

## Drought-tolerant plants save water, money and time

Mary Wilson, Michigan State University Extension

With climate change concerns, unpredictable droughts and high energy prices across the country, nearly everyone is looking for ways to conserve resources and cut costs. A simple step to conserve water usage in your landscape is to select drought-tolerant plants. Many of these thrifty plants use less water, but still provide beauty and function in the landscape.

### Start off smart

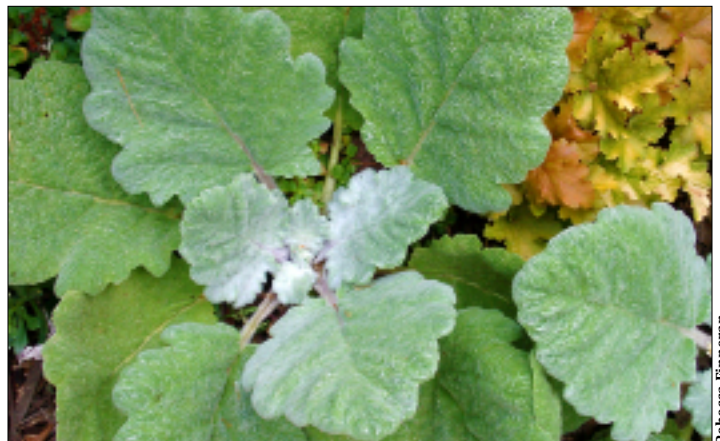
When creating a water-wise landscape, follow these key strategies for success.

- **Recognize site variations.** Areas in your landscape may significantly vary in soil type (sand versus clay), exposure to light (sun versus shade) and wind, evaporation rates and moisture levels. Sandy, well-drained soil dries out quicker, while heavy clay soil is likely to remain moist longer. Adding in exposure to sun and wind can create a dry microclimate even in areas with adequate rainfall.
- **Select plants that match the site conditions.** Use plants that thrive under existing site conditions. A poor match leads to poor performance and possible plant death.
- **Group plants of “like needs.”** Intentionally group plants together that have similar water and sun exposure needs. Group any water-demanding plants together in a site close to a water source.
- **Provide care during establishment.** Even drought-tolerant plants require supplemental watering during establishment. Once the root system is established, the plant will require less attention. Apply an organic mulch to conserve soil moisture for newly developing roots.

### Characteristics of “drought tolerance”

Drought-tolerant plants have built-in features to minimize water loss and maximize water uptake. Plants may have reduced leaf areas and bear small leaves or needles as in the case of evergreens. Some drought-

tolerant plants with large leaves have deep indentations (sinuses) between lobes in the leaves to reduce their leaf area. Another sign of drought tolerance is leaves covered with a heavy accumulation of wax such as that seen on white fir (*Abies concolor*). This wax serves to conserve water within a plant. The presence of fine hairs on the leaves of some plants like silver sage (*Salvia argentea*) is another adaptation that traps moisture at the leaf surface. Drought-tolerant plants like false blue indigo (*Baptisia australis*) have deep roots that pull in moisture well below the soil surface.



Rebecca Finneran

Plants with silvery or hairy foliage such as silvery sage (*Salvia argentea*) tend to be very water-smart.

Are native plants drought tolerant? Perhaps. It depends on where the plant evolved and site conditions where the plant will be placed. Do some research; don't assume “native” is synonymous with “drought tolerance.” There is some information in the Plant Facts section of [www.nativeplants.msu.edu](http://www.nativeplants.msu.edu).

### A plethora of plants: suggestions to get you started

The following plants are drought-tolerant, hardy to Michigan and have few known insect and disease problems. Plants native to Michigan are designated with an asterisk (\*).

## Trees

- **White fir (*Abies concolor*)**. 40-70' – Slow-growing, stately evergreen with soft, bluish-green needles; one of the most drought-tolerant firs; and a great alternative to the overused Colorado blue spruce.
- **Bur oak (*Quercus macrocarpa*)**. \* 90' – Large, majestic tree with extreme drought hardiness; ultimate “tough tree for tough places;” and good growth rates when young.

## Shrubs

- **Bottlebrush buckeye (*Aesculus parvifolia*)**. 8-12' – Outstanding deciduous shrub with a mounded, multi-stemmed habit; white flowers borne on 8-12” bottle-brush clusters in summer; tolerates sun or shade (even flowers in shade!); and deer and rabbit resistant.
- **Bush cinquefoil (*Potentilla fruticosa*)**. \* 3-4' – Versatile, long-blooming shrub for sunny areas; tolerates heat, drought and various soil types; showy flowers from early summer through frost with color ranging from yellow, white or orange; and deer and rabbit resistant.

## Perennials

- **Yarrow (*Achillea spp.*)**. 18-36” – Easy to grow with several selections; fern-like foliage topped with large, flat blooms in late spring to mid-summer; flowers available in shades of yellow, pink and red; plant in

full sun; salt-tolerant; and deer and rabbit resistant.

- **Blue false indigo (*Baptisia australis*)**. \* 36-48” – Upright with purple flowers in erect, 12” clusters above a mound of bluish-green leaves in the spring; ornamental black seed pods; full sun to part shade; and rabbit-resistant.

## Annuals

- **Wax Begonia (*Begonia x semperflorens-cultorum*)**. 6-10” – Good choice for dry shade, also grows in full sun; bushy plants with shiny, heart-shaped leaves of green, bronze-red or mahogany; and continuous blooms of white, pink, rose or red flowers throughout summer.
- **Moss Rose (*Portulaca grandiflora*)**. 2-8” – Low growing, succulent groundcover for full sun, and flowers are semi-double to double in a wide range of colors.

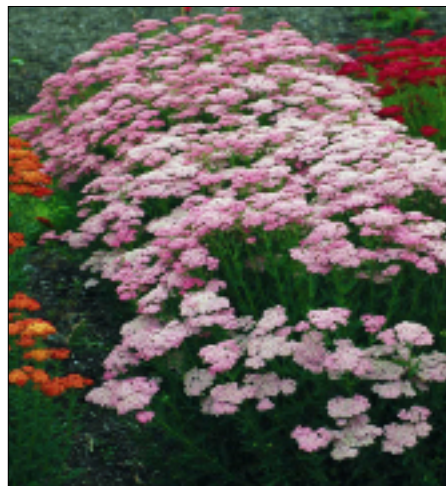
More examples of drought-tolerant trees, shrubs, perennials and annuals can be found at: <http://bit.ly/Drought-tolerant-plants>.

For more information on a wide variety of **Smart Gardening** articles, or to find out about Smart Gardening classes and events, visit [www.migarden.msu.edu](http://www.migarden.msu.edu).



Mary Wilson

Bottlebrush buckeye produces showy summer flowers in full sun and shade.



Chicago Botanic Garden

'Pink grapefruit' yarrow is one of many outstanding yarrow cultivars for dry sites.



Rebecca Fimmeran

Annual wax begonia are good, drought-tolerant border plants for the garden.