



Getting Started in Ag: Alternative Forage Cropping Options in Wyoming

Most new or beginning producers are likely aware that raising any crop is a challenge in Wyoming for a variety of reasons: weather extremes, natural disasters, water shortages and many other factors.

Cash-crop operations, livestock operators raising feed, or those involved in both generally find that it pays to have multiple options available. The current high cost and volatile market environment demands that managers produce a viable crop that can generate revenue, even if that means switching to plan B.

Alternative forage crops offer options to producers from several perspectives, including risk management. Such production options are critical for profitability in the current economy. Fertilizer, herbicides, fuel and other input costs have increased substantially, while prices for all types of hay and forage are also high. In some cases, such as a year with limited irrigation water,

it may make better financial sense to plant an alternative crop and save on inputs. Forage crops provide a forage resource with lower seed costs and fewer input requirements, including reduced requirements for fertilizer and herbicides. These crops can provide a backup crop if a primary crop fails. For example, if a silage corn crop is wiped out by hail, a summer annual forage crop could provide a silage option even in an abbreviated growing season.

Alternative crops can also be used in a double crop system. For example, in this type of system, oats could be planted for silage and then followed with a summer annual forage crop. These crops can also be utilized as cover crops.

Growing research shows that long-term soil health and fertility is positively affected by using cover crops in place of fallow over the fall and winter. Many forage crops can be easily adapted to a wide range of crop systems, allowing the grower to take full advantage of the entire growing season.

Crop	Seed Price/Lb	Lbs/Acre	Total Cost/Acre
Sorghum/Sudan Hybrid	\$ 1.00	20	\$ 20.00
Proso Millet	\$ 4.50	20	\$ 90.00
Forage Sorghum	\$ 2.00	20	\$ 40.00
Teff	\$ 4.00	10	\$ 40.00
Oats	\$ 0.24	100	\$ 24.00
Triticale	\$ 0.60	75	\$ 45.00
	Price/Unit	Units/Acre	
Silage Corn	\$ 0.004	33,000	\$ 132.00

SUMMER ANNUALS

This class of crops includes sorghums, sudan grass, sorghum/sudan grass hybrids, pearl millets, proso millets, and teff. These forages offer several advantages compared to corn and alfalfa; the primary benefit is their low cost and potential to produce large amounts of usable forage for silage, hay or grazing.

Summer annuals typically have shorter maturity timelines than corn. This may offer greater flexibility following a primary crop failure or in a double crop system. Fertilizer requirements are generally low for these crops, especially millets and teff.

Another important advantage of summer annuals is they require less water to produce a crop than many primary crops.



Proso millet and teff mix for hay.



Triticale for hay.

Summer annuals may also present some management challenges, mainly in the form of nitrate and prussic acid issues. These tend to show up if the crop is drought stressed or is overfertilized. Testing feed for these problems and harvesting at the right time (generally before a frost) can reduce the chances that these issues will lead to other difficulties.

CEREAL GRAIN CROPS

This class of forages includes oats, wheat, triticale and rye. Many producers harvest these crops for forage in the form of hay and silage, as well as for grain.

Utilizing cereal crops in a rotation provides several benefits. Cereals allow producers to take advantage of early spring moisture; in particular, triticale and rye often do not require much early irrigation to produce several tons per acre of forage. They also provide flexibility: wheat, rye and triticale can be grazed over the winter and early spring, while oats can provide late summer and fall grazing under the right conditions.

Cereal crops have relatively low fertilizer requirements, often making them a lower cost option compared to conventional forages,

as is true with summer annuals. These crops also may fit well in a double crop system. Crop systems that include cereals are growing in popularity, as they allow managers to maximize the growing season, trim costs, and provide a level of risk protection because production does not rely on a single crop. Examples include harvesting triticale or early-planted oats for silage, followed by a forage sorghum for hay or silage in the fall. Cereals may also fit well in reduced-till and no-till systems, especially in locations where they require fewer inputs.

OTHER FORAGE CROPS

Other forage options to consider include winter peas, radishes, turnips and conventional sugar beets. These crops are often complementary in nature and work well when planted with another crop. They can add protein to forages, in the case of peas, and often work well in cover crop mixes. Radishes and conventional sugar beets have grown in popularity, particularly in cover crop mixes, due to their ability to provide soil benefits in the form of increased root matter and natural tillage. These crops may also provide a source of forage for grazing when livestock are a consideration.

FOR MORE INFORMATION

There are numerous cropping options that can benefit both crop and livestock operations in Wyoming. For more information on forage crops and how they may fit your operation, visit the Beginning Farmer and Rancher Library at farmanswers.org/library. For numerous risk management and budgeting tools that can help you decide how these crops may fit your operation, visit RightRisk.org.