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Identification and prevention of diseases of stone fruits of Meghalaya

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ABSTRACT

Fruit Cultivation in Meghalaya is a prominent business sector for earning a good amount of state's revenue. Meghalaya being a home of wide variety of fruits and vegetables holds a unique position in production figures among other states of North-East. Fruit crops are capable of giving higher tonnage of yield per unit area than other field crops.Meghalaya produces several stone fruits such as plum,peach,pear,apricot in a restricted scale. This paper focuses on details of diseases/insects of plum,peach,pear,apricot trees and their prevention.

Keywords: HTML pages,codes.

I. INTRODUCTION

Meghalaya has suitable climate for cultivation of wide variety of fruits. Meghalaya produces several stone fruits such as plum,peach,pear,apricot but in a limited scale. These fruits can also be processed in several products like canned fruit, concentrates and fruit juices, dehydrated fruit, jellies and jams. Cultivation of fruits chiefly depends upon the quality of soils, harvest, plantation and a perfect ambience of brilliant minds. There are ample investment opportunities for the expansion of export market for fruit cultivation in Meghalaya.Properly managing the orchard reduces labour cost, improves tree health, increases fruit production and boosts state's economy.

HTML is the abbreviation for Hyper Text Markup Language, and is the code, or language that is used for the creation of basic website layouts.It is the standard markup language for creating web pages and web applications. HTML is used to create electronic documents (called pages) that are displayed on the World Wide Web. Each page contains a series of connections to other pages called hyperlinks. Every web page that we see on the Internet is written using one version of HTML code or another.HTML code ensures the proper formatting of text and images so that our internet browser may display them as they are intended to look. Without HTML, a browser would not know how to display text as elements or load images or other elements. HTML also provides a basic structure of the page, upon which Cascading Style Sheets(CSS) are overlaid to change its appearance. One could think of HTML as the bones (structure) of a web page, and CSS as its skin (appearance).The HTML pages and their codes used in this paper are described below:

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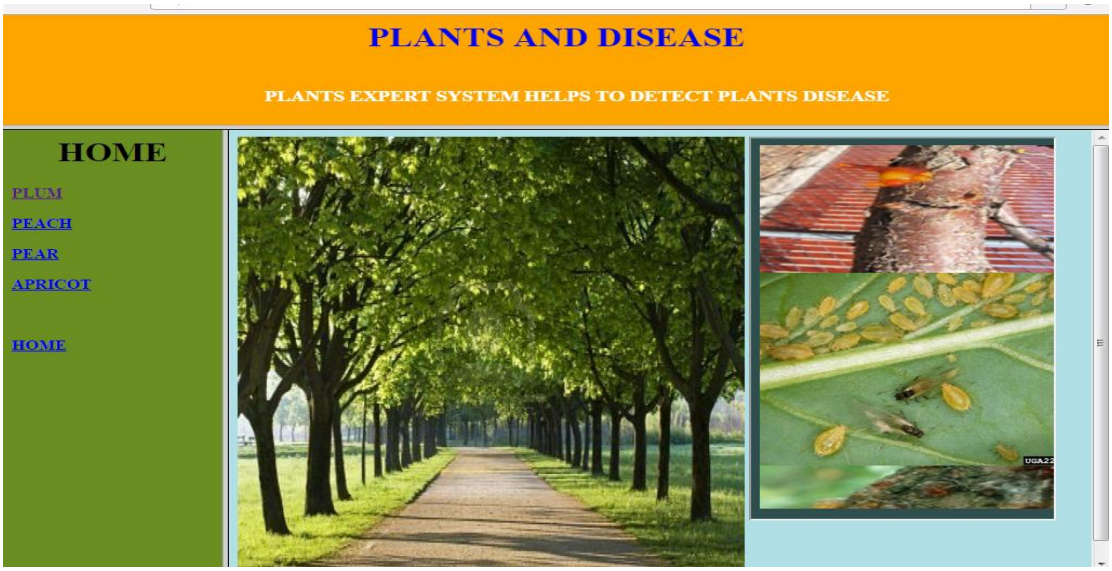
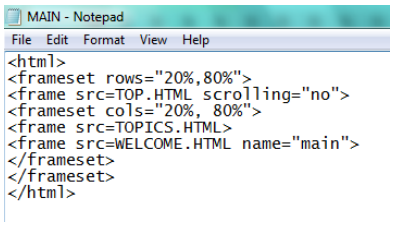


Codes: The coding for the above page is as follows:

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<frameset cols="20%, 80%">
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<frame src=WELCOME.HTML name="main">
</frameset>
</frameset>
</html>
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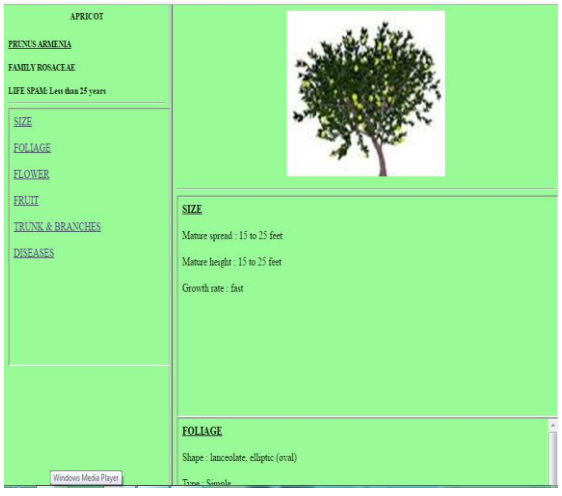
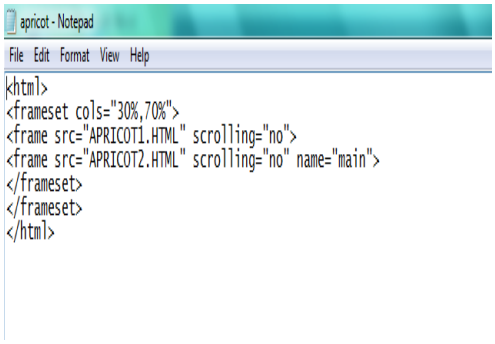
APRICOT: Flowers, fruits of apricot are described below along with their coding



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<frame src="APRICOT2.HTML" scrolling="no" name="main">
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</frameset>
</html>
```

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SIZE

Mature spread : 15 to 25 feet

Mature height : 15 to 25 feet

Growth rate : fast

apricot_1 - Notepad

File Edit Format View Help

```
<html>
<body bgcolor="#98fb98" TEXT=black>
<FONT SIZE=3><b><u>SIZE</u></b></FONT>
<br><br>
Mature spread :  15 to 25 feet
<br><br>
Mature height :  15 to 25 feet
<br><br>
Growth rate   :  fast
<br><br><br><br>
</body>
</html>
```

FOLIAGE

Shape : lanceolate, elliptic (oval)

Type : Simple

Persistence : deciduous

Arrangement : alternate

Blade length : 2 to 4 inches, 4 to 8 inches

Margin : Serrate, serrulate

Venation : brachidodrome, pinnate

Spiny : no

Fall Characteristics : Yellow

Fall Colour : showy

Summer Colour : green

BACK

apricot_2 - Notepad

File Edit Format View Help

```
<html>
<body bgcolor="#98fb98" TEXT=black>
<FONT SIZE=3><b><u>FOLIAGE</u></b></FONT>
<br><br>
Shape  :  lanceolate, elliptic (oval)
<br><br>
Type  :  Simple
<br><br>
Persistence  : deciduous
<br><br>
Arrangement  : alternate
<br><br>
Blade length  :  2 to 4 inches, 4 to 8 inches
<br><br>
Margin  : Serrate, serrulate
<br><br>
Venation  : brachidodrome, pinnate
<br><br>
Spiny  :  no
<br><br>
Fall Characteristics : Yellow
<br><br>
Fall Colour : showy
<br><br>
Summer Colour : green
<br><br><br><br>
<a href=apricot.html>BACK</a>
</body>
</html>
```

FLOWER

Season : Flowers in spring

Colour : white/cream/gray, pink, red

Showiness : showy

Fragrance : No

BACK

apricot_3 - Notepad

File Edit Format View Help

```
<html>
<body bgcolor="#98fb98" TEXT=black>
<FONT SIZE=3><b><u>FLOWER</u></b></FONT>
<br><br>
Season : Flowers in spring
<br><br>
Colour : white/cream/gray, pink, red
<br><br>
Showiness : showy
<br><br>
Fragrance : No
<br><br><br><br>
<a href=apricot.html>BACK</a>
</body>
</html>
```

FRUIT

Edible : yes

Shape : Round

Length : 3 to 6 inches

Colour : Yellow, Red

Composition : fleshy

Showiness : showy

Persistent : No

Litler : fruit/leaves a litler problem

Attraction to wild life : attracts birds

BACK

apricot_4 - Notepad

File Edit Format View Help

```
<html>
<body bgcolor="#98fb98" TEXT=black>
<FONT SIZE=3><b><u>FRUIT</u></b></FONT>
<br><br>
Edible  : yes
<br><br>
Shape : Round
<br><br>
Length  :  3 to 6 inches
<br><br>
Colour : Yellow, Red
<br><br>
Composition : fleshy
<br><br>
Showiness : showy
<br><br>
Persistent : No
<br><br>
Litler : fruit/leaves a litler problem
<br><br>
Attraction to wild life : attracts birds
<br><br><br><br>
<a href=apricot.html>BACK</a>
</body>
</html>
```

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TRUNK AND BRANCHES

Number of Trunks : Typically multi-trunked, can be trained to one trunk

Showiness : not showy

Thorns : no

Branch Drooping : branches droop

Bark Thickness : thin bark

Crown Shaft : not applicable

Wood Specific Gravity : unknown

Current year Twig Colour: reddish, green

Current year Twig Thickness: thin, medium

Trunk and branch Breakage: resistant

Pruning Requirements : needed for strong structure

BACK

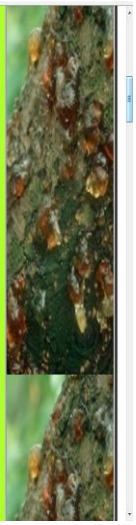
apricot_5 - Notepad

File Edit Format View Help

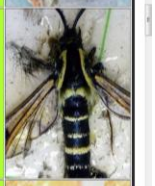
```
<html>
<body bgcolor="#98fb98"TEXT=black>
<FONT SIZE=3><b><u>TRUNK AND BRANCHES</u></b></FONT>
<br><br>
Number of Trunks : Typically multi-trunked, can be trained to one trunk
<br><br>
Showiness : not showy
<br><br>
Thorns : no
<br><br>
Branch Drooping : branches droop
<br><br>
Bark Thickness : thin bark
<br><br>
Crown Shaft : not applicable
<br><br>
Wood Specific Gravity : unknown
<br><br>
Current year Twig Colour: reddish, green
<br><br>
Current year Twig Thickness: thin, medium
<br><br>
Trunk and branch Breakage: resistant
<br><br>
Pruning Requirements : needed for strong structure
<br><br><br><br>
<a href=apricot.html>BACK</a>
</body>
</html>
```

APRICOT

APRICOT TREE DESEASE			
NAME OF INSECT	NAME OF DISEASE	PREVENTION	IMAGES OF INSECT/DISEASE
A fungus	Coryneum Blight (Shot Hole) (It infects fruits, twigs, leaves, buds)	Prune and destroy all infected plant tissue. Prevent irrigation water from wetting leaves. For severe infections, apply copper spray in fall starting at 50% leaf drop to protect newly forming buds, and use chlorothalonil 1 to 2 times before	

Gummosis can result from environmental stress, mechanical injury, or disease and insect infestation	Gummosis (Gelatinous-like ooze on bark)	The first thing to do if our fruit tree shows signs of gummosis is to correct any drainage problems. Providing good drainage by amending the soil or transplanting is essential to its recovery. Another step involves removing the diseased bark. Remove the darkened area of bark from the tree, plus a strip of the healthy bark until the wound is surrounded by a margin of healthy bark. Once this is done, let the area dry. Keep checking the area and repeat the bark trimming if necessary. Systemic fungicides can prevent against some types of	

A fungus	Perennial Canker. Also called cytospora canker. (It infects bark,stem, limbs, twigs)	When planting an orchard, avoid low-lying sites. Such sites have poor air and water drainage, and increase the possibility of winter injury. Separating new plantings from Cytosporainfected trees markedly reduces the number of canker infections. Prune the trees annually. Remove narrow-angle crotches, all weak and dead wood and limbs, and all cankered branches that can be spared. Cut at least 4 inches (10 cm) below a canker. Make the pruning cuts close, otherwise the stubs will not heal properly. Paint major pruning cuts	

A fungus	Verticillium Wilt (It infects root, foliage,leaf)	Remove and destroy infected trees.	
Greater Peachtree(Crown) Borer	It infects trunk, bark, roots.	Preventive trunk sprays (permethrin, carbaryl) are the main control tactic, from early July through September on the lower 12–18" of trunk and exposed roots.	
		Preventive	

Codes: The coding for the above page is as follows:

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<html>
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<caption> <b><u>APRICOT</u></b> </caption>
<tr>
<th bgcolor = "#FFD700" colspan="4"> APRICOT TREE DESEASE </th>
</tr>
<tr>
<th bgcolor = "#ADFF2F"> NAME OF INSECT </th>
<th bgcolor = "#ADFF2F"> NAME OF DISEASE </th>
<th bgcolor = "#ADFF2F"> PREVENTION </th>
<th bgcolor = "#ADFF2F"> IMAGES OF INSECT/DISEASE </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> A fungus </th>
<th bgcolor = "#ADFF2F"> Coryneum Blight (Shot Hole)
(It infects fruits, twigs, leaves, buds)
</th>
```

<th bgcolor = "#ADFF2F"> Prune and destroy all infected plant tissue. Prevent irrigation water from wetting leaves. For severe infections, apply copper spray in fall starting at 50% leaf drop to protect newly forming buds, and use chlorothalonil 1 to 2 times before shuck split stage. </th>
<th bgcolor = "#ADFF2F" Background = "coryneum blight.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> Gummosis can result from environmental stress, mechanical injury, or disease and insect infestation </th>
<th bgcolor = "#ADFF2F"> Gummosis
(Gelatinous-like ooze on bark)
</th>
<th bgcolor = "#ADFF2F"> The first thing to do if our fruit tree shows signs of gummosis is to correct any drainage problems. Providing good drainage by amending the soil or transplanting is essential to its recovery. Another step involves removing the diseased bark. Remove the darkened area of bark from the tree, plus a strip of the healthy bark until the wound is surrounded by a margin of healthy bark. Once this is done, let the area dry. Keep checking the area and repeat the bark trimming if necessary. Systemic fungicides can prevent against some types of gummosis. </th>
<th bgcolor = "#ADFF2F" Background ="Gummosis_of_peach.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> A fungus </th>
<th bgcolor = "#ADFF2F"> Perennial Canker. Also called cytospora canker.
(It infects bark,stem, limbs, twigs)
</th>
<th bgcolor = "#ADFF2F"> When planting an orchard, avoid low-lying sites. Such sites have poor air and water drainage, and increase the possibility of winter injury. Separating new plantings from Cytosporainfected trees markedly reduces the number of canker infections. Prune the trees annually. Remove narrow-angle crotches, all weak and dead wood and limbs, and all cankered branches that can be spared. Cut at least 4 inches (10 cm) below a canker. Make the pruning cuts close, otherwise the stubs will not heal properly. Paint major pruning cuts (those greater than 2 inches or 5 cm in diameter) with a wound dressing. If viable, sprays of bordeaux, ziram, captan and copper should be applied for precaution prior to the fall rainy season. </th>
<th bgcolor = "#ADFF2F" Background ="perennial_canker.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> A fungus </th>
<th bgcolor = "#ADFF2F"> Verticillium Wilt
(It infects root, foliage,leaf) </th>

<th bgcolor = "#ADFF2F"> Remove and destroy infected trees. </th>
<th bgcolor = "#ADFF2F" Background ="verticilliumwilt.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> Greater Peachtree(Crown) Borer </th>
<th bgcolor = "#ADFF2F"> It infects trunk, bark, roots. </th>
<th bgcolor = "#ADFF2F"> Preventive trunk sprays (permethrin, carbaryl) are the main control tactic, from early July through September on the lower 12 -18" of trunk and exposed roots.
</th>
<th bgcolor = "#ADFF2F" Background ="greaterpeachtreecrownborer.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> Peach Twig Borer </th>
<th bgcolor = "#ADFF2F"> It infects fruits, twigs, shoots. </th>
<th bgcolor = "#ADFF2F"> Preventive measures include insecticides, horticultural oil,traps. </th>
<th bgcolor = "#ADFF2F" Background ="peachtwigborer.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> Spider Mites </th>
<th bgcolor = "#ADFF2F"> It infects leaves. </th>
<th bgcolor = "#ADFF2F"> One natural remedy is to simply spray down the plant with a nozzled hose. The force of the stream of water is enough to knock most of the spider mites off of the plant. Another natural spider mite remedy is to release natural predators of spider mites around the plants like Ladybugs ,Lacewing, Minute pirate bugs, Predatory mites ,Big-eyed bugs. Use of insecticidal oil, like neem oil, a horticultural oil or a dormant oil. We should not try to use a normal pesticide for spider mite treatment as they are resistant to pesticides. Using a pesticide will only kill off the beneficial bugs that eat spider mites, which will only make the spider mite infestation worse.
<th bgcolor = "#ADFF2F" Background ="spider_mite_on_peach.jpg" </th>
</th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> Earwigs </th>
<th bgcolor = "#ADFF2F"> It infects fruits. </th>
<th bgcolor = "#ADFF2F"> Earwigs crawl up tree trunks. Remove debris and weeds from the base of trees. Rolled cardboard strips tucked into limb crotches can be used to trap and remove earwigs from trees (remove and replace cardboard rolls). Exclude earwigs by wrapping the trunk with a 3" wide band of duct tape covered with tanglefoot (a sticky substance). If necessary, carbaryl and spinosad provide a short interval of protection.

</th>
<th bgcolor = "#ADFF2F" Background ="earwigs.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> European Fruit Lecanium Scale </th>
<th bgcolor = "#ADFF2F"> It infects leaves, twigs, sap. </th>
<th bgcolor = "#ADFF2F"> Ladybird beetles, lacewing larvae and predaceous bugs feed on crawlers as they emerge from under their mothers' scales and disperse to leaves to feed. A tiny parasitic wasp also attackes mature scales, which leaves a small round hole in the scale after emeging as an adult wasp. These natural enemies can usually keep lecanium scale below damaging levels if not disrupted by harmful chemicals.Prune out infested branches in spring and destroy. Chemical sprays to conrol this occasional pest are best directed against the crawler stage. A second spray may be required if egg hatch is prolonged. A delayed dormant spray can aid in control of mature scales.
</th>
<th bgcolor = "#ADFF2F" Background ="European Fruit Lecanium Scale.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> European Paper Wasp,
Yellow Jackets </th>
<th bgcolor = "#ADFF2F"> It infects fruits. </th>
<th bgcolor = "#ADFF2F"> Clean up rotting fruit on the ground and regularly pick ripe fruit. To trap European paper wasps, cut the top third of a soda bottle off and invert it into the bottom portion. Punch holes along the top edges and insert wires for hanging. Fill the bottle with 1 part fruit juice, 10 parts water, and 1 tsp detergent. Hang the trap in apricot trees or nearby areas just before fruit starts to ripen.
</th>
<th bgcolor = "#ADFF2F" Background ="European Paper Wasp.jpg" </th>
</tr>
<tr align="center">
<th bgcolor = "#ADFF2F"> Fruittree Leafroller </th>
<th bgcolor = "#ADFF2F"> It infects leaves, fruits. </th>
<th bgcolor = "#ADFF2F"> Fruittree leafrollers do have natural enemies, which keep their population in check such as the lacewing, and some beetles. Bacillus thuringiensis (available in a variety of insecticides) is effective when the leafroller is in its larval stage. The larvae must be 1/2 inch or smaller (caterpillars need to ingest the insecticide) in order for the bacillus thuringiensis to be effective.
</th>
<th bgcolor = "#ADFF2F" Background ="fruittree-leafroller.jpg" </th>
</tr>

```
</table>
<br><br>
<a href=apricot.html>BACK</a>
</body>
</html>
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PEACH:

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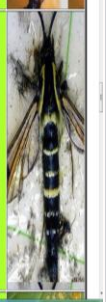
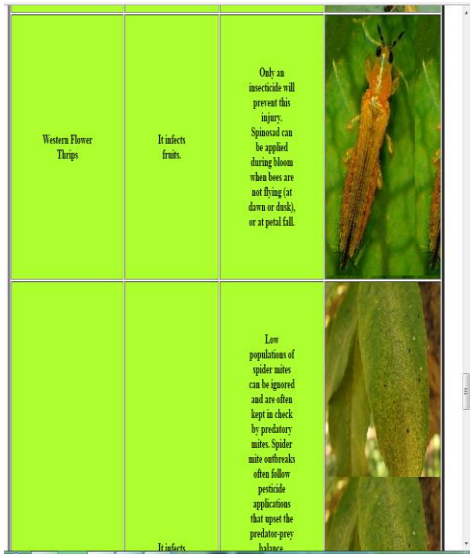
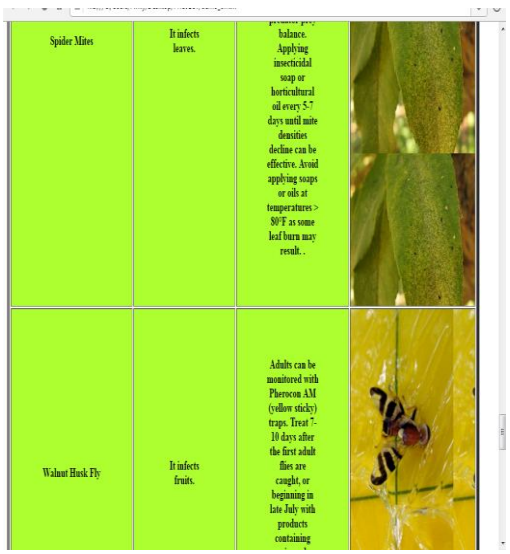
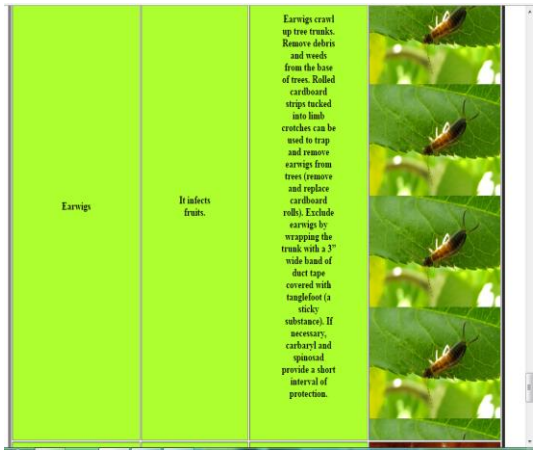
PEACH

PEACH TREE DESEASE			
NAME OF INSECT	NAME OF DISEASE	PREVENTION	IMAGES OF INSECT/DISEASE
Peachtree Borer	It infects trunk.	For peachtree borer control, use a "pre-plant dip" of insecticide as well as insecticide application. Use permethrin or esfenvalerate before the two weeks prior to harvest.	
White Peach Scale	It infects stem, twigs	For white peach scale control, apply horticultural oil before budbreak; do not apply unless temperatures have exceeded 40 degrees F. Spray the tree with oil at a 1 to 2 percent solution until it drips from the tree.	
Plum Curculio	It infects fruits.	For management of plum curculio, apply three treatments of carbaryl or malathion to the tree beginning as soon as flower petals fall from	
A fungus	Coryneum Blight (Shot Hole) (It infects fruits, twigs, leaves, buds)	Prune infected shoots and twigs. Prevent irrigation water from wetting leaves. For severe infections, apply copper spray in fall starting at 50% leaf drop to protect newly forming buds. In spring, spray with captan or chlorothalonil.	
		The first thing to do if our fruit tree shows signs of gummosis is to correct any drainage problems.	
Gummosis can result from environmental stress, mechanical injury, or disease and insect infestation.	Gummosis (Gelatinous-like ooze on bark)	The first thing to do if our fruit tree shows signs of gummosis is to correct any drainage problems. Providing good drainage by amending the soil or transplanting is essential to its recovery. Another step involves removing the diseased bark. Remove the darkened area of bark from the tree, plus a strip of the healthy bark until the wound is surrounded by a margin of healthy bark. Once this is done, let the area dry. Keep checking the area and repeat the bark	
Iron Deficiency - interveinal chlorosis (yellowing between veins) - blackened scorching, curling or premature leaf drop (under severe conditions)		To prevent or treat iron deficiency, chelated iron (in the form of FeEDDHA, such as Miller's Ferriplus) should be applied to the soil or foliage, but results are temporary; (Chelated products are readily available for absorption, and are not affected by soil pH.) Soil applications should be made in the spring, and worked into the root zone. For minor deficiencies, one application will last all season. Foliar sprays (0.2%) with a sprinkler.	
A fungus	Perennial Canker (It infects bark,stem, limbs, twigs)	Prune out diseased tissue, prevent wounding, and keep trees healthy. There are no fungicides for managing cankers.	
A fungus	Powdery Mildew. (It infects leaves, fruits).	Most trees can tolerate light infections. Rake and remove all leaves and debris in fall. Fungicides (lime-sulfur, myclobutanil, or propiconazole) work as preventives, and must be applied prior to infections.	
Peach Twig Borer	It infects twigs, fruits.	Insecticides like spinosad, carbaryl, and malathion work for peach twig borer.	
Greater Peachtree(Cocora) Borer	It infects trunk	Preventive sprays with permethrin or carbaryl are the main control tactics, starting in late June, and continuing every 2-3 weeks through September. Only spray lower 12 - 18" of trunk and exposed roots.	
Green Peach Aphid	It infects leaves.	Numerous beneficial insects (e.g., lady beetles, lacewings, and syrphid flies) help suppress aphid populations, so conserve and protect these natural enemies. The backyard orchardist can usually ignore aphid infestations unless the populations are extremely high, growth of young trees is being stunted, or black sooty mold is staining the fruit. Apply 2% oil at budbreak to kill eggs. During the growing season, insecticidal	

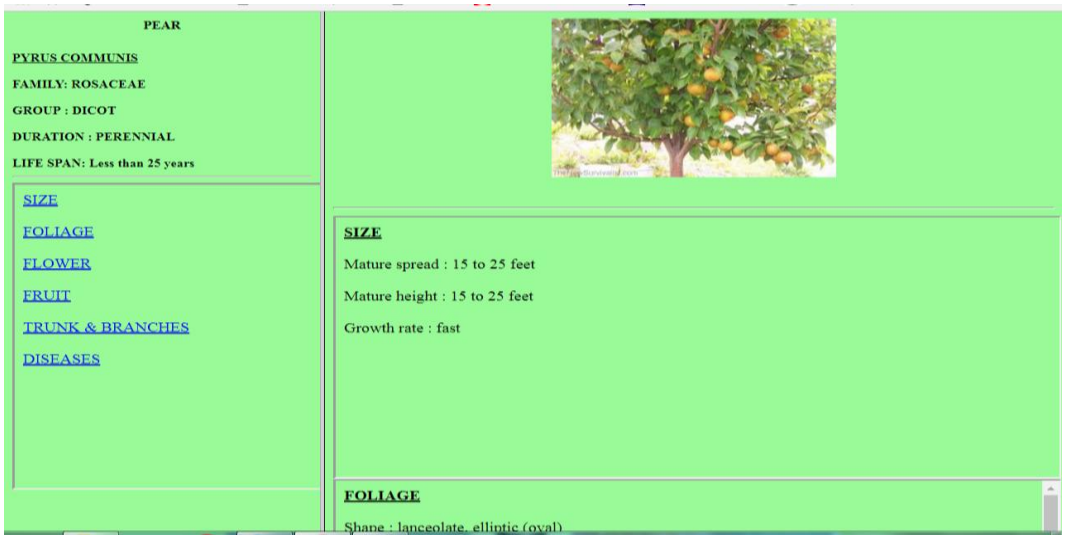

Western Flower Thrips
It infects fruits.
Only an insecticide will prevent this injury. Spinosad can be applied during bloom when bees are not flying (at dawn or dusk), or at petal fall.
Low populations of spider mites can be ignored and are often kept in check by predatory mites. Spider mite outbreaks often follow pesticide applications that upset the predator-prey


Spider Mites
It infects leaves.
Applying insecticidal soap or horticultural oil every 5-7 days until mite densities decline can be effective. Avoid applying soaps or oils at temperatures > 80°F as some leaf burn may result. .
Walnut Husk Fly
It infects fruits.
Adults can be monitored with Pheracon AM (yellow sticky) traps. Treat 7-10 days after the first adult flies are caught, or beginning in late July with products containing


Earwigs
It infects fruits.
Earwigs crawl up tree trunks. Remove debris and weeds from the base of trees. Rolled cardboard strips tucked into limb crotches can be used to trap and remove earwigs from trees (remove and replace cardboard rolls). Exclude earwigs by wrapping the trunk with a 3" wide band of duct tape covered with tanglefoot (a sticky substance). If necessary, carbaryl and spinosad provide a short interval of protection.


European Paper Wasp,Yellow Jackets
It infects fruits.
Clean up rotting fruit on the ground and regularly pick ripe fruit. To trap European paper wasps, cut the top third of a soda bottle off and invert it into the bottom portion. Punch holes along the top edges and insert wires for hanging. Fill the bottle with 1 part fruit juice, 10 parts water, and 1 tsp detergent. Hang the trap in peach trees or nearby areas just before fruit starts to ripen.

PEAR:


PEAR
PYRUS COMMUNIS
FAMILY: ROSACEAE
GROUP : DICOT
DURATION : PERENNIAL
LIFE SPAN: Less than 25 years
SIZE
FOLIAGE
FLOWER
FRUIT
TRUNK & BRANCHES
DISEASES
SIZE
Mature spread : 15 to 25 feet
Mature height : 15 to 25 feet
Growth rate : fast
FOLIAGE
Shape : lanceolate, elliptic (oval)

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DISEASES

FOLIAGE

Shape : lanceolate, elliptic (oval)

Type : Simple

Persistence : deciduous

Arrangement : alternate

Blade length : 2 to 4 inches, 4 to 8 inches

Margin : Serrate, serrulate

Venation : brachidodrome, pinnate

Spiny : no

Fall Characteristics : Yellow

Fall Colour : showy

Summer Colour : green

BACK

SIZE

Mature spread : 15 to 25 feet

Mature height : 15 to 25 feet

Growth rate : fast

FLOWER

Season : Flowers in spring

Colour : white/cream/gray, pink, red

Showiness : showy

Fragrance : No

BACK

FRUIT

Edible : yes

Shape : Round

Length : 3 to 6 inches

Colour : Yellow, Red

Composition : fleshy

Showiness : showy

Persistent : No

Litler : fruit/leaves a litler problem

Attraction to wild life : attracts birds

BACK

TRUNK AND BRANCHES

Number of Trunks : Typically multi-trunked, can be trained to one trunk

Showiness : not showy

Thorns : no

Branch Drooping : branches droop

Bark Thickness : thin bark

Crown Shaft : not applicable

Wood Specific Gravity : unknown

Current year Twig Colour: reddish, green

Current year Twig Thickness: thin, medium

Trunk and branch Breakage: resistant

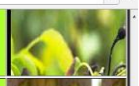
Pruning Requirements : needed for strong structure

BACK

PEAR

PEAR TREE DESEASE

NAME OF INSECT	NAME OF DISEASE	PREVENTION	IMAGES OF INSECT/DISEASE
		All infected shoots, twigs, and limbs should be pruned out of the tree. Cut 12 inches below the canker into healthy wood to be certain that the bacteria are removed. Do	

		resistance.	
A soil-borne, fungus-like organism (Phytophthora).	Crown Rot and Root Rot (It infects foliage)	Select sites with good water drainage for planting. Prevent standing water and do not over-irrigate. Do not replant in areas where root and/or crown rot occurred previously. Protect trees adjacent to infected trees by spraying foliage with phosphorus acid (Agri-fos, Fosphite) because phytophthora can spread by root-to-root contact.	

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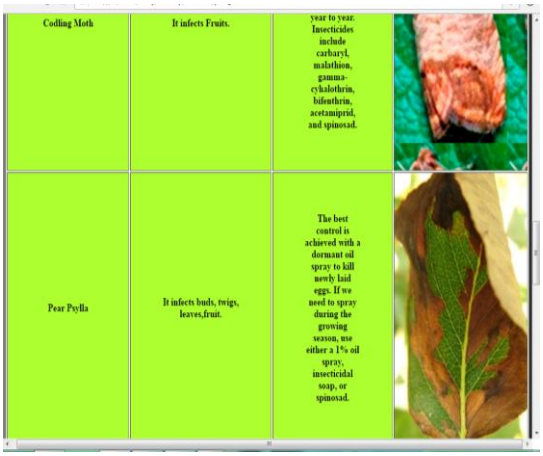
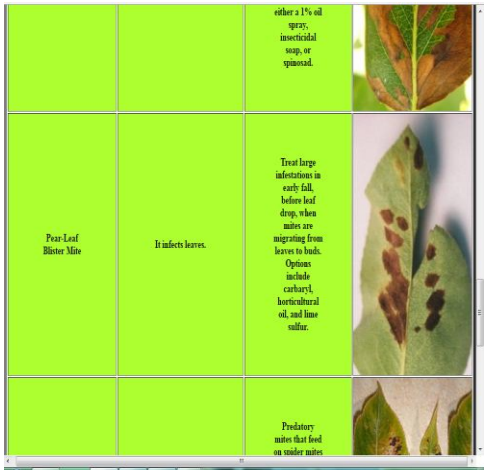
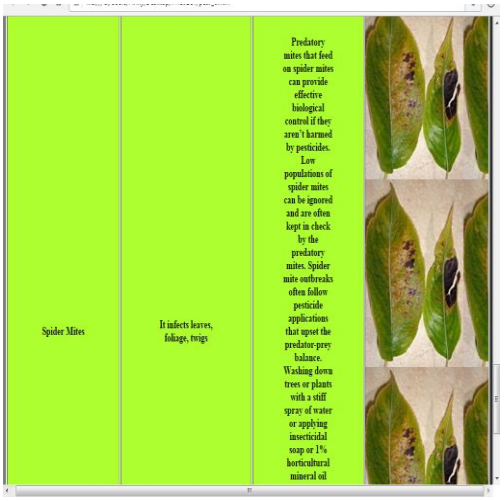
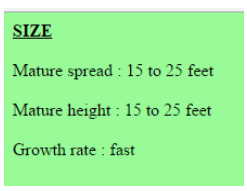






PLUM:



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PLUM

PLUM TREE DESEASE			
NAME OF INSECT	NAME OF DISEASE	PREVENTION	IMAGES OF INSECT/DISEASE
Japanese Beetles	It infects leaves.	Many of the pests can be eliminated with a pesticide spray. Control Japanese beetles by shaking the branches of the tree so that they fall to the ground. Place the beetles in	

Plum Aphid	It infects leaves.	Spray the tree with neem oil when you spy an infection of aphids.	
Plum Curculio	It infects Fruits.	A Petal-fall pesticide applied in fall will prevent plum curculio.	
Rust Mites	It infects leaves.	Control rust mites with a sulfur spray applied in early spring.	

Western Flower Thrips	It infects Fruits.	Only an insecticide will prevent this injury. Spinosad can be applied during bloom when bees are not flying (at dawn or dusk), or at petal fall.	
A soil-borne, fungus-like organism (Phytophthora)	Crown Rot and Root Rot It infects Fruits.	Plant only in well-drained areas. Do not replant in areas where root or crown rot occurred previously. Phosphorous acid (Agri-fos) can help protect healthy trees growing next to infected trees, as this disease can spread by root-to-root contact.	

A fungus	Perennial Canker (It infects bark,stem, limbs, twigs).	Prune out diseased tissue, prevent wounding, and keep trees healthy. There are no fungicides for managing cankers. Prune dead branches by cutting at least 4 inches below diseased wood. Avoid injury to trees. Control twig and tree borers since their damage may allow entrance of the fungus. Prevent wounding by sun scald.	
		Preventive trunk sprays (permethrin, carbaryl) are the main control tactic, from early July through September on the lower 12-18" of trunk and exposed roots.	
Flatheaded Borer (Pacific Flatheaded Borer and Flatheaded Apple tree Borer)	It infects trunk, bark.	Apply protective trunk sprays to prevent larvae from entering trees, such as products containing permethrin. Keep trees healthy with optimal watering, fertilization, pruning, and remove	

II. CONCLUSION

Meghalaya is basically an Agricultural State with about 80% of its total population depending entirely on Agriculture for their livelihood.Stone fruits like Plum, Peach, Pear, Apricot are found in the central plateau of East and West Khasi Hills and Jaintia Hills and have good commercial value. Now by implementing technology, stone fruits can also be grown in other parts of the state. Cultivation of fruits will surely play a vital role in the prosperity of Meghalaya as generally stated that the standard of living of the people can be judged by per capita production and consumption of fruits. Though the initial cost of establishment of an orchard is high, it is compensated by higher productivity or due to high value of produce. In the long term, the technological innovations as envisioned are revolutionary and they will dramatically alter the way tree fruit is produced, handled, and utilized.

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