



WINTER

Winter Health Concerns Of Livestock

Foot Rot

The most common time of the year to see foot rot is in the winter and spring months. Hooves also seem to grow faster in winter months. Combine this with mud, which can be contaminated with foot rot organisms and a higher concentration of animals and you have the potential makings for foot rot outbreak.

Proper management can help mitigate some of these risk factors. Use runoff systems, such as gutters to direct waterway from livestock holding areas. Add gravel to muddy areas and paths. Decrease the animal density and trim feet regularly.

Foot baths can control foot rot if maintained correctly. A poorly maintained foot washing station can make things worse.

Lice

The presence of lice can cause your livestock to have a miserable winter. Lice are nearly 100% species specific, meaning they like to spend their life on one species. Lots of lice can spell trouble, causing anemia and even death. Sick, old, and young animals are more susceptible to lice.

Lice can be treated with over-the-counter powders depending upon the species. Please discuss the use of these products with your veterinarian.

One the bright side, once the weather has warmed to a consistent 60 degrees then the lice will go away, only to return when the weather is cold and damp.

Congenital Hypothyroid Dysmaturity Syndrome

This syndrome only applies to foals. The affected mare may have a long pregnancy, abort or give birth to an abnormal foal. Affected foals will have an abnormal jaw, immature hair coat, fine skin, poorly-calcified hock and knee bones and other abnormalities.

The cause of this disease is believed to be from the ingestion of weeds in later winter/early spring. The main culprits seem to be mustards and other plants from the Brassica family. Chemicals from these plants seem to have goitrogenic (thyroid-stimulating) effects. Plants that are fresh and/or dried can pose a risk.

Thank You

Approximately 253,000 acres, twenty-two Range Units, and nineteen permittees were displaced by the Northstar and Tunk Block fires. Out of nineteen permittees, twelve tribal livestock producers were affected. The Kootenai Tribe generously donated 4-5 ton of grass hay to our tribal livestock producers that were affected by the 2015 wildfires. Within days of receiving the hay, it was distributed. On behalf of the Colville Tribes, Tribal Member Permittees and the Range Program, we would like to say "Thank You" to the Kootenai Tribe for their generous donation.

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Land Operations/Range

Invasive Species Spotlight: Rush Skeletonweed

Rush skeletonweed, *Chondrilla juncea*, is a particularly unpleasant noxious weed and is starting to be found in increasingly numbers throughout the reservation, it has been noted in rather large numbers in the Kartar Valley and Swawilla Basin areas.

Rush skeletonweed was first discovered in Washington state near Spokane in 1938. It has since become a problem in rangelands, semi-arid pastures, croplands, roadsides and other areas with soil disturbances.

Rush skeletonweed can invade wheat fields causing serious complications. It can foul up equipment and cause serious competition with crop plants.

Skeletonweed initiates its growth very early in the spring, so start looking for it in early April. When the rosettes first form they look just like a dandelion, so the easiest way to find any on your property is to look for the skeletons from last year's growth. Once you have found those you can look underneath and there you will find a new rosette.

From this rosette the plant will bolt, growing 1-4 feet high, producing many wiry stems that contain white latex sap. Look for sharp brown hairs at the base of the plant. Flowers develop in mid-summer and are yellow in color.

This weed is a deep rooted perennial and tough to control once established on your property. The tap root can reach depths of 8-10 feet. This weed can spread vegetatively by producing shoots from the rhizome and by regeneration from root fragments. Seeds are wind-born and can travel along wind currents up to 20 miles. A single plant can produce as much as 20,000 seeds with 90% of seeds being viable.

Many people consider this plant to be resilient to herbicides. This is not the case. The reason for this misconception is due to the fact that most people will spray this plant too late in the growing season. In order for herbicides to be effective this plant should be sprayed in the rosette stage, both in spring and fall. The reason being that once the plant bolts, the rosette leaves die back, leaving the plant with very little leaf surface. Without this leaf surface there is very little surface for the herbicide to work its way into the plant.

Grazing is not recommended for this weed as it contains a milky latex sap that is typically not palatable to livestock and once the plant matures it becomes somewhat woody and digestion is difficult. Do not graze rush skeletonweed during flowering or after seed set as the seeds can be passed through the animal and moved to a new location.

Tilling and cultivation is not recommended for control of this weed as it will actually further spread the infestation.

Remember this plant can reproduce from root fragments. Mowing is not recommended as it will have little impact on the plants root reserves.

It is recommended that these plants be treated with herbicides in the spring while still in the rosette stage and again on the new rosettes in the fall. Be sure to add a good surfactant to your herbicide mix to help the herbicide stick to the plant.

For very large infestations there are biological controls available, but their success varies greatly. The best method of weed control is to conduct surveys periodically on your property and treat any new weeds that you see right away. Keeping weeds from getting established in the first place, is the very best tool.

If you need help identifying this noxious weed or help controlling this weed please stop by our office or give us a call at 509-634-2338.



Pictured left: Rush skeletonweed produces a milky sap. The sharp brown hairs along the stem is a key characteristic of Rush skeletonweed.



Pictured right: the rosette (initial growth) of Rush skeletonweed looks similar to that of a dandelion.



Pictured left: Rush skeletonweed produces wiry stems that can grow 1-4 feet high. Flowers are bright yellow in color.

Fire Effects on Soil

The effects of fires on soils can be far reaching and there are both short and long-term effects, some beneficial and some detrimental. The severity of fires on soils is largely dependent on the type of fire: forest or rangeland.

Fires in forested areas typically burn at much greater temperatures than that of range fires. There are also differences in the type and amount of nutrients that are released during a burn. Some of the nutrients that were once “locked-up” in the plant materials, such as magnesium, potassium, and calcium, become available in the soil.

However, some of the nutrients, specifically sulfur, carbon, and some forms of phosphorous, volatilize into a gas form and are lost. Other nutrients, such as nitrogen, can volatilize and immediately become an available form for plants or be lost to the atmosphere. This is especially true in high temperature forest fires.

Most of the physical effects of fires, both forest and range, are detrimental to the soil. Some effects include: Increased hydrophobicity (repelling of water): decreases infiltration & markedly increases a soil’s erodibility.

Decreased soil organic carbon (organic matter): decreases certain nutrients’ availability and decreases soil aggregation. This in turn, also increases soil’s erodibility. For arid or semi-arid regions, rangeland soil nutrient availability can be highly affected by fire-caused decreases of organic matter in soils.

Vegetation removal caused by fires also contributes to a soil’s erodibility. Soils on hillslopes are particularly susceptible to erosion and post-burn land/mudslides are likely, depending on the extent of damage of the fire and gradient (or steepness).

Soils that have been affected by fires are particularly susceptible to erosion and potentially susceptible to nutrient loss, depending on site-specific fire

and soil conditions. These soils should be managed carefully and disturbance to these soils should be kept to an absolute minimum.

Fire intensity and duration will be the main determining factors for the degree of impact that the fire has on the soils and the time required for recovery.

An increase in percent of bare soil post-fire is the most important factor impinging recovery. Some mitigation efforts include: mulching, planting/seeding vegetation, mulch & seed combinations, spraying of binding agents, such as anionic polyacrylamides (PAM), and combinations of PAM and gypsum by qualified manufacturers.



Pictured above: A BAER team member tests for hydrophobic soils in recently burned soil.

Winter Soil Concerns

Late fall or early winter is a good time to perform soil sampling and testing. During this time, soils are typically easier to access, and the results of soil testing during this time will give a good picture of soil nutrient status and health to better prepare for the spring. Also, if there is an issue with soil pH, this is a good time to begin mitigation efforts, since changes in pH can take several months.

pH is used as a way to measure the acidity or alkalinity of a substance, such as soil or water. A soil's pH is a very important characteristic, because it determines what nutrients are available within the soil. Soils that are too low or too high in pH will not be able to effectively supply nutrients, because chemical availability of most nutrients is highly dependent on pH. In acidic conditions (low pH), few nutrients are in available forms for plants to use. On the other hand, in highly alkaline conditions (high pH), few nutrients are available. pH ranges from 0 - 14. The optimal range for soil pH (where the most efficient nutrient availability is for most crops) is between 5.5 - 7.0, depending on crop or plant species being grown. Fertilizer application can

be greatly enhanced and more efficiently managed with proper soil pH level management. For acidic (low pH) soils, one mitigation effort is called liming.

There are a few factors to consider when thinking about liming:

- Source of lime: There are different purities of liming material, based on their calcium carbonate equivalent (CCE), with the more pure forms being most efficient for increasing pH.
- Time: pH changes take time. Liming should ideally be done 6 months to a year before planting.
- Soil texture: Soils with loamy or clayey textures will require more liming material, but will also resist decreases in pH, once the desired pH level is reached.

Once soil pH levels are optimum (depending on land use & desired pH), applications of fertilizers and soil amendments will be more efficient. This will be beneficial not only for the soil, but for your pocketbook.

Contact Land Operations for more information or assistance with soils management at 509-634-6351.

CCT LAND OPERATIONS/ RANGE

10 Nez Perce St
Nespelem, WA 99155

Phone: 509-634-2319
Fax: 509-634-2325



Contaminated Hay

Animals can become ill after ingesting hay that has been contaminated with toxic or poisonous plants. Some plants retain their toxicity even after being dried. If you notice any changes in your livestock behavior and suspect poisoning, call your veterinarian as soon as possible.



Not only can your livestock become ill but this is also an excellent way for new weeds to be spread onto your property. Be mindful of where you purchase your hay and look for certified weed free hay whenever possible.

Sign up for our E-Newsletters

If you would prefer to be added to our e-mail list for distribution of our quarterly newsletters please e-mail:

Danielle.Blevins@bia.gov with your request.

Upcoming Classes and Events

January 13th, 2016

8:30 am—4:30 pm

Wallenstein Performing Arts Center Big Bend Community College Building 110
Moses Lake, WA

WSDA recertification credits available

Grant County Noxious Weed Control Board's Annual Noxious Weed Conference.
Please call 509-754-2011 Ext. 4710 if you have any questions.

January 13, 2016

5:30 pm— 8:00 pm

CCT Tribal Government Center Auditorium Room

"Business of Indian Agriculture" put on by the Colville Reservation WSU program;
Learn how to manage agriculture business and the importance of risk management strategies.

Call 509-634-2336 to reserve your seat or to find out more information.

February 23, 2016

8:00 am—4:00 p.m.

Confluence Technology Center, 285 Technology Center Way Wenatchee, WA
98801

WSDA recertification credits available

Chelan County Noxious Weed Board, pesticide recertification workshop. \$10 per attendee.

Please call 509-661-3118 for more information.

February 25th, 2016

Time: TBD

12 Tribes Resort and Casino, Okanogan, WA

WSDA Recertification Credits available

The Okanogan County Noxious Weed Board pesticide recertification workshop.

Please call 509-422-7165 for more information.

March 23rd, 2016

12:00 pm—4:00 p.m.

Commissioners Office, Republic, WA

Ferry County Noxious Weed Board, pesticide recertification workshop.

Please call 509-775-5225 Ext. 1111 for more information.

