

Asclepias tuberosa, Butterfly Weed

by Dick Fisher

Family: Asclepiadaceae

This is the sixty-ninth *Cultivation Note*. The first Note, also on butterfly weed, was written by Betty Salomon for the August 1987 issue and remains relevant today. This update is meant to call attention to the importance of the milkweeds as a vital resource for sustaining the dwindling Monarch Butterfly numbers and as a reminder of what a special plant *A. tuberosa* really is.

Although native to Rhode Island it is difficult now to find it growing in the wild. In fact, of the eight native milkweeds listed in *Vascular Flora of Rhode Island* all but two, *A. syriaca* and *A. incarnata*, are ranked as rare in abundance. The ‘Go Botany’ website lists it as –rare S2 – in Rhode Island. Its native range is generally most of the United States east of the Rocky Mountains and south of a line from New Hampshire to South Dakota. With such a wide distribution it would seem that there would be eco-typical differences within the species. In northern New Mexico it grows wild along desert roadsides in conditions not matched anywhere in New England.

The Milkweed family, Asclepiadaceae, consists of perennial herbs or shrubs characterized by an opposite pattern of leaf arrangement, a toxic milky sap in the stem, and intricate clustered flowers consisting of five hood-shaped structures each with a beak in the middle and five reflected petals and sepals. The other milkweeds in this region have white to reddish colored flowers. *Tuberosa* stands out with its distinctive brilliant orange-red flowers, alternate leaf pattern, and clear rather than white milky sap. Standing 1 to 3 feet tall, it is somewhat shorter than the other milkweeds in this region; *A. syriaca* at 3 to 5 feet and *A. incarnata* at 2 to 4 feet.

Milkweed sap or fluid contains toxic cardiac glycosides, which are not palatable to most species. The caterpillars of the Monarch and Queen butterflies (*Danas plexippus* & *Danas gilippus*) and the “pests” discussed below are exceptions. So by ingesting the toxins from the plant, these insects are afforded

some protection from their predators.

Tuberosa makes a good garden plant if grown with its preferences in mind.

It does best in dry sandy or gravelly, slightly acidic soil in full sun. We have found that it seems to need space and has not done well if crowded by other nearby plants. It grows from long, vertical tuberous roots which, once established, make transplanting difficult. The rootstock does seem to carry it over our long winters to emerge in the late spring. Several years we thought we had lost the colony only to have it sprout in late June. As the blossoms fade it begins to grow a rather delicate elongated follicle, which becomes the seedpod. Green initially, it turns yellowish then brown in late summer or early fall and begins to split longitudinally. The flat, dark brown seeds are attached to the familiar downy “parachute.”

Milkweeds are susceptible to several troublesome pests. Perhaps the most annoying is an aphid [*Aphis nerii*], which appears as an orange spreading colony on the stems, leaves, and growing seed pods. It can be controlled by washing with water or insecticidal soap but the process usually needs to be repeated several times. There is also a weevil that considers the new forming seeds a delicacy and burrows a hole through the pod to get to them. When you open these pods, all that remains of the seeds is some brown granular material. So we pick the pods early just as they begin to split and change color.

The large milkweed bug [*Oncopeltus fasciatus*] is another visitor you may encounter on all of the local milkweeds. It seems to come in groups and



has a distinctive dorsal black and orange pattern. It can be accompanied by a juvenile or nymph stage, which appears as moving reddish blobs with black



Large Milkweed Bug
(*Oncopeltus fasciatus*)

caterpillars pests but rather encourage them to eat away. This past summer there were up to ten white, yellow, and black Monarch larvae living on the *tuberosa* we had in gallon pots waiting to be overwintered. They did minimal damage and it was all for a good cause.

Propagation

Seed propagation seems to be the easiest and most reliable method. The seedpods can be collected as described above. If you carefully open the pods along the natural split and place your thumb firmly upon the unfolded downy portion of the pod, the seeds can be stripped away with your other hand avoiding most of the fluffy chaos associated with milkweeds. The seeds have internal dormancy and so require either cold stratification in the refrigerator for several months or fall planting outside. We keep ours in moist peat moss in a plastic bag in the refrigerator for three to four months. In the past several years we planted our seeds in trays somewhere between late March and early May, resulting in a satisfactory germination rate within about six weeks. When the roots are filling the seed tray cubicles, we transplant them to larger individual pots,

spots. Like the Monarch larvae and the aphid, it tolerates the toxin and readily eats the pods and seeds.

Milkweed, of course, is vital to the life cycle of the Monarch butterfly. So like most, we do not consider these larval

dividing them if necessary. By late summer they can be out-planted to the garden or overwintered using gallon sized pots.

Other propagation methods include terminal stem cuttings and root cuttings, as described by Betty Salomon in Cultivation Note #1. Root cuttings, although discouraged by most authors, are taken in the fall by dividing the long taproots into short segments and placing them vertically in rooting medium to overwinter. For stem cuttings use 3- to 4-inch long terminal sections taken in early summer prior to blooming. Place them in a sand/peat mix and keep moist in a plastic container or under mist.

Asclepias tuberosa is a beautiful and fascinating plant. Besides being a life line for Monarch larvae, it is a nectar and pollen source for scores of other insects. The vivid orange-red blossoms and the general appearance of the plant will truly light up your garden.

References:

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Rhode Island Wild Plant Society