

Plant Flammability Key



To use this dichotomous key, first choose the type of plant being assessed under step #1. Next, continue on to the number indicated to the right (in the "Go To #" column). At each step, choose the description that best matches the plant, and move on to the next number indicated. If a "Less Firewise" characteristic is met along the way, write in the point value as instructed, into the column on the far right.

Step #	Plant Characteristic Description	If Yes, Go To #	Points
1. Type of Plant	Tree Trees can provide shade, windbreak, energy savings, wildlife habitat, & erosion control.	2	
	Shrub or Woody Groundcover Shrubs are typically 2-12 feet tall and have a hard, woody stem. Woody groundcovers are low to the ground, but still have a hard, woody stem & branches.	2	
	Vine Vines can be herbaceous or woody, but require a trellis, plant, or building for support.	15	
	Herbaceous Ornamental or Grass Herbaceous plants are usually low-growing annuals or perennials, without a woody stem.	16	
2	Conifer and/or Evergreen Conifers have needle-like or scale-like leaves, and include pines, spruces, junipers & cedars. Evergreen plants retain their leaves throughout the year, and include Rhododendron & Azalea.	3	
	Broadleaf and/or Deciduous Broadleaf plants have wider leaves (ex.: maples, oaks, Forsythia, and Butterfly Bush.) Deciduous plants drop their leaves once each year.	For trees, go to: 9 For shrubs, go to: 11	
3	Resinous Resinous plants produce resin, typically giving off a pungent odor when the leaves are crushed. These include pines, spruces, junipers and cedars.	4	
	Non-Resinous or Less Resinous Plants with less resin will usually give off less of a pungent odor when crushed.	5	
4	Less Firewise - Resinous plants are highly flammable and should not be used in close proximity to structures. Place 4 points in the far right column and go to:	5	
5	Conifer sheds large amounts of leaves or needles (many pine species)	6	
	Conifer does not regularly shed leaves or needles	7	
6	Less Firewise - Shed needles need to periodically be removed from roofs and the ground around structures. Place 2 points in the far right column and go to:	7	
7	Branches are less than 4 feet above the ground. This includes almost all shrubs.	8	
	Branches are more than 4 feet above the ground	9	
8	Less Firewise - Trees should be pruned and dead/low-hanging branches removed to be Firewise. Place 1 point in the far right column and go to:	11	
9	Trunk has papery bark or loose fibers	10	
	Trunk does not have papery bark or loose fibers	18	
10	Less Firewise - Papery bark or loose fibers can act as ladder fuels; proper placement is necessary. Place 1 point in the far right column and go to:	18	
11	Plant has fine texture Texture is a term to describe the overall appearance of a plant from a distance. From a distance of about 10-15 feet, it is not easy to distinguish individual leaves or branches. (Examples: Boxwood, Spirea, junipers)	12	
	Plant has medium texture From a distance of about 10-15 feet, some individual leaves and branches can be distinguished on the outer part of the shrub, but not the inner part. (Examples: some azaleas and hollies)	13	
	Plant has coarse texture From a distance of about 10-15 feet, it is easy to distinguish individual leaves and branches. Examples include Hydrangea, Beauty-berry, and and Witch Hazel.	13	

12	Less Firewise - Proper placement and routine pruning are necessary. Place 2 points in the far right column and go to:	13	
13	Plant is very dense These shrubs are so dense that it is difficult to place your hand in the shrub and touch a main stem. They have dense branching, and include plants like Boxwood and junipers.	14	
	Plant is moderately dense These shrubs are dense enough that you can't clearly see through them, but it is reasonably easy to place your hand in the shrub and touch a main stem.	18	
	Plant is sparsely dense Plants have an open branching pattern, making it easy to see through the shrub. Examples include American Beauty-berry and some hydrangeas.	18	
14	Less Firewise - Proper placement and routine pruning are necessary. Place 2 points in the far right column and go to:	18	
15	Less Firewise - Vines can be flammable, and are problematic in that they add fuel directly to a structure, or act as ladder fuels. Place 2 points in the far right column and go to:	18	
16	Grass, more than 8 inches tall	17	
	All other herbaceous ornamentals, or mowed/green grass	18	
17	Less Firewise - Grass that is tall, dead, and/or dormant (yellow or brown in color) is extremely flammable and carries fire rapidly. Place 6 points in the far right column and go to:	18	
18	Plant retains dead leaves for more than two months of the year	19	
	Plant does not usually retain dead leaves, except when shedding leaves	20	
19	Less Firewise - Plants with dead foliage are highly flammable, because of the low moisture content of the leaves and fine twigs. Place 3 points in the far right column and go to:	20	
20	Note: Make sure leaves are not poisonous before touching them		
	Leaves have a waxy coating These plants have a very distinctive waxy coating on the leaf. (Ex.: Wax Myrtle, Gallberry, & Rhododendron)	21	
	Leaves do not have a waxy coating	22	
21	Less Firewise - Proper placement and maintenance are necessary. Place 1 point in the far right column and go to:	22	
22	Species is seriously susceptible to disease, pests, and/or drought All plants can get diseases, but plants seriously susceptible to disease or drought are likely to be stressed and have less vigorous growth. When this happens, the foliage has a lower moisture content and a greater number of dead leaves are retained.	23	
	Species is not seriously susceptible to disease, pests, and/or drought	24	
23	Less Firewise - Make a note of, and routinely monitor for, diseases or pests. Obtain proper diagnosis and treatment of problems. Select plants that are native and/or well-adapted to local climate conditions. Place 1 point in the far right column and go to:	24	
24	FINISHED - Total all the points in the far right column and compare this number to the table below, to get the flammability rating of this plant.		
Total Points:			

Total Points	Flammability Rating
0 - 1	Low Flammability
2 - 4	Moderate Flammability
5 - 8	High Flammability
9+	Very High Flammability

Plant Species Rated:

Common Name: _____

Scientific Name: _____

Score/Rating: _____