

Weed Out!

Canada Thistle A Bane To Farmers, Gardeners

BY DAVID GRAPER
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Canada thistle (*Cirsium arvense*) is probably near the top of the list for just about any gardener and farmers too for that matter. It is a tough perennial broadleaf weed that is easily established in your garden by the seeds that are carried in by our nearly continuous winds, thanks to the little tuft of hairs that is attached to one end of each seed.

Once those seedling thistles start growing, they quickly establish a deep root system and begin growing underground stems (rhizomes) that have the capacity to produce numerous new plants, one from each node or bud along those stems. It is almost impossible to completely pull out an established thistle plant because it is probably growing up from a rhizome and will just break off when you give it a tug. That will just stimulate the growth of new plants from other nodes along the stem. All of these characteristics combine to make this a noxious weed in 37 states.

Canada thistle is a perennial coming back year after year from its extensive network of roots and rhizomes. It can quickly form large patches of plants that continue to spread farther if they are allowed to flower and go to seed.

WHAT SETS CANADA THISTLE APART

They can be distinguished from many of the other common thistles by several key factors. First of all, many thistles are biennial, producing a low-growing rosette of foliage then only flowering the second year.

Canada thistles can bloom the first year from seed and then bloom each year after that from the new stems that emerge from the soil each spring or throughout the growing season. The stems are hollow and spineless but the leaves have short spines along their wavy margins. The undersides of the leaves are green, not white, like they are on some other species of thistles.

The flowers are also relatively small, borne in branched clusters at the top of the stems, compared to the much larger, usually single flower heads of other thistles. They are also unisexual, either male or female, requiring cross-pollination in order for seed to be produced.

CONTROL OPTIONS

Control of Canada thistle can be quite difficult, depending on where they are growing.

If a new garden spot is being prepared, achieving control of perennial weeds like thistles before planting is a great way to start.

Non-selective herbicides like glyphosate work fairly well if applied when the thistles have grown several inches tall to provide plenty of leaf surface for the uptake of the herbicide.

Cultivation is another option but just one cultivation will generally result in a huge



PHOTO: NATIONAL PARK SERVICE

flush of new plants developing from all of the severed rhizomes. Cultivation will need to be repeated several times over the course of the growing season and perhaps for several years to eventually deplete stored food reserves in the roots and rhizomes. Repeated mowing can also be of benefit, but it will take quite some time to actually kill well established colonies of plants. Smothering with black plastic or some other material is also possible but will take time to be effective.

Canada thistle infested lawns are also quite common. Many of the broadleaf weed control herbicides can provide good sup-

pression and eventually control if applied in the fall of the year. Repeat applications in subsequent years will likely be needed. In any case, if your lawn or garden is near thistle infested fields or road ditches, you can bet that they will be back.

It is the responsibility of everyone to do what they can to control Canada thistles that are growing on their land.

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Commentary

Diving Into The Arena Of 4-H Rabbits

BY RITA BRHEL
P&D Correspondent

The latest addition to our little farm are rabbits, of the domestic variety. We already had the wild cottontails, whose antics almost decimated my young lilacs a couple years ago but whose numbers are now well controlled by our farm cats — to the dismay of our children.

A few weeks ago, after a long day of prepping the show tack box before the county fair, my 7-year-old daughter found one of the cats with a still-living catch: a baby bunny. The cat was playing with it — letting it go, watching it for a while, then pouncing on it, again and again. It does seem cruel, doesn't it?



Rita BRHEL

My daughter wanted me to save the baby bunny, but I explained that even if I did,

the bunny wouldn't live, that it was injured and its mama wouldn't accept it back in the bunny nest anyway with the scent of cat and human on it. I tried to make it sound matter of factly, that this is the law of nature. The food chain, that baby animals are the favored food of many predators, that wild cottontail rabbits may be cute but can also be a pest, that our cats are doing their job on the farm — those are all hard lessons to learn.

Then, I shoed my children into the house for supper. To my surprise and relief, she didn't make any more mention about the baby rabbit. And she's not one to stay silent if something is bugging her, either.

Fast forward to the fair, and during the 4-H poultry show that her big sister was showing in, I found my 7-year-old daughter with someone's show rabbit on her lap. This daughter is an animal lover through and through. I had previously said no to a potential rabbit project on the grounds that I had no experience with rabbits at all beyond controlling the wild cottontails in the yard.

When I was in 4-H, all of us siblings showed sheep and poultry and then could pick one other animal project. When I was young, I showed my parakeet in the pet show. When I turned 12, I switched to the beef project. My younger sister chose rabbits for her third animal project, but I was much too busy with my own projects to pay much attention to hers. At the county fair we showed at as children, the rabbit and beef shows happened at the same time. What I do remember is that she had Black Polish rabbits and kept them in our childhood playhouse, and that she chose to wear a long-sleeved shirt when showing them even though it was 100 degrees outside.

So what got stuck in my head is that rabbits scratch and probably bite, too. Doesn't sound like a fun project to me!

But yet, why do so many 4-H members show rabbits? At some county fairs, there are more rabbits than poultry. And I think poultry is a pretty easy project. As long as you match the size of the bird with the size of the kid and hold the bird the proper way, any chicken is easy to control.

So after my 7-year-old asked if I would reconsider my stance on no 4-H rabbits, I started asking around to the older 4-H kids with rabbits. How do you care for a rabbit? Where do you keep them? What do they eat? Are there any veterinary concerns? What breeds are best to start with? How do you hold them? How do you show them? How often do you need to work with and groom them?

My initial idea was just to investigate, but word quickly spread that I was looking to get my kids in the 4-H rabbit project. Two weeks later, we have rabbits: a Lionhead, a Holland Lop, another rabbit I just figured out is a crossbred and therefore now for sale, and two baby Jersey Woollies. I still feel over my head a bit, but the more I talk to rabbit people, the better I'm feeling about this. I'm learning how to improve our hutches and how to groom the rabbits. And then I'm turning around and trying to teach my daughters the same things, though they're following me when I make a mistake, too.

This project is turning out to be as much of a learning experience for me as for my daughters, but I'm hopeful that they — and I — are getting a positive start in rabbits.

Management Considerations For The Cribbing Horse

BROOKINGS — Without knowing the exact cause for cribbing behavior in horses, prevention can be difficult, explains Dr. Sara L. Mastellar, SDSU Equine Instructor.

"Horses that crib may spend anywhere from 15 to 65 percent of their day performing this stereotypy and approximately 4.4 percent of horses in the U.S. are cribbers," Mastellar said.

Cribbing is a stereotypy or seemingly functionless repetitive behavior performed by horses which is characterized by grabbing an upright object with the teeth and pulling against the object with an arched neck and sucking air.

CAUSES OF CRIBBING

Cribbing has not been reported in feral horses that are free ranging explained Mastellar.

"Therefore it is possible that aspects of management may cause the cribbing behavior," she said. "Specific causes of cribbing are yet to be determined and the behavior may be due to a combination of factors. Diet, genetics, boredom, stress, and copying another horse have all been suggested as causes of cribbing."

Below, Mastellar discusses possible causes as well as ways horse owners can curb cribbing.

DIET

Horses that have more grain in their diet have been shown to be at an increased risk of developing stereotypies.

"While research shows that increased roughage in the diet has been associated with a decreased risk of developing stereotypies," Mastellar said. "This holds true for cribbing, as one study found that feeding concentrate to young horses immediately after weaning was associated with a four-fold increase



PHOTO: METRO GHRAPHICS

in manifestation of cribbing."

Mastellar added that the study showed that the type of grain seems to play a role as horses fed sweet feed have been known to crib more than horses fed oats.

PEER PRESSURE

Whether or not horses learn cribbing behavior from horses that already crib has not been substantiated. In a survey of horse owners, only 1 percent of horses were reported to have developed a cribbing habit after exposure to another cribbing horse, which Mastellar said makes it appear that horses are unlikely to learn cribbing behavior from one another.

GENETICS

Genetics could also play a role, as Thoroughbreds and warmbloods are more likely to crib compared to other breeds.

"A study of horses in Finland found the heritability of cribbing has been estimated at 0.68, which means that cribbing is likely to be passed onto offspring," she said.

POTENTIAL RAMIFICATIONS FOR THE CRIBBING HORSE

Horses that crib will have increased wear on their incisors. This wear may not cause problems for the horse until they are older and those teeth become in danger of falling out, Mastellar explained.

"The additional wear on these teeth may ultimately shorten the life of the horse because they are not able to eat as effectively without these incisors," she said. "Additionally, cribbing horses may be harder keepers due to spending time cribbing instead of eating and the increased energy expenditure through the act of cribbing."

Cribbing is a risk factor for a variety of conditions. Most notably cribbing horses are at risk for colic. Additionally, Mastellar said it has been found that cribbing horses are more likely to have stomach ulcers than non-cribbing horses.

"Cribbing is even a risk factor for equine motor neuron disease. All of these issues contribute to the unpopularity of cribbing horses and a potential reduction

in market value," she said.

PREVENTING THE ONSET OF CRIBBING BEHAVIOR

Cribbing manifests in young horses, Mastellar explained, typically around 20 weeks of age. "Many of these horses exhibited wood chewing behavior before manifestation of cribbing," she said.

Reduced risk of cribbing is associated with increased time spent outside, social contact with other horses and keeping foals solely on grass through the weaning process. "Once cribbing behavior is established, it is unlikely that a horse will ever completely cease to exhibit the behavior," she said.

CRIBBERS ARE DIFFERENT

There are some studies that suggest that cribbing horses may have some physiological and mental differences from their non-cribbing peers.

Horses that crib may also have atypical hormone levels when compared to non-cribbing horses, Mastellar explained. "They have lower plasma levels of leptin, which is a hormone in regulating appetite and the reward center of the brain. These horses were also found to have higher circulating levels of gastrin, a hormone involved in triggering the production of stomach acid," she said.

These hormone levels may explain differences found between cribbing and non-cribbing horses in learning and stomach ulceration.

Horses that exhibit cribbing behavior may react to situations differently than their non-cribbing counterparts. One study suggests that cribbers learn differently than non-cribbing horses. However, owners responding to a