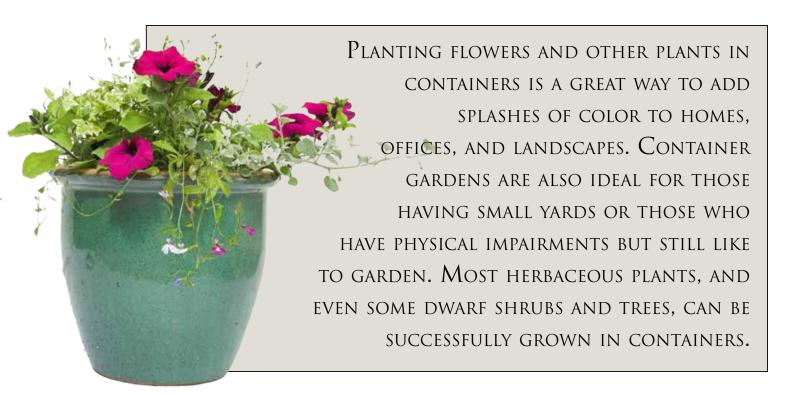


Revised by: Karen L. Panter, University of Wyoming Extension Horticulture Specialist Christopher Hilgert, UW Extension Master Gardener Program Leader Senior Editor: Steven L. Miller, UW Extension Office of Communications and Technology Layout and design: Alexandria F. Krug, UW Extension Office of Communications and Technology Issued in furtherance of extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of

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CONTAINER TYPE

There are two types of containers: porous and non-porous. Porous types, like those made of clay, allow for air and water movement. The potting mix in these pots can dry out quickly. Non-porous containers, like plastic, glazed pottery, and metal, do not lose moisture as quickly. The plastic pots in Figures 1, 2, and 4



Figure 1. Plastic container of Blue Fan flower, (Scaevola aemula), white African daisy (Osteospermum), and red Dipladenia.

are good examples of non-porous containers while the redwood container in Figure 3 is porous. Almost anything can be used as a container, provided it's clean and has holes in the bottom to allow drainage. This helps prevent root rot by keeping roots out of sitting water. If no holes are present, drill a few.

Container size is a consideration. The rule of thumb is the larger the container, the longer it will take to dry out and less frequent watering will be needed. Small pots and hanging baskets may require watering several times a day in Wyoming's dry air. Also, over time, salt residues may accumulate on containers. Scrubbing or soaking the containers will eliminate most of this buildup.

Clay and pottery tend to be heavy. Once they're full of potting



Figure 2. Blue lobelia and trellised pink mandevilla in a large plastic pot.



Figure 3. Perennial sedum species in a handmade redwood planter.



Figure 4. White and pink petunias, rosy lantana, silvery licorice vine (*Helichrysum petiolatum*), and blue fan flower provide contrasts in textures in this concrete patio planter.



Figure 5. Taller coral geraniums in the center of this concrete pot are surrounded by variegated vinca vine plus trailing white and purple petunias.



Figure 6. The centerpiece of this large plastic patio pot is the ornamental fountain grass planted among the pink petunias and coral calibrachoa.

mix and plants, they are not easy to move. Plastic and wood are lighter weight but may be top-heavy, depending on what's planted in them. Plant caddies or mobile plant stands on wheels are available; these are made for setting large containers on and moving them.

GROWING MIX

Choose a good, clean, lightweight potting mix. Un-amended native soil is not recommended for containers because it is too dense. Pre-bagged mixes are a good choice, and they are readily available at garden centers and nurseries. Most mixes are combinations of Canadian sphagnum peat moss, perlite, vermiculite, and sometimes bark. They may also contain water-absorbing polymer crystals, which may or may not be of any benefit. Avoid mixes containing mountain peat, which is very different from Canadian sphagnum. Mountain peat tends to be very salty and mucky and does not have the same characteristics as Canadian sphagnum and should be avoided.



Figure 7. The oblong concrete (or hypertufa) planter on the left houses perennial hens and chicks. The small pot on the right is glazed ceramic and was planted with perennial sedum.

There is no need to put a layer of gravel or anything else at the bottom of the container. Doing so actually restricts drainage, plus it leaves less potting mix volume for plant roots.

PLANT SELECTION

Plant selection is the fun part, but make sure the plants chosen are suitable for the container's location – sun, shade, etc. For advice, contact a reputable nursery or garden center, or call a University of Wyoming (UW) Extension office. Contact information is at http://www.uwyo.edu/ces/areas/county-offices.html.

ANNUALS

Virtually any type of annual flowering bedding plant can be grown in a container. Mix colors, sizes, and species in larger containers with taller plants in the center or toward the back and trailing plants and vines around the outside or in front. Figures 5 and 6 highlight colorful combinations of annuals.

PERENNIALS

Even herbaceous, flowering perennials can be grown in containers. To make sure they survive the winter, keep them moist and protect them from the worst of the elements. Choose species that do not get too large and that won't easily spread, like those in Figure 7.

Contain yourselves...

(or at least your veggies)

Vegetable gardens do not need to be planted in the ground. If you have a patio, a deck, or even a windowsill that receives at least six hours of direct sunlight, you can grow your own food in containers. Containers need to hold enough soil to support the plants when fully grown and should have good drainage. You can grow your vegetables in anything that meets these requirements. Plastic or ceramic pots will work, but you can also use buckets, milk cartons, or any other container found around the house as long as the container is large enough and drainage holes are placed at the bottom to allow water to escape.

A container garden does not need to be expensive if you are creative and use recycled materials. You can also build a container garden out of wood. Redwood and cedar are the best wood materials to use because of their resistance to decay. Remember, large containers will be very heavy once filled with soil, and you may not be able to move them. Place them in a sunny location near a water source.

Smaller, portable containers can be used to start seeds indoors before weather permits vegetables to be grown outside. This gives your plants a head start. Once weather warms up enough, move the containers

outside. Plants started indoors will produce a harvest sooner than plants started outdoors.



Figure 8. This perennial rosemary is planted in a plastic container the same color as clay pots.

ORNAMENTAL GRASSES

Many can be successfully grown in containers, but choose smaller, shorter species. Taller, fuller grasses will quickly overgrow the container. Fountain grass (*Pennisetum*) is a good choice, but it is not particularly hardy and may not over-winter in most of Wyoming. Other good choices are blue fescue (*Festuca glauca*), reed grass

(Calamagrostis), and blue avena grass (Helictotrichon sempervirens).

HERBS

Many herbs are perfect for container growing. Some of the small plants, such as thyme, chives, oregano, and basil, can be grown together. Larger perennial herbs like rosemary can be grown in their own pots (Figure 8). Some herbs, like rosemary, are perennial and will need extra care and protection during the winter.

SMALL FRUITS

Strawberries can be grown in containers.

Strawberry pots even have holes around the sides, which allow for multiple plants. Most small fruits are perennial and will need special care during the winter.

WOODY PLANTS

(SHRUBS OR SMALL TREES)

To grow these successfully, larger containers will be needed. Also, choose plants that are naturally slow-growing and are small or dwarf in growth habit. Examples include various species of hawthorn (Cretaegus), birch (Betula), and oak (Quercus) trees and shrubs like viburnum (Viburnum) and euonymus (Euonymus).

If the plants grow slowly, there will be less need for pruning and repotting later. Plan on winter maintenance, including making sure containers do not dry out and are protected from the worst of Wyoming's winter weather (Figure 9).

VEGETABLES

When looking for vegetable varieties that will grow well in containers, check for descriptive words like "bush," "compact," "dwarf," or "determinate." These describe varieties most suited for growing in containers. Even root crops like carrots and beets can be grown in large pots. Containers can be caged to minimize damage from wildlife. Keep in mind that vegetables require consistent moisture and are not as forgiving as many other plants. This means paying close attention to irrigation when growing vegetables in containers.

WATERING

Once the plants are in the containers, watering is the most important maintenance task. Plan on watering at least twice a day if the containers are small and porous. This is particularly important if the pots are in the sun. If containers are larger and more protected, less frequent watering will be needed. Drip irrigation systems specifically for containers are available.

FERTILIZING

Fertilizing is easiest using a slow-release fertilizer. Many are on the market and, once they are applied in the spring, will last through the growing season. Alternatively, use liquid fertilizers at rates no higher than directed on the label. Some pre-bagged mixes already contain fertilizer so make sure to read the package label.

FALL CLEANUP

At the end of the growing season, vegetables and flowering annuals should be removed from the containers. Healthy plant material can be composted, but avoid this if there are insects or diseases present.

Reusing the potting mix from year to year is not recommended as the mix becomes compacted over time with fewer spaces for air and the root system. It may also harbor disease-causing organisms that may create problems the following year. To sanitize containers for the next season, scrub them using a 10-percent solution of chlorine bleach in water.

WINTER CARE

Perennial plants, whether herbaceous or woody, should be watered thoroughly at the end of the growing season and should be kept moist, but not soggy, all winter. This will minimize damage to the roots from freeze/thaw cycles. Containers should be kept in a protected area, away from prevailing winds, preferably out of the sun, which will prevent temperature extremes.

Sometimes, glazed ceramic pots will crack with expansion and contraction during the winter. One way to minimize this is to cover the sides (not the bottom) with bubble wrap. The bubble wrap forms an insulating layer that helps protect the container from winter temperature extremes.

For gardeners having many containers of perennials, group them together if possible and cover them with frost fabric (a lightweight cloth available from some nurseries and garden centers), straw, or leaves to protect the plants. Placing them in an area prone to drifting snow is another strategy. The snow



Figure 9. Woody plants can be overwintered in plastic containers sunk in trenches dug in the soil. This is also called "heeling in."

cover will protect them from temperature extremes, maximizing plants' chances of surviving the winter.

Even better, if space is available, place the containers in a trench dug in the soil in a protected spot. Dig down almost as deep as the containers are tall, and place the containers in the trench. This heeling in process will protect the root systems from winter temperature extremes. Remember to keep them moist until spring.

Some plants can be taken indoors for the winter. These plants might include tender perennials like rosemary and geraniums. If plants are taken indoors for the winter, check them for insects and diseases first.

LOOKING FOR MORE?

For more tips on container gardening, see University of Wyoming (UW) Extension bulletins B-1146, Care of Flowering Potted Plants, and B-1170, Landscaping: Flowering Annuals for Wyoming, at http://www.wyomingextension.org/publications/Search Start.asp. The bulletins are also available at UW Extension offices.