

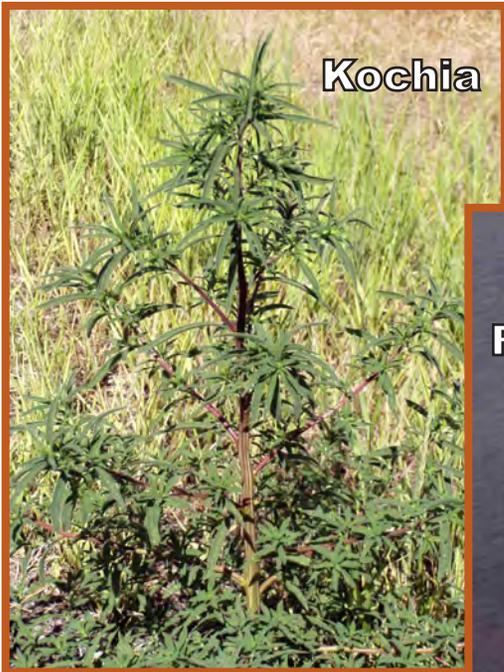
Kootenai County



2014-15 Calendar

Noxious Weed Control

KOCHIA



KOCHIA (*Kochia scoparia*) This plant breaks off and becomes a tumbleweed as it dies in the fall.

A noxious weed in Kootenai County.

- A bush-like annual that spreads by seed.
- Grows 1 to 6 feet tall depending on growing conditions.
- Leaves turn purplish-red as the plant ages.
- **Small green flowers** produce up to 14,000 seeds per plant.
- This drought tolerant plant can be found along roadsides and other dry areas.
- Also known as: Mexican Fire Weed

CONTROL METHODS

NON-CHEMICAL:

- Pulling the plant can be effective in small areas.
- Mowing will prevent seed production and spread.
- Tilling several times per season will reduce seed production.

CHEMICAL:

- Aminopyralid + metsulfuron, chlorsulfuron, dicamba + 2,4-D, or triclopyr + 2,4-D can be effective when the plants are very small. As the plant ages, it becomes resistant to chemical treatment.

WEED FREE FORAGE

Idaho Noxious Weed Free Forage and Straw Certification Program



What is the purpose of this program? To limit the spread of noxious weeds through forage or straw onto United States Forest Service (USFS) and Bureau of Land Management (BLM) lands. Non-certified forage or straw may contain noxious weed seeds.

Why should I be concerned about the spread of noxious weed seeds through non-certified forage or straw?

Noxious weeds displace native plant species which can decrease grazing capacities for wildlife and livestock by 65% to 90%. Most noxious weeds are non-edible to wildlife and livestock.

How does the program benefit me? It prevents the introduction and spread of noxious weeds in your favorite hunting, fishing, riding, and camping areas. It protects natural resources and wildlife habitat.

What is considered a forage? Any type of hay, forage cubes, or compressed forage bales.

How will I know if I am purchasing Certified Noxious Weed Free Forage and Straw? You will know you are buying Certified Noxious Weed-Free hay or straw bales by the ISDA certification bale tag (made of vinyl) attached to the bale twine.



Where can I buy Certified Noxious Weed Free forage and straw? A list of growers (baled hay and straw) can be found at the ISDA's webpage or Google: "ISDA Weed Free Hay". In addition, baled hay and straw, forage cubes, and compressed forage bales can be found at most retail feed stores.

Whom should I contact if I see a noxious or unknown weed? Contact your County Weed Control Superintendent or the Public Land Manager where you are recreating.

For more Information, contact:
Idaho State Department of Agriculture Noxious Weed Free Forage Program: 208.332.8592
E-mail: dan.safford@agri.idaho.gov
Or visit our website at: www.agri.idaho.gov

CHEMICAL FREE WEED CONTROL



1. **Select clean seeds and plant material.** Purchase certified seeds and weed-free plants from a reputable source. Don't introduce more unwelcome guests into your home landscape.

2. **Remove weeds before they go to seed.** Some types of weeds can produce tens of thousands of seeds from a single plant, so make certain you remove weeds before they flower and produce seeds. "One year seeds, seven years of weeds."

3. **Keep the local climate in mind.** Select plants appropriate for the climate, amount of sun or shade and expected rainfall. If the plants you select are a good "fit," they are more apt to thrive and to compete with weeds.

4. **Create a barrier.** For weed suppression throughout the growing season, apply two to three inches of mulch or use landscape fabric or black plastic to deter weeds.



5. **Focus on "culture".** Cultural practices - how you prepare the soil and tend to what you've planted - help your plants stay healthy and compete with weeds. Read about what you're growing and focus on the basics, from pH levels to timely irrigation and fertilizer.

6. **Turn to tools.** A hoe, tiller or even hand-weeding can work, especially if the space you're tending is fairly small.

7. **Keep it clean.** Keep your garden hoe, spade, mower, tiller and other outdoor tools clean to keep from spreading weed seeds or plant parts that you encounter.



8. **Establish a perimeter.** Pay special attention to the area adjoining your flower bed, garden, natural area or lawn and establish a weed-free perimeter. Mow or mulch the area or pull or dig up weeds as they emerge.

9. **Pay special attention to perennial weeds.** They can be difficult to dig up and the underground tubers and rhizomes left behind can grow new plants. Another strategy is to cut off the emerged green part of the weed every time it regrows. Eventually the underground plant parts will become weakened and die.



Unless you are tending a very small area and have lots of time to devote, you won't likely achieve the same level of weed control with chemical-free techniques that you would with an herbicide. But reset your expectations and have faith. Each year that you prevent weeds from going to seed or spreading underground, the easier your weed control task will be.

**IDAHO STATUTE TITLE 22,
CHAPTER 24 NOXIOUS WEEDS**

- **What is the purpose of the Idaho Noxious Weed Law?** The purpose of the Idaho Noxious Weed Law is to protect lands within the state from invasion by noxious weeds.

- **What does the law require?** The Idaho Noxious Weed Law requires landowners to eradicate noxious weeds on their land. The law may be found in the Idaho Code, available at libraries, city and county courthouses, from county weed superintendents, and the Idaho State Department of Agriculture website:

www.agri.state.id.us/Categories/LawsRules/sub_laws/lawstitle22.php

October						
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December						
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November 2014

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		Veterans Day				
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23	24	25	26	27	28	29
						●
			Thanksgiving			
30						

OXEYE DAISY

OXEYE DAISY (*Leucanthemum vulgare*) Also known as Field daisy, Marguerite daisy and Poverty weed.

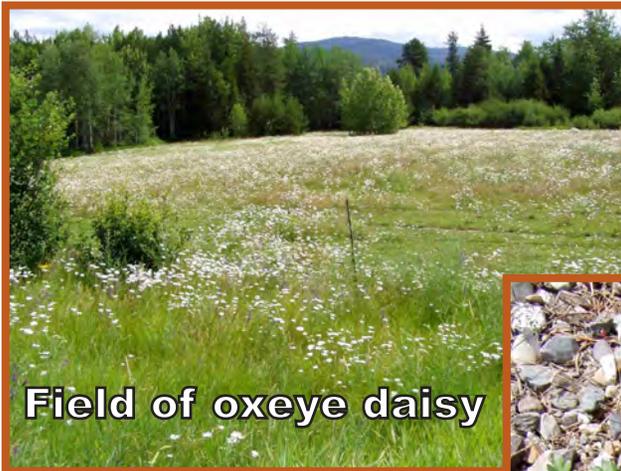
- A short-lived **perennial** that spreads from seeds (2,000 to 4,000 per plant) and from the spreading roots.
- Grows 1 to 3 feet tall.
- The **glossy green leaves** get smaller as they grow up the stem.
- Daisy-like flowers are made up of **white petals** with a golden center and blooms appear June through September.
- Likes to grow in abandoned meadows and overgrazed pastures.

CONTROL METHODS

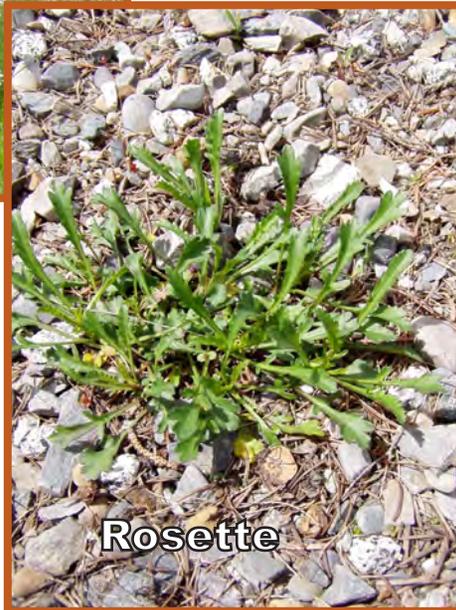
Non-Chemical:

- Dig plants when the soil is moist.
- Grazing - sheep, goats and horses may eat oxeye daisy.
- Applications of nitrogen fertilizer are effective in encouraging strong grass growth leaving no room for oxeye daisy seeds to germinate.

Chemical: aminopyralid, metsulfuron or clopyralid + 2,4-D are effective before bloom.



Field of oxeye daisy

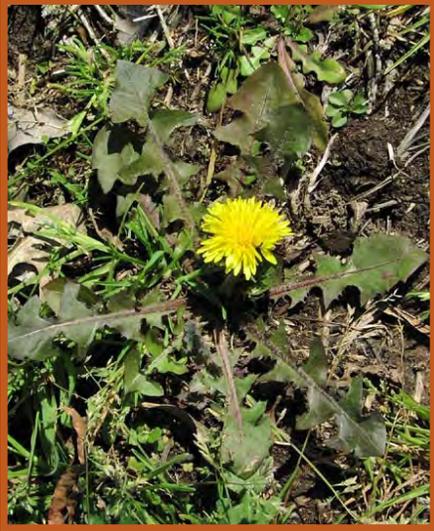


Rosette



Flower

NOXIOUS WEED CONTROL



What weeds do you have? It is important that you select an herbicide that has the weeds you want to kill on its label. Proper identification of your weeds is the first step. There are many photos and resources online to help, if you can't find what you need there, bring a sample to our office or to your Extension Office.



How much herbicide will you need? If you are treating a small area, you may want the convenience of a "ready-to-use" herbicide that does not have to be diluted with water. When treating many weeds across a broader area you may want to

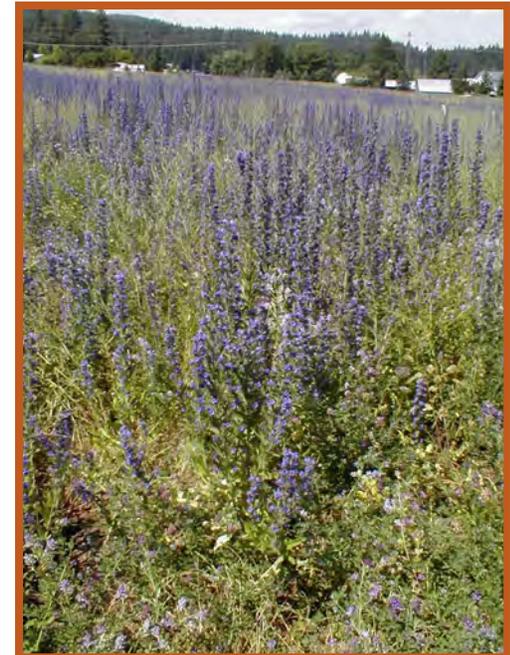
consider a more economical concentrated product. In either case, buy only the amount of herbicide you need for the calculated area that you plan to treat. You will save money and avoid having to store herbicides safely around the house.

What is your goal - preventing weeds or eliminating those already growing? A spring application of preemergence herbicides will generally prevent the weeds listed on the herbicide label from emerging. Postemergence herbicides target weeds already up and growing. Some postemergence products are "nonselective," which means they could harm desirable plants as well as weeds.



Making your selection

Once you've thought through these important questions, read the product labels and select an herbicide that works on the weeds growing around your home. Follow the instructions precisely and you'll be on the path to successful weed control.



ADJUVANTS USED WITH HERBICIDES



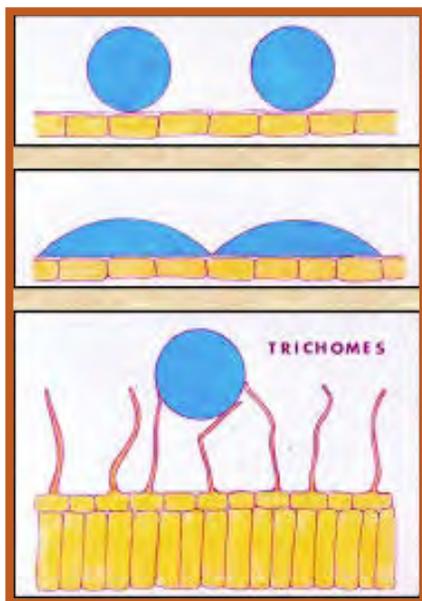
An adjuvant is any substance in an herbicide formulation or added to the spray tank to improve herbicidal activity or application characteristics. Spray adjuvants are generally grouped into two broad categories - activator adjuvants and special purpose adjuvants.

Special purpose adjuvants may alter the physical characteristics of the spray solution and include compatibility agents, buffering agents, antifoam agents, and drift control agents.

Activator adjuvants are used to enhance postemergence herbicide performance. They include surfactants, crop oil concentrates, nitrogen fertilizers, spreader-stickers, wetting agents and penetrants.

Adjuvants selection should be primarily based on the herbicide label.

The type of adjuvant added to the spray tank can enhance or reduce the performance of the herbicide. Although a number of different kinds of activator adjuvants are on the market, their primary purpose is to reduce the surface tension, improve the wetting action, and increase the penetration of the herbicide. To choose the correct additive for a specific product, first read the pesticide label. An appropriate adjuvant assures maximum performance and crop safety. The wrong adjuvant increases the risk of poor performance and crop injury.



INTEGRATED PEST MANAGEMENT

Prevention is the first line of defense to keep weeds from occurring or increasing in an area. Preventive techniques may include:

- Education! Knowing how to identify weeds
- Planting high-quality, weed-free crops or grass seed.
- Laws, such as the Federal Seed Act and Noxious Weed Law, help stop weed problems before they start or spread.
- Keeping weeds from going to seed. Preventing weeds from reproducing reduces new weed infestations.
- Wash equipment after use to prevent moving weeds to another location.



Cultural control methods improve desirable plant growth which helps them resist weed invasion. Some cultural methods are:

- Fertilization, which help desirable plants out-grow the weeds.
- Irrigation, or proper watering, enables vegetation to out-compete weeds.
- Planting seed to fill in a bare area will not allow weeds to grow.



Mechanical methods physically slow or kill weed growth. Mechanical weed control is the oldest and most often used method worldwide. Examples of mechanical control include:

- Tilling
- Hoeing
- Hand-pulling
- Mowing
- Burning
- Mulching



Biological control uses a living organism to slow weed growth. Examples of biological control agents are:

- Livestock, such as cattle, goats, sheep and llamas.
- Insects that chew various parts of a weed can damage or kill the plant over time. Usually the immature stage of the insect does the most damage. Insects may do damage to a plant by eating flower seed heads or leaves, tunneling in stems and boring into roots.
- Plant diseases, or pathogens, may also damage or kill weeds. Pathogens can be fungi, bacteria or viruses.



Chemical spraying involves herbicides; chemicals used to slow or kill weed growth. The first rules of using herbicides are to **READ THE LABEL** before using any pesticide and follow all directions and warnings.



LOAN OUT EQUIPMENT

Kootenai County Noxious Weed Control has the following equipment for landowners to borrow for seven days to help control weeds and renovate their property. Contact us at (208) 446-1290 or kcnnoxiousweeds@kcgov.us

Seed spreaders



Backpack sprayers



Tank sprayers



Fertilizer spreaders



Harrows



COMMON, SMALL & VIPER'S BUGLOSS



Common bugloss



Small bugloss



Viper's bugloss

BUGLOSS, COMMON (*Anchusa officinalis*) A noxious weed in Kootenai County.

- A **perennial** plant with a deep taproot. Spreads by seed. Grows 1 to 3 feet tall. Leaves and stalks are covered with **bristly hairs** that arise from warty bumps on the leaf surface. **Blue to purple** flowers are arranged along the ends of the tightly curled branch ends. The flower stem straightens as the flowers bloom. Flowers appear May through July. Prefers dry, sandy to gravelly soils. Often found in open pastures and roadsides.

BUGLOSS, SMALL (*Anchusa arvensis*)

- A weedy **annual** that spreads by seed. Grows 6 to 12 inches tall. Both leaves and stems appear rough and wrinkled and are covered with **bristly hairs** that arise from **warty bumps**. Leafy coiled flower stems bear **small blue** flowers June to September. Found in pastures, along roadsides, and cultivated fields.

VIPER'S BUGLOSS (*Echium vulgare*) ☠ Also known as blueweed

- A **biennial** plant with a thick, black taproot that spreads by seed. Each plant may produce up to 2,800 seeds. Grows to 5 feet tall. The leaves and stems are covered with **stiff hairs**. **Bright blue** flowers with hot pink-colored stamens bloom June to September. Grows best in open meadows, overgrazed pastures and poorly drained slopes and roadsides.

Chemical Control: Spray before bloom with dicamba + 2,4-D, metsulfuron, or glyphosate. Fall application of these products to new rosettes (before a killing frost) provides good control. A surfactant is recommended to increase the effectiveness of any of the herbicides used.

Non-Chemical Control:

- Blueweed cannot withstand regular cultivation.
- Prevent seed production by cutting and destroying flowers; roots will die out after the second season.
- Plants may be pulled or roots dug out - take special care to sever the roots below the root crown.
- Mowing is not a good control option because taproots are still viable and regrowth usually occurs.

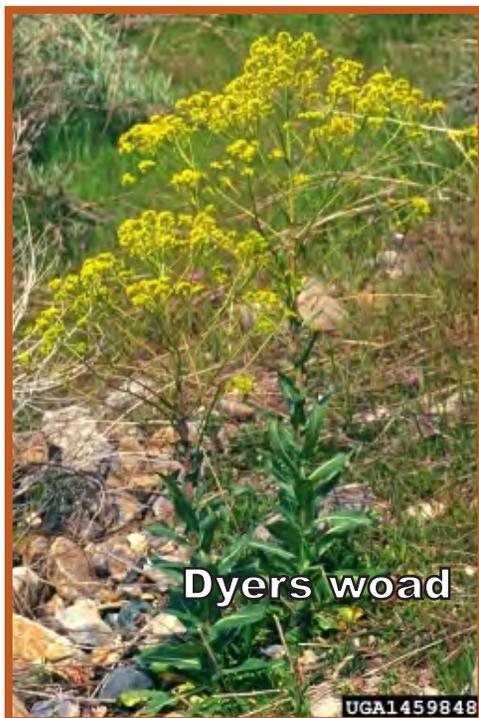
WEED IDENTIFICATION

The Importance of Proper Weed Identification

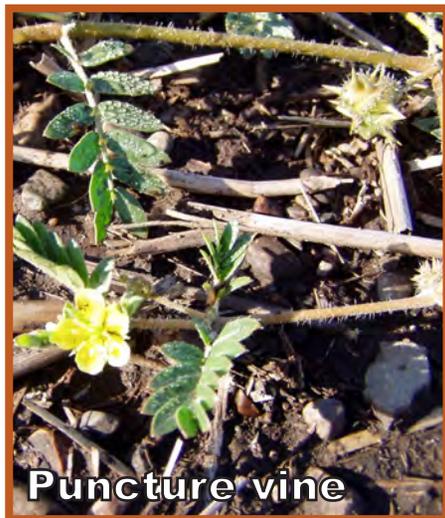
Proper weed identification is critical to getting the correct recommendations for weed control options. If you notice a new weed, it is important to identify it quickly so that action can be taken to prevent it from spreading. Sometimes it turns out that the new plant is simply a curiosity and is not a cause for concern, but it is better to err on the side of caution.

Proper identification can mean selecting the correct herbicide needed to control a particular weed or can result in control cost savings if a less expensive herbicide is available. Sometimes, proper identification can indicate that nothing needs to be done if the plant turns out to be an occasional interloper or rare native plant, or simply a plant that can be easily managed with some cultural adjustments.

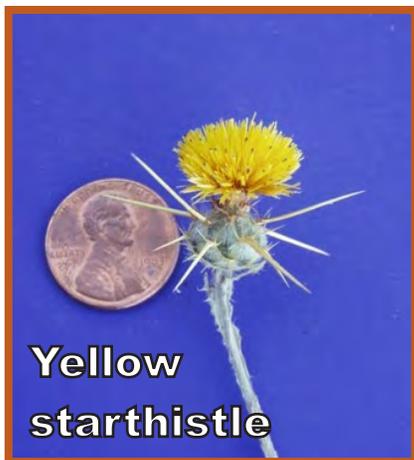
If you can bring a fresh sample to our office or email us a picture at kcnnoxiousweeds@kcgov.us, we are often able to identify it for you. If our staff is unable to identify it we will send it to the University of Idaho or you can access their site at <http://www.cals.uidaho.edu/weeds2>. Your local Extension Office is also a valuable resource for identifying plants.



Dyers woad



Puncture vine

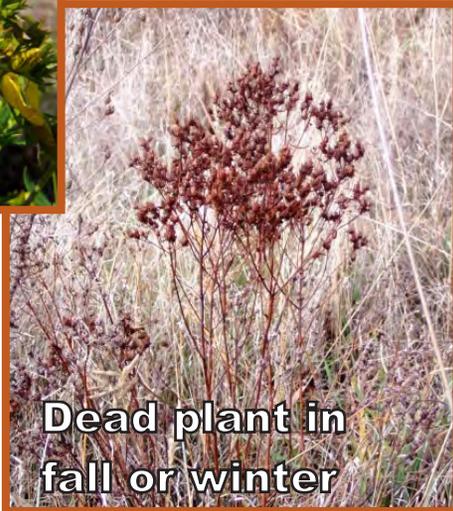


Yellow
starthistle



Musk thistle

SAINT JOHNSWORT



SAINT JOHNSWORT (*Hypericum perforatum*) ☠

Also known as Klamath weed or common goatweed is **NOT** on the Idaho State Noxious Weed list but a weed of **CONCERN** in the Idaho Panhandle

- A **perennial** that spreads by underground rhizomes, above ground creeping stems and by seed. Grows 1 to 3 feet tall.
- Each tiny leaf is **spotted** with translucent dots.
- Flowers have **bright yellow petals** and deep purple dots along the jagged edges.
- St. Johnswort prefers poor soil and full sun and can be found mostly in fields, dry pastures and roadsides.
- The **rust colored stems** of Saint Johnswort can be seen during the winter sticking above the snow.

Caution: Animals that eat Saint Johnswort, and then are exposed to direct sunshine, develop severe sunburns that are seen as skin irritation in bald or white areas. Young cattle and sheep are most often affected.

CONTROL METHODS

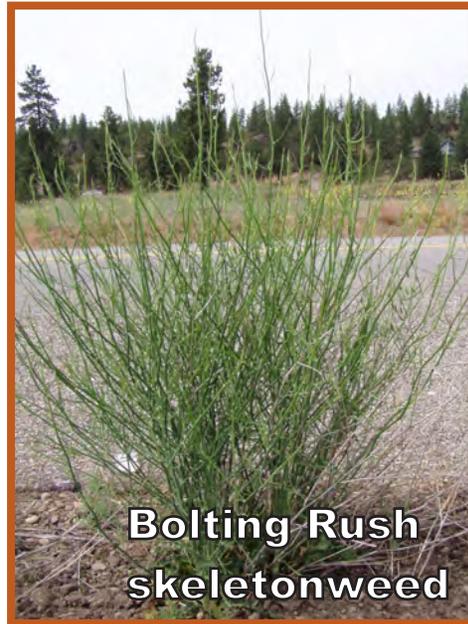
Chemical: Spray with aminopyralid, metsulfuron or 2,4-D in the spring prior to bloom.

Non-Chemical:

- Pulling or digging can be effective on new or small infestations.
- The use of fertilizer and good watering habits has been shown to control the spread of Saint Johnswort.
- Cut and bag flower heads, if possible, to prevent plants from going to seed.

Biological: The leaf eating beetle (*Chrysolina hyperici*) has been very successful in controlling large infestations of Saint Johnswort.

RUSH SKELETONWEED



RUSH SKELETONWEED (*Chondrilla juncea*) The large, deep root system makes skeletonweed difficult to control.

- A **perennial** which spreads primarily by seed, but also by creeping roots.
- Grows 1 to 4 feet tall.
- Leaves at the base look like a dandelion rosette. Stems are bare, except the lower 4 to 6 inches which is covered with **coarse brown hairs**. Stems and leaves produce a **milky latex juice**.
- Flower heads are **yellow** and scattered among the branches.
- Found in disturbed areas.

CONTROL METHODS

Non-Chemical:

- Constant hand pulling or digging two to three times per year for 6 to 10 years can be effective for small infestations.
- Mowing and cultivation are ineffective; mowing does not prevent root spread and cultivation actually spreads root fragments.
- High nitrogen fertilizer assists in minimizing the effects of rush skeletonweed.
- Competitive legume plantings, such as alfalfa, may reduce rush skeletonweed through increased soil fertility and competition for soil moisture, as well as shading the rush skeletonweed plants.

Chemical:

Spray with aminopyralid, aminopyralid + metsulfuron, metsulfuron or clopyralid + triclopyr preferably to rosettes in spring or fall.

To Do List:

Early August -

- Mow to stop seed production
- Survey for fall spray

Late August -

- North Idaho Fair – August 19th-23rd, 2015
Come see us at the Fair!

July						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
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September						
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27	28	29	30			

August 2015

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9	10	11	12	13	14 ●	15
16	17	18	19	20	21	22 ●
23	24	25	26	27	28	29 ○
30	31					

September 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Labor Day	2	3	4	5 ☉
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13	14	15	16	17	18	19
20 ●	21 ☉	22	23	24	25	26
27 ○	28	29	30			

October 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4 ☉	5	6	7	8	9	10
11	12 ●	13 Columbus Day	14	15	16	17
18	19	20 ☉	21	22	23	24
25	26	27 ○	28	29	30	31 Halloween

Information for this guide came from the
Idaho Panhandle Noxious Weed Handbook

November 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3 ●	4	5	6	7
8	9	10	11 ● Veterans Day	12	13	14
15	16	17	18 ●	19	20	21
22	23	24	25 ○	26	27	28 Thanksgiving
29	30					

December 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 ●	3	4	5
6	7	8	9	10	11 ●	12
13	14	15	16	17	18 ●	19
20	21	22	23	24	25 ○	26 Christmas
27	28	29	30	31		

Design and Printing:

Ron Harbison of Kootenai County Reprographics Center; Weed Specialist Merry Ruth Dingman and Weed Superintendent Bill Hargrave of Kootenai County Noxious Weed Control.

CAUTION WHEN USING HERBICIDES:

READ THE ENTIRE HERBICIDE LABEL CAREFULLY.

Any time herbicides are used, the applicator is legally required to follow the directions and precautions stated on the label. Note what safety equipment is needed; where, when and how the herbicide can be applied; the plants it can be used on; mixing rates and disposal and storage requirements. When using **any** chemical product, **READ THE LABEL!** Idaho follows the Environmental Protection Agency (EPA) approved label because **the label is the law!**

ADJUVANTS AND SURFACTANTS:

It is common to use adjuvant/surfactants mixed with herbicides. These products increase the success of the treatment. They do this by better penetration, increasing coverage, and extra absorption on the plants being sprayed.

CONVERSION TABLE

1 ml	= 1 cc	1 oz	= 28.4 grams
1 teaspoon	= 5 ml	16 oz	= 1 pound
3 teaspoons	= 1 tablespoon	1 pound	= 454 grams
1 table spoon	= 15 ml	1 kilogram	= 2.2 pounds
2 tablespoons	= 1 oz	2000 pounds	= 1 ton
16 tablespoons	= 1 cup		
1 cup	= 8 oz	Length & Area	
2 cups	= 1 pint	1 mile	= 5,280 feet
2 pints	= 1 quart	1 mile	= 1.6 kilometer
8 pints	= 1 gallon	½ acre	= 21,780 sq ft
1 gallon	= 128 oz	1 acre	= 43,560 sq ft

SMALL QUANTITY DILUTION TABLE

To spray small areas use the following dilution table.

IF Dosage on Label
shows:

Use this Amount
for each Gallon of Water:

2 pints (1 quart) per acre	¾ ounces
3 pints (1 ½ quart) per acre	1 ¼ ounces
4 pints (2 quarts) per acre	1 ½ ounces
6 pints (3 quarts) per acre	2 ¼ ounces

If there are any questions about the use of an herbicide product, **please call your local weed control agency for guidance.**

CHEMICAL SUGGESTIONS

This noxious weed calendar does not recommend any product or company. All brand names listed are for resource purposes only.

CHEMICAL	NON-CROP LANDS	HOME LANDSCAPES
2, 4-D	Hi-Dep® and other generic brands	Hi-Dep®
2, 4-D + dicamba	Weedmaster® Range Star® Brash®	Weed-B-Gon Weed Killer®, Weed Stop 2X®, Turf Plus 2®, Lawn Weed Killer®
2, 4-D + clopyralid	Curtail® Commando®	
Aminopyralid	Milestone	
Aminopyralid+ metsulfuron	Opensight®	
Aminopyralid+ triclopyr	Capstone®	
Picloram	Tordon RTU®, Tordon 22K® (restricted use)	
Glyphosate	Roundup® and other generic brands	Roundup®, and other generic brands
Clopyralid	Stinger®, Transline®	
Dicamba	Banvel®, Vanquish®	
Chlorsulfuron	Telar®	
Metsulfuron	Escort® and other generic brands	
Imazapyr	Arsenal®, Habitat® and other generic brands	
Triclopyr	Garlon 3A® Garlon 4® and others	Weed-B-Gon Chickweed, Clover & Oxalis®, Ortho Max Poison Ivy/Brush Killer®, Blackberry-Brush Killer®
Triclopyr + Clopyralid	Brazen®, Prescott®	Confront®
Triclopyr + 2, 4-D	Crossbow®	