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Rain Garden Plants: Winterberry (*Ilex verticillata*)

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Winterberry (*Ilex verticillata*) is a native, woody shrub suited for use in rain gardens. Rain gardens are landscape features that help to protect downstream water quality by capturing stormwater runoff and allowing it to filter through the soil. Winterberry and other plants used in rain gardens filter water, provide wildlife habitat, and enhance landscape beauty.

Winterberry, or black alder, is used in landscapes because of its brightly-colored fruit from fall through winter (Figure 1). This deciduous holly grows 6 to 12 ft. high with a similar spread and bears a lavish display of fruit on current season's wood. Fruit colors range from bright (crimson) red to golden-yellow-orange, depending on the cultivar.

Winterberry belongs to the holly family (*Aquifoliaceae*), and is one of 30 species of deciduous hollies. Adding to winterberry's charm in the landscape is its capacity to berry heavily both in full-sun and part-shade, as well as its relative resistance to disease and insect pests.



Figure 1. Winter display of bright reddish-orange berries in a winterberry planting in Gateway Park (Clemson, SC).

History and Traditions

Ilex means “Holm oak” or “evergreen oak” in Latin. As late as the 1800s, the term *Ilex* was applied both to a southern European evergreen oak (*Quercus ilex* today) and to holly species, likely because the leaves were evergreen and similar in shape. The species name, *verticillata*, is derived from the Latin adjective *verticillate* which means “having whorls”, perhaps referring the whorls of berries around the plant stems.

Winterberry fruit may be slightly toxic if ingested in large quantities, as saponins are present in the berries. Native Americans (Iroquois tribe) used bark from the species as an antiseptic agent, and a tea made from dried and crumbled leaves for nausea^{5,‡}.

In the fall and winter, winterberry stems can be cut and used in floral arrangements or other holiday decorations. Because the berries are showy after the leaves fall, the cut stems can be displayed dry (without supplemental water) both indoors and outdoors. The colorful, berry display will last for many weeks, even indoors.

Benefits

Showy, masses of yellow, orange, orange-red, red, to deep red berry clusters, contrast well with the dark green, sometimes glossy leaves (Figures 2 and 3). When planted in groups or en masse, the orange- to red-colored fruits that occur create a show-stopping display from mid-fall through winter.

Winterberry serves as a larval host for Henry's Elfin butterfly (*Microtia elva*) and also attracts butterflies and bees. Bees are important pollinators of winterberry flowers. Wildlife (mammals and more than 48 species of birds⁴) also use this shrub for cover and nesting, and the berries serve as a food source for birds during the fall and winter.



Figure 2. Range of red colorations in winterberry.



Figure 3. Light orange berries 'Winter Gold' winterberry.

Planting and Care

Winterberries are dioecious (separate male and female) plants. Therefore, for the best berry display, plant male and female plants together. Because winterberry plants are bee pollinated, generally one male plant is recommended for every four to five female plants (if plants are relatively far apart). If plants are closer together (within 40 feet) one male plant may be adequate to pollinate up to 20 female plants^{2,3}. Be aware that you need to select the appropriate male cultivar whose flowering period coincides with the female for pollination, fertilization, and fruit set for berry production to occur. So, knowing whether the cultivar selected (*recommended cultivars* below) is from a northern or southern ecotype, or from a hybrid, is important. Other male hollies, evergreen and deciduous, assuming they flower at the same time, can also be effective pollinators.

The native habitat of winterberry ranges from plant colonies along the edges of streams or ponds and in, or near, swamps, thickets, and low woods. Due to root suckers, it will naturally form thickets or colonies when planted in a garden with consistently moist soil.

Table 1. Plant preferred site conditions

Light: Full sun to part shade
Zones: 3 to 9
Origin: Eastern North America
Type: Deciduous shrub
Moisture: Dry to wet
Moisture timing: Prefers consistently moist soil.
Soil: Prefers moist, acidic, loamy soil, but adapts to other soil types. Does not tolerate alkaline (high pH) soils.

Winterberry is best used *en masse* and grouped plantings in shrub borders or foundation plantings.

Prune to shape early in the season before new growth appears. Plants prefer acidic soil conditions; foliage will exhibit chlorosis if sited in an alkaline soil. Before planting in a rain-garden or flowerbed, collect a soil sample, submit it to your County Extension office, and follow soil report recommendations.

Garden Design

Winterberry is ideally suited as a “back of the border” plant where it serves as a backdrop for other plants in the garden (Figure 4). Ideally, the rain garden should be designed to have multiple seasons of interest.

Winterberry pairs well with most other species that can be used in rain gardens. When pairing, because winterberry does not tolerate alkaline soils, be sure that other plants chosen also do not require alkaline soils.

Table 2. Design considerations - growth habit and plant interest

Height & Width: 3-12' h x 3-12' w
Spacing: 3 to 5' on center
Growth rate: Slow to moderate.
Habit: Oval, rounded, but twiggy; multi-stemmed.
Foliage: Dark green in spring and summer, purplish in fall.
Flower: May – July, non-showy, small, white flowers (early and late blooming cultivars)
Fall – winter interest: Showy clusters of red fruit persists through early winter.



Figure 4. Rain garden at the North Carolina Arboretum in summer (A) and winter (B). Winterberry provides a strong backbone for the garden in the summer and a splash of color in the garden in winter.

Companion Plants

Perennials:

- Blue flag iris (*Iris virginica*, blue to purple iris flowers in early summer, full sun)
- Hardy ageratum (*Conoclinium coelestinum*, purplish-blue flowers held atop foliage in late summer to fall, full sun to part shade)
- Scarlet rose-mallow (*Hibiscus coccineus*, large (6 to 8" across) red flowers from mid-summer to mid-fall, full sun to part shade).
- Redhot poker lily (*Kniphofia uvaria*, red, orange, or yellow flowers in late spring/early summer, full sun)
- Columbine (*Aquilegia canadensis*, yellow or red flowers in early to mid-spring, full sun to shade)

Ornamental grasses:

- Prairie Sky switchgrass (*Panicum virgatum* 'Prairie Sky', fall flowering, full sun)
- Muhlygrass (*Muhlenbergia capillaris*), soft-rush (*Juncus effuses*, fall flowering pink or white flowers, full sun to part shade)

Deciduous shrubs:

- Arrowwood viburnum (*Viburnum dentatum*, spring flowers, early fall berries)
- American beautyberry (*Callicarpa americana*, vivid purple fruit in fall through early winter, full sun to part shade)

Recommended Cultivars^{1,2}

Early (Northern) Female

'Stop Light' – Large, early coloring dark red fruits contrast well with fine, dark green foliage.

'Earlibright' – Early developing, orange-red fruits.

'Red Sprite' – Slow-growing, densely branched, dwarf form with abundant red fruits that persist late in the season. Northern ecotype.

Mid-season Female

'Autumn Glow' – Fine textured foliage that emerges purple in spring. Berries are reddish-orange to red. ~8' h x w. Pollinated by 'Raritan Chief'.

'Bonfire' – Fine textured foliage. Moderate growth rate to a spreading 5'h x 6' w. Red, non-fading fruit color. Berries retained longer than many cultivars.

'Harvest Red' – Dark red fruits displayed on an upright form. Pollinated by 'Raritan Chief'.

'Scarlet O'Hara' – Tightly clustered orange-tinged, red fruits.

'Winter Gold' – Single or clustered yellowish-orange (apricot) colored fruit. Rounded form.

Late (Southern) Female

'Afterglow' – Vivid reddish orange fruit singly, or in clusters of 2 or 3; highly persistent (sometimes until spring). Slow growing and compact with small, glossy green leaves

'Cacapon' – Profuse, persistent, dark red fruits and dark green glossy leaves on an upright plant.

'Carolina Cardinal' - Winterberry hybrid with fine textured foliage. Moderate growth to 4'h x 5' w. Red berries don't fade or sun scorch.

'Christmas Cheer' – Compact habit with abundant red fruits.

'Chrysocarpa' – Yellow fruited form. Wildlife prefer red-fruited forms.

'Jolly Red' – Large, abundant, red fruits.

'Shaver' – Profuse, persistent, large, dark red fruits and dark green glossy leaves on an upright plant.

'Sparkleberry' – Winterberry hybrid with masses of crimson red berries that persist later than most hybrids and cultivars and don't fade or sun scorch. Mounding vigorous growth reaches ~ 8' h x w.

'Sunset' – Heavy production of large reddish-orange to red fruits, singly, or in clusters of 2 to 5. Vigorous, spreading habit. Late flowering.

'Winter Red' – Abundant bright red fruit that persist until spring. Erect but rounded form. Cut stems keep well. Late Flowering.

Male:

'Apollo' – Male pollinator with late-season bloom period. Plants reach 12' h at maturity.

'Holden' – Male pollinator with mid-season bloom period. Compact, dense, uniform habit. 5' h after 9 years.

'Jim Dandy' – Male pollinator for northern ecotypes. Prolonged, early bloom period. Slow growing, dense, broad growth habit. 5.5' h and w in 12 years.

'Raritan Chief' – Male winterberry hybrid (*I. verticillata* x *I. serrata*) intended pollinator for 'Autumn Glow' and

'Harvest Red.' Northern ecotype. 6' h and w in 10 years.

'Rhett Butler' – Male winterberry hybrid with mid-season bloom period. Cold hardy to zone 4. Selected as pollinator for 'Scarlett O'Hara.'

'Southern Gentleman' – Male pollinator with late-season bloom period. Can pollinate 'Cacapon,' 'Shaver,' 'Sparkleberry,' 'Sunset,' 'Winter Red,' and 'Winter Gold.' 8' h at maturity.

**Clemson University Extension does not promote the use of any herb or medicine without your doctor's knowledge and supervision.*

References:

¹ Evans, E. 2012. *Ilex verticillata* Plant Fact Sheet. NC State University. Accessed 11 April 2012.
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⁴ USDA-NRCS Northeast Plant Materials Program. 2002. Common Winterberry Plant Fact Sheet.

⁵ Plants for a Future Database. *Ilex verticillata* – (L.) A.Gray. Accessed: 11 April 2012.
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All images: S.A. White.

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