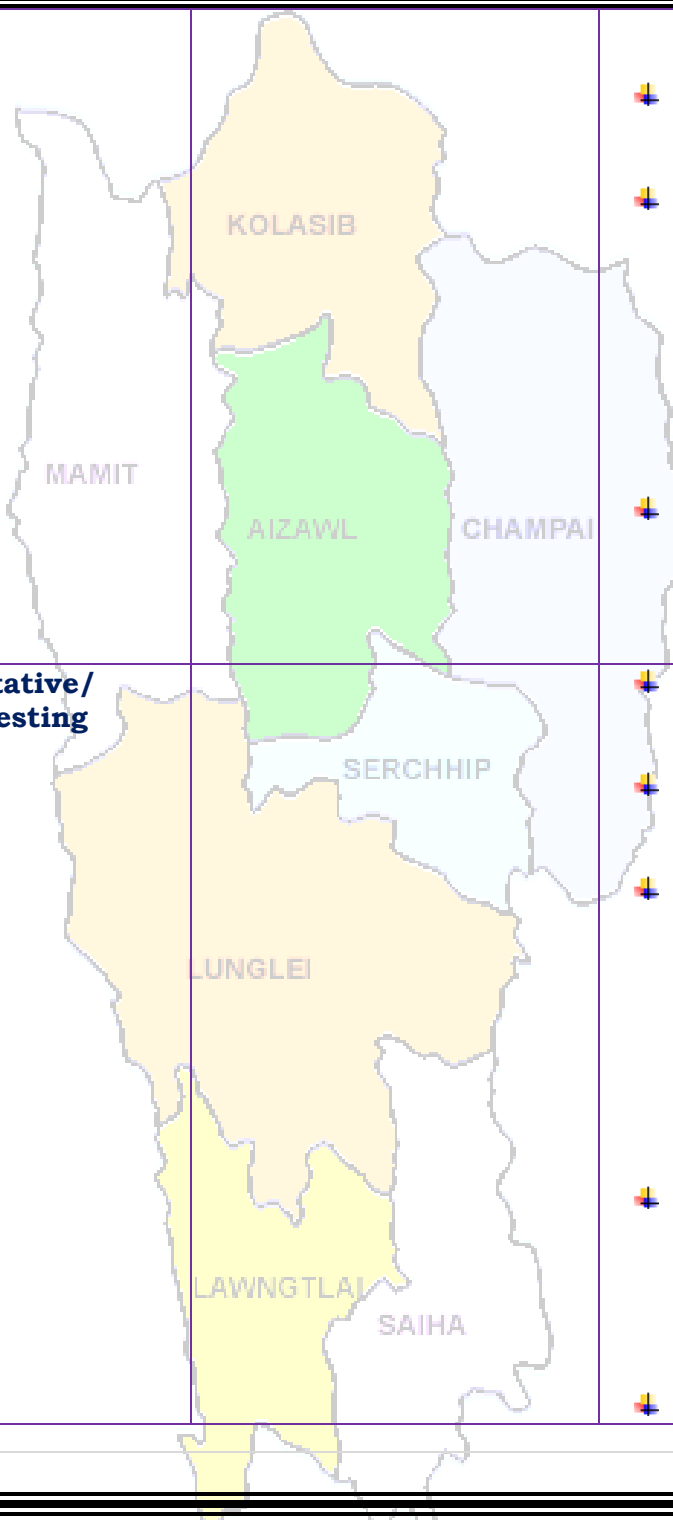	plant and cut unwanted branches. • Application of split dose of fertilizer 600: 200:100 (g/pt). • Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the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

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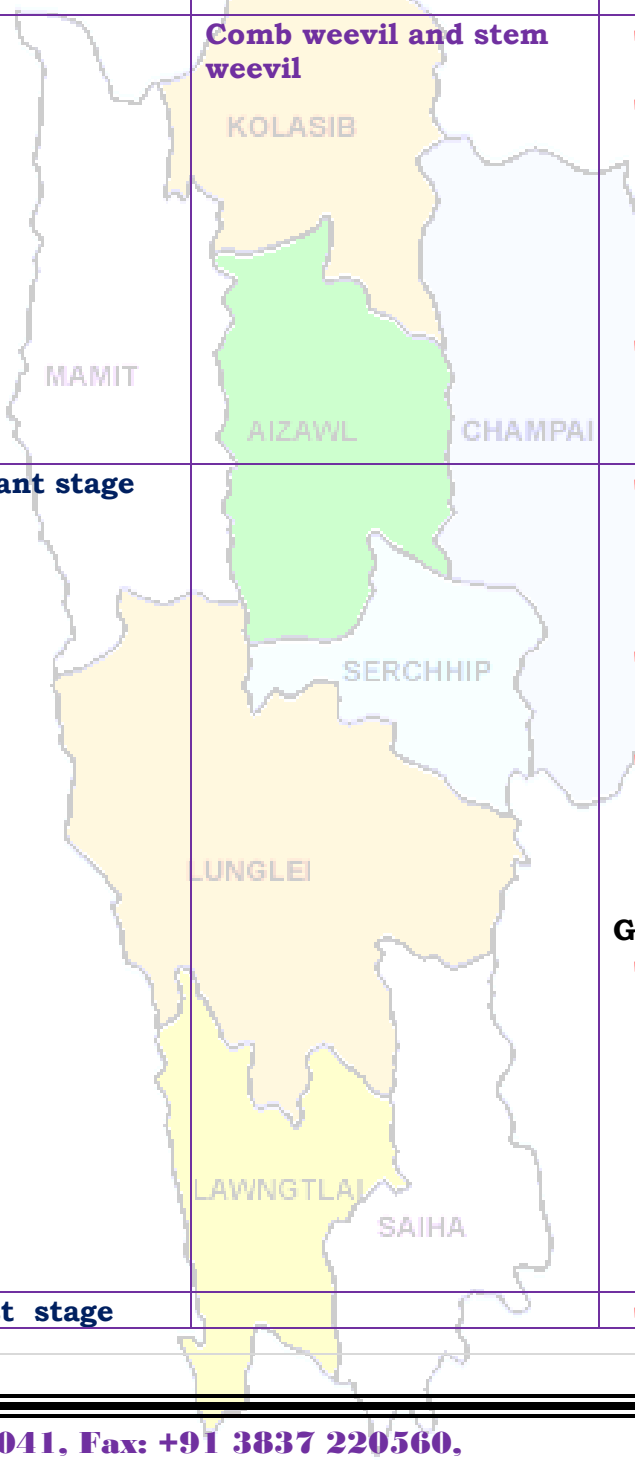
			they attain full size, develop attractive yellow colour.
		Comb weevil and stem weevil	✦ Applications of neem powder effectively controlled weevils. ✦ Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields. ✦ Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		✦ High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. ✦ A cutting should contain at least 3 buds and must be planted in sand beds. ✦ Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** ✦ This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		✦ For optimum quality and



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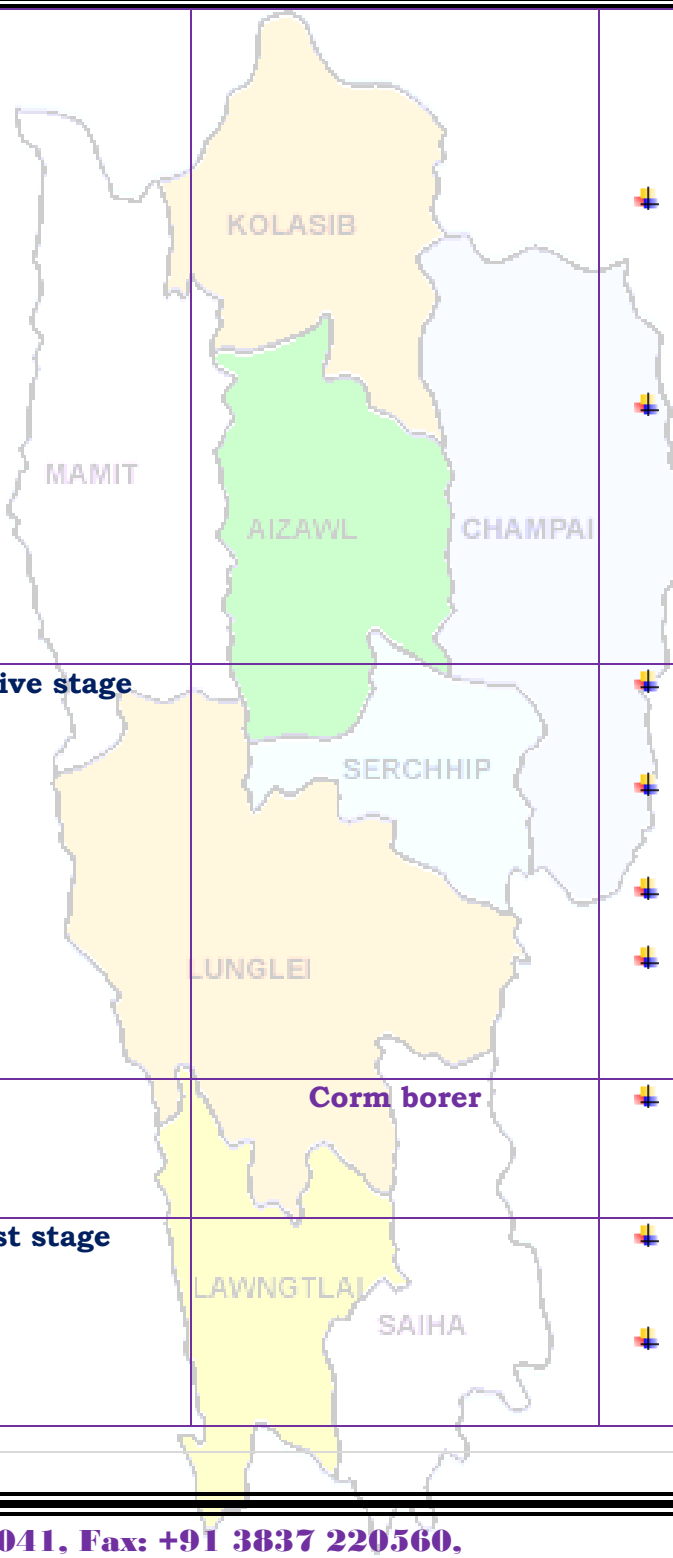
			sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow. When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
Colocasia	**Vegetative stage**		Remove unwanted plant near base of the plant and cut dead branches. Earthing up soil at base of the plant along with split doses of fertilizer. Proper drainage is required to avoid water logging. Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.
Okra	**Harvest stage**		It takes only about 10 days from the time of flowering to the time to pick okra. Picking okra should be done when they are four to five inches long.



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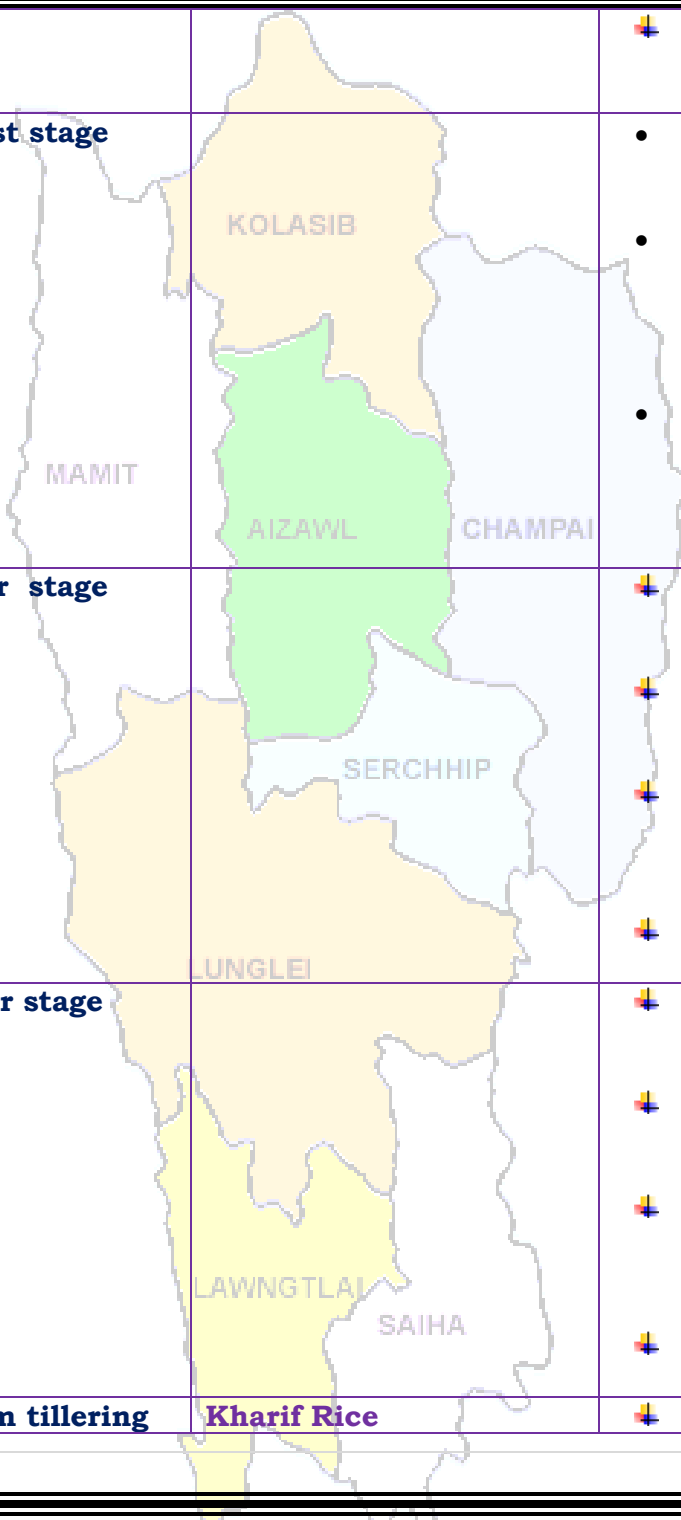
			✦ Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties,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



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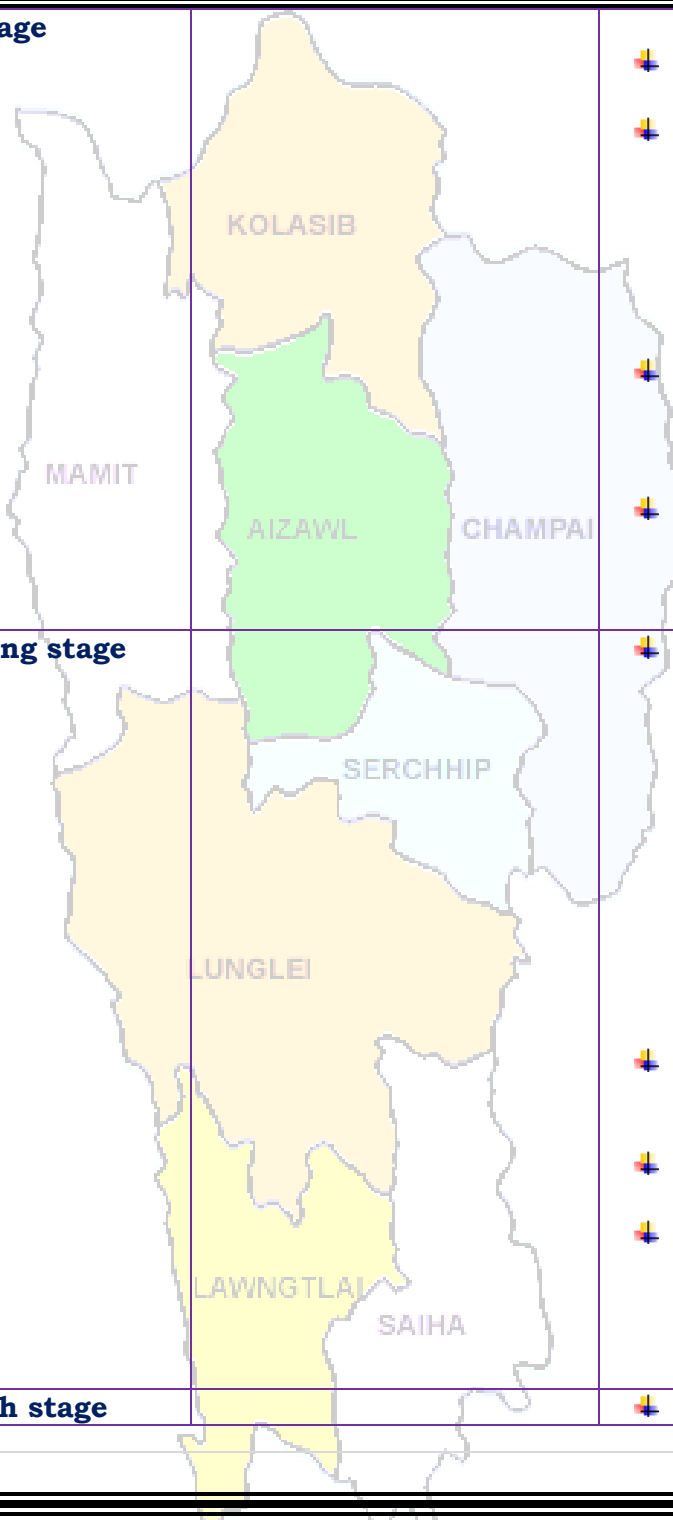
	stage		rains have been received + If sowing is delayed, plant short duration varieties + Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice + Conserve rain water in ponds/tanks/field for irrigation during critical growth stages + 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. + Remove unwanted plant near base of the plant and cut dead branches. + Earting up of soil along with fertilizer mixture. + Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif	**Growth stage**		+ One or two hand hoeing and

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pulses (Green gram, Black gram and Rajma)			weeding should be done, depending upon soil type and extent of weed infestation. 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. 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. Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. Earting up of soil along with fertilizer mixture.
		Thrips	Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	Spray Quinalphos or Monocrotophos (2.5 ml/lt) for controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and

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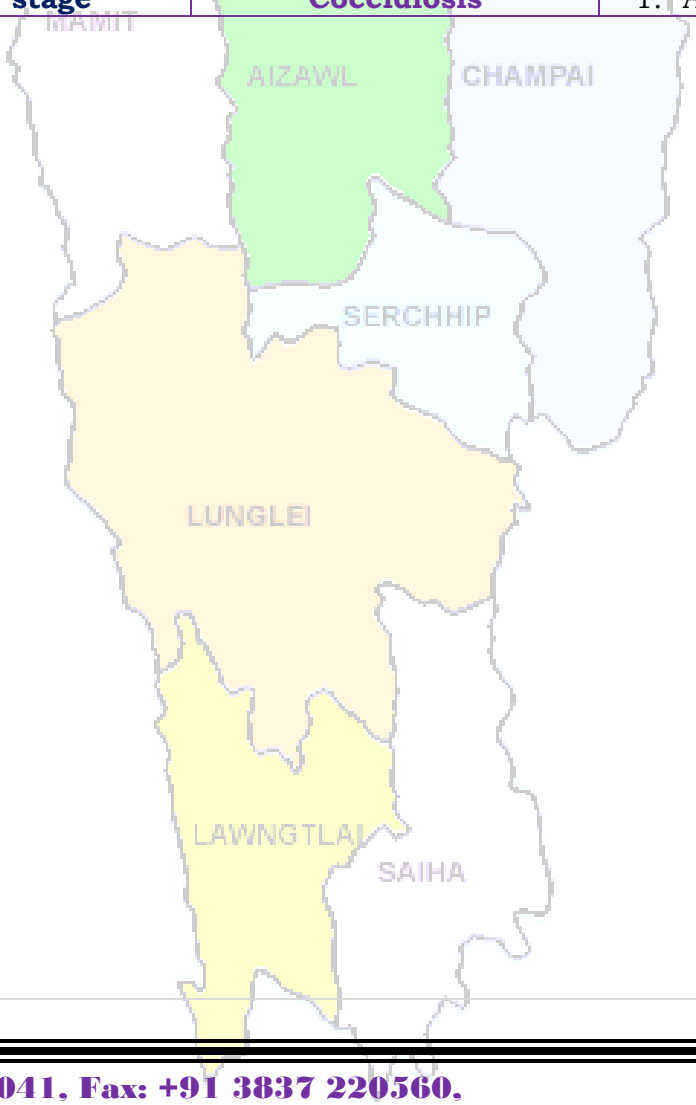
			yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet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



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GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Lawngtlai **Period:** 12- 16 August, 2015

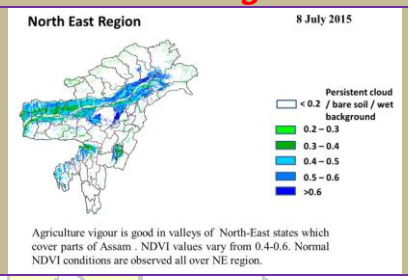
Bulletin No: -543/2015/ Bulletin/English **Date of issue:** 11th August, 2015

Parameters	12.08.2015	13.08.2015	14.08.2015	15.08.2015	16.08.2015
Rainfall (mm)	9	8	3	4	0
Max Temp (oC)	32	31	32	31	30
Min Temp (oC)	22	22	22	21	21
Cloud Coverage	Mainly cloudy	Mainly cloudy	Partially clear	Mainly cloudy	Partially clear
Max RH (%)	97	97	96	96	95
Min RH (%)	63	65	58	64	67
Wind Speed (KmpH)	3	4	4	4	4
***Wind Direction**	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 MONSOON- July 1-31, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 412.50mm (341.8mm)	Champhai- 105.47mm (250.30mm)	Saiha- 307.78 mm (87.2mm)	Kolasib- 331.10mm (380.9mm)
Lawngtlai-291.28mm (285.5mm)	Lunglei-326.52mm (186.21mm)	Mamit-204.84mm (442.80mm)	Serchhip-189.57mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 12th August, 2015 To 16th August, 2015.
	There is no chance of light rainfall during the next 4 day. The maximum and minimum temperatures for the next 5 days may range for 30-32^{0}C and 21-22^{0}C. Maximum relative humidity is expected in the range of 95-97% and minimum may from 58-67%. Wind direction would be easterly to southeasterly with the wind speed of 3-4 km per hour. Dense cloudy sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **24.0 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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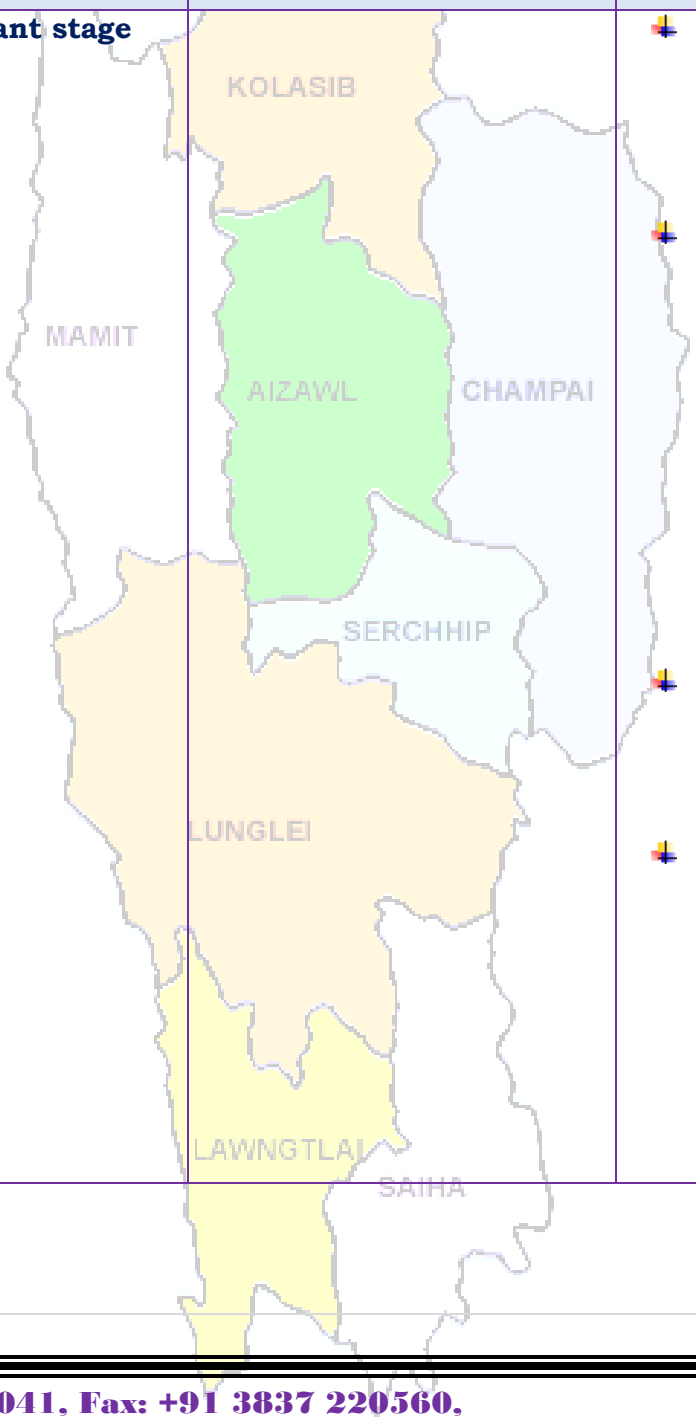
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Transplant stage**		▪ Well rotten FYM @ 500g/pit is applied at 15-20 days before planting along with 12 g each of N and K2O/plant and 4 g of P2O5/plant. ▪ This root stock has proved very successful for raising some sweet orange and mandarin orange varieties in Maharashtra and Karnataka. This root stock is resistant to Tristeza virus but highly susceptible to exocortis. It is also recommended for this region till any other rootstock is found to be promising. ▪ Citrus plantations are seldom put under planned cultivation, and plantations are always kept under sod or raised as mixed crops ▪ Layered plants about one year old, are also selected in case of lemon, lime etc. Vigorous plants are always preferred for better growth. While placing the plants in the pits care should be taken that bud union remains 12-15 cm above the ground level.

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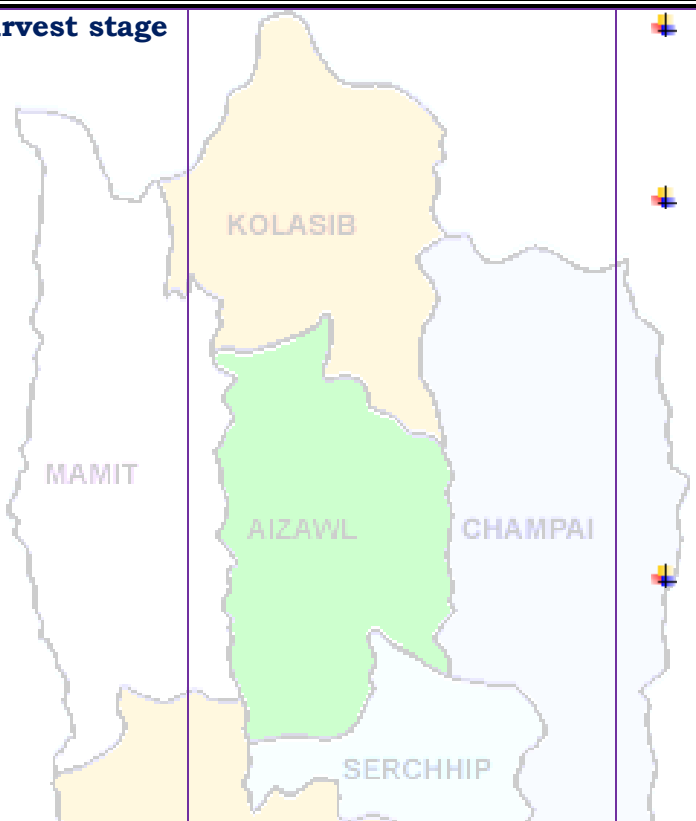
Khasi Mandarin and acid lime	**Flower/Harvest stage**		▪ Mandarins start bearing from the fourth year but substantial yield can be expected only from sixth year onwards. ▪ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend. Fruits should be harvested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

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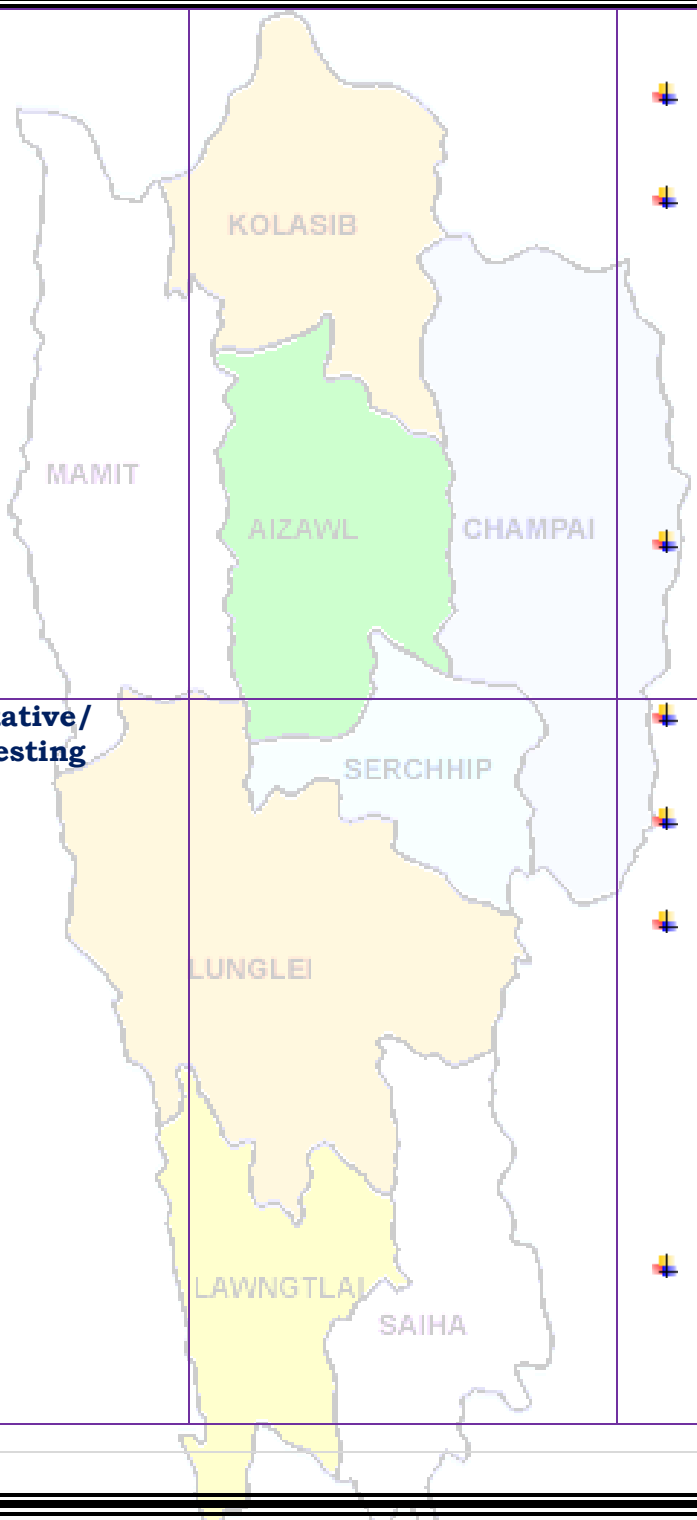	plant and cut unwanted branches. - Application of split dose of fertilizer 600: 200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the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

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			pest and disease. Fruits are harvested when they attain full size, develop attractive yellow colour.
		Comb weevil and stem weevil	Applications of neem powder effectively controlled weevils. Application of 60 to 100 g of neem seed powder or neem cake at planting and then at 4 months intervals significantly diminished pest damage and increased yields. Application of over 100 g or neem oil was phytotoxic (harmful to plants) and uneconomical.
Passion Fruit	**Transplant stage**		High yielding mother vine with good quality fruits and free of virus diseases should be selected to provide cuttings. A cutting should contain at least 3 buds and must be planted in sand beds. Immediately after planting these should be kept inside a high humid chamber made out of bamboo and polythene. **Grafting:** This is more suitable for the Rahangala hybrid to safeguard it against collar-rot. The root stock of yellow Passion fruit is planted in polythene sleeves and the section from Rahangala

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			hybrid is grafted using wedge or approach method of grafting.
Pineapple	**harvest stage**		✦ For optimum quality and sweetness, pineapple fruit should not be harvested until at least one-third or more of the peel or shell has turned from green to yellow. ✦ When the fruit has reached full size and maturity but has not turned yellow, and then allow the harvested fruit to ripen off the plant at room temperature. ✦ Ripeness can also be determined by snapping your finger against the side of the fruit. Ripened pineapples produce a dull, solid sound when you do this, but immature fruit produce a hollow thud.
Colocasia	**Vegetative stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Earthing up soil at base of the plant along with split doses of fertilizer. ✦ Proper drainage is required to avoid water logging. ✦ Mulching with black polythene is found beneficial for both reducing the weed and increasing the yield.
		Corm borer	✦ Carbofuran 3G @1.5 kg a.i./ha applied in root zone when egg laying ooze is observed at plant base.

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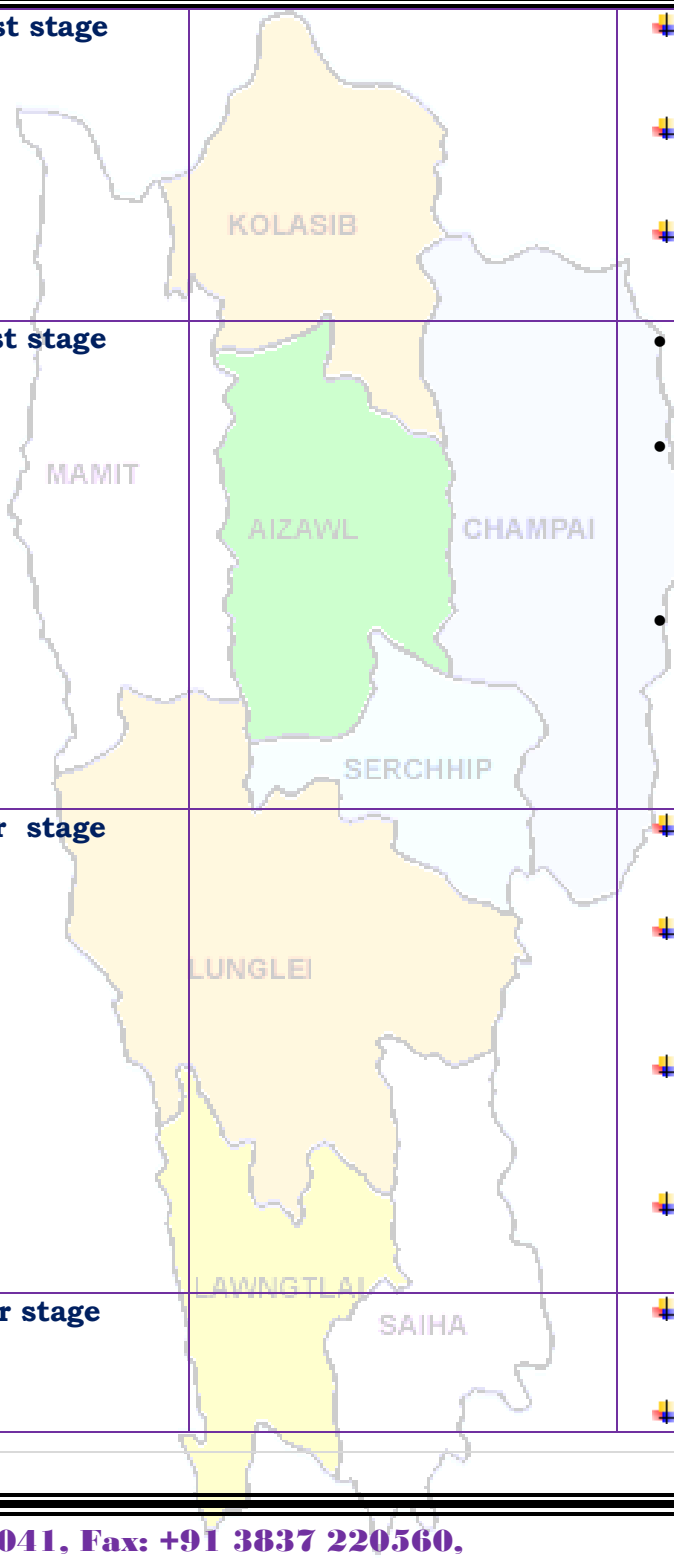
Okra	**Harvest stage**		✦ It takes only about 10 days from the time of flowering to the time to pick okra. ✦ Picking okra should be done when they are four to five inches long. ✦ Don't leave the fruit too long, they get hard and woody.
French bean	**harvest stage**		• In pole type varieties, mature pods should be harvested twice. • First harvest should be done when two third pods look dry and second harvest when 90% pod remaining pods look dry. • In case bush type varieties, harvest can be done one because of their determinate growth and synchronization in pod maturity.
Brinjal	**Flower stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre emergence application of Basalin @0.5 ml/lit of water for reduce grass type weed. ✦ Mulching with black polythene film reduces weed growth, increases the crop growth. ✦ Split dose of fertilizer application @ 50kg/ha urea.
Tomato	**Flower stage**		✦ Remove unwanted plant near base of the plant and cut dead branches. ✦ Pre emergence application

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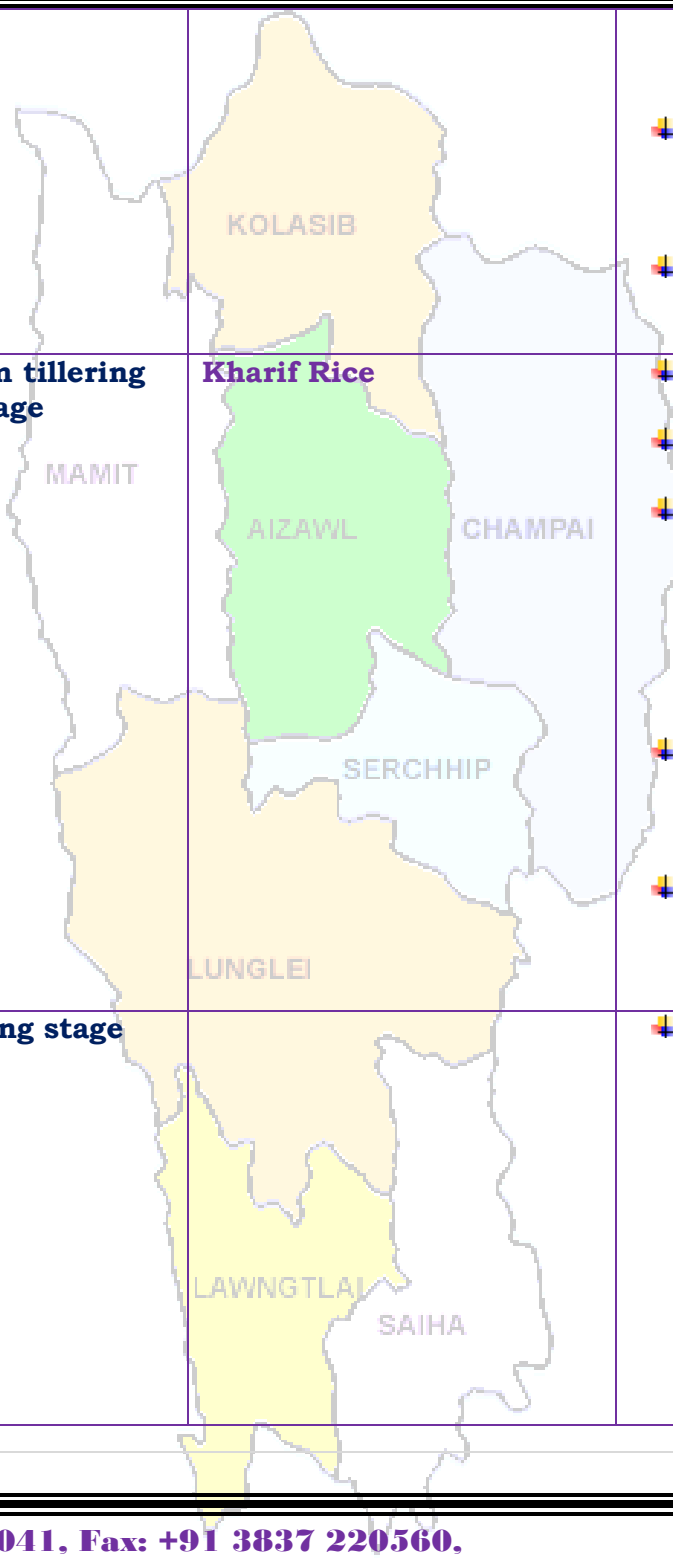
			of Basalin @0.5 ml/lit of water for reduce grass type weed. Mulching with black polythene film reduces weed growth, increases the crop growth. Split dose of fertilizer application @ 50kg/ha urea.
Rice	**Maximum tillering stage**	**Kharif Rice**	Avoid sowing till sufficient rains have been received If sowing is delayed, plant short duration varieties Practice thinning of crop stand, reduce plant population and use the biomass as mulch, intercultural Operation to control weeds in case of upland rice Conserve rain water in ponds/tanks/field for irrigation during critical growth stages 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.



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		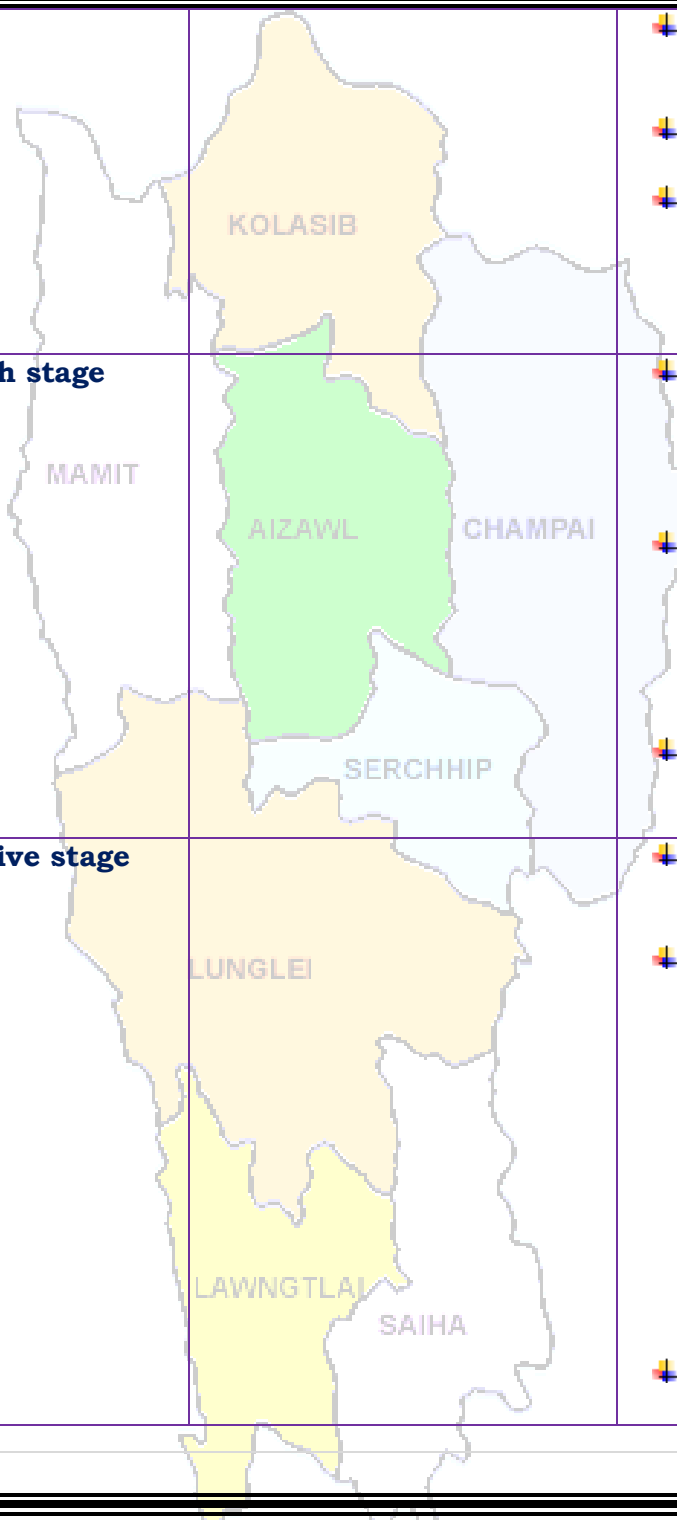	▪ Remove unwanted plant near base of the plant and cut dead branches. ▪ Earting up of soil along with fertilizer mixture. ▪ Foliar spray of 0.1 % Endosulfan {2 ml (35 EC) in litre water} at 30 days after germination is very effective against stem borer.
Kharif pulses (Green gram, Black gram and Rajma)	**Growth stage**		▪ One or two hand hoeing and weeding should be done, depending upon soil type and extent of weed infestation. ▪ 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. ▪ 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. ▪ Pre-emergence application of Atrazine (Atratraf 50 wp, Gesaprim 500 fw) @ of 1.0-1.5 kg a.i ha-1in 600 litre water, Alachlor (Lasso) @ 2-2.5 kg a.i ha-1, Metolachlor (Dual) @ 1.5-2.0 kg a.i ha-1, Pendamethalin (Stomp) @ 1-1.5 kg a.i. ha-1arge effective way for control of many annual and broad leaved weeds. ▪ Earting up of soil along with fertilizer mixture.

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		Thrips	✚ Spray Roger or Monocrotophos (2.5 ml/lt) for controlling thrips.
		Scales	✚ Spray Quinalphos or Monocrotophos (2.5 ml/lt) for controlling scales.
Pig	**All stages**	**Porcine Reproductive Respiratory Syndrome (PRRS).**	1. Culling of positive pigs or piglets.
	Adult stage	**Swine fever.**	2. Vaccination of pigs with SF vaccines at 2 months and yearly interval/6 month interval
Cattle	**All age group**	**Foot and Mouth Disease (FMD)**	• FMD vaccine at 16 week and repeat every 6 month.
	Young stage	**Black Quarter (BQ)**	• Black Quarter Vaccine (BQV). ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	**Adult stage**	**Ranikhet Disease.**	• F1 vaccine at (1-6) days of birth and R_2B vaccine for adult birds.
	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat

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