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Rain Garden Plants: *Aquilegia canadensis* – Eastern Red Columbine

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Rain gardens are becoming an increasingly popular option for gardeners looking to create an aesthetically pleasing garden that manages runoff, improves water quality, and provides wildlife habitat. Rain gardens are “depression gardens” – designed and located to receive runoff from a roof, driveway, or lawn, these features work with nature to collect, filter, and infiltrate runoff, while showing off a variety of vibrant, colorful, and low-maintenance plants. Rain gardens thrive when filled with plants that don't mind getting their “feet wet,” but can also tolerate dry periods. *Aquilegia canadensis*, from the Ranunculaceae or buttercup family, is a colorful native plant addition for many rain gardens. Its common names include eastern red columbine, red columbine, Canadian columbine, wild columbine, and rock-lily.

History and Traditions

The *Aquilegia* genus consists of ~ 65 species, 20 of which are native to North America. The beautiful Eastern red columbine can be easily distinguished by its flowers that feature unique red spurs, or elongated hollow tubes that point up from the floral petals. In fact, the name of this genus was selected with these spurs in mind, either because the spurred flowers look like eagle talons (from Latin “*aquila*” for “eagle”) or because they contain abundant nectar (from “*aquilex*” for “water finder”) (Nold 2003, Rook 2002).

Cultivation of columbine plants began in Europe and America in the mid-1600s. Red columbine is now considered an “old-fashioned” garden plant. Native Americans used it crushed seeds as a love charm, to create men's perfume, and for a variety of medicinal purposes. The crushed seeds and roots of the columbine were also

used to treat ailments ranging from headaches and heart trouble, to sore throats. As a salve, it was used to treat poison ivy and fever (Rook 2002).

Benefits

From early spring through early summer (nearly 6 weeks), red columbine creates a spectacular floral display of light, nodding red and yellow flowers (Figure 1). Red columbine has nectar high in sugar content and is pollinated by long-tongued nectar-feeders such as hummingbirds, butterflies and hawk moths and is a larval host for the Columbine Duskywing (*Erynnis lucilius*).

Planting and Care

Red columbine is the only columbine native to eastern North America – its range extends south from Nova Scotia through Florida where it is now considered endangered. Red columbine can be found in a variety of habitats, including along the borders of hardwood and conifer forests, on rocky, wooded hillsides, on bluffs and ledges, in both nooks and ravines, and marshy areas and open glades (Wennerberg and Skinner 2004).

Table 1. Plant preferred site conditions

<p>Light: Light shade, but tolerates full sun if daylight temperatures not too hot.</p> <p>Zones: 3 - 8</p> <p>Origin: Eastern North America</p> <p>Moisture: Tolerates dry to moderately moist soils.</p> <p>Growth rate: Rapid, freely self-sow, plants short-lived (3-5 years). Seedlings rapidly colonize gardens.</p> <p>Soil: Well-drained, loose, slightly acid. Prefers sandy loam with organic matter, but tolerates a range of soil types – even clay if adequate organic matter present.</p>

To keep red columbine healthy, be careful not to overwater during summer, as crowns are relatively susceptible to rot in hot weather. Cutting back spent seed-heads or flowers will give a tidier appearance and may also promote renewed flowering. Of the columbine species, *Aquilegia canadensis* is least susceptible to leaf miner damage (Figure 2) that disfigure the leaves of many other columbine species and hybrids (Armitage 2008). Leaf miners are particularly voracious pests of columbine. *Aquilegia canadensis* seems to resist pest damage longer than other species; however, eventually leaf miner may disfigure the foliage. Yet – by this time – other garden species will have gained mature size and can mask damaged foliage. Chemical management of leaf miners should not be necessary.

Table 2. Design considerations - growth habit and plant interest

<p>Height & Width: 1-2.5' h x 1-1.5' w Spacing: 2' – 3' Type: Herbaceous perennial Habit: Mounded, clumping Flower: Showy, nodding, blood red with yellow (dominant) flowers to pink with yellow flowers from March through July, usually 6 week bloom period. Foliage: Basal and alternating up stem. Either two groups of three, or in groups of three leaflets. Dies back to ground in mid to late autumn or earlier under drought conditions.</p>
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Garden Design

Red columbine is best showcased in clumps of three or more plants. Grouping columbine allows the flowers to show as a cloud of color suspended in the air on dainty bloom stalks. Because columbine reseed prolifically, plant placement in the garden should be planned so that new growth enhances the overall garden design. In South Carolina, the columbine floral show typically begins in early to mid March and continues into late April or early May. In southern climates, columbine foliage can be semi-evergreen, appearing when average temperatures increase to above 40°F.

Red columbine foliage is fast growing and thick, making it a good choice to plant at the back of a garden or border. Flowers will still be visible above the foliage of many other companion plants. The red columbine floral

show lasts only around six weeks, so it is important to select complementary companion plantings to provide additional garden backbone when the red and yellow colors of the columbine begin to fade in mid-summer. Suggested cultivars and companion plants range in adaptation to sun or shade conditions, so when using these plants, keep in mind specific site conditions and choose plants best adapted to that site.

Companion Plants

Perennials:

- *Asclepias tuberosa* (Butterfly milkweed): summer blooms, full sun
- *Baptisia australis* (Blue false indigo): spring blooms, full sun
- *Conoclinium coelestinum* (Hardy ageratum): summer – fall blooming, full sun to part shade
- *Iris sibirica* (Siberian iris): late spring blooms, full sun to part shade
- *Muhlenbergia capillaris* (Muhly grass): blooms provide fall and winter interest, full sun to part shade
- *Veronica spicata* (Spiked speedwell): mid- to late-summer blooms, full sun

Evergreen shrubs:

- *Ilex vomitoria* (Yaupon holly): red berries in fall, evergreen, full sun to part shade

Deciduous shrubs:

- *Callicarpa americana* (American beautyberry): vivid purple fruit in fall through early winter, full sun to part shade
- *Fothergilla gardenii* (Dwarf fothergilla): white flowers spring, red/orange fall color, full sun to part shade
- *Itea virginica* (Virginia sweetspire): white, fragrant flowers summer, red fall color, full sun to part shade

Small trees:

- *Hamamelis vernalis* or *H. virginiana* (Ozark witch hazel or witch hazel): red, yellow, or orange flowers in mid- to late-winter or early spring, full sun to part shade

Recommended Cultivars

'Corbett': 8-10" tall with pale yellow flowers. Does not tolerate heat as well as other *Aquilegia canadensis* cultivars. Prefers cool night temperatures. Selected by Richard Simon of Bluemont Nursery in Monkton, MD (Figure 3).

'Little Lanterns': 12" tall, dwarf form of the original species. Flower color is similar to original species. Foliage is vigorous. Very similar to 'Canyon Vistas.'

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Figure 2. Moderate leaf miner damage on columbine leaves.



Figure 3. *Aquilegia canadensis* 'Corbett' in the garden – flower color can vary from very pale to slightly more brilliant yellow.



Figure 1. *Aquilegia canadensis* in the garden.

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