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Grazing wheat pasture

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Quick Facts

With ample rain in the fall, Colorado's winter wheat crop can produce some forage for grazing.

Because of uncertain weather conditions, wheat pasture is not a sure thing from year to year and does not allow cattle producers to make long range plans for its utilization.

Wheat pasture is high in protein and digestibility throughout the growing season.

Problems with bloat, wheat pasture tetany and other unexplained death losses can occur when cattle graze wheat pasture.

Providing some other forms of dry matter, such as corn stalks, straw or milo stalks, to the grazing animal will help alleviate many of these problems.

Wheat pasture will provide adequate nutrition for about any class of cattle.

If adequate forage is available, there is no need to supply either protein or energy supplements to cattle on wheat pasture.

Colorado plants approximately three million acres of winter wheat. With ample rainfall in the fall, this acreage can produce some forage for grazing. However, because of uncertain weather conditions, wheat pasture is not a sure thing year after year and therefore does not allow cattle producers to make long-range plans for its utilization in their feeding programs. If, however, wheat pasture is available, it can provide a highly nutritious feedstuff with excellent cattle performance.

The purpose of this fact sheet is to discuss some of the characteristics of wheat pasture and how best to utilize it in a cattle feeding program.

Nutrient Composition of Wheat Pasture

Oklahoma State University has done considerable work on measuring the nutritive value of wheat pasture during the pasture season and a summary of that analysis is given in Table 1.

These data readily show that wheat pasture is high in protein and digestibility throughout the growing season. Calcium, phosphorus and magnesium levels are shown to be adequate for stocker animals but could cause some problems with tetany in high lactating females during the rapid growing stages in late fall before winter sets in.

Table 1: Nutrient composition of wheat pasture.

Month	Dry matter	Crude protein	Digestibility	Calcium	Phosphorus	Magnesium
		%	%	%	%	%
Nov.	20	32	72	.15	not	
Dec.	20	22	63	.50	report-	.10
Jan.	22	20	65	.50	ed by	.25
Feb.	22	20	62	.38	month	.20
Mar.	23	30	70	.50		.20
Average	21.4	25	67	.42	.67	.19

Nutritional Disturbances

There have been some problems with bloat, wheat pasture tetany and other unexplained death losses when cattle graze wheat pasture. The reasons these problems happen are as follows:

1. Wheat pasture is very high in readily available or digestible protein. This may, under certain conditions, cause toxic levels of ammonia to be formed in the rumen and thus cause death.

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2. Wheat pasture is low in fiber and therefore could cause a reduction in rumen motility. This could result in an impairment of the belching mechanism; thus, animals could bloat.
3. Wheat pasture is high in digestibility and is rapidly digested, which can cause a large amount of gas to form in the rumen and further compound the bloat problem.
4. The ratio of calcium to phosphorus is in an inverse relationship with lower levels of calcium than phosphorus. This could cause some problems, but as yet no studies have shown if it does.
5. Levels of magnesium could be too low at certain periods to cause problems with lactating cows and possibly young growing animals.

Correcting Nutritional Disturbances

For the most part, providing some other forms of dry matter—such as corn stalks, straw, milo stalks, etc.—to the grazing animal will help alleviate many of the problems associated with wheat pasture. Because of the high moisture level in the pasture, the cattle normally will crave dry matter.

Low-quality forages, as mentioned above, will fill this craving, reduce the level of highly digestible carbohydrates, slow down the ammonia accumulation, provide stimuli to the belching mechanism and increase the calcium intake; thus, most of the problems or nutritional disturbances will be alleviated. Mineral supplements containing high levels of magnesium also can be offered free choice to overcome the magnesium deficiency if it should occur.

Cattle Best Suited for Wheat Pasture

Wheat pasture will provide adequate nutrition for about any class of cattle, however, due to its high protein and energy value, it should be reserved for young, growing cattle to obtain maximum return per acre. Good wheat pasture makes an excellent feedstuff to background young calves prior to going to the feedlot in the spring.

Calves have gained from 1 to 2 pounds (.5-.9 kilogram) per day on wheat pasture and a gain of 1.5 pounds (.7 kg) is not a bad figure to use. The amount of gain will depend on the amount of for-

age available, as well as weather and condition and weight of the calves going on pasture.

Dry, pregnant beef cows do quite well on wheat pasture as well as their open cows and their bulls. Due to the high nutrient quality of wheat pasture, however, it will provide more than a brood cow needs. But if producers don't have any cheaper source of feed for brood cows, they should use the wheat pasture for the cow herd. Open cull cows and bulls will make rapid and economical gains on wheat pasture, and it could be utilized for them prior to sale.

Nursing cows make excellent use of wheat pasture, and it provides a high quality forage for the nursing calf as well.

Supplements on Wheat Pasture

If adequate forage is available, there is no need to supply either protein or an energy supplement to cattle on wheat pasture. Research has shown that feeding grain to calves on good wheat pasture is not economical; however, if forage is scarce, the use of grain could prove economical.

Even though such forages as corn stalks, straw and other poor-quality roughages might not be generally considered as supplements, the author believes they can be considered as supplements to wheat pasture because of the beneficial effect they have on the well-being of the cattle grazing the pasture. No set amounts will be given. However, if available, these roughages could be self-fed in strategic areas of the wheat field, and the cattle will eat enough to satisfy their craving for dry matter.

In early, lush growth periods of the wheat, a mineral supplement with magnesium and calcium should be fed if lactating cows are grazing the wheat pasture.

Summary

Wheat pasture, if available, is an excellent feedstuff for cattle. Young, growing cattle make the most economical use of this forage. Digestive disturbances that accompany the grazing of wheat pasture can best be avoided by providing some source of dry matter in the form of dry, poor-quality roughage. Supplementation of protein and/or grain to cattle grazing wheat pasture is not recommended.