

# Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17

## Mokokchung District

Bulletin No:13/2017

### Weather summary of the preceding week

- No rain occurred the past week
- Maximum and minimum temperatures ranged 26<sup>0</sup>C to 27<sup>0</sup>C and 9<sup>0</sup>C to 11<sup>0</sup>C, respectively.
- Relative humidity varied from 14% to 82%.
- Wind speed ranged from 1 to 2 kmph

### Weather forecast valid upto 26<sup>th</sup> Feb'17

- Probability of light rain the coming week.
- **Max temp** is likely to be 25<sup>0</sup>C - 26<sup>0</sup>C and the **min temp** 11<sup>0</sup>C to 13<sup>0</sup>C
- **Sky is likely to be mainly clear** the coming week
- **Relative Humidity** is likely to range from 27% to 90%.
- **Wind speed** may reach upto 2- 3 kmph
- **Wind direction** will be southeasterly

### Field crops

#### General Recommendations

- Conservation of soil moisture through locally available materials in all the crops.
- Utilization of harvested water stored in various structures like Jalkund is recommended through drip and sprinkler irrigation system
- Incorporate organic sources of manures (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake etc.) in to the soil

Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
TRC/WRC paddy	Storage stage	Rice weevil	• Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.
Toria	Flowering to maturing stage	-	<ul style="list-style-type: none"> <li>• Soil moisture conservation techniques like mulching with crop residue is recommended</li> <li>• Keep the field free from weeds and daily scouting of the field should be done for aphid.</li> </ul>
Rabi maize	Maturing stage		• Provide mulching to conserve moisture
		Stem borer	• To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.

### Horticultural crop

#### General Recommendations

- Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain moisture
  - Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to *Ralstonia solanacearum*.
  - Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the trash.
- Maintaining crop hygiene is an essential step for successful farming.

Mandarin	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>• Harvest at right maturity stage, avoid physical injuries.</li> <li>• Harvested fruits should be kept under proper storage condition to ensure</li> </ul>
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			<p><i>longer shelf life.</i></p> <ul style="list-style-type: none"> <li>• <i>Check for penicillium rot</i></li> </ul>
		Trunk borer	<ul style="list-style-type: none"> <li>• <i>To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</i></li> </ul>
		Scab,canker	<ul style="list-style-type: none"> <li>• <i>Spray with Bordeaux mixture@ 1% per litre of water.</i></li> <li>• <i>Spray Neem oil @10ml in 1 litre of water</i></li> </ul>
<b>Vegetables</b> <i>(cabbage, cauliflower)</i>	Heading to harvesting stage		<ul style="list-style-type: none"> <li>• <i>Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</i></li> </ul>
		Red ant and cut worm	<ul style="list-style-type: none"> <li>• <i>Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</i></li> </ul>
		Alternaria leaf spot	<ul style="list-style-type: none"> <li>• <i>Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</i></li> </ul>
<b>Pea</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• <i>Cautious picking should be done to avoid plant damage</i></li> <li>• <i>Identify proper maturity indices at harvest.</i></li> </ul>
<b>Black pepper</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• <i>There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunk. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</i></li> <li>• <i>After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</i></li> </ul>
<b>Ginger</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• <i>After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly peeled rhizomes may be cut into fine slices and dried in the sun.</i></li> </ul>
<b>Livestock</b>			
<p><b><i>General Recommendations</i></b></p> <ul style="list-style-type: none"> <li>• <i>Ensure periodic vaccination of animals against FMD, Brucellosis, Haemorrhagic Septicaemia, Anthrax</i></li> <li>• <i>Avoid feeding of damp and foul smelling feed to all livestock and poultry.</i></li> </ul>			
<b>Poultry</b>	<ul style="list-style-type: none"> <li>• <i>Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</i></li> </ul>		



		<ul style="list-style-type: none"> <li>• <i>Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</i></li> </ul>
<b>Piggery</b>		<ul style="list-style-type: none"> <li>• <i>Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose.</i></li> <li>• <i>Keep floor dry to avoid skin diseases.</i></li> </ul>
<b>Fishery</b>		<ul style="list-style-type: none"> <li>• <i>Harvest the fish in pond having less water depth</i></li> <li>• <i>It is advisable to renovate ponds by removing the bottom mud and allow to dry.</i></li> </ul>

## SCIENTIFIC EXPERT COMMITTEE

Sl.no	Name	Designation	Department	
1	Dr.D.J. Rajkhowa	Principle Scientist	Agronomy	djrajkhowa@gmail.com
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# Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Mon District

Bulletin No:13/2017

## Weather summary of the preceding week

- No rain occurred the past week
- Maximum and minimum temperatures ranged 26<sup>o</sup>C to 27<sup>o</sup>C and 10<sup>o</sup>C to 11<sup>o</sup>C, respectively.
- Relative humidity varied from 13% to 95%
- Wind speed ranged from 1 to 2 kmph

## Weather forecast valid upto 26<sup>th</sup> Feb'17

- Probability of light rain the coming week.
- **Max temp** is likely to be 23<sup>o</sup>C - 25<sup>o</sup>C and the **min temp** 10<sup>o</sup>C to 13<sup>o</sup>C
- **Sky is likely to be mainly clear** the coming week
- **Relative Humidity** is likely to range from 30% to 95%.
- **Wind speed** may reach upto 1- 2 kmph
- **Wind direction** will be southeasterly

## Field crops

### General Recommendations

- Conservation of soil moisture through locally available materials in all the crops.
- Utilization of harvested water stored in various structures like Jalkund is recommended through drip and sprinkler irrigation system
- Incorporate organic sources of manures (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake etc.) in to the soil

Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
<b>TRC/WRC paddy</b>	Storage stage	Rice weevil	• Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.
<b>Toria</b>	Flowering to maturing stage	-	<ul style="list-style-type: none"> <li>• Soil moisture conservation techniques like mulching with crop residue is recommended</li> <li>• Keep the field free from weeds and daily scouting of the field should be done for aphid.</li> </ul>
<b>Rabi maize</b>	Maturing stage		• Provide mulching to conserve moisture
		Stem borer	• To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.

## Horticultural crop

### General Recommendations

- Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain moisture
- Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to *Ralstonia solanacearum*.
- Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the

trash. Maintaining crop hygiene is an essential step for successful farming.				
<b>Mandarin</b>	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>• Harvest at right maturity stage, avoid physical injuries.</li> <li>• Harvested fruits should be kept under proper storage condition to ensure longer shelf life.</li> <li>• Check for penicillium rot</li> </ul>	
		Trunk borer	<ul style="list-style-type: none"> <li>• To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</li> </ul>	
		Scab,canker	<ul style="list-style-type: none"> <li>• Spray with Bordeaux mixture@ 1% per litre of water .</li> <li>• Spray Neem oil @ 10ml in 1 litre of water</li> </ul>	
<b>Vegetables (cabbage, cauliflower)</b>	Heading to harvesting stage		<ul style="list-style-type: none"> <li>• Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</li> </ul>	
		Red ant and cut worm	<ul style="list-style-type: none"> <li>• Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</li> </ul>	
		Alternaria leaf spot	<ul style="list-style-type: none"> <li>• Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</li> </ul>	
<b>Pea</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• Cautious picking should be done to avoid plant damage</li> <li>• Identify proper maturity indices at harvest.</li> </ul>	
<b>Tomato</b>	Fruiting to maturity stage		<ul style="list-style-type: none"> <li>• Maintain an even moisture supply of water.</li> <li>• Check for biotic stress and take proper action.</li> </ul>	
		Borer	<ul style="list-style-type: none"> <li>• Tomato plants should be stacked and hand collect and destroy the Helicoverpa larvae.</li> <li>• After harvesting, deep ploughing of the crop should be done to expose the pupae</li> </ul>	
<b>Chilli</b>	Maturity to harvesting stage		<ul style="list-style-type: none"> <li>• Maintain an even moisture supply of water.</li> <li>• Check for biotic stress and take proper action</li> </ul>	
		Whitefly, aphids	<ul style="list-style-type: none"> <li>• Daily monitoring of the pest should be done</li> <li>• Spray Neem oil @ 10ml in 1 litre of water</li> <li>• At the initial stage of infestation, carefully remove the infested leafs without disturbing the pest population and burn it.</li> </ul>	
		Bacterial wilt, Fusarium wilt and anthracnose/ fruit rot	<ul style="list-style-type: none"> <li>• To manage the disease, crop should be rotated with non solanaceous crop</li> <li>• Avoid mixed cropping with solanaceous crops(brinjal, tomato, potato)</li> <li>• Removal and destruction/burning of the infected crop debris.</li> <li>• Soil drenching with bio control agents like Pseudomonas flourescens</li> </ul>	

			<p>@ 10gm or 20gm in 1 litre of water. It should be carried out three times at an interval of 15 days.</p> <ul style="list-style-type: none"> <li>• For fruit rot, spray Neem oil @10ml in 1 litre of water</li> </ul>
	<b>Black pepper</b>	Harvesting stage	<ul style="list-style-type: none"> <li>• There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunken. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</li> <li>• After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</li> </ul>
	<b>Ginger</b>	Harvesting stage	<ul style="list-style-type: none"> <li>• After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly peeled rhizomes may be cut into fine slices and dried in the sun.</li> </ul>
	<p style="text-align: center;"><b>Livestock</b></p> <p><b>General Recommendations</b></p> <ul style="list-style-type: none"> <li>• Ensure periodic vaccination of animals against FMD, Brucellosis, Haemorrhagic Septicaemia, Anthrax</li> <li>• Avoid feeding of damp and foul smelling feed to all livestock and poultry.</li> </ul>		
	<b>Poultry</b>	<ul style="list-style-type: none"> <li>• Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</li> <li>• Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</li> </ul>	
	<b>Piggery</b>	<ul style="list-style-type: none"> <li>• Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose.</li> <li>• Keep floor dry to avoid skin diseases.</li> </ul>	
	<b>Fishery</b>	<ul style="list-style-type: none"> <li>• Harvest the fish in pond having less water depth</li> <li>• It is advisable to renovate ponds by removing the bottom mud and allow to dry.</li> </ul>	



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## Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Peren District

Bulletin No:13/2017

<i>Weather summary of the preceding week</i>			<i>Weather forecast valid upto 26<sup>th</sup> Feb'17</i>
<ul style="list-style-type: none"> <li>No rain occurred the past week</li> <li>Maximum and minimum temperatures ranged 26<sup>0</sup>C to 27<sup>0</sup>C and 10<sup>0</sup>C to 12<sup>0</sup>C, respectively.</li> <li>Relative humidity varied from 17% to 86%.</li> <li>Wind speed ranged from 1 to 2 kmph</li> </ul>			<ul style="list-style-type: none"> <li>Probability of light rain the coming week.</li> <li><b>Max temp</b> is likely to be 24<sup>0</sup>C - 27<sup>0</sup>C and the <b>min temp</b> 10<sup>0</sup>C to 12<sup>0</sup>C</li> <li><b>Sky is likely to be mainly clear</b> the coming week</li> <li><b>Relative Humidity</b> is likely to range from 33% to 97%.</li> <li><b>Wind speed</b> may reach upto 2- 4 kmph</li> <li><b>Wind direction</b> will be mostly southeasterly</li> </ul>
<i>Field crops</i>			
<b>General Recommendations</b> <ul style="list-style-type: none"> <li>Remove all weeds containing seeds, but keep other vegetative rests on the land because that will reduce evaporation. Timing of irrigation - rather late afternoon or early evening to reduce evaporation. Check and repair all tools and machinery especially where there are water leaks</li> <li>Jalkund should be covered with thatch to prevent evaporation losses.</li> </ul>			
Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
TRC/WRC paddy	Storage stage	Rice weevil	<ul style="list-style-type: none"> <li>Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.</li> </ul>
Toria	Flowering to maturing stage	-	<ul style="list-style-type: none"> <li>Soil moisture conservation techniques like mulching with crop residue is recommended</li> <li>Keep the field free from weeds and daily scouting of the field should be done for aphid.</li> </ul>
Rabi maize	Maturing stage	Stem borer	<ul style="list-style-type: none"> <li>Provide mulching to conserve moisture</li> <li>To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.</li> </ul>
linseed/lentil	Maturing stage		<ul style="list-style-type: none"> <li>Soil moisture conservation techniques like mulching with crop residue is recommended</li> </ul>
<i>Horticultural crop</i>			
<b>General Recommendations</b> <ul style="list-style-type: none"> <li>Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain moisture</li> <li>Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to <i>Ralstonia</i></li> </ul>			



<i>solanacearum</i> . <ul style="list-style-type: none"> <li>Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the trash. Maintaining crop hygiene is an essential step for successful farming.</li> </ul>			
<b>Mandarin</b>	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>Harvest at right maturity stage, avoid physical injuries.</li> <li>Harvested fruits should be kept under proper storage condition to ensure longer shelf life.</li> <li>Check for penicillium rot</li> </ul>
		Trunk borer	<ul style="list-style-type: none"> <li>To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</li> </ul>
		Scab,canker	<ul style="list-style-type: none"> <li>Spray with Bordeaux mixture@ 1% per litre of water .</li> <li>Spray Neem oil @10ml in 1 litre of water</li> </ul>
	Heading to harvesting stage <i>(cabbage, cauliflower)</i>		<ul style="list-style-type: none"> <li>Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</li> </ul>
		Red ant and cut worm	<ul style="list-style-type: none"> <li>Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</li> </ul>
		Alternaria leaf spot	<ul style="list-style-type: none"> <li>Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</li> </ul>
	Harvesting stage		<ul style="list-style-type: none"> <li>Cautious picking should be done to avoid plant damage</li> <li>Identify proper maturity indices at harvest.</li> </ul>
	Fruiting to maturity stage		<ul style="list-style-type: none"> <li>Maintain an even moisture supply of water.</li> <li>Check for biotic stress and take proper action.</li> </ul>
		Borer	<ul style="list-style-type: none"> <li>Tomato plants should be stacked and hand collect and destroy the <i>Helicoverpa</i> larvae.</li> <li>After harvesting, deep ploughing of the crop should be done to expose the pupae</li> </ul>
<b>Chilli</b>	Maturity to harvesting stage		<ul style="list-style-type: none"> <li>Maintain an even moisture supply of water.</li> <li>Check for biotic stress and take proper action</li> </ul>
		Whitefly, aphids	<ul style="list-style-type: none"> <li>Daily monitoring of the pest should be done</li> <li>Spray Neem oil @10ml in 1 litre of water</li> <li>At the initial stage of infestation, carefully remove the infested leafs without disturbing the pest population and burn it.</li> </ul>

			Bacterial wilt, Fusarium wilt and anthracnose/ fruit rot	<ul style="list-style-type: none"> <li>• To manage the disease, crop should be rotated with non solanaceous crop</li> <li>• Avoid mixed cropping with solanaceous crops(brinjal, tomato, potato)</li> <li>• Removal and destruction/burning of the infected crop debris.</li> <li>• Soil drenching with bio control agents like <i>Pseudomonas fluorescens</i> @ 10gm or 20gm in 1 litre of water. It should be carried out three times at an interval of 15 days.</li> <li>• For fruit rot, spray Neem oil @ 10ml in 1 litre of water</li> </ul>
	<b>Black pepper</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunken. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</li> <li>• After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</li> </ul>
	<b>Ginger</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly peeled rhizomes may be cut into fine slices and dried in the sun.</li> </ul>
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	<b>Poultry</b>	<ul style="list-style-type: none"> <li>• Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</li> <li>• Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</li> </ul>		
	<b>Piggery</b>	<ul style="list-style-type: none"> <li>• Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose.</li> <li>• Keep floor dry to avoid skin diseases.</li> </ul>		
	<b>Fishery</b>	<ul style="list-style-type: none"> <li>• Harvest the fish in pond having less water depth</li> <li>• It is advisable to renovate ponds by removing the bottom mud and allow to dry.</li> </ul>		



## SCIENTIFIC EXPERT COMMITTEE

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# Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Phek District

Bulletin No:13/2017

Weather summary of the preceding week			Weather forecast valid upto 26 <sup>th</sup> Feb'17		
<ul style="list-style-type: none"><li>▪ No rain occurred the past week</li><li>▪ Maximum and minimum temperatures ranged 26<sup>0</sup>C to 28<sup>0</sup>C and 10<sup>0</sup>C to 11<sup>0</sup>C, respectively.</li><li>▪ Relative humidity varied from 14% to 90%.</li><li>▪ Wind speed ranged from 1 to 2 kmph</li></ul>			<ul style="list-style-type: none"><li>▪ Probability of no rain the coming week.</li><li>▪ <b>Max temp</b> is likely to be 24<sup>0</sup>C - 25<sup>0</sup>C and the <b>min temp</b> 12<sup>0</sup>C to 15<sup>0</sup>C</li><li>▪ <b>Sky is likely to be mainly clear</b> the coming week</li><li>▪ <b>Relative Humidity</b> is likely to range from 23% to 95%.</li><li>▪ <b>Wind speed</b> may reach upto 2- 3 kmph</li><li>▪ <b>Wind direction</b> will be mostly southerly</li></ul>		
Field crops					
General Recommendations					
<ul style="list-style-type: none"><li>• Conservation of soil moisture through locally available materials in all the crops.</li><li>• Utilization of harvested water stored in various structures like Jalkund is recommended through drip and sprinkler irrigation system</li><li>• Incorporate organic sources of manures (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake etc.) in to the soil</li></ul>					
Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories		
TRC/WRC paddy	Storage stage	Rice weevil	• Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.		
Toria	Flowering to maturing stage	-	• Soil moisture conservation techniques like mulching with crop residue is recommended • Keep the field free from weeds and daily scouting of the field should be done for aphid.		
Rabi maize	Maturing stage		• Provide mulching to conserve moisture		
		Stem borer	• To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.		
Horticultural crop					
General Recommendations					
<ul style="list-style-type: none"><li>• Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain moisture</li></ul>					

<ul style="list-style-type: none"> <li>• Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to <i>Ralstonia solanacearum</i>.</li> <li>• Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the trash. Maintaining crop hygiene is an essential step for successful farming.</li> </ul>			
<b>Mandarin</b>	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>• Harvest at right maturity stage, avoid physical injuries.</li> <li>• Harvested fruits should be kept under proper storage condition to ensure longer shelf life.</li> <li>• Check for penicillium rot</li> </ul>
		Trunk borer	<ul style="list-style-type: none"> <li>• To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</li> </ul>
		Scab,canker	<ul style="list-style-type: none"> <li>• Spray with Bordeaux mixture@ 1% per litre of water .</li> <li>• Spray Neem oil @ 10ml in 1 litre of water</li> </ul>
<b>Vegetables (cabbage, cauliflower)</b>	Heading to harvesting stage		<ul style="list-style-type: none"> <li>• Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</li> </ul>
		Red ant and cut worm	<ul style="list-style-type: none"> <li>• Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</li> </ul>
		Alternaria leaf spot	<ul style="list-style-type: none"> <li>• Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</li> </ul>
<b>Pea</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• Cautious picking should be done to avoid plant damage</li> <li>• Identify proper maturity indices at harvest.</li> </ul>
<b>Black pepper</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunken. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</li> <li>• After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</li> </ul>
<b>Ginger</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly peeled rhizomes may be cut into fine slices</li> </ul>

				<i>and dried in the sun.</i>
	<p style="text-align: center;"><b><i>Livestock</i></b></p> <p><b><i>General Recommendations</i></b></p> <ul style="list-style-type: none"> <li>• Ensure periodic vaccination of animals against FMD, Brucellosis, Haemorrhagic Septicaemia, Anthrax</li> <li>• Avoid feeding of damp and foul smelling feed to all livestock and poultry.</li> </ul>			
	<b><i>Poultry</i></b>	<ul style="list-style-type: none"> <li>• <i>Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</i></li> <li>• <i>Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</i></li> </ul>		
	<b><i>Piggery</i></b>	<ul style="list-style-type: none"> <li>• <i>Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose.</i></li> <li>• <i>Keep floor dry to avoid skin diseases.</i></li> </ul>		
	<b><i>Fishery</i></b>	<ul style="list-style-type: none"> <li>• <i>Harvest the fish in pond having less water depth</i></li> <li>• <i>It is advisable to renovate ponds by removing the bottom mud and allow to dry.</i></li> </ul>		

## SCIENTIFIC EXPERT COMMITTEE

Sl.no	Name	Designation	Department	
1	Dr.D.J. Rajkhowa	Principle Scientist	Agronomy	djrajkhowa@gmail.com
2	Dr. L.K. Baishya	Senior Scientist	Agronomy	lkbicar@gmail.com
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7	Jyotish Barman	Scientist	Fisheries Resource Management	jyotish5@gmail.com

8	Aabon W Yanthan	Scientist	Vegetable Science	aabon.iari@gmail.com
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## Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Wokha District

Bulletin No:13/2017

Weather summary of the preceding week		Weather forecast valid upto 26 <sup>th</sup> Feb'17	
<ul style="list-style-type: none"><li>▪ No rain occurred the past week</li><li>▪ Maximum and minimum temperatures ranged 26<sup>0</sup>C to 27<sup>0</sup>C and 9<sup>0</sup>C to 10<sup>0</sup>C, respectively.</li><li>▪ Relative humidity varied from 16% to 94%.</li><li>▪ Wind speed ranged from 2 to 4 kmph</li></ul>		<ul style="list-style-type: none"><li>▪ Probability of light rain the coming week.</li><li>▪ <b>Max temp</b> is likely to be 25<sup>0</sup>C - 27<sup>0</sup>C and the <b>min temp</b> 10<sup>0</sup>C to 13<sup>0</sup>C</li><li>▪ <b>Sky is likely to be mainly clear</b> the coming week</li><li>▪ <b>Relative Humidity</b> is likely to range from 30% to 89%.</li><li>▪ <b>Wind speed</b> may reach upto 3- 4 kmph</li><li>▪ <b>Wind direction</b> will be mostly southeasterly</li></ul>	
Field crops			
General Recommendations			
<ul style="list-style-type: none"><li>• Conservation of soil moisture through locally available materials in all the crops.</li><li>• Utilization of harvested water stored in various structures like Jalkund is recommended through drip and sprinkler irrigation system</li><li>• Incorporate organic sources of manures (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake etc.) in to the soil</li></ul>			
Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
TRC/WRC paddy	Storage stage	Rice weevil	<ul style="list-style-type: none"><li>• Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.</li></ul>
Toria	Flowering to maturing stage	-	<ul style="list-style-type: none"><li>• Soil moisture conservation techniques like mulching with crop residue is recommended</li><li>• Keep the field free from weeds and daily scouting of the field should be done for aphid.</li></ul>
Rabi maize	Maturing stage		<ul style="list-style-type: none"><li>• Provide mulching to conserve moisture</li></ul>
		Stem borer	<ul style="list-style-type: none"><li>• To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.</li></ul>
Horticultural crop			
General Recommendations			
<ul style="list-style-type: none"><li>• Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain</li></ul>			

	moisture <ul style="list-style-type: none"> <li>• Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to <i>Ralstonia solanacearum</i>.</li> <li>• Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the trash. Maintaining crop hygiene is an essential step for successful farming.</li> </ul>			
	<b>Mandarin</b>	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>• Harvest at right maturity stage, avoid physical injuries.</li> <li>• Harvested fruits should be kept under proper storage condition to ensure longer shelf life.</li> <li>• Check for penicillium rot</li> </ul>
			Trunk borer	<ul style="list-style-type: none"> <li>• To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</li> </ul>
			Scab,canker	<ul style="list-style-type: none"> <li>• Spray with Bordeaux mixture@ 1% per litre of water .</li> <li>• Spray Neem oil @10ml in 1 litre of water</li> </ul>
	<b>Vegetables (cabbage, cauliflower)</b>	Heading to harvesting stage		<ul style="list-style-type: none"> <li>• Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</li> </ul>
			Red ant and cut worm	<ul style="list-style-type: none"> <li>• Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</li> </ul>
			Alternaria leaf spot	<ul style="list-style-type: none"> <li>• Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</li> </ul>
	<b>Pea</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• Cautious picking should be done to avoid plant damage</li> <li>• Identify proper maturity indices at harvest.</li> </ul>
	<b>Black pepper</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunken. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</li> <li>• After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</li> </ul>
	<b>Ginger</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should</li> </ul>

				<i>be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly peeled rhizomes may be cut into fine slices and dried in the sun.</i>
	<p style="text-align: center;"><b>Livestock</b></p> <p><b>General Recommendations</b></p> <ul style="list-style-type: none"> <li>• Ensure periodic vaccination of animals against FMD, Brucellosis, Haemorrhagic Septicaemia, Anthrax</li> <li>• Avoid feeding of damp and foul smelling feed to all livestock and poultry.</li> </ul>			
	<b>Poultry</b>	<ul style="list-style-type: none"> <li>• Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</li> <li>• Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</li> </ul>		
	<b>Piggery</b>	<ul style="list-style-type: none"> <li>• Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose.</li> <li>• Keep floor dry to avoid skin diseases.</li> </ul>		
	<b>Fishery</b>	<ul style="list-style-type: none"> <li>• Harvest the fish in pond having less water depth</li> <li>• It is advisable to renovate ponds by removing the bottom mud and allow to dry.</li> </ul>		

## SCIENTIFIC EXPERT COMMITTEE

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1	Dr.D.J. Rajkhowa	Principle Scientist	Agronomy	djrajkhowa@gmail.com
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4	Dr. Rajesha G	Scientist	Plant Pathology	rajeshag337@gmail.com
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6	Dr. Azeze Seyie	Scientist	Spices, Plantation & Medicinal & Aromatic Plants	azezeseyie@yahoo.com
7	Jyotish Barman	Scientist	Fisheries Resource Management	jyotish5@gmail.com
8	Aabon W Yanthan	Scientist	Vegetable Science	aabon.iari@gmail.com





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## Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Zunheboto District

Bulletin No:13/2017

### Weather summary of the preceding week

- No rain occurred the past week
- Maximum and minimum temperatures ranged 26<sup>0</sup>C to 28<sup>0</sup>C and 10<sup>0</sup>C to 11<sup>0</sup>C, respectively.
- Relative humidity varied from 13% to 90%.
- Wind speed ranged from 1 to 2 kmph

### Weather forecast valid upto 26<sup>th</sup> Feb'17

- Probability of light rain the coming week.
- **Max temp** is likely to be 23<sup>0</sup>C - 26<sup>0</sup>C and the **min temp** 10<sup>0</sup>C to 13<sup>0</sup>C
- **Sky is likely to be mainly clear** the coming week
- **Relative Humidity** is likely to range from 24% to 93%.
- **Wind speed** may reach upto 1- 2 kmph
- **Wind direction** will be mostly southeasterly

### Field crops

#### General Recommendations

- Conservation of soil moisture through locally available materials in all the crops.
- Utilization of harvested water stored in various structures like Jalkund is recommended through drip and sprinkler irrigation system
- Incorporate organic sources of manures (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake etc.) in to the soil

Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
TRC/WRC paddy	Storage stage	Rice weevil	<ul style="list-style-type: none"> <li>• Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.</li> </ul>
Toria	Flowering to maturing stage	-	<ul style="list-style-type: none"> <li>• Soil moisture conservation techniques like mulching with crop residue is recommended</li> <li>• Keep the field free from weeds and daily scouting of the field should be done for aphid.</li> </ul>
Rabi maize	Maturing stage		<ul style="list-style-type: none"> <li>• Provide mulching to conserve moisture</li> </ul>
		Stem borer	<ul style="list-style-type: none"> <li>• To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.</li> </ul>


### Horticultural crop

#### General Recommendations

- Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain moisture
- Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to *Ralstonia*

<i>solanacearum.</i> <ul style="list-style-type: none"> <li>Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the trash.</li> </ul> Maintaining crop hygiene is an essential step for successful farming.			
<b>Mandarin</b>	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>Harvest at right maturity stage, avoid physical injuries.</li> <li>Harvested fruits should be kept under proper storage condition to ensure longer shelf life.</li> <li>Check for penicillium rot</li> </ul>
		Trunk borer	<ul style="list-style-type: none"> <li>To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</li> </ul>
		Scab,canker	<ul style="list-style-type: none"> <li>Spray with Bordeaux mixture@ 1% per litre of water .</li> <li>Spray Neem oil @10ml in 1 litre of water</li> </ul>
	<b>Vegetables (cabbage, cauliflower)</b>	Heading to harvesting stage	<ul style="list-style-type: none"> <li>Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</li> </ul>
		Red ant and cut worm	<ul style="list-style-type: none"> <li>Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</li> </ul>
		Alternaria leaf spot	<ul style="list-style-type: none"> <li>Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</li> </ul>
<b>Pea</b>	Harvesting stage		<ul style="list-style-type: none"> <li>Cautious picking should be done to avoid plant damage</li> <li>Identify proper maturity indices at harvest.</li> </ul>
<b>Black pepper</b>	Harvesting stage		<ul style="list-style-type: none"> <li>There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunken. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</li> <li>After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</li> </ul>
<b>Ginger</b>	Harvesting stage		<ul style="list-style-type: none"> <li>After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly</li> </ul>



				<i>peeled rhizomes may be cut into fine slices and dried in the sun.</i>
	<p style="text-align: center;"><b>Livestock</b></p> <p><b>General Recommendations</b></p> <ul style="list-style-type: none"> <li>• Ensure periodic vaccination of animals against FMD, Brucellosis, Haemorrhagic Septicaemia, Anthrax</li> <li>• Avoid feeding of damp and foul smelling feed to all livestock and poultry.</li> </ul>			
	<b>Poultry</b>	<ul style="list-style-type: none"> <li>• Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</li> <li>• Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</li> </ul>		
	<b>Piggery</b>	<ul style="list-style-type: none"> <li>• Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose.</li> <li>• Keep floor dry to avoid skin diseases.</li> </ul>		
	<b>Fishery</b>	<ul style="list-style-type: none"> <li>• Harvest the fish in pond having less water depth</li> <li>• It is advisable to renovate ponds by removing the bottom mud and allow to dry.</li> </ul>		

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# Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Dimapur District

Bulletin No:13/2017

<i>Weather summary of the preceding week</i>	<i>Weather forecast valid upto 26<sup>th</sup> Feb'17</i>
<ul style="list-style-type: none"> <li>No rain occurred the past week</li> <li>Maximum and minimum temperatures ranged 25<sup>0</sup>C to 27<sup>0</sup>C and 9<sup>0</sup>C to 10<sup>0</sup>C, respectively.</li> <li>Relative humidity varied from 17% to 94%.</li> <li>Wind speed ranged from 3 to 4 kmph</li> </ul>	<ul style="list-style-type: none"> <li>Probability of light rain the coming week.</li> <li><b>Max temp</b> is likely to be 26<sup>0</sup>C - 29<sup>0</sup>C and the <b>min temp</b> 10<sup>0</sup>C to 15<sup>0</sup>C</li> <li><b>Sky is likely to be clear</b> the coming week</li> <li><b>Relative Humidity</b> is likely to range from 24% to 90%.</li> <li><b>Wind speed</b> may reach upto 3- 4 kmph</li> <li><b>Wind direction</b> will be mostly southeasterly</li> </ul>

## Field crops

### General Recommendations

- Conservation of soil moisture through locally available materials in all the crops.
- Utilization of harvested water stored in various structures like Jalkund is recommended through drip and sprinkler irrigation system
- Incorporate organic sources of manures (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake etc.) in to the soil


Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
<i>TRC/WRC paddy</i>	Storage stage	Rice weevil	<ul style="list-style-type: none"> <li>Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.</li> </ul>
<i>Toria</i>	Flowering to maturing stage	-	<ul style="list-style-type: none"> <li>Soil moisture conservation techniques like mulching with crop residue is recommended</li> <li>Keep the field free from weeds and daily scouting of the field should be done for aphid.</li> </ul>
<i>Rabi maize</i>	Maturing stage		<ul style="list-style-type: none"> <li>Provide mulching to conserve moisture</li> </ul>
		Stem borer	<ul style="list-style-type: none"> <li>To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.</li> </ul>
<i>linseed/lentil</i>	Maturing stage		<ul style="list-style-type: none"> <li>Soil moisture conservation techniques like mulching with crop residue is recommended</li> </ul>

## Horticultural crops

### General Recommendations

- Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain moisture
- Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to *Ralstonia solanacearum*.
- Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the trash.

Maintaining crop hygiene is an essential step for successful farming.			
Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
<b>Mandarin</b>	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>• Harvest at right maturity stage, avoid physical injuries.</li> <li>• Harvested fruits should be kept under proper storage condition to ensure longer shelf life.</li> <li>• Check for penicillium rot</li> </ul>
		Trunk borer	<ul style="list-style-type: none"> <li>• To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</li> </ul>
		Scab,canker	<ul style="list-style-type: none"> <li>• Spray with Bordeaux mixture@ 1% per litre of water .</li> <li>• Spray Neem oil @10ml in 1 litre of water</li> </ul>
<b>Vegetables (cabbage, cauliflower)</b>	Heading to harvesting stage		<ul style="list-style-type: none"> <li>• Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</li> </ul>
		Red ant and cut worm	<ul style="list-style-type: none"> <li>• Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</li> </ul>
		Alternaria leaf spot	<ul style="list-style-type: none"> <li>• Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</li> </ul>
<b>Pea</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• Cautious picking should be done to avoid plant damage</li> <li>• Identify proper maturity indices at harvest.</li> </ul>
<b>Tomato</b>	Fruiting to maturity stage		<ul style="list-style-type: none"> <li>• Maintain an even moisture supply of water.</li> <li>• Check for biotic stress and take proper action.</li> </ul>
		Borer	<ul style="list-style-type: none"> <li>• Tomato plants should be stacked and hand collect and destroy the <i>Helicoverpa</i> larvae.</li> <li>• After harvesting, deep ploughing of the crop should be done to expose the pupae</li> </ul>
<b>Chilli</b>	Maturity to harvesting stage		<ul style="list-style-type: none"> <li>• Maintain an even moisture supply of water.</li> <li>• Check for biotic stress and take proper action</li> </ul>
		Whitefly, aphids	<ul style="list-style-type: none"> <li>• Daily monitoring of the pest should be done</li> <li>• Spray Neem oil @10ml in 1 litre of water</li> <li>• At the initial stage of infestation, carefully remove the infested leaves without disturbing the pest population and burn it.</li> </ul>

			Bacterial wilt, Fusarium wilt and anthracnose/ fruit rot	<ul style="list-style-type: none"> <li>To manage the disease, crop should be rotated with non solanaceous crop</li> <li>Avoid mixed cropping with solanaceous crops(brinjal, tomato, potato)</li> <li>Removal and destruction/burning of the infected crop debris.</li> <li>Soil drenching with bio control agents like <i>Pseudomonas flourescens</i> @10gm or 20gm in 1 litre of water. It should be carried out three times at an interval of 15 days.</li> <li>For fruit rot, spray Neem oil @10ml in 1 litre of water</li> </ul>
	<b>Black pepper</b>	Harvesting stage		<ul style="list-style-type: none"> <li>There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunken. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</li> <li>After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</li> </ul>
	<b>Ginger</b>	Harvesting stage		<ul style="list-style-type: none"> <li>After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly peeled rhizomes may be cut into fine slices and dried in the sun.</li> </ul>
<p style="text-align: center;"><b>Livestock</b></p> <p><b>General Recommendations</b></p> <ul style="list-style-type: none"> <li>Ensure periodic vaccination of animals against FMD, Brucellosis, Haemorrhagic Septicaemia, Anthrax</li> <li>Avoid feeding of damp and foul smelling feed to all livestock and poultry.</li> </ul>				
	<b>Poultry</b>			<ul style="list-style-type: none"> <li>Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</li> <li>Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</li> </ul>
	<b>Piggery</b>			<ul style="list-style-type: none"> <li>Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose.</li> <li>Keep floor dry to avoid skin diseases.</li> </ul>
	<b>Fishery</b>			<ul style="list-style-type: none"> <li>Harvest the fish in pond having less water depth</li> <li>It is advisable to renovate ponds by removing the bottom mud and allow to dry.</li> </ul>

## SCIENTIFIC EXPERT COMMITTEE

Sl.no	Name	Designation	Department	
1	Dr.D.J. Rajkhowa	Principle Scientist	Agronomy	djrajkhowa@gmail.com
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7	Jyotish Barman	Scientist	Fisheries Resource Management	jyotish5@gmail.com
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# Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Kiphire District

Bulletin No:13/2017

Weather summary of the preceding week		Weather forecast valid upto 26 <sup>th</sup> Feb'17	
<ul style="list-style-type: none"><li>▪ No rain occurred the past week</li><li>▪ Maximum and minimum temperatures ranged 26<sup>0</sup>C to 27<sup>0</sup>C and 10<sup>0</sup>C to 11<sup>0</sup>C, respectively.</li><li>▪ Relative humidity varied from 13% to 81%.</li><li>▪ Wind speed ranged from 1 to 2 kmph</li></ul>		<ul style="list-style-type: none"><li>▪ Probability of no rain the coming week.</li><li>▪ <b>Max temp</b> is likely to be 23<sup>0</sup>C - 24<sup>0</sup>C and the <b>min temp</b> 11<sup>0</sup>C to 13<sup>0</sup>C</li><li>▪ <b>Sky is likely to be mainly clear</b> the coming week</li><li>▪ <b>Relative Humidity</b> is likely to range from 23% to 91%.</li><li>▪ <b>Wind speed</b> may reach upto 1- 2 kmph</li><li>▪ <b>Wind direction</b> will be mostly southerly</li></ul>	
Field crops			
General Recommendations			
<ul style="list-style-type: none"><li>• Conservation of soil moisture through locally available materials in all the crops.</li><li>• Utilization of harvested water stored in various structures like Jalkund is recommended through drip and sprinkler irrigation system</li><li>• Incorporate organic sources of mnaures (FYM, Vermicompost, Poultry manure, Pig manure, Goat/ Sheep manure, Mixed compost, Neem cake etc.) in to the soil</li></ul>			
Main Crops	Stage	Pest/ Diseases	Agro-meteorological Advisories
TRC/WRC paddy	Storage stage	Rice weevil	<ul style="list-style-type: none"><li>• Paddy grains can be mixed with neem leaves at the time of storage to reduce storage pests.</li></ul>
Toria	Flowering to maturing stage	-	<ul style="list-style-type: none"><li>• Soil moisture conservation techniques like mulching with crop residue is recommended</li><li>• Keep the field free from weeds and daily scouting of the field should be done for aphid.</li></ul>
Rabi maize	Maturing stage		<ul style="list-style-type: none"><li>• Provide mulching to conserve moisture</li></ul>
		Stem borer	<ul style="list-style-type: none"><li>• To control borer, intercropping should be done with non related crop like soybean will result in least population of the pest.</li></ul>
Horticultural crop			
General Recommendations			
<ul style="list-style-type: none"><li>• Soils may be mulched with a variety of materials (straw, grass, other beneficial plant materials, etc.) to help retain moisture</li><li>• Growing rice on the same plots after ginger will help to reduce the menace of wilt problem in ginger due to <i>Ralstonia solanacearum</i>.</li><li>• Always remove from the growing area plant materials that show signs of a disease and destroy them or place them in the trash.</li></ul>			


Maintaining crop hygiene is an essential step for successful farming.

•

<b>Mandarin</b>	Fruiting to harvesting stage		<ul style="list-style-type: none"> <li>• Harvest at right maturity stage, avoid physical injuries.</li> <li>• Harvested fruits should be kept under proper storage condition to ensure longer shelf life.</li> <li>• Check for penicillium rot</li> </ul>
		Trunk borer	<ul style="list-style-type: none"> <li>• To kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water(1:1) and plug with mud</li> </ul>
		Scab,canker	<ul style="list-style-type: none"> <li>• Spray with Bordeaux mixture@ 1% per litre of water .</li> <li>• Spray Neem oil @10ml in 1 litre of water</li> </ul>
<b>Vegetables (cabbage, cauliflower)</b>	Heading to harvesting stage		<ul style="list-style-type: none"> <li>• Regular watering and weeding in main field is recommended. Regular monitoring for pest and disease incidence and collection and destruction of egg, larva, pupa and adult</li> </ul>
		Red ant and cut worm	<ul style="list-style-type: none"> <li>• Drenching of plant with mixture of water, cow urine and Neem oil 8 litre, 2 litre and 50 ml, respectively at weekly interval to avoid red ant and cut worms</li> </ul>
		Alternaria leaf spot	<ul style="list-style-type: none"> <li>• Disease can be identified by purplish brown spots on the upper surface of the leaves with characteristic concentric rings. Lesions may enlarge and leaves may get dried. Diseased crop debris should be destroyed. Seeds harvested from such siliqua are frequently contaminated so it should not be used for next season.</li> </ul>
<b>Pea</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• Cautious picking should be done to avoid plant damage</li> <li>• Identify proper maturity indices at harvest.</li> </ul>
<b>Black pepper</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• There is probability of no rain the coming days too so harvesting of berries should be carried out. Berries should be dried in the sun for 7-10 days until the outer skin becomes black and shrunken. Dip the berries in hot water for 2-5 minutes before drying for good quality black pepper of uniform colour.</li> <li>• After harvesting, manures need to be applied around the vines at a distance of 30cm and forked into the soil,</li> </ul>
<b>Ginger</b>	Harvesting stage		<ul style="list-style-type: none"> <li>• After harvesting, prepare dry ginger. The produce should be soaked overnight then rubbed and cleaned them. After cleaning, removed from the water and peel the outer skins. The peeled rhizomes should be washed and dried in sun uniformly for one week. Dry rhizomes should be rubbed together in order to get rid of the last bit of the skin or dirt or the freshly peeled rhizomes may be cut into fine slices and dried in the sun.</li> </ul>

### Livestock

### General Recommendations

	<ul style="list-style-type: none"> <li>• Ensure periodic vaccination of animals against FMD, Brucellosis, Haemorrhagic Septicaemia, Anthrax</li> <li>• Avoid feeding of damp and foul smelling feed to all livestock and poultry.</li> </ul>	
	<b>Poultry</b>	<ul style="list-style-type: none"> <li>• <i>Litter should be changed periodically and provide clean drinking water and change the water every day. Diseased and dead birds should be immediately removed.</i></li> <li>• <i>Protect from intense cold. Keep the shed wall covered during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.</i></li> </ul>
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## Integrated Agromet Advisory Service Bulletin from 22<sup>nd</sup> to 26<sup>th</sup> Feb'17 Longleng District

Bulletin No:13/2017

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General Recommendations			
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