

# Leafy Spurge *News*

Agricultural Experiment Station  
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## From the Editor's Desk

Once again we are planning to have only two issues this year. Why you might ask, same old reason, not enough feedback from all of you recipients of the Leafy Spurge *News*. In fact not even one letter in this issue. It is not too late to send me stuff for the next October issue.

In this issue we have resumed the Leafy Spurge Honoree. In fact we have a trio of honorees, the ones who are responsible for Team Leafy Spurge. It gives me great pride to include them in this issue, for this has been a really great and successful program. We also have in this issue a lengthy article by Dan Bushnell from Montana that relates some of the results obtained in several counties in the Glasgow area. This is just the kind of story we like to print as it deals with results obtained by the end user of the technology developed with the help of Team Leafy Spurge. With luck maybe some of you in other states will send me some information.

### **Claude Schmidt**

Editor

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## Leafy Spurge Honorees

**Dr. Gerry Anderson**  
**Dr. Chad Prosser**  
**Robert D. Richard**

Over the past few years, the USDA's TEAM Leafy Spurge (TLS) program has played a vital role in ongoing efforts to control leafy spurge, both conducting new research designed to "fill in gaps" from earlier work and demonstrating the effectiveness of biologically based Integrated Pest Management (IPM) techniques over wide areas. In particular, the program has achieved between 90-100% control at the program's four primary research and demonstration sites to date.

Building on the successes of the past, TEAM Leafy Spurge has been instrumental in converting many skeptics to the benefits of biologically based IPM for leafy spurge control. That success has prompted calls for continuation of the program and its use as a model for addressing other target weed species, further testimony to the hard work of everyone involved in the program, from the individual researchers, ranchers and public land managers to the many representatives from federal, state and local weed agencies.

But key to much of the program's success has been the skill and dedication shown by those individuals responsible for coordinating its many disparate components, which is why we have selected the following individuals as our latest "Leafy Spurge

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## Honorees

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Honorees:” TLS Program Director Dr. Gerry Anderson; TLS Program Coordinator, Dr. Chad Prosser, and TLS Biocontrol Operations Head and APHIS partner Robert D. Richard.

Together these three individuals have overseen:

- the successful implementation of 31 different research and demonstration projects initiated under TLS
- the successful collection and distribution of more than 48 million *Aphthona* flea beetles throughout the four-state region served by the project (and beyond),
- the successful completion of more than 20 informational products on the integrated pest management of leafy spurge and
- the successful coordination of numerous field days and two major national, “Spurgefest” events successfully demonstrating the benefits of a biologically based IPM approach for controlling leafy spurge.

In addition to these accomplishments and day-to-day management duties with the overall program, all three of our honorees also conducted individual research projects in their own areas of expertise. Following is an overview of their individual (and shared achievements) under the TLS program.



**Research Ecologist Gerry Anderson**, a grassland ecologist and remote sensing specialist with the USDA-ARS Northern Plains Agricultural Research Laboratory in Sidney, MT, has not only overseen all aspects of the TEAM Leafy Spurge Program in his role as program

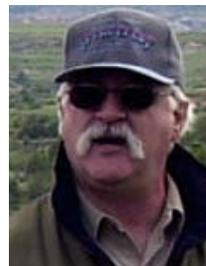
director and co-principal investigator, but has also contributed substantially to studies demonstrating the effectiveness of remote sensing and GIS in identifying and mapping leafy spurge populations and their spatial and temporal dynamics. In addition, Gerry was

instrumental in the production of “Purging Spurge: Corraling an Ecological Bandit,” a television documentary produced in conjunction with Prairie Public Broadcasting of Fargo, ND, which originally aired in June 2002 and which was distributed nationwide this past April.



As TLS Coordinator, **Research Ecologist Chad Prosser** expertly managed the many record-keeping, organizing and outreach duties required under the program, and traveled the bulk of the more than 250,000 miles logged across the Northern Great Plains by TEAM

members to conduct 100-plus IPM presentations on TEAM Leafy Spurge. He also coordinated the program’s two hugely popular “Spurgefest” events in 1999 and 2001, which brought several hundred participants to Theodore Roosevelt National Park in Medora, ND, for tours of research and demonstration plots, research seminars and hands-on workshops on biological control and various IPM techniques. Even so, Chad still managed to find time to conduct a few individual research projects of his own investigating herbicide use, burning and other IPM strategies, as well as to participate in the annual collection of those aforementioned 48 million *Aphthona* flea beetles given away under the program. His knowledge of IPM strategies and his demonstrable administrative skills made him a natural for his new post as an Exotic Plant Management Specialist and Liaison with the National Park Service responsible for coordinating weed management efforts at 13 different parks in the Northern Great Plains region.



As the APHIS representative and head of Operations for TEAM Leafy Spurge’s Biological Control Component, **Robert Richard**, was responsible for coordinating all activities associated with the collection and redistribution of biological control agents in and outside the four-state

study area. Under Bob’s leadership 16,000 releases of *Aphthona* spp. were provided for cooperators in

82 counties, 12 states and 3 Canadian provinces. Bob also helped design, test and employ new, large-volume insect collection methods and materials, including those used in the sorting, packaging, and delivery of millions of biological control insects. Bob's operations unit also developed a standardized, scanable data collection form used by all TLS research assessment teams. In addition, Bob also contributed greatly to the technology transfer efforts of TEAM Leafy Spurge. He helped host nine tours and field demonstrations in four states; developed the *Leafy Spurge Biological Control Information and Photo Resource Gallery* CD, and provided information and support for another TEAM Leafy Spurge multimedia project, the *Biological Control of Leafy Spurge: Informational Resource CD*. In the latter project, Bob served as an expert partner in development of the popular "how-to" biocontrol manual, the Power Point presentation, and the photo gallery included on the CD. Bob is also a two-time honoree for his leafy spurge control efforts, first earning notice from the *LEAFY Spurge News* in March 1996.

## "Purging Spurge" Documentary Distributed Nationally



TEAM Leafy Spurge's recently released documentary entitled "*Purging Spurge: Corraling an Ecological Bandit*," has gone national. Produced in partnership with North Dakota's Prairie Public Broadcasting, Inc., the ND public television company was asked to distribute the 30-minute documentary nationwide in April by the National Education Television Association (NETA).

"*Purging Spurge*" focuses on grassland health and the impact of invasive weeds like leafy spurge on the ecosystem and is intended for a general audience. Its aim is to increase public awareness of noxious weeds and to bring all segments of society on board to help control them.

The documentary was made available via the NETA satellite to any interested public television station beginning April 13th. "*Purging Spurge*" debuted on North Dakota's Prairie Public Television on Tuesday, June 25, 2002, and since then Prairie Public and TEAM Leafy Spurge have had requests from several other public and independent cable stations to run the program, including Montana PBS. In addition, TEAM Leafy Spurge has had additional requests for the VHS version of the documentary from county weed and Extension officials. The co-produced documentary (PBS and TEAM Leafy Spurge) has been nominated for several awards including a "Telly," the non-network equivalent of the Emmy Award.

VHS videotapes of "*Purging Spurge*" are available free from TEAM Leafy Spurge by contacting the USDA-ARS Northern Plains Agricultural Research Laboratory at P.O. Box 463, Sidney, MT 59270; or by phone at 406-433-2020; by fax at 406-433-5038; or by e-mail at [teamls@sidney.ars.usda.gov](mailto:teamls@sidney.ars.usda.gov).

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## “Getting the Word Out” on IPM and Leafy Spurge

“Got a bug for that?”

A few short years ago that question, and the questioner, a frustrated area rancher, would have caught many noxious weed researchers by complete surprise, but today, thanks to the spectacular accomplishments of millions of *Aphthona* spp. flea beetles, the inquiry has become increasingly routine.

The weed-eating beetles have been widely distributed in the four-state region (MT, WY, ND and SD) served by the TEAM Leafy Spurge (TLS) program, which is credited with much of the expanded interest shown by ranchers and public and private land managers in biological control as the cornerstone of a successful weed management program.

TLS was first formed in 1997 when the U.S. Department of Agriculture’s Agricultural Research Service joined forces with its sister agency the USDA Animal and Plant Health Inspection Service in the first area-wide, integrated pest management program targeting a noxious weed.

This biologically based IPM program stresses teamwork, resulting in a network of partnerships between the two USDA agencies, land grant universities and numerous other local, state and federal entities to research and demonstrate effective, affordable and ecologically sustainable leafy spurge management techniques. The six-year, cooperative program also stresses information and education, two components vital to ensuring the continued application of successful biocontrol and other IPM strategies developed under the program.

### **TLS Wins National Tech Transfer Award**

Its efforts have been well-rewarded. Not only has the program successfully demonstrated dramatic reductions in spurge densities across wide areas, but its education efforts have garnered it the top Technology Transfer Award for 2002 from the USDA’s scientific research arm, the Agricultural Research Service, for Outstanding Effort. In a ceremony at ARS national headquarters in February 2003 TEAM members were recognized for their efforts in “spreading the word” about ways to combat leafy spurge, and more importantly for equipping its customers with the tools needed to do the job.

In particular, recognition was given to TLS efforts in the widespread distribution of more than 48 million leafy spurge flea beetles to ranchers and land managers throughout much of the Western United States, enough flea beetles to establish 16,000 new release sites. Many of the insects were distributed during the program’s numerous field and demonstration days, all of which included “hands on” instruction in flea beetle collection and redistribution with additional information provided on how to use them successfully and combine them effectively with other IPM techniques.

In addition to providing the living tools needed to effectively and affordably manage leafy spurge, TLS was also honored for its education efforts, as well as development of more than 20 informational products including brochures, reports, CD-ROMs, news articles, a 30-minute documentary aired regionally on U.S. Public Television stations and a series of “how-to” IPM manuals that have proven wildly successful with their intended audience. The first, a 24-page, full color offering entitled “Biological Control of Leafy Spurge,” has been the most sought after, with more than 40,000 manuals distributed in 27 American states and four Canadian provinces. But it’s not the only popular outreach product. More than 10,000 “how-to” manuals on multi-species grazing have also been distributed, along with several thousand copies of the newest offering “Herbicide Control of Leafy Spurge.”

The 30-minute documentary entitled “Purging Spurge: Corraling an Ecological Bandit,” developed by TLS in cooperation with Prairie Public Broadcasting in Fargo, ND, aired regionally in June of last year and is now being offered nationwide in the U.S.. It was also nominated for several broadcast awards. TLS efforts have also been featured in other broadcast programming including a BBC documentary entitled “Aliens from Planet Earth: Earth Report,” and Public Broadcasting’s “Living on Earth” series in the U.S.

### **Customer Uptake Noted in NDSU Report**

But the true measure of success for TLS has been the customer uptake of its researcher-developed IPM technologies. One testimonial, from South Dakota rancher Larry Nelson, illustrates the point: “The ranchers are feeling better about the options that they now have against leafy spurge. TEAM Leafy Spurge

has been a big plus for area producers. As of 3-4 years ago we knew nothing about biocontrol...TEAM Leafy Spurge has done a remarkable job of getting the word out. People in this area are now seeing the benefits of an IPM approach.”

That acceptance of IPM strategies outlined by TLS is borne out in a new report issued by North Dakota State University researchers Nancy Hodur, Larry Leistriz and Dean Bangsund. The report was designed to measure how successful the TLS program has been in reaching its target audience and in influencing their weed control plans. Key findings in the report, which included surveys of individual ranchers, and public and private land managers, include the following:

- Noxious weeds were increasingly seen as an important problem by both ranchers and land managers.
- Both groups reported extensive and growing use of biocontrol and the IPM approach, as a complement to previously lone, herbicide treatment programs.
- TLS appeared to successfully influence landowners' weed control plans, particularly with regard to biological control. There 80 percent of private land managers, approximately 60% of public land managers, and 42 percent of ranchers indicated TLS had influenced their plans to use biocontrol, in part because many of the constraints to its use cited in earlier studies had moderated. Those constraints were identified as not having access to sufficient insects and lack of knowledge in how to use them. In the latest survey the number of land managers who viewed these two issues as significant had dropped from 30-40 percent in 1998 and 1999 to under 8 percent in 2002.
- TLS also appeared to reach a substantial percentage of its target audience, with one-third of ranchers and 70 percent of private and public land managers attending at least one TLS event or demonstration site, and indicating that they were pleased with the information received.
- And finally, 92 percent of local decision makers, 71 percent of public land managers and 70 percent of ranchers supported extending funding for

the program, and a large majority of respondents believe the TEAM Leafy Spurge model would be applicable to other problem weeds.

### **Updates on TLS Findings**

Now, as the TEAM Leafy Spurge program winds down, many participants are finding that their adoption of tools developed under TLS has led to dramatic reductions in spurge infestations in the field. In fact, researchers believe that if the same integrated management plans are carried out over even larger areas, leafy spurge could ultimately be reduced to an incidental weed in North America. A summary of some TLS findings to date:

#### **Biocontrol**

Flea beetle establishment improved dramatically at all demonstration sites over the course of the project, with 100 percent establishment at 101 release sites in the state of North Dakota. Across all four states in the program, black flea beetle (*A. lacertosa*) populations increased their numbers exponentially (as much as 8-fold) in the first three years following release. Resulting canopy levels declined from averages of about 40 percent to five percent or less and reductions in infested acreage ranged from a norm of about 50 percent over a three-year period to 80 percent in North Dakota through 2002. In addition, TLS researchers demonstrated that insects combined with multi-species grazing by sheep produced the best control over the shortest time, while biological control combined with fall herbicides provided the most economical and long-term control of leafy spurge. Together, the findings clearly demonstrate the advantages to be gained from adoption of biological control combined with other IPM measures.

#### **Multi-species grazing**

Combining sheep with *A. lacertosa* led to the control of between 90 percent and 99 percent of the 453 acres infested with leafy spurge studied under the program. Those reductions were achieved without negative impacts to cow or sheep average daily gains, clearly demonstrating the economic and environmental advantages of combining these two biologically based IPM strategies.

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## Cooperation and Commitment Proving to Be Formidable Foes in Fight Against Leafy Spurge

When folks think about Northeastern Montana thoughts usually resonate with dinosaurs, the Badlands, Fort Peck Reservoir, fishing, and family vacations. Noxious weeds do not come readily to mind, but they should. As with infestations that have occurred throughout the west and northwest in the United States, Northeastern Montana is no exception. In fact, this part of the state has experienced some of the worst infestation of *Euphorbia esula* (complex), commonly known as Leafy Spurge. However, thanks to some proactive thinking by some resource specialists in several agencies, the war on Leafy Spurge is being won.

Leafy Spurge began to show up in Valley, Sheridan, Daniels and Roosevelt Counties over fifteen years ago.

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### Herbicides

Improved herbicides, applied at smaller rates, are gaining greater acceptance, cutting the amount of chemical released into the environment. Fall herbicide use was also demonstrated to improve biological control in areas where insects were only marginally successful, particularly in high density areas. Once leafy spurge densities were reduced, *Aphthona* flea beetles maintained control as determined in observations of several research sites over the past seven years. It was also determined that the impact of grasshopper control on leafy spurge biological control can be minimized if treatments are applied when the grasshoppers average above the third instar development stage.

For additional information about TEAM Leafy Spurge or any of the informational products mentioned, please see the TLS website at:  
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As with most noxious weeds in Montana, the weeds were brought in by a variety of methods. "Whatever the cause, the weeds took hold and began to choke out our native grasses and plants," explained Montana Department of Natural Resources & Conservation (DNRC) Glasgow Unit Manager, Hoyt Richards. Richards administers Montana's State School Trust Lands throughout 7 counties located in Northeastern Montana. "However, since we've began our work to rid the country of this weed, we've really made a difference."

The main factor in the success against the spurge is because of one the largest natural insectaries for Leafy Spurge Flea Beetles, or more specifically the *Aphthona lacertosa* and *Aphthona nigricutis*, in this part of the U.S. In fact, the insectary is so large that DNRC, in conjunction with its partners, collected over five million flea beetles last year. The amazing part....it was done all in a matter of five days!

DNRC took a strong stance on Leafy Spurge in 1996, when DNRC's Northeastern Land Office Area Manager and Richards's supervisor, Craig Roberts, acquired well over 400,000 of the weed killing beetles from the Agricultural Research Station (ARS) in Valley City, North Dakota. The collection was made possible thanks to Dr. Robert Carlson of North Dakota State University, Fargo.

Upon receipt of the beetles, Roberts delivered the beetles to several sites, throughout central Montana and northeastern Montana. From the original release, one particular site, south of Culbertson, exploded and today serves the entire state, providing mainly *A. lacertosa* (about 90 percent) but also providing *A. nigricutis* (10 percent).

This was also the beginning of an alliance by a whole host of natural resource agencies working together to eradicate, to the greatest extent possible, Leafy Spurge. From the time the first beetles were released in northeastern the DNRC, the Bureau of Land Management (BLM) and Valley County Weed Program have been working together on numerous levels in the war on weeds. That collaboration continues today with each agency bringing to the table a variety of resources and expertise. "Each of us could not do it

alone,” explained Rick Stellflug, Valley County Weed Supervisor. “But, by combining our efforts and working together, we’ve really taken a toll on spurge in this part of the state.”

In mid to late June the three agencies get together to begin the flea beetle collection process, which lasts only a short time. “We have only a few weeks to collect the beetles,” Richards explains. “We want to get them right before the beetles lay their eggs. That way, after they’ve been relocated, they can begin working on new areas and lay their eggs there.” The collection takes place over two weeks but works out to only about five days worth of work. But what a powerful five days! “I believe that you could go into that insectary (Northeastern Montana) and collect for a month solid and still not get all the beetles out of that area,” explained Beth Klempel, Natural Resource Specialist and weed coordinator with the BLM-Glasgow Field Office. Upon collection, the beetles are bundled into paper containers and put on blue ice in coolers. Each container houses about 3,500 beetles, with about 30-35 containers in each cooler. Upon packaging, the coolers or containers make it to their destination within 24 hours or sooner, if possible. “When the time comes to collect bugs, we’re all business,” Richards explains. “We’re on the road at 4:30 a.m. and get back in the office around 3 p.m. But, it’s worth it because we can see the results on the ground.”

The collection and use of the critters has gained some notoriety over the last several years. Richards is not only delivering beetles in Northeastern Montana, he is also making sure that the beetles are being spread out state wide. Last year, the DNRC saw to it that beetles were delivered to over twelve counties in the state. “We are in the midst of trying to ensure that beetles are established on spurge populations throughout Montana. For example, we sent about 100,000 beetles down to Broadus last year and about 60,000 beetles to the Elkhorn Mountains, southeast of Helena,” he said. In addition to spreading out statewide, the program has taken off internationally. Last year, about 150,000 beetles went North, across the Canadian border, to both Saskatchewan and Lethbridge, Alberta. “We have a wonderful partner in these beetles and this insectary. As we harvest these beetles, we are not only helping ourselves but anyone and everyone that wants help,” Richards said.

The agencies all agree that the key to the use of beetles is time. “You can’t use these beetles and expect them to work overnight,” Richards explains. “We generally tell people to have six years worth of patience to see the dramatic change the beetles will have on the spurge and how little spurge will be left.” Stellflug, Richards and Klempel are realistic in that beetles are only one means of managing the spurge. All three state that the most effective means has been through a three-tiered approach with: 1) Biological Control 2) Animal Control (goats/sheep) 3) Chemical Control. “Where we’ve used all three, we’ve seen a dramatic decrease in the spurge.” Klempel explained. However, due to any number of factors, two venues are standard for this part of Montana.

Why might it be that county, state and federal agencies have banded together to fight the war on Leafy Spurge? “It all comes back to restoring the native grasses and range to what it was before the spurge came in, since its non-native,” stated Stellflug. However, the DNRC has an additional goal, to generate money from leasing their lands for agricultural and grazing purposes. “This is part of our mission here in the Glasgow Unit office, to ensure that the State School Trust Fund is obtaining the highest return on its asset while protecting and enhancing the State’s resources,” Richards explained.

The Montana DNRC manages 5.2 million acres of State School Trust Land across Montana. This land was granted to Montana by the Enabling Act of 1889, which essentially gave Section 16 and 36 within a Township/Range to the state to manage for the perpetuation of the State School Trust Fund. In FY 2002, DNRC managed its land and resources to the tune of \$45.2 million dollars for K-12 education in the state. “The eradication of this weed has many benefits, but our obligation to the trust is first and foremost. Its elimination will ensure that we are able to generate more income on the ground, via animal units monthly (AUM), without the presence of a weed that cattle and horses won’t graze. This is why we are serious about Leafy Spurge,” explained Richards. The BLM’s grazing program is similar to DNRC’s. Additionally, the other agencies also have an obligation that they accept to protect the natural resources on the ground, and they take that seriously, on all levels.

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“Since spurge is a Category 1 Noxious Weed, it just makes good resource management sense to eliminate it,” Klempel stated.

All three agree that what really makes the war on weeds work is the coordinated effort of many agencies. “The weeds themselves don’t know where the boundaries are, and when it comes to getting rid of these weeds, neither do we,” she added. However, it is clear that there are some definite duties that each agency has, when it comes to fighting weeds. For example, DNRC takes the lead to collect the beetles, the county is responsible for the chemical spraying of spurge within the county boundary and the BLM is responsible for distribution of beetles and also allowing the grazing of goats/sheep on its land. It is fair to say that there are a lot of details between each of those points, but that’s where the coordination and teamwork pays off. “If folks from our office can’t go out and collect one day, then Beth’s folks will be out there doing it without us. And, if some beetles need to be distributed to a specific area or county, and we can help, we’ll do it,” Richards said. “It’s not about mine and yours or county versus state versus federal. It’s about folks working and helping each other to make the landscape and state a better place.” An example of that is in adjacent Sheridan County. According to Gary Steinberg, County Weed Supervisor, the insectary has been a real help. “It has allowed us (through getting beetles from the insectary) to develop the *A. lacertosa* and *A. nigriscutis* varieties in Sheridan County.” Steinberg has been utilizing the beetles given to him through DNRC to fortify the beetles he’s previously acquired.

In addition to working with neighboring counties, groups and agencies such as the local Conservation Districts, Army Corp of Engineers, Bureau of Reclamation, Montana Fish Wildlife and Parks, US Fish and Wildlife Service, and the Bureau of Indian Affairs are all doing their parts in the fight against leafy spurge. And, all benefit from the work of each other when it comes to the fight against spurge. “It’s a network of alliances that makes our fight work. If we weren’t doing our part in Valley County, then Gary would have a lot more weeds in Sheridan County. That’s why we all have been and will continue to work together, providing resources, or just bodies, when needed,” Richards explains.

The use of cutting edge technology is become more prevalent in the war on the weeds in Northeastern Montana. “Currently, we (BLM) have over 200 sites in northeastern Montana that we’ve released bugs and are in the midst of monitoring for things like topography, moisture, climate, and soil types. These will help us to determine what areas work the best with these beetles. In the future, we’ll then be able to better determine on those factors whether we should use sheep or chemicals or our little friends,” Klempel explained. In addition, those sites are GPSed and photo points are established for historical/visual effects. It has pushed the program to the next level. Along with technology, the three are conducting informal experiments with the beetles, sheep/goats and chemicals. “I will put out bugs in an area I see spurge early in the spring. Then, I’ll have the crews spray the area and then I’ll go out afterward to see how much affect the spray had on the bugs,” Stellflug explained. “We’re anxious to see the results of the bugs we sent to the Elkhorn Mountains last year since we don’t know the effect that elevation and snow will have on these beetles,” Richards added. “We are looking all the time at soil types, elevation, slope, aspect, moisture, and all the factors that might have an affect on these beetles and on the spurge. The more we learn, the more efficient we’ll become in eliminating spurge and returning the landscape to its natural state,” he continued.

“The most effective tool we have is our teamwork and commitment,” Klempel added.

Through their cooperative efforts, all three agencies have gained advocates and supporters of the program and changed some attitudes and perspectives about not only the biological control of noxious weeds but about the agencies themselves. “We have more and more people that are being exposed to the benefits of beetles, so each year we’re giving more and more beetles away to private land owners. This has and will continue to make a difference in that we’re all moving in the same direction, the county, the state, the feds, but especially the private landowners. As I said before, we’ll never completely eradicated spurge from this state, but we will get it down to the point were a single landowner will be able to control the spurge on his/her place by themselves and it won’t be cost prohibitive,” Richards explained. “Equally or maybe more importantly is that it has taken some of the

public perception that we're just bureaucrats behind a desk and thrown that out the window! Folks are realizing that we really do care about the land that we manage."

An example of that change in attitude is Carter Harmon. Harmon, a rancher in Northeastern Montana, was very skeptical about the use of beetles on spurge in the beginning. "Now he's one of our biggest advocates," Richards explains. Harmon has been a recipient of thousands of beetles from the northeastern Montana insectary. "It's an excellent program for me because I was spending over \$5,000 a year to eliminate spurge with chemicals. Now, I spend maybe \$500 a year," Harmon said. Previously, Harmon used both sheep and chemical application to assist in weed control. However, since using beetles, he has dropped his sheep herd size to just over 100 sheep and his chemical bill substantially. "Some of my land is in areas that I can get to or is too close to the Missouri River to use chemicals. That's why these beetles work slick," he added. Harmon is fully behind the program now, helping collect beetles as well as delivering them to his neighbors. "It's simply an excellent program," he quickly added.

When asked what their ultimate goal is with all of their work and effort? "My dream is to travel some of these roads and to not see any spurge," explained Klempel. "In simpler terms, we want to get to a point where we can handle all of spurge ourselves, and we're getting there." Stellflug interjected. "We're starting to see the light at the end of the tunnel by not letting the weeds get a foothold and developing a monoculture. We're getting it done, together!"

To get a first hand demonstration of the cooperative effort in northeastern Montana, you're cordially invited to the annual Valley County Noxious Weed Tour on June 24, 2003. For more information contact Stellflug at 406-228-6237.

If you are interesting in assisting with the collection or distribution of biological control agents in Montana, contact the DNRC's Glasgow Unit Manager at 406-228-2430.

### **Dan Bushnell**

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## **A notice from TEAM Leafy Spurge to those using sheep or goats for weed control**

Grazing domestic sheep and goats in areas where bighorn sheep range can be potentially harmful to bighorn sheep. There is sufficient evidence of increased disease transferal from domestic sheep to bighorn sheep to warrant consideration of bighorn sheep presence in your weed or IPM management plan.

Using domestic sheep and goats to graze leafy spurge is a widely accepted weed management tool; however, like any other tool it must be used properly. So, if you are planning to graze domestic sheep or goats in areas known to be utilized by bighorn sheep, a little prior planning can help prevent endangering wild-sheep populations.

Rules, regulations and other factors to be considered depend on grazing location and land ownership. You may want to contact your State's Wildlife Department or public land agency to find out if there is a potential problems in your area.

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## **TEAM Leafy Spurge “Wrap-up” Activities**

As the six-year TEAM Leafy Spurge IPM research and demonstration program nears its end, wrap-up activities are being planned to ensure widespread dissemination of research information developed under the program.

The first “wrap-up” event scheduled is a special, day-long symposium featuring comprehensive scientific reports from all of TEAM Leafy Spurge’s project researchers, who have been asked to report on results garnered from their respective research and demonstration efforts and the impact they’ve had on leafy spurge populations and the ecosystem. The symposium will be held in conjunction with the Society for Range Management’s 57th Annual Meeting in Salt Lake City, Utah, Jan. 24-30, 2004, according to TEAM Leafy Spurge Program Director Dr. Gerry Anderson.

In addition to presentations by participating scientists, Anderson noted that a special edition of the “Journal of Range Management” will be produced from the session that will include select papers presented during the symposium, along with “capstone” articles connecting the different components of the program and expanding their results over wider areas.

“The TEAM Leafy Spurge program has been well-received across the U.S. and Canada,” Anderson noted. “And that is because of the outstanding work done by our program researchers and cooperators.

This special issue and other wrap-up projects will ensure that what’s been learned under the program will remain available to ranchers and researchers alike, even after TEAM Leafy Spurge ends.”

According to Anderson, other wrap-up activities being planned are a final “Spurgefest” demonstration field day scheduled for the summer of 2004, and completion of several tech transfer products, including a comprehensive CD-ROM containing all previously published and unpublished papers and reports produced under the program. More details on these items will be available once planning is completed, Anderson said.

TEAM Leafy Spurge is a six-year, area-wide integrated pest management research and demonstration project funded by the U.S. Department of Agriculture’s Agricultural Research Service and managed cooperatively with the USDA’s Animal and Plant Health Inspection Service. Partners in the program include numerous federal, state and local agencies, along with individual producers. It is headquartered at the USDA-ARS Northern Plains Agricultural Research Laboratory in Sidney, MT.

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# Biocontrol Field Days.

## Successful in the past, Great idea for the future.

USDA APHIS PPQ in Bismarck has had the pleasure of being involved with the leafy spurge biocontrol effort since 1989 when we helped with the collection of *Aphthona nigricutis* in Canada for importation to the United States. We have watched the program evolve and flourish in North Dakota, surrounding States and Canadian Provinces. It has been great to see how these little creatures helped build working relationships between non-traditional partners. The advent of new chemical alternatives, grazing management, and biocontrol have all been important tools that landowners have utilized with success rejuvenating interest in doing something about the leafy spurge menace.

Our job has focused on the biocontrol piece of the puzzle and hopefully we can continue into the future although in our agency, things don't seem to stay the same too long. In fact, there have been big changes to APHIS PPQ that could have a big effect on the amount of time we can dedicate to this project. You may have heard that our agencies inspectional staff amounting to about 70 percent of PPQ was split off to become part of the new Department of Homeland Security. The remainder (such as our office and crew in Bismarck) will be left behind to continue the various domestic programs that we have always worked on and help with the new ones. Another wildcard for us this year is that Congress has directed us to help with growing grasshopper problems in the western States aggravated by lingering drought conditions. The problem is now affecting parts of ND and we will need to share our time with that program.

But what I am really writing about are the biocontrol field days that have been very successful in the past and that we hope will continue with or without us. The success of the flea beetle have created great opportunities to educate, harvest, and redistribute to any landowner that wants to reclaim what spurge has taken away. If you are farmer, rancher, natural resource manager, or homeowner, leafy spurge is a huge problem and field days are the best way we have found to get the message out and get bugs from point A to point B.

Working with county weed officers and land managers, we have met with an average of 600 landowners per year to facilitate the "tailgate training session," harvest and packaging. We have had many repeat customers but we always meet new people and work in new counties that are becoming active. Probably our greatest reward comes when the repeat customers come back to give us great reports of success and give the group their own advice on what is working for them. We use this as a barometer as how well we are doing our job.

There is a great little biocontrol manual that was produced by Team Leafy Spurge available in print or on their website and CDs. It contains the best overall compilation of the tips and tricks that get people up to speed quickly. This quirky manual provides the background for the tailgate education portion of the field day. The manual also has a section that gives advice on how to host a field day but you can make them as complicated or as simple as your resources or time allow. We have seen everything from the big Stutsman County hamburger fry to the simple but effective phone calls to get some neighbors together to move a lot of bugs from a hot site. The manual has great photos and information that can be reviewed by the participants later after the day is finished or distributed further to neighbors and friends. The second part of a field day is to get as many nets swinging as possible. The people in attendance provide the horsepower to collect the bugs and to staff the assembly lines to get them sorted and packaged. The skills learned in an hour or two of work and fun are the same ones needed for management of the bugs on their own land. We have learned a lot from these events as well as teach. The manual has tried to capture all this collective wisdom so it may be passed on to the new practitioners.

We plan to make ourselves available as much as possible to continue the process of field day redistribution. North Dakota is lucky to now have many knowledgeable biocontrol experts that could and

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should continue this phase in biocontrol implementation. As you know, the window of redistribution is short and we need to be ready to go. Keep an eye on your sites and invite your neighbors when the bugs are ready. A good site is a resource that should not go to waste. Maybe your site is the newest best place to harvest. You got the bugs from somewhere, now it's your turn to pass them forward. The number 1 problem we have seen almost universally across the State is not utilizing a site to its full potential.

Sounds like fun? It is. Hope to see you around this summer or better yet, give us a call and we would be happy to help.

**Dave Hirsch, Jim Jeske, Terry Reule, Keith Winks**

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