Noxious Weeds—the Scourge of Our Lands

By CHASE YOUNGDAHL

aseline knowledge of noxious weeds varies widely among the public, but one constant that I've discovered is that very few know what



distinguishes a weed from a noxious weed. The fundamental definition of a weed is simply a plant growing where you don't want it to, it can be native or non-native, invasive or benign. A noxious weed is non-native, invasive, and comes with control obligations set in state code. Most were introduced from Europe and Asia, some intentionally, for ornamental purposes, and others non-intentionally as shipping contaminants. Since this is a multi-state publication, I'm aiming to maintain a 30,000-foot view without being specific to Idaho. That said, Idaho examples will occur, and I do want to share the codified definition of a noxious weed in Idaho, and it reads as follows: "any plant having the potential to cause injury to public health, crops, livestock, land or other property; and which is designated as noxious by the director [of the Idaho State Department of Agriculture]". Washington, Oregon, and Montana all have noxious weed laws of their own, and all are going to have similarities and differences with one another regarding the precise definition of a noxious weed, as well as provisions of the code itself.

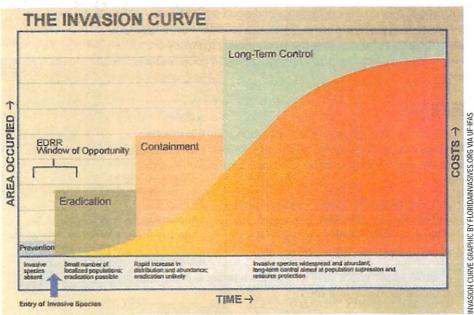
There are hundreds of weeds across the landscape in the Northwest that are not native, many of which are indeed invasive or toxic, but to land on a state's noxious weed list, there is a governmental process that needs to take place. There are 71 subjects on Idaho's noxious weed list, and other states in the northwest have more or fewer (I believe there are over a hundred in Washington and less than 50 in Montana, for example). The listing process begins with a petition

to the state's agriculture department, and if the merits of the petition are strong enough, the case is taken up and discussed and deliberated in negotiated rulemaking meetings. The case either dies in rulemaking or advances to the next state legislative session where the agriculture department recommends the adoption of the presented weed to the noxious weed list. If the department's recommendation advances out of committee, it goes to the full legislature for ratification. This is also the process for delisting a current noxious weed. Even though many invasive weeds deserve attention from the landowner, depending on the management objectives of the land—only the ones on the state's noxious weed list come with landowner responsibilities for control.

Classification of infestation levels is where counties come into play. Not only does each state have its own specific noxious weed issues and priorities, but each county within those states does as well. Typically, there are several classifications (at least three), and the framework is set at the state level, then applied at the county level. For example, the classifications in Idaho are as follows: EDRR (early detection,

rapid response), Control, and Contain. The EDRR noxious weeds infest limited acreage in the county, in some cases the infestation is only confirmed on one site. In other words, these are virtually invisible to the general public, and eradication is the goal. The Control category is for species with moderate infestation levels across the county. The goal of these is to suppress populations, prevent further spread, and possibly eradicate site-specific pioneering colonies. The Contain category is for the species that are widespread across the county, where the goals are geared toward long-term management and resource protection. The strategy is to maintain high-use areas and travel corridors (the largest vectors for spread) and promote public awareness through education. Each state's classification method is a little bit different. but the basic idea is pretty universal. Noxious weeds that are new invaders or occur on a limited basis are dealt with differently than noxious weeds that can be found on nearly every plot of land in a given jurisdiction to some degree or another.

When it comes to property rights, county noxious weed coordinators aim



This is the classic invasion curve that illustrates how eradication becomes very costly and highly unlikely the longer an invasive species is allowed to establish and persist in a new environment.

to strike a balance between upholding state code and respecting people's private property. We are constantly managing competing interests; the farming and ranching community, the forestry and logging community, the nursery and landscaping industry, homeowner's associations, the apiary community, naturalists, activists, municipalities with urban interface, and just your common small acreage residents, to name a few. Inevitably, we are perpetually faced with those who think we are doing too much, and those who think we are not doing enough and that's where the balancing act comes in.

Noxious weed laws require landowners to make control efforts on noxious weeds, and counties are the enforcement mechanism. This is where the classification of infestation levels is applicable in practicality. I'll use Scotch Broom as one example, being that it is listed as a noxious weed in all of the northwest states. It is widespread across the states of Washington and Oregon, particularly west of the Cascades, but it is limited across the states of Idaho and Montana. We have it listed as an EDRR in Bonner County, being that the overall infestation acreage has held below the threshold. I am more apt to exercise the powers in the noxious weed code when it comes to enforcement action on private property (if the landowner is uncooperative or unresponsive) for species like Scotch Broom and others in the EDRR category since eradication is the goal. Small problems become big problems if left unchecked or neglected, and become far more expensive to manage, an expense that is passed along to the taxpayers. On the other side of the coin, Scotch Broom would fall more into a containment strategy for most western counties of Washington and Oregon. Spotted Knapweed is an example of a widespread noxious weed in Bonner County, listed in the Containment category. When it comes to the Containment level of noxious weeds on private property, I use an educational approach and offer customer service-related assistance, such as neighborhood cost

share and technical advice. Every county in every state is going to run a different program, you're not likely to find any two that are exactly the same, so get acquainted with your local noxious weed program coordinator if you have yet to establish that contact. The scenario described above is an example of how I attempt the balancing act in Bonner County when it comes to carrying out my codified responsibilities and being fair to the private property owner. I find it unreasonable to throw the book at landowners with noxious weeds that infest enough property in the county to where there's no realistic shot at eradication, so educating them into compliance and helping provide them with the tools and resources necessary for a long-term management plan is what I find to be most appropriate. In contrast, if a landowner has the only known infestation of an EDRR species, and they're digging their heels in because it's "their property to do as

of the land by producing timber,



Scotch Broom during the flowering phase with seed pods.

they wish", I find it to be a sense of duty to use the legal means available to cut out any cancer before it spreads, with or without cooperation.

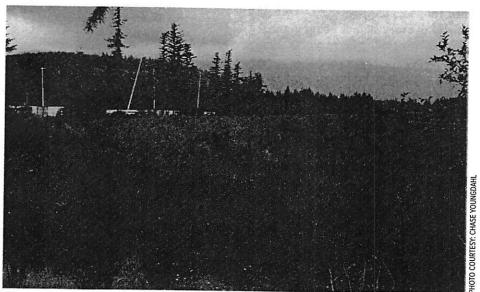
The other part of the private property rights discussion as it relates to noxious weeds, is being a good neighbor. Some noxious weeds have lightweight seeds that can disburse long distances in the wind, directly affecting neighbors' private property. One such example in much of the northwest is the Hawk-

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and recreation programs.



A monoculture of Scotch Broom across several acres on a vacant parcel near Seattle.

weed complex, Orange, and Yellow Hawkweeds. They produce seeds connected to parachute-like tufts (like a Dandelion) that are known to carry for over a mile in the wind. Noxious weed infestations with that mechanism of spread are most likely to get out of hand the fastest and affect neighbors the worst. Hawkweeds take over land to the point of creating large tracts of monocultures, where absolutely nothing else can grow. Noxious weeds are everyone's problem, even for those who feel no personal effects from them. The impacts are broad, broader than

one might think on a surface level. Noxious weeds have a negative impact on more than just agriculture. They also impact natural resources by interfering with reforestation efforts, deteriorating wildlife habitat, or choking out waterways, on top of crowding out native flora resulting in ecological imbalance. Some are so toxic to people that they can create a public health hazard. Additionally, others can cause fire hazards and/or tangible damage to property and infrastructure.

Here are examples of some of the issues:

NORTH PLAINS, OREGON • LONGVIEW, WASHINGTON MOLALLA, OREGON WANTED Conifer and Hardwood Pulp Logs and Chunks over 3' in length PACIFIC FIBRE PRODUCTS, INC. Rob Vance (360) 355-2817 Paul Hadaller (360) 431-9661

Giant, Japanese and Bohemian Knotweeds (the large Knotweed complex)

The large Knotweeds have hollow stems, like Bamboo, and can grow up to 2 feet per week at peak development. What's more, the underground growth of rhizomatous roots grows and develops nearly as fast as what you see vegetatively. These roots have been known to break through the foundations of homes, sewer laterals, and septic tanks. What takes roots of trees dozens or even hundreds of years to achieve, large Knotweeds can do in fewer than 5 years.

Puncturevine

This mat-forming annual likes to take hold in parks and on the edges of roadways and trails. The fruiting bodies are rigid burrs with spines strong enough to damage personal property via puncturing bicycle tires. In the case of dog walkers, injury may occur to your pet's paws.

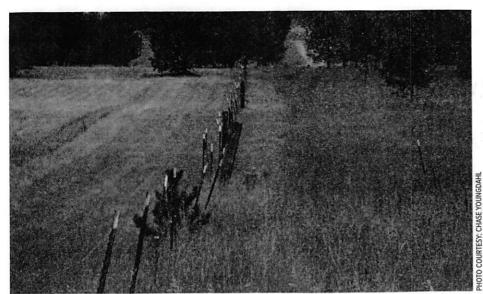
Giant Hogweed

A very large herbaceous plant with a sap that contains such an intense toxicity, that it causes painful burns, skin scarring, and permanent blindness in the case of contact with the eyes. Luckily, this one has yet to be introduced to most of the northwest, however, it does have a confirmed presence in parts of western Washington.

Now that I've established many of the problems, let's touch on some solutions. Integrated management of noxious weeds is a concept that weed managers implement on the ground and promote through education to the public. It's the practice of utilizing every tool in the toolbox—mechanical, cultural, biological, and chemical control on the pillar of prevention.

Mechanical control is simply the physical destruction of weeds, be it mowing, cutting, burning, hand pulling, or cultivating. A practical method for small or isolated patches, or where organic practices are desired.

Cultural control is the practice of keeping desirable vegetation healthy enough to compete with invasive weeds. This method encompasses tar-



Side-by-side property comparison: area treated with herbicides for noxious weeds (left) versus area of untreated Spotted Knapweed (right).

geted fertilization and irrigation, cover crops to tie up fallow ground, and minimizing ground disturbance. Areas of recent ground disturbance serve as a noxious weed infestation vector.

Biological control is the use of living organisms to control noxious weeds. This includes targeting grazing with goats and/or sheep, as they are tolerant to many weeds that are toxic to cattle and horses, and they generally eat everything! Additionally, insects from the indigenous regions of noxious weeds that have proved host specificity are used as a means of control and suppression.

Chemical control is the use of pesticides, specifically herbicides, used to kill or suppress plants. This method is, generally speaking, the "easy button" option. If you're starting from ground zero with a large issue, herbicides are the most viable tool to gain initial ground. This is also the most complex method and warrants a separate article to address the details and nuances, specific chemistries on certain weeds, use sites, label interpretation, safety, sprayer calibration, and more.

Prevention is just that; employing best management practices to prevent the spread and/or introduction of noxious weeds. This includes cleaning equipment, footwear, and clothing before leaving and entering a property, as well as using weed-free mulching and

seeds to the extent possible.

I would recommend obtaining a good noxious weed handbook with full-color photos and physical descriptions, as a start. Reach out to your county resource for noxious weeds to inquire about programs that may be able to assist you with your management efforts. Every property owner should do their part to honor noxious weed laws, and more importantly, be good stewards of the land. ■

CHASE YOUNGDAHL is the Noxious Weeds Department Manager for Bonner County, Idaho, a position that he has held since 2016. He has been working in the world of noxious weeds for 20 years. Following his graduation from Sandpoint High School, he earned an associate degree from Spokane Community College and has since spent countless hours attending continuing education courses, as well as courses for professional development and government relations. Chase is a northern Idaho local and embraces the fact that he gets to contribute meaningfully and make a difference in the community where he grew up. He can be reached at Chase. Youngdahl@bonnercountvid.gov or 208-255-5681 ext.6.



