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Rain Garden Plants: *Asclepias tuberosa* - Butterfly Milkweed

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Rain gardens are functional, ornamental landscape features designed to protect downstream water quality. By capturing stormwater runoff and allowing it to soak into the ground, these gardens function as natural filters that improve water quality, provide wildlife habitat, and feature beautiful perennial plants.

Butterfly milkweed (*Asclepias tuberosa*) is a member of the Apocynaceae or dogbane family and is a low maintenance, native plant that is well-suited for rain gardens.



Figure 1. Butterfly milkweed plant in bloom.

History and Traditions

The genus *Asclepias* is thought to have been named for the Greek god of medicine, Asklepios.¹ *Asclepias tuberosa* has several common names including butterfly milkweed, butterfly weed and orange milkweed.

Milkweed has traditionally been used for food, fiber and medicine by indigenous peoples throughout the United States and Canada². The native peoples of the Pueblo region used the seed pod fibers to spin yarn to weave



Figure 2. Butterfly milkweed seed pod fibers.

fabric. Rope and string are still made using *Asclepias* fibers by the Tewa-speaking people of the Rio Grande.

Both Native Americans and early settlers used *A. tuberosa* as a treatment for pleurisy, a condition that causes inflammation of the lining of the lungs. This medicinal use gave rise to the common name, 'pleurisy root'. Most milkweed species contain milky sap that is toxic to humans and animals when ingested in excessive quantities. The sap of *A. tuberosa* contains lower levels of the toxic compounds found in other *Asclepias* species.

Table 1. Plant preferred site conditions

Light: Full sun to light shade
Zones: 3 to 10
Origin: Native to USA
Type: Herbaceous perennial
Moisture: Low
Moisture timing: Needs adequate moisture for showy blooms. Otherwise, it prefers dry soil conditions.
Soil: Tolerates dry but not heavy soils.

Benefits

Butterfly milkweed is an important nectar and larval host food source for pollinators including Monarch (*Danaus plexippus*), Grey Hairstreak, and Queens butterflies.³ Moths, long-tongued bees, and hummingbirds also visit the vibrant orange or yellow flower clusters for nectar rewards.



Figure 3. Butterfly milkweed with eastern black swallowtail butterfly.

The cardiac glycosides produced by milkweed plants help the caterpillars survive attacks by predators. As the caterpillars consume the leaves and stems of the plants, the compounds accumulate in their bodies making the insects distasteful and dangerously toxic to predators.

Butterfly milkweed is considered deer resistant.

Planting and Care

Butterfly milkweed is an herbaceous perennial with bright orange or yellow flowers on 2-3 inch umbels (rounded, flat-topped clusters) that arise from the ends of branched stems.

Best started from seed, milkweed is difficult to transplant due to its deep taproot. However, once established, the long blooming masses of flowers make the effort worthwhile. Make note of where you plant milkweed, since they are slow to emerge in spring and may be damaged when planting or working in landscaped areas. Plant butterfly milkweed in poor, dry soils in full sun. While very drought tolerant, occasional irrigation will prolong flowering. Avoid planting butterfly milkweed in

Table 2. Design considerations - growth habit and plant interest

Height & Width: 1.5 - 2' h x 2 - 3' w

Spacing: 1.5 - 2'

Growth rate: Slow - moderate

Habit: Rounded, upright

Foliage: Alternate, medium to dark green, long, smooth-edged leaves.

Flower: Orange or yellow flowers May through September.

Fall - winter interest: No.



Figure 4. Orange and yellow flowers of butterfly milkweed.

poorly drained or soggy soils since the central taproot is prone to rot. Swamp milkweed, *A. incarnata*, is a better choice for wet areas. Butterfly milkweed will tolerate light or partial shade but produces fewer flowers in low light conditions.

Mature plants self-seed readily, but the seedlings take up to three years to establish in the landscape. Avoid self-seeding by removing seedpods before they dry and split.

Garden Design

Butterfly milkweed is ideal for use in butterfly gardens, rain gardens, naturalized or native plant gardens, and sunny perennial borders. Plant en-masse or in drifts to attract and sustain Monarch butterflies and other pollinators; although single specimens also provide vibrant impact. Milkweed grows to 1-3 feet tall, making it perfect for use just behind groundcover plantings in perennial borders.

Butterfly milkweed is an excellent choice for rain gardens that are very well drained or tend to remain dry, except immediately after rain events.

The first three years of growth are the least showy as butterfly milkweed matures into a lush mounded perennial when grown from seed. Consider inter-planting with showier annuals and perennials to provide varied seasons of interest. Companion plants to consider are listed below.

Companion Plants

Perennials:

- Black-eyed susan (*Rudbeckia fulgida* 'Goldsturm', summer to fall yellow flowers, sun)
- Joe-pye weed (*Eutrochium purpureum*, fall purplish-pink flowers, sun)
- Rough goldenrod (*Solidago rugosa* 'Fireworks', fall yellow flowers, sun)
- Beebalm (*Monarda didyma*, late spring to early summer scarlet or purple flowers, sun to part shade)
- Siberian iris (*Iris sibirica*, late spring white, yellow, blue, or purple flowers, sun)
- Tall verbena (*Verbena bonariensis*, late summer purple flowers, sun to part shade)

Ornamental grasses:

- Little bluestem (*Schizachyrium scoparium*, 1.5 feet tall, arching/upright foliage, sun)
- Muhlygrass (*Muhlenbergia capillaris*)
- Panic grass (*Panicum virgatum*, 4 to 6 feet tall, upright, green and red leaf cultivars, sun)

Shrubs:

- Yaupon holly (*Ilex vomitoria*, evergreen foliage, red berries, sun)
- Ninebark (*Physocarpus opulifolius*, deciduous, multi-colored exfoliating bark, flowering, sun)

Small trees:

- Sweetbay magnolia (*Magnolia virginiana*, semi-evergreen foliage, late-spring creamy-white flowers and red berries in summer, sun)

References:

¹ Kindscher, K. 1992. *Medicinal wild plants of the prairie. An ethnobotanical guide*. University Press of Kansas. 340 pp.

² Stevens, M. 2006. Plant Guide: Butterfly Milkweed *Asclepias tuberosa*. USDA NRCS.

³ Lady Bird Johnson Wildflower Center. 2015. *Asclepias tuberosa* [Online] [http://www.wildflower.org/plants/result.php?id_plant=ASTU] (Accessed 2Nov2015)].

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