



Using Small Grains to Your Advantage

By Jackie Nix, Nutritionist

Recent rains should make for a good crop of small grain winter annuals. Small grain annual forages (wheat, rye, ryegrass, oats, etc.) make an excellent feed option and are well suited to mild winters in southern states. Small grain pastures are well suited to use in goats. The high relative nutritional quality of small grain winter annuals is ideal for putting weight gains on market kids and supporting lactation in does. Small grain annual pastures can help to stretch out existing winter feed sources (stockpiled forages, hay, purchased feed, etc.). When they are overseeded into dormant bermudagrass or bahiagrass pastures, small grains provide grazing on pastures that would have been otherwise non-productive.

Several options are available for planting for winter annual pastures. The most popular species are winter wheat, rye, annual ryegrass and oats; however other options are also available. The most important factors to consider when choosing which species to plant are local environmental conditions (soil type, pH, amount of drainage, rainfall amounts and temperatures), resistance to local plant diseases and insects and the growth pattern of the species related to your grazing needs. Each of these winter annual species has specific advantages and disadvantages. Your local Cooperative Extension agent or Natural Resources Conservation Service agent can help you best match winter annual species with your livestock needs and local conditions as well as give recommendations on seeding and fertilization rates for optimum production.

Wheat. Winter wheat is the most widely grown winter annual in the United States. Wheat offers excellent nutritional quality (average 22% CP and 75% TDN on a dry matter (DM) basis for immature wheat) and palatability. It grows at temperatures between 77° and 38° F and is very winter hardy. Wheat has good potential for pasture, silage or hay production. Managed properly, wheat can be grazed in the fall and again in late winter and early spring and then finally harvested for grain or hay.

Rye. Cereal rye is the second most popular small grain winter annual grown for forages. Rye is slightly less palatable than wheat, but also offers exceptional nutritional quality (average 18% CP and 67% TDN on a DM basis for immature rye). Rye is the most winterhardy of the small grain winter annuals. It can survive temperatures as low as -30° F once established and tends to grow at cooler temperatures than any other winter annual (can germinate at temperatures as low as 33° F, however optimal temperatures are between 55° and 64° F) and thus tends to make more tons of forage than the other small grain winter annuals.

Annual Ryegrass. Annual ryegrass also makes an excellent forage option. Ryegrass is very palatable and its yields tend to be higher than that of other small grains. If allowed, it will aggressively reseed itself. Nutritional quality is good (average 10% CP and 63% TDN on a DM basis for immature ryegrass). Annual ryegrass is the best winter annual option for emergency plantings. It can be successfully planted late for emergency spring forage.

Oats. Use of oats isn't as common but this small grain also makes excellent forage. Oats are extremely palatable and have very good nutritional quality (average 16% CP and 64% TDN on a DM basis for immature oats). One of the disadvantages of oats is that they lack winterhardiness. Freezes of 28° to 30° F can cause damage. The optimal temperatures for growth are 77° to 86° F while minimum temperatures required for germination are 38° to 41° F. Compared to wheat, oats grow more in the fall, head out later in the spring and yield slightly less.

Disadvantages of Winter Annual Small Grains

Small grains offer many advantages to livestock producers as a source of winter grazing; however, there are also disadvantages to this forage option. It usually takes roughly two months of good growing conditions for small grain pastures to develop enough root system to be successfully grazed. This typically corresponds to the time when plants are 6 to 8 inches tall. Grazing plants at this height is also ideal in minimizing the transmission of parasites. Grazing small grain winter annuals before this time can result in livestock uprooting the plants and destroying forage stands. Therefore it is crucial for goat producers to have backup feed sources and alternate housing locations for livestock until pastures are well established. Some use dormant pastures or dry lots while providing hay. During this time if hay quality is lacking it is critical to provide protein and/or energy supplements to maintain animal productivity until the small grain pastures are ready for grazing.

Another disadvantage of small grain pastures, is that growth rates are highly variable from fall through spring. The common adage is that you “either have too much or too little”. When ideal growing conditions are present, small grain winter annuals will produce large quantities of forage. However, during periods of slow growth, goat producers need to be ready with supplemental hay and protein/energy supplements to sustain goats through these periods. Cold, extended periods of cloudy weather, excessive rain or dry periods all contribute to slow forage growth.

Even during periods of ideal forage growth, a complete mineral supplement will be necessary for optimum production since local soils are often deficient in several key nutrients. Key nutrients that are particularly crucial during winter months are phosphorus, magnesium, copper, selenium, zinc and vitamin A. Therefore, supplementation of some sort is always necessary, even during periods of excellent forage growth.

Sweetlix® Supplement Products Compatible with Small Grain Pastures

Sweetlix offers several supplement products that will successfully fit into a nutritional management program for livestock grazing small grain winter annual pastures. In many cases a variety of supplement products will best meet livestock needs. Contact your local

Sweetlix dealer, visit www.sweetlix.com or call 1-87SWEETLIX for more information on these and other quality Sweetlix supplement products suitable for your production situation. Below are listed some of best suited Sweetlix supplement products.

Sweetlix® Meat Maker™ Roughage Balancer Tub

- 16% protein from all natural-sources help balance poor quality hay in periods of slow forage growth for goats
- 55-60% TDN – energy content comparable to high quality grass hay
- Delivers same mineral and vitamin package as the original 16:8 Meat Maker™ mineral
- Superb weatherability – will not crumble, melt, spill or blow away

Sweetlix 20% All Natural Protein Goat Block

- All natural protein supplements ideal for young, growing kids and lactating does
- 20% protein level to supplement low quality hay
 - All natural protein sources – no urea added
- Delivers 100% of daily recommended amounts of trace minerals, including copper and selenium
- Convenient 33.3-lb pressed block can be placed out in the pasture with goats
- Ideal size for small goat herds
- No additional salt or minerals needed or recommended

Remember that it is more vital than ever to provide a complete mineral supplement for goats during the winter months. Mineral needs are increased due to pregnancy or lactation at this time and goats are more likely to be deficient in minerals such as phosphorus, selenium and copper. **Sweetlix 16:8 Meat Maker** mineral for goats provides 100% of the trace mineral requirements for meat goats in a highly palatable loose mineral. **Sweetlix Caprine Magnum-Milk** is a 1:1 Ca to P free choice mineral designed for specifically for lactating dairy goats on a legume-based diet. Any of these products should be offered free choice as the sole source of salt and minerals.

In conclusion, mild winters in the South offer a good opportunity for use of high quality small grain pastures to extend the effective grazing season through the winter months for goats. Several different species of small grain winter annuals are available. The decision as to which variety is best suited to your situation will depend upon several different factors. Even though small grain pastures provide high quality feed, nutritional supplements will still be necessary throughout the winter to maintain high levels of production. During periods of slow forage growth, protein/energy supplements will help to maintain animal productivity on lower quality hay until small grain growth is adequate. Mineral and vitamin supplements will always be necessary to help balance underlying mineral deficiencies. For more information about these supplement products and how they can benefit your livestock operations, call your local **Sweetlix dealer** or **1-87SWEETLIX**.

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