

# How to Plant Firewise near Houses in the Texas Panhandle

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## 1: Firewise Plantings Next to Texas Panhandle Houses

The Fuel-free Zone within 5' of buildings



## 2: Firewise Plantings in Texas Panhandle Yards

Low Fuel and Open Zones from 5' to 30' from buildings



## 3: Know Which Plants are Firewise for the Texas Panhandle

Lists of high-flame plants to avoid and low-flame trees and large shrubs to use with care



Photo of Delosperma in red pot (3<sup>rd</sup> from left top row) by Bff from Wikimedia Commons, used by permission.

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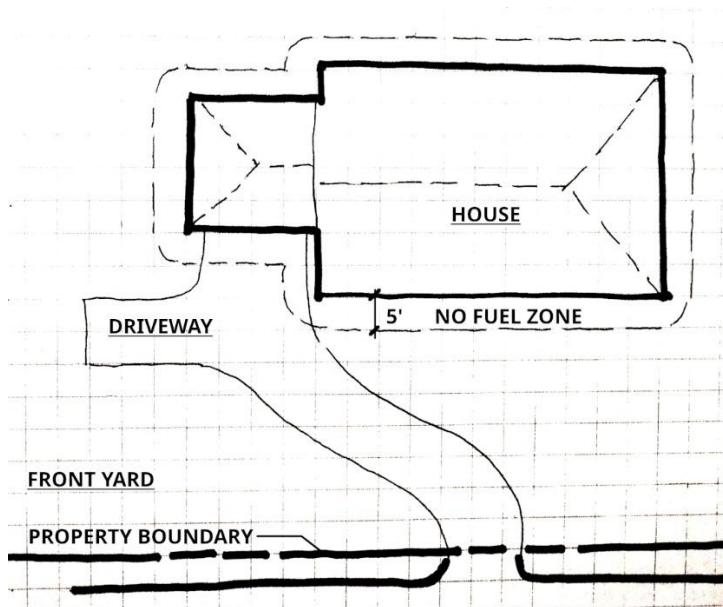
# 1: Firewise Plantings Next to Texas Panhandle Houses

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## Make a No Fuel Zone: 0- 5'

If your house faces a wildfire its survival may depend on whether you [harden the building](#) to resist fire<sup>1</sup>, and whether you turn the area within 5' of the house and/ or attached deck into a No Fuel Zone<sup>2</sup>.



Don't leave anything that can burn:

- No wood chips
- No weeds
- No wood furniture or trellises
- No propane tank or firewood
- No bushes
- No tree branches above

Instead of framing your front door with evergreen shrubs, a raised planter holding a low plant may have the same visual effect but much less fire danger. In the No Fuel Zone plants must be only low growing succulents with thick leaves and stems that hold water. In a fire they will cook instead of flame up.

In sunny areas succulent plants can reduce heat build-up from sun beating down on pavers or dirt. Once they adapt to their new home these plants won't need irrigation, but will hold soil in place and breathe out cooler air as they pull moisture from the earth. Succulent houseplants (like aloe and jade tree) in non-flammable planters can also green up your entry area in the summer. Taller succulents should be as far from a non-flammable house wall as their height. Never locate any plants directly under a large or low window.

Accents can include pottery and metal or stone chairs or benches. Nicely designed houses don't need the front wall hidden behind plants, but ceramic sculptures or metal wall art can personalize the front. Finish with an attractive gravel mulch.

Don't attach wood fencing to a house. Instead use a metal gate or metal or masonry fence for 5' from the building. Trellises, awnings and pergolas must be non-flammable materials. A grilling area and its propane tank located away from the building is a good excuse for a special path with a non-flammable bench.



City planter image above right used by permission by Beyond My Ken.

<sup>1</sup> Texas A&M Forest Service has several information pages at <https://texaswildfirerisk.com/>

<sup>2</sup> The Aussies call it Fuel-free. See 'Garden design can reduce wildfire risk and drive more sustainable co-existence with wildfire' by Ondeï, Price & Bowman. Online at: <https://www.nature.com/articles/s44304-024-00012-z>.



## Succulent Ground Covers

	<i>Water needs</i>	<i>Native? Notes</i>
Agave, Utah/ <i>Agave utahensis</i> , 20"	RW <sup>3</sup>	US native
Hens and Chicks, Fuzzy/ <i>Sempervivum ciliosum</i> , 4"	Low <sup>4</sup>	Clusters
Hens and Chicks/ <i>Sempervivum tectorum</i> , 12"	Low	Spreading clusters
Iceplants/ <i>Delosperma</i> species, 4- 18"	either RW or Low	Some tolerate part shade
Prickly Pear, Spineless / <i>Opuntia</i> variety, 10+"	RW	Variety of eastern US species
Prickly Pear, Spineless Potato/ <i>Opuntia</i> variety <i>denuda</i> , 3"	RW	Spineless round leaves
Sedum species/ Evergreen Stonecrops, 3- 10"	RW	Some are US natives
<i>Sedum reflexum</i> , <i>S. rupestre</i> or <i>S. seiboldii</i> , 6- 9"	RW	Evergreen sedums, part shade
Spurge, Dwarf Evergreen/ <i>Euphorbia x martini</i> , 6"	RW	Tolerates part shade



Images, left to right: Hens and Chicks with sedums, Iceplant (*D. nubigenum*)<sup>5</sup>, Pink blooming Potato Cactus, 'Angelina' Stonecrop.

## Prickly Succulent Ground Covers for Sun

	<i>Water needs</i>	<i>Native? Notes</i>
Clustering Pincushion Cactus/ <i>Coryphantha</i> or <i>Escobaria vivipara</i> , 4"	RW	US native
Hedgehog Cactus, Strawberry/ <i>Echinocereus fendleri</i> , 9"	RW	Texas native
Hedgehog Cactus, Green Flowered/ <i>Echinocereus viridiflorus</i> , 6"	RW	Local native
Green Claret Cup Cactus/ <i>Echinocereus triglochidiatus</i> , 12"	RW	US native
Clustering Snowball Pincushion/ <i>Escobaria orcuttii</i> , 6"	RW	Local native

<sup>3</sup> RW= This plant only needs rainwater. The first year start it with a good soak every 10- 14 days if it hasn't rained. The second year give it a good soak every 21 days if no rain. After that the roots will be deep and it can survive.

<sup>4</sup> Low= This plant needs some water every other week if there is no rain. The first year start it with a good soak every week. After it is established, soak it well every two weeks with no water in between.

<sup>5</sup> Photo by Agnieszka Kwiecień/ Nova, used by permission, Wikimedia Commons.

## Prickly Succulent Ground Covers for Sun (cont.)

Spinystar Pincushion/ *Escobaria vivipara*, 8"

*Water needs*

RW

*Native? Notes*

Local native



Images, left to right: Mixing small cactus in a planter, Hedgehog Cactus in bloom, Clustering Snowball Pincushion<sup>6</sup>, Spinystar Pincushion Cactus<sup>6</sup>.

Prickly Pear, Creeping Beavertail/ *Opuntia aurea*, 8"

*Water needs*

RW

*Native? Notes*

Mexico, border

Prickly Pear, 'Dark Knight'/ *Opuntia phaeacantha* var., 10"

RW

Variety of local



Images, left to right: Huachuca Agave, Creeping Beavertail, Dark Knight Prickly Pear, Prickly Pear in bloom.

Note: Check my [information page online](#) for updated or additional brochures. More than 400 plants of all types are listed in *Flammability Levels of Texas Panhandle Plants* available online at:

[https://www.academia.edu/128444614/Flammability\\_Levels\\_of\\_Texas\\_Panhandle\\_Plants](https://www.academia.edu/128444614/Flammability_Levels_of_Texas_Panhandle_Plants)

<sup>6</sup> Photos, used by permission from Wikimedia Commons left to right by Marco Wentzel, Germany, Matt Lavin, Bozeman MT



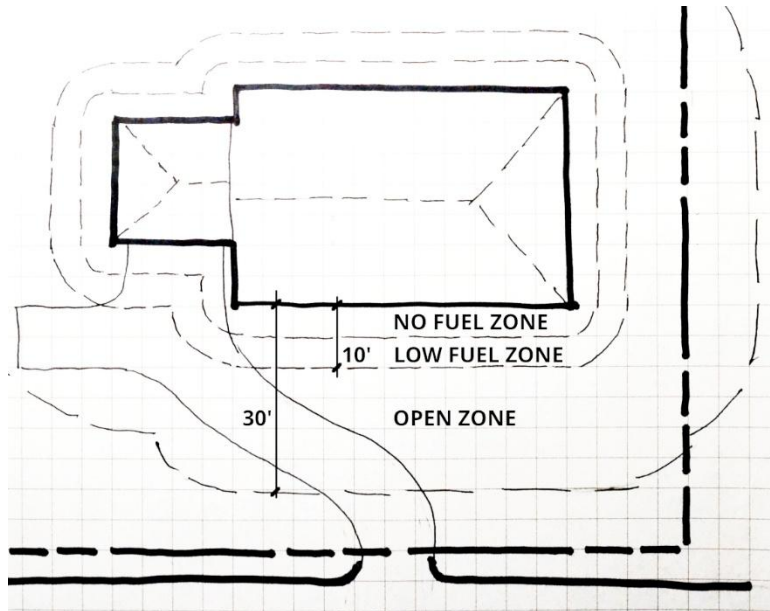
## 2: Firewise Plantings in Texas Panhandle Yards

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### Make a Low Fuel Zone from 5 to 10'

Use a few plants that are low and moist, including succulent shrubs to 24 height” or non-flame plants like ornamental onions. Use small areas of a ground cover that has been tested to produce only low flames, or mowed short grass. Check above you and don’t let any tree branches overhang this area.



### Open Defensible Space 10 to 30'

Next clean up an Open Zone<sup>7</sup> with more low-flame than high-flame plants<sup>8</sup>. Within 30' of the building locate plants in small groups. This area helps buildings survive fire<sup>9</sup> if it has:

- No drought-stressed plants
- No dead branches, stems or leaves
- Gravel mulch
- Thin layers of damp composted chips

Water enough in the Open Zone to keep everything clean and green. Remember to keep lawn in this area mowed or cropped low. In sunny areas buffalo or blue grama grasses need little water and less moving.

Native plants like sotol, Mormon Tea, yucca and cactus don’t need winter irrigation. Local gems like prickly pear or agave are care-free when planted in the middle of a bed with space to weed around. Keep yucca away from paths so visitors (and firefighters) can avoid sharp tips after the plants grow.

Low-flame plants do burn and their flames will travel to other plants, so don’t let your plantings become ‘fire wicks’ that lead flames in towards your house. Don’t let mulch join separate shrub beds since fire travels in mulch. In the Open Zone low-flame shrubs are safest when planted in small groups that are separated from others by ten feet of gravel, or a larger distance of low grass.

Space all trees so that at maturity branches stay 10’ from the house and from each other. Narrow upright deciduous trees fit best on the south side of the Open Zone. Use small trees on the west to shade from low afternoon sun. Keep groups of large shrubs or trees that touch each other more than 30’ from any buildings.

In the wildland urban interface (WUI) or at rural homesites less water is available and firefighters can’t respond quickly. Houses are safer with trees as far away as they are tall. Existing windbreaks or street trees too close? Improve in stages by planting replacements now and removing existing trees as they grow.

<sup>7</sup> This is an Australian term but easier to understand than Texas’ numbered zones.

<sup>8</sup> Many needle-leaf evergreens and some deciduous make high flames. Check your plants online at my [info page](#).

<sup>9</sup> The research paper ‘Garden design can reduce wildfire risk and drive more sustainable co-existence with wildfire’ by Ondeji, Price & Bowman at: <https://www.nature.com/articles/s44304-024-00012-z>.

## Non-flame Small Plants

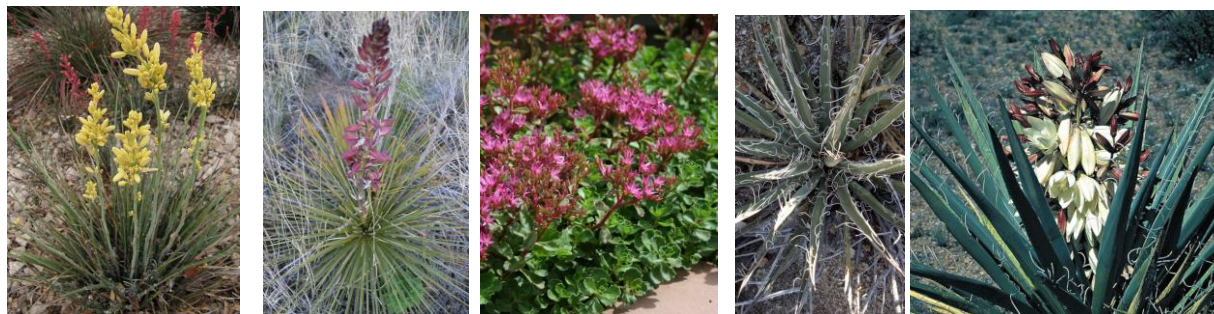
	<i>Water needs</i>	<i>Native? Notes</i>
Mossy Saxifrage/ <i>Saxifraga x arendsii</i> , 8"	Med <sup>10</sup>	Evergreen? Doesn't produce a flame
Edible Chives/ <i>Allium schoenoprasum</i> , 10"	Low+	Sun or part shade, doesn't flame
Ornamental Onions/ <i>Allium</i> varieties, 12"	Low+	Larger flowers on hollow stems
Spurge, Deciduous Cushion Succulent/ <i>Euphorbia polychrome</i> , 12"	RW	Sun or part shade, low flame



Images, left to right: Mossy Saxifrage<sup>11</sup>, Edible Chives<sup>11</sup>, Ornamental Onions<sup>11</sup>, Cushion Spurge.

## Taller Evergreen Succulents

	<i>Water needs</i>	<i>Native? Notes</i>
Agaves/ <i>Agave lechuguilla</i> , <i>A. parryi</i> 12"	RW	Sun or light shade, quick growth
Hesperaloe or False Yucca/ <i>Hesperaloe parviflora</i> , 3'	RW	Tough local native
Prickly Pear, 'Plum'/ <i>Opuntia phaeacantha</i> var., 15"	RW	Flowering, fruiting variety of local
Sotol or Desert Spoon/ <i>Dasylirion texanum</i> , 5'	RW	Prickly Texas native, lge flower cluster



Images, left to right: Hesperaloe<sup>12</sup>, Yucca blooming in grassland, Dragon's Blood Sedum<sup>12</sup>, Yucca detail, Banana Yucca<sup>12</sup>.

<sup>10</sup> Med= This plant needs water every week that it doesn't rain

<sup>11</sup> Photos from Wikimedia Commons, used by permission left to right by GT1976, Tigerente, F. D. Richards of MI.

<sup>12</sup> Photos from Wikimedia Commons, used by permission left to right by Fritz Hochstatter, Patrick Standish of Aurora CO, and by Rebou.



### Taller Evergreen Succulents (cont.)

	<i>Water needs</i>	<i>Native? Notes</i>
Stonecrop 'Dragon's Blood'/ <i>Sedum spurium</i> , 2'	Low+	Semi-evergreen part succulent
Stonecrop 'Autumn Joy'/ <i>Sedum telephium</i> , 3'	Low	Shrubby succulent
Yucca, Banana/ <i>Yucca baccata</i> , 2- 5'	RW	Local native
Yucca, Plains Soapweed/ <i>Yucca glauca</i> , 3'	RW	Local- remove dead lvs
Yucca, Twistleaf Soapweed/ <i>Yucca rupicola</i> , 2'	RW	Less dense, softer leaves

### Small Shrubs

	<i>Water needs</i>	<i>Native? Notes</i>
Mormon Tea/ <i>Ephedra nevadensis</i> , 3'	RW	Texas native, evergreen stems
Sumac, Compact Fragrant/ <i>Rhus aromatica</i> v. 'Low Gro', 3'	RW	Compact var. of local native
Sumac, 'Autumn Amber'/ <i>Rhus trilobata</i> var., 2'	Low	Compact var. of local native
Germander, Wall/ <i>Teucrium chamaedrys</i> , 12"	Low	Evergreen shrub for sun or shade



Images, left to right: Prickly Pear, Sotol or Yucca near a pool, Twistleaf Yucca<sup>13</sup>, Wall Germander.

### Other Low-flame Ground Covers and Low Perennial Flowers:

Evergreens: Candytuft, Horehound, some Penstemons, Silver Speedwell, Pachysandra, 'Silver Mound' and 'Silver Brocade' Artemisia.

Deciduous: Arabis (Rock Cress), Aubretia, Basket-of-Gold, Columbine, Dusty Miller, Blue Fescue, Frogfruit, Leadwort, Perennial Geranium, Saxifrage hirsuta, Skullcap, Snow-in-Summer.



Images<sup>14</sup>, l. to r.: Basket-of-Gold, Dusty Miller, Frog Fruit, Leadwort, Snow-in-Summer, Silver Speedwell.

<sup>13</sup> Photos from Wikimedia Commons, used by permission by Stan Shebs.

<sup>14</sup> Photos from Wikimedia Commons, used by permission left to right by Agnieszka Kwiecien/ Nova, Jim Evans, Ghislain118, Balise42, Chrumps, Jerzy Opiota.

### 3: Know Which Plants are Firewise for the Texas Panhandle

#### High-Flame Plants

Enjoy a few high-flame plants, but keep them 30' from buildings. The more low-flame plants and the fewer high-flame plants on the property, the better the chance a building can survive.

**High-flame trees include most needle-leaf evergreens, arborvitaes, chamaecyparis, juniper and yews. In wildfires, highly flammable plants can burst into flame from heat alone, before the leading edge of flame reaches them. High-flame plants make fires hotter and dry plants nearby so they burn easily.**

**Also high flame: all ornamental grasses, medium-grass prairie species and taller, including bamboo and reeds. Other species that have tested as high-flame: Bouganvillea, English Ivy, Heather, Lavender, Rosemary, Scotch Broom, some thymes, some grape vines, and Wisteria. High flame deciduous trees include Japanese Maple, English Hawthorn, Honey Locust, Yaupon and American Holly, Southern Magnolia, some apple trees, London Plane, and some oaks.**

Low-flame Trees and Large Shrubs	Water needs	Native? Notes
Acacia, Wright/ Senegalia or Acacia wrightii, 15'x10'	RW	Large-flowered local native
Basswood, American/ Tilia americana, 70x45 (probably also Littleleaf Linden/ T. cordata)	Med	Native for bees, deep soil <7.6 pH
Beautyberry, Asian 'Profusion'/ Callicarpa dichotoma var., 4'	Med	Prefers damp, neutral soil
Ceanothus, Wedgeleaf/ Ceanothus impressus, 6x7	Low+	US native evergrn., neutral soil, zone 7
Cholla, Walkingstick/ Cylindropuntia imbricata, 8x6	RW	Spiny local fruiting succulent shrub
Cholla, Cane/ Cylindropuntia spinosior, 8x6	RW	Upright spiny local (can weed under)
Crepe Myrtle/ Lagerstroemia indica, 15x8	Low+	Protect from wind, likes rich soil
Forsythia/ Forsythia x intermedia, 8x10	Med	Introduced spring-flowering shrub
Ironwood/ Ostrya virginiana, 35x35	Med	US native
Mahogany, Silverleaf or Mountain/ Cercocarpus montanus or betuloides, 20x12	RW	Shrubby US native, neutral soil (evergreen spp. high-flame)
Mesquite, Thornless Honey/ Prosopis glandulosa 'inermis', 30x35	RW	Not invasive in grazed fields
Nectarine 'Mericrest'/ Prunus persica var. nectarina, 10x10	Med	Needs moist, neutral soil
Oak, Gambel/ Quercus gambelii, 25x8	RW	Local native broadleaf shrub or tree
Oak, Lacey/ Quercus laceyi, 45x20	Low	Texas native
Oak, Valley/ Quercus lobata, 45x30	Med	CA native, year round ground water
Plane, Oriental/ Platanus orientalis, 70x60	Med	Prefers rich moist soil
Poplar, Silver or White/ Populus alba, 50x40	Med	Invasive in other areas of Texas



## Low-flame Trees and Shrubs (cont.)

	Water needs	Native? Notes
Poplar, Black/ <i>Populus nigra</i> , 80'x40' (probably also <i>P. nigra</i> 'italica'/ Lombardy Poplar)	Med	Quick growing European tree
Sage, Russian/ <i>Perovskia atriplicifolia</i> , 5x3	RW	Tolerates some shade
Serviceberry, Western/ <i>Amelanchier alnifolia</i> , 15x8 (probably also <i>A. utahensis</i> )	Low	Shrubby understory native in NW



Images, left to right: Asian Beautyberry<sup>15</sup>, Cane Cholla, Walkingstick Cholla bloom and fruit, Mountain Mahogany<sup>15</sup>.

Stretchberry/ <i>Forestiera pubescens</i> , 12x10	RW	Local native, low maintenance
Sumac, Littleleaf/ <i>Rhus microphylla</i> , 10x12	Low	Local native, red berries
Texas Persimmon/ <i>Diospyros texana</i> , 20x20	Low	Texas native loves rocky woodlands
Yucca, Joshua Tree/ <i>Yucca brevifolia</i> , 15x15	RW	Short leaves = short dead leaf 'skirt'
Yucca, Thompson/ <i>Yucca thompsoniana</i> , 12x6	RW	Large flowering Texas native



Images, left to right: Serviceberry<sup>16</sup>, Elbowberry or Stretchberry<sup>16</sup>, Littleleaf Sumac<sup>16</sup>, Texas Persimmon<sup>16</sup>, Thompson Yucca, Chickasaw Plum<sup>16</sup>.

More local plants need to be tested, but these are estimated to be low-flame: Ashes/ *Fraxinus cuspidata* and *F. velutina*; Golden Currant/ *Ribes aureum*; Hackberries and sugarberry/ *Celtis*; Japanese Tree Lilac/ *Syringa reticulata*; Cheyenne Mockorange/ *Philadelphus lewisii*; Golden Mockorange/ *P. Coronarius*; Many

<sup>15</sup> Photos from Wikimedia Commons used by permission, left to right by Lazar Egagnidze, James St. John.

<sup>16</sup> Photos from Wikimedia Commons used by permission, left to right by Laval University, Matt Lavin, Jerry Friedman, Homer Edward Price, Lm13700.

prunus including Almond/ *P. dulcis*; Apricot/ *P. armeniaca*; Chickasaw Plum/ *P. angustifolium*; Dwarf Plum/ *P. domestica* variety; Sweet Bird Cherry/ *P. avium*; Redbuds/ *Cercis canadensis* and *occidentalis* (probably *C. mexicana*, *C. texensis*); California Sycamore/ *Platanus racemosa*; Walnuts.

## Taller Low-flame Perennials

*Prairies include many perennials, but use these only if dead stems can be always removed in a timely manner*

	Water	Native? Notes
Blanket Flower, Red-eye/ <i>Gaillardia pinnatifida</i> , 20"	Low+	Local native flower for sun
Columbines/ <i>Aquilegia caerulea</i> or <i>A. chrysantha</i> , 1.5- 2'	Low+	US natives for moist sun or shade
Daylily, Evergreen Orange / <i>Hemerocallis aurantiaca</i> , 30"	Low+	Species with moist leaves, sun or part shade
Gayfeather or TX Blazing Star/ <i>Liatris punctata</i> , 24"	Low	Local native for full sun
Geranium, Perennial / <i>Geranium x Cantabrigiense</i> , 12"	Low+	Long lasting flowers, sun or part shade
Thrift or Sea Lavender/ <i>Armeria maritima</i> , 12"	Low+	Evergreen, tolerates salt

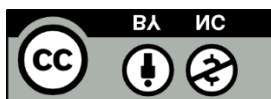


Images, left to right: California Sycamore<sup>17</sup>, Blanketflower, Orange Daylily<sup>17</sup>, Texas Blazing Star<sup>17</sup>, Thrift<sup>17</sup>.

For more information, see *Flammability Levels of Texas Panhandle Plants* which lists more than 400 species for low, medium or high flammability. This booklet is available online at:

[https://www.academia.edu/128444614/Flammability\\_Levels\\_of\\_Texas\\_Panhandle\\_Plants](https://www.academia.edu/128444614/Flammability_Levels_of_Texas_Panhandle_Plants)

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