Plant Group 1: Tender tropical plants **(USDA Zone rating 10-11)** and new spring foliage and flowers of evergreen and deciduous trees and shrubs that are intolerant of any frost. Includes... The foliage and flowers of many popular annuals and frost-sensitive perennial ornamental plants (coleus, begonia, impatiens, bananas, cannas, elephant ear, Mandevilla, peace lily, hydrangea, lantana, etc.), tender vegetables (tomatoes, eggplant, peppers, cucumbers, squash, etc.), many tender culinary herbs (cilantro, oregano, basil, etc.); and the newly-emerging leaves and flowers that appear in early spring with most popular deciduous and evergreen trees and shrubs (dogwoods, maples, azaleas, peaches, pears, ash, figs, deciduous magnolias, crape myrtles, etc.).

Plant Group 2: Subtropical plants (USDA Zone rating 9a and 9b), hardier perennial bedding plants, and the flowers and new growth of winter-blooming evergreens that will tolerate frost and short-term hard freeze events without extensive protection. Includes... Many citrus varieties (Satsuma mandarin oranges, Meyer lemon, kumquats, and other cold-tolerant citrus, etc.), hardier bedding plants and vegetables (snapdragons, columbines, mums, pansies, chives, parsley, peas, etc.), flowering evergreens (Camellia japonica cultivars, philodendron, loquat, oleander, Awabuki viburnum, Knock-Out roses and other cold-tolerant varieties, etc.), palms (Mexican fan palm, Canary Island date palm, sago palm, and other Zone 9 palms and cycads).

Plant Group 3: Warm-temperate plants **(USDA Zone rating 7-8)** that tolerate longer-term cold and winter minimum temperatures ranging from 10 to 20° Fahrenheit (Zone 8) to 0 to 10° F (Zone 7). Includes... Palms (cabbage palm, windmill palm, pindo palm, Mediterranean fan palm, dwarf palmetto, etc.) and a wide variety of Zone 7 and 8 broad- leaved evergreens, including Camellia sasanqua cultivars, Fatsia japonica, live oak, Southern magnolia, and others).

Plant Group 4: Plants with **USDA Zone ratings of Zone 6** (winter minimum 0 to -10° F) and colder. Includes... Many needle-leaved evergreens, hardy evergreen hollies and boxwoods, and the hardiest cultivars of Southern magnolia ("Bracken's Brown Beauty" and "Edith Bogue", etc.), and needle palms.

Approximate Frost/Freeze Tolerance of Plants Without and With FreezePruf

	Without FreezePruf		With FreezePruf	
	Approximate duration of frost events and temperatures for damage and mortality		Approximate duration of frost events and temperatures for damage and mortality	
	Damage	**Mortality**	**Damage**	**Mortality**
Plant Group 1	Either Scenario: • 1 - 2 hours at 33 - 35° Fahrenheit if frost forms • a few minutes at 32° F	20 - 30 minutes at 32° Fahrenheit or any exposure of 30° F or below results in complete leaf, most stem and flower tissue mortality	Minor damage at any of these approximate scenarios: • Typical First or Last Frost: 4 - 6 hours at 30 - 32° Fahrenheit • Typical First or Last Hard Freeze: 2 - 3 hours at 30 - 32° F and 1 hour at 28 - 29° F • 1 hour at 25 - 27 F and 2 hours total below freezing	Any of these approximate scenarios: • Below 30 - 32° Fahrenheit for more than 7 to 8 hours • More than 3 - 4 hours total below 32° F, with more than 1 hour between 28 and 30°F, • More than 3 hours below 32° F, with minimum temp below about 25° F
Plant Group 2 Zone 9b	1 - 2 hours at 24 - 27° Fahrenheit	1 - 2 hours at 23° Fahrenheit or below	1 - 2 hours at 20 - 23° Fahrenheit	1 - 2 hours at 18 - 20° Fahrenheit
Plant Group 2 Zone 9a	1 - 2 hours at 19 - 22° Fahrenheit	1 - 2 hours at 18° Fahrenheit or below	1 - 2 hours at 15 - 18° Fahrenheit	1 - 2 hours at 14 - 17° Fahrenheit
Plant Groups 3+4	Consult the USDA Plant Hardiness Zone information for these species. FreezePruf will reduce the temperature at which damage first occurs to foliage and flowers and the foliar/flower mortality temperature by approximately 4 to 6° Fahrenheit (range documented for all species tested = 2.2. to 9.4° F). Example: An untreated cabbage palm (USDA Plant Hardiness Zone 8a through 10), will incur foliar damage at temperatures from about 12 to 14° F and foliar mortality at about 7 to 8° F. FreezePruf treated palms incur damage at about 8 to 12° F and suffer foliar mortality at about 2 to 4° F.			

Important note: Data is limited to those plants that have been tested with FreezePruf. As trials continue, the Liquid Fence Company will make new data available on www.liquidfence.com.

These frost/freeze scenarios DO NOT include other environmental (ie wind chill, drought, etc) and plant health factors that could impact the effectiveness of FreezePruf.