Are weeds a burr in your saddle?

If you live in Wyoming, you've probably encountered the thorny stickers produced by buffalobur, cocklebur, common burdock, houndstongue, puncturevine, and cheatgrass.

It turns out those irritating (and sometimes painful) burrs are seeds or seedpods. This unique adaptation allows burr-producing species to effectively invade new areas despite the relatively short lifespan of individual plants. All they require is a free ride from an unsuspecting human, animal, or piece of cloth.

Seed production

The weeds listed above reproduce only by seed, not from root stocks (unlike some fibrous root perennial species that live for three or more growing seasons). Some burr-producing weeds are annuals, living for one growing season, producing seed, and then dying. Others are biennials, living for two growing seasons.

In their first year, biennial species form a rosette that captures sunlight and feeds a taproot. The rosette enables rapid growth in the second year and produces a large quantity of seeds.

A seed vault

Hitchhiking burrs can be a single seed or a seedpod containing multiple seeds. Once deposited in the soil, they form a seed "bank." Seed longevity dictates how long that bank is funded.

The thickness and construction of the seedpods affect how long seeds remain viable in the soil. If the seedpod is thick and hardened, as with the "goathead" burrs produced by the puncturevine plant, longevity can be decades. Cheatgrass, on the other hand, is a delicate grass seed and is only viable for up to a few years in most cases.

Seed longevity can vary greatly depending on moisture, organic matter, microbial populations, available sunlight, and other site-specific conditions. Even at a specific site, not all seeds are viable for the same length of time. Natural degradation reduces the overall health of the seedbank and seed viability trends downward over time. Despite these factors, a plant could still germinate many years down the line without any new seed inputs.

Control strategies

Plants that reproduce only by seed and do not come back from the root can be successfully controlled by mechanical removal. For burr-producing species, this typically involves digging or mowing.

Chemical treatments can also be effective, as long as they are initiated early in the season (before the plant produces seed-containing burrs). Applying treatment prior to seed formation reduces the seed input for that year.

Chemical treatments vary by species, so make sure to check herbicide labels for specific use directions before selecting a treatment protocol. Always follow

The puncturevine plant produces offensive "goathead" seedpods. Photo by Jennifer Thompson.

Buffalobur flowers and burrs. Photo by Jennifer Thompson.

Houndstongue. Photo by Matt Jolivet.

the label instructions for application rates and timings.

When managing a weed infestation, whether mechanically or chemically, keep the seedbank concept in mind. In most cases, when dealing with a burr-producing weed, a manager can only control the weeds they see on a particular day.

Make sure to implement follow-up treatment for missed or surviving plants as well as later-emerging plants. Expect that more plants will come up later when sufficient resources are available.

Wyoming's variable climate, along with site-specific factors, such as slope aspect, soil moisture, and even artificial lighting, may allow a small number of weeds to grow at abnormal times. With seed numbers per plant in the hundreds, the consequences of missing one plant that later goes to seed is significant.

Preventing new deposits

Considering the seed longevity and efficient dispersal mechanisms of burr-producing species, the most important management goal is to avoid any new deposits to the seedbank. This requires vigilant control of every plant for multiple years.

When implementing control strategies, first determine where the bulk of seed inputs originate. Is it from a roadway or vehicle parking area? Does a waterway transect the property with weeds present upstream? Do animals (wild and domestic) loiter in certain areas? The answers to these questions usually indicate where scouting activities and control efforts need to be conducted.

Proper identification, diligent control, and proactive management are key to keeping the burrs out of your saddle. For assistance with weed identification and management recommendations, contact a local weed and pest district or extension office.

As interim supervisor for the Natrona County Weed and Pest District, **Matt Jolivet** helps banish bothersome burrs from Wyoming seedbanks. He can be reached at (307) 472-5559 or ncwp.jolivet@gmail.com.