Winter Wheat Grazing 101

As a source of high-quality fall and spring grazing, it is hard to beat winter wheat. But before you get too involved, it pays to study up on the subject.

Story & photos by
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Winter wheat grazing has always had a following in the more temperate regions of our country. And as beef producers struggle to find cost-effective late- and early-season grazing options to offset higher feeding costs, it is very likely to grow in popularity.

"In the right situation, winter wheat grazing can offer the beef producer a cost-effective alternative to more conventional winter feed sources," says Rodney Jones, livestock production economist at Kansas State University (K-State). "I am sure, with the higher hay and feed costs, we will see an expansion of the practice into areas where it is practical."

Researchers have found that winter wheat grazed in the fall and spring offers palatable, nutritious forage with a soluble crude protein (CP) value of 20%-30%. Studies have shown that stocker-backgrounded steers and heifers in average condition gain 1.75 pounds (lb.) to 2.75 lb. per day. Similar gains have been reported on freshly weaned calves.

The Southern Great Plains has a 100-year history of grazing wheat. "The word is that back when they were raising tall wheats, they would graze them because it helped decrease the lodging," says Bill Pinchak, animal nutritionist at the Texas Agricultural Experiment Station. "The practice is well-established in this part of the country."

In Texas alone, wheat grazing generates approximately $50 million in income for its grain growers and, in doing so, reduces the risk of growing wheat by providing an excellent income source in addition to the grain.

Pinchak notes that in his region of northeast Texas the frequency of wheat grazing changes from year to year depending on the cost to feed cattle, the price of wheat, and the actual availability of winter wheat that is suitable for grazing. He sees this year as an example of when market forces are driving the demand.

"In the feedlots the cost of gain is now at 75¢ [per pound], while it was at 45¢ six months ago," Pinchak says. "That puts a lot of pressure on available wheat ground."

Exacerbating the situation is the issue of limited availability, Pinchak says. "A lot of guys who planted winter wheat last summer think they will be looking at $4.50 a bushel this spring," he says, adding that when grain prices are that high, wheat farmers have a tendency not to graze their crop in order to protect their final yield.

In southern Kansas Jones is already seeing the lease rate for grazing wheat rise dramatically.

"Right now people can charge grazing rates that historically would be considered astronomical, because the alternatives are so high," he says. "Out here, on wheat, we are hearing of people charging 55¢ to 60¢ a pound of gain when the numbers used to be 35¢ to 45¢."

When opportunity knocks

One longer-term trend in the wheat-grazing scenario that both Pinchak and Jones have observed is the shift from landowners grazing their own cattle to landowners leasing the grazing rights to a second party.

"Over the last 30 years we have seen a shift from 80% of the grazing of wheat occurring within a single economic unit to at least 80% of the wheat grazing being leased out," Pinchak says.

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Jones points out that in traditional wheat-grazing areas like northeast Texas and southern Kansas the ground rules on wheat grazing are well-known to those who raise wheat and graze cattle in the same operation and those who lease the grazing rights on wheat ground from a landowner. But this does not apply to those beef producers located outside of those areas.

"One or two years out of 10 in some of these northern areas, the opportunity to graze winter wheat presents itself," Jones says. "It just makes sense to know what is going on."

He cites as an example northwest Kansas, where, in most years, climatic conditions are not conducive to wheat grazing. "Let's say we have an unusually warm, wet fall and we have an opportunity to graze wheat," Jones says. "The question one should ask is: 'How do I take advantage of this situation?' "

He notes that because wheat forage is of such high quality, it will fit into almost any cattle-feeding regimen, and its availability could be the catalyst for a major shift in production strategy.

"Consider the question of whether or not to sell weaned calves in the fall or keep them over the winter," Jones says. "If your only option is to shove $70 a ton of low-quality forage and $4 corn into them, you are going to sell."

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Jones sees the deciding factor on whether or not to keep those animals over the winter as related specifically to their carrying cost. "Now if your neighbor put in wheat and the conditions are right, and you can lease the grazing rights for the right price, you might decide to keep those calves," he says.

What to expect

For those attempting wheat grazing for the first time, Jones stresses the importance of knowing what is entailed in the practice. That includes understanding wheat grazing's strengths and limitations. He notes that in most parts of the country winter wheat grazing can begin four to six weeks after planting, or when there is 4-6 inches (in.) of growth. This is important because adequate time must be given for the roots to establish so they cannot be pulled out by the grazing cattle.

In most areas where winter wheat is grazed, the cattle are first introduced between mid-October and mid-November, but in some parts of the country, where the soil is not conducive to root anchoring, livestock are held back until the ground is frozen.

It is not uncommon to remove cattle temporarily when the fall forage has been depleted and spring growth has not yet begun, or in situations where cattle walking on muddy ground pose a threat to the grain crop.

Jones notes wheat pasture in southern Kansas intended for grain harvesting is generally available for grazing 120-150 days or before stem elongation (jointing) occurs. Researchers have found that wheat tends to produce more tillers and leaves than are necessary for maximum grain yield, but they have also discovered a consistently high reduction in grain yield (up to 20% per week) when cattle grazed on wheat beyond the jointing stage in the plant's development.

Jones adds that the period during which cattle can safely graze on a particular field of wheat will vary from one part of the country to the next depending on ground moisture, climatic conditions and forage availability.

Evaluating, enhancing grazing potential

One of the real advantages of grazing wheat is its flexibility as a forage, Jones says. Because of its high nutritive value (30% CP) it works well for a wide range of applications, which include feeder calves, stockers and fall-calving mother cows.

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K-State researchers have found the best fall and winter stocking rates are from 250 lb. to 500 lb. of animal per acre, with spring stocking rates from 400 lb. to 1,000 lb. per acre.

One-third to 1 ton of dry matter (DM) can be expected from a wheat stand that is 6-12 in. tall, while one-fourth to one-half ton is expected from a stand 4-8 in. tall.

Researchers have also found that stocking rates can be increased when animals are supplemented with dry feeds ranging from grass hay and silage to corn and sorghum stubble.

This supplementary feed not only helps stretch the stocking rates on wheat pasture, but can reduce the incidence of bloat and grass tetany — two conditions associated with an overconsumption of fresh grain forage.

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and continuous grazing are equal in relation to an individual animal's daily gain, rotational grazing improves overall utilization by discouraging spot grazing.

Researchers have also determined that the more often wheat is grazed, the longer it remains in forage production. By controlling a herd's movements with rotational grazing, an operator can optimize both the consistency and the frequency of the grazing process.

Another valuable tool used to optimize the grazing potential on wheat pasture is the incorporation of a separate site, with access to and from the wheat field, where water and supplements are made available to the cattle. This will reduce the likelihood of crop damage from trampling by encouraging the cattle to remain off the wheat field when they are not grazing. In addition, the site can function as a holding enclosure at times when conditions warrant removing cattle from the wheat pasture to avoid plant damage.

Establishing ground rules

While there are several ways of calculating lease rates on wheat grazing, the simplest and most common is based on a set price per pound of gain.

"It isn't that much different than a feedlot," Jones says. "Weigh them going in, and then weigh them going out, and then multiply the difference by the agreed on per-pound-of-gain price."

Jones adds that normally when the wheat owner is paid on a per-pound-of-gain basis, he is responsible for caring for the cattle. "That usually means I drop my cattle off and come back in five months," he says. "In exchange for being paid for the weight gain, you — the wheat owner — have the responsibility of taking care of my cattle that just happen to be grazing your wheat."

Some of the other ways to determine lease payments are cost per hundredweight (cwt.) per month based on initial body weight, cost per cwt. per month based on average weight, cost per head per day and cost per acre grazed.

Once some of the basics are agreed upon and the decision has been made to proceed, Jones recommends committing the terms to paper. He notes there are a broad range of variables that might come into play during the lease period, and while it is impossible to plan for all contingencies, it just makes sense to identify and deal with the major ones.

"For instance, determining who is responsible for what," Jones says. "Will the pasture owner take care of the cattle, or will that responsibility remain with their owner?"

He adds that issues such as when to remove the cattle and under what circumstances is also critical to a mutually successful leasing arrangement.

For those who wish to learn more about wheat grazing, Jones recommends viewing "*Wheat Pasture in Kansas*," a K-State Extension publication available online at *www.oznet.ksu.edu/library/crpsl2/c713.pdf*.

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