

The right plants in the right place

Water-wise landscaping

Want a great looking landscape without using a ton of water?

That is what water-wise landscaping is all about. Water-wise landscaping is simply creating a landscape that fits our climate (with Wyoming's annual average precipitation of 12.68 inches). Landscaping in Wyoming also must be adapted to a number of other challenges including plentiful wind (in some parts of the state), hungry wildlife, intense sunlight, variable weather (hail, cold, and, in some areas, heat), and alkaline soils. Landscaping must also fit your needs including budget, time, interests, and family activities. Remember that not doing any traditional "landscaping" is also an option and one that might be least time intensive.

The key to successful water-wise landscaping generally is choosing plants to fit the site, not trying to change the site to fit your plants. Some site manipulation can be accomplished, but save it for the plants and landscape features that are your top priorities (such as a vegetable garden or cherished shrub).

How to Start

The first thing to do is closely observe your property. Take time to note some things about it. Sketching a quick map of your property and making some notes on it

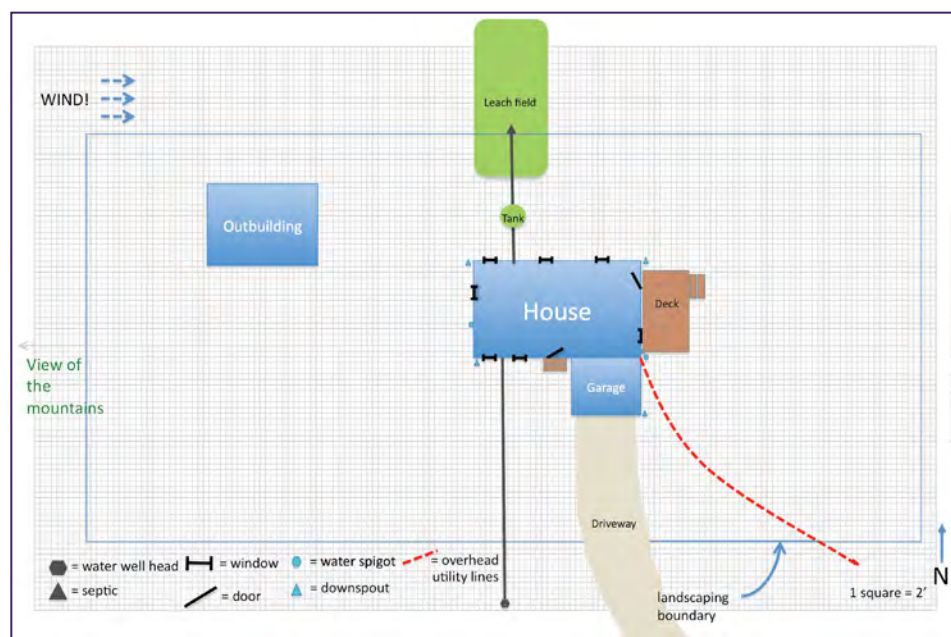
can be a useful tool in planning your landscape.

Items you'll want to note in addition to those on the map shown include:

- What types of wildlife inhabit your property or the surrounding area
- Soil types and quality (more on this later)
- Amount of sunlight in different areas
- Amount and direction of wind in different areas
- How water moves across your property
- General seasonal high and low temps (knowing your U.S. Department of Agriculture Plant Hardiness Zone can help with selecting cold-tolerant plants)
- General topography (cold air moves down hill in general)

- Microclimates (smaller areas with significantly different climates than the rest of your property) – a single house can create at least four microclimates – north side creates a cooler, shady area with more constant temperatures; south side is hotter with more temperature extremes; west is exposed to strong sun and often the most winter winds; east is sheltered from many winds and has a more moderate climate in general.
- Existing plants such as trees and shrubs that you'd like to retain in your landscape.

Once you have in mind the general conditions of your property, next consider what uses or features you'd like in a landscape. Do you want a turf area for the kids? Do you need a path to the barn? Would you like a





vegetable and/or flower garden and area for a compost pile? Do you have a view you'd like to block or frame? Limiting the size of more resource-intensive areas such as a vegetable garden or lawn to just what you need will reduce your work load and the investment of water and other inputs over the long run. A rough sketch of these areas on your map will give you a feel for how things will look and how people will use and travel through the landscape.

Weed work

While you are observing your property and making notes, determine if there are any weed issues present. If so, do your best to take care of them BEFORE you create your new landscape. Tackling tough perennial weeds, such as Canada thistle, that have nestled themselves between desired ornamental plants is significantly more difficult than those that are not amongst desired plants. See our "Weeds, ways to whip'em" section for more information.

Soil prep

Soils vary considerably around the state and sometimes within a small area. If you are looking to reduce your workload and save water,

choosing plants suited to your soils is the best way to go. Read the "Soils" section in this manual to get a good understanding of soils and their issues. If you don't know what type of soil you have, you can get it tested at a variety of testing labs for a fee (contact your local University of Wyoming Extension office to find about the labs in your area). In general, many native or well-adapted plants do not require you to amend (add stuff to it like organic matter) the soil when the plant has been chosen to fit the conditions. In fact, some native plants don't like being fertilized – it can contribute to lush, weak growth and sometimes encourage rot. Many tend to like it on the "mean and lean" side. However, some soils such as extremely sandy soils may benefit from the addition of organic matter to support a wider array of landscape plants.

Soils also factor into how you water. Watering deeply but infrequently is often suggested for water-wise plants. How you do this depends on your soil type. In sandy soils, the water tends to move straight down fairly rapidly. Therefore, applying just enough water to wet the root zone area is best, and it can be

added fairly quickly. Sandy soils lose their water quickly as well, so you may have to water more frequently. Clay soils absorb water more slowly, and the water tends to move outwards as well as down. Therefore, you may need to apply water slowly to allow it to soak in (drip emitters, soaker hoses, etc., apply water slowly). Clay soils hang onto water longer so watering infrequently but deeply fits the bill.

Vegetables tend to like "rich" soils and constant moisture. If you have a vegetable garden in your landscape, applications of well composted organic matter will help it thrive.

Selecting plants

Once you have decided what functions and features you'd like in your landscape, you can now have fun choosing plants and thinking about how they will be grouped.

Some general tips in choosing plants for landscapes are:

- Make sure your plants are hardy enough for your site, and, in general, choose plants that will be happy with the conditions you have. Knowing the USDA Plant Hardiness Zone number for your location will help you choose cold-hardy plants. (It's not a perfect system, but it helps.) <http://planthardiness.ars.usda.gov>. Most locations in the state fall in the USDA zones 3-5. You can also chat with folks at your local extension office, conservation district, and nurseries to find plants to suit your site.
- Choose plants that will give you something interesting (flowers, foliage, bark, fruit, etc.) during most parts of the year. A garden of mainly spring bulbs looks great in spring and blah the rest of the year. Consider incorporating some plants that have winter appeal.

- If you are interested in a more cultivated form of “lawn,” consider using more water-thrifty grass species or varieties. There are even varieties of bluegrass that have been developed to thrive on less water. You can find info to help you choose a grass variety by visiting barnyardsandbackyards.com. and clicking on “Lawns.”
- If you’re not sure a plant will be successful in your area, plant one or two and see what happens! Some experimentation will help you learn what best suits your conditions.
- Look around your area and see what other folks are growing successfully, and note where they are growing them. In some of our more exposed parts of the state, what succeeds in town is not always successful outside of town in less protected locations. Learn from the locals (reputable nurseries and local garden clubs are good resources, and try to chat with the owners of landscapes you truly admire and local Master Gardeners).

Some general considerations when deciding how to place the plants:

- Group plants with similar water and exposure needs together. This allows you to care for them most efficiently, and they are more likely to grow well.
- If you are trying to produce a more naturalistic, eye-appealing effect, clump plants in odd-numbered groups (3, 5, etc.), and don’t plant them in straight lines unless you’re trying to achieve a very formal look. You can create naturally curved

beds by laying a garden hose down to mark the edge of the new bed and then creating gentle curves with it.

- Also for a naturalistic affect – if planting trees or shrubs, try to plant different ages of plants in each grouping, if you can find them to purchase.
- Locate any lawns where you will use them the most. Also, make sure they are located near water sources. Consider a lawn shape that best suits your watering system, for maximum

watering efficiency. Also, make sure lawn boundaries make mowing easy, if you plan to mow.

- Locate plants that need more water closer to your water source and/or home where you can best enjoy them.
- Leave room for generous paths for people to move through the landscape to various destinations.

Finding Plants for Your Garden



Choices for obtaining plants for your landscape depend on the resources you have locally and your budget. Some communities have good local nurseries/garden centers (sometimes seasonal) where you can obtain good plants and advice; other communities are not so fortunate. Scout out what your community has to offer, and ask others where they get their plants. In general, some sources are:

- Local and regional nurseries.
- Many conversation districts in Wyoming offer seedling (and, in some cases, larger) shrubs and trees for conservation use.
- Mail/Internet-order sources (be careful when utilizing sources far away from your area to make sure that the plants offered will be a good fit for your site and will arrive in good condition).
- Friends with gardens (one caveat – if possible, ask to see the plant in the garden, ID it, and ask how much it spreads – many a plant that turns out to be a “weed” has come from an unsuspecting friend).
- Grow plants from seed. More and more native plants are being offered by the horticultural industry; however, for certain species you’ll still have to grow them yourself. This can be a less expensive way to stock a landscape with flowering perennials, but it takes some practice/learning if you haven’t grown plants from seed before. Many native plants produce seeds that need a period of moist cold (outside or in your refrigerator) before they’ll germinate.

Maintenance

All landscapes that look good require some kind of maintenance.

Choosing plants adapted to your conditions and that aren’t overly aggressive (aka “weedy”) will reduce the amount of maintenance needed.

- **Water.** Water your plants regularly until they are well established (usually for the first year or so for perennials, longer for many trees and shrubs). Even plants that are water wise need to be watered regularly until they are settled in. Watering during the winter can help some evergreen trees and shrubs survive. When you do water, water deeply to wet the whole area the roots inhabit. When plants are established, it is better to water infrequently but deeply than it is to water frequently but shallowly, though this is dependent on your soils as mentioned previously.
- **Weed.** Be on the watch for weeds of all kinds. In general, the quicker you take care of weeds, the less problematic they are especially for the first couple of years. Be vigilant. If you choose to use an herbicide follow the label directions and be careful in their application as many herbicides can kill flowers, shrubs, and trees, in addition to weeds.
- **Mulch.** In many areas of our state, mulch can be very beneficial in keeping moisture from evaporating from the soil, suppressing weeds, and moderating soil temperatures during all times of the year. What type of mulch you use depends on your personal preferences, but they all need maintenance. Organic mulches (bark, wood chips, etc.) all eventually break down and will need to be “topped up” with more mulch. Our wind eventually blows dirt and weed seed

into rock mulches so you’ll need to maintain those as well. Weed barrier fabrics can be used as well but are probably best suited to stable landscaped areas (trees and shrubs, etc.). If you plan on changing things around much you’ll eventually poke too many holes in the fabric, reducing its efficacy.

- In the windier areas of our state on exposed locations, mulch becomes more problematic as the 70+ mph gusts can blow your mulch toward Nebraska or South Dakota, even picking up small pea gravel and pelting your house with it. It is said that those mulches that “knit-together” such as shredded bark, etc., are best at resisting wind. Also, having established plants that crawl along the ground or creating windbreaks can help to keep mulch in place. Your best bet is to experiment with mulches to determine if any will work in the various microclimates on your property (visiting with area homeowners who have tried different mulches can be helpful).

For the Windier Locations:

Wind can be a challenge! Take the time to read our section on windbreaks. This will help you decide if you’d like to plant one on your place, if you have the space. Established windbreaks make a big difference on many properties, but they can be slow to grow in some areas. Consider the wind-breaking aspects of existing buildings, and take advantage of them. Consider the short-term use of artificial windbreaks (snow fencing, hay bales, other handy items) to help get your plants established. However, in addition to thinking about how they

will change wind patterns, also consider how they will affect where and how snow drifts form.

In the end, remember that “shelter begets shelter” as one smart lady once told me. A building’s shelter helps a shrub grow, the shrub helps a flower grow, etc., etc. It can be a long process, but if you plan to call your property home for some time to come it’s probably worth the effort.

Wildlife

In many locations, wildlife creates challenges for landscapes. The challenges vary depending on the type of wildlife that is the issue. There are some ornamental plants that you can plant that are less likely to be eaten by wildlife; however, if the wildlife are hungry enough all bets are off. Visit barnyardsandbackyards.com for lists of these plants and for other information on dealing with wildlife. Vegetable gardens planted in areas with significant wildlife will probably have to be fenced. See the “Wildlife” section of this guide for more information on fencing and wildlife issues. Above all, keep your cool, be adaptable, protect what you most value, accept some losses, and remember that the wildlife were probably there before you were.

Resources

There are a lot of resources available to help with landscaping efforts in our often challenging climate. Many of these can be found at barnyardsandbackyards.com (including resources on a variety of other topics including vegetable gardening, extending the gardening season, irrigation, and more)

Jennifer Thompson is the *Small Acreage Outreach* coordinator.

Some water-wise plants to consider for



Wild Four O' Clock

Mirabilis multiflora

Native plant

Height: 1-3'

Width: 2-4'

Very long lived. Has large taproot, will likely die if you try to move it (if you injure it's taproot) so plant it where you want it and then leave it be. Can reseed.



Rocky Mountain Penstemon

Penstemon strictus

Native plant

Height: 18-24"

Width: 12-18"

Easy to grow; can get powdery mildew on the leaves though doesn't seem to hurt the plant much. Short-lived perennial (up to 4 years or so). Can reseed a lot so dead-head if reseeding is not wanted.



Lambs Ear

Stachys byzantina

Height: 8-18"

Width: 12-24" (or much wider)

Foliage plant. 'Silver Carpet' is a ground cover and 'Helen Von Stein' has larger leaves than the generic type. Both varieties flower very little so they don't reseed as much as the common variety.



Small-Leaf Pussytoes

Antennaria parvifolia

Native plant

Height: 1-2" (foliage)

Width: 8-12"

Native plant common in our region; slowly spreading groundcover; about 6" tall in flower. 'McClintock' is a variety in cultivation.

'Moonshine' Yarrow

Achillea

Height: 24"

Width: 18-24"

Some yarrows spread around a lot. This yarrow is more self-contained and forms a clump. Has nice lemony yellow flowers and silvery green foliage.

your landscape (see "Windbreaks" section for tree suggestions)



Prairie Coneflower

Ratibida columnifera

Native plant

Height: 18-24"

Width: 18-24"

Long bloom period; short lived (1-2 years) but reseeds moderately. There are burnt orange and yellow colored flowered strains available.



Sulfur Buckwheat

Eriogonum umbellatum

Native plant

Height: 6-12"

Width: 8-12"

Long season of interest. Flowers turn a rusty orange color as they age.



Large Beardtongue

Penstemon grandiflorus

Native plant

Height: 2-3'

Width: 8-12"

Large showy blooms. Short blooming period (two weeks or so). Short-lived but reseeds moderately.



Iris

Height: varies (dwarf, intermediate and tall iris)

Width: varies

Great water-wise plant. Plant different types (dwarf, intermediate, and tall iris) to spread out bloom season. Divide every 3-5 years to maintain flowering. Variegated variety provides interest when not in bloom.



Gayfeather

Liatris punctata

Native plant

Height: 12-18"

Width: 6-12"

Slow grower. Drought tolerant. Attracts pollinators.



Blue Woolly Veronica

Veronica pectinata

Height: 1-2"

Width: 12-18" (or wider)

Early summer blooms; good groundcover in many sites. If the winter is dry (lack of snow cover) may get winter burned.



Catmint

Nepeta

Height: 15-18"

Width: 2-3'

Long bloom time. Resistant to many kinds of wildlife. Choose only those varieties that are "sterile" (don't produce viable seed) and "vegetatively propagated" or can become a pest by reseeding.