



REHAB for disturbed pastures

Not only are healthy pastures nice to look at, they are also more resilient and better able to withstand grazing, erosion, and weed infestations than their ailing counterparts.

Indicators that a pasture is in decline include a decrease in grass production, bare spots, an increase in weed infestation, and an increase in soil loss due to erosion.

Causes of pasture decline vary. Deterioration can be related to overgrazing or heavy use of a particular part of the pasture, such as where livestock were fed over the winter. It can also be caused by prolonged drought or disturbance from construction or excavation activities.

Note that the cause of degradation must be addressed

to fully remedy the problem. Reseeding is only treating the symptoms of a larger issue.

What are my options?

Reseeding an entire pasture can be prohibitively expensive. The costs of seed, equipment, and fuel, as well as the time involved, add up quickly. Per acre costs of reseeding can range from \$200 to more than \$1,000. It is often more economical to focus on rehabbing areas of the pasture in the worst condition.

In some cases, resting the pasture and incorporating proper grazing management may allow it to recover on its own. To encourage recovery, try reducing the number of animals and the length of time they occupy the pasture, rotating the time of year the pasture

is grazed, and changing the location of feed and water. While implementing these practices, continue monitoring the pasture for signs of decline.

Another rehab strategy is bale grazing, which involves placing bales of feed on degraded areas of the pasture. As livestock feed on the bales, some of it ends up on the ground, adding organic matter to the soil. For more information on bale grazing, check out the *Barnyards & Backyards* article “Bale Grazing – Winter Feeding Without the Overhead Reduces, Machinery Costs, Labor” at bit.ly/BB-bale-grazing.

Know your grasses

If you decide to reseed, choose wisely. Select seed based on your goals and what will grow best in

your area. Choosing a species mix vs. a monoculture; native vs. non-native; warm vs. cool season; and drilling vs. broadcasting all impact whether the seeding is successful.

The USDA Natural Resources Conservation Service (NRCS) or a local UW Extension office can help determine the best fit for you and your area.

Planting a monoculture (one species) is not typically recommended. Species mixes are more ecologically favorable, more resistant to disease and pest issues, and more tolerant of climatic extremes. Mixes also utilize sunlight and moisture more efficiently and are more competitive against weeds.

While native grasses are often better adapted to the area, native seed is more expensive and can take three to four years to establish. Non-native grasses can often establish in one to three years.

On the other hand, native grasses tend to live longer and require less maintenance than non-native grasses. Mixing native and non-native grasses can work, but often the non-native grasses outcompete the native over time.

In addition to grasses, there are many broadleaf options to consider. Diversifying your seed mix with legumes and other forbs can produce a stand that better utilizes light, nutrients, and moisture while also providing higher nutrient value to livestock. Legumes, including alfalfa and clover, can fix nitrogen. Many forbs

are deep rooted and can help your stand better utilize deep moisture.

Know your season

It is also important to consider the time of year forage is desired. Cool season grasses grow best in the spring, and may regrow in the fall if moisture is present. Warm season grasses prefer the heat and grow in the summer.

Mixing warm and cool season grasses is not recommended. Often cool season species outcompete warm season species, as they have first use of moisture and nutrients in the spring. Heavy overgrazing of cool season grasses in the spring can cause warm season grasses to dominate.

Purchasing seed

Seed is typically the most expensive part of the project—but don’t skimp in hopes of saving money. Purchase high-quality seed from a reputable seed company.

Seed is sold based on a Pure Live Seed (PLS) percentage, or the percentage of viable seed with the ability to germinate and grow. 100% PLS means all of the seed is viable, while 90% PLS means you are buying 10% trash and duff. The recommended seeding rate is based on PLS: the lower the PLS, the more seed will need to be planted. Buying a high PLS seed is cheaper in the long run!

Also pay attention to the weed free percentage. Buying seed labeled 95% weed free means it

The false economy of cheap seed

To calculate the actual cost of seed purchased, use the cost per pound and PLS value as follows.

\$5.00 per pound ÷ 65% PLS × 100 = \$7.69 per pound of PLS
or
\$5.00 per pound ÷ 90% PLS × 100 = \$5.55 per pound of PLS

Pure Live Seed %	Sale Price of 50-pound Bag								
	\$200	\$250	\$300	\$350	\$400	\$450	\$500	\$550	\$600
95	\$211	\$263	\$316	\$368	\$421	\$474	\$526	\$579	\$632
90	\$222	\$278	\$333	\$389	\$444	\$500	\$556	\$611	\$667
85	\$235	\$294	\$353	\$412	\$471	\$529	\$588	\$647	\$706
80	\$250	\$313	\$375	\$438	\$500	\$563	\$625	\$688	\$750
75	\$267	\$333	\$400	\$467	\$533	\$600	\$667	\$733	\$800
70	\$286	\$357	\$429	\$500	\$571	\$643	\$714	\$786	\$857
65	\$308	\$385	\$462	\$538	\$615	\$692	\$769	\$846	\$923
60	\$333	\$417	\$500	\$583	\$667	\$750	\$833	\$917	\$1,000

Example from "Pure Live Seed," by Dan Undersander, bit.ly/pls-uw-madison.

can contain 5% weeds. In general, try to buy seed that is 99–100% PLS and 98–99% weed free.

Planting methods

Grasses are typically seeded using a grass drill or broadcast seeder. The drill places seed directly into the soil, while the broadcast seeder spreads seed across the top of the soil. Regardless of which method is used, the seed must have good contact with the soil for best results.

Drilling is the most efficient method. It provides proper seeding depth, good seed-to-soil contact, and protects the seed from climatic extremes and wildlife predation. In general, grass seeds are planted between 1/8" and 3/8" deep in the soil, with smaller seeds planted more shallowly.

If the drill does not have packer wheels, roll the field with a packer or drag with a harrow to incorporate the seed and increase seed-to-soil contact.

Drills come in varying sizes, with smaller drills suitable for use with an ATV. Smaller drills are typically sufficient for seeding pastures on a small acreage but, due to their lighter weight, they may struggle to break through hard, rocky compacted soils.

Broadcasting involves "broadcasting" the seed across the soil, either manually or with a spreader. The seed is then incorporated into the soil by raking or by using a harrow and packer.

Alternatively, the broadcasted seed can be incorporated via the



"herd effect," in which livestock are fed on the seeded area. The hoof action helps to incorporate the seed into the soil, eliminating the need for harrow and packer. If using this method, make sure to remove the livestock following incorporation.

Small broadcast seeders come in both hitch-mounted and pull-behind styles suitable for an ATV. For small areas, a lawn seeder could also be used.

Due to seed loss and less precise placement, the seeding rate for broadcast applications is typically double that of drill applications. Seed costs may increase dramatically compared to those associated with drilling, but keep in mind that broadcast seeding does not require renting

or buying equipment. It is also a good option when the terrain is too steep or rocky for drill seeding.

Timing it right

Timing your dryland seeding is one part science and many more parts luck. It depends on both moisture and the growth cycle of the grass. The best practice in Wyoming is to plant in the fall after plant dormancy or in early spring before plants begin growing. Both options allow the grass seed to sit until the optimal soil temperature and moisture is achieved.

What now?

Once the grass begins to establish, it will be fragile for some time. Defer grazing the site for one to two years (longer for native plantings) to allow the seeding to fully establish.

Continued weed control is also important in reducing competition. Avoid fertilizing a new seeding until the grass is fully established; applying fertilizer too soon can harm sensitive roots and benefit weeds.

It's easy to get discouraged when looking at a pasture that isn't as pristine as you'd like, or those trouble spots that keep popping up. But don't give up—with a little time and knowledge (and some sweat), you can revive your pasture and bring back production.

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