

Bannock County Noxious Weed Control



Aaron Greenwell, Superintendent

Who We Are...

Aaron Greenwell, Superintendent



Jerry McIntosh, Assistant Supervisor



Skip & Dave – Returning Seasonal Applicators



Plus...

Kristi Ogle, Administrative Assistant
and
2 Additional Seasonal Applicators





Bannock County

County Statistics:

- Population = 82,839
- Total Acreage = 712,448
 - Government = 40.9%
 - Federal = 32.9%
 - State/Local = 8%
 - Private = 58.6%
- Land Uses
 - Urban = 1%
 - Agricultural = 32%
 - Rangeland = 46%
 - Forest = 16%

County Duties



- Seasonal Reminder Letters for Noxious Weeds.

- Actively Monitor the County.

- Work with Property Owners on Problem Areas.

- Generate Work Orders for Customers Requesting Services.

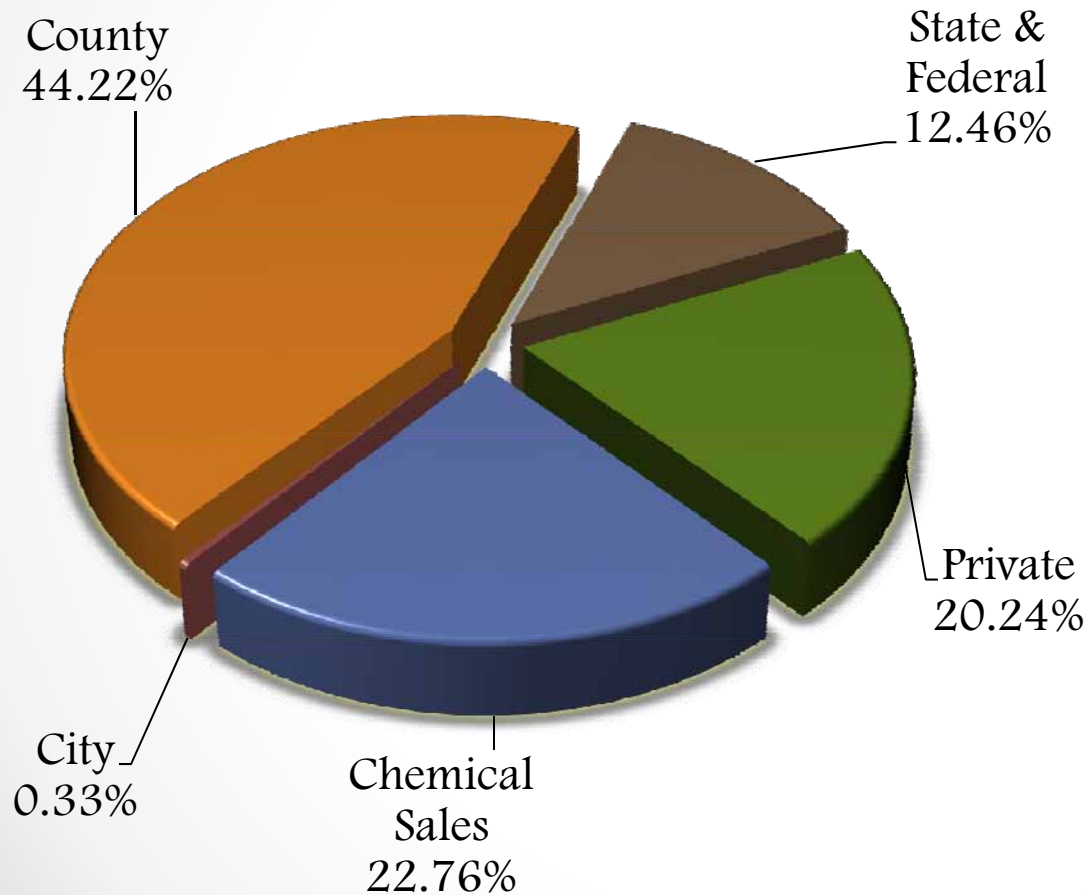
- Provide Chemicals to County Residents.

- Invoice Customers for Services Rendered & Apply Cost Share.

- Provide Public Education.



Our Work Concentration...



County Properties & Roadside – 44.22%

Chemical Sales – 22.76%

Private Properties – 20.24%

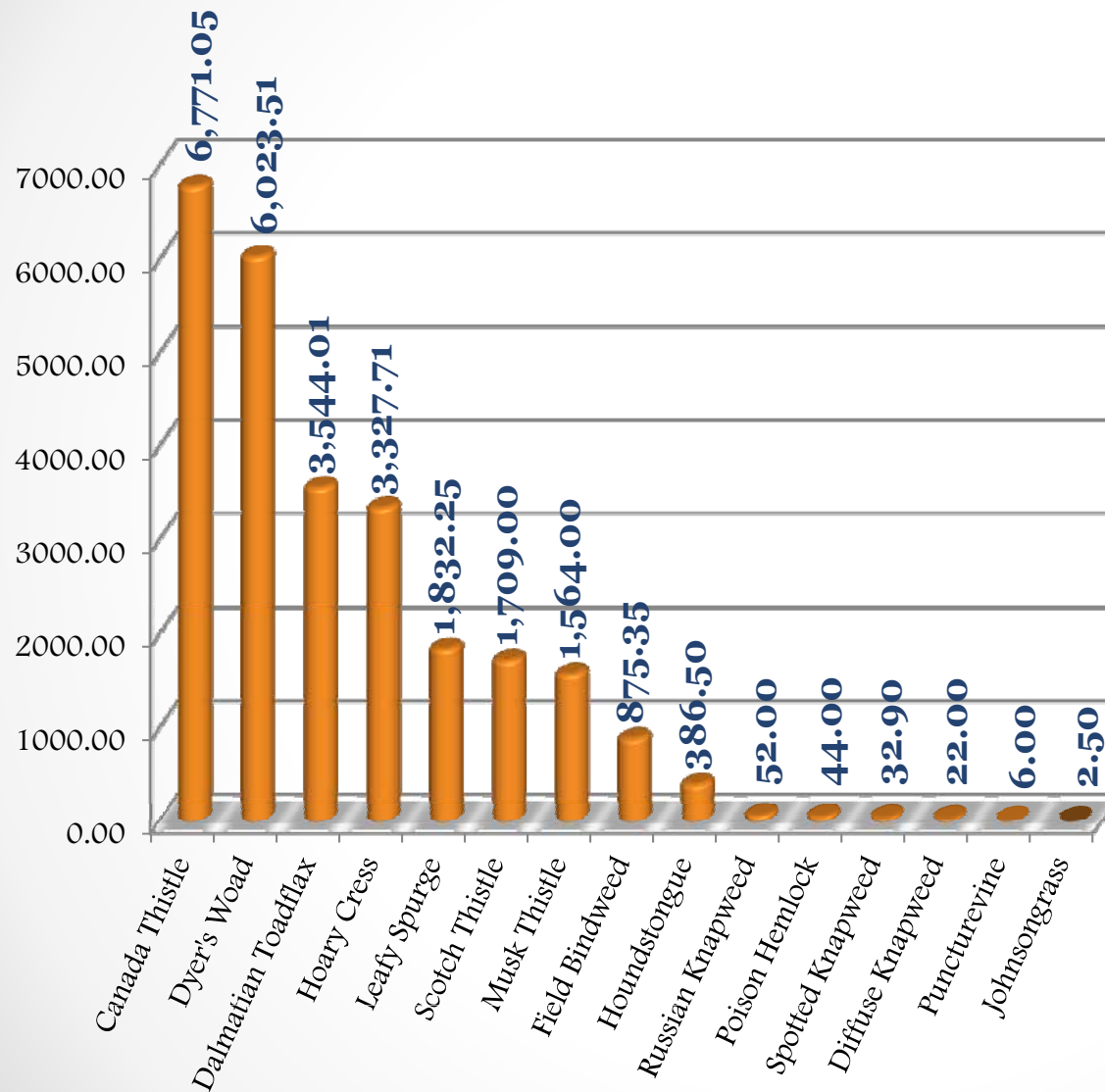
State & Federal Properties – 12.46%

City Properties – 0.33%

Noxious Weeds in Bannock County

Black Henbane	Canada Thistle	Puncturevine
Buffaloebur	Dalmatian Toadflax	Saltcedar
Common Crupina	Diffuse Knapweed	Scotch Thistle
Dyer's Woad	Field Bindweed	Spotted Knapweed
Johnsongrass	Hoary Cress	Tansy Ragwort
Musk Thistle	Houndstongue	White Bryony
Russian Knapweed	Jointed Goatgrass	Yellow Starthistle
Scotch Broom	Leafy Spurge	Yellow Toadflax
Yellow Flag Iris	Oxeye Daisy	
	Poison Hemlock	

Acres Infested by Noxious Weeds



Canada Thistle	6771.05
Dyer's Woad	6023.51
Dalmatian Toadflax	3544.01
Hoary Cress	3327.71
Leafy Spurge	1832.25
Scotch Thistle	1709.00
Musk Thistle	1564.00
Field Bindweed	875.35
Houndstongue	386.50
Russian Knapweed	52.00
Poison Hemlock	44.00
Spotted Knapweed	32.90
Diffuse Knapweed	22.00
Puncturevine	6.00
Johnsongrass	2.50

Canada Thistle



- Erect perennial with spiny leaves; grows up to 3 feet tall.
- Roots are verticle up to 20 feet deep & horizontal creeping up to 15 feet across.
- Flowers are purplish-pink disk-shaped with numerous clustered flower heads.
- Leaves are oblong to lance-shaped, shallow-lobed stem leaves toothed with spiny margins.
- Seeds are tan achenes with feathery bristles.
- Dispersed by means of creeping roots & wind-carried seeds up to 1,000 yards.

TREATMENTS:

- **Mechanical** – mowing or picking may slow down the growth.
- **Chemical** – Milestone, Forefront, Chaparral, Curtail – each combined with a surfactant.
- **Biological** – Thistle Stem Weevil, Thistle Gall Fly.

Dyer's Woad



- Biennial, winter annual or short-lived perennial; grows up to 3 ½ feet tall.
- Long taproot up to 3 feet deep.
- Flat-topped clusters of bright yellow, 4-petalled flowers.
- Bluish-green leaves with pale midvein.
- Reproduces by seed.
- Disperses medium to long distances.

TREATMENTS:

- **Mechanical** – pulling or mowing before seeds are fully developed.
- **Chemical** – MSM 60, Metcel VMF, Escort, Metsulfuron, Telar, Chlorsulfuron, Chaparral, Opensight, Plateau, Panoramic – each combined with a surfactant.



Hoary Cress ... aka Whitetop

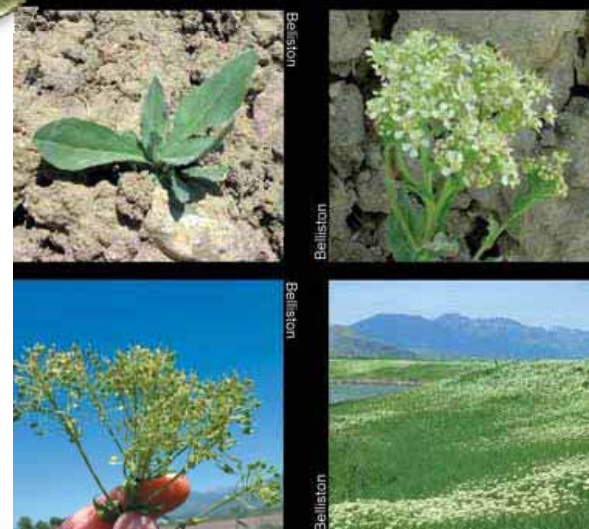


- Perennial; grows up to 2 feet tall.
- Flowers are numerous, white, tiny, 4-petaled; in dense clusters at the top of each stem.
- Leaves are gray-green, lance shaped, with hairy surfaces.
- Seeds are small, flat, and reddish brown inside upside-down heart-shaped, often 2-lobed pods.
- Seeds remain viable for about 4 years.



TREATMENTS:

- **Mechanical** – pulling or mowing before seeds are fully developed.
- **Chemical** – MSM 60, Metcel VMF, Escort, Metsulfuron, Telar, Chlorsulfuron, Chaparral, Opensight, Plateau, Panoramic – each combined with a surfactant.



Diffuse Knapweed



- Biennial or short-lived perennial; grows up to 3 feet tall.
- Flowers are white or pink~purple disk flowers with a comb-like margin.
- Leaves are lobed & up to 6 inches long.
- Seeds are gray to dark brown, tipped by plumes that fall off at maturity.

TREATMENTS:

- **Mechanical** – pull or mow
- **Chemical** – Milestone, Chaparral, Forefront – each combined with a surfactant.
- **Biological** – Blunt Knapweed Flower Weevil, Knapweed Root Weevil, Lesser Knapweed Flower Weevil.



Russian Knapweed

- Branched perennial up to 3 feet tall with dark brown to black, vertical and horizontal roots.
- Leaves are bluish-green, oblong & up to 6 inches long; upper leaves are narrow & may have fine hair.
- Flowers are white, pink, or lavender-blue disk-shaped on branch tips; flower head is urn-shaped.
- Seeds are ivory or pale-gray achenes tipped by plumes that fall off at maturity.
- Toxic to horses; can cause chewing disease.
- Spreads by seeds dispersing less than 3 yards & from shoots arising from creeping roots.
- Seeds can survive at least 9 years.



TREATMENTS:

- **Mechanical** – pull or mow
- **Chemical** – Milestone, Chaparral, Forefront – each combined with a surfactant.
- **Biological** – Blunt Knapweed Flower Weevil, Knapweed Root Weevil, Lesser Knapweed Flower Weevil.

Field Bindweed

- Perennial vine with deep creeping roots & twining stems up to 6 feet long.
- Flowers are white or pinkish and funnel-shaped.
- Leaves are arrowhead-shaped, alternate, dull green, up to 2 inches long.
- Seeds are dark gray-brown with irregular bumps and remain viable for up to 50 years.
- Disperse by means of creeping root and for short distances by seed.



TREATMENTS:

- **Mechanical** – pull, mow, or till deep.
- **Chemical** – Broadrange, Round-Up Pro.



Houndstongue



TREATMENT:

- **Mechanical** – mow or pull.
- **Chemical** – Metsulfuron, Broadrange, Escort.

- Biennial or short-lived perennial; grows up to 3 feet tall.
- Toxic to livestock.
- Flowers are reddish-purple, 5-lobed, in upper leaf axils.
- Basal leaves forming the 1st year are narrowly lance-shaped, 4-8 inches long, hairy & rough.
- Seeds are egg-shaped with hooked prickles & come in 4's.
- Seeds live less than 5 years.



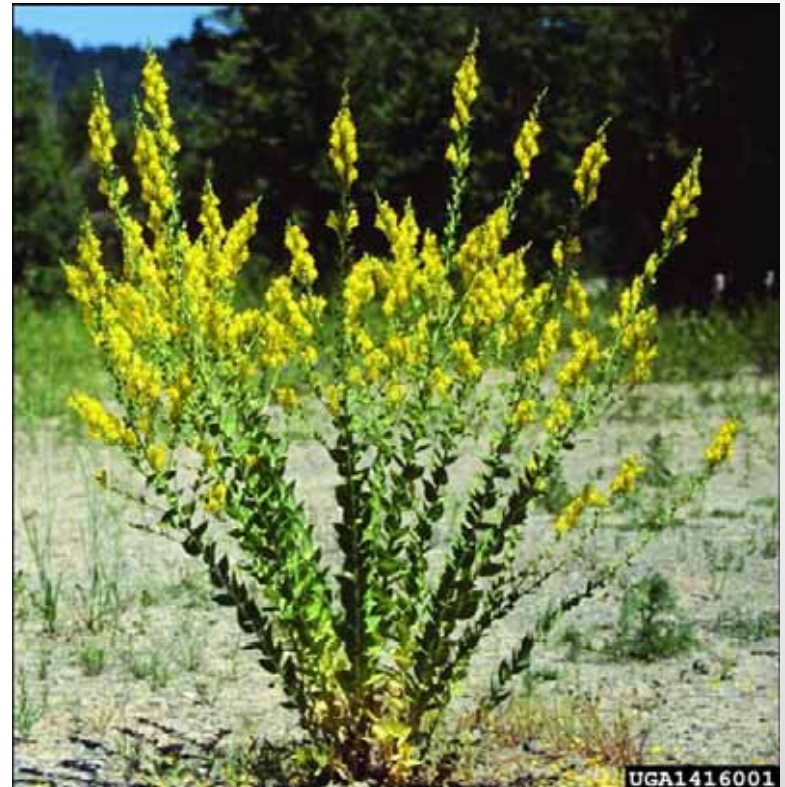
Dalmatian Toadflax

- Perennial; grows up to 4 feet tall.
- Bright yellow flowers similar to Snapdragons.
- Leaves are waxy, bluish-green.
- Produces nearly 1/2 million seeds that live up to 10 years.
- Disperses short distances by wind or creeping roots.



TREATMENT:

- **Mechanical** – pull, mow, till.
- **Chemical** – Telar.
- **Biological** – Toadflax Stem-Boring Weevil, Toadflax Seed Capsule Weevil.





Leafy Spurge

- Erect perennial up to 2 ½ feet tall with roots exceeding 20 feet in depth.
- Milky sap is toxic to humans & livestock.
- Flowers are a pair of showy, yellowish-green, heart-shaped bracts with tiny flower clusters.
- Leaves are nearly opposite & narrow.
- Roots are long, both vertical & horizontal, creeping.
- Seeds disperse less than 15 feet & remain viable for at least 8 years.

TREATMENTS:

- **Mechanical** – Grazing by sheep or goats, pulling seedlings, mowing before viable seeds develop, deep mulching.
- **Chemical** – Tordon 22K with Broadrange, Plateau – each combined with a surfactant.
- **Biological** – several species of flea beetles have been introduced and established in neighboring states.



Scotch Thistle



- Biennial, grows up to 8 feet tall.
- Spiny leaves & spiny-winged stems – covered with woolly gray hairs.
- Purple or occasionally white disk flowers with a globe-shaped flower head up to 2 inches in diameter.
- Seeds live at least 39 years and disperse less than 9 feet.

TREATMENTS:

- **Mechanical** – pull, mow.
- **Chemical** – Telar, Chlorsulfuron, MSM 60, Metsel VMF, Escort, Metsulfuron, Hi-Dep with Tordon 22K, Milestone, Forefront, Chaparral, Curtail – each combined with a surfactant.



- Biennial or winter annual with a long taproot; grows up to 5 feet tall.
- Basal leaves are oval to elliptical; up to 12 inches long with prickly toothed margins; stem leaves alternate & are smooth to sparsely hairy.
- Flowers are purple to pink disk flowers, 1 ½ - 3 inches in diameter, solitary at the stem tips.
- Seeds are yellowish-brown, 3/16 inch long with hair-like plume.
- Reproduces by seed, dispersed by wind up to 50 yards.
- Seeds remain viable for at least 10 years.



TREATMENTS:

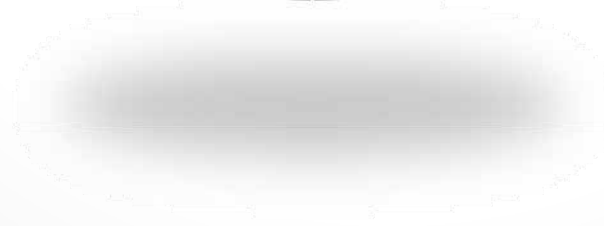
- **Mechanical** – pull, mow.
- **Chemical** – MSM 60, Metsel VMF, Escort, Metsulfuron, Hi-Dep with Tordon 22K, Milestone, Forefront, Chaparral, Curtail – each combined with a surfactant.

Musk Thistle



Poison Hemlock

- Erect biennial; grows up to 9 feet tall.
- Flowers are small, white & are in umbrella-shaped clusters about 3 inches wide.
- Leaves are fernlike & shiny green.
- Stems are hollow & covered with mottled purple spots.
- Has a disagreeable musty odor.
- Reproduces by seeds falling within 9 feet of the parent.
- Highly toxic to humans & animals.



TREATMENTS:

- Mechanical – pull, cut.
- Chemical – Telar.

Door Hangers



Bannock County Noxious Weed Control
 1500 N. Fort Hall Mine Rd.
 Pocatello, ID 83204
 Office: 208-234-4139
 Cell: 208-251-5792



January 22, 2013

Customer Name _____
 Customer Address _____
 City, State Zip Code _____

Dear Customer Name,

Spring is here and the temperature is finally reaching the range where plants are beginning to grow. The picture above is **Dyer's Weed**. It is a very aggressive Noxious Weed and has been seen on your property. Early detection and treatment is critical in the fight to control these weeds. This is a good time to watch for this and other Noxious Weeds. They will soon be in full bloom and easy to recognize.

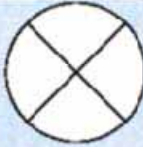
As the Bannock County Noxious Weed Superintendent, I want to help in any way possible. I have already placed a general notice in the Idaho State Journal of the 64 Noxious Weeds in Idaho and have listed the 27 Noxious Weeds known to be in Bannock County. I also have pamphlets and books available that have pictures and descriptions of Idaho's Noxious Weeds. I am working hard with many strategies to eradicate the Noxious Weeds in the County and prevent new ones from entering, and it is important to have the help of the landowners.

Because they are so destructive to our environment, Idaho lawmakers enacted Idaho Code, Title 22 for the control of Noxious Weeds. Pursuant to *Idaho Code, Title 22-5407, "It shall be the duty and responsibility of all landowners to control noxious weeds on their land and property..."*

We need to eliminate as many of the Noxious Weeds as we can throughout the County. Delay in treatment can mean a much larger infestation to control later with a greater cost, both monetarily and environmentally. If I can assist you, or if you have any questions, please call me at 208-251-5792 and we can set up a time and discuss some ways that might improve your weed control efforts. Thank you for your help!

Sincerely,

Aaron Greenwell
 Bannock County Noxious Weed Control




The following Noxious Weed(s) were found on your property:

- ☐ Dyer's Weed
- ☐ Leafy Spurge
- ☐ Knapsweed _____
- ☐ Thistle _____
- ☐ Whitetop (Hoary Crest)
- ☐ Parasol Pepperwood
- ☐ Houndstongue
- ☐ Dalmatian Toadflax
- ☐ Other _____

Date: _____

Time: _____

Please see reverse for additional information.



Recommended Treatment:

- ☐ Herbicide
- ☐ Mechanical

Please call with any questions!

Contact Information:
Supervisor: Aaron Greenwell
 Bannock County Noxious Weed Control
 1500 N. Fort Hall Mine Rd.
 Pocatello, ID 83204
 Office: 208-234-4139



Bag O' Woad

- Program focuses on Dyer's Woad education.
- Community Participation
- Typical Duration of 2 weeks
- Participants Pick & Bag Dyer's Woad
- Bags are Taken to the Landfill
- Participants are Paid for the Bags of Dyer's Woad



Equipment We Use

Spray Trucks



ATVs

Equipment We Rent to the Public

Spray Tanks for ATVs ~
20 gallon



Back Pack Sprayers ~
3 gallon



Spray Tanks
for Pack Animals ~
10 gallons each



Steel Tank for a Truck ~
42 gallons



Mapping...

Each colored line is the GPS Recorded Chemical Applications for a Different Applicator.

We use Archer GPS units (shown) with Sniper Dan on the ATVs.



Questions?