



*Harney County Cooperative Weed
Management Area*

450 N. Buena Vista Ave. #10 ~ Burns, OR 97720

Phone: 541.573.8385 ~ Fax: 541.573.8378

2012 Harney County CWMA Season Report

The brightest star in our 2012 galaxy of accomplishments was hands-down, the aerial medusahead treatment project.



Check us out on the web at:

<http://www.co.harney.or.us/weedscwma.html>

Partners

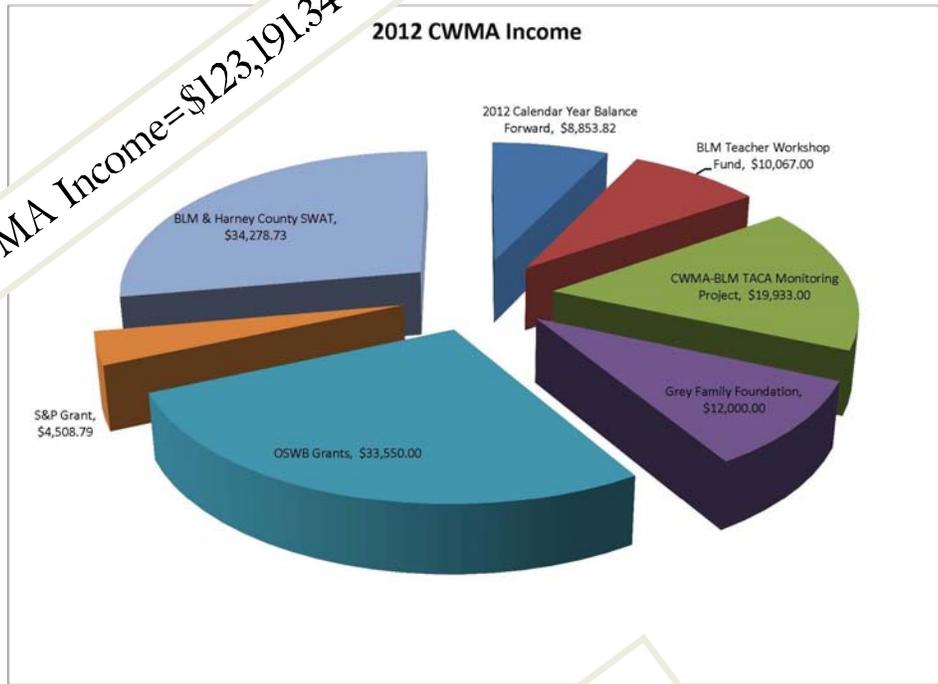
This is the 8th year of the CWMA. The CWMA operates under an approved MOU and newly developed MOA. Revisions have been made this year to the MOU and as of December those changes have been ratified by the CWMA partners. The Newly developed MOA was developed to clarify the roles and responsibilities of the CWMA and its fiscal agent, the Harney SWCD.



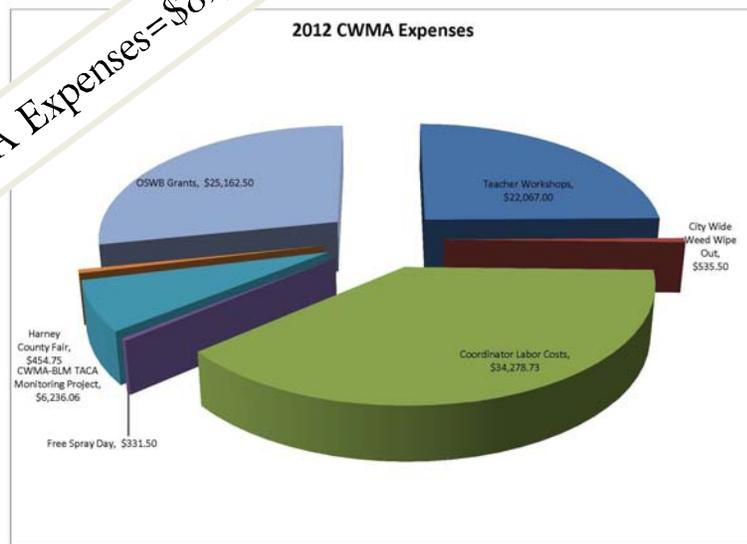
Harney County Weed Board
Burns District Bureau of Land Management
Harney County OSU Extension
Harney County Watershed Council
Harney Soil & Water Conservation District
USFW Malheur National Wildlife Refuge
Oregon Department of Transportation—District 13
Harney County
Oregon Department of State Lands
*USFS Emigrant Creek Ranger District**
*Eastern Oregon Agricultural Research Station**
Burns District Natural Resource Conservation District Office
*Burns Paiute Tribe**
*Oregon Department of Fish & Wildlife**
Advisory: Oregon Department of Agriculture

Financials

Total 2012 CWMA Income = \$123,191.34



Total 2012 CWMA Expenses = \$89,066.04



Most of this difference is allocated, just wasn't expended in 2012.

Annual Operating Plan

HC CWMA Annual Operating Plan Committed Funds 2012/2013

What	When
<u>Education/Awareness Events</u>	
Weedy Evening-Hay Growers	March 28th
Pesticide Recertification Training	April
Weeds in the Classroom	April
Free Spray day 2012	June
City Wide Weed Wipeout	July
Alien Invasion Curriculum	August
HC Fair 2012	September
<u>On-The-Ground Weed Projects</u>	
Riley area extensive weed inventory	May-June
South End Noxious weed control	May-October
Otis Valley Noxious weed control	May-October
BLM-CWMA TACA Monitoring Project	July2012-June2013
Range Land Monitoring Project	July2012-June2014
County Wide TACA Treatments	Sept-Oct
<u>Cooperative Projects (Continuing)</u>	
HV African Rue	June-August
Material Sites	All Summer
<u>Biological Control Projects</u>	
Dalmatian toadflax	June
Canada Thistle	June/July
Purple Loosestrife	July
Diffuse Knapweed	July

Education & Awareness

Harney County's Hay Growers Workshop

For this year's CWMA sponsored outreach program, the Harney County CWMA decided to target the local hay growers. Hay production that is infested with noxious weeds is a major issue in regards to the spread of these weeds throughout the county. This focus topic drew in a lot of local producers and they left the meeting understanding how the choices they make can impact our county as well as some options for individual weed control. The overwhelming success with this topic has the CWMA considering using the topic once again in 2013!!

Harney County Hay Growers Class
Course Date: March 28, 2012
Harney County Court House Basement Meeting Room
450 N. Buena Vista Ave.
Burns, OR 97720

Credits from ODA have been requested

1:00-1:10 pm **Sign In**

1:10-2:10 pm **Weed control methods in Alfalfa fields**

Provide best practice guidelines for mitigating noxious weeds in alfalfa fields. Provide research results.

Mylen Bohle-OSU Extension

2:10-2:40 pm **Weed control herbicides for grass/meadow hay**

Controlling noxious grass weeds in a grass pasture using the herbicide Cantor

Dan Comingore-Wilbur Ellis

2:40-3:10 pm **Poisonous weeds in hay and pastures**

Identification of known poisonous weeds/plants within Harney County that can be found in pasture settings

Dustin Johnson-OSU Extension

3:10-3:40 pm **Using your water smarter**

Methods to improve crop production and reduce noxious weed infestation through proper irrigation methods

Tony Rutherford-Harney County Water Master

3:40-4:15 pm **Weed Free Certification Information:**

Information on becoming a weed free forage producer; how to be certified, certification requirements, cost.

ODA Personnel- Bonnie Rasmussen

4:15-4:30 pm **Register for Credits**



Education & Awareness

Pesticide Recertification Training, 2012

Harney County Pesticide Recertification Training

Harney County Court House
450 N. Buena Vista Ave., Burns
March 29, 2012
9:00 am ~1:45 pm

ODA Credits Pending

- 9:00 am – 10:00 am** **Noxious Weed ID-** Bonnie Rasmussen, ODA: Identification of noxious weeds in Harney County based on both the State Noxious Weed list and the Harney County Noxious Weed List. Identification of possible new invaders and where they may appear first.
- 10:00am – 10:45am** **Control of Annual Grasses-** Dan Comingore, Wilber Ellis: Information on new chemistries and management options to control annual grasses in a pasture setting.
- 10:45 am – 11:45am** **Laws & Safety Up date-** Laurie Gordon, ODA: Information on the new NPDES Permits; Review of Federal and State laws for pesticide applications.
- 11:45 am – 12:30 pm** **LUNCH**
- 12:30 am – 1:15 pm** **Resistance Management -** Mark Hansen, Crop Production Services: Looking at resistance management though different modes of action.
- 12:30pm – 1:45 pm** **Label Comprehension-** Jesse Barnes, Harney County Weed Control: Herbicide label review and comprehension. Using the label in practicable situations.

This years pesticide recertification class was held on March 29, 2012 and was sponsored by Harney County Weed Control. We had good attendance at this years recertification class with 15 people in attendance. The topics covered are above and we think we covered a wide range of topics within the pesticide realm. We had speakers from herbicide rep folks to Oregon State ODA representatives to our local county weed supervisor.

Education & Awareness

Free Spray Day 2012



This years Free Spray Day was held at the fair grounds during the annual "Spring Fling". We hoped holding it here would gain exposure and more participation then past years. The weather was finally good this year and we handed out hundreds of gallons of pre-mixed turf labeled herbicide to residents of Burns and Hines. The CWMA loves this program and is planning on continuing it for years to come.

Date & Time: **June 1st from noon to 5PM**
June 2nd from 9AM to 3PM

Free Spray Day!!

Harney County CWMA will be giving away mixed ready-to-spray herbicide on Friday and Saturday during the [Harney County Spring Fling](#) held at the Fair Grounds. The mix can be applied to most any weed in your lawn and driveway. Bring your sprayer! Free Spray is available on a **FIRST COME FIRST SERVED** basis!

When: June 1st and 2nd
Where: Harney County Spring Fling held at the Fairgrounds
LOOK FOR THE BIG BLUE WEED WAGON

Contact person: **Jim Campbell @ 573-8385**

This event is sponsored by your Harney County CWMA Partners

City Wide Weed Wipe Out 2012

Burns-Hines OverView



Map of 2012 Participants

Every year the CWMA puts on what we call a City Wide Weed Wipe Out. The program is designed to help people in the Burns-Hines area that have a larger weed issue on their city lot or those that are unable to get out and treat their weeds. This years participation level was lower then in past years, but we think it was a success yet again this year. The CWMA is planning on putting this program on for years to come.

CITY WIDE WEED WIPE-OUT

HARNEY COUNTY COOPERATIVE WEED MANAGEMENT AREA
CONTACT: JIM: 573-8385



The Harney County CWMA is once again sponsoring the City Wide Weed Wipe out. We are now accepting Cooperative Agreements for anyone interested in having their whole mowed by a licensed applicator. Anyone that owns a lot in or around Burns and Hines is eligible for this program. The licensed applicator will be using a chemical that treats a large range of broad leaf weeds and is labeled for turf and ornamental use.

What: City Wide Weedy Project
When: Mid Early June
Cost: \$30.00 per lot.

To participate in this project you will need to sign and return a Cooperative Agreement before June 7th. Contact the Harney County Weed Control office for more information @ 541-573-8385.

Cooperative Agreements can be obtained at the Harney County Weed Control office located in the Court House or on line at www.osu.edu/weed_mgmt.htm



Education & Awareness

Plants on the Move, Teacher Curriculum, 2012



This year funds were secured from the Grey Family Foundation and our local BLM District to support 2 teacher workshops, one on the west side and one on the east side. This project requires lots of time and commitment to make it successful. It was completed in collaboration with Oregon Natural Resource Education Program. This year the east side workshop was held at the Malheur field Station. A total of 24 teachers attended both workshops.

The goal of these workshops is to bring noxious weed education to the classroom through teacher education and involvement.

Eastside Workshop

July 30 – August 3
Malheur Field Station
Harney County
10 Educators



Westside Workshop

August 6 – August 10
Oregon Hatchery Research Center
Philomath
14 Educators

Sadly this is most likely the last teacher workshop to be held in Harney County. In 2013 they plan on holding the east side workshop in Starkey and after that the plan is to hold only one workshop per year and it will be held in Central Oregon. Although we are sad to see this move on, we are proud of what we have started here in Harney County!!

Education & Awareness

Crane FFA and Silvies River Charter School Education and Outreach, 2012

This year the CWMA held noxious weed education outreach at 2 schools. The first school we visited was Crane and we targeted the Crane FFA class. We discussed different noxious weeds and what makes it an invasive and/or noxious weed. We asked this class to design posters that we could display in our 2012 Fair booth. These posters were supposed to be educational posters that people could read and learn from. The Crane FFA class made 4 posters and we put on a "best" poster contest with the members of the winning team receiving a \$30 US Savings bond. We had a lot of votes cast, mostly by the poster makers friends and family, but we think this worked well and the kids had some fun with it.

What is a Weed?

Weed (n): a plant that is not valued where it is growing and is usually of vigorous growth; one that tends to overgrow or choke out more desirable plants.



Common Lambsquarters
This is a highly used in garden in growth. It is not a noxious weed and it is an important species. Do you want to know what it is? "Lambsquarters" is a common name!



Tomatoes are very pretty, edible, and are a great indicator of spring. Do you want them growing in your vegetable garden? Then what about your lawn? Or in your yard?

You would not want tomatoes growing in your lawn...therefore it is a weed. A weed is based on your management objectives and goals.

Noxious Weed: Means any living stage, such as seeds and reproductive parts, of any parasitic or other plant of a kind, which is of foreign origin, is new to or not widely prevalent in the United States, and can directly or indirectly injure crops, other useful plants, livestock, or poultry or other interest of agriculture, including irrigation, or navigation or the fish or wildlife resources of the United States or the public health. ~ from the 1974 Federal Noxious Weed Act.



Orange Hawkweed An introduced perennial plant that reproduces by seed and root. For the ability to invade healthy forests, meadows, and parks. They are general invaders. They are not palatable to wildlife or livestock. Like the dandelion it requires no maintenance and will still grow well in Oregon forests. There are hundreds of thousands acres across Oregon and Washington that have become invaded.



Caprose Spurge A very toxic, no maintenance ornamental plant that often has spines or thorns and flowers in rock gardens. Extremely invasive and toxic. Plant has a milky latex sap that irritates the respiratory, skin, and stomach, especially in children. This plant is not palatable to most livestock or wildlife. This species displaces native and desirable vegetation.

Any plant that causes economical, ecological or physical harm is a noxious weed.

The second school we went to was the Silvies River Charter school located in the old Lincoln Middle School. For this class we covered what is a weed and what makes it a weed. We did a small field exercise out in the community garden to help them be able to identify common garden weeds and other weeds that would be found in a more urban environment. We left this classroom feeling that the kids learned from the exercise and that they understood the importance of controlling weeds in every landscape.

Education & Awareness

Landowner Range Land Monitoring Workshops 2012

The Harney County OSU Extension agent Dustin Johnson is working collaboratively with his fellow OSU Extension agents to put an emphasis on landowner performed monitoring. The idea behind this workshop was to teach the local ranchers how the BLM currently monitors their allotments and why the landowner needs to take an active role in this process. The landowners that attended were all given monitoring toolboxes that included everything a person would need to perform this monitoring on their land and their allotments. Dustin reached out to the CWMA to help him coordinate these events and to introduce the camera on a stick method as well.



About half of the workshop time was spent in the field at an active BLM monitoring site. The landowners received hands-on training during the field work.

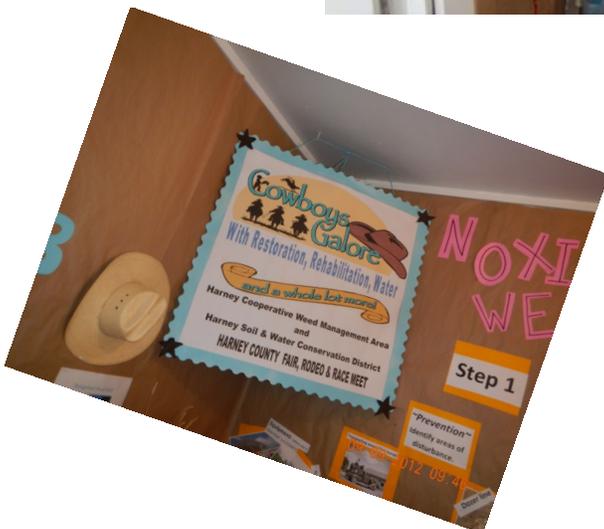


Dustin had fellow speakers from the Burns District BLM, Lake County OSU Extension, and Harney County CWMA. We held 2 workshops in Harney County with about 20 landowners attending between the 2 workshops. Dustin will be helping the neighboring OSU Extension Agents put similar workshops on in their counties.

Education & Awareness

2012 Harney County Fair

This year's fair booth was full of information about fire rehab...literally! Due to the intense fire season that Harney County endured this year we found it fitting to attempt to reach out to those affected. Our fair booth this year tried to give as much information about fire rehab as we could fit into our little booth. We had information about weeds and how they move and flourish during and after a fire. We had information on how landowners can prevent or control these spreads. We had information about seed and fencing assistance programs that were available to those directly affected by these fires. We had information about monitoring methods, seed quality, hay movement....the booth was full of useful fire rehab information to say the least .



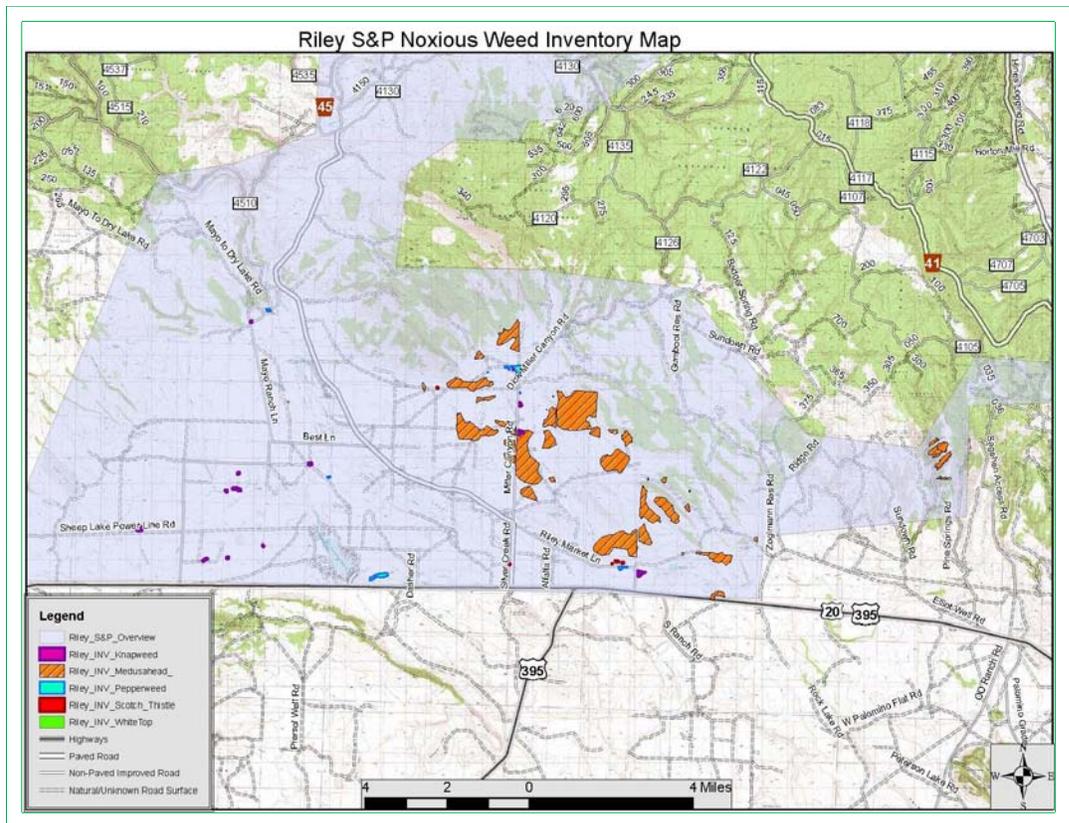
The Harney County 2012 fair booth took 1st place and won the Judges Choice award as well!! It was a good year for us at the fair and now our challenge is to top it next year!

On-The-Ground Projects

Riley Area Noxious Weed Inventory

The Harney County CWMA decided to gain a full knowledge about what noxious weeds that are infesting private and state lands adjacent to US Forrest Service Lands. The US Forest Service is very limited in their treatment options on the forest lands within Harney County. For this reason, it is important to identify the noxious weed issues adjacent to them and stop their spread before they infest our forests. The CWMA targeted the Riley area and drafted a State and Private Land Grant to the ODA, this grant was approved and the CWMA performed a comprehensive inventory of this area in 2012.

The Harney County CWMA inventoried over 20,000 acres of state and private lands in the Riley area. Of this 20,000 acres, we found the following noxious weeds infesting the following acres:



Total area infested by Medusahead Rye: 2,842 acres

Total area infested by Perianal Pepperweed: 31 acres

Total area infested by Russian Knapweed: 19 acres

Total area infested by Scotch Thistle: 26 acres

Total area infested by White Top: 12 acres

The Harney County CWMA is working with its members and the landowners/managers to develop a treatment plan for these noxious weeds, we will be starting with the Medusahead rye in 2013.

On-The-Ground Projects

Harney County SWAT

Strategic Weed Attack Team

STATs:

In 2012 the SWAT was a 4 person crew.

They started up in May and finished up in November. Unfortunately, rangeland operations were shut down for about a month and a half due to EXTREME fire danger.

Despite shut-downs, the crew surveyed **60,000** acres of public land district-wide (BLM).

They treated **104** acres district-wide on BLM managed public lands, plus **10** acres on county roads across approximately **300** miles of road.

Survey &



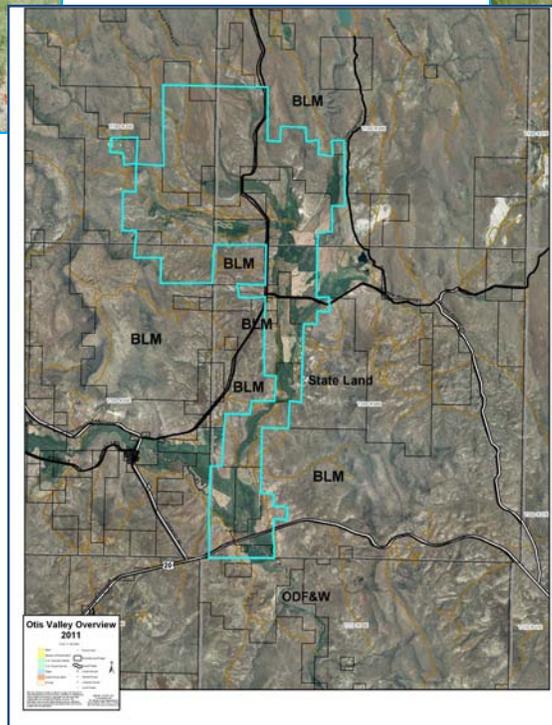
Treatment

Burn-Pile Seeding



On-The-Ground Projects

Otis Valley Noxious Weed Project



One of the OSWB grant funded noxious weed treatment projects that the Harney County CWMA applied for was for the Otis Valley, located in the Drewsey area. This area has several infestations of Pepperweed and a couple infestations of Russian Knapweed, although most of these infestations are light, the Otis Valley creeks drain into the Malheur River and protecting this waterway is a highly important goal of the Harney County CWMA. This CWMA has written a grant in the past for control of this noxious weed further down the Malheur River and this project was picked and designed to enhance the overall success in the protection on this river.

The Harney County CWMA held an equipment calibration and herbicide education class in Drewsey in an effort to bolster the effectiveness of the privately performed treatments.

There were 8 private landowners represented in this grant package and these landowners treated an estimated 508 acres of Pepperweed and Russian knapweed within a 9,247 acre project area!

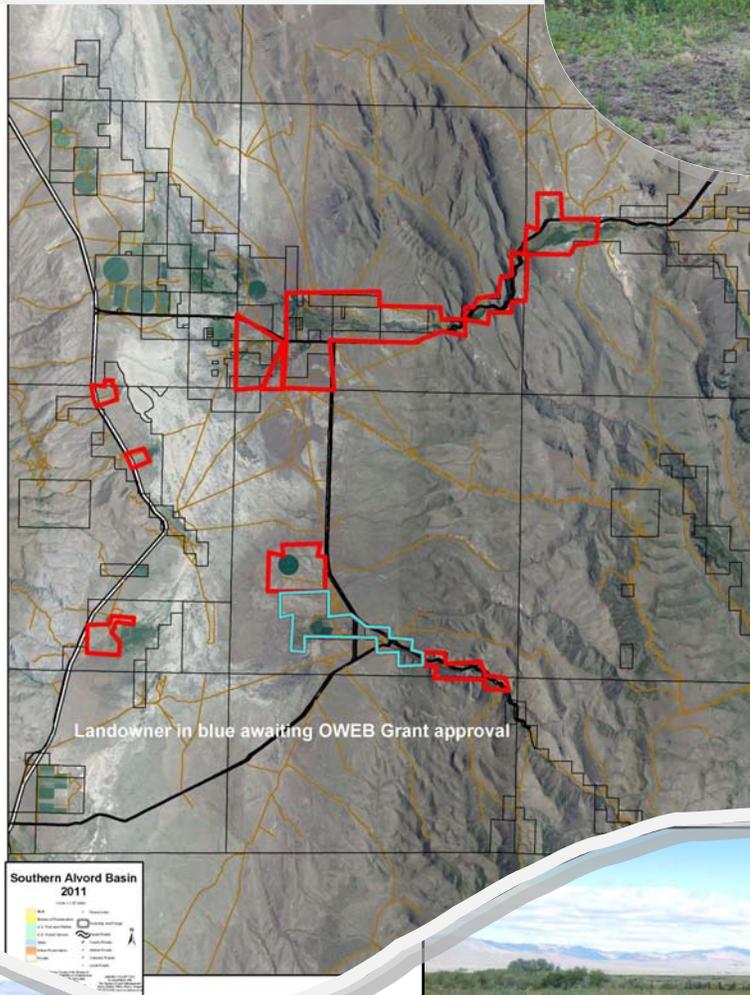


On-The-Ground Projects

Southern Alvord (Southend) Noxious Weed Project

The Harney County CWMA also applied for and received an OSWB cost share grant for noxious weed control in the Southern Alvord Watershed. This project was designed to go hand in hand with an OWEB grant we applied for as well. Unfortunately the OWEB grant was postponed until 2013, but we believe this project was a success and has set the stage for the future success of the OWEB grant.

This project involved 8 private landowners in Southern Harney County. These landowners treated a total of 931 acres of noxious weeds that included Pepperweed, Russian Knapweed, and Scotch Thistle. The total project area was 1,108 acres of privately held land. The two landowners with large infestations of Russian Knapweed elected to use a fixed wing aerial applicator to perform their treatments. This method “blankets” the infested area, and is why there was so many treated acres.



The Harney County CWMA held an equipment calibration and herbicide education class in Fields in an effort to bolster the effectiveness of the privately performed treatments.



On-The-Ground Projects

BLM-CWMA Medusahead Rye Monitoring Project

The Burns District BLM weed coordinator, Lesley Richman, has been working with a couple Oregon State University professors, Doug Johnson and Larry Larson, to develop a Geo Referenced (GPS located) photographic method of range land monitoring. The CWMA was brought in to work with this group so the CWMA could in turn teach this method to private landowners and/or other public land managers.

The Burns District BLM, in partnership with the Harney County CWMA used this method to perform pre-treatment monitoring on the BLM managed public lands that we treated for Medusahead rye.

Larry Larson, an Oregon State university Professor (retired), is working with Doug Johnson in the development of a user guide and the teaching curriculum for this process. The CWMA will be holding classes for the public in 2013, and will be teaching them how to use this method for quick and accurate monitoring of their lands and their grazing allotments.

Weed Monitoring Using GPS-Enabled Cameras

Jim Campbell¹, Alex Pearson², Yvette Gibson³, Mounir Louhaichi⁴, Pat Clark⁵, and Doug Johnson³

Harney County CWMA, Burns, OR, ²Electrical & Computer Engineering, Oregon State University, Corvallis, OR, ³Rangeland Ecology Management, Oregon State University, Corvallis, OR, ⁴International Center for Agricultural Research in the Dry Areas, Amman, Jordan, ⁵USDA/ARS Northwest Watershed Research Center, Boise, ID.

Introduction

New methods of image acquisition and analysis are advancing weed monitoring and assessment procedures. Photography has been a valuable tool for monitoring weed infestations; with recent advances in digital camera technology and computer hardware/software, images are easier to collect, store, transfer, and share than ever before. This project was designed to develop and test spatially-explicit, ground-level photographs collected with an off-the-shelf, ruggedized GPS camera.

Objectives

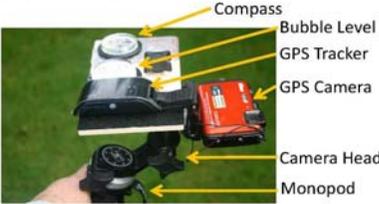
The objective of our project was to:

1. Develop techniques to capture GPS Tagged images of weed infestations.
2. Write software that allows image geo-positioning and scaling of acquired images.
3. Determine the accuracy and reliability of acquired digital images.
4. Evaluate effectiveness of the technique in the field.

Materials and Methods

We employed a Johnson Staff equipped with a bubble level, magnetic compass, and Nikon COOLPIX AW100 digital camera (Figure 1). The COOLPIX AW100 has a 5x Zoom-NIKKOR ED glass lens and 16-MP CMOS sensor, as well as a GPS and an electronic compass. The staff is set at a fixed height above the ground and all images are taken at a uniform height in a vertically downward direction.

The camera's GPS logs the latitude, longitude, and altitude of the camera when an image is taken, and the compass records the direction the camera is oriented. This information is written in the JPEG (Joint Photographic Experts Group) header and is available with other information including date and time created, F-stop, exposure time, focal length, and image dimensions (in pixels) for later analysis.



Compass

Bubble Level

GPS Tracker

GPS Camera

Camera Head

Monopod

Figure 1. Instrument assembly used to obtain GPS registered images in the field. The GPS tracker is used to define the route followed during the sampling.



Figure 2. Use of the GPS camera and the Johnson Staff in the field.

Results and Discussion

At a weed infestation the technician proceeds along a transect or across an area and periodically snaps a photograph with the camera top facing south and the unit level. Since all images are taken at the same height, they are all at the same scale and individually tagged with the location, date, and time.



Figure 3. Screen shots of the VegMeasure Image Positioning Tool.

Software written by Mr. Alex Pearson (Figures 3) is used in the office to geo-register the images. This software positions, rotates and scales the images so they can be viewed in GIS software (Figure 4). Geo-registered images can be overlain with scaled grids and used to quantify weed cover, density and pattern in the sample.



Figure 4. An example of an image obtained in a medusahead infestation in Harney County, Oregon. The intensity of the infestation can be evaluated in this image.

Acknowledgements



This is the poster we displayed at this years Interagency Weed Symposium that was held in Corvallis, Oregon.

Poster was developed by Doug Johnson

On-The-Ground Projects

The *Massive* 2012 Medusahead Rye Treatment Project

This years Medusahead control project was massive in both size and scale. The CWMA partners worked together to treat 15,646 Medusahead infested acres on both public and private lands. The project area was over 1,300 square **miles**!! Once again we used Crop Production Services as our contractor and they once again sub-contracted to Lohman Helicopter Service out of the Lewiston, Idaho area. Our local NRCS office once again had several landowners signed up for treatments this year and we were able to complete the treatments we missed last year. What was different about this years Medusahead project, besides the size, was that for the first time we were able to treat infested public land managed by the BLM. The Burns District BLM Weed Coordinator, Lesley Richman worked tirelessly with her manager to make sure that this happened. We also had our SWCD member draft an OWEB grant that gave us another couple thousand acres worth of funding for treatments on private lands.



Equipment:

- 3 helicopters
- 2 batch trucks
- 2 water tenders
- 1 County provided water tanker
- 1 BLM provided "Heavy"

Huey with BLM Heavy



Jet Ranger and Long Ranger

We treated both public and private land this year, the breakdown in acres was:

- 7,921 acres of public (BLM)
- 7,725 acres of private
- Almost half of the private was funded out of their own pockets



- Total Project (spray) time was 22 days
- Total CWMA Coordinator time was 76 days (includes pre and post project management)
- Total Private landowners were 12
- Total Application Cost for BLM and Private = **\$546,900.00**

The CWMA is expecting and planning for an even bigger year in both acres treated and overall project

