Tutorial

Eastern United States Fire Performance Plant Selector

(V. 09.21.10)

This tutorial is intended to be a step-by-step process that will enable you to search for plant material best adapted for use in fire prone landscapes. The tutorial is intended to be used as a guide to help you understand the many search options the **Fire Performance Plant Selector** and provide customized plant lists and factsheets generated by your searches.

Note: Currently there are only 541 plants in the **Fire Performance Plant Selector Database**. As additional plant material is added searches will return greater number of plants. During The winter and spring of 2011, 500 additional plants will be added.

Disclaimer: ALL PLANTS WILL BURN! Plant material that serves in any way to move fire across a landscape to a structure is considered to be located in an improper location. It is important to realize that there are often external site considerations that must considered in locating any vegetation within the Home Ignition Zone of a fire prone landscape.

SECTION A: NAVIGATING THE HOME PAGE

HOME SCREEN

The **Home** screen welcomes you to the website and gives a brief overview of the **Eastern United States Fire Performance Plant Selector**. The target audiences, basic function, and scientific rational behind the **Fire Performance Plant Selector** is explained in detail. The home screen of the **Fire Performance Plant Selector** explains that it is a simple tool that can assist two distinct user groups with making informed landscape-level planning decisions related to locating vegetation in fire-prone communities.

The two distinct user groups are:

1. **Users who are knowledgeable about plants**.
2. **Users who are knowledgeable about Firewise principles**.

INTRODUCTION Tab

The **Introduction** tab provides general information related to fire prone landscapes, discusses situations that contribute to the spread of fire, and provides recommendations on how fire threats can be minimized in the home landscape. It also introduces the user to terms related to fire management that are important to understand for those using the **Fire Performance Plant Selector**. Each relevant term has a **Tool-tip** definition that appears when the curser is moved over the term and a live link to the **Glossary.**

The **Introduction** tab gives users suggestions on locating a new home, modifying an existing home and considerations for those living in fire prone areas. Some of the suggestions are quite practical, such as making sure your address is marked on your property, while others are more technical, such as suggestions related to vegetation care, landscaping, plant selection, and desirable plant characteristics that contribute to slowing vegetation ignition in a fire prone landscape.

FIREWISE ZONES Tab

It is very important that you are familiar with the distances for each **Landscape Zone** in the **Firewise Zones** tab. The **Landscape Zones** begin 5 feet from the structure (**Landscape Zone 1**) and extend to 10 feet (**Landscape Zone 2**) and then to 30 feet (**Landscape Zone 3**) from any structure within the **Home Ignition Zone**.

The **Home Ignition Zone** is a defensible Firewise Zone that can extend up to 200 feet from a structure depending on the depth of properties and the type of vegetation on adjacent lands. **Within the Home Ignition Zone** there are four **Landscape Zones**. For the purpose of the **Fire Performance Plant Selector, Landscape Zone 4** (**LZ4** is greater than 30 feet from any structure), is not included in the search function of the **Fire Performance Plant Selector**.

GETTING STARTED Tab

The **Tutorial, Personalizing Reports**, and **Using Reports** links will help you learn to use the search functions in the **Fire Performance Plant Selector**. Before you begin using the **Plant Selector**, we recommend that you read the tutorial and work your way through it.

Personalizing Reports

Before you begin using the **Fire Performance Plant Selector**, select the **Personalize Reports** link under the **Getting Started** tab and fill in the fields with the contact information and location relevant to each search. This will ensure that all the reports you generate are customized before you begin. Your personalized information is automatically saved as long as your cookies are enabled in your browser options.

Selecting a Logo

To select a logo, browse through your computer and download a logo that you have saved on your computer hard drive. The logo will be automatically be added to any plant **Factsheets** that are printed. Be sure when selecting a logo that you only use logos with the following file extensions: .jpg, .jpeg, .png, .gif, .JPG, .PNG and .GIF.

Tutorial

This **Tutorial** is intended to be a step-by-step process that will enable you to search for plant material best adapted for use in fire prone landscapes. The tutorial is intended to be used as a guide to help you understand the many search options the **Fire Performance Plant Selector** provides as well as options for the use of plant lists and factsheets generated by your searches. This Tutorial will walk you through 3 real-life Exercises created to reflect conditions you might find in an actual landscape.

Reports Tab

The **Reports** tab provides you with the option of exporting your personalized searches into a Microsoft EXCEL spreadsheet or as a list in a Microsoft WORD document. This can be useful for field work or for developing more detailed reports related to your searches.

The **Factsheets** link of the **Reports** tab enables you to select a plant from your **Plant Search Results** list and generate a factsheet that can be saved to your computer hard drive and printed. The **Factsheet** will include your personalized contact information, site information, and the logo you selected in the **Personalize Reports** button under the **Getting Started** tab.

Each **Factsheet** provides the homeowners with a one page summary, photos and relevant information about the plants from their individual search. The factsheets can help the homeowners make informed decisions about any plant selection on their list.

PLANT SELECTOR Tab

The **Plant Selector** tab launches the **Fire Performance Plant Selector.** You must select your user preference, e.g. **User with Plant Knowledge** or **User with Firewise Knowledge** to begin searches. One search builds on another, reducing the number of plants in each plant list as each search is executed. In some cases a plant list may remain unchanged. For any search, multiple selections can be made. A user can also return to their original plant search list by simply using the back button in the top left hand corner of the screen.

PLANT LIST Tab

At any point while you are using the **Fire Performance Plant Selector** you can select the **Plant List** tab on the left hand menu and view all the plants in the database. The **Common Name**, **Scientific Name**, **Firewise Ranking** and **Landscape Zone** for each plant will be displayed.

Note: You can also search for plants using the **F 3** function if you are using Mozilla Firefox as your browser.

GLOSSARY Tab

The **Glossary** works in three different ways. You can select the letter of the alphabet related to your search and scroll through the vocabulary terms, you can scroll down the alphabetized list until you find the term or you can use the Search feature by typing in the term. To return to your search, simply click on the green back arrow in the upper left hand screen.

Note: The glossary search feature searches for **Glossary** terms as well as the term used within the definitions.

RESOURCES Tab

The **Resources** tab provides you with a list of resources you will find useful in learning more about fire management. The resources are grouped into the following lists: **Firewise Program Resources**; **State Contacts**; **Weather Information**; **Forest Service Links**; **Fire Behavior and Vegetation**; **Community Resources**, **Homeowner Resources, Research,** and **Books.**

STATE CONTACTS Tab

The **State Contacts** tab provides you with a list of Firewise Community State Liaisons and Urban and Community program State Coordinators in the Northeastern Area. The State program contacts can provide you with a wealth of additional information related to particular programs, resources, and issues.

FEEDBACK Tab

We welcome **Feedback** on the **Fire Performance Plant Selector** and ask you to provide feedback on any issues you find, suggestions related to **Firewise** principles, **Vegetation**, **Functionality** of the site, or new **Resources**. If you would like to provide feedback please select the **Feedback** tab on the left, check the box the comments refers to and provide us with feedback. An e-mail message will be sent to the **Fire Performance Plant Selector** developers and addressed promptly.

BROWSER REQUIREMENTS Tab

CREDITS Tab

The development of the **Eastern United States Fire performance Plant Selector** would not have been possible without the collaboration of many partners. Be sure to read the credits to find out how the scientific methodology for the Fire Performance Rating was developed, where the concept originated, and who played an instrumental role it's the development.

SECTION B: BEGINNING YOUR SEARCH

PLANT SELECTOR Tab

SELECT: Plant Selector tab in the left hand column. The five tabs across the top of the web page labeled **Plants, Fire, Environment, Urban and Utility** and **Reports** turn white when they are activated.
The tabs will not be activated until you choose your **User Type** by selecting one of the following options:

 **User with Plant Knowledge** or  **User with Firewise Knowledge**

EXERCISE #1: User with Plant Knowledge

EXERCISE #1: A home exists in a fire-prone community. The homeowner has asked you to identify **Firewise** and **Moderately Firewise** plant material within **Landscape Zone 2 (LZ2)** of the **Home Ignition Zone.**

The home is in the Poconos area of Northeastern Pennsylvania in **Cold Hardiness Zone 6** and a **Heat Tolerance Zone of 7.** It is on a one quarter acre site with a backyard that extends 100' from the home and abuts an existing natural scrub oak vegetative community with soils that are well drained and acidic. The homeowners would like a variety of plants that do not grow too quickly, diverse leaf colors, interesting growth forms, a variety of mature plant sizes and a mix of deciduous and evergreen plants to give the landscape some seasonal interest.

The homeowners have decided that they will use river stone for **Landscape Zone 1** of the **Home Ignition Zone.** Reading through the information in the **Introduction** tab, the homeowners are aware that vegetation planted in the wrong place will be of poor vigor and more likely to ignite in the event of a fire. Based on this, they have decided to use the river stone under the overhang instead of planting in **Landscape Zone 1.**

Using this scenario, we will generate a list of plants for **Landscape Zone 2** (**LZ2** is 5' to 10' from the structure), within the **Home Ignition Zone**.

As a user, you are knowledgeable about plant material but require the **Fire Performance Plant Selector** to assist you with choosing plant material that is **Moderately Firewise** to **Firewise**.

SELECT:  **User with Plant Knowledge**

Note the **PLANTS** tab is white because it is activated. If you had chosen **User with Firewise Knowledge** the **FIRE** tab would be activated and therefore turn from green to white.

By default, when a user selects either **User with Plant Knowledge** or **User with Firewise Knowledge** the plant names default to the **Common Name**. If you would like your search to return the searches with a plant's **Scientific Name**, you can choose the **Scientific Plant Names** option on the **Plant Search Results.** Both scientific and common plant names are provided in all **Reports.**

Based on the needs of the homeowner, we will begin our search.

PLANTS Tab

Under the **Plants** tab there is a list of **Plant Characteristics** (**Plant Height, Form, Native Plant**, etc.). Each is a pull down menu with options you can select based on your search needs. The **Fire Performance Plant Selector** enables you to choose multiple values per each search.

SELECT Plant Height: A pull down menu appears. Since we will focus on **Landscape Zone 2** (**LZ2** is 5' to 10' from the structure), we want plant material that will not grow too large, so we check **0'-2', 3'-4',5'-9',10'-19' and 20'-29'**. The **Plant Search List** on the right changes to reflect these selections.
The original **Plant Search Results** of 541 plants is reduced to 336 plants.

SELECT Form. A pull down menu appears. The homeowner has requested that the new plants have interesting form so we select multiple values - **Columnar, Oval, Pyramidal**, **Round, Upright and Vase** - to assure that plants selected will have a variety of growth forms.
The **Plant Search Results** list is reduced to 276.

SELECT Native Plant. A pull down menu appears. It is not important to the homeowner if the plant is native or non-native, so both selections remain unchecked. The **Plant Search Results** list remains the same at 276.

SELECT Growth Rate. A pull down menu appears. As you recall, the homeowners requested plants with a **Slow** to **Medium Growth Rate**, so **Slow** and **Medium** growth rates are checked. The **Plant Search Results** list is reduced to 204.

SELECT Number of Trunks. A pull down menu appears. At this time it is not important to identify the number of trunks, so all selections remain unchecked. The **Plant Search Results** list remains the same at 204.

SELECT Bark. A pull down menu appears. Note on the **Bark** tab there is a flame. The flame indicates that this important characteristic for a user with Firewise knowledge to consider because bark type can influence how quickly a plant will ignite. The homeowners have no preference for bark type at this time, so all selections remain unchecked. The **Plant Search Results** list remains the same at 204.

Note: The **Bark** tab is a valuable search tool that can help **Users with Firewise Knowledge** better refine searches based on preferred bark characteristics. **Bark** characteristics is a criteria applied in the methodology for determining the **Firewise Ratings** initially, so if specific bark types are selected and **Plant Search Results** list does not return a reduced number of plants, it is important to realize that it has already been factored into the query.

SELECT Leaf Color. A pull down menu appears. As you recall, the homeowner would like a variety of leaf colors so **Dark Green, Green, Purple, and Red,** are selected. The **Plant Search Results list is** reduced to 203.

SELECT Leaf Surface. A pull down menu appears. Note before the **Leaf Surface** tab there is a flame. The flame indicates that this is an important plant characteristic that may be useful to a **User with Firewise Knowledge**. Since you are a **User with Plant Knowledge** and are not very familiar with how leaf surface will impact your search, all options remain unchecked. The **Plant Search Results** list remains the same at 203.

SELECT Leaf Arrangement. A pull down menu appears. Since the homeowner would like both deciduous and evergreen plants, all options, **Alternate, Needle** and **Opposite,** are selected. The **Plant Search Results** list remains the same.

SELECT Leaf Type. A pull down menu appears. Note before the **Leaf Type** tab there is a flame. The flame indicates that this plant characteristic is important to a **User with Firewise Knowledge.**
In **Exercise #1, Leaf Type** is not important to the homeowners therefore no selections are made. The **Plant Search Results** list remains the same at 203.

SELECT Ignitable Leaf Characteristics. A pull down menu appears. Note before the **Ignitable Leaf Characteristics** tab there is a flame. The flame indicates that this is an important plant characteristic that may not be as useful to a **User with Firewise Knowledge**. **Ignitable Leaf Characteristics** have a great influence on flammability, but since this has already been addressed in the **Firewise Rankings** it is not important to select any of the characteristics listed under **Ignitable Leaf Characteristics** at this time. The **Plant Search Results list** remains the same at 203.

SELECT Leaf Persistence. A pull down menu appears. It is important to the homeowner to include some plant material in **Landscape Zone 2** (**LZ2** is 5' to 10' from the structure) around the home for seasonal interest so all options are checked (**Evergreen**, **Deciduous** and **Persistent)**. The **Plant Search Results** list remains the same at 203.

SELECT Pest Resistance. A pull down menu appears. Pest resistance has a flame next to it because the overall all vigor of plant material in a landscape has a great impact on the ability of a plant to ignite and burn. In this exercise, it is important to the homeowner that the selected plants are resistant to pests so **Medium** and **High** are checked. The **Plant Search Results** list is reduced to 169.

FIRE Tab

SELECT Landscape Zone. A pull down menu appears. Since the homeowners are looking for plant material for **Landscape Zone 2 (LZ2** is 5' to 10' from the structure), we check **Landscape Zone LZ2.** The **Plant Search Results** are reduced to 106 plants.

Note: By default all plants adaptable for **Landscape Zone LZ1** are included in the list for **Landscape Zone LZ2 plants.**

SELECT **Firewise Rating**. A pull down menu appears. The homeowners have requested that the new plant material recommendations consist of only plants that are rated as **Firewise**. The **Firewise** rating is selected. The **Plant Search Results** list is reduced to 24.

SELECT **Ladder Potential**. A pull down menu appears. **Ladder Potential** refers to the potential of a plant to raise fire from the ground level up and onto a structure. As you recall, the homeowners have decided to remove all vegetation in **Landscape Zone 1** and use river stone. They would also prefer to plant small trees in **Landscape Zone 2**. Based on these choices, **Ladder Potential** is important.

Because the homeowners are **k**nowledgeable about plants and relatively good at pruning, they intend to prune all their new trees to remove lower branches and branches in contact with other trees, lower plant material or the ground. No selection is made. The **Plant Search Results** remain the same to 24.

ENVIRONMENT TAB

SELECT **Cold Hardiness Zone**. A pull down menu appears. Since this home is located in **Cold Hardiness** Zone 6 it is checked. Note all lower **Cold Hardiness Zones** are selected by default. The **Plant Search Results** list is reduced to 24.

SELECT **Heat Tolerance Zone**. A pull down menu appears. **Heat Tolerance** refers to zones delineated according to the American Horticulture Society and are based on the average high temperatures for the number of days over 85 degrees. This home is located in the Poconos of Northeastern Pennsylvania and the **Heat Tolerance Zone** is **Zone 6**. **Heat Tolerance Zone 6** is checked. **The Plant Search Results** list is reduced to 20.

Note: When **Heat Tolerance Zone 6** is selected the **Heat Tolerance Zone** above it and below it are also selected. This assures microclimate considerations are addressed by the **Fire Performance Plant Selector.**

SELECT **Soil PH**. A pull down menu appears. The home is located in a mixed scrub oak vegetative community type with acidic soils. Because it is a residential property with homeowners who enjoy gardening and amend their soils with organic matter, **Acidic** and **Adaptable** are checked. The **Plant Search Results** list is reduced to 17 plants.

SELECT **Sun Exposure**. A pull down menu appears. At this time you are not certain of the sun exposure requirements for any Firewise plants selected. All options are selected. The **Plant Search Results** list remains the same at 17 plants.

Note: Once a final list is generated by the **Fire Performance Plant Selector** the user can then go back and use the **Sun Exposure** option to further query the **Plant Search Results** for plant material adapted to specific exposures in the landscape.

SELECT **Salt Tolerance**. A pull down menu appears. Salt tolerance is not an important consideration at this time. No selections are made. The **Plant Search Results** list remains the same.

SELECT **Tolerance to Poorly Drained Soils**. A pull down menu appears. As you recall, the home is located on soils that are very well drained. **High** and **Medium** are selected because the homeowners have very well established planting beds. The **Plant Search Results** list is reduced to 6.

SELECT **Drought Resistance**. A pull down menu appears. The home is located on soils that are very well drained but the homeowners have very well established planting beds will hold more moisture than the existing native soils. Due to this, **High** and **Medium** are selected for **Drought Resistance**. The **Plant Search Results** list remains the same at 6 plants.

URBAN & UTILITY Tab

SELECT **Urban Use**. A pull down menu appears. Since this home is in a residential neighborhood in a very small community, **Medium** is selected. The **Plant Search Results** remain the same at 6 plants.

SELECT **Utility Use**. A pull down menu appears. Overhead utilities are not an issue on this property so no selections are checked. The **Plant Search Results** remain the same at 6 plants.

SELECT **Response to Pruning**. A pull down menu appears. In this particular situation, the homeowners would like to wait and see what is generated by the list because they have some pruning experience and would prefer to see the list of **Firewise** plant material before making any pruning choices. No selection is made. The **Plant Search Results** remain the same at 6 plants.

SELECT **Invasive**. A pull down menu appears. The homeowners do not want to use any invasive plants or plants that have the potential to become invasive**. Both Potential** and **No** options are selected. The **Plant Search Results** list remains the same.

The final **Plant Search Results** is 6 plants based on the criteria in **Exercise #1**.

REPORTS Tab

Now that you have generated a list of 6 plants that have been selected based on the site requirements and the homeowner preferences for **Tutorial Exercise #1,** you can use the **Reports** tab to generate two types of reports (Microsoft WORD or Microsoft EXCEL) and individual personalized factsheets with information about any of the plants on your final **Plant Search Results** list.

The **Reports** tab provides you with the option of exporting your personalized searches into a Microsoft EXCEL spreadsheet or as a list in a Microsoft WORD document. This can be useful for field work or for developing more detailed reports related to your searches.

Additionally there is a tab within the **Factsheets** button in the **Reports** tab that enables you to select a plant from your **Plant Search Results** list and generate a **Factsheet** that can be saved to your computer hard drive and printed. The Factsheet also includes your personalized contact information, site information and the logo you selected in the **Personalize Reports** button under the **Getting Started** tab.

The factsheets can help homeowners and others make informed personal decisions about the most **Firewise** plant selections they should consider planting.

EXERCISE # 2: User with Firewise Knowledge

EXERCISE # 2: A home exists in subdivision in a fire-prone community in the Eastern Pan Handle of West Virginia in **Cold Hardiness Zone 7** and **Heat Tolerance Zone 6**. The soil is very dry and acidic due to the fact that the subdivision was built in an area where Virginia pine dominated the site. Although the soil is dry and acidic the homeowners have amended the soil in their planting beds and water occasionally when it is very dry.

The homeowners have asked you as a **Fire Specialist** to evaluate the property from a Firewise standpoint, specifically, to look at existing vegetation and provide some suggestions for **Fire adapted** plant material. The home has overgrown, dying common juniper as a foundation planting in the **Landscape Zone 1** (0' to 5' from the structure). Also, 8 feet from the home there is a 5 feet high hedge of little leaf boxwood that extends to a wooden trellis attached to the one story ranch home. A group of three medium sized (30 feet high), Virginia pine are located about 20 feet from the home. The homeowners have asked you to develop a list of appropriate plant material for **Landscape Zone 3** (10' to 30' from the structure).

Based on the needs of the homeowner, we will begin our search.

PLANT SELECTOR Tab

SELECT:  **User with Firewise Knowledge**

Note: The **FIRE** tab turns from green white when it is activated.

Personalizing Reports

SELECT Report Personalization under the **Getting Started** tab. Update the project information and select a new logo if necessary**.**

PLANT SELECTOR Tab

SELECT:  **User with Firewise Knowledge**

As you recall, for this search you selected **User with Firewise Knowledge** so the **Fire** tab is activated. Make sure you check to make sure the plant list contains the original 541 plants in the database. If it does not contain 541 plants, select the **Clear** button in the **Plant Search Results** list panel on the right.

For **Exercise #2**, the homeowners have requested that you generate a list of appropriate plant material for **Landscape Zone 3** (10' to 30' from a structure).

FIRE Tab

SELECT Landscape Zone. A pull down menu appears. Since the homeowners are looking for plant material for **Landscape Zone 3** (10' to 30' from the structure), select **Landscape Zone** (**LZ3).**
The **Plant Search Results** list returns 297 plants.

SELECT Firewise Rating. A pull down menu appears. The homeowners only want to use plants that are rated as **Firewise**. The **Firewise** rating is checked. The **Plant Search Results list i**s reduced to 128.

SELECT **Ladder Potential**. A pull down menu appears. **Ladder Potential** refers to the potential of a plant to raise fire from the ground level up and onto a structure. Since **Landscape Zone 3** is not near the structure we will select **No** for ladder potential. The **Plant Search Results** list is reduced to 99 plants.

ENVIRONMENT Tab

SELECT **Cold Hardiness Zone**. A pull down menu appears. Since this home is located in **Cold Hardiness 7, Zone 7** is selected. The **Plant Search Results** list remains at 99 plants.

SELECT **Heat Tolerance Zone**. A pull down menu appears. **Heat Tolerance** refers to zones delineated according to the American Horticulture Society in the late 1990s. These are based on the average high temperatures for the number of days over 85 degrees. The home is located is in the Easter Pan Handle of West Virginia and the **Heat Tolerance Zone** is **Zone 6**. **Zone 6** is checked on the pull down menu. The **Plant Search Results** list is reduced to 65.

Note: When **Heat Tolerance Zone 6** is selected the Heat Tolerance Zone above it and below it are also selected. This assures microclimate considerations are addressed in searches.

SELECT **Soil PH**. A pull down menu appears. The home is located in a subdivision where the native plant community type is dominated by Virginia pine and the soil is acidic. Because it is a residential property with homeowners who amend their soils, **Acidic** and **Adaptable** are checked. The **Plant Search Results** list is reduced to 63 plants.

SELECT **Sun Exposure**. A pull down menu appears. At this time you are not certain of the exposure requirements for the selected **Firewise** plant selections, so all options are selected. The **Plant Search Results** list remains the same at 63 plants.

Note: Once a final list is generated, you can then go back and use the **Sun Exposure** option to further query the **Plant Search Results** list for plant material adapted to specific exposures.

SELECT **Salt Tolerance**. A pull down menu appears. **Salt Tolerance** is not an important consideration at this time. No selections are made. The **Plant Search Results** list remains the same at 63 plants.

SELECT **Tolerance to Poorly Drained Soils**. A pull down menu appears. As you recall, the home is located on soils that are very dry so poorly drained soils are not a consideration at this time. No options are selected. The **Plant Search Results** list remains the same at 63 plants.

SELECT **Drought Resistance**. A pull down menu appears. The home is located on soils that are very dry but the planting areas are amended with compost and watered when they become very dry. Due to these facts **High** and **Medium** are selected for **Drought Resistance**. The **Plant Search Results** list is reduced to 57 plants.

URBAN & UTILITY Tab

SELECT **Urban Use**. A pull down menu appears. Since this home is in a subdivision in the eastern panhandle of WV, **High** and **Medium** are selected. The **Plant Search Results** list is reduced to 52.

SELECT **Utility Use**. A pull down menu appears. Overhead utilities are not an issue on this property so no selections are checked. The **Plant Search Results** list remains the same at 57 plants.

SELECT Response to Pruning. A pull down menu appears. In this particular situation, you as a Firewise Specialist do not consider this to be important for landscape Zone 3. No selections are made. The **Plant Search Results** list remains the same at 57 plants.

SELECT Invasive. A pull down menu appears. The homeowners do not want to use any invasive plants or plants that have the potential to become invasive**. Both Potential** and **No** options are selected. The **Plant Search Results** list is reduced to 50.

PLANTS Tab

SELECT Plant Height: A pull down menu appears. Since we will focus on **Landscape Zone 3** (**LZ3** = 10' to 30' from the structure), as a Fire specialist you would prefer nothing that gets too high in **LZ3** so you check **0'-2', 3'-4',5'-9',10'-19'** and **20'-29'** and **30'-39'**. **Plant Search Results** list is reduced to 17.

SELECT Form. A pull down menu appears Form is not important to you as a Firewise specialist at this time, so no selections are made. The **Plant Search Results** list remains the same at 17 plants.

SELECT Native Plant. A pull down menu appears. It is not important to the homeowners if the plants are native or non-native, so both selections remain unchecked. The **Plant Search Results** list remains the same at 17 plants.

SELECT Growth Rate. A pull down menu appears. As you recall, the homeowners requested plants with a **Slow** to **Medium Growth Rate**, so **Slow** and **Medium** are checked. The **Plant Search Results** list is reduced to 14.

SELECT Number of Trunks. A pull down menu appears. As a Firewise Specialist you know that many small trees are often multi-stemmed and you do not want to limit your search too much, but you do know you do not want really densely branched large shrubs, so **Single** and **Multi -Stemmed < than 6** is selected. The **Plant Search Results** list is reduced to 12.

SELECT Bark. A pull down menu appears. Note on the **Bark** tab there is a flame. Because bark is one of the criteria that are used in determining the **Firewise Rankings** it is not important to select bark types at this time unless there is a specific bark type the homeowners prefer. The homeowners have no preference for bark type at this time, so all selections remain unchecked. The **Plant Search Results** list remains the same at 12 plants.

Note: Bark characteristics is a criteria applied in the methodology for determining the **Firewise Ratings** initially, so if specific bark types are selected and **Plant Search Results** list does not return a smaller list, it is important to realize that it has already been factored into the search results.

SELECT Leaf Color. A pull down menu appears. Leaf color is not important at this time. The **Plant Search Results** list remains the same at 12 plants.

SELECT Leaf Surface. A pull down menu appears. Note before the **Leaf Surface** tab there is a flame. The flame indicates that this is an important plant characteristic that may be useful to a **User with**

Firewise Knowledge. As a plant specialist you know, plant material with **Oily**, **Resinous** or **Papery** bark tends to ignite more easily, so you select all the other options: **Dense, Open, Succulent, Thick and Thin.** The **Plant Search Results** list remains the same at 12 plants.

Note: In this case, the number of plants in the **Plant Search Results** remains the same because **Leaf Surface** has also been factored into the **Firewise Rating** methodology.

SELECT Leaf Arrangement. A pull down menu appears. Leaf arrangement is not important in this exercise so no selections are made. The **Plant Search Results** list remains the same at 12 plants.

SELECT Leaf Type. A pull down menu appears. Note before the **Leaf Type** tab there is a flame. The flame indicates that this plant characteristic is important to a **User with Firewise Knowledge**. Leaf type is not important to you at this time, do nothing is selected**. Plant Search Results** list remains at 12 plants.

Note: As a **Firewise Specialist** you are aware that with a dense population of existing Virginia pine in the subdivision, it is not wise to introduce additional pine trees into this fire prone landscape. **Leaf Type** can be used as a test to check if there are any evergreens in the current **Plant Search Results** list. As a test, you select **Needle**. The **Plant Search Results** list is reduced to 0. This indicates that on your current **Plant Search Results** list there are no other pines on the list. Now uncheck needle and the **Plant Search Results** list reverts back to 12.

SELECT Ignitable Leaf Characteristics. A pull down menu appears. Note before the **Ignitable Leaf Characteristics** tab there is a flame. The flame indicates that this is an important plant characteristic that may not be useful to a **User with Firewise Knowledge**. **Ignitable Leaf Characteristics** can influence ignitability. This has already been addressed in the **Firewise Rankings** so nothing is selected under **Ignitable Leaf Characteristics** at this time. The **Plant Search Results list** remains the same at 12 plants.

SELECT Leaf Persistence. A pull down menu appears. In this fire prone landscape you do not want any plant material that will maintain dry leaves throughout dormancy, so you select Deciduous, (meaning these plants lose all their leaves during the winter). The **Plant Search Results** list remains the same at 12 plants.

SELECT Pest Resistance. A pull down menu appears. Pest resistance has a flame next to it because the overall all vigor of plant material in a landscape has a great impact on the ability of a plant to ignite and burn. Unhealthy plant material is more likely to ignite because it will tend to have more dead debris within the plant. In this exercise as in most cases, it is very important to the homeowner that the selected plants are resistant to pests and disease so **Medium** and **High** are checked. The **Plant Search Results** list remains at 12, meaning all the plants in your current Plant search results list have either **High** or **Medium** pest resistance.

REPORTS Tab

Now that you have generated a list of 12 plants that have been selected based on the site requirements and the homeowner preferences for **Tutorial Exercise #2,** you can use the **Reports** tab to generate two types of reports (Microsoft WORD or Microsoft EXCEL) and individual personalized **Factsheets** with information about any of the plants on your final **Plant Search Results** list.

The **Reports** tab provides you with the option of exporting your personalized searches into a Microsoft EXCEL spreadsheet or as a list in a Microsoft WORD document. This can be useful for field work or for developing more detailed reports related to your searches.

On the **Factsheets** button in the **Reports** tab you can select a plant from your **Plant Search Results** list and generate a **Factsheet** that can be saved to your computer hard drive and printed. The **Factsheet** will include your personalized contact information, site information and the logo you selected in the **Personalize Reports** button under the **Getting Started** tab.

EXERCISE # 3: Others Ways to Use the Fire Performance Plant Selector

Searching for Specific Plant Information

The **Fire Performance Plant Selector** can be used in many ways depending on your needs. The **Fire Performance Plant Selector** is not intended to be a plant identification key. Much more technical plant identification keys can be found under the **Resources** tab to help with plant identification when a plant is not known.

EXERCISE # 3: As you recall in **Exercise #2** above, the home exists in subdivision in a fire-prone community in the Eastern Pan Handle of West Virginia. In **Exercise #2**, the homeowners have asked you, as a **Fire Specialist,** to evaluate the property from a Firewise standpoint, specifically, to look at existing vegetation and provide some suggestions. This was done in **Exercise #2**.

Now the homeowner is interested in knowing what the Firewise Ratings are for the **common juniper** in the foundation planting in **Landscape Zone 1**, the 5 feet high hedge of **little leaf boxwood** that extends to a wooden trellis attached to the house in **Landscape Zone 2,** and a group of three medium sized (30 feet high), **Virginia pine** located about 20 feet from the home in **Landscape Zone 3**.

There are a number of ways you can easily determine the Firewise Rating of these identified existing plants without actually using the **Plant Selector** tab.

SELECT the **Plant List** tab in the left hand column of the **Home** page.

Use the **F3** key search function to find **common juniper** in the plant list by typing it into the search box, or simply scroll down the list to find it. The **Plant List** tells us that **common juniper** is recommended for **Landscape Zone 2** (5’ to 10’ from the structure), and is **Not Firewise**. Based on this, the **common juniper** should be removed from where it is growing against the home in Landscape Zone 1.

Next, we will look up the 5’ high hedge of **little leaf boxwood** that is growing approximately 8 feet from the home and extends to the wooden trellis. We find that it is best suited for **Landscape Zone 2**, (5’ to 10’ from the structure). Searching in the **Plant List** we find it is considered to be **Moderately Firewise**. Since the homeowners have requested all **Firewise** plant material, the **little leaf boxwood** should be removed.

NOTE: Based on information in the **Introduction** tab of the **Fire Performance Plant Selector**, we know that in the event of a wildfire, the **little leaf boxwood** could also act to move fire to the trellis and to the

structure. So based on **Firewise Principles** it would be prudent to remove the 5' **little leaf boxwood** hedge.

We do this because we know **ALL PLANTS WILL BURN** and plant material that serves in any way to move fire across a landscape to a structure is considered to be located in an improper location. In a situation like this, it is important to realize that there are often external considerations that must be considered in locating any vegetation within the **Home Ignition Zone** of a fire prone landscape.

Next, we look up **Virginia pine** in the **Plant List** because there is a group of 3 located approximately 20 feet from the structure. **Virginia pine** is **Not Firewise**. Since the homeowners have requested only **Firewise** plant material, our recommendation to the homeowners is to remove the **Virginia pine** and replace it with a plant that is **Firewise.**

We hope you enjoyed this **Tutorial**. There are many, many more ways to use the **Fire Performance Plant Selector**. We invite you to try.

Thank you.