

Weed of the Week

Welcome to Weed of the Week – From October 2022 to March 2023 we will profile one of our common weeds in eastern New York. Weed of the Week is brought to you by Cornell Cooperative Extension educators of Eastern New York Commercial Horticulture and the Capital Area Agriculture and Horticulture Program. Get familiar with these weeds as we prepare for an intensive weed workshop that we are planning for March 2023. Contact your local Extension Educator and tell us your most troublesome weed(s) and the weed questions that you have.



Common Milkweed – *Asclepias syriaca*

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We are all familiar with common milkweed, especially in hay fields that are harvested only once or twice a year, in small grain crops, and no-till systems. It is an herbaceous perennial. It does not have any woody plant parts (herbaceous) and it lives for several years. Milkweed has rhizome-type roots that survive over the winter. Rhizomes are long, thick roots that store energy. Shoots grow from buds along the rhizomes. (Picture below is of milkweed rhizomes).



(<https://images.squarespace-cdn.com/content/v1/5d41f82684370e0001f5df35/1598452782699-XGT0EXRBXZKD8LWEQVGU/Figure+2.+Rhizome+development?format=750w>)

The leaves are simple and attached by a short petiole opposite to each other along single erect hollow stems. The top of the leaf is dark green without hairs, while the bottom is lighter green with hairs. Leaves have a smooth margin and a prominent white mid-vein. Purplish pink to white flowers are clustered into a globe shape. Hemp dogbane looks like milkweed and is closely related. However, hemp dogbane has branched stems and smaller leaves. It is more toxic than milkweed, both plants having alkaloid chemicals in the milky white sap. There are also several other milkweed species in eastern New York that look similar: whorled milkweed, eastern swamp milkweed, butterfly milkweed, and blunt milkweed.

What makes common milkweed so hard to control? Its roots are deep, three to four feet, so most tillage does not affect them. A one-inch fragment can give rise to a new plant. Roots (rhizomes) can spread ten feet in one year. So when you see a group of plants, they are often the same plant connected by rhizomes. Milkweed also reproduces by seeds which will not germinate until the next spring when soil temperatures are above 59°F. Most seeds will die in three years, but some survive to nine years. Although milkweed does grow well in wet soils, it grows in most soil types that are at least moderately well-drained. It can also tolerate soil pH down to pH 4.0. Lastly, milkweed is somewhat shade-tolerant, down to 30% of full sun, although it prefers full sun.

So what are the vulnerabilities of common milkweed? In order for milkweed to survive, it must store energy in the rhizomes. If the plant is clipped frequently, it will be deprived of the carbohydrates made by the leaves. Also, to send up a new shoot from the rhizome it uses up root energy. Once there are about 3 or 4 leaves on the stem, it begins sending energy back to the root. So, the key is to clip it when the shoots are young and starve the root. Root energy reserves are lowest in July and August. Milkweed is a problem in hay fields that get harvested once or twice a year, but not those harvested three or four times a year. Persistence is key.

So, I must admit that I have milkweed in my hay fields. It has been an opportunity to see if persistent clipping really works. In 2018, (with the help of my son), we selected a one-acre area of a hay field with a couple small patches and one big patch of milkweed. We hand-pulled, clipped or mowed it through the year every time it had a few leaves on it (or at least tried to). Below are our notes and results.

Table 1. Survival of common milkweed after persistent clipping .

Date	Milkweed Height	Growth Stage	# of plants
6/25/18	2.65 ft	5-1f to flower	161
6/25/18	Field harvested for hay, mowed to 3" stubble		
7/5/18	0.75 ft	Vegetative	173
7/5/18	All plants pulled by hand		
8/4/18	1.3 ft	Vegetative	132 (multiple shoots per stem)
8/4/18	Plants hand pulled		

8/15/18	Field harvested for hay, number of plants not count taken		
9/2/18	Regrowth about 4 leaves		
9/3/18	Field harvested for hay, no plant count taken		
9/16/18	0.5 ft	vegetative	6
9/16/18	Plants pulled by hand		
2019	About 6 plants grew in the spring. Three hay cuttings taken in 2019 and no plants remained at the end of the summer.		

In this 2018 project, the milkweed was clipped six times beginning in late June. That is a lot of work. So, in 2021, I picked a colony of plants, around 30 feet in diameter and began hand pulling the stems in August and continued to the end of the season, pulling the stems about 4 times. In 2022, no milkweed grew in that spot. Beginning to clip when the roots are low in energy is important.

In 2022, I clipped and sprayed a more extensive area of milkweed beginning in mid-August. Know that one herbicide application will not control milkweed. I clipped some areas, then sprayed regrowth. In two weeks the milkweed re-grew after the herbicide or clipping. For the next flush of regrowth, I clipped some areas and I applied a second spray of dicamba to other areas (this was during September). Then on October 8th, it was harvested for haylage. Stay tuned for a report on its survival into 2023.

In small grains and row crops, if you prefer to apply herbicides, glyphosate is most effective on perennials in the fall when they are sending carbohydrates to the roots in preparation for winter. An application to milkweed regrowth after harvest (before mid-October) can be effective.

You can find more information on milkweed and many other weeds at <https://cals.cornell.edu/weed-science/weed-profiles>.

Next week we will bring you another Weed of the Week!

References and pictures:

<https://cals.cornell.edu/weed-science/weed-profiles>

Manage Weeds on Your Farm: A Guide to Ecological Strategies, by Charles L. Mohler, John R. Teasdale, Antonio DiTommaso. Available as a download or print for Northeast Sustainable Agriculture Research Education, <https://www.sare.org/resources/manage-weeds-on-your-farm/>

Weeds of the Northeast, by Richard H. Uva, Joseph C. Neal, and Joseph M. DiTomasao, <https://www.cornellpress.cornell.edu/book/9781501755729/weeds-of-the-northeast/#bookTabs=1>