

WESTERN JUNIPER: **POSSIBLE BIOHERBICIDE OF THE FUTURE**

It's been said that a weed is a plant we haven't yet found a use for. If that's the case, western juniper – often viewed as undesirable because of its invasion onto Western rangelands – could be earning a new reputation as a bioherbicide used to kill other weeds.

The observation that juniper trees inhibit the growth of other vegetation around them led to research at Oregon State University by Drs. Pat Dysart and Carol Mallory-Smith, weed scientists in the Department of Crop and Soil Science.

The duo wondered if something in juniper tree chemistry might be killing or retarding the growth of neighboring plants. If so, they hypothesized that it may be possible to use its toxic power as a weed killer.

With initial funding from the Agricultural Research Foundation at Oregon State, the two researchers tested their idea in greenhouse experiments. They found that aqueous extracts made from juniper leaves do inhibit germination of rangeland weeds, such as medusahead and cheatgrass.

The researchers are now taking their experiments to the field to test various ways to apply the juniper – as dried leaves, juniper tea or leaf and stem mulch – and evaluate how well each works to keep weeds from germinating. Their field plots are located in central Oregon on grazing land belonging to the Confederated Tribes of Warm Springs, where they are working with range specialist Jason Smith.

Whether juniper will be developed into a commercial herbicide remains to be seen. But with a \$70,000 grant from USDA's Natural Resources Conservation Service, the research on juniper as a bioherbicide will continue. The researchers plan to develop appropriate application methods and concentrations specific to each growing situation and weeds to be controlled.

For further information e-mail Pat.Dysart@oregonstate.edu or call 541-737-5850.

State Spotlight

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It covers most of southeast Louisiana, but the majority of the members come from the Florida parishes. Pate says members of this group are doing their part to protect the environment while enhancing their profitability.

In addition to hosting numerous pasture walks, the Coalition is also sponsoring a Louisiana Stocker Development Project. A majority of Louisiana fed cattle spend some portion of their lives putting weight on beyond the ranch of origin and before the feedlot. Pate says, "It is unfortunate that thousands of light weight cattle are being shipped to western states for finishing when they could be grown out in Louisiana." The objective of the project is to develop a viable economically and environmentally sound stocker industry in Louisiana.

For additional information on Louisiana grazing lands, please visit www.lagrazinglands.com.

To have your GLCI activities or upcoming events highlighted in this newsletter, contact Kindra Gordon at phone 605-722-7699 or kindras@gordonresources.com.

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Dairy Industry
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National Association of
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National Farmers Union
(202) 554-1600

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**A voluntary
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Western Juniper might hold herbicide answers.

GLCI News

Grazing Lands Conservation Initiative

Stop The Plow: Converting grasslands to cropland has consequences

By: Kindra Gordon

With skyrocketing crop prices over the past year, some landowners are eyeing their grasslands or expired CRP acres and thinking they may be able to cash in by converting that land to cropland for growing corn or other grains.

In the face of soaring crop prices, increasing land rental rates and growing demand for corn, some ag economists have predicted that as many as 20 million acres of pastureland could be removed from CRP and converted to cropland over the next decade. But, conservationists caution that there can be some grave consequences with converting marginal pasturelands to cropland.

Among the list of considerations is soil erosion. Eric Mousel, an Extension Range Livestock Specialist with South Dakota State University, calls this a "paramount concern." Mousel points out that the millions of tons of topsoil lost to erosion from marginal farm ground are irreplaceable.

Mousel acknowledges that minimum till systems have decreased the overall amount of erosion that occurs on a given management unit, but he adds, "These systems are heavily dependent on herbicides and still include some level of tillage that ultimately results in wind and water erosion."

Mousel emphasizes that it should not be forgotten why the Conservation Reserve Program was created in the first place – to take highly erodible lands out of production.

Conservationists say landowners really need to consider if these marginally productive lands offer much value as cropland – especially when the cost of fuel, seed, and chemicals to plant, grow and harvest the crop are evaluated.

Additionally, wildlife species can also be hit hard by the conversion of grasslands from the ecosystem, Mousel says. "Although food availability for wild species often increases under row cropping systems, upland game birds and waterfowl suffer significantly when the nesting, brooding, and winter cover provided by grasslands is eliminated," he explains.

Given those factors, Mousel says producers should consider that, "Grasslands have a tremendous amount of monetary value in terms of livestock grazing, wildlife habitat, and other forms of recreation."

Many producers also note that established CRP forages can be an important part of a drought plan – as the acres are often opened by the government to be utilized for haying and grazing during periods of drought.

Mousel concludes, "Grasslands also hold ancillary value in the form of their effect on water quality, aesthetics, and the biological diversity that is necessary to maintain a healthy ecosystem."

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On The Web

4NCGL Info Online – At www.glci.org you can stay abreast of the latest information about the upcoming 4th National Conference on Grazing Lands to be held Dec. 13-16, 2009 at John Ascuaga's Nugget Hotel & Casino near Reno. Posted online is the call for papers as well as information about sponsorship for the event. Sponsors, exhibitors and presenters are still being sought for this informative conference. Log on to find more details.

The Grass Whisperer – New York grazing enthusiast Troy Bishopp often has something to say about grass farming and conservation efforts. Bishopp is a popular speaker at events and pens a column for his local paper. Most recently, he has updated his website and you can keep up with many of his musings at www.thegrasswhisperer.com.

Kentucky Conference Proceedings – If you missed the ninth annual Kentucky Grazing Conference this fall, you can still get a pdf copy of the conference proceedings on the University of Kentucky Forage Extension Web site at www.uky.edu/Ag/Forage. Also new on the site is a decision-aid tool for valuing fertilizer nutrients in hay, developed by Dan Undersander, University of Wisconsin extension forage specialist. For more details, go to www.uky.edu/Ag/Forage/Forage.

New Forage Publication – Forage and grazing specialists from five different Midwestern states collaborated to produce a new publication that offers strategies to extend your grazing season and was developed under the Grazing Lands Conservation Initiative. While the best techniques to accomplish this will vary by region, the authors outline strategies and options that can be used in a variety of areas. Download "Extending Grazing and Reducing Stored Feed Needs," by going to: <http://www.aces.edu/dept/forages/ExtendingGrazingReducingStoredFeedNeeds.pdf>

IN COLORADO: "GRAZING FOR DESIRED OUTCOMES" MEETING WAS A SUCCESS

Submitted by Tim Steffens, NRCS multi-county rangeland management specialist, Southeast Colorado

Strategy vs. System: Grazing for Desired Outcomes was the central theme of the Colorado Section of SRM meeting held in Ft Collins December 2-4.

Almost 250 people from 12 states, the District of Columbia and one Canadian Province representing government agencies, non-profit organizations, wildlife interests, ranchers, and rangeland researchers came to hear scientists and ranchers widely recognized for their background or expertise in grazing management.

The symposium came about in response to the controversy and division among the range community after a review of the scientific literature by several range scientists in Rangeland Ecology and Management (REM) recently concluded, "There is no consistent or overwhelming evidence demonstrating that rotational grazing simulates ecological processes to enhance plant and animal production compared to that of continuous grazing on rangelands."

The meeting highlighted many different reasons for managing grazing besides plant and livestock productivity as well as some of the means and guidelines for managing the timing, frequency, and intensity of defoliation and the opportunity for regrowth and recovery to accomplish conservation goals.

Speakers discussed how domestic livestock grazing can be managed to address conservation objectives including watershed function, soil health, plant community composition, ranch profitability and risk management, wildlife habitat, and animal husbandry objectives. The common thread among speakers, including some of the scientists who published the article, was that successful grazing management programs have to be goal oriented and managed strategically, adapting operational decisions to changing circumstances.

Most speakers presented evidence that grazing animals can be a powerful tool to address resource concerns and that periodic grazing deferment can often be beneficial. How deferment is accomplished can take numerous forms. There was also a lot of discussion about how scientific results can be interpreted in different ways and how the questions asked and the methods used to measure responses can affect results or interpretation of those results. The ranchers and many of the scientists provided examples to indicate that successful prescribed grazing is a learning process that should be based on scientific principles but has to be adapted to individual operations and changing conditions. Several authors of the REM paper were present, and the meeting helped to further the discussion among different viewpoints.

All the feedback indicates that the goal of the symposium to increase communication and foster discussion among different viewpoints was successfully met. The presentations can be viewed and heard in an electronic format at the Society for Range Management website at <http://www.rangelands.org/svsvideos/svsvideos.shtml>. The final day's presentations are available on line at <http://www.wcirm.colostate.edu/calendar/Petry2008.html>. Currently, funds are also being solicited from interested partners to publish a proceedings of this event.

The meeting was sponsored by the Colorado Section Society for Range Management (CSSRM) and numerous other partners including Colorado Grazing Lands Conservation Initiative, National Western Stock Show & their Scholarship Trust Fund, Colorado State Land Board, The Nature Conservancy, The Quivira Coalition, USDA Forest Service New Ranch Network, Crystalx, Colorado Holistic Management, Holistic Management International, and Colorado State Conservation Board.

State Spotlight **on Louisiana Coalition**

*Pasture Walk Groups
help share grazing information*



The Louisiana Grazing Lands Conservation Coalition (LGLCC) was reorganized in the summer of 2006. The State Steering Committee consists of representatives from the following organizations: Louisiana Cattlemen's Association, Louisiana Farm Bureau Federation, Society for Range Management, Louisiana Association of Conservation Districts, Louisiana RC&D Council, Louisiana Forage & Grassland Council, Louisiana Forestry Association and at least 2 at-large members from each of the Louisiana Grazing/Pasture Walk Groups.

Grazing/Pasture Walk Groups are made up of ranchers who work together to increase their knowledge of forage management, pasture-based production, and farm economics. Members obtain a great deal of information from other group members' personal experiences, knowledge and skills.

Johanna Pate, NRCS Louisiana State Rangeland Management Specialist states, "Louisiana's Grazing/Pasture Walk Groups are growing in number and locations." Current groups across the state are: South Louisiana Pasture Group, Acadiana Grazing Alliance, Southwest Louisiana Pasture Walk Group, North Central Grazing Group, Northeast Delta Grazing Alliance, and Central Louisiana Pasture Walk Group.

"With over 4 million acres of grazing lands in Louisiana, the environmental and economic benefits derived from grazing lands make them important to everyone in Louisiana," points out Pate.

Most Grazing/Pasture Walk Groups get started when three or four ranchers start talking about their common problems and decide to pool their knowledge to help one another out. Reaching others who may be interested in becoming part of the network is usually done by word of mouth or through targeted mailings. Establishing and maintaining a Grazing/Pasture Walk Group is challenging. It demands leadership, commitment, time, energy and creativity. In Louisiana, NRCS Grazing Lands Specialists act as coordinators for the local grazing groups, but the leadership comes from within the group.

The South Louisiana Pasture Group was the first Pasture Walk Group to form in the state under the leadership of Donald Ashford.

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SPOTLIGHT ON NATIONAL STEERING COMMITTEE MEMBER DUANE HERTZLER

For Duane and June Hertzler their nearly 4 decades of operating a dairy farm in central Pennsylvania has given them a wealth of knowledge about the industry. And through the years, the family dairy, which they call Moo Echo Farms, has transitioned to a rotational intensive grazing operation with 300 milking cows and 300 replacement females on 367 acres of grassland with an additional 300 acres of rented land for growing silage and grass hay.



The Hertzler's have the motto on their dairy, "If we take care of our animals, they will take care of us" and with that, intensive grazing has become the backbone for managing their herd and allowing their dairy to grow in cow numbers.

Dune and June started farming in 1970 in a partnership with Duane's father. In 1978 they moved to their own farm and raised four children. In 1998, their son Neil returned to work on the dairy, and in 2002 Duane and June formed a partnership with Neil and his wife Kilah. Today, Neil and Kilah live on an adjoining farm where the dairy heifers are raised and the family is also raising 4 young boys.

Moo Echo Farms markets about 30-50 dairy cattle to other dairies each year. They have also been very active in promoting grazing cattle on grasslands for a sustainable future. Duane and June were named Mid-Atlantic Master Farmers in 2000, and Duane serves as vice chair on the Perry County Farmland Preservation Board and has held numerous other leadership positions. Presently, he serves as chairman of the dairy cattle division for the Pennsylvania Animal Health and Diagnostic Commission. He is also a producer trained as a practical dairy advisor for the Center for Dairy Excellence's Dairy Profit and Target team program.

From those experiences, Duane is an energetic advocate for the dairy industry and grazing – making him an asset to the GLCI's National Steering Committee, which he was named to in 2006.

In September 2008, the GLCI Steering Committee took a tour of Moo Echo Farms as part of their annual fall meeting. This was an opportunity for the Hertzler family to share about their managed intensive grazing (MIG) dairy farm with members from all across the nation.