

Small Acreage Management Newsletter

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Biological Control of Tamarisk: A Status Report

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(Entomology/Agronomy)

Tamarisk (aka salt cedar) is an exotic shrub that has invaded and replaced native vegetation in many riparian areas over the past century. A significant effort has been taken over the past decade to reduce tamarisk infestations across the western states. It is a huge undertaking, which will take decades and a lot of money. The sheer magnitude of the tamarisk infested area, its growth along waterways and in inaccessible areas makes control over its entire range nearly impossible.



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Fall Weed Control

Hard-to-kill creeping perennial weeds such as Canada thistle, Russian knapweed, field bindweed, and others are best controlled in the fall. In the Uncompahgre, Gunnison, and Grand Valleys (elevations of 4500 to 6500 feet), this will range from the last week of August through September or until a killing frost if there is still green plant material. For this type of weed, with a horizontally spreading root system that generates new plants, fall is the time that chemicals will best be transferred deep into the roots so they are killed. Timing is the critical factor that frustrates most control attempts.

Having good competitive forage with high fertility and preventing new weed infestations are also key to maintaining a weed free pasture. But, chemical treatment for some of these common weeds may be required to get started.

Chemical controls includes:

- Canada thistle: Curtail at 1.5 oz/gal of water or 2 qts/ac AND 1/3 oz/gal nonionic surfactant OR Roundup Ultra at 2 oz/gal or 3 qts/ac
- Russian knapweed: Curtail at 2 oz/gal of water or 3 qts/ac AND 1/3 oz/gal nonionic surfactant
- Field bindweed: Crossbow at 2 oz/gal of water or 3-4 qts/ac AND 1/3 oz/gal nonionic surfactant OR Roundup Ultra at 3.5 oz/gal or 3 qts/ac

Notes: *Glyphosate (active ingredient in Roundup) will kill most vegetation, so avoid use on desired forages. Always read the label thoroughly. Use of a nonionic surfactant (a spreader and sticker material) is required with most chemicals except Glyphosate.*

If you have questions about other weeds or need more specific instructions, please call Ed Page at 970-249-3935.

Start Managing Next Year's Pasture NOW!

Cool season grasses have been under a good deal of stress during the hot weather and been grazed and/or hayed. In some cases they have not been watered enough. As the weather cools in August and September, growth will increase again to a certain extent. This won't be nearly as much as spring growth, but it will be more than the summer.

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A new tool has been added to the tamarisk management arsenal with the release of tamarisk leaf beetles, *Diorhabda elongata*, as a biological control agent. The tamarisk leaf beetle was initially collected from the native range of tamarisk, in China and Kazakhstan. It has been through rigorous host plant preference screening by the USDA to assure it will not feed on native plants in North America. We are confident that the beetle will not affect desirable vegetation, and it has now been released in several western states including Colorado.

The Colorado Department of Agriculture (CDA) Insectary at Palisade is coordinating releases of the tamarisk leaf beetle in Colorado and surrounding states. The initial western Colorado and eastern Utah releases were made in the fall of 2004 and spring of 2005. The leaf beetle has moved tens of miles on its own from the original release sites near Moab, Dewey Bridge, Fruita, Mack, and Gateway in only two years. It has moved dozens of miles in four years from the most successful release to date, near Lovelock Nevada. We expect that the beetle will continue to distribute itself to existing tamarisk in western Colorado from the areas it is now established.

Because of overwhelming demand for the insect, a structured public distribution program from the CDA Insectary is probably several years off. The present distribution efforts are focusing on releases to maximize the chances of the beetle to infest as large of area as possible within the next decade. The biological control effort will take time, but with the bulk of the initial regulatory hurdles behind us, progress is being made.

Diorhabda larvae feed gregariously on tamarisk leaves, defoliating the plants. They do not feed on any other species of plants in North America. After several years of defoliation, the tamarisk plants will die. Plant mortality has been observed after three years at release sites near Lovelock NV.

Tamarisk leaf beetles show promise to be a cheap, effective, environmentally friendly, long term management tool for tamarisk control. It may be a few years before they show up on your property however. In the meantime, if you have tamarisk that needs to be controlled, do not wait. Take action now: cutting, chopping, spraying, stump treatments. There will still be plenty of tamarisk left for the leaf beetles when their time arrives!.

For more information on tamarisk control, call your area extension office. For additional information on tamarisk and other biological control organisms, go to the Western Colorado Insects web site: <http://wci.colostate.edu> and click on the biological control page.



Now is the time to begin to think about next year! Overall health of plants and the number of buds they set for next year's growth will depend on how you treat them from now until winter dormancy. Buds that are formed in the plants crown in the next weeks are the basis for production next spring. You need to manage the pasture or hayfield to allow for maximum bud set. This means you will need adequate moisture, fertility, and green foliage so the plant can replenish the reserves that have been used for current production.

Foliage remaining on the plant into the fall is critical. The rule of thumb says you don't graze below three or four inches of stubble height until winter dormancy. This builds the plant's root reserves and allows optimal bud set for next year. In the presence of adequate moisture and nutrients, the sunlight is transformed in the plant to carbohydrates, which translate directly to plant health and vigor next year. Healthy plants will also be much more likely to live through a hard winter like last year.

Special considerations:

- Know what your soil fertility is – test the soil: supplies available at your Extension office. Phosphorus may help next year's production now.
- Control weeds now – many of the hardest weeds to control are best controlled from late August until a killing frost (see Fall Weed Control article).
- Keep the water coming – even if you don't have much to graze (above the 3 – 4 inch minimum stubble height).
- Keep animals off the pasture when it is wet to avoid compaction – always!

National Farmers' Market Week

As I write this newsletter, I received a notice that August 5 – 11 has been declared Farmers' Market week in the US. This supports the trend toward a more self-sufficient community and fresher, higher quality food that is grown close to home. Buying food that your neighbors have grown is also good for community economies with more money staying and circulating in the community, bringing added financial health.

“Buy Fresh Buy Local” is a national program that has just been started in Delta County by the Western Colorado Food and Agriculture Council and others. This promotion is intended to bring to public attention the benefits of locally grown and marketed food products for farmers, consumers, communities and the environment.

When you think about all the things you like about western Colorado, remember that the rural farming community is a big part of what makes this area what it is. Support your local farmers' market and the people who make it possible.

Toxic Summer Weeds and their Control

Most animals, most of the time, are smart enough not to eat all the toxic weeds they are presented with in the pasture. A good deal of the reason for this is that they have other feed and that the weeds are often not very palatable. Much of the reason to get rid of the weed then is to make way for good forage. In either case, the weeds need to go!

At this time of year you can see many pastures that have been grazed closely because the stocking rate has stayed unchanged through the hot weather when the grasses do not grow as rapidly. At this point, animals are at the greatest danger of consuming toxic plants. If their preferred feed is inadequate to sustain them, they will turn to the toxic weeds that are left. Some weeds I have recently seen in West Slope pastures include: milkweed, curly dock, kochia, lambs quarters, and field bindweed as well as many others.

Better than weed control is weed prevention: keeping a well irrigated, fertilized, and optimally grazed pasture. However, if you have weeds there are ways to get rid of them. The following will suggest some chemicals that control some of the most common weeds, but this control must be combined with better pasture management that creates a good competitive forage plan population or the weeds will be back. Always read the label and follow the directions exactly to achieve desirable results and maintain safety. These are only a sample of weeds these chemicals control; see the product label for complete lists. These chemicals must be used with a nonionic surfactant at 1/3 oz per gallon or 1 – 2 quarts per 100 gallons of spray mix.

- Crossbow (a brand name): lambs quarters, curly dock, field bindweed, kochia, milkweed (suppressed), pigweed, Russian thistle, sweet clover, tansy ragwort, and mustards
- Curtail (a brand name): Canada thistle, Russian knapweed, and numerous others
- 2,4-D (generic compound name, use amine formulation): bindweed, chicory, curly dock, lambs quarters, mustards, pigweed, plantain, povertyweed, Russian thistle, sweetclover, and others
- Dicamba (generic compound name): burdock, kochia, pigweed, Russian thistle, and others
- 2,4-D/dicamba combinations (several brand names): annual mustards, burclover, burdock, chicory, curly dock, kochia, lambs quarters, and others

There are two resources to help you identify and manage weeds that can be toxic: 1) Weeds of the West, published by the Western Society of Weed Science and available at your Extension office or through any bookseller and 2) Guide to Poisonous Plants web:

http://southcampus.colostate.edu/poisonous_plants/index.cfm?countno=NO, managed by Colorado State University.

Between these two resources you can identify plants and then find if they are toxic to your animals. For additional questions, please call me at the Extension office: 970-249-3935.

Western Colorado Food and Agriculture Council

Western Colorado Food & Ag Council (WCFAC), started in 2005, has just received its 501 (c) (3) federal nonprofit tax exemption. The mission of the council is to “enhance local community food systems.” This includes making local farming and marketing a profitable and sustainable business for the farmer and community, while caring for the land that sustains us and less fortunate community members.

Projects we have been involved in include gleaning and creating community gardens to allow our partner, Sharing Ministries, Inc. (SMI), to provide needed food assistance to economically disadvantaged families and individuals. Last year, this project provided about 7500 pounds of food in Montrose and Delta Counties.

This year, we are gleaning and gardening at three locations. In Montrose, we have a collaborative project with The Rocky Mountain International Academy and First Presbyterian Church to create a garden for this SMI. Also, WCFAC board members in Montrose and Hotchkiss have created gardens, with volunteer help to donate food to SMI and a local soup kitchen.

In the spring, we announced a Grow-a-Row program in Delta and Montrose counties that invites members of the community to donate excess harvest to food bank programs. If anyone wished to donate or volunteer to help out, they can call Elaine Brett at 970-210-9717 or Ed Page at 970-249-3935.

A “Buy Fresh, Buy Local” campaign in Delta County has been started in collaboration with the Rocky Mountain Farmers Union, the Valley Organic Growers Association, Delta County Tourism Cabinet and the North Fork Slow Foods Convivium. This national program, seeks to promote locally grown foods for local markets. Look for the “Buy Fresh Buy Local” and support local farmers.

Come one! Come all!

**Tri-County Water
Conservancy District's 50th Anniversary
&
Customer Appreciation Event**

**Great Food and Good Fun for the Entire Family
Enjoy a Horse Drawn Buggy Ride and Live Music
by the Anders Brothers
Grab a Bite to Eat and All the
Tap Water You Can Drink!**

**Friday, August 17th from 4:00 til' 7:00 p.m.
Uncompahgre Valley Water Users Office
601 North Park Street
Montrose**

Feeding a Beef for the Freezer

*From Robbie LeValley,
CSU Extension Livestock & Range Agent*

Start by evaluating your facilities at home for raising and feeding a beef animal. Feeder animals need to have plenty of room to exercise and move around for improved health. An animal needs a minimum of 200 square feet for optimum production. Make sure that all fences and gates are secure and will not fall down. Make sure that the hay and grain will not be on the ground when fed and that there is clean fresh water at all times. Select a calf that is at least 6 months of age. Picking an older calf is also acceptable. Determine initial weight by weighing the animal on a scale or looking at the sale ticket.

Feeding

Beef convert 6 pounds of feed into 1 pound of gain. When the animal is on full feed, they will gain 2.5 pounds per day, therefore, the animal needs to eat 15 pounds of feed per day to gain 2.5 pounds. The animal will eat approximately 450 pounds of feed per month.

Clear uneaten feed from feed trough before feeding and avoid dusty, moldy or spoiled feed. Start calves on a 1 pound of grain per head per day and free choice grass hay. Increase by one pound per head per day every three to four days. Feed at the same time each morning and night. It is

best to feed twice a day and split the grain equally between the morning and evening feedings. Feed clean, high quality grass hay.

Approximate feeding chart

Steer weight in pounds	Percent of body weight eaten per day	Approximate feed amounts
500	3%	12 lbs grain and 3 lbs hay per day (after initial start-up ration)
800	3%	20 lbs grain and 4 lbs hay per day
1100	2.5%	24 lbs grain and 4 lbs hay per day

When the animal weighs 1100-1300 pounds (depending on frame size), it will be ready for processing. If you have any questions on rations, feeding, or care of your meat animal, contact Robbie LeValley at the Colorado State University Extension office at 970-874-2195.

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