

Leafy Spurge *News*

Agricultural Experiment Station
NDSU Extension Service
North Dakota State University, Fargo, ND 58105

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1998 Leafy Spurge Symposium in Colorado Springs **Cancelled**

From the Editors Desk

I am sure this headline caught your attention. Yes, it is very unfortunate but George Beck notified me a couple of weeks ago that he had to cancel the meeting because of lack of interest, not only by presenters but also by participants. I hope the problem was not one of communication but of work conflicts. He had a deadline to meet from the Hotel and he was not going to be left holding the bag! He then tried to see if he could arrange for a one day meeting in the Ft. Collins area. The date coincided with "Frontier Days Celebration in Cheyenne, WY and all motels were booked as far south as Ft. Collins.

So for the first time since 1979 we will miss a year in our Symposium Series. At this stage of the game breakthroughs do not happen so often and demonstration projects take time so we should have more news in 1999. Usually we have our meeting in the month of August so we will plan to have the next Symposium sometimes during the first two weeks of August 1999. Watch future issues of **Leafy Spurge News** for further information.

The lack of a meeting this summer has some serious implications for your editor. Unless many of you out there can send me some information about what YOU ARE DOING about or with Leafy Spurge the October issue of **Leafy Spurge News** will be a mighty slim one. So once again **it is up to you**, please don't let me down!!!! My job is to report the news, not to make them up.

Some excellent videos have been made about leafy spurge control. I had hoped to bring two to the symposium for showing to participants. The first one is called "Beetles and Billies: Your Buddies in the Battle Against Leafy Spurge", lasts 24 minutes. It is designed as a learning tool for private land owners, public land managers, weed control professionals, elected officials and other partners interested in controlling growing infestations of leafy spurge. It was produced in 1997 by the Caribou National Forest. If you would like a copy call the Caribou National Forest at (208) 236-7500 or the BLM Pocatello Resource Area office at (208) 236-6860. The second one is called "How To Raise Leafy Spurge Flea Beetles," 15

minute instructional video made by the North Dakota Biological Control Coordinating Committee. It was produced by Prairie Public Television, 1997. You can obtain one by mailing your request and \$3.00 for each copy ordered payable to the North Dakota Weed Control Association. Mail your request to ND Dept Agriculture, 600 E. Blvd, Dept 602, Bismarck ND 58505-0020.

The 11th Annual Nebraska Leafy Spurge Conference and Tour will take place August 12-13, 1998 in Chadron, Nebraska. There will be a full day tour of leafy spurge sites on the 12th, and the conference will take place on the 13th. This is very interesting part of Nebraska, very picturesque. If you are interested and would like additional information please call Gene Lehnert (402) 684-3346.

In the last issue you may remember concern about possible **Aphthona** flea beetle winter kill because of lack of snow cover. I have just talked with Dr. Robert Carlson of the Department of Entomology at NDSU. He informed me that you can all lay those concerns to rest as normal winter survival rate were seen both in the Minot area and in the Valley City area. That is good news indeed!

Just as this issue was going to press, I received a Fax from Ken Thacker, in Idaho, revising his article because of problems with Navaho goats. He mentioned that somehow grazing with sheep just doesn't have the sex appeal that using goats does. See his article on page 7.

C.H. Schmidt, Editor

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Rod Lym Receives Range Management Achievement Award

Dr. Rod Lym professor of plant sciences at NDSU, who was our Leafy Spurge Honoree last February, received the Outstanding Achievement Award from the Society for Range Management. This award recognizes career contributions and was presented at the 51st annual meeting of the society at Guadalajara, Mexico in February 1998. **Leafy Spurge News** congratulates Rod Lym on this latest achievement.

Rod was an invited speaker at the society's Symposium on Noxious Weed Control in 1997 and has been an invited instructor at the Noxious Weed Short Course, sponsored by the Western Society of Weed Science, for the past years.

Rod, a recognized authority in rangeland weed control, coordinated research efforts and technology transfer of weed control programs throughout the northern Great Plains. He also participated in developing leafy spurge management plans for the Theodore Roosevelt National Park and the N.D. National Guard training lands.

Leafy Spurge Honoree

Dr. K. George Beck



Dr. K. George Beck

George was first introduced to leafy spurge at the 1985 Leafy Spurge Symposium at Bozeman, MT. He had been hired recently by Colorado State University, but still was finishing his dissertation at the University of Idaho when an announcement to attend the Symposium arrived

in the mail from his new boss. George thought it prudent (he is quick to catch these subtle little hints) to attend the Symposium even though he had not heard of this weed before. It turned out to be a good decision because after he arrived in Colorado, George found out that leafy spurge was a very serious problem in the state. At the time, many people still thought leafy spurge was nothing more than a pretty wildflower — wow, were they ever misinformed!

Colorado's new obnoxious weed guy began his first leafy spurge experiment in 1986. The project was to evaluate several different herbicides to control leafy spurge under the growing conditions in Colorado. The late Dr. Harold Alley (Leafy Spurge Honoree V. XIX #2 May 1997) provided George with extraordinary help and guidance as he began his leafy spurge research and extension project. Dr. Alley helped George set up experiments and participated in several leafy spurge extension education programs. The first area where George conducted experiments to control leafy spurge was on about a 4-acre infestation 10 miles north of Ft. Collins. It took only 2 years to use every square inch of this area for experiments, but finding new sites was no problem. George's project at Colorado State University participated in all of the regional leafy spurge control experiments that were designed and conducted cooperatively by the researchers that regularly attended the Leafy Spurge Symposia. These were very valuable learning experiences and George

immediately used the newly acquired knowledge in his extension education program.

George's background is in animal science and he became intrigued with the prospects of using grazing livestock to manage noxious weeds. A few researchers were conducting experiments with sheep and goats to control leafy spurge and he thought this might be a useful approach in Colorado. He collaborated with Dr. Larry Rittenhouse, an international grazing expert in the Rangeland Ecosystem Science Department at CSU, to research whether sheep grazing in spring and summer would improve leafy spurge's susceptibility to fall applied herbicides in Colorado. More recently, George and Larry have been conducting a large experiment to test the hypothesis that sheep grazing is synergistic with leafy spurge flea beetles to control the weed.

Leafy spurge proved to be a good "whipping boy" used by the Intermountain Noxious Weed Advisory Council (INWAC) in their efforts to improve the Federal Noxious Weed Act. INWAC worked diligently for years to improve the law and give federal agencies the responsibility and impetus to manage noxious weeds. Using leafy spurge as an example of what can happen proved to be most valuable for INWAC's pursuit of noxious weed justice. George has chaired INWAC since its inception in 1987.

Given the tenacious nature of leafy spurge, George and his colleagues that work on leafy spurge have job security and a lifetime of research challenges and entertainment.

K. George Beck

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TEAM Leafy Spurge Coordinator Hired

TEAM Leafy Spurge has hired ecologist Chad Prosser, who has six years of experience working with the invasive noxious weed project, as its project coordinator.

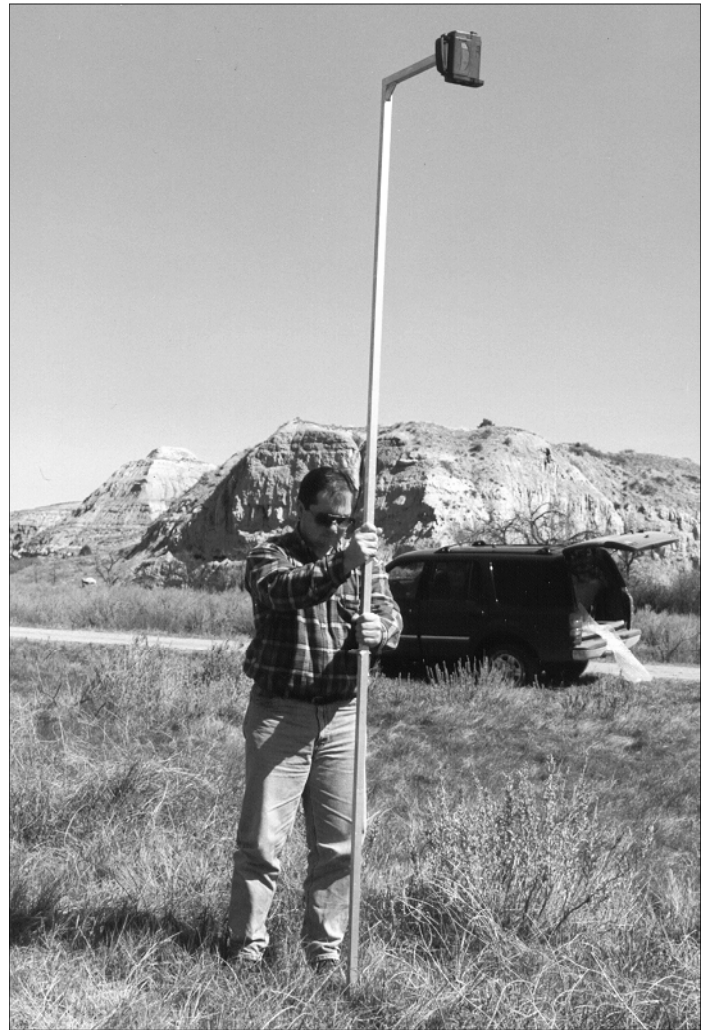
Prosser, a graduate of North Dakota State University, is now stationed at the USDA-ARS Northern Plains Agricultural Research Laboratory in Sidney. He'll be responsible for coordinating TEAM Leafy Spurge activities and getting usable information to farmers, ranchers and other land managers throughout the region.

Prosser said he's excited to be a part of TEAM Leafy Spurge. "It's a great opportunity to help solve some of the problems that exist," Prosser said. "I've seen leafy spurge spread dramatically in some areas during the past six years, and I'm looking forward to helping show that Integrated Pest Management can be used to effectively control the problem."

TEAM Leafy Spurge's goals, he said, are simple. "We're here to help land managers — that's the bottom line," Prosser said. "It's our job to provide a variety of different control mechanisms that give ranchers and land managers an opportunity to choose the method that best suits their needs."

Prosser worked on leafy spurge projects while completing his Master's and Ph.D. degrees, both in Animal & Range Science, at North Dakota State University. His Master's project involved a multi-species grazing trial using goats and cattle to control leafy spurge. "We hypothesized that goats would graze the leafy spurge communities, allowing grasses to compete with the spurge," Prosser said. His Ph.D. work involved three different topics: The impact of tracked vehicle use on soil and vegetative characteristics; a study of burning versus non-burning in combination with different herbicide application rates of Picloram and 2,4-D as a tool to control leafy spurge; and a plant community description of the 10,000-acre Camp Grafton South to evaluate the relationships between plant communities and soil variables.

Dr. Gerald Anderson, co-chief principal investigator for TEAM Leafy Spurge project, said Prosser is



Chad Prosser, who was recently hired as the TEAM Leafy Spurge program coordinator, takes leafy spurge pictures at a site near Medora, N.D., with the new COAST digital imaging system.

a welcome addition to the TEAM leafy spurge program. "We're extremely fortunate to have found someone with Chad's background and experience," he said. "He knows a lot about the problem and is a hard-charger who will get the job done."

If you have a question or comment about the TEAM Leafy Spurge project, contact Chad at the USDA-ARS Northern Plains Agricultural Research Station in Sidney, Mt. (406-482-2020) or via e-mail at cprosser@sidney.ars.usda.gov

TEAM Leafy Spurge Communications Specialist Hired

Journalist Steve Merritt has been hired as TEAM Leafy Spurge communications specialist through Montana State University. A graduate of Southern Illinois University in Carbondale, Merritt will be working under the direction of TEAM Leafy Spurge program coordinator Chad Prosser and co-principal investigator Gerald Anderson at the USDA-ARS Northern Plains Agricultural Research Laboratory in Sidney, Montana. He'll be responsible for disseminating TEAM Leafy Spurge information to the general public, documenting the project's progress and providing administrative assistance to project participants.

"This is a welcome change of pace," Merritt said. "As the name implies, Team Leafy Spurge stresses teamwork, and that really appeals to me. I'm looking forward to working with Chad, Gerry and other TEAM members.

Merritt has been managing editor and sports editor at daily and weekly newspapers in Montana, Wyoming and South Dakota, and has written numerous articles about agriculture and resource management.

S. Merritt can be reached at (406) 482-4848 or steve@mail.usda.ars.gov

TEAM Leafy Spurge

The Ecological Area Management (TEAM) Leafy Spurge program demonstrates precision-targeting of practical, integrated leafy spurge management strategies for private, state and federal land managers along the Little Missouri River drainage in Montana, Wyoming and North and South Dakota.

TEAM Leafy Spurge is funded by the USDA-Agriculture Research Service in partnership with the USDA-Animal & Plant Health Inspection Service. An ad-hoc management committee composed of private, state and federal land managers and researchers helps direct the program.

TEAM participants include USDA-ARS, USDA-APHIS, the U.S. Forest Service, the U.S. Bureau of Land Management, the National Park Service, state departments of agriculture, state extension services, land grant universities, county weed managers and ranchers in the four-state region.

Using *Apthona nigriscutis* in the Battle Against Noxious Weeds in Idaho

Background: Leafy spurge infestations are increasing dramatically on federal, state and private lands in the west creating both economic and ecological problems. Since the early 1970's, leafy spurge on the Malad Ranger Districts has grown from less than 100 acres to over 2,000 acres. During the same period, approximately \$250,000 was spent on labor, equipment and chemicals at the district level to combat this noxious weed.

It is very apparent that successful control of leafy spurge, and other noxious weeds, will not take place without a cooperative approach by all land managers. Biological control agents, unique grazing practices and special land management practices are required to control noxious weeds.

Special Action: In the winter of 1996-1997, multiple mini-meetings were held within a five county area of southeast Idaho. Rick VanBebber, Rangeland Management Specialist, and Carol Jones, Resource Assistant, on the Malad Ranger District focused on county Weed Supervisors, representatives of state and federal land management organizations and their customers to establish a cooperative network reaching to the grass roots level in each county. These meetings involved people responsible on various levels for noxious weed control. There was definite agreement on the spreading epidemic of leafy spurge and interest in biological control agents, unique grazing practices, and special land management practices are required to control noxious weeds.

On July 22, and 23, 1997, the Westside/Malad Ranger District sponsored a two-day biological control Field Session in Black Canyon located southeast of Malad City, Idaho on the Caribou National Forest. The Field Session involved 70 people, including Forest Service experts in satellite imagery, monitoring, entomology,

forest pest management, noxious weed management, watershed and range management. In addition, APHIS, Idaho Department of Highways, BLM, Sawtooth and Targhee National Forest personnel attended. Weed Superintendents from Bannock, Franklin, and Oneida Counties in Idaho and Box Elder, Cache, and Weber Counties in northeastern Utah also participated along with numerous private land owners.

The Field Session's objective was to gain common understanding about the leafy spurge life cycle and introduce the *Apthona nigriscutis* beetle (biological control agent) and its life cycle, habitat and effects on leafy spurge. Attendees were shown how to collect, sort, handle, and redistribute the beetle. Group leaders stressed the importance of managing a thriving insectary so that beetles can be collected and redistributed from new sites.

During the afternoon's hands-on sessions, *A. nigriscutis* beetles were identified, collected, sorted, packaged and prepared for shipment. Approximately 50,000 beetles, collected by participants, were released on various weed sites within 24 hours. The second day focused more on Forest Service grazing permittees collecting and redistributing *A. nigriscutis* beetles on grazing allotments and private lands. Thirty-five permittees and USFS employees participated in the roundup of beetles on the second day. Approximately 150,000 beetles were gathered in three hours.

Results: In total, over 200,000 *A. nigriscutis* beetles were collected and distributed in southeastern Idaho and northeastern Utah. Even if only one-half of the beetles collected and redistributed were females, and those 100,000 beetles were midway through their egg laying cycle, the population would still increase to 20,000,000 potential new biological agents now present in leafy spurge infested sites, preparing for 1998 attacks on the noxious weed.

Future Plans: Meetings with potential partners toward forming a Weed Management Cooperative with federal, state, and county managers are ongoing. A draft organization and operating plan will be developed this last winter for approval and trial during 1998. An associated agreement includes details of policy, fiscal accountability requirements, resources

available from each federal, state, and county represented, and acceptable work priorities.

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Integrated Leafy Spurge Management in Idaho

Here in Bannock County, Idaho, a Leafy Spurge Task Force has been formed between the County, a Resource Conservation and Development Council, four State agencies, two federal agencies, and local ranchers. The Task Force was created to develop an integrated Pest Management approach for leafy spurge, as well as several other species of noxious weeds. The objectives of the plan include increasing public awareness of the problems caused by noxious weed infestations, inventory of weed infestations, chemical treatment of weeds, establishment of biocontrols, and grazing leafy spurge with goats.

Preliminary trials of grazing leafy spurge with goats were conducted in 1997. About 240 goats and sheep were shipped from the Navajo Reservation in Arizona to graze in an area within a spurge infestation of several thousands acres. Although it is well established that goats will forage on leafy spurge, we didn't know if the rugged topography or predation would be a problem. The goats were in Idaho from the middle of June through the middle of September. The major lessons learned in 1997 were that Navajo goats gain weight eating Idaho leafy spurge, that 240 goats and sheep were not enough for an infestation of this size, that the spurge should be grazed earlier, and that predation did not occur.

In 1998 grazing with about 1000 goats was planned from April 15 through the middle of September. However concerns on the reservation about importing leafy spurge seed prevented the continuing of the project with Navaho goats. This season, the area is providing forage for approximately 1600 local sheep while another large herd of goats is being located.

Studies have been established to measure the effects of grazing on leafy spurge plant density and to determine if the combination of chemical treatment and grazing has added benefits for control of spurge. Grazed and ungrazed test plots have been established with portions sprayed with Tordon 22K and 2,4,D. Other studies have been established to compare the effects of sheep grazing with goat grazing on the vegetative community. For more information please contact Ken.

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Two-Day Workshop on Biological Control of Leafy Spurge Offered in North Dakota

June 17-18, 1998

7 Seas Inn Conference Centre
Mandan, North Dakota

This two-day course is designed to train people who manage a biological control program for leafy spurge. Registration will begin at noon Wednesday, June 17, at the **7 Seas Inn Conference Centre, Mandan**. Lectures will begin at 1 p.m. at Mandan High School. There will be a no host, evening social and meal. The course will include field training and a small amount of collecting of *Aphthona czwalinae/lacertosa* and *A. nigriscutis* on Thursday June 18 1998. Transportation to and from the field will be provided.

There are a limited number of rooms available at the 7 Seas Inn Conference Center. Please call 1 800 597-7327 now to make a reservation. Another block of rooms has been reserved at the Ridge Motel (1 888 663-8686). The Ridge Motel is directly across the street from the 7 Seas Inn and both are located just off Interstate 94, exit 152, at Mandan, ND.

Class size is limited to 75 participants and registration is on a first come, first serve basis. Registration for the school, as well as additional information, can be obtained by calling Cindie S. Fugere at (701) 227-7414.