

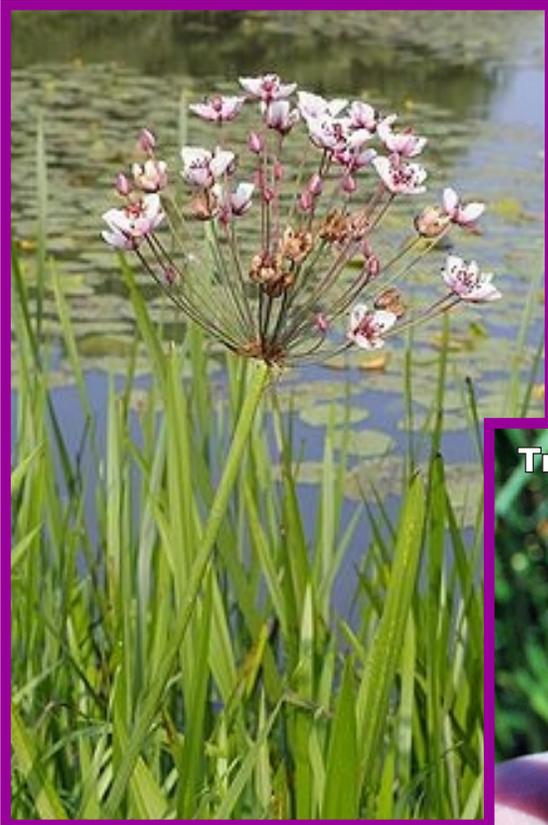
Kootenai County



2017-18 Calendar

Noxious Weed Control

FLOWERING RUSH



Triangular Stems



©2002 Garv Fewless

FLOWERING RUSH

(*Butomus umbellatus*) Butomaceae, the flowering rush family

- Aquatic perennial; emerged or submersed plants grow to 5 feet tall and form dense stands. It was brought in as an ornamental.
- Roots are thick, fleshy and has fleshy rhizomes. Leaves are triangular in cross section and up to 40 inches long.
- Pink flowers with 3 sepals and 3 petals; arranged in umbels.
- Likes to grow in permanently to seasonally flooded areas; survives in water up to 20 feet deep.

CONTROL METHODS

Non-Chemical:

- All water weeds can be raked, pulled or cut and disposed of on dry land.

Chemical: Chemical control is limited to herbicides labeled for aquatic use. Report any suspected infestation in a public waterway to your County Noxious Weed Department. ***Aquatic herbicides can only be applied to public waterways by government agencies with permits.***

Fleshy rhizomes
& roots



Flowers



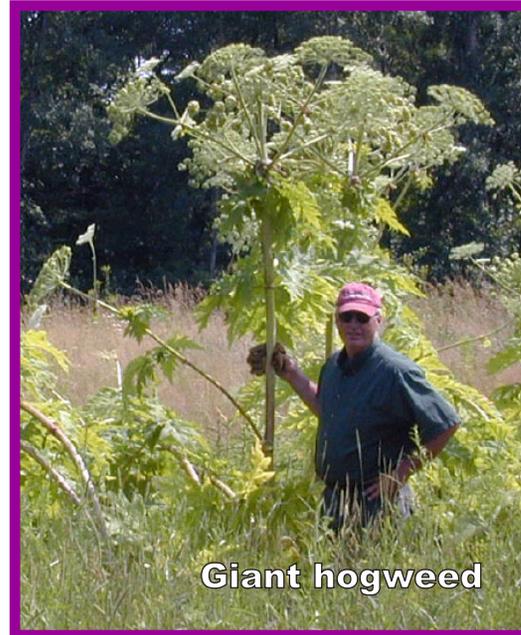
EARLY DETECTION & RAPID RESPONSE

Idaho State Department of Agriculture defines **Early Detection and Rapid Response (EDRR)** as finding invasive plant species during the initial stages of colonization and then responding within the same season to initiate eradication of the invasive plant species.

Statewide EDRR Noxious Weed List:

1. Brazilian Elodea (*Egeria densa* P.)
2. Common/European Frogbit (*Hydrcharis morsus-ranae*)
3. Fanwort (*Cobomba caroliniana*)
4. Feathered Mosquito Fern (*Azolla pinnata*)
5. Giant Hogweed (*Heracleum mantegazzianum*)
6. Giant Salvinia (*Salvinia molesta*)
7. Hydrilla (*Hydrilla verticillata*)
8. Iberian Starthistle (*Centaurea iberica*)
9. Policeman's Helmet (*Impatiens glandulifera*)
10. Purple Starthistle (*Centaurea calcitrapa*)
11. Squarrose Knapweed (*Centauria squarrosa*)
12. Syrian Beancaper (*Zygophyllum fabago*)
13. Tall Hawkweed (*Hieracium piloselloides*)
14. Variable-Leaf-Milfoil (*Myriophyllum heterophyllum*)
15. Water Chestnut (*Trapa natans*)
16. Water Hyacinth (*Eichhornia crassipes* M.)
17. Yellow Devil Hawkweed. (*Hieracium glomeratum*)
18. Yellow Floating Heart (*Nymphoides pelata*)

If any of the above listed plants are found to occur in Idaho, they shall be reported to the Department within ten (10) days following positive identification by the University of Idaho or other qualified authority as approved by the Director. These weeds shall be eradicated during the same growing season as identified.



YEW POISONING

The genus *Taxus* consists of three commonly grown ornamental shrubs - English yew, Canada yew, and Japanese yew - and hybrids, plus the native Western yew. The needles and seeds of all yews are highly poisonous to horses, cattle, sheep and goats; although the red, fleshy seed covering is not. Humans, particularly children, are also susceptible to the toxins in these plants.

Yew species contain a number of toxic alkaloids, including "taxine" that mainly affect the heart. Livestock are accidentally poisoned when yew trimmings are thrown onto manure piles or over a fence, where they are easily accessible. Recently elk and antelope in south Idaho were poisoned after grazing yews in the landscape when heavy snows forced them into residential areas. Yews, fresh and dried, are toxic year round.

Yews are evergreens with soft, flat abruptly pointed, needle-like leaves. The upper surface is dark green with a lighter green underside. Leaves are arranged spirally or in a flat plane. The bark is thin and scaly and varies from dark, reddish-brown to purplish-brown. Hard, dark brown/blue seeds are set inside an attractive, red, fleshy fruit.

Yews are planted for many landscape purposes. Never plant yew trees or shrubs near horse and/or livestock pastures. Remove any yews growing wild in, or adjacent to, horse and livestock pastures or wooded pastures.

Evergreen branch clippings of yew are sometimes used to make wreaths and decorations. Never hang where they are accessible to livestock. Never discard yew ornaments or hedge clippings of yew where they are accessible to livestock.



PlayCleanGo.org

STOP INVASIVE SPECIES IN YOUR TRACKS

Invasive species are plants, animals, and microorganisms that are not native to a particular area. They are also species that are capable of causing severe damage in areas outside their normal range, harming the economy, the environment, or human health once they become established.

There are many things you can do to help slow the spread of invasive species. One of the most effective ways to manage invasive species is to Take Action and Get Involved. Here are some easy action steps you can take:

- **REMOVE** plants, animals & mud from boots, gear, pets, & vehicles.
- **CLEAN** your gear before entering & leaving the recreation site.
- **STAY** on designated roads & trails.
- **USE CERTIFIED** or local firewood & hay.

GIVE INVASIVE SPECIES THE BRUSH OFF.

Visit PlayCleanGo.org for more information.



Inland Empire Cooperative Weed Management Area (IECWMA):

November 2017						
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
19	20	21	22	23	24	25
26	27	28	29	30		

January 2018						
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	19	20
21	22	23	24	25	26	27
28	29	30	31			

December 2017

County Weed Control Offices:

Benewah County Noxious Weed Control
 (208) 245-2234
carlrichel@hotmail.com

Kootenai County Noxious Weed Control
 10905 N Ramsey Road,
 Hayden ID 83835
 (208) 446-1290
kcnoxiousweeds@kcgov.us
www.kcweeds.com

Shoshone County Noxious Weed Control
 700 Bank St. Ste 35,
 Wallace ID 83873
 (208) 753-5475
cyoung@co.shoshone.id.us
www.shoshonecounty.org

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 ●	27	28	29	30
	Christmas					
31						

IECWMA PRIORITY WEEDS

The Inland Empire Cooperative Weed Management Area (IECWMA) has two priority weeds for which we are using grant funds to try to eradicate. They are houndstongue and viper's bugloss. If you see these weeds please report them to your County Noxious Weed Department. If they are on your property, call for chemical control options.

HOUNDSTONGUE (*Cynoglossum officinale*)



Boraginaceae, the borage family

- The Velcro™-like seeds easily attach to animals and are then spread to new sites. Found in pastures, disturbed areas and roadsides.
- A biennial plant that spreads by seed. It grows 1 to 4 feet tall the second year.
- Leaves are hairy, have distinct veins and are shaped like a hound's tongue. Reddish-purple flowers are small and develop a Velcro™-like seed that sticks to almost anything it touches.

Caution: Houndstongue is toxic to animals. It contains pyrrolizidine alkaloids, causing liver cells to slowly die. Animals may live for six months or longer after consuming a lethal dose. Sheep are more resistant to houndstongue poisoning than are cattle or horses.

Non-Chemical Control:

- Hand pulling can be done on small sites in the spring before the plants produce their seeds. Always wear gloves.
- Mowing will reduce seed production. Make sure to mow before the plant blooms.
- Pasturelands must be healthy to recover from infestations and treatments, so fertilization is important.

VIPER'S BUGLOSS (*Echium vulgare*)



Boraginaceae, the borage family

- Also known as blueweed, grows best in open meadows, overgrazed pastures and poorly drained slopes and roadsides.
- 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.

Caution: Animals will normally not graze the plant; chronic ingestion (whether fresh or in hay) can cause liver failure in horses, cattle and sheep.

Non-Chemical Control:

- Blueweed cannot withstand regular cultivation.
- Prevent seed production by cutting and destroying flowers.
- 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.

PROHIBITED GENERA

Idaho State Department of Agriculture added this new rule to the Noxious Weed law in 2017:

Idaho Statewide PROHIBITED GENERA Noxious Weed List

- a. All plants and plant parts in the generas of *Cytisus*, *Genista*, *Spartium*, and *Chamaecytisus* additionally including "all" subtaxa of these plant genera are prohibited in Idaho.
- b. Weeds listed in the Prohibited Genera list may exist in varying populations throughout the state. The concentration of these weeds is at a level where control and/or eradication may be possible. A written plan for weeds on the Statewide Prohibited Genera Noxious Weed List shall be developed by the control authority that specifies active control methods to reduce known populations in not more than five (5) years. The plan shall be available to the Department upon request.

Although Scotch broom has been listed as a noxious weed in Idaho for many years a **PROHIBITED GENERA** rule was added this year. This rule makes all broom species noxious in Idaho. Hybrids and crosses of *Cytisus* can no longer be sold as well as the other generas.



Cytisus – Scotch broom



Spartium –
Spanish broom



Genista



Chamaecytisus

POLLINATOR PROTECTION



Birds, bats, bees, butterflies, beetles, and other small mammals that pollinate plants are responsible for bringing us one out of every three bites of food. They also sustain our ecosystems and produce our natural resources by helping plants reproduce. Without the actions of pollinators agricultural

economies, our food supply, and surrounding landscapes would collapse.

What can you do to promote and protect pollinators?

- Plant for pollinators
- Cultivate native plants, especially those that provide nectar and larval food for pollinators. Install houses for bats and native bees
- Supply salt or mineral licks for butterflies and water for all wildlife
- Reduce pesticide use
- Substitute flower beds for lawns

A few things to keep in mind when planting your own garden:

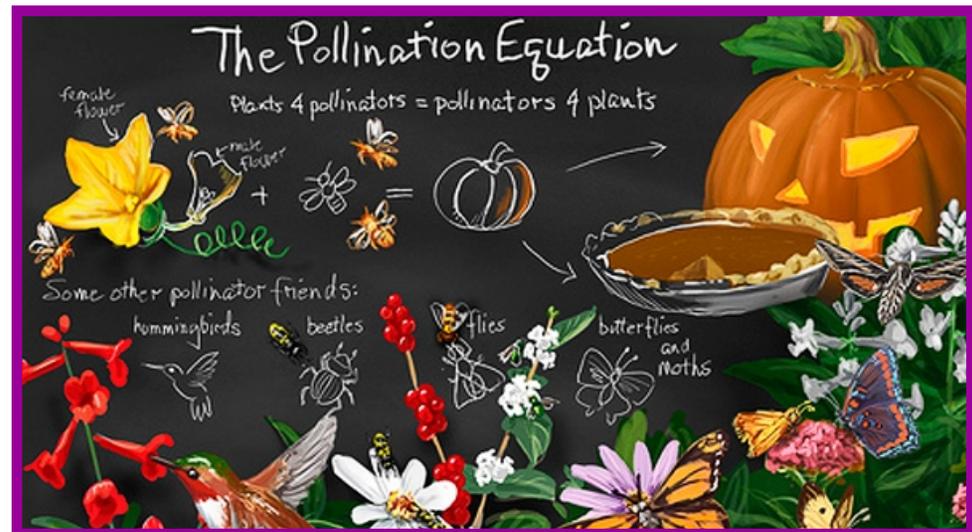
- Use plants native to your area. Native plants have many benefits for you and the environment. Native plants generally require less watering and fertilizing than non-natives because they are adapted to local soils and climate conditions. Native plants are often more resistant to non-beneficial insects and disease as well. Wildlife evolved with plants; therefore, they use native plant communities for food, cover and rearing young. Using native plants helps preserve the balance and beauty of natural ecosystems.

- Select a variety of flower forms (tubular, wide open), colors and height, to attract the widest variety of pollinators.
- Select plants that will flower at different times of the year to provide continuous sources of nectar.
- Group individual plants of the same species together. This can make collecting nectar more efficient for the pollinator, and increase the likelihood that a pollen grain will be transferred to another plant of the same species (pollination). It also will look more attractive.

For more information, visit these sites:

Pollinator Partnership - <http://www.pollinator.org/>

Idaho's Pollinator Protection Plan - <http://www.agri.state.id.us/AGRI/>



DISPOSING OF NOXIOUS WEEDS

Controlling noxious weeds can generate large amounts of plant material. Properly managing this material, as well as soil that may contain roots or seeds, will help prevent the spread and reestablishment of these noxious weeds. Controlling noxious weeds early in the season, before they flower and develop seed, will generate less material to manage. Contact your County Noxious Weed Department for information and assistance that is specific to your county.

If plants are flowering, cut and bag flowers when possible to prevent seed development and dispersal. Seal bags and put them in the trash. Noxious weeds that have been treated with herbicide may be left in place with some exceptions (such as toxic plants in pastures with horses or other livestock as herbicide treatment may make them more palatable).

Woody materials that do not have seeds and do not spread vegetatively can be controlled by pulling or cutting plants and leaving them on site with roots exposed to dry, making a brush pile, chipping or burning. If seeds are present, leave on site and pile and cover with a tarp or burn, and monitor the area for new plants.

Herbaceous material that does not include seeds and does not spread vegetatively can be composted, pulled and bagged or pulled or cut and left to dry on site with roots exposed. Large amounts can be pulled or cut and piled, tarped and monitored.

Toxic, noxious weeds must be handled carefully. Wear protective clothing and eye protection to prevent accidental exposure. Do not compost or put in yard waste. It is best to dispose of these weeds to prevent poisoning of people or animals.

Composting: Most home compost piles do not get hot enough to kill seeds or plants, so only add noxious weeds that do not have flowers or seeds and do not spread vegetatively.

Some city compost facilities may be hot enough to kill noxious weed material. Woody plants that do not spread vegetatively can be chipped and left on site to compost. Chip before plants flower and develop seed.

Burning: May be an option for large amounts of plant material. However, burn only in accordance with all federal, state, and local laws and ordinances and permits. Monitor weather conditions prior to ignition to avoid hazardous fires. It is not advisable to burn some toxic plants.



ORANGE HAWKWEED CONTROL

Orange hawkweed (*Hieracium aurantiacum*),



also known as devil's paintbrush, fox and cubs, king devil, and missionary weed, is a showy perennial known for its bright orange-red flowers that are evident throughout the summer and early fall.

Originating from Europe, orange hawkweed is recognized as an invasive plant and noxious weed in the United States and

Canada. Introduced to North America as an ornamental sometime prior to 1818 its invasive qualities have allowed this plant to easily escape the landscape and it now can be found in native meadows, forest openings, pastures, roadside, and right-of-ways from Florida to Alaska. Once established, it quickly spreads by seed, aboveground stems (stolons), and below ground stems (rhizomes), developing dense patches that displace native vegetation.

The preferred method for control of this weed is prevention. To prevent plants from spreading from existing populations: carefully clean vehicles, boots, clothing, and pets after visiting infested areas. Seeds are small and easily carried in mud and debris.



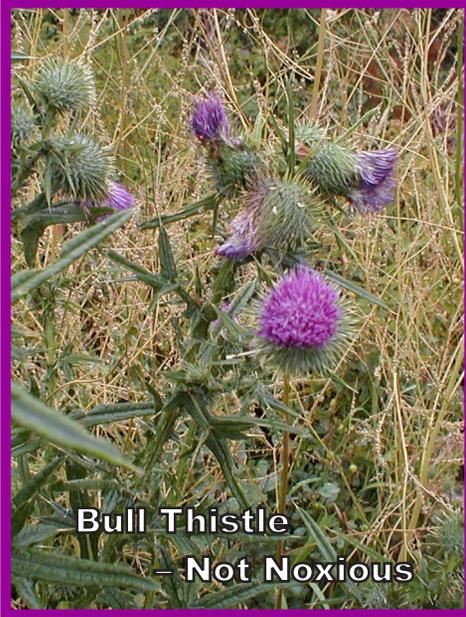
To prevent new infestations: monitor for invasive plants, maintain proper turf and ornamental management including watering, fertilizing, and mowing, and avoid unnecessary site disturbances. Maintain native vegetation that will provide competition for weedy invaders through appropriate seed mixtures, moderate grazing, fertilization, and irrigation. Do not use orange hawkweed as a garden ornamental, and review the ingredients of wildflower mixes to avoid accidental introduction. When possible, avoid using wildflower mixes with unidentified seed entirely.



For control of small infestations, recommendations include: carefully digging out plants when soil is moist, covering small areas with light-impenetrable ground covers for several years or spot treating with an appropriate herbicide, all followed by reseeding with a suitable grass mixture.

For larger infestations, herbicides may be the only effective control method. Contact your local Extension Office or County Noxious Weed Department for information on herbicide recommendations and use.

THISTLES



Bull thistle (*Cirsium vulgare*), is a biennial with a short, fleshy taproot. Flowers are pinkish-purple and appear in mid-summer. The stem is 2 to 5 feet tall with many spreading branches. Leaves in the first year form a rosette which are hairy and prickly on the upper side and cottony underneath. It is possible to separate bull thistle from Canada thistle by examination of the leaves alone. Bull thistle leaves are prickly hairy above and cottony below, while Canada thistle leaves are glabrous above and glabrous or hairy below.



Canada thistle (*Cirsium arvense*) is a colony-forming perennial from deep and extensive horizontal roots. Stems are 1 to 4 feet tall, ridged and branching above. Clusters of purple flower heads appear in the summer. This aggressive weed is difficult to control; for example, breaking up the roots by plowing only serves to increase the number of plants. What appear to be

new seedlings are usually new shoots arising from extensive creeping root systems.

NON-CHEMICAL CONTROL:

- Digging up or tilling the rosettes.
- Remove flower heads to prevent seed production.
- Improve fertility to favor grasses.

Scotch thistle (*Onopordum acanthium*) is a biennial that grows up to 12 feet tall. Stems have broad, spiny wings. Leaves are large, spiny, and covered with fine dense hair, giving a grayish appearance. Violet to reddish flowers are 1 to 2 inches in diameter and produced the second year. Stems appear to have wings. It is an aggressive plant and may form stands so dense that they are impenetrable to livestock.



CHEMICAL CONTROL: Contact your County Noxious Weed Department or County Extension Office for herbicide recommendations.



TOADFLAX BIO-CONTROL INSECTS



Dalmatian toadflax

Dalmatian and yellow toadflax are tap-rooted, short-lived, perennial forbs which have been declared noxious by the Idaho Department of Agriculture. Both of these highly competitive and invasive weeds were introduced to North America from Eurasia during the 1800's as ornamental plants, and for use in fabric dye and folk remedies.

Biological control of weeds is the deliberate use of natural enemies to limit the distribution and abundance of a target weed. Since Dalmatian and yellow toadflax are not native to North America, their natural enemies

had to be found in Eurasia. The first biological control agents for toadflaxes were unintentionally introduced into North America with infested toadflax plants from Europe. During the late 1950's, two seed-feeding weevils, *Rhinusa antirrhini* and *R. netum* and a flower-feeding beetle, *Brachypterolus pulicarius* were discovered in Canada on yellow toadflax. These biological control agents can be found in most toadflax patches, but have not brought the plants under control.



Yellow toadflax

Since then, five additional species have been screened for safety and released in North America as biological control agents: a defoliating moth, *Calophasia lunula*; two root-feeding moths, *Eteobalea intermediella*, and *E. serratella*, a root-galling weevil *Rhinusa linariae*, and a stem-mining weevil, *Mecinus janthinus*. The defoliating moth is widely distributed but not reducing toadflax abundance. It is not certain if the root feeding moths or the root galling weevil have established in North America, while the stem mining weevil is showing promise in controlling Dalmatian Toadflax.



Rhinusa antirrhini



Brachypterolus sp.



Mecinus janthinus in Dalmatian Toadflax Stem

INTEGRATED WEED MANAGEMENT

Designing an integrated weed management program starts with identifying and prioritizing the weeds infesting your property. You can improve your weed and crop management efficiency by grouping plants that require similar practices together.



Accurate weed identification is essential for successful weed management. Learn to identify common weeds and consult your local County Noxious Weed office or Extension office for identification and control methods. Perennial weeds are particularly difficult to control. Once established, most contain large storage organs such as roots, rhizomes, tubers or trunks and vines.

Learn to identify mature and seedling weeds. Correct identification of perennials in the seedling stage can provide control options while the plant is small and vulnerable.

Proper landscape or crop management favors the crop instead of the weed. Choose the right site, buy clean topsoil, compost or nursery plants and direct irrigation and fertilizer to provide essential nutrients to crops without broadcasting it for use by weeds. Mulches placed on the soil surface physically impede weed growth and emergence.



Cultural control such as cultivation (hoeing) or hand-weeding is best done before plants bloom and set seed. Some weeds such as purslane must be removed from the garden area or they will root and continue to grow and produce seed.



Cultivation, especially rototilling, chops and rapidly spreads most perennial weeds thus worsening the problem.

Biological control involves the use of biotic organisms such as insects or microbes to reduce or limit the impact of weeds and other pests.

Successful weed management combines several control methods with management practices to improve crop competitiveness.

Always keep seedlings or new plants from becoming established plants, especially as perennial weeds. Apply controls at the correct time. If you choose to apply herbicides, read and follow label instructions. Calibrate your equipment and apply precisely the amount stated on the label.



Continually evaluate and monitor the infestation. Modify your choice of controls if results are not satisfactory. Remember, weed control requires patience and persistence.



September 2018

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

October 2018

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

Information for this guide came from the
Inland Empire Cooperative Weed Management Area Weed Identification and Control Handbook 2014

November 2018

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

December 2018

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	27	28	29 ●
		Christmas				
30	31					

Design and Printing:

Ron Harbison and Tracey Kelly of Kootenai County Reprographics Center; Weed Specialists Shelby Heiderman & 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 [®] , Hi-Yield [®]
2, 4-D + dicamba	Weedmaster [®] Range Star [®] Brash [®]	Weed-B-Gon Weed Killer [®] Bayer All In One 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 [®] ; Weed-B-Gon Poison Ivy/Brush Killer [®] ; Image Brush & Vine Killer [®]
Triclopyr + Clopyralid	Brazen [®] ; Prescott [®]	Confront [®]
Triclopyr + 2, 4-D	Crossbow [®]	