



# Current Report

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## Using Wheat Pasture in Cow-Calf Programs

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While small grain pastures are typically thought of as feed for stocker calves, cow-calf producers sometimes find themselves in situations that make them evaluate the use of these high quality winter forages for their cow herds. The most common situations are lack of forage and hay for the winter, the need to purchase large amounts of energy and protein feeds, and/or very high prices for purchased feeds. Occasionally, stocker calf prices are so high that producers are unwilling to risk purchasing enough calves to utilize all their small grain pastures, leaving some pasture available for cows. With protein content exceeding 20 percent on a dry matter basis and sufficient energy to make stockers gain 2 to 3 lbs per day, small grain forages such as wheat and rye must be evaluated under these circumstances. Experience has shown that small grain pastures can be a valuable asset to the cow-calf producer when sound grazing and health management practices are followed.

**The basic problem with small grain pastures for cows.** Simply put, small grain forage such as wheat pasture is too good for full feeding to cows. A lactating cow giving 10 to 15 lbs of milk per day requires about 2 lbs of crude protein and 13 lbs of TDN per day. Wheat pasture often contains over 20 percent protein and 75 percent TDN (dry matter basis) and a cow can easily consume 30 lbs of wheat forage dry matter each day. This means that cows grazing wheat full time can be consuming 6 lbs of protein and over 22 lbs of TDN. These nutrient intakes are far beyond the amount of protein the cow could utilize and provide more energy than she would normally need.

**Limited grazing of small grain pastures.** This practice has proven to be the most efficient approach to utilizing high quality forages with beef cows. The protein requirements of a dry cow can be met by grazing her on wheat pasture for one day and returning her to dry pasture or hay for 3 to 4 days.

A pattern of one day on wheat and 2 to 3 days off, should meet the protein needs of the same cow after calving. This program should duplicate or exceed winter weight changes seen with the more common practice of feeding dry supplements.

The "day" on wheat pasture should be defined as that amount of time required for the cow to graze her fill of wheat forage (3 to 5 hours) and not a full 24 hours. This short time on wheat allows the cow to gather adequate amounts of protein to carry her over the ensuing days on dry grass or hay. A 3 to 5 hour grazing limit also helps to avoid the unnecessary loss of valuable forage to trampling, bedding down and manure deposits. Under normal weather conditions in the fall, enough wheat forage should be accumulated by early December to supply the protein needs of about four cows per acre throughout the winter months when limit grazing is practiced.

**Continuous grazing.** If a producer has very thin cows and the need to flesh out these cows in a short period of time, continuous grazing may be justified, particularly if no better use for the pasture (stockers) is available. Thin cows, in good health, can produce daily gains of 2 to 3 lbs/day when continuously grazed on lush wheat for 60 to 90 day periods. The key, as with cow fattening programs in feedlots, is to capitalize on compensatory gain and replenish muscle and fat reserves. Remember that mature cows do not grow. After muscle proteins are replenished, gain is almost totally made up of fat, and as a result, gains are very inefficient after cows have fleshed out. As a general rule, a cow will need 2 to 3 times the amount of wheat pasture as a 400 to 500 lb stocker calf. However, even though the efficiency of gain for cows will never equal that for calves, thin cows can gain fairly efficiently for a short period of time on small grain forage. Feedlot research has generally shown a period of around 50 days of fattening to be the maximum for efficient gains with cows. A similar period would seem appropriate for small grain pasture depending on cow condition, rate of gain and forage availability. If the cows are to be sold after grazing, a definite marketing plan must be in order because efficiency of gain is extremely poor after cows begin laying down mostly fat.

**Health problems for cows grazing wheat.** Cows can potentially suffer from bloat the same as stockers. The same precautions should be taken.

In addition to bloat, the possibility exists for serious problems with grass tetany. Tetany is the uncontrolled contraction of a muscle. While rare with stockers, tetany is not uncommon with cows calving and lactating on wheat pasture. The tetany can be caused by a deficiency of calcium and/or magnesium. Both are required for normal muscle contraction and symptoms of tetany caused by deficiencies of either mineral are similar. Calcium and

magnesium levels in the forage coupled with other chemical factors in small grain forages that limit availability of calcium and magnesium, make it difficult for cows to mobilize enough mineral from bone reserves to meet needs for lactation. Older cows are more prone to the problem because their bone mineral reserves are not easily mobilized.

The first signs of tetany are nervousness and an awkward gait, followed by nervous tremors, rapid breathing and collapse of the animals. Affected cows may be hostile and frequently charge people and vehicles. Often, cows will die within one or two hours following the onset of these symptoms; therefore, finding a dead cow may be the first warning that the rancher will receive. Should you observe such signs of trouble, contact your veterinarian and let him diagnose the problem as soon as possible. Recovery of tetany-affected cows can be rather fast and dramatic if treatment is administered in time.

Grass tetany can usually be prevented by feeding a free-choice mineral containing about 15% calcium and 15% magnesium. A good mineral mixture consists of 35% salt, 35% limestone, 25% magnesium oxide and 5% cottonseed meal. The cottonseed meal is adjusted as needed to achieve 2 oz. per day intake. A number of commercial mineral mixes are available with similar mineral content. It must be remembered that magnesium is useful for preventing tetany; it does nothing for bloat.

**Wheat pasture creeps.** This is yet another alternative use of high quality small grain pasture in the cow-calf operation. When dry grass pastures or haying areas are immediately adjacent to wheat pasture, the opportunity becomes available for small grain pasture creep feeding of fall-born calves. Creep gates, placed between cow pasture and wheat field, will allow calves free access to this quality forage while restricting the cows to their dry pasture wintering area. Nursing calves allowed access to small grain forage can improve their daily gain by .5 to .75 lbs per day. While creep feeding the calf will not likely help the cow, it is an excellent, efficient method of increasing sale weight of fall-born calves, especially during periods of forage shortage when milk production is probably reduced. If the small grain creep feeding results in normal growth and not fattening during the winter, little if any reduction in subsequent summer calf gain will be seen.

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