GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Kolasib **Period: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	3	0	3	5	0
Max Temp (oC)	34	34	35	34	34
Min Temp (oC)	20	20	19	20	21
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Mainly clear
Max RH (%)	89	90	92	93	96
Min RH (%)	38	50	36	37	38
Wind Speed (KmpH)	4	4	3	4	3
*Wind Direction	S-E	S-E	S-E	S-E	S-E

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

STATUS OF PREMONSOON- April 1-30, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 185.66mm (112.8mm) **Champhai- 119.48mm (68.9mm)** **Saiha- 109.52 mm (40.2mm)** **Kolasib- 213.61mm (158.9mm)**

Lawngtlai-101.62mm (18.5mm) **Lunglei-117.82mm (33.8mm)** **Mamit-236.61mm (75.6mm)** **Serchhip-110.96mm (25.9mm)**

Weather summary of the past three days

The temperature range for maximum and minimum were 30.4-32.6^{0}C and 20.4-23.6^{0}C respectively. Partially cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 80-91% & minimum of 46-63%. Rainfall recorded for the past three days is **05.20mm.**

Weather forecast valid from 06th May, 2015 To 10th May, 2015.

There are chances of light rainfall during the next 3 day. The maximum and minimum temperatures for the next 5 days may range for 34-35^{0}C and 19-21^{0}C. Maximum relative humidity is expected in the range of 89-96% and minimum may from 36-50%. Wind direction would be southeasterly with the wind speed of 3-4 km per hour. Partially cloudy will prevail during the next five days.

Weekly cumulative rainfall: **11.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Nursery stage**		✚ Nursery should be located at least 500 meters away from the orchards to minimize the incidence of insects and diseases. ✚ Potting mixture of soil, sand and FYM or compost should be in proper ratio. ✚ Application of split dose of fertilizer 600:

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		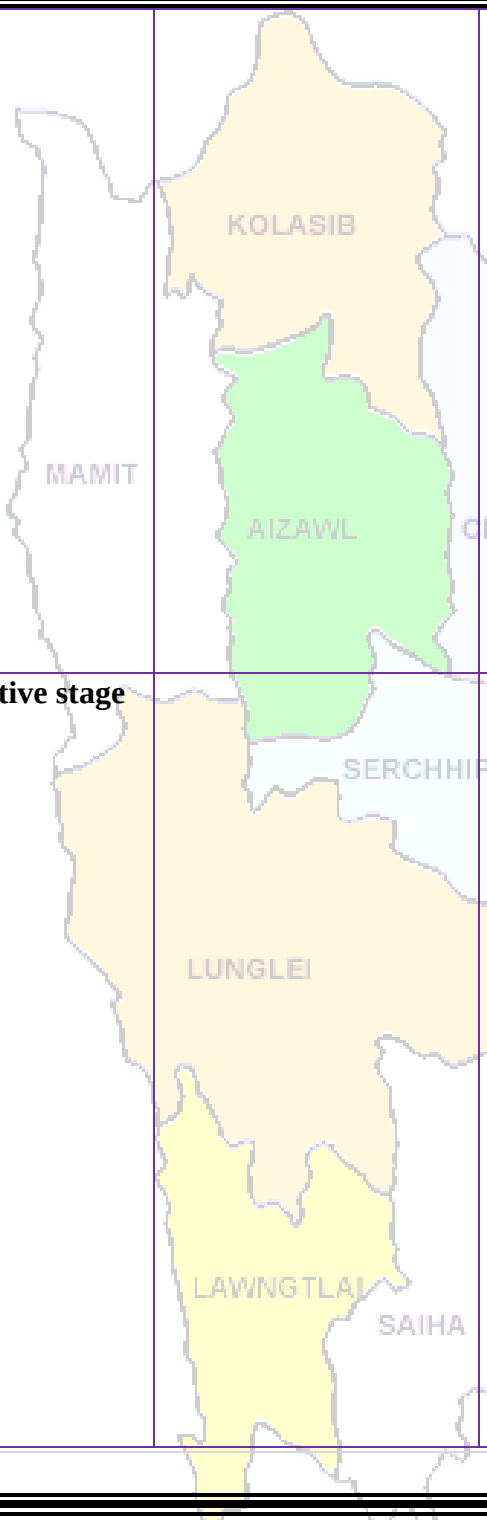	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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Oil plam	**Vegetative/ Harvesting stage**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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. ✚ Apply Bordeaux mixture to the plant after pruning. ✚ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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 suckers, keeps production mats in optimum condition, saves fertilizer, reduces pest and disease. ✚ Fruits are harvested when they attain full size, develop attractive yellow colour.

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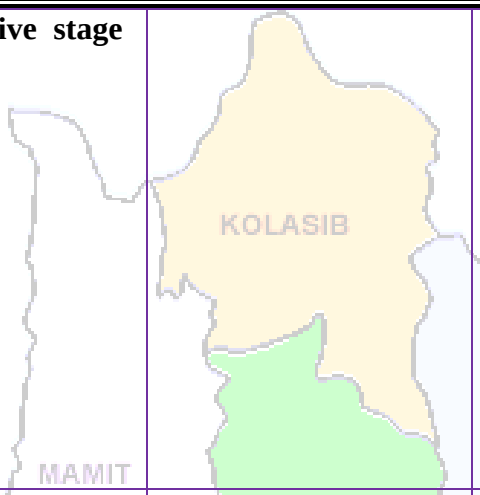
Pineapple	**Vegetative stage**		✦ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✦ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✦ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✦ Mulching with straw and other plant materials is the technique for soil moisture conservation.
Brinjal	**Harvesting stage**		✦ Harvest all the mature fruits. ✦ Provide irrigation to newly established crop
Cucurbitaceous crop	**Fruiting stage**		✦ Provide irrigation every 7 days interval which will give better yield. ✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✦ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	 **1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✦ Mulching (if dry spell is there) ✦ Give irrigation at regular interval ✦ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*) 	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat

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

District: Lawngtlai **Period: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	0	0	0	0	0
Max Temp (oC)	32	32	32	32	32
Min Temp (oC)	19	19	19	19	19
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	94	85	89	84	95
Min RH (%)	30	34	32	32	30
Wind Speed (KmpH)	3	4	4	5	4
*Wind Direction	E	E	E	S-E	E

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

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Aizawl- 185.66mm (112.8mm) **Champhai- 119.48mm (68.9mm)** **Saiha- 109.52 mm (40.2mm)** **Kolasib- 213.61mm (158.9mm)**

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Weather summary of the past three days	Weather forecast valid from 06th May, 2015 To 10th May, 2015.
	There is no chance of light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 32^0C and 19^0C. Maximum relative humidity is expected in the range of 84-95% and minimum may from 30-34%. Wind direction would be northeasterly to southeasterly with the wind speed of 3-4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **00.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
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		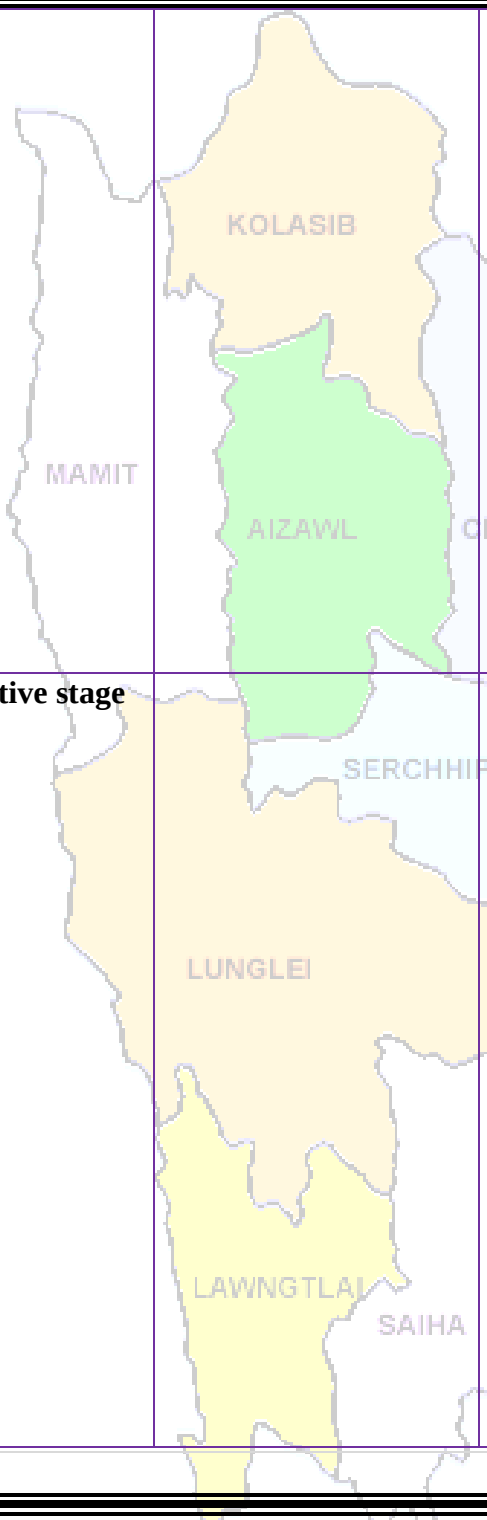	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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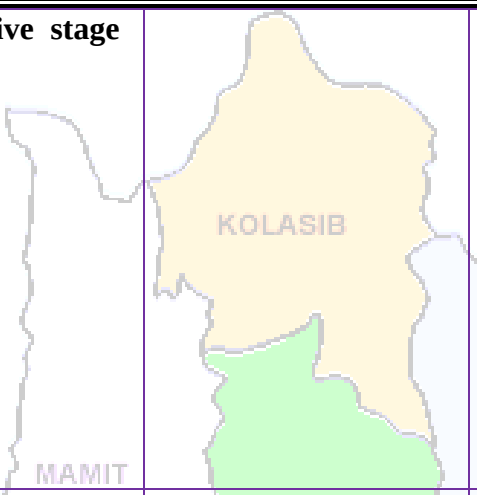
Pineapple	**Vegetative stage**		✦ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✦ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✦ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✦ Mulching with straw and other plant materials is the technique for soil moisture conservation.
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Cucurbitaceous crop	**Fruiting stage**		✦ Provide irrigation every 7 days interval which will give better yield. ✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✦ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	 **1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✦ Mulching (if dry spell is there) ✦ Give irrigation at regular interval ✦ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*) 	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	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: Lunglei **Period: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	0	0	0	0	0
Max Temp (oC)	32	32	32	32	32
Min Temp (oC)	18	17	18	18	18
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	89	88	93	89	97
Min RH (%)	31	34	31	32	31
Wind Speed (KmpH)	2	4	4	4	3
*Wind Direction	E	S-E	S-E	S-E	E

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

STATUS OF PREMONSOON- April 1-30, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 185.66mm (112.8mm)	Champhai- 119.48mm (68.9mm)	Saiha- 109.52 mm (40.2mm)	Kolasib- 213.61mm (158.9mm)
Lawngtlai-101.62mm (18.5mm)	Lunglei-117.82mm (33.8mm)	Mamit-236.61mm (75.6mm)	Serchhip-110.96mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 06th May, 2015 To 10th May, 2015.
	There is no chance of rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 32^{0}C and 17-18^{0}C. Maximum relative humidity is expected in the range of 88-97% and minimum may from 31-34%. Wind direction would be northeasterly to southeasterly with the wind speed of 2-4 km per hour. Partially cloudy will prevail during the next five days. ***Weekly cumulative rainfall:*** **00.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Nursery stage**		✚ Nursery should be located at least 500 meters away from the orchards to minimize the incidence of insects and diseases. ✚ Potting mixture of soil, sand and FYM or compost should be in proper ratio. ✚ Application of split dose of fertilizer 600:

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		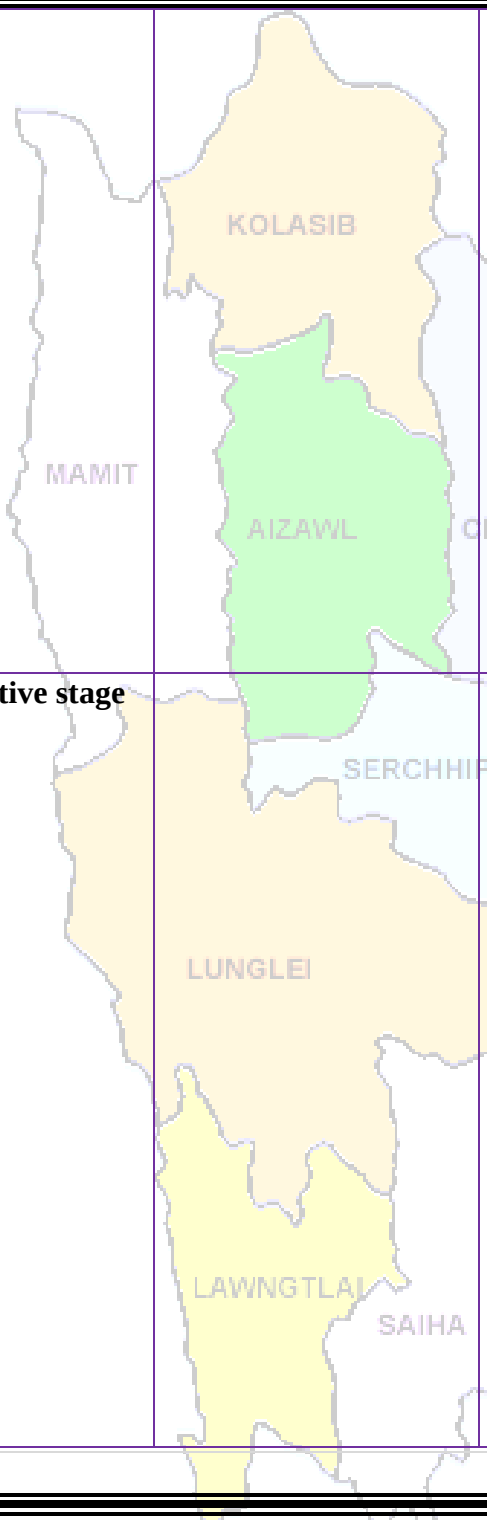	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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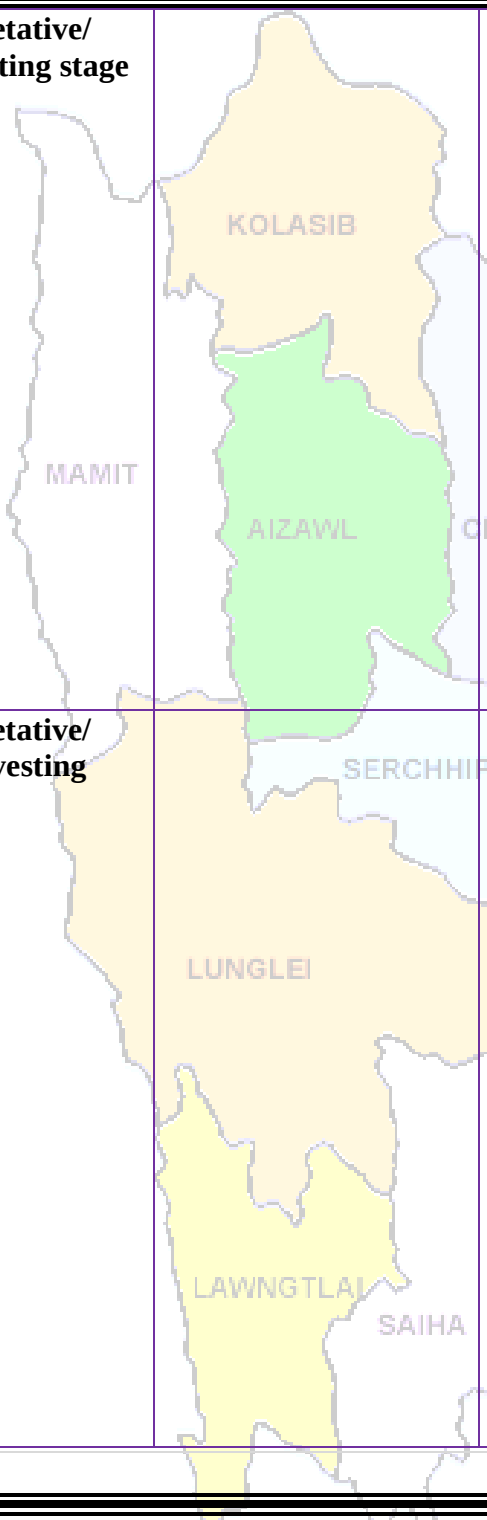
Oil plam	**Vegetative/ Harvesting stage**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ Application of split dose 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. ✚ Apply Bordeaux mixture to the plant after pruning. ✚ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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 suckers, keeps production mats in optimum condition, saves fertilizer, reduces pest and disease. ✚ Fruits are harvested when they attain full size, develop attractive yellow colour.

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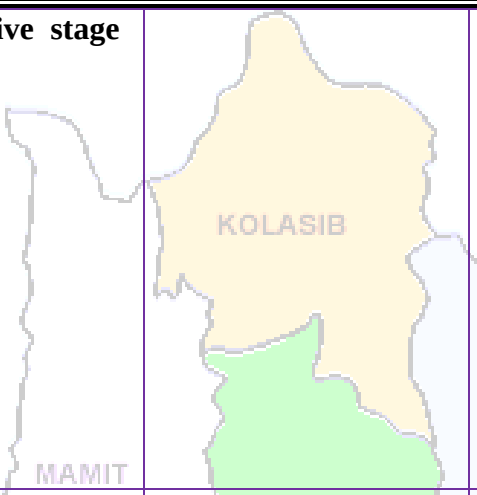
Pineapple	**Vegetative stage**		✦ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✦ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✦ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✦ Mulching with straw and other plant materials is the technique for soil moisture conservation.
Brinjal	**Harvesting stage**		✦ Harvest all the mature fruits. ✦ Provide irrigation to newly established crop
Cucurbitaceous crop	**Fruiting stage**		✦ Provide irrigation every 7 days interval which will give better yield. ✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✦ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	**1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✦ Mulching (if dry spell is there) ✦ Give irrigation at regular interval ✦ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*) 	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat

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GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Mamit **Period: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	0	0	0	4	0
Max Temp (oC)	34	34	34	35	35
Min Temp (oC)	21	20	20	21	21
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	90	91	91	93	94
Min RH (%)	37	44	36	37	38
Wind Speed (KmpH)	4	4	4	6	4
*Wind Direction	S-E	S-E	S-E	S-E	S-E

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

STATUS OF PREMONSOON- April 1-30, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 185.66mm (112.8mm)	Champhai- 119.48mm (68.9mm)	Saiha- 109.52 mm (40.2mm)	Kolasib- 213.61mm (158.9mm)
Lawngtlai-101.62mm (18.5mm)	Lunglei-117.82mm (33.8mm)	Mamit-236.61mm (75.6mm)	Serchhip-110.96mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 06th May, 2015 To 10th May, 2015.
	There is a chance of moderate light rainfall during the next 1 day. The maximum and minimum temperatures for the next 5 days may range for 34-35^{0}C and 20-21^{0}C. Maximum relative humidity is expected in the range of 90-94% and minimum may from 36-44%. Wind direction would be southeasterly with the wind speed of 4-6 km per hour. Partially cloudy will prevail during the next five days. ***Weekly cumulative rainfall:*** **04.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Nursery stage**		✚ Nursery should be located at least 500 meters away from the orchards to minimize the incidence of insects and diseases. ✚ Potting mixture of soil, sand and FYM or compost should be in proper ratio. ✚ Application of split dose of fertilizer 600:

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		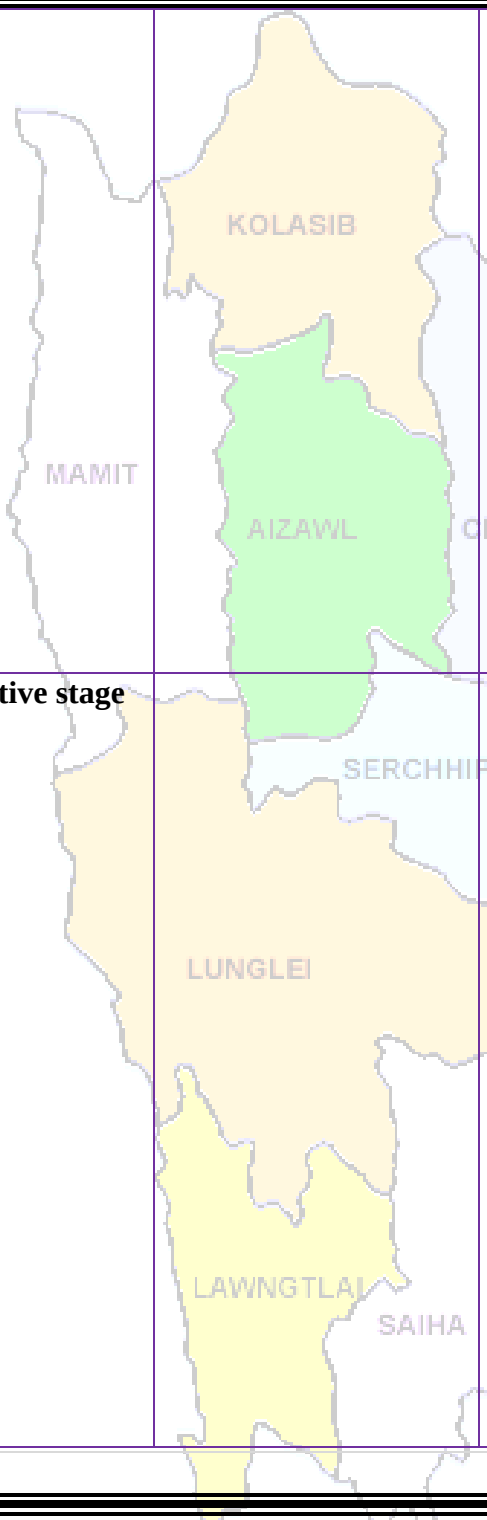	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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Oil plam	**Vegetative/ Harvesting stage**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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. ✚ Apply Bordeaux mixture to the plant after pruning. ✚ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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 suckers, keeps production mats in optimum condition, saves fertilizer, reduces pest and disease. ✚ Fruits are harvested when they attain full size, develop attractive yellow colour.

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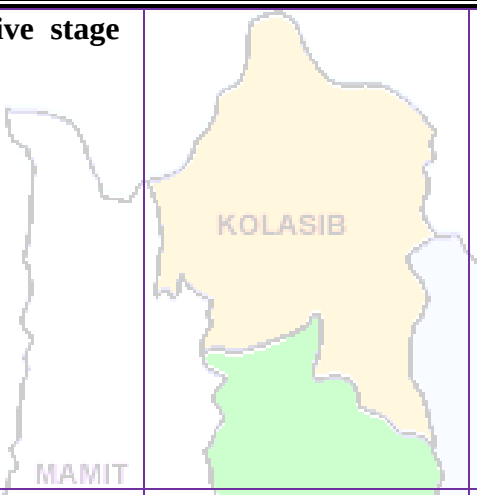
Pineapple	**Vegetative stage**		✦ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✦ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✦ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✦ Mulching with straw and other plant materials is the technique for soil moisture conservation.
Brinjal	**Harvesting stage**		✦ Harvest all the mature fruits. ✦ Provide irrigation to newly established crop
Cucurbitaceous crop	**Fruiting stage**		✦ Provide irrigation every 7 days interval which will give better yield. ✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✦ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	 **1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✦ Mulching (if dry spell is there) ✦ Give irrigation at regular interval ✦ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*) 	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat

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GRAMIN KRISHI MAUSAM SEWA

ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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

District: Saiha **Period: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	0	0	0	0	0
Max Temp (oC)	31	32	32	32	32
Min Temp (oC)	17	17	17	17	17
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	94	82	87	82	98
Min RH (%)	25	31	29	29	26
Wind Speed (KmpH)	2	2	3	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 PREMONSOON- April 1-30, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 185.66mm (112.8mm) **Champhai- 119.48mm (68.9mm)** **Saiha- 109.52 mm (40.2mm)** **Kolasib- 213.61mm (158.9mm)**

Lawngtlai-101.62mm (18.5mm) **Lunglei-117.82mm (33.8mm)** **Mamit-236.61mm (75.6mm)** **Serchhip-110.96mm (25.9mm)**

Weather summary of the past three days

Weather forecast valid from 06th May, 2015 To 10th May, 2015.

There is no chance of light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 31-32^{0}C and 17^{0}C. Maximum relative humidity is expected in the range of 82-94% and minimum may from 26-31%. Wind direction would be easterly with the wind speed of 2-3 km per hour. Partially cloud will prevail during the next five days.

Weekly cumulative rainfall: **00.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Nursery stage**		✚ Nursery should be located at least 500 meters away from the orchards to minimize the incidence of insects and diseases. ✚ Potting mixture of soil, sand and FYM or compost should be in proper ratio. ✚ Application of split dose of fertilizer 600:

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		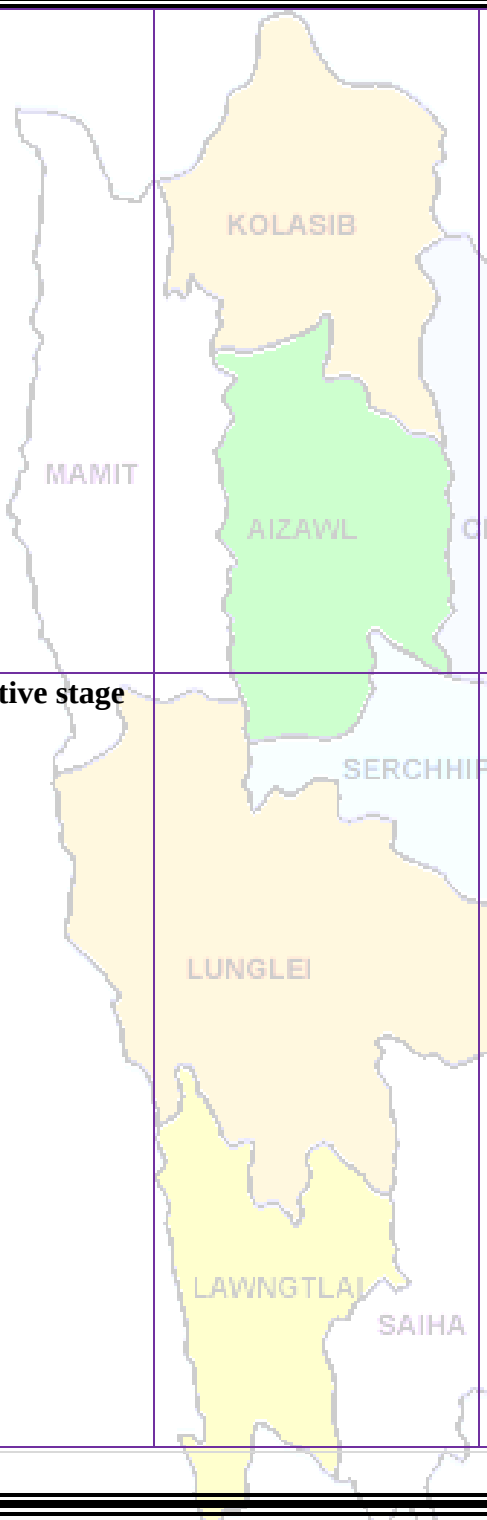	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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Oil plam	**Vegetative/ Harvesting stage**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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. ✚ Apply Bordeaux mixture to the plant after pruning. ✚ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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 suckers, keeps production mats in optimum condition, saves fertilizer, reduces pest and disease. ✚ Fruits are harvested when they attain full size, develop attractive yellow colour.

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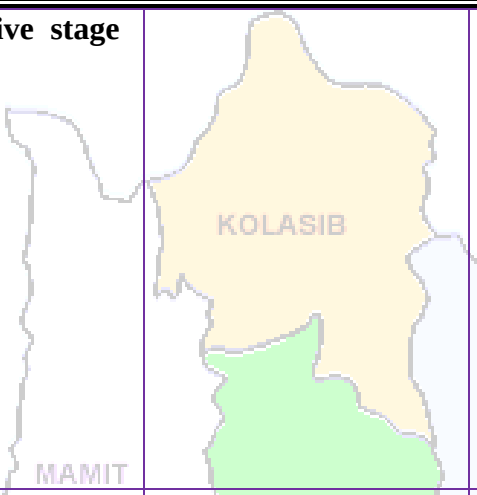
Pineapple	**Vegetative stage**		✚ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✚ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✚ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✚ Mulching with straw and other plant materials is the technique for soil moisture conservation.
Brinjal	**Harvesting stage**		✚ Harvest all the mature fruits. ✚ Provide irrigation to newly established crop
Cucurbitaceous crop	**Fruiting stage**		✚ Provide irrigation every 7 days interval which will give better yield. ✚ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✚ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	**1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✚ Mulching (if dry spell is there) ✚ Give irrigation at regular interval ✚ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*)	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	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: Serchhip **Period: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	0	0	0	0	0
Max Temp (oC)	32	32	32	32	32
Min Temp (oC)	16	15	16	16	17
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	87	85	91	89	100
Min RH (%)	31	36	30	32	30
Wind Speed (KmpH)	2	2	2	2	2
*Wind Direction	E	S-E	E	E	E

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

STATUS OF PREMONSOON- April 1-30, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 185.66mm (112.8mm) Champhai- 119.48mm (68.9mm) Saiha- 109.52 mm (40.2mm) Kolasib- 213.61mm (158.9mm)

Lawngtlai-101.62mm (18.5mm) Lunglei-117.82mm (33.8mm) Mamit-236.61mm (75.6mm) Serchhip-110.96mm (25.9mm)

Weather summary of the past three days	Weather forecast valid from 06th May, 2015 To 10th May, 2015.
	There is no chance of light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 32^{0}C and 15-17^{0}C. Maximum relative humidity is expected in the range of 85-100% and minimum may from 30-36%. Wind direction would be easterly with the wind speed of 2 km per hour. Partially cloudy prevail during the next five days.
	Weekly cumulative rainfall: **00.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Nursery stage**		✚ Nursery should be located at least 500 meters away from the orchards to minimize the incidence of insects and diseases. ✚ Potting mixture of soil, sand and FYM or compost should be in proper ratio. ✚ Application of split dose of fertilizer 600:

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		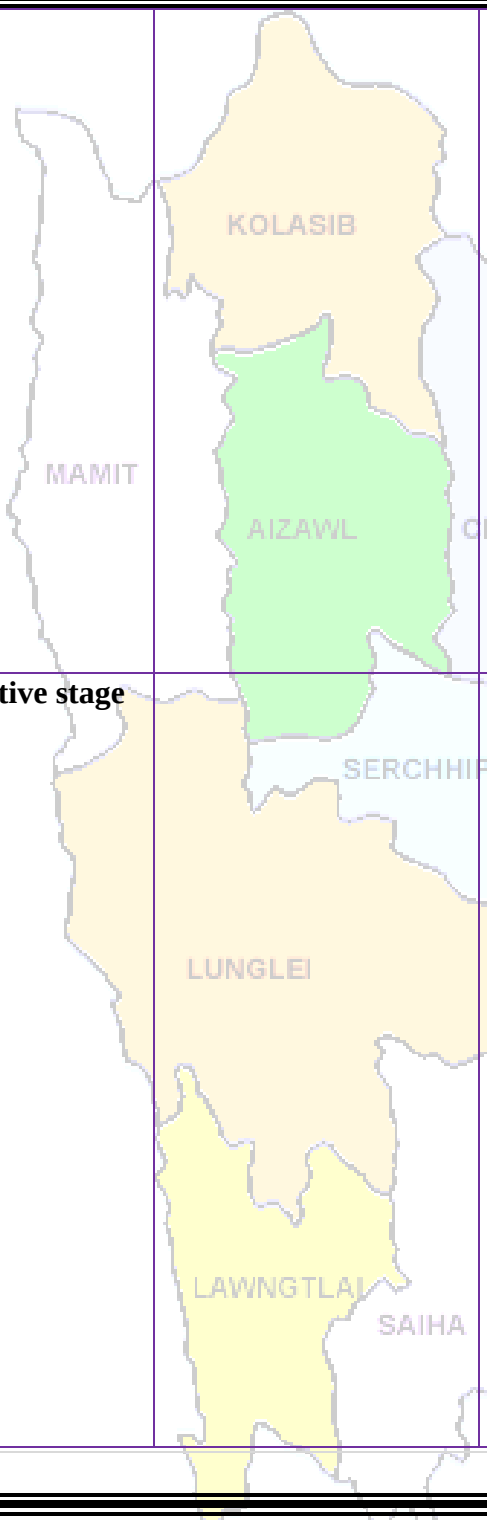	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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Oil plam	**Vegetative/ Harvesting stage**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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. ✚ Apply Bordeaux mixture to the plant after pruning. ✚ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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 suckers, keeps production mats in optimum condition, saves fertilizer, reduces pest and disease. ✚ Fruits are harvested when they attain full size, develop attractive yellow colour.

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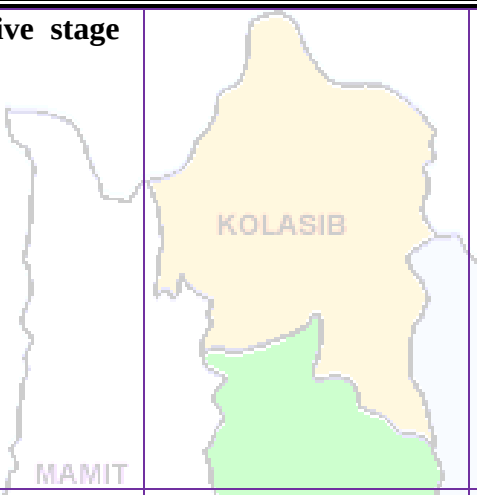
Pineapple	**Vegetative stage**		✦ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✦ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✦ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✦ Mulching with straw and other plant materials is the technique for soil moisture conservation.
Brinjal	**Harvesting stage**		✦ Harvest all the mature fruits. ✦ Provide irrigation to newly established crop
Cucurbitaceous crop	**Fruiting stage**		✦ Provide irrigation every 7 days interval which will give better yield. ✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✦ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	 **1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✦ Mulching (if dry spell is there) ✦ Give irrigation at regular interval ✦ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*) 	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	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: Aizawl **Period: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	0	0	0	4	0
Max Temp (oC)	30	30	30	30	30
Min Temp (oC)	15	15	15	15	15
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	89	90	92	92	97
Min RH (%)	36	47	35	36	36
Wind Speed (KmpH)	3	3	3	4	3
*Wind Direction	S-E	S-E	S-E	S-E	S-E

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

STATUS OF PREMONSOON- April 1-30, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 185.66mm (112.8mm) **Champhai- 119.48mm (68.9mm)** **Saiha- 109.52 mm (40.2mm)** **Kolasib- 213.61mm (158.9mm)**

Lawngtlai-101.62mm (18.5mm) **Lunglei-117.82mm (33.8mm)** **Mamit-236.61mm (75.6mm)** **Serchhip-110.96mm (25.9mm)**

Weather summary of the past three days	Weather forecast valid from 06th May, 2015 To 10th May, 2015.
	There is a chance of light rainfall during the next 1 day. The maximum and minimum temperatures for the next 5 days may range for 30^0C and 15^0C. Maximum relative humidity is expected in the range of 89-97% and minimum may from 35-47%. Wind direction would be southeasterly with the wind speed of 3-4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **04.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Nursery stage**		✚ Nursery should be located at least 500 meters away from the orchards to minimize the incidence of insects and diseases. ✚ Potting mixture of soil, sand and FYM or compost should be in proper ratio. ✚ Application of split dose of fertilizer 600:

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		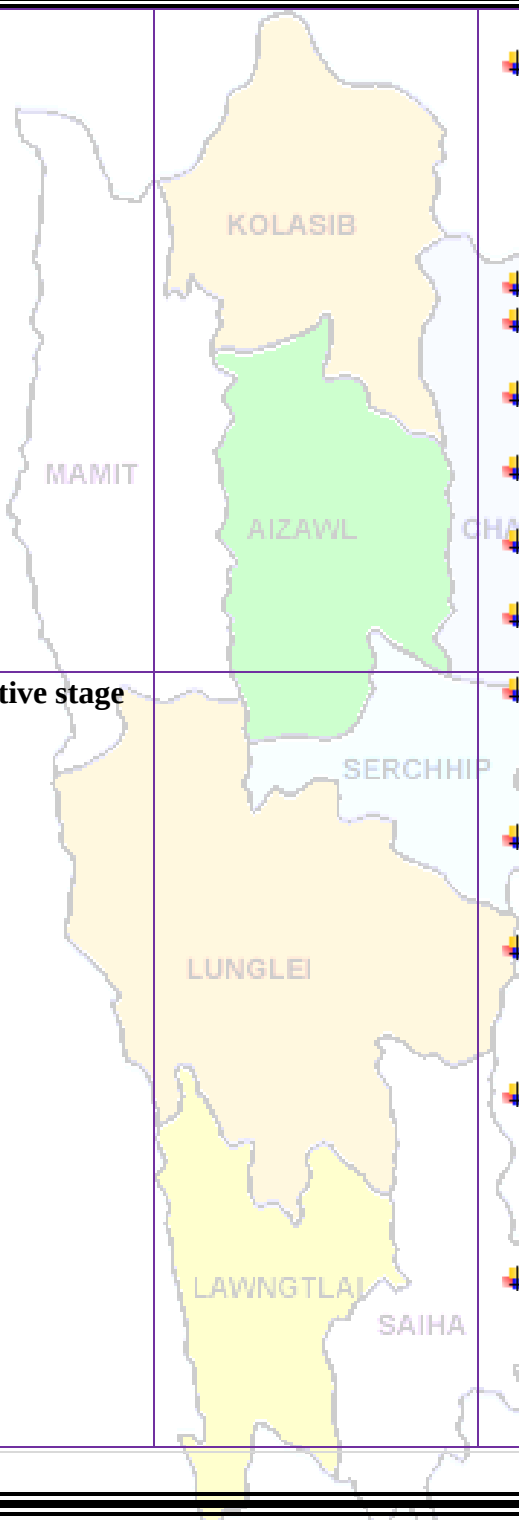	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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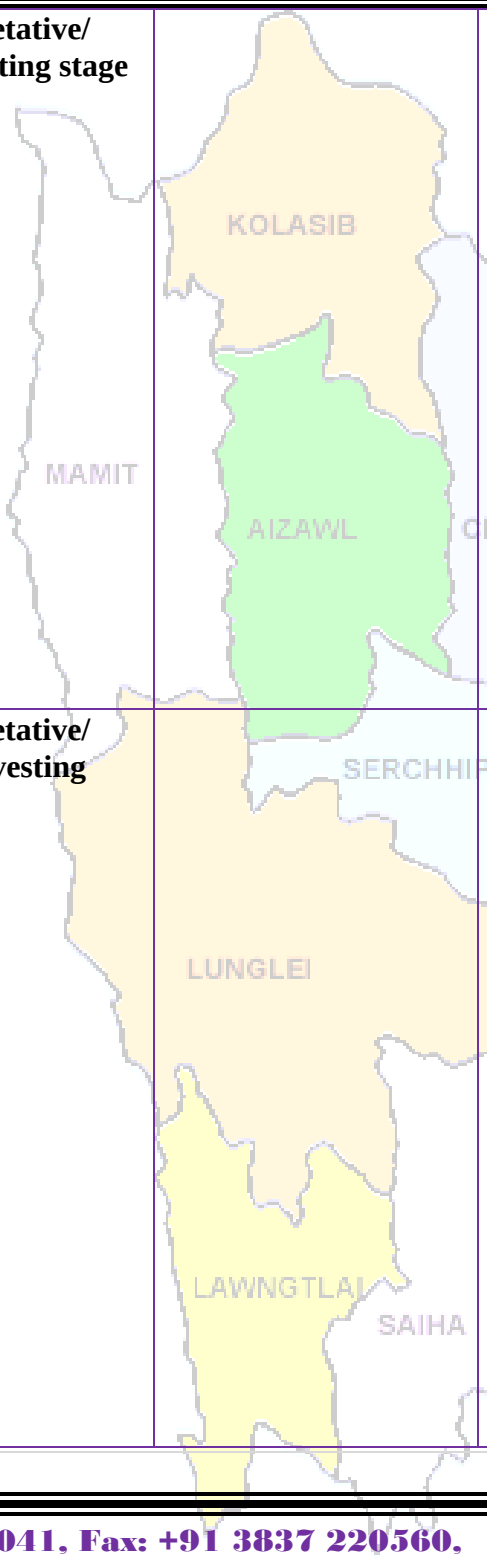
Oil plam	**Vegetative/ Harvesting stage**		✦ Provide irrigation 10-15 days internal. ✦ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✦ Application of split dose 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. ✦ Apply Bordeaux mixture to the plant after pruning. ✦ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		✦ Provide irrigation 10-15 days internal. ✦ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✦ 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 suckers, keeps production mats in optimum condition, saves fertilizer, reduces pest and disease. ✦ Fruits are harvested when they attain full size, develop attractive yellow colour.

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Pineapple	**Vegetative stage**		✦ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✦ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✦ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✦ Mulching with straw and other plant materials is the technique for soil moisture conservation.
Brinjal	**Harvesting stage**		✦ Harvest all the mature fruits. ✦ Provide irrigation to newly established crop
Cucurbitaceous crop	**Fruiting stage**		✦ Provide irrigation every 7 days interval which will give better yield. ✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✦ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	**1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✦ Mulching (if dry spell is there) ✦ Give irrigation at regular interval ✦ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*)	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	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: 06 - 10 May, 2015**

Bulletin No: -515/2015/ Bulletin/English **Date of issue: 05th May, 2015**

Parameters	06.05.2015	07.05.2015	08.05.2015	09.05.2015	10.05.2015
Rainfall (mm)	0	0	0	4	0
Max Temp (oC)	32	32	32	32	32
Min Temp (oC)	18	17	18	18	18
Cloud Coverage	Clear sky	Clear sky	Clear sky	Clear sky	Clear sky
Max RH (%)	82	83	87	86	95
Min RH (%)	30	40	30	31	32
Wind Speed (KmpH)	3	4	4	4	3
*Wind Direction	S-E	S	S-E	S	S

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

STATUS OF PREMONSOON- April 1-30, 2015 (*Percent of deviation from normal in parenthesis*)

Aizawl- 185.66mm (112.8mm) **Champhai- 119.48mm (68.9mm)** **Saiha- 109.52 mm (40.2mm)** **Kolasib- 213.61mm (158.9mm)**

Lawngtlai-101.62mm (18.5mm) **Lunglei-117.82mm (33.8mm)** **Mamit-236.61mm (75.6mm)** **Serchhip-110.96mm (25.9mm)**

Weather summary of the past three days	Weather forecast valid from 06th May, 2015 To 10th May, 2015.
	There is a chance of light rainfall during the next 1 day. The maximum and minimum temperatures for the next 5 days may range for 32^{0}C and 17-18^{0}C. Maximum relative humidity is expected in the range of 82-95% and minimum may from 30-40%. Wind direction would be southeasterly with the wind speed of 4 km per hour. Clear sky will prevail during the next five days. ***Weekly cumulative rainfall:*** **04.0 mm**

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	**Nursery stage**		✚ Nursery should be located at least 500 meters away from the orchards to minimize the incidence of insects and diseases. ✚ Potting mixture of soil, sand and FYM or compost should be in proper ratio. ✚ Application of split dose of fertilizer 600:

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		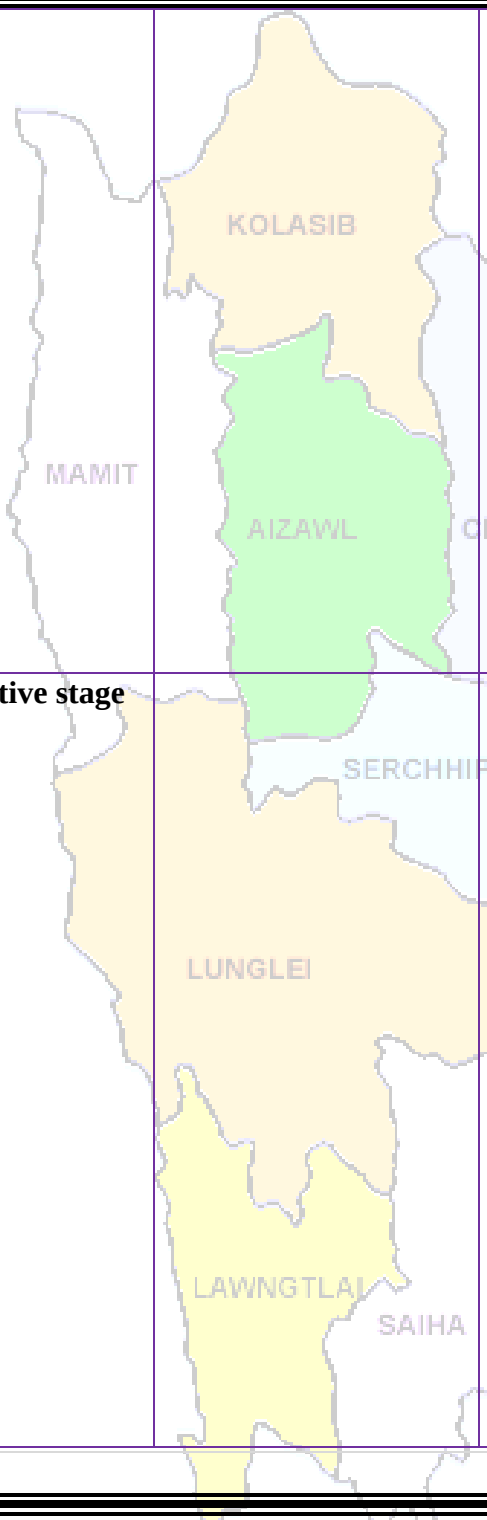	200:100 (g/pt). - Apply micro-nutrients viz. zinc, copper, manganese, iron, boron and molybdenum are required in ample quantities for supplying nutrients and also reduce serious disorders which may lead to decline of the whole orchard. - Only certified seed should be used. - Stagnation of water in beds should be avoided. - Seedling of uniform height should be selected for planting. - Hooked or bench rooted plants should be discarded. - Plant protection measures should be followed. - Pits for planting should be 75*75*75 cm size and spaced at 6*6 m distance.
Khasi Mandarin and acid lime	**Vegetative stage**		- Spray (10 ppm) of Gibberellic acid should be done at colour break stage to delay colour development, maintain firmness, extend harvesting period. - Drip irrigation system should be preferred to provide proper water at the feeder root system. - Fruit drops, which occur at least twice in each crop, should be controlled with the recommended doses of GA3, urea, benomyl and carbendazim at right time. - Insect pests like Blackfly (Kolshi), Citrus Psylla, Leaf miner, Bark eating caterpillar, Fruit sucking Moth, Mites, Twing Blight, Gummosis, Root rot and Collar rot should be controlled. - Recommended fungicide (Carbendazium) and proper doses (0.1% or 1000 ppm) should be sprayed at proper time (One month and 15 days before harvest i.e. two sprays).

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Oil plam	**Vegetative/ Harvesting stage**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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. ✚ Apply Bordeaux mixture to the plant after pruning. ✚ Fruits are harvested when they attain full size, develop attractive colour with optimum sugar and acid blend.
Banana	**Vegetative/ harvesting**		✚ Provide irrigation 10-15 days internal. ✚ Application of dry leaf mulch or paddy husk to a thickness of about 8 cm. in the basin keeps down the weed growth and decreases the number of irrigations and also improves fruit quality. ✚ 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 suckers, keeps production mats in optimum condition, saves fertilizer, reduces pest and disease. ✚ Fruits are harvested when they attain full size, develop attractive yellow colour.

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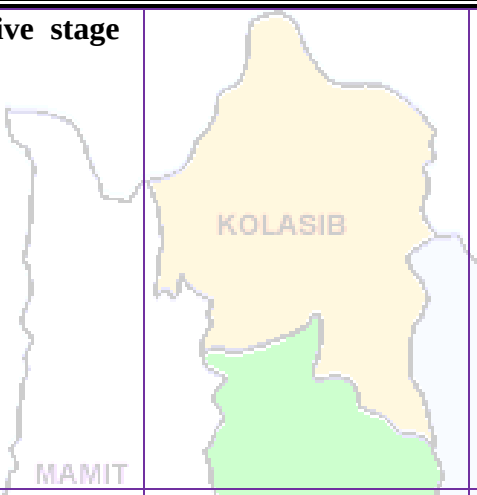
Pineapple	**Vegetative stage**		✦ Colocassia, yam, chilies, cabbage, cauliflower, sweet potato, pigeon pea, green gram, black gram, sesame, etc. intercrop with pine apple which give additional income to farmer. ✦ Pineapple plants should be irrigated with five or six irrigations during the dry months at intervals of 20–25 days. ✦ Cover crops like sweet potato, etc., can also be grown to conserve soil moisture. ✦ Mulching with straw and other plant materials is the technique for soil moisture conservation.
Brinjal	**Harvesting stage**		✦ Harvest all the mature fruits. ✦ Provide irrigation to newly established crop
Cucurbitaceous crop	**Fruiting stage**		✦ Provide irrigation every 7 days interval which will give better yield. ✦ In large gardens apply carbaryl 0.2 per cent or malathion 0.15 per cent suspension containing sugar or jeggery at 10 g/l at fortnightly intervals at flowering and fruit initiation against fruit fly and pumpkin beetle. ✦ Provide split doses of urea (70g/pt) at the time of full blooming.
Okra	**Sowing stage**	 **1. Weeding and light irrigation in nursery bed.** **2. Provide irrigation in transplanted okra field.**	✦ Mulching (if dry spell is there) ✦ Give irrigation at regular interval ✦ Provide banana shading to transplanted seedling.
		1. Aphid (*Aphis gossypii*) 	• Spray surf water solution to the plat • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Flea beetle	• Shake plants to dislodge grubs, pupae and

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		(*Phylliodes balyi*)	adults and destroy. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt or Dimethoate 30 % EC 7ml/10lt of water.
		3. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Collect damaged leaves with grubs and egg masses and destroy them. • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		4. Leafhopper (*Empoasca devastans)*	• Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ **Bacterial Wilt (*Pseudomonas solanacearum)***	• Fields should be kept clean and effected plants are to be uprooted and burnt. • Spray Copper fungicides to control the disease (2% Bordeaux mixture.) • The disease is more prevalent in the presence of root knot Nematodes, so control of these nematodes will suppress the disease spread. • Soil drenching (Streptocycline sulphate 0.3 gm/lt of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	**Fruiting stage**		❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	✓ Seed treatment with thiram 3g/kg seed or Trichoderma viride 4g+ metalaxyl 4g (Apron)/ kg seed ✓ Drenching 1% Bordeaux mixture or 2 g captan or 3 copper oxychloride/ lt of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given forthnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was

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			found effective against leaf spot.
French bean	**Sowing**	**1. Weeding in the French bean field.** **2. Provide irrigation in water stress condition.**	○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(*Aphis gossypii*)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lt of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (*Epilachna viginctioctopancta ta*)	• Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	**Land preparation**		✚ Clear the field during February-March and burn the weeds, stubbles, roots etc. in situ. ✚ Prepare the land by ploughing or digging by spade. ✚ Prepare beds of convenient length (across the slope where the land is undulating), 1 m width, 25 cm height with 40 cm spacing between the beds. ✚ Provide drainage channels, one for every 25 beds on flat lands
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.

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	Early stage	**Coccidiosis**	1. Amprolium or coccidiostat

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