

# Pasture Vigilance – Watch For Thistles



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I have the opportunity to observe pastures and livestock while driving around to various farms throughout the state. Last year's drought has provided an opportunity for unwanted species to take hold in pastures. Right now there is one scourge that is

rearing its ugly head – thistles.

Thistles are very opportunistic in your pastures – the spiny nature of thistles prevents livestock from grazing near them, allowing them to grow and reproduce unchecked, and heavy thistle infestations may cause large areas of the pasture to be left ungrazed. The overall result is lowered pasture productivity due to thistles.

Early control of pasture thistles, or any weeds, allows more grass to grow. Thus the pasture will support additional grazing. Control of thistles is important since a single thistle plant can produce at least 4,000 seeds. The good news is the process of controlling thistles often controls other broadleaf weeds.

Thistle management consists of proper identification, and then combining various cultural, mechanical, and chemical measures. Perennial thistles, Canada thistle being the major one, can exist for many years and they reproduce from both seed and underground parent rootstocks. The creeping root system enables this weed to spread yearly.

Perennial thistles should be treated by a translocated herbicide while in the bud-to-early flower stage or in the fall regrowth stage. At this stage, the herbicide can move downward with food reserves to the roots, thus killing the entire plant.

Biennials, like musk, plumeless, and bull thistle, live for two years and reproduce only by seed. They form a rosette (a flat group of leaves at ground level) and store food in their roots the first year and flower (produce seed) the second year. Exposure to cold winter temperatures is necessary to trigger these thistles to flower the second year after sending up a flower stalk (called bolting). Each plant can send up several stalks and produce numerous flower heads, each with viable seeds. After flowering or with the first frost, biennial thistles die in the second year.

Control measures for biennial thistles, chem-

ical or mechanical, are most effective when applied during the first year's growth. If treatment is delayed until the second year, early season application of herbicide before bloom is important. In most cases you will have both years present in your pasture.

Once biennials bolt or produce a seed stalk, they are less sensitive to herbicides. Mowing at this stage (before flowers open) will help reduce seed production. Some regrowth will occur, so a second or third mowing may be necessary. Even close mowing does little to control biennials the first year or during the rosette stage. Repeated cutting of the crown of biennial thistles 1 or 2 inches below the soil surface will eventually reduce the stand by preventing seed production. Mowing is generally less successful on deep-rooted perennial weeds and brush.

Using good cultural practices (including rotational grazing, maintaining optimal soil fertility, and periodic mowing) that result in vigorous, dense, and uniform stands will help keep pastures competitive with weeds. Selective grazing, resulting from overgrazing, often leads to invasion by perennial weeds.

Consider the following if you plan to use a herbicide to control thistles and other unwanted weeds. Herbicides that kill unwanted plants will also kill legumes (clovers and alfalfa) if broadcast sprayed. Read the label to know when livestock may be return to the pasture; times vary from one product to another.

Crop rotation is a valuable weed management strategy for temporary pastures, especially since biennial thistles cannot tolerate tillage or crop competition.

If you have only a minor problem with scattered plants, mechanical control can be effective. The rosettes are too generally too low to be mowed effectively, so digging the first year plants is your most dependable method. The second year growth can be mowed, but multiple trips will be needed to successfully prevent the thistles from producing flowers. Once you have flowers, you have seed. As a perennial, Canada Thistle can be a tougher weed to deal with. It not only produces seeds, it also spreads by underground rhizomes.

No single practice will result in thistle-free pastures. A coordinated approach that combines various measures is needed. Δ

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