

Consider chemical alternatives to get an edge on weeds

BY BRIAN SEBADE

When we think about weed control, most of us (myself included) go down the chemical path.

Are there alternative or complementary methods to control invasive or “weedy” plant species? My answer is yes, but with a little hesitation. If the goal is to control unwanted plants, we can usually use alternative methods, but if the goal is to eradicate invasive populations, alternative methods alone may not be feasible.

First, prioritize what weeds and what populations you want to control. Chemical control of invasive plants in Wyoming is critical, and there are many chemical options and resources available.

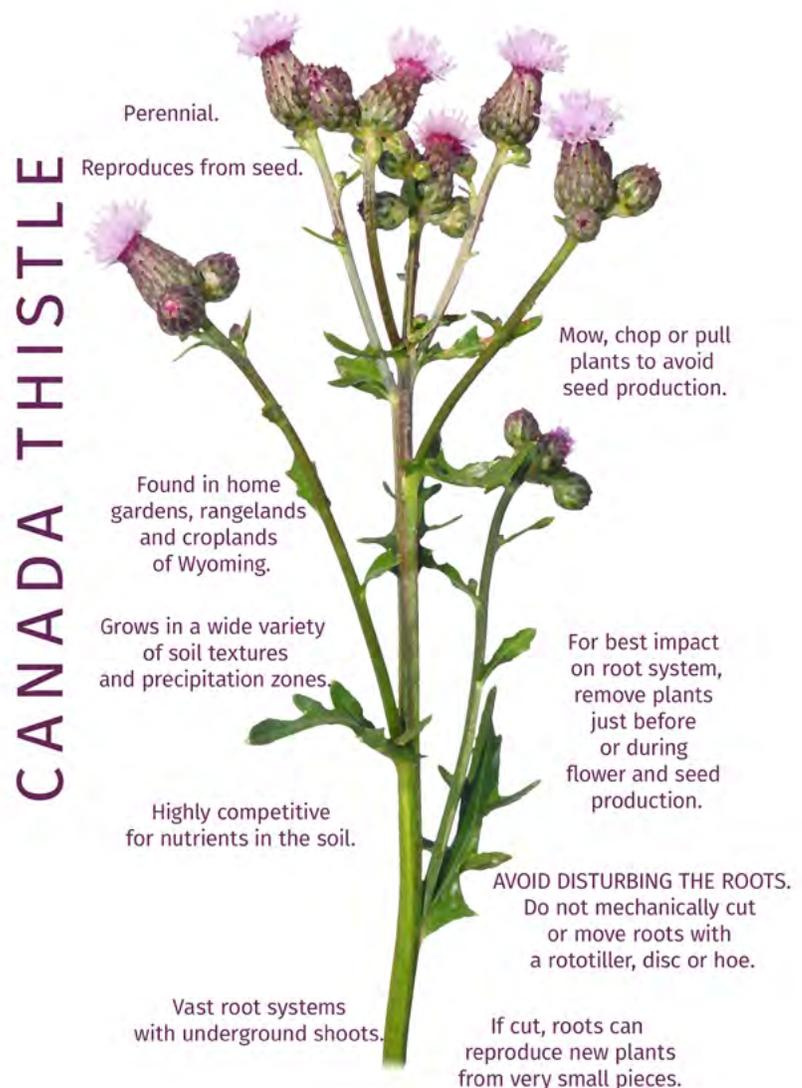
When thinking of alternative or complementary control strategies, start by examining the biology, ecology and competitive strategies of the weed. Make an outline of what makes the weed “tick,” then make a list of potential control strategies. Need help? Contact your local weed and pest district or county extension educator.

Options will vary from operation to operation. These could include a bio control, such as an insect; maybe a change in management, such as changing tillage practices; changing the crop rotation system for a field; better monitoring for weeds in hay purchased for winter feeding; or changing the timing of chemical or mechanical control for greater effect.

What Makes a Weed?

If we think about why we have “weedy” plants, we can start to understand how to reduce or eliminate their competitiveness. By most definitions, weeds can be native to North America or introduced from another continent. Regardless of origin, these plants generally have at least one competitive advantage and often more. These might include the ability to outcompete other plants for available resources (nutrients, water, etc.) and the ability to grow and reproduce in conditions too harsh for other plants.

Perhaps an introduced plant has escaped its natural enemies (herbivores and pathogens) from its native



region. Another theory, although challenging to prove, is some weeds produce special chemicals known as allelochemicals that inhibit the growth of other nearby plants.

Introduce Biological Controls

Biological controls might be a good choice for plant populations on a rangeland or other hard-to-access area. While biological controls won't eradicate a population, they can help keep populations in check by stressing plants and allowing other desired plants to compete.

Think Outside the Fertilizer

Can you reduce or eliminate fertilizers in crop fields or gardens? Excess nutrients in the soil often encourage the competitiveness of weeds such as Canada thistle. Crop rotation that includes a legume for adding nitrogen, for example, can help keep the nitrogen within the field or garden system and potentially decrease excess nitrogen that moves to the edge, where weeds are often prevalent. Populations on the fringe of a field or garden can act a source for new plants to enter.

Change Timing

Changing the timing of a chemical treatment could boost the impact. For example, applying a chemical treatment during flower production creates greater stress on the plant. Chemical applications can also be more effective for control of many perennial weeds during the fall when plants are moving resources from above ground to below ground.

Final Thoughts

The last step is to prevent new weed populations from establishing and keep small populations in check. Constant monitoring is critical to ensure weeds do not get out of control. Chemicals or no chemicals, from raised garden beds to vast rangelands or croplands, implementing some well-chosen alternatives may help you better meet your long-term management goals.

Brian Sebade is the University of Wyoming Extension educator and Master Gardener coordinator based in Albany County and serving southeast Wyoming. Contact him at (307) 721-2571 or bsebade@uwyo.edu.

Trade or brand names used in this publication are used only for the purpose of educational information. The information given herein is supplied with the understanding that no discrimination is intended, and no endorsement information of products by the University of Wyoming Extension is implied. Nor does it imply approval of products to the exclusion of others that may also be suitable.

Issued in furtherance of extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Glen Whipple, director, University of Wyoming Extension, University of Wyoming, Laramie, Wyoming 82071.

Persons seeking admission, employment, or access to programs of the University of Wyoming shall be considered without regard to race, color, religion, sex, national origin, disability, age, political belief, veteran status, sexual orientation, and marital or familial status. Persons with disabilities who require alternative means for communication or program information (Braille, large print, audiotape, etc.) should contact their local UW Extension office. To file a complaint, write to the UW Employment Practices/Affirmative Action Office, University of Wyoming, Department 3434, 1000 E. University Avenue, Laramie, WY 82071.

From the March 2017 Barnyards & Backyards newspaper insert.

Managing editor: Scott Cotton. Editor: Chavawn Kelley. Layout and graphic design: Tanya Engel