



LANDSCAPING:

RECOMMENDED SHRUBS FOR WYOMING

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UNIVERSITY
OF WYOMING

B-1108R
December 2015

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Revised from original bulletin B-1108 by Karen L. Panter and Emily E. Ewart

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Graphic Designer: Tanya Engel, College of Agriculture and Natural Resources, Office of Communications and Technology.

On the cover
Forsythia x intermedia
Forsythia

Issued in furtherance of extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Glen Whipple, director, University of Wyoming Extension, University of Wyoming, Laramie, Wyoming 82071.

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Growing woody plants in Wyoming can be a challenge, especially in areas of high elevation or low precipitation. In some locales, both factors must be taken into consideration. Planning and thought must go into the purchase and planting of any type of plant, especially woody types.

What is the difference between a tree and a shrub? Trees are woody plants, generally 8 feet or taller, that live for many years. They are characterized by having a single stem or trunk. Shrubs are also woody plants that live long lives, but they are generally smaller and have several stems originating from the base of the plant. They can range in height from less than 1 foot to 15 feet. Sometimes they are also called bushes.

Common sense and horticultural principles should be followed when deciding which shrubs to plant. Some of those principles are discussed below. The climate cannot be changed, but the gardener can create micro-climates that enhance shrubs' potential for long-term survival.

SITE SELECTION

Proper placement of shrubs in the landscape is one of the most important factors affecting shrub survival in Wyoming. There are many placement considerations.



Aronia melanocarpa
(Black chokeberry)

Design of the landscape.

Shrubs can perform many functions. These might include shade or screening from neighbors or streets. The landscape may be intended as a showcase for native plants. In any landscape, start with shrubs, as they are the dominant element. Then fill in with shrubs and other plants.

Exposure to prevailing winds.

In many places, winds blow from the west, southwest, or northwest most of the time. A shrub planted in an open area on the west or northwest side of a lot or structure will be exposed to harsh, drying, and potentially damaging winds.

Proximity to structures.

Plant shrubs far enough away from a structure or building that branches will not scrape the sides. The shrub will need sufficient space to grow. Plant the shrub at a distance from the structure equal to at least half the shrub's mature diameter.

Proximity to underground utility lines.

Shrubs rarely cause problems under overhead power lines; however, it is wise to contact local authorities to determine if and exactly where buried utility lines may be located. There is usually no charge for this service.

Proximity to sidewalks, curbs, and driveways.

Shrub roots can crack and damage concrete as the roots grow and develop. They can block sidewalks and driveways, making it difficult for pedestrians to pass. They can also impede drivers' vision at intersections. Often, local zoning regulations or shrub ordinances will specify which species of shrubs or shrubs are allowed in certain places. Always consider the size the plant will be when full-grown. Plant shrubs at least as far away from sidewalks, curbs, and driveways as half the shrub's mature diameter.

Proximity to other shrubs and trees.

If a new, young shrub is planted too close to a mature shrub or tree, the new one may be shaded. Its growth may be abnormal or stunted because of a lack of sunlight.

Exposure to sun.

Make sure the shrub has enough sunlight hours to match its needs in its new home. Most shrubs have specific light requirements. Make sure to place the plant in the best light for the species. Also keep in mind the size of the shrub when it reaches maturity. Will it still receive enough light ten years from now?

Proximity to water.

Newly planted shrubs must be pampered to survive in Wyoming. A water source must be near during the growing season and especially during winter. Wyoming frequently has periods of warm, dry weather during the winter months. Additional water at these times is crucial to the plant's survival.

Soil pH.

Often, one of the more limiting factors in growing woody plants successfully in Wyoming is the high soil pH. Most shrubs will thrive in soils with a pH of 6 to 7. Many of our native soils, however, have higher pH levels. Select shrubs that will tolerate higher pH soils or more alkaline conditions. (For further information, check UWE bulletin B-1097, "Iron Deficiency Chlorosis on Woody Landscape Plants in Wyoming.")

Proximity to neighbors.

When selecting a site, consider your human neighbors. Determine if the shrubs will block the neighbors' view, if they could be a possible hazard (thorns), or if they could be a nuisance (pollen, fruit, flowers, leaves) Check to see if the plants will affect neighbors' sidewalks, driveways, or curbs.

PURCHASING HEALTHY SHRUBS

Shrubs can be purchased in many sizes and types of containers, or in no container at all. Each container has advantages and drawbacks.

Bare-root shrubs.

These are usually "whips," very small shrubs that may or may not have any developed branches. Whips should be purchased very early in the season before they come out of winter dormancy. The roots on bare-root stock should never dry out, so if they must be stored, keep them in a cool, moist spot with the roots wrapped in moist peat moss or other absorbent material. As soon as possible, pot whips in new or clean containers to allow the roots to develop. Later on during the growing season, the young shrubs can be planted in their new homes. Bare-root shrubs also can be planted directly in the ground. The cost of bare-root materials is low, but they will take many years to reach maturity.

Containerized shrubs.

Shrubs can be purchased in any number of container sizes, from #1 (roughly 1 gallon) to

#15 (about 15 gallons) and sometimes even larger. These shrubs will have well-developed root systems and will be more mature and older than bare-root shrubs. They also will cost more. One way to check the health of the plant is to gently remove the shrub from its container. Look at the root tips – if they are clean and white, chances are the shrub is a healthy one.

Balled-and-burlapped (B&B) shrubs.

Usually, the largest and most expensive shrubs available for purchase have their root systems contained in a relatively small “bag” that must be carefully handled. B&B shrubs must have their root systems intact, and the root ball should be in one piece, a characteristic called “ball integrity.” If the root ball has been pierced, the soil has fallen away from it, or the ball integrity has not been maintained, the shrub’s survival will be compromised. B&B shrubs may require specialized equipment to move and plant them.

Any shrub purchased should have the following characteristics:

- Freedom from insects, diseases, and their associated damage.
- Clean, clear color of the foliage typical for that particular shrub. Some shrubs have purple or red tinges to their foliage; others have a yellowish cast to them. Understand which varieties of shrubs have these different characteristics.
- A minimum of broken or damaged branches.
- No visible wounds or scars on the trunk.
- Healthy root systems that are well-established in the container or root ball. Healthy roots are white and should be visible on the outside edges of the root ball.

- Signs of new, healthy growth such as buds or mature green leaves.

SITE PREPARATION

Site preparation is probably the most important part of shrub planting, but it is also the most difficult and often-overlooked step. Consider the landscape as a whole, select the proper site for the new plant, and then prepare the site.

Preferably, the hole for the new shrub should be dug before the plant is purchased or soon thereafter, especially if the plant is B&B. Dig the hole to the depth of the root ball or soil depth in the container. The shrub should be planted only as deeply as the original soil line, which will be a darkened area at the base of the stems. They should not be planted too deeply. The hole should be at least three times the width of the root ball. For bare-root shrubs, dig the hole at least twice as wide as the spread-out root system. Do not amend the soil removed from the hole.

PLANTING THE SHRUB

If the plant is bare-root, soak the roots in water for several hours before planting. When the site has been prepared, check the root system. Carefully prune out any small circling roots or any damaged or broken roots. Next, spread the roots out horizontally in the prepared hole.



Jamesia americana
(Waxflower)

Make sure the roots are undamaged and the shrub is placed straight and at proper depth.

If the plant is in a container, carefully remove the shrub from the container either by gently pulling or by cutting the container away from the root ball. Always handle shrubs by the root ball, not the branches. Taking care not to break or disturb the root system, gently place the plant in the hole. Make sure the crown of the plant (where the branches and soil meet) is at or above the surrounding soil level. If the soil level needs to be raised, gently lift up the plant by the root ball, place additional soil underneath it, and then replace the plant.

If the shrub is B&B, place the plant gently in the hole. Make sure it is not too deep. Carefully cut away the burlap and twine from the root ball. B&B shrubs may have wire baskets around the root balls instead of burlap and twine. Cut away as much of the wire basket as possible – preferably all of it.

Once the plant is set at the right level, the process of filling up the rest of the hole can

begin. Make sure the shrub is straight before completely filling in the hole. Gently firm the soil periodically to fill in spaces under and around the root ball. Good contact between the soil and the root ball is essential. Roots cannot grow in pockets of air.

When the hole is filled all around the root ball, build a low “wall” around the perimeter of the hole, creating a bowl to hold water. The next critical step is watering the plant to settle the soil around the root ball and to provide water for the root system. It may be helpful to have water running while filling the hole around the plant.

A slow trickle of water over several hours is a good way to water the plant. Make sure, however, the hose is moved periodically so all areas around the root ball are watered. A sprinkler is also effective in watering. Use a gentle sprinkle to water the shrub gradually over a few hours. Slow water applications will settle the soil around the root ball without compacting it.

Mahonia aquifolium
(Oregon grape holly)



MAINTAINING THE YOUNG SHRUB

After planting, do not fertilize the new shrub. Shrubs rarely need to be staked. Also after planting, carefully prune off any dead or broken branches. The pruning cut should be made just outside the branch collar and not flush with the larger branch. After removing dead or broken branches, further pruning should not be necessary during the first year.

Water the new shrub frequently during the growing season. The area around the roots should be moist but not waterlogged. In addition, the shrub's roots should not be allowed to dry out.

Winter watering is essential, especially for young shrubs, because Wyoming winters are

unpredictable at best. Snow cover cannot be counted upon to provide consistent water during the winter. If the ground is frozen, watering is unnecessary because moisture cannot penetrate frozen soil. If the area is dry and there is no snow cover, however, it would be beneficial to get out the hose.

GUIDE TO RECOMMENDED SHRUBS FOR WYOMING

The following table lists shrubs that have been grown successfully in Wyoming. Hardiness and adaptability of woody plant species is closely associated with altitude. Each species is identified with a USDA hardiness zone and a maximum elevation for growth. This table is not intended to be an all-inclusive list; consult your local nursery professional for other suitable shrubs for your area.

EVERGREEN SHRUBS

Scientific name	Common name	Hardy to (feet)	USDA zone	Height (feet)	Width (feet)	Exposure	Comments
<i>Arctostaphylos uva-ursi</i>	Kinnikinnick, bearberry	9,000	2	1	4	Part shade	Native, excellent groundcover; prefers moist soil; light pink flowers in spring; berries late summer; broadleaf evergreen
<i>Euonymus fortunei</i>	Winter-creeper euonymus	6,000	4	2	10-12	Shade	Must be in protected spot; consistent water required
<i>Juniperus spp.</i>	Many dwarf varieties	Vary	3	Up to 4	Usually wider than tall	Sun, part shade	Foliage color will vary; most handle poor soils well
<i>Juniperus chinensis</i>	Chinese juniper	7,000	3	1-12	3-8	Sun	Foliage color varies from green to blue-green to gray-green; moist conditions; conifer
<i>Juniperus communis</i>	Common juniper	9,000	3	5	8	Sun	Native; spreading juniper with open form; adaptable; handles poor soil well; conifer

EVERGREEN SHRUBS

Scientific name	Common name	Hardy to (feet)	USDA zone	Height (feet)	Width (feet)	Exposure	Comments
<i>Juniperus horizontalis</i>	Creeping juniper	7,000	3	1-2	4-8	Sun, part shade	Many native; slow growing; good ground cover; very adaptable; conifer
<i>Juniperus sabina</i>	Savin juniper	8,000	3	6	10	Sun	One of the best junipers for Wyoming; tolerates alkaline soils; drought tolerant; conifer
<i>Mahonia aquifolium</i>	Oregon grape holly	6,500	5	3-6	3-5	Part shade, shade	Attractive shrub with glossy green leaves; yellow flowers; blue berries; can be chlorotic in high pH soils; keep moist in winter; broadleaf evergreen
<i>Mahonia repens</i>	Creeping Oregon grape holly	6,500	4	1	3	Part shade, shade	Native; leaves red in fall; yellow spring flowers; blue berries; keep moist in winter; broadleaf evergreen
<i>Picea abies</i> 'Nidiformis'	Bird's nest spruce	7,500	3	3-6	3-6	Sun	Dwarf spruce with depression in center
<i>Pinus mugo</i>	Mugo pine	8,500	2	3-15	6-20	Sun, part shade	Dark green needles; rounded form; tolerant of calcareous soils; conifer
<i>Taxus canadensis</i>	Canadian yew	6,500	3	3-6	6-8	Shade	Require consistent moisture and protection from wind in winter
<i>Yucca glauca</i>	Soapweed	8,500	4	2-3	3-4	Sun	Tolerant of cold weather and dry, poor soils; flowers on a tall raceme with greenish-white blooms in late summer; swordlike, sharp leaves; broadleaf evergreen; can be invasive

DECIDUOUS SHRUBS

Scientific name	Common name	Hardy to (feet)	USDA zone	Height (feet)	Width (feet)	Exposure	Comments
<i>Amelanchier alnifolia</i>	Serviceberry	8,000	4	6-10	5-8	Sun, part shade	Edible, bluish fruit; attractive foliage; open coarse growth; prefers moist soil
<i>Amorpha canescens</i>	Lead plant	9,000	2	4	4	Sun	Gray-green foliage; violet-blue flowers in June; good accent plant
<i>Aronia melanocarpa</i>	Black chokeberry	8,500	3	3-5	3-5	Sun, part shade	Reddish purple fall color; may sucker; blackish-purple fruit; adapts to range of conditions
<i>Artemisia cana</i>	Silver sage	8,000	44	2-5	2-3	Sun	Attractive silver foliage; native; yellow flowers; drought tolerant
<i>Berberis thunbergii</i>	Barberry - many varieties, some dwarf	7,000	4	3-6	4-7	Sun	Red and green leaf varieties; attractive berries; drought tolerant; good urban shrub; thorny
<i>Buddleia</i>	Butterfly bush	8,000	4	12-15	10-12	Sun, part shade	Blue-gray foliage; lavender flowers in spring; adapts to most soils
<i>Caragana</i> spp.	Peashrub	9,000	2	3-15	6-18	Sun	Tall, vigorous growth; can be leggy; tolerate drought, cold, wind, alkaline soils; some thorny
<i>Caryopteris x clandonensis</i>	Blue mist spirea	8,000	5	2-3	3	Sun	Freezes to ground in winter; blue blossoms late summer; favorite of bees
<i>Ceanothus fendleri</i>	Mountain sweet	7,500	4	4	4	Sun, part shade	Native; large leathery leaves; difficult to transplant; prefers dry soil
<i>Cercocarpus ledifolius</i>	Curl-leaf mountain mahogany	9,000	3	6-8	6-8	Sun	Native; drought tolerant; dark green leaves curl under

DECIDUOUS SHRUBS

Scientific name	Common name	Hardy to (feet)	USDA zone	Height (feet)	Width (feet)	Exposure	Comments
<i>Chrysothamnus nauseosus</i>	Rabbitbrush	8,500	3	2-6	2-6	Sun	Native; good summer foliage; yellow blossoms; interesting winter twigs; tolerates poor soils and dry conditions
<i>Cornus sericea (stolonifera)</i>	Redtwig and yellowtwig dogwood	9,000	3	7-9	10	Sun, part shade	Native; some varieties more compact; winter color; adaptable; prefer moist soil
<i>Cotoneaster</i> spp.	Cotoneaster	7,500	4	3-6	3-6	Sun, part shade	Several species and varieties; glossy green foliage; reddish fall color; purple-black berries
<i>Daphne burkwoodii</i> and <i>D. mezereum</i>	Daphne	7,000	4	2-3	4	Sun, part shade	Fragrant white or pink flowers; adaptable
<i>Fallugia paradoxa</i>	Apache plume	8,000	3	3	3	Sun	Lacy foliage; white flowers mid- to late summer, followed by feathery silver-pink seedheads; adaptable
<i>Forsythia x intermedia</i>	Forsythia	6,000	4	8	6	Sun, part shade	Bright yellow flowers in spring; consistent moisture; flower buds often killed by late spring frosts
<i>Hamamelis virginiana</i>	Witchhazel	4	6,500	15	15	Sun, part shade	Consistent moisture; yellow flowers late summer; best as large multi-stemmed shrub
<i>Holodiscus dumosus</i>	Rock spirea	4	6,500	3	3	Sun, part shade	Native; adaptable; white or pink flowers late June
<i>Hybiscus syriacus</i>	Rose of Sharon, Shrub althea	5	5,000	8	6	Sun, part shade	2-4 inch flowers in varying colors in late summer; often dies back to ground in winter
<i>Hydrangea arborescens, H. paniculata</i>	Hydrangea	4	6,000	3-5	3-5	Part shade, shade	Require consistent moisture; protection from wind
<i>Jamesia americana</i>	Waxflower	3	9,000	3	4	Sun, part shade	Showy, fragrant white flowers late spring; tolerates dry soil

DECIDUOUS SHRUBS

Scientific name	Common name	Hardy to (feet)	USDA zone	Height (feet)	Width (feet)	Exposure	Comments
<i>Kolkwitzia amabilis</i>	Beautybush	4	6,500	6	6	Sun	Tubular pink flowers early summer; best by itself; adaptable
<i>Krascheninnikovia lanata</i> (<i>Ceratoides lanata</i>)	Winter fat	7,500	4	1-4	2-4	Sun	Native; compact; silver foliage; hairy fruits; prefers sandy, dry soil
<i>Lonicera</i> spp.	Honeysuckle	7,500 to 10,000	2-4	3-10	3-10	Sun, part shade	Several species and varieties; some native; blue-gray foliage; flower colors vary
<i>Perovskia atriplicifolia</i>	Russian sage	7,500	5	3-6	3-6	Sun	Blue flowers mid-to late summer; drought tolerant; favorite of bees
<i>Philadelphus coronarius</i>	Mockorange	7,500	4	8-10	8-10	Sun, part shade	Fragrant white blossoms; open growth; adapts to poor soils
<i>Physocarpus opulifolius</i>	Ninebark	9,000	2	6-8	6-8	Sun, part shade	Coarse foliage; erect growth; good background shrub;
<i>Potentilla fruticosa</i>	Cinquefoil	10,000	2	1-4	2-4	Sun	Native; yellow or white flowers from June to frost; tolerates poor, dry soils and extreme cold
<i>Prunus</i> spp.	Sand cherry, flowering almond	6,000 to 9,000	2-4	4-12	4-10	Sun, part shade	Several species and varieties available; flowers pink or white; can be chlorotic; can sucker
<i>Pyracantha coccinea</i>	Firethorn	6,000	4	4	4	Sun, part shade, shade	Showy white flowers in spring; bright red/orange fruit; thorny; adaptable
<i>Rhus</i> spp.	Sumac	8,500	3	6-20	6-20	Sun	Large shrubs; red fall foliage; drought tolerant; can sucker
<i>Ribes alpinum</i> , <i>R. odoratum</i> , <i>R. uva-crispa</i> , <i>R. cereum</i> , <i>R. aureum</i>	Currant; alpine, clove, gooseberry, wax, golden	9,000	2	3-6	3-6	Sun, part shade	Very hardy; several species and varieties; red fall foliage; dark or scarlet fruits
<i>Rosa</i> spp.	Roses	Varies	Varies	Varies	Varies	Sun	Favorite garden shrubs; most require consistent maintenance; most not tolerant of poor, dry soils

DECIDUOUS SHRUBS

Scientific name	Common name	Hardy to (feet)	USDA zone	Height (feet)	Width (feet)	Exposure	Comments
<i>Sambucus canadensis</i>	Elderberry	8,000	3	8-10	6-8	Sun	Showy tall shrub with edible fruits; coarse foliage; attracts birds; tolerates alkaline soils; suckers may be problems
<i>Shepherdia argentea</i>	Buffaloberry	8,500	2	8-12	8	Sun	Silvery foliage; scarlet fruit; drought tolerant; thorny
<i>Spirea x bumalda</i> , <i>S. thunbergii</i> , <i>S. x vanhouttei</i>	Spirea; Bumald, Thunberg, Vanhoutte	7,500	4	2-8	3-12	Sun	Several species and varieties; sometimes chlorotic in alkaline soils; showy flowers
<i>Symphoricarpos</i> <i>spp.</i>	Snowberry, coralberry	8,500	4	3-8	3-8	Sun, part shade	Attractive foliage; white or red fruit; suckers can be problems
<i>Syringa</i> spp.	Lilac	8,500	4	8-20	6-15	Sun, part shade	Many species and varieties; fragrant flowers; adaptable
<i>Viburnum carlesii</i> , <i>V. lantana</i> , <i>V. opulus</i> , <i>V. x rhytido-phylloides</i>	Viburnum; Koreanspice, wayfaring tree, cranberry, Allegheny	7,500	4	4-12	5-15	Sun, part shade	Many species and varieties; pink or white flowers; red or white fruit



Shepherdia argentea
(Buffaloberry)