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Mugs, Mothers, and Mums

Occasionally, I am asked by gardeners or homeowners for identification of a “mum that is perhaps not a mum”. Clients say it looks similar to a mum but it is growing rampantly. Without seeing the plant in person and without knowing the history of the site, it can be challenging to know for sure what the plant’s proper identification is. There are a few different types of mums which adds to the confusion. Recently, the Plant Clinic was contacted by a gardener who had ordered and purchased mums but instead received something mum-like with huge rhizomes. Most likely what they received was mugwort.

Mugwort (*Artemisia vulgaris*) is also known as wormwood or chrysanthemum weed. It is a clump-forming perennial that spreads by rhizomes. The leaves are dark green and have a sage-like odor. The leaf shape is similar to that of garden chrysanthemums (mums). Leaves are lobed and alternately arranged on the stem. The degree of lobing can vary however. Generally, leaves on the mid to upper part of the plant are more deeply lobed and linear – pointier if you will. The major difference between the leaves of these two species is that mugwort leaves are white-woolly almost silvery on the underside. Mum leaves may be only somewhat hairy and will be the same color top and bottom. Additionally,

mugwort flowers are nothing like that of mum and won’t add that pop of fall color to your garden. Instead flowers are inconspicuous and form in leafy spike-like clusters at the end of stems. They appear from July to September. So, if you are uncertain about identification, letting it bloom will certainly give you the answer.

Mugwort stems are erect and branched. Propagation is typically by its long, stout rhizomes, and seedlings are rarely found. Mugwort is often found in waste areas and roadsides. It can be found in landscapes and nurseries. Many infestations are due to spread of contaminated soil and plant materials.

Controlling mugwort can be challenging as it tolerates mowing, cultivation and many herbicides. Repeated pulling or digging out can be helpful. Be sure to wear gloves as dermatitis has been reported by some. Plan on repeat applications of a non-selective herbicide. Keep sprays off of nearby desirable plants as plant injury or death can result. Studies have also shown that dicamba and clopyralid can be effective on mugwort.

Some fun facts and folklore provided by Ohio State University list mugwort as being used to flavor beer. Also it was believed to provide protection from sunstroke, fatigue, wild animals, and evil spirits. So perhaps having it in the garden wouldn’t be such a bad thing. Ha!

Mugwort should not be confused (*but can easily be*) with **motherwort**, another herb that is somewhat similar in appearance and has its own folklore. This plant, *Leonurus cardiaca*, has a history of medicinal use for heart ailments. Additionally, it was used to remedy nervousness, dizziness and other disorders of women (an interesting addition to the garden I think). It can be found in waste areas, roadsides, old gardens, fields, and meadows. Like mugwort, it has an extensive root system. The leaves are lobed but oppositely arranged unlike the alternate leaves of mugwort. Motherwort flowers are small, pink to purple, and are grouped in clusters at the leaf axils. Individual flowers have a tube and 2 lips. They occur July through September. (*Michelle Wiesbrook*)

Imported Longhorned Weevil

The imported longhorned weevil, *Calomycterus setarius*, has been numerous this summer. This pest is native to Japan and has been in this country since the 1920's. It is apparently controlled by natural enemies as noticeable populations occur infrequently. Adults feed on flowers, grass, shrubs, trees, and vines causing ragged edges on leaves and petals.

Adults have rounded, black, hard-shelled bodies, but they are covered with scales making them tan with irregular brown spots. They are about 3/16 inch long with the heads elongated into short snouts. Much of their feeding is done at night. Adults are commonly found hiding in blossoms or walking on walls. Adults are very long-lived and commonly enter houses to spend the winter.

Eggs are laid in sod, and the larvae feed on the fine roots of grasses and clovers as well as asters and goldenrod. This larval feeding is not associated with any significant host damage. Adults emerge in June and cause damage into October. They are controlled with sprays of carbaryl (Sevin) or pyrethroids. Avoid spraying blossoms to avoid bee and other pollinator injury. (*Phil Nixon*)

Potato Leafhopper

Potato leafhopper damage has become obvious during recent weeks, appearing to be heavier than in most years. These leafhoppers attack oak, maple, red mulberry, red bud, cottonwood, birch, apple, dogwood, hawthorn, wafer ash, euonymus, black locust, and cherry.

Red maple is most severely damaged. The expanding leaves at branch tips are curled and stunted, and they are mottled with light green, red, and brown. Leaf edges and entire leaves may turn brown or black. Stem growth is greatly reduced. Overall, the damage looks similar to 2,4-D injury. Damage is heaviest at the top of the tree. On other host species, leaves may be misshapen, have brown areas, show early fall color, or have stippling (light dots).

Potato leafhopper adults are wedge-shaped, green, and about 1/8 inch long. They fly readily from foliage when approached and are very migratory, making it difficult to find the insects on damaged foliage. They are strongly attracted to lights at night and are small enough to go through the mesh of window screening. You'll probably recognize these pests as the little green bugs that fly around the newspaper or book

you are trying to read during summer evenings indoors.

As nymphs, potato leafhoppers are similar in appearance to adults but are smaller and cannot fly. Even so, nymphs are quite active and will walk sideways to the other side of the leaf when it is inspected, making them difficult to see. Frequently, the only insect parts that can be found are the transparent, cast skins left behind by the molted nymphs.

Treatment at this time of year is probably not warranted. These insects start feeding in May in Illinois, and treatment at that time to prevent leaf damage and reduced growth through the growing season in nurseries is usually necessary. At this time of year, damage to landscape trees needs to be recognized for what it is rather than be misdiagnosed as herbicide or other injury. (*Phil Nixon*)

Japanese Beetle

Adult Japanese beetles do not appear to be very numerous this year as predicted from the deeply frozen soils in the northern half of Illinois last winter, and the dry soils in non-irrigated turf during the second half of the last two summers. It is unlikely that insecticide applications to protect trees from defoliation will be needed in most areas of the state.

This also reduces the need for preventative white grub applications. The low number of adult beetles to lay eggs coupled with the timely rains that we continue to receive throughout the state make it unlikely that Japanese beetle white grub infestations will be large and numerous. Japanese beetle adults are attracted to moist soils and green grass

to lay their eggs, resulting in their concentrating egg-laying in irrigated turf in normal summers. This year, the frequent rains have caused non-irrigated areas to be green with soft, moist soil as well. As a result, the beetles lay their eggs over large areas with few areas getting enough egg-laying to cause damaging white grub numbers. There are likely to be some spotty infestations that can be identified and treated in August and September as they become apparent. (*Phil Nixon*)

Chinch Bug

We have recently received reports of chinch bug damage in turf. Chinch bugs are typically not much of a turf problem in Illinois, being more of a pest problem in the Great Plains region. One reason for this is that chinch bug is attacked by a naturally occurring fungal pathogen, *Beauveria bassiana*. This causes all stages, eggs, nymphs, and adults, to be killed and covered with fine white fungal strands. As with fungi that attack plants, they do better under cool, moist conditions. In Illinois, we typically get enough rainfall throughout the season that the fungus controls the chinch bugs for us, free of charge.

The other factor in chinch bug abundance is nitrogen. Chinch bugs, along with many other sap-sucking insects, are healthier and reproduce more on plants containing high levels of nitrogen. In many areas, landscapers and lawn care professionals feel that they are forced to overapply nitrogen fertilization to turfgrass to satisfy their clients' demands for greener lawns. This excess nitrogen results in many more chinch bugs than would normally be present. In

addition, excess nitrogen tends to result in increased thatch, allowing the chinch bugs to live in that area rather than against the soil where it tends to stay moist and the fungus is more prevalent.

The infestations this year have been in turf with thick thatch layers, probably caused by high nitrogen application. We have certainly had enough rainfall to provide the moisture that the chinch bug attacking fungus needs, but the bugs have been able to avoid it by living in the quickly-drying thatch.

Damaged turf is light tan in color, looking like straw. Due to the high-nitrogen factor, adjoining lawns that have not received as much nitrogen fertilization typically show no damage. To find the chinch bugs, push the grass blades to the side with your fingers to reveal the crowns of the grass plants, and the bugs will be evident at the base of the shoots. Another way to scout for chinch bugs is to push a coffee can or similar can down into the turf and fill it with water. The bugs will pop to the water surface and accumulate around the edge of the can. The threshold for treatment is a solid

line of chinch bugs where the water meets the can.

Two species of chinch bugs attack Illinois turfgrass. Hairy chinch bugs are found in northern Illinois, where they attack Kentucky bluegrass, fine fescues, perennial ryegrass, bentgrass, and zoysiagrass. Common chinch bug occurs in central and southern Illinois and feeds on the same grass species, as well as field grain crops such as wheat, corn, and sorghum. Both are similar in appearance and habits.

Adult chinch bugs overwinter in the crowns of grasses. They become active in the spring. They are about 1/8 inch long, long oval-shaped, and are black and white, due to wing coloration. Some adults have short wings and appear black. Nymphs are bright orange with a white band, turning to black as they go through five instars (stages). First-instar nymphs are about 1/32 inch long and grow up to be 1/8 inch-long fifth-instar nymphs.

Control chinch bugs with a spray of bifenthrin (Onyx, Talstar), deltamethrin (DeltaGard), lambda-cyhalothrin (Scimitar), or trichlorfon (Dylox). (*Phil Nixon*)