



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: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	9	15	34	27	15
Max Temp (°C)	30	27	30	27	29
Min Temp (°C)	17	16	18	19	19
Cloud Coverage	Clear sky	Mainly clear	Mainly clear	Mainly clear	Mainly clear
Max RH (%)	92	99	99	98	98
Min RH (%)	44	75	52	77	78
Wind Speed (Kmph)	4	3	4	4	4
*Wind Direction	S-E	S-E	S-E	S-E	S-E

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

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

Aizawl- 8.42 mm (0.00mm) **Champhai- 9.28 mm (0.00mm)** **Chhimtuipui- 11.37 mm (0.00mm)** **Kolasib- 10.51 mm (0.00mm)**
Lawngtlai-7.84mm (0.00mm) **Lunglei-6.35mm (0.00mm)** **Mamit-8.21mm (0.00mm)** **Serchhip-6.37mm (0.00mm)**

Weather summary of the past three days

The temperature range for maximum and minimum were 26.4-29.1°C and 14.3-18.3°C respectively. Dense cloudy sky was observed. Wind direction is southeasterly. Maximum RH observed 95-82% & minimum of 61-71%. Rainfall recorded for the past three days is **56.80mm**.

Weather forecast valid from 29th April, 2015 To 03rd May, 2015.

There are chances of moderate to light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 27-30°C and 16-18°C. Maximum relative humidity is expected in the range of 92-99% and minimum may from 44-78%. Wind direction would be southeasterly with the wind speed of 3-4 km per hour. Dense cloudy will prevail during the next five days.

Weekly cumulative rainfall: 100.0 mm

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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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			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ul style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit or Dimethoate 30 % EC 7ml/10lt of water. 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 (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> 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/lit of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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French bean	Sowing	<ol style="list-style-type: none"> 1. Weeding in the French bean field. 2. Provide irrigation in water stress condition. 	<p>found effective against leaf spot.</p> <ul style="list-style-type: none"> ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		<ol style="list-style-type: none"> 1. Aphid(<i>Aphis gossypii</i>) 	<ul style="list-style-type: none"> • Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		<ol style="list-style-type: none"> 2. Epilachna beetle. (<i>Epilachna vigintioctopuncta</i>) 	<ul style="list-style-type: none"> • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	Land preparation		<ul style="list-style-type: none"> ✚ 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).	<ol style="list-style-type: none"> 1. Culling of positive pigs or piglets.
	Adult stage	Swine fever.	<ol style="list-style-type: none"> 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)	<ul style="list-style-type: none"> • FMD vaccine at 16 week and repeat every 6 month.
	Young stage	Black Quarter (BQ)	<ul style="list-style-type: none"> • Black Quarter Vaccine (BQV). <ul style="list-style-type: none"> ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	Adult stage	Ranikhet Disease.	<ul style="list-style-type: none"> • F1 vaccine at (1-6) days of birth and R₂B vaccine for adult birds.



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	Early stage	Coccidiosis	1. Amprolium or coccidiostat
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District: Lawngtlai

Period: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	0	19	21	12	0
Max Temp (°C)	31	32	32	29	32
Min Temp (°C)	17	17	19	19	20
Cloud Coverage	Clear sky	Mainly clear	Partially clear	Clear sky	Clear sky
Max RH (%)	88	92	90	91	93
Min RH (%)	36	35	43	60	49
Wind Speed (Kmph)	5	4	6	5	5
*Wind Direction	E	E	E	E	E

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

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

Aizawl- 8.42 mm (0.00mm) Champhai- 9.28 mm (0.00mm) Chhimtuipui- 11.37 mm (0.00mm) Kolasib- 10.51 mm (0.00mm)
Lawngtlai- 7.84 mm (0.00mm) Lunglei- 6.35 mm (0.00mm) Mamit- 8.21 mm (0.00mm) Serchhip- 6.37 mm (0.00mm)

Weather summary of the past three days

Weather forecast valid from 29th April, 2015 To 03rd May, 2015.

There are chances of moderate light rainfall during the next 4 day. The maximum and minimum temperatures for the next 5 days may range for 29-32°C and 17-20°C. Maximum relative humidity is expected in the range of 88-93% and minimum may from 35-60%. Wind direction would be northeasterly to southeasterly with the wind speed of 4-6 km per hour. Dense cloudy will prevail during the next five days.

Weekly cumulative rainfall: 52.0 mm

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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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			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> ✚ 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		<ul style="list-style-type: none"> ✚ 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ul style="list-style-type: none"> 1. Weeding and light irrigation in nursery bed. 2. Provide irrigation in transplanted okra field.
			<ul style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit or Dimethoate 30 % EC 7ml/10lit of water.
		4. Leafhopper (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Collect damaged leaves with grubs and egg masses and destroy them. Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lit of water. 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/lit of water) and Blitox 50 @ 5gm/ 15lit water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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/ lit of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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French bean	Sowing	<ol style="list-style-type: none"> 1. Weeding in the French bean field. 2. Provide irrigation in water stress condition. 	<p>found effective against leaf spot.</p> <ul style="list-style-type: none"> ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		<ol style="list-style-type: none"> 1. Aphid(<i>Aphis gossypii</i>) 	<ul style="list-style-type: none"> • Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		<ol style="list-style-type: none"> 2. Epilachna beetle. (<i>Epilachna vigintioctopancta</i>) 	<ul style="list-style-type: none"> • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	Land preparation		<ul style="list-style-type: none"> ✚ 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)	<ul style="list-style-type: none"> • 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 ₂ B vaccine for adult birds.



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	Early stage	Coccidiosis	1. Amprolium or coccidiostat
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Expert committee members:

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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: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	0	18	20	20	0
Max Temp (°C)	30	31	30	26	31
Min Temp (°C)	16	15	18	18	19
Cloud Coverage	Clear sky	Mainly clear	Partially clear	Clear sky	Mainly clear
Max RH (%)	94	98	96	98	97
Min RH (%)	41	39	45	74	57
Wind Speed (Kmph)	4	3	4	4	3
*Wind Direction	E	S-E	S-E	E	S-E

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

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

Aizawl- 8.42 mm (0.00mm) Champhai- 9.28 mm (0.00mm) Chhimtuipui- 11.37 mm (0.00mm) Kolasib- 10.51 mm (0.00mm)
Lawngtlai-7.84mm (0.00mm) Lunglei-6.35mm (0.00mm) Mamit-8.21mm (0.00mm) Serchhip-6.37mm (0.00mm)

Weather summary of the past three days

Weather forecast valid from 29th April, 2015 To 03rd May, 2015.

There are chances of moderate rainfall during the next 3 day. The maximum and minimum temperatures for the next 5 days may range for 26-31°C and 15-19°C. Maximum relative humidity is expected in the range of 94-98% and minimum may from 45-74%. Wind direction would be northeasterly to southeasterly with the wind speed of 3-4 km per hour. Dense cloudy will prevail during the next five days.

Weekly cumulative rainfall: 58.0 mm

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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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Mizoram Centre, Kolasib- 796081, MIZORAM

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



			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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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(Prepared based on District wise Weather Forecast received from IMD, Guwahati)



Oil plam	Vegetative/ Harvesting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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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Mizoram Centre, Kolasib- 796081, MIZORAM

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



Pineapple	Vegetative stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ul style="list-style-type: none"> 1. Weeding and light irrigation in nursery bed. 2. Provide irrigation in transplanted okra field.
			<ul style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/ltr or Dimethoate 30 % EC 7ml/10ltr of water. 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 (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/ltr of water (Sucking pest) or Dimethoate 30 % EC 7ml/10ltr of water.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> 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 (Streptomycin sulphate 0.3 gm/ltr of water) and Blitox 50 @ 5gm/ 15ltr water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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/ ltr of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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Mizoram Centre, Kolasib- 796081, MIZORAM

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



French bean	Sowing	<ol style="list-style-type: none"> 1. Weeding in the French bean field. 2. Provide irrigation in water stress condition. 	<p>found effective against leaf spot.</p> <ul style="list-style-type: none"> ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		<ol style="list-style-type: none"> 1. Aphid(<i>Aphis gossypii</i>) 	<ul style="list-style-type: none"> • Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		<ol style="list-style-type: none"> 2. Epilachna beetle. (<i>Epilachna vigintioctopuncta</i>) 	<ul style="list-style-type: none"> • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	Land preparation		<ul style="list-style-type: none"> ✚ 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).	<ol style="list-style-type: none"> 1. Culling of positive pigs or piglets.
	Adult stage	Swine fever.	<ol style="list-style-type: none"> 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)	<ul style="list-style-type: none"> • FMD vaccine at 16 week and repeat every 6 month.
	Young stage	Black Quarter (BQ)	<ul style="list-style-type: none"> • Black Quarter Vaccine (BQV). <ul style="list-style-type: none"> ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	Adult stage	Ranikhet Disease.	<ul style="list-style-type: none"> • F1 vaccine at (1-6) days of birth and R₂B 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: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	8	18	32	26	14
Max Temp (°C)	31	27	30	28	29
Min Temp (°C)	18	17	19	20	21
Cloud Coverage	Clear sky	Mainly clear	Mainly clear	Mainly clear	Mainly clear
Max RH (%)	92	99	99	99	98
Min RH (%)	43	67	54	76	76
Wind Speed (Kmph)	4	4	6	4	4
*Wind Direction	S-E	S-E	S-E	S-E	S-E

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

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

Aizawl- 8.42 mm (0.00mm) **Champhai- 9.28 mm (0.00mm)** **Chhimtuipui- 11.37 mm (0.00mm)** **Kolasib- 10.51 mm (0.00mm)**
Lawngtlai-7.84mm (0.00mm) **Lunglei-6.35mm (0.00mm)** **Mamit-8.21mm (0.00mm)** **Serchhip-6.37mm (0.00mm)**

Weather summary of the past three days

Weather forecast valid from 29th April, 2015 To 03rd May, 2015.

There are chances of moderate light rainfall during the next 5 day. The maximum and minimum temperatures for the next 5 days may range for 27-31°C and 18-21°C. Maximum relative humidity is expected in the range of 92-99% and minimum may from 43-78%. 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: 98.0 mm

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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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Mizoram Centre, Kolasib- 796081, MIZORAM

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			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> ✚ 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		<ul style="list-style-type: none"> ✚ 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ul style="list-style-type: none"> 1. Weeding and light irrigation in nursery bed. 2. Provide irrigation in transplanted okra field.
			<ul style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit or Dimethoate 30 % EC 7ml/10lt of water. 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 (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> 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/lit of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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Mizoram Centre, Kolasib- 796081, MIZORAM

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



French bean	Sowing	<ol style="list-style-type: none"> 1. Weeding in the French bean field. 2. Provide irrigation in water stress condition. 	<p>found effective against leaf spot.</p> <ul style="list-style-type: none"> ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		<ol style="list-style-type: none"> 1. Aphid(<i>Aphis gossypii</i>) 	<ul style="list-style-type: none"> • Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		<ol style="list-style-type: none"> 2. Epilachna beetle. (<i>Epilachna vigintioctopuncta</i>) 	<ul style="list-style-type: none"> • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	Land preparation		<ul style="list-style-type: none"> ✚ 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).	<ol style="list-style-type: none"> 1. Culling of positive pigs or piglets.
	Adult stage	Swine fever.	<ol style="list-style-type: none"> 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)	<ul style="list-style-type: none"> • FMD vaccine at 16 week and repeat every 6 month.
	Young stage	Black Quarter (BQ)	<ul style="list-style-type: none"> • Black Quarter Vaccine (BQV). <ul style="list-style-type: none"> ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	Adult stage	Ranikhet Disease.	<ul style="list-style-type: none"> • F1 vaccine at (1-6) days of birth and R₂B vaccine for adult birds.



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)



	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: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	0	12	23	15	0
Max Temp (°C)	30	32	31	28	32
Min Temp (°C)	15	15	18	17	18
Cloud Coverage	Clear sky	Mainly clear	Mainly clear	Clear sky	Clear sky
Max RH (%)	90	94	89	91	94
Min RH (%)	34	32	39	57	47
Wind Speed (Kmph)	4	2	4	4	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 MONSOON- March 1-31, 2015 (Percent of deviation from normal in parenthesis)

Aizawl- 8.42 mm (0.00mm) **Champhai- 9.28 mm (0.00mm)** **Chhimtuipui- 11.37 mm (0.00mm)** **Kolasib- 10.51 mm (0.00mm)**
Lawngtlai-7.84mm (0.00mm) **Lunglei-6.35mm (0.00mm)** **Mamit-8.21mm (0.00mm)** **Serchhip-6.37mm (0.00mm)**

Weather summary of the past three days

Weather forecast valid from 29th April, 2015 To 03rd May, 2015.

There are chances of moderate to light rainfall during the next 3 day. The maximum and minimum temperatures for the next 5 days may range for 28-32°C and 15-18°C. Maximum relative humidity is expected in the range of 89-94% and minimum may from 32-57%. Wind direction would be easterly with the wind speed of 2-4 km per hour. Partially cloud will prevail during the next five days.

Weekly cumulative rainfall: 50.0 mm

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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:



GRAMIN KRISHI MAUSAM SEWA ICAR RESEARCH COMPLEX FOR NEH REGION

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			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ul style="list-style-type: none"> 1. Weeding and light irrigation in nursery bed. 2. Provide irrigation in transplanted okra field.
			<ul style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit or Dimethoate 30 % EC 7ml/10lt of water. 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 (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> 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 (Streptomycine sulphate 0.3 gm/lit of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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French bean	Sowing	<ol style="list-style-type: none"> 1. Weeding in the French bean field. 2. Provide irrigation in water stress condition. 	<p>found effective against leaf spot.</p> <ul style="list-style-type: none"> ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		<ol style="list-style-type: none"> 1. Aphid(<i>Aphis gossypii</i>) 	<ul style="list-style-type: none"> • Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		<ol style="list-style-type: none"> 2. Epilachna beetle. (<i>Epilachna vigintioctopuncta</i>) 	<ul style="list-style-type: none"> • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	Land preparation		<ul style="list-style-type: none"> ✚ 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).	<ol style="list-style-type: none"> 1. Culling of positive pigs or piglets.
	Adult stage	Swine fever.	<ol style="list-style-type: none"> 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)	<ul style="list-style-type: none"> • FMD vaccine at 16 week and repeat every 6 month.
	Young stage	Black Quarter (BQ)	<ul style="list-style-type: none"> • Black Quarter Vaccine (BQV). <ul style="list-style-type: none"> ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	Adult stage	Ranikhet Disease.	<ul style="list-style-type: none"> • F1 vaccine at (1-6) days of birth and R₂B 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: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	0	15	24	25	5
Max Temp (°C)	28	29	29	25	30
Min Temp (°C)	14	14	17	16	18
Cloud Coverage	Clear sky	Mainly clear	Partially clear	Clear sky	Mainly clear
Max RH (%)	97	99	98	99	98
Min RH (%)	41	43	43	78	59
Wind Speed (Kmph)	4	2	4	2	2
*Wind Direction	E	S-E	S-E	E	S-E

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

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

Aizawl- 8.42 mm (0.00mm) **Champhai- 9.28 mm (0.00mm)** **Chhimtuipui- 11.37 mm (0.00mm)** **Kolasib- 10.51 mm (0.00mm)**
Lawngtlai-7.84mm (0.00mm) **Lunglei-6.35mm (0.00mm)** **Mamit-8.21mm (0.00mm)** **Serchhip-6.37mm (0.00mm)**

Weather summary of the past three days

Weather forecast valid from 29th April, 2015 To 03rd May, 2015.

There are chances of moderate to light rainfall during the next 4 day. The maximum and minimum temperatures for the next 5 days may range for 25-30°C and 14-17°C. Maximum relative humidity is expected in the range of 97-99% and minimum may from 41-78%. Wind direction would be easterly with the wind speed of 2-4 km per hour. Partially cloudy prevail during the next five days.

Weekly cumulative rainfall: 69.0 mm

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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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			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ul style="list-style-type: none"> 1. Weeding and light irrigation in nursery bed. 2. Provide irrigation in transplanted okra field.
			<ul style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit or Dimethoate 30 % EC 7ml/10lt of water. 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 (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> 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 (Streptomycine sulphate 0.3 gm/lit of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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Mizoram Centre, Kolasib- 796081, MIZORAM

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



French bean	Sowing	<ol style="list-style-type: none"> 1. Weeding in the French bean field. 2. Provide irrigation in water stress condition. 	<p>found effective against leaf spot.</p> <ul style="list-style-type: none"> ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		<ol style="list-style-type: none"> 1. Aphid(<i>Aphis gossypii</i>) 	<ul style="list-style-type: none"> • Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		<ol style="list-style-type: none"> 2. Epilachna beetle. (<i>Epilachna vigintioctopuncta</i>) 	<ul style="list-style-type: none"> • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	Land preparation		<ul style="list-style-type: none"> ✚ 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)	<ul style="list-style-type: none"> • 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 ₂ B vaccine for adult birds.



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)



	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: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	8	18	35	28	15
Max Temp (°C)	29	27	30	26	29
Min Temp (°C)	15	15	17	17	17
Cloud Coverage	Clear sky	Mainly clear	Mainly clear	Mainly clear	Mainly clear
Max RH (%)	93	99	99	99	98
Min RH (%)	44	67	51	78	74
Wind Speed (Kmph)	4	3	4	3	4
*Wind Direction	S-E	S-E	S-E	S-E	S-E

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

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

Aizawl- 8.42 mm (0.00mm) **Champhai- 9.28 mm (0.00mm)** **Chhimtuipui- 11.37 mm (0.00mm)** **Kolasib- 10.51 mm (0.00mm)**
Lawngtlai-7.84mm (0.00mm) **Lunglei-6.35mm (0.00mm)** **Mamit-8.21mm (0.00mm)** **Serchhip-6.37mm (0.00mm)**

Weather summary of the past three days

Weather forecast valid from 29th April, 2015 To 03rd May, 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 26-30°C and 15-17°C. Maximum relative humidity is expected in the range of 93-98% and minimum may from 44-78%. Wind direction would be southeasterly with the wind speed of 3-4 km per hour. Dense cloudy will prevail during the next five days.

Weekly cumulative rainfall: 104.0 mm

Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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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Mizoram Centre, Kolasib- 796081, MIZORAM

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



			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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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Mizoram Centre, Kolasib- 796081, MIZORAM

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Oil plam	Vegetative/ Harvesting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ul style="list-style-type: none"> 1. Weeding and light irrigation in nursery bed. 2. Provide irrigation in transplanted okra field.
			<ul style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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Mizoram Centre, Kolasib- 796081, MIZORAM

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



		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit or Dimethoate 30 % EC 7ml/10lt of water. 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 (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> 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/lit of water) and Blitox 50 @ 5gm/ 15lt water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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French bean	Sowing	1. Weeding in the French bean field. 2. Provide irrigation in water stress condition.	found effective against leaf spot. ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		1. Aphid(<i>Aphis gossypii</i>)	• Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		2. Epilachna beetle. (<i>Epilachna vigintioctopuncta</i>)	• 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 ₂ B vaccine for adult birds.



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



	Early stage	Coccidiosis	1. Amprolium or coccidiostat
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ICAR RESEARCH COMPLEX FOR NEH REGION

Mizoram Centre, Kolasib- 796081, MIZORAM

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



District: Champhai

Period: 28 April - 03 May, 2015

Bulletin No: -513/2015/ Bulletin/English

Date of issue: 28th April, 2015

Parameters	29.04.2015	30.04.2015	01.05.2015	02.05.2015	03.05.2015
Rainfall (mm)	4	13	36	26	16
Max Temp (°C)	28	26	29	26	29
Min Temp (°C)	15	15	17	17	18
Cloud Coverage	Clear sky	Mainly clear	Mainly clear	Mainly clear	Mainly clear
Max RH (%)	91	95	95	95	95
Min RH (%)	43	56	46	75	60
Wind Speed (Kmph)	4	3	4	4	3
*Wind Direction	S	S	S	S	S
Northerly- N , North-Easterly- N-E , Easterly- E , South-Easterly- S-E , Southerly- S , South-Westerly- S-W , Westerly- W , North-westerly- N-W .					
STATUS OF MONSOON- March 1-31, 2015 (Percent of deviation from normal in parenthesis) Aizawl- 8.42 mm (0.00mm) Champhai- 9.28 mm (0.00mm) Chhimtuipui- 11.37 mm (0.00mm) Kolasib- 10.51 mm (0.00mm) Lawngtlai-7.84mm (0.00mm) Lunglei-6.35mm (0.00mm) Mamit-8.21mm (0.00mm) Serchhip-6.37mm (0.00mm)					
Weather summary of the past three days		Weather forecast valid from 29 th April, 2015 To 03 rd May, 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 26-29 ⁰ C and 15-18 ⁰ C. Maximum relative humidity is expected in the range of 91-95% and minimum may from 43-75%. Wind direction would be southeasterly with the wind speed of 3-4 km per hour. Dense cloudy will prevail during the next five days. Weekly cumulative rainfall: 95.0 mm			
Main Crop/ Animal /Fisheries	Stage	Cultural practices/ Pest/ Diseases	Agricultural / Horticultural/ animal husbandry advisories		
Khasi Mandarin and acid lime	Nursery stage		<ul style="list-style-type: none"> 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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			<p>200:100 (g/pt).</p> <ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Harvest all the mature fruits. Provide irrigation to newly established crop
Cucurbitaceous crop	Fruiting stage		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> Mulching (if dry spell is there) Give irrigation at regular interval Provide banana shading to transplanted seedling.
			<ol style="list-style-type: none"> 1. Weeding and light irrigation in nursery bed. 2. Provide irrigation in transplanted okra field.
			<ol style="list-style-type: none"> 1. Aphid (<i>Aphis gossypii</i>) 2. Flea beetle
			<ul style="list-style-type: none"> Spray surf water solution to the plat Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water. Shake plants to dislodge grubs, pupae and



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		(<i>Phylliodes balyi</i>)	adults and destroy.
		3. Epilachna beetle. (<i>Epilachna vigintioctopunctata</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit or Dimethoate 30 % EC 7ml/10lit of water.
		4. Leafhopper (<i>Empoasca devastans</i>)	<ul style="list-style-type: none"> Collect damaged leaves with grubs and egg masses and destroy them. Spray with methyl parathion 0.5% or dimethoate 0.3% is effective.
		✓ Bacterial Wilt (<i>Pseudomonas solanacearum</i>)	<ul style="list-style-type: none"> Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/lit of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lit of water. 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/lit of water) and Blitox 50 @ 5gm/ 15lit water.
Tomato	Fruiting stage		<ul style="list-style-type: none"> ❖ Weeding near the plant ❖ Fertilizer application in split dose of recommended dose. ❖ Provide irrigation to the plant.
		Damping off	<ul style="list-style-type: none"> ✓ 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/ lit of water at 10-15 DAS are effective.
		Leaf spot and leaf blotch	<ul style="list-style-type: none"> ○ Spraying Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water, 2-3 sprayings should be given fortnightly intervals. ○ Spraying of Blitox @ 3 g/l of water was



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French bean	Sowing	<ol style="list-style-type: none"> 1. Weeding in the French bean field. 2. Provide irrigation in water stress condition. 	<p>found effective against leaf spot.</p> <ul style="list-style-type: none"> ○ Mulching (if dry spell is there) ○ Give irrigation at regular interval
		<ol style="list-style-type: none"> 1. Aphid(<i>Aphis gossypii</i>) 	<ul style="list-style-type: none"> • Spray surf water solution to the plat. • Spray any one of the insecticides Imidacloprid 200 SL @ 0.25ml/l of water (Sucking pest) or Dimethoate 30 % EC 7ml/10lt of water.
		<ol style="list-style-type: none"> 2. Epilachna beetle. (<i>Epilachna vigintioctopuncta</i>) 	<ul style="list-style-type: none"> • Spray with methyl parathion 0.5% or dimethoate 0.3% is effective against flea beetle.
Ginger and turmeric	Land preparation		<ul style="list-style-type: none"> ✚ 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).	<ol style="list-style-type: none"> 1. Culling of positive pigs or piglets.
	Adult stage	Swine fever.	<ol style="list-style-type: none"> 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)	<ul style="list-style-type: none"> • FMD vaccine at 16 week and repeat every 6 month.
	Young stage	Black Quarter (BQ)	<ul style="list-style-type: none"> • Black Quarter Vaccine (BQV). <ul style="list-style-type: none"> ❖ Primary vaccination 6 month or above ❖ Revaccination annually
Poultry	Adult stage	Ranikhet Disease.	<ul style="list-style-type: none"> • F1 vaccine at (1-6) days of birth and R₂B vaccine for adult birds.



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	Early stage	Coccidiosis	1. Amprolium or coccidiostat
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