

# Hawkweed News

*Hawkweed in meadow near St. Maries, ID*

## *From the Editor*

Inside this issue:

<i>University of Idaho Hawkweed Activities</i>	2
<i>Biocontrol Symposium</i>	3
<i>Recent Publications</i>	3
<i>Hawkweed Happenings</i>	4
<i>HACI Info</i>	4
<i>Biological Control Info</i>	5
<i>Let Us Know.....</i>	6

Greetings to all. It has been a while since a Hawkweed News was published, and there is much to report. Unfortunately, the spread of meadow hawkweed has not slowed since the last Hawkweed News was published in 1997! As a result, county extension educators, county weed supervisors and we at the University of Idaho are receiving many more inquiries about how to con-

trol hawkweed. So in this issue we have focused on how to combat the spread of hawkweed. You will notice that most of the hawkweed activities involve the cooperative efforts of several groups. Managing hawkweed effectively must involve the efforts of not only farmers, ranchers, and small landowners, but also private companies and public agencies. Efforts to promote a biological con-

trol program are stepping up. Thanks again to the Hawkweed Action Committee, Inc. (HACI) for funding the printing and mailing of this newsletter. Thanks also to Michel Brockington for her layout of this newsletter, her article on UI Hawkweed Activities, and for her design of our new hawkweed logo.

-Linda Wilson

## *Panhandle Weed Management Area*

The Panhandle Weed Management Area is a newly formed group that encompasses the five northern counties in Idaho; Lincoln, Sanders, and Mineral Counties in Montana; Spokane and Pend Oreille Counties in Washington; and the Regional District of East Kootenay in British Columbia. The purpose of

the PWMA is to bring together those responsible for weed management, identify and control weed populations, develop coordinated pest management programs, and to increase public awareness and support for weed control efforts in the PWMA area. They are a very active organization of committed indi-

viduals representing many state and federal agency employees, universities, counties, and private landowners. Contact your local weed supervisor or county extension agent/educator for more information.

**“Never doubt that a small group of committed citizens can change the world. Indeed, it’s the only thing that ever has.”**

**-Margaret Mead**



## University of Idaho Hawkweed Activities

*"This type of research can thus give a better idea of the kinds of natural enemies that would curb hawkweed growth."*

### On Hawkweed:

"It monopolizes the soil, killing all grass plants and covering the surface with a dense mass of leaves. It is not good for hay. Its only redeeming feature is its beauty, which is poor recompense for its other characters".

F. L. Harvey. 1897. Maine



This spring, Linda Wilson completed her doctoral degree on hawkweed. Her research breaks the ground for biological control of hawkweed as well as discloses some new findings about this weed. The research draws from three experiments: a greenhouse experiment a UI farm experiment, and a wild population near Santa, ID. The study's objective was to learn about hawkweed's response to damaging parts of the plant, namely the flower stem (a.k.a.scapes) and creeping runners (or stolons). This damage would mimic the feeding pattern of a potential biocontrol insect. The greenhouse and farm experiments used stolon and scape damage in different ratios to see if this would affect growth. Plants were given treatments of either all , half, or no removal of their scapes and/or stolons. In essence, the idea was to attack the structures that an insect in the plant's native environment would. This type of research can thus give a

better idea of the kinds of natural enemies that would curb hawkweed growth. These studies revealed that a biocontrol agent that feeds only on scapes or stolons is not enough to put stress on this plant; rather, the insect needs to feed on all parts of the plant repeatedly throughout the growing season.

In addition, a wild population of hawkweed near Santa, ID, was

treated with different rates of fertilizer for three growing seasons. This was done to see if pasture grasses could grow enough to squeeze out the hawkweed. However, Wilson found the hawkweed also benefits from fertilizer, and her plots soon were packed with big, healthy hawkweed! She found that combination of fertilizer treatments would be important with a biocontrol insect in order to slow the spread of hawkweed.

*-Michel Brackington*



*A stolon, or runner, from main plant.*

### A Call for Research

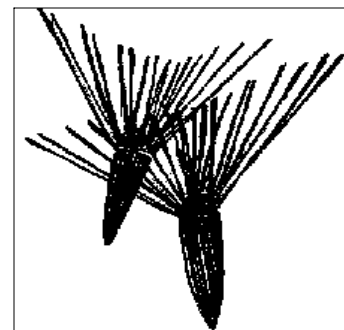
RESEARCH ACTIVITIES are planned for 1999 and 2000. More research is needed to address things such as ...

- 1) Effective herbicides, their rates and formulations.
- 2) Timing and amount of fertilization.
- 3) Best cultivation and reseeding practices.
- 4) Hawkweed control in forests.

Planning for this research is underway and we expect to begin this fall. For more information, contact Linda Wilson at the University of Idaho, at 208-885-9489.

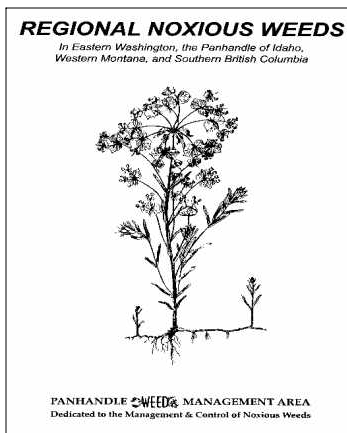
# International Biocontrol Symposium to be held July 4-9, 1999, in Bozeman, MT

Biological control of weeds scientists from around the world will gather for the Tenth International Symposium on Biological Control of Weeds in Bozeman, Montana from July 4-9, 1999. Scientists from all the universities in the region will be attending the symposium. Linda Wilson from the University of Idaho will be meeting with Europeans, Canadians, New Zealanders and others from all over the world to discuss biological control of hawkweed in the US and Canada. Readers interested in obtaining more information on this meeting or about Biological Control are encouraged to contact Linda Wilson at the University of Idaho.



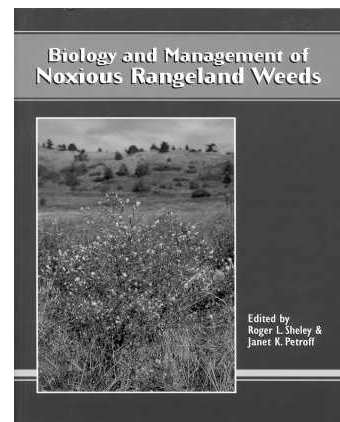
*Seeds of change in the world of hawkweed management*

## Recent Publications



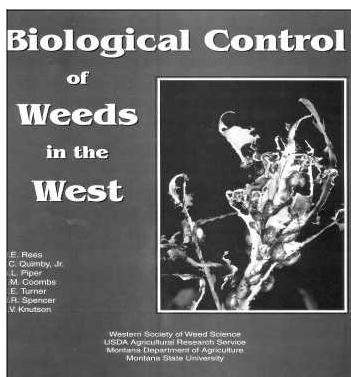
Left: Regional Noxious Weeds in Eastern Washington, the Panhandle of Idaho, Western Montana, and Southern British Columbia, written and published by the Panhandle Weed Management Area. Contact your local weed supervisor or county extension agent/educator for your free copy.

Right: Biology and Management of Noxious Rangeland Weeds, edited by Roger Sheley and Janet Petroff, is available from Oregon State University Press, 101 Waldo Hall, Corvallis, OR, 97331-6407.  
tel.: 541-737-3166  
fax: 541-737-3170



HAWKWEED WEB SITE is under reconstruction; look for us back online this fall.

Right: Biological Control of Weeds in the West, available from Montana Department of Agriculture, Box 200201, Helena, MT 59620.



PNW 499

## Hawkweeds

*Hieracium aurantiacum*, *H. pilosella*,  
*H. pratense*, *H. floribundum*, *H. piloselloides*

**A**ncient Greeks thought that hawks ate the sap of hawkweeds to sharpen their eyesight. Today, however, hawkweeds are an eyesore to those whose land they have invaded (Figure 1). These rapidly spreading, tenacious weeds, introduced from central and northern Europe, are recent arrivals in






Fig 1. Meadow hawkweed infestation. Fig 2. Orange hawkweed.

Above: Hawkweeds is the new extension bulletin on hawkweed. Request PNW Bulletin No. 499. Available from the Agriculture Publications office at the UI; Tel 208-885-7982.

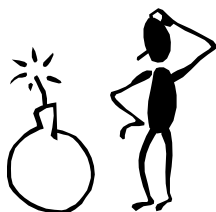


## Hawkweed Happenings

A HANDS ACROSS THE BORDER hawkweed tour was held June 22 for a group of Canadians from southeaster British Columbia. The tour was sponsored by Gene Gibson, Extension Educator in Bonner County, Sandpoint. The Canadians are very concerned about the spread of hawkweed into southeastern British Columbia. Gene gave them a tour of some hawkweed in our area, and what an eyeful they got! Local HAWKWEED TOURS were also conducted on June 21-22 in Benewah County, sponsored by the

Benewah Soil and Water Conservation Service. We began the day with a brief presentation by Linda Wilson of the University of Idaho, Ben Marsh, a private weed control contractor, and Mark Addy of the Natural Resource Conservation Service. We then loaded into our vehicles and headed for several very interesting tour stops, including herbicide and fertilizer test plots put out by the University of Idaho. Also toured were the properties of Richard Wilks and Charles Husky who have faced different chal-

lenges controlling hawkweed in their hayfields. In addition to the informative tour stops, there were great discussions and shared knowledge. The tour was so successful that the Benewah Soil and Water Conservation District is hosting another tour on July 9. Anyone interested in learning about hawkweed control is encouraged to join this tour. Contact Phoebe Sheldon at the Benewah Soil and Water Conservation District (208-686-1699). Thanks to Phoebe for organizing a great tour.

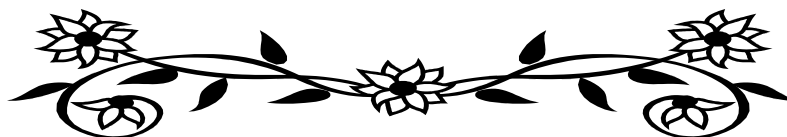


*Hawkweed invasions are ticking time bombs.*

### Did You Know...

.....that hawkweed only regenerates by seed 10% of the time?

Most Reproduction is by vegetative growth, stolons, and sprouts from adventitious root buds.



## HACI Update

HAWKWEED ACTION COMMITTEE, INC., continues to provide strong support for hawkweed management, particularly looking toward biological control. The current president of HACI is Dale Dimico of St. Maries. For additional

information on HACI, you can write to HACI, 1806 Main Street, St. Maries, ID 83831, or call 208-245-2221 (email:www.nidlink.com/~haci ) New members are always welcome.



*HACI works to stop the spread of hawkweed.*



## *Biological Control Information*

### *BIOCONTROL DOWN UNDER*

Biological control of hawkweed begins in New Zealand.

Two insects, a moth and a wasp, were imported into New Zealand in 1998 for biological control of mouse ear hawkweed. New Zealand has a very serious problem with mouse ear hawkweed in the South Island sheep grazing land. New Zealand worked very closely with scientists in Switzerland and France to find and test insects that only ate mouse ear hawkweed.



*The plume moth, Oxyptilus pilosellae, taking care of mouse ear hawkweed in New Zealand.*

### *BIOLOGICAL CONTROL OF MEADOW AND ORANGE HAWKWEED*

can become a reality in our area, however, in order to do so requires dollars. It is important to understand that we can benefit from the work already paid for by New Zealand. Since the European research station is already geared up for testing insects, it would cost us MUCH LESS to establish biological control of hawkweed in North America. Thus, the time to act is now.



### *HAWKWEED BIOCONTROL MEETING PLANNED*

A Biological Control of Hawkweed Meeting will be held July 29 in Coeur d'Alene.

The purpose of this meeting is to plan and identify sources of money to fund overseas studies of biological control insects. The intent is to establish a working consortium of various funding agencies and organizations and to coordinate the work with scientist in Europe. This meeting is being sponsored by the Hawkweed Action Committee and the University of Idaho.



" New Zealand imports insects for biological control of hawkweed"

**Keys** To win the war against hawkweed:

- ⇒ Early detection
- ⇒ Eradication of small patches
- ⇒ Preventing Spread
- ⇒ Improving Soil Fertility
- ⇒ Use several control strategies on large patches

Non-Profit Organization  
U.S Postage  
PAID  
Moscow, ID 83843  
Bulk Permit No. 120

University of Idaho  
Hawkweed News

*Linda Wilson, editor  
Dept. Plant, Soil, and Entomological Sciences  
University of Idaho  
Moscow, ID 83844-2339*

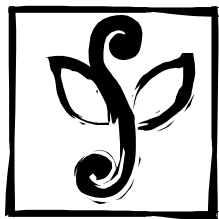


*Let's hear from you Hawkweed fighters!*

*Let Us Know.....*

**H**awkweed begins gradually...one year, a few yellow flowers appear along your roadside. The next year, a few more. Quickly, these small patches expand until your entire field is inundated with this pretty yet devastating weed!

We would like to know about your hawkweed problems and solutions. If you are watching this weed march further up your rural road each year, or have an outbreak of it on your land, we'd like to hear from you. Also, if you have had success in stopping its spread, let us know what helped you. Please contact us at:



University of Idaho  
Dept. Plant, Soil, and Entomological Sciences  
Attn: Linda Wilson  
Moscow, ID 83844-2339  
tel 208-885-9489 | fax 208-885-7760, email: [lwilson@uidaho.edu](mailto:lwilson@uidaho.edu)