

A 2023 Weed Guide for the High Lostine Owners Association

To help property owners cope with invasive weeds the Weed Committee put together this guide tailored to the HLOA. You can look for 3 things here:

1. Coping strategies:
2. Available resources to help (both people and material help).
3. A targeted list of problem weeds in the High Lostine, with their identification and a suggested management plan.

Coping Strategies: The HLOA encourages each property owner to become familiar with weed identification and to assume responsibility for weed management on their lot.

If you are confident of your weed identification skills, you are responsible to pull and/or treat weeds on your property. If you are new to the High Lostine or weed identification, guidance is available from (1) this online guide, (2) "A Field Guide to Northeast Oregon's Noxious Weeds", (3) seeking consultation from an experienced HLOA member who can review your property with you, or (4) you can contact a weed contractor (below) to come to your property to advise and treat.

Available resources:

Thanks to Andy Marcum, the Wallowa County Vegetation Manager, for providing the pamphlet: "A Field Guide to Northeast Oregon's Noxious Weeds" for the 2023 HLOA Annual Meeting.

2023 Wallowa County's Cost Share Program:

The County will help pay for the cost of fighting weeds on your property and identifies their contractors. (<https://co.wallowa.or.us/public-works/vegetation/resources/>)

If you purchase herbicide to treat your property, or hire a professional contractor, the Wallowa County Vegetation Department will reimburse 50% of your cost up to \$500 from the county. Just submit your invoice/receipt with the county cost-share form found on the website above to: **Andy Marcum** (andy@co.wallowa.or.us). Contact information below.

Professional Weed Sprayers in Wallowa County

1. Jake Spaur (Back Country Spraying)- 541-398-0810
2. Heath Naughton- 541-263-2965
3. Skip and Luke Royes- 541-426-0265
4. Jon Wick- 541-263-0930
5. Josh Riddley- 541-910-7378

County Weed Experts: Andy Marcum is the first person to contact since his jurisdiction includes the High Lostine. Joe is primarily responsible for rangelands, but works closely with Andy. They are both very busy in the weed season.

Andy Marcum

Wallowa County Vegetation Manager
amarcum@co.wallowa.or.us
541-426-4543 ext 1206

Joe Sims

Wallowa Resources
Director of Programs/
Watershed Stewardship Program Director
jsims@wallowaresources.org

If you prefer to treat weeds yourself

Andy Marcum can advise on purchasing, mixing and spraying herbicides. Andy can also, at times provide equipment such as backpack or hand sprayers for landowners to utilize free of charge. Contact Andy for more information.

2023: A targeted list of problem weeds.

There are 6 major weeds in the HLOA to worry about:

1. Spotted knapweed- A list
2. Cheatgrass- (not listed. Ob-noxious, not noxious)
3. Canada thistle- B list
4. Meadow hawkweed- A list
5. Houndstongue- B list
6. Sulfur cinquefoil- B list

Of course, the world is full of many more weeds than these. Besides...what constitutes a weed is partially in the eyes of the beholder. So, treat this list as a starting point; feel free to develop your own favorite weed list. But remember that weeds become a community-wide problem when they become invasive, reduce biodiversity by driving out other species of plants, increase fire danger and reduce the economic value of the land. Remember that weeds on your property can become a weed problem on your neighbor's property. The HLOA is also a gateway to the Eagle Cap Wilderness. We can help provide a barrier to keep weeds from encroaching into the wilderness or from weeds in the wilderness moving down to more private lands.

General Approaches to Controlling Weeds

We in the HLOA really have only four ways to deal with invasive weeds.

1. Manual removal—Dig/pull them up. This is do-able for some weeds on our target list (but not all of them). Manual labor works best for small areas. Digging takes persistence

but can be satisfying to see the immediate results of your efforts. Plan on being satisfied for more than one or two seasons.

2. Herbicides—Herbicides can be very effective but must be treated with great respect. It may be best to allow professionals to apply. This is especially true if you live along the river or a stream. Two keys: 1) match herbicide to weed; 2) apply at the proper time of year; 3) apply at the correct rate per acre. If you pick the wrong month to spray or are mixing at incorrect rates, you will be wasting time and money. Remember, the label is the law when it comes to herbicide application. Follow labels or contact an expert for mixing rates and application instruction.

3. Biological agents—This refers to the use of organisms (insects or diseases) that target (eat, kill, etc.) weeds. While an intriguing approach, many weeds aren't susceptible to any known agents. Currently available is a rust fungus for Canada thistle and a couple different insect species for knapweeds. This is an area with lots of on-going research. If you are interested in more information about biologicals, please contact the Oregon Department of Agriculture or Andy Marcum.

4. Replanting/revegetation—Weeds grow back, sometimes more vigorously than before removal. Replanting an area with native or non-invasive plants is often a critical step in successfully controlling invasive weeds. If planting native grasses bring out the Walt Whitman in you take a look at these websites:

- For non-natives revegetation:
 - Oregon Trail Seeds has an Imbler location and they are a great source for pasture grasses. <https://www.otseeds.com/products.html>
 - Grassland West is another option out of Clarkston, WA. <http://grasslandwest.com/reclamation/>
- For native plant revegetation, BFI is a great (www.bfinativeseeds.com/contact.aspx)
 - EASTERN OR-WA MOUNTAIN FOREST MIX - \$12.90/lb. (2019 prices)
 - 26% Blue Wildrye
 - 14% Bluebunch Wheatgrass
 - 18% Idaho Fescue
 - 18% Mountain Brome
 - 14% Prairie Junegrass
 - 10% Red Fescue
 - For open areas, OREGON HIGH DESERT - \$14.25/lb. (2019 prices)
 - 42% Bluebunch Wheatgrass
 - 16% Bottlebrush Squirreltail
 - 22% Idaho Fescue
 - 8% Prairie Junegrass
 - 12% Sandberg's Bluegrass

Specific strategies for each of the six targeted weeds: Page numbers refer to the booklet: *A Field Guide to Northeast Oregon's Noxious Weeds*

1. Spotted knapweed (Centaurea Stoebe) Page 32

Wallowa County weed experts have identified the High Lostine (and neighboring areas) as a “spotted knapweed containment area.” This means that knapweed is well established here. They are very common in the HiLo. The County’s goal is to keep it from spreading further. We owe it to ourselves and the County to assist in this effort.

Identification: Knapweed is a member of the sunflower family. It was introduced from Eastern Europe (where, ironically, and perhaps perversely, it is now endangered!). An individual plant will live for 2 years and reach a height of 1 to 3 feet. Flowers are pink to pink/purple. The area just below the flower (the bract) has a distinctive oval shape and black spots (hence the weed’s name). The plant blooms from June to October.



What we are up against: In a way knapweed (and all weeds) are horticultural marvels. They do so many things well. Consider that a single knapweed plant can produce 40,000 seeds in a year. Those seeds can remain viable in the soil for 7 years or longer. Even more impressive, knapweed produces a chemical that inhibits the growth of surrounding plants. Grazing animals will not eat it. In fact, (to cite one example) elk have been known to change their migration patterns to avoid it.

Controls:

Manual removal: Hand pulling is feasible for scattered plants or for small areas where other control methods are not practical. Try to get as much root as possible. You’ll have to repeat your efforts up to 3 times a year. If you pull it, best to wear gloves. Some people have claimed serious hand damage from chemicals secreted by knapweed.

Herbicides

Milestone/Aminopyralid—effective in June and July until flowers start to form.

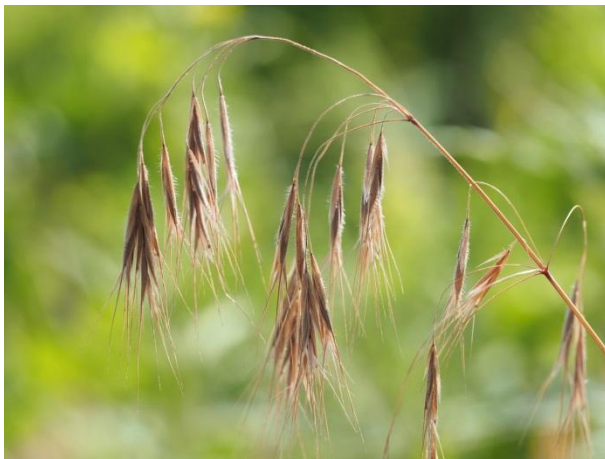
Biological Controls Seed head moth, root boring moth, seedhead weevil are all insects that exist in Wallowa County. If you have a site large enough to sustain a population of insects or are unsure, contact Andy for more information.

Revegetation: See general comments above.

2. Cheatgrass (*Bromus tectorum*)

Cheatgrass isn't new to Wallowa County; you can see all along Lostine River Road. But it is new to our subdivision, so it is possible to prevent it from getting a hold here.

Identification: Cheatgrass is an annual grass, meaning it sprouts, grows, produces seed, and dies within one growing season. It is known as a winter annual because its seeds usually germinate in the late winter months. The plant grows in early spring (it tricks you into thinking that spring is here!), and then it quickly dies by early summer. Cheatgrass can be several inches to more than 18 inches tall. Typically, it has a nodding seed head that resembles a "shepherd's crook". The leaves are hairy and bright green for a short time in early spring. However, they quickly dry out and turn reddish-brown, then straw color as the summer progresses. The seeds are notorious for getting stuck in socks and dogs' ears.



What we are up against: Cheatgrass roots grow in the winter and germinate early, taking moisture from other plants. Cheatgrass can reach densities exceeding 10,000 plants per square yard. Since it dries out so early in the season, cheatgrass is also a very serious fire hazard. If started on a windy day, a cheatgrass fire can produce flames in excess of 8 feet and travel 4½ mph. After a fire cheatgrass out-competes native grasses and shrubs (it is very hard to kill cheatgrass seeds, even with fire).

Controls:

The best way to deal with cheatgrass is to keep it from getting started by maintaining healthy native and non-invasive plant communities. However, if you have cheatgrass, the

key is to limit seed production. Remember that this is an annual grass—no seeds, no cheatgrass.

Manual removal: you can pull small areas of cheatgrass by hand. But do it before the seeds drop and be careful to bag the plants. You can contact Andy for information to dispose of bags at the county burn pit free of charge.

Herbicides: The county has gotten much better control of annual grasses (like cheatgrass) by spraying in the Fall. Fall spraying has the added benefit of lowering the risk of injuring perennial grasses (which are more vulnerable in the spring). Recommended timing and herbicide is using Imazapic (Plateau/Panoramic) at 5-7oz per acre in the late summer early fall, August-September.¹

Biological Controls: There are, as yet no approved biological control agents for cheatgrass.

Revegetation: Replanting is critical. “I would always re-seed. Each little square inch that cheatgrass occupied is going to re-infest with weeds if you don’t get some good seed in there.” See list of grasses to plant.

3. Canada thistle (*cirsium arvense*) Page 26.

There are many kinds of thistles in Wallowa County. I’ve targeted Canada thistle because it spreads both by seed and by a tenacious underground system of vertical and horizontal roots.

Identification: Canada thistle has small pink to purple flowers, one to a branch tip. The plants vary in height from 3 to 5 feet, with glossy foliage on the upper surface and woolly foliage on the lower leaf surface (this is reportedly one of the more variable characteristics). Leaves have stiff spines.² Stems are spineless (the cowards!).



¹ Andy is willing to provide a bottle of Imazapic for HLOA members to share.

² Oregon State Nursery

What we are up against: A Canada Thistle seedling can reproduce in as little as 6 weeks after germination, and in one season a single plant can develop a root system that goes 6 feet deep and 20 feet sideways. Severed roots can produce new plants, so breaking roots while pulling can actually spread the weed from root fragments as small as one quarter inch long.³

Controls:

To eliminate Canada thistle you must tackle its root system. A successful control program requires multiple seasons, and multiple treatments within a season.

Manual Removal: Most sources state that manual removal is not effective for Canada thistle (those roots!). However, Andy says that he's seen success in digging out small infestations as long as you can access and ensure you have collected the entire root system.

Herbicides: Experts recommend a spring and fall treatment cycle, with fall being more critical. Fall is when the plant is recharging its root system for the next growing season and is most susceptible to herbicides. Spraying in the spring can prevent seed set and eliminate the first growth. However, herbicide choice is less critical in the spring, since well-established Canada thistle will eventually regrow after a spring application, regardless of the treatment.⁴

Milestone/Aminopyralid at 7oz/acre in both the spring and fall at rosette stages will help you get ahead of Canada thistle.

Biological Controls: In 2020 the county began releasing a rust fungus on Canada thistle sites to determine effectiveness and survival in our climate. As of 2022 most of the rust has survived and available for collection and re-location. The fungus does not move well from plant to plant. If you have sites that are further than a few feet apart, fungus must be placed in each site.

Revegetation: a well-established groundcover, particularly a grassland planting, greatly aids control efforts by competing with the thistle as you suppress it. See above list.

4. Meadow Hawkweed (Hieracium pratense) Page 60.

County weed managers have set their sights on a few critical areas, including the Lostine (our backyards in other words), to keep Meadow Hawkweed from spreading. They consider Meadow Hawkweed "a truly aggressive invader."

Identification: Meadow Hawkweed is a creeping perennial plant with shallow, fibrous roots and long runners that look a little like strawberry runners. The leaves are spatula

³ Clackamas Soil and Water Conservation District

⁴ <http://www.pgc.state.pa.us/crep> UADA Fact Sheet #1

shaped, up to 6 inches long, and typically stay very close to the ground. The stems are up to 3 feet tall, covered with short bristly hairs, usually leafless, and contain a milky sap. One clump of leaves will have 2-8 flower stems. Flowers look like dandelions with up to 30 flower heads near the top of the plant. The plant flowers from May to July. The seeds also look very similar to Dandelion seeds and are spread by wind. [Bye the bye....The name Hieracium comes from the Greek 'hierax', meaning hawk: allegedly keen-sighted hawks of yore ate the sap to sharpen their eyesight. I do not recommend you try it.]



Caution: There is a native Hawkweed that looks very similar to the invasive weed variety, but the native is extremely hairy, does not have runners, and usually does not grow in thick patches.⁵

What we are up against: Meadow Hawkweed can take root and form new plants through rhizomes (underground horizontal stems), runners or via wind-born, highly mobile seeds that spread very quickly.

Controls:

Manual Control: Some experts say that small infestations of meadow hawkweed can be eradicated by careful and repeated digging of the ground-hugging leaves and roots. If you do so, be sure not scatter the roots or runners: they will start new plants. Mowing is ineffective. Fertilizer can help natives out-compete meadow hawkweed. ⁶ That said, Andy cautions: " I am REALLY wary of the risk of digging meadow hawkweed. All it takes is 1/8th of an inch of root or stolon fragment to make it somewhere it doesn't belong, and then we are accidentally spreading the weed while trying to kill it."

Herbicides: Spring and summer treatments, with herbicide works best. Picloram⁷ Aminopyralid (Milestone) should be applied at 7oz per acre after the leaves at the base of the plant emerge, but before formation of the flower buds. June-July depending on weather and plant growth.

⁵ Wallowa Resources

⁶ Wallowa Resources

⁷ Picloram is a restricted use herbicide and can only be purchased/applied by certified applicators.

Biological controls: No approved biological control agents are available.

Revegetation: same drill as above.

5. Houndstongue (Cynoglossum officinale) Page 34.

Houndstongue is highly invasive, thanks in part to the successful mobility strategy of its seeds, which are covered in hooked barbs that easily attach to all creatures great and small.

Identification: Houndstongue is named for the leaves at the base of the plant that are velvety and shaped like a dog's tongue. The typical plant is from 8 to 30 inches tall. The leaves on the stems are long, but get smaller toward the top. The flowers are reddish/burgundy and bloom from June to August. Seeds are famously nicknamed 'Velcro buttons.' They stick to just about everything.



What we are up against: The barbed seeds stick to hair, wool, fur, socks, you name it. Houndstongue also contains pyrrolizidine alkaloids which is toxic to livestock.

Controls:

Don't spread the seeds.

Manual Controls: Digging and/or pulling are effective if done frequently. Remove as much root as possible. Try to pull up plants before they go to seed. If you pull up the plants after they have flowered, be careful to bag and remove them from your site to prevent seed spread.

Herbicides:

Metsulfuron (Escort): any time the plant is actively growing.

Chlorsulfuron (Telar): early to flowering stage.

Note: Because of the hairy leaf, it is important to use a surfactant to help the herbicide stick to the plant. The easy way to do this is to add a bit of dish soap to the mix. The normal dose is about a tablespoon per gallon of spray.

Biologicals: No approved biological control agent is currently available.

Revegetation: Strongly encouraged. Houndstongue does not withstand regular cultivation and is less competitive in areas with healthy grass cover. See list above.

6. Sulfur cinquefoil (*Potentilla recta*) Page 68.

Sulfur Cinquefoil spreads rapidly and is difficult to control. Once established, it forms dense stands and out-competes perennial grasses and other plants.

Identification: Named for its pale, “sulfur yellow” flowers, Sulfur Cinquefoil is a woody perennial with a taproot and several shallow branch roots. It can grow to about two feet in height. The leaves look like marijuana. They grow upright against the stem, overlap one another and are lighter green on the bottom than on the top. The plant is covered with both fine and coarse iridescent hairs (everywhere except the flower itself). Flowers can have a slightly orange hue in the center. The plant produces thousands of tiny brown seeds.⁸



Caution: Be careful not to confuse the sulfur cinquefoil with the native cinquefoil. The native has bright yellow flowers, not pale sulfur-colored flowers. The native also lacks long hairs along the stems.

Control:

⁸ Wallowa Resources

Manual Control: Digging is effective for small populations if the soil is moist and loose enough and if most of the woody root is removed. Mowing is not effective since it can stimulate “crown-sprouting” and/or spread the infestation if plants are already in seed.

Herbicides: Several herbicides are effective but may require repeat treatment and a suitable surfactant. Spring treatments, with herbicide works best. Picloram⁹ Aminopyralid (Milestone) at 7oz per acre should be applied after most of the basal leaves emerge, but before flower buds form. Fall treatments should also be effective with Milestone.

Biological Control: There is no approved biological control agent for Sulfur Cinquefoil.

Revegetation: Do it! Establishing healthy perennial plant communities, with both broadleaves and grasses, is essential to long-term success.

Proposed Weed Management Plan for HLOA Common Areas

The HLOA has joint responsibility for at least 4 common areas. To manage weeds in those areas, Andy Marcum proposes the following activities:

- Along Tamarack Lane: Contract with a professional sprayer in late spring/early summer.
- Commons (along the river): Weeds are currently under control. Ask property owners to remain alert to weed invasions, especially Knapweed.
- Forested area behind the west edge of the development: Re-assess after any tree thinning.
- Water tank (and access road to tank): Manually pull weeds near the tank in spring. Replant with native grasses. Contract with a professional weed sprayer to treat the access road.

Summary: Don't despair! If each of us assume personal responsibility for our properties, the High Lostine can remain relatively clean of noxious weeds. Many of the weeds described above are coming under control as owners learn to identify them, learn how to manage them (pulling and/or spraying the appropriate product at the appropriate time) using advice and assistance from Wallowa County experts, and application of persistent diligence.

⁹ Picloram is a restricted use herbicide and can only be purchased/applied by certified applicators.