Which thistle is in my pasture and how to control it.....

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Thistles are all up and actively growing. While we have a variety of thistles, typically pastures have one of 5 common weedy thistles in Wisconsin. Not sure which one? The first step is to determine if it is a perennial or biennial thistle.

Biennial thistles appear as individual plants and when dug do not have roots connected to multiple shoots (taproot only). Examples of common biennial thistles include plumeless, bull, and musk. Wisconsin is also seeing more and more of Eurasian marsh thistle (common in northern WI, but spreading south). Below are pictures of rosettes taken in mid-May. Also included is a picture of a Canada thistle shoot. Canada thistle should not be as developed as the biennial thistles and are currently more upright compared to biennial thistles. This will persist only for 2-3 more weeks. Remember Canada thistle is a creeping perennial plant and therefore will have a suite of different management techniques/timings associated with this species compared to the biennial thistles.









We have created a table (below) that compares common traits to help with identification. We also have videos of <u>plumeless thistle</u> and <u>Canada thistle</u> available at (fyi.uwex.edu/weedsci; click on the video tab or search by thistle name).

For control, all biennial thistles behave similarly to control tactics. Mowing when plants just begin to flower prevents seed production, but herbicides are best applied to rosettes in the fall or spring. While herbicides that contain aminopyralid (e.g. milestone, forefront) have the best control, a broad range of herbicides will suppress above ground growth enough to prevent forage loss. See our <u>factsheet</u> for detailed information on biennial thistle control.

For Canada thistle, control is more challenging. Please consult <u>this factsheet</u> for more information on control of this problematic species in pastures.

Table 1. Summary of how to differentiate between common thistles found in Wisconsin.

| | Canada thistle | Musk thistle | Plumeless thistle | Bull thistle | European marsh thistle |
|-------------------|---|---------------------------------------|---|--|---|
| Leaves | Irregularly lobed. Tips have small spines. | Moderately lobed with white midrib. | Heavily lobed. | Deeply lobed with distinct spines on leaf edge. | Heavily lobed with dark edges. |
| Hair on Leaves | None. | None. | Bottom of leaf and petiole hairy. | Coarse hair on top of leaf, soft hair on bottom of leaf. | Sticky hairs. |
| Stems | Not spiny. | No spines on upper stem below flower. | Spiny. | Spiny, appears winged. | Appears winged. |
| Flowers | Fingertip size. Not spiny. Bracts. | 1-2". Stiff bracts. | Fingertip or slightly larger. Prominent bracts. | 1-2". Teardrop shaped. | 0.75". Not spiny. Purple tipped bracts. |