



Never Too Late

Double cropping forage oats after winter wheat can prove to be a low-cost, high-return feeding option, especially when someone needs a place to apply extra manure.

Story & photos by
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The benefits of planting a cover crop after an early winter small grain harvest are well known. Soil conservation and erosion control are just two of the most obvious reasons to keep that ground covered until frigid fall temperatures put an end to the growing season. But, as the cost of buying or putting up forage for the cold months of the year rises, savvy beef producers are looking to late-planted annuals such as forage oats as one way to delay breaking into those costly winter hay stocks.

"Your summer-planted oats can play a conservation role and a feed role simultaneously," says Kurt Braunwart, crop scientist and CEO of Progene Seed, Othello, Wash. "In this situation these two functions are complementary."

He points out that one's grazing season can be extended two months or more by turning cattle out into annual forage oat pastures through late fall and early winter.

"Traditionally, this is when ranchers begin to run out of perennial pasture grasses and are forced to start feeding stored hay," he

says. "This is because your pasture grasses will go dormant at an earlier date or at a higher temperature than your annual grains."

Braunwart adds that there is a subtext to his observation. Among his forage oats, the spring varieties will usually outperform winter varieties when both are planted mid-summer after a grain harvest.

"Unlike winter varieties that will go into dormancy in the fall, the spring varieties will just keep growing," he says. "They have no mechanism to deal with seasonal change; they just keep producing leaf mass until they are knocked out by a real hard frost."

Braunwart offers the following caveat for growers in the Northwest who plant for forage a spring oat variety after harvesting a grain crop: "The key to utilizing these spring varieties in the fall is timing," he says. "While these oats will tolerate a certain amount of cold weather without negative impact, you have to use them before a hard frost shuts them down for good."

More forage for the buck

One individual familiar with the use of spring varieties of oats after harvesting a winter wheat crop is

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Jim Skeeles, Ohio State University (OSU) Extension educator, Fairfield and Hocking counties.

"Over the years, our Fairfield County growers have planted oats in early August, after winter wheat, and have consistently gotten 3 tons of good quality forage (15% protein) per acre by putting on about 40 to 50 pounds (lb.) of nitrogen at seeding," he says. "Frankly, we have gotten more-consistent yields and better quality with the oats than we do with a full-season hay crop."

For Skeeles, the returns vs. the costs are impressive. In a growing environment that averages less than 3 tons of perennial hay per acre per year, surpassing that yield on a summer recrop is difficult if not impossible to beat.

"Without including land or harvest costs, the cost for those 3 tons of oat forage runs around \$50 per ton," he says. "That is at today's (fall 2009) fertilizer and fuel prices."

There are a number of reasons for this, Skeeles says. First, oats are excellent scavengers of nutrients in the soil, so they are well-suited to take advantage of any fertilizers that were applied to benefit the previous wheat crop.

OSU Extension recommends 40 to 50 lb. per acre as the maximum economic return to nitrogen fertilization. "We have found that these rates get you the most forage for the dollar," Skeeles says.

Any more than 50 lb. per acre could actually prove disadvantageous to the grower. Results of an OSU 2008 oat plot study led researchers to believe that higher rates of nitrogen

Above: Grazing beef cows in double-cropped oats offers a cost-effective fall and winter-feeding option.

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could, in some instances, depress yields. Given adequate fertility levels there was no response to additional applications of phosphorous (P) and potassium (K).

Oats, the transformer

In addition to lower fertilizer costs, Skeeles points out that another reason why the wheat-to-oats double-crop system is such a bargain is that the investment in seed is minimal.

“We have tried a number of different oats, including certified seed, forage oats and grain oats,” he says. “In our climate, planted [at] the beginning of August, the bin-run feed oats is the best option.”

Skeeles adds that when planted in midsummer, even the lowest-quality horse feed varieties are transformed into the equivalent of a high-yielding, nutrient-dense forage oat.

“These oats are the same grain oats that are planted in our region in March,” Skeeles says. “The only difference is that we are planting them in the beginning of August.”

He speculates that day length plays a key role in changing how the spring oats behave. Because the formative growing period for the oats occurs in late summer rather than in the early spring, the plants are fooled into extending their vegetative growth period through fall and early winter.

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Double-crop bonus

While low cost inputs and seed are key contributors to keeping the cost of producing the oat forage at a reasonable \$50 per ton, Skeeles believes that it is the fact that the crop represents the second half of a double-crop system that really knocks oat forage out of the park from an economic standpoint.

“In this system the land charge (\$80 per acre average, Fairfield County) is attributed to the wheat crop,” he says. “The fact that there is no land charge to the forage oat crop makes this double-crop system economically advantageous.”

That is what makes it such a terrific fit for someone who has a dual (cattle and crops) enterprise, Skeeles says. “While it is hard to justify taking \$80 per acre crop ground out of row-crop production and putting it into hay, it

does make economic sense to double-crop wheat with forage oats,” he says.

A typical scenario for double-cropping wheat and oats is to take the wheat off at the end of June or the beginning of July.

“Then we have plenty of time to prepare,” Skeeles says. “For some that means baling straw and applying last year’s manure to the fields before planting oats the first week of August.”

Delaying planting until August doesn’t just make sense logistically, Skeeles says. OSU research confirms that the yields from the first week in August are equal to those planted in July, while August’s total digestible nutrients (TDN) is higher than the TDN of oats planted earlier.

“Even though planting earlier than August allows for an earlier fall harvest, it also reduces both yield and quality,” he adds.

Studies have confirmed that July-planted oats have a greater susceptibility to rust as well as maturing and declining in quality more rapidly than the August-planted oats.

Skeeles notes that a weed control application of glyphosate is a necessary and cost-effective practice prior to putting in

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Strip-grazing oats with hot wire reduces waste and improves quality of forage consumed.



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the oats. Planting rates of 80 lb. to 100 lb. of seed per acre are recommended for no-till drills.

Optimum harvest for August-planted oats is 60 to 75 days after seeding. If the oats are cut or grazed between 50 to 60 days after planting, while still in the boot stage of maturity, there is a strong

possibility of regrowth and a second cutting or grazing opportunity.

Good fit for strip-grazing

As the costs associated with hay harvesting (fuel and labor) rise, Skeeles says, grazing is emerging as an economically viable option to baling or ensilaging.

"We are talking about an additional cost of \$20 per acre to take off the forage," he says. "So if you can have the animals harvest it directly, you can save that \$20 an acre."

When looking at the various grazing systems available to the beef producer, Skeeles is a serious proponent of strip-grazing.

"It has been proven that there is less waste associated with strip-grazing than with just turning the animals out on a site," he says. "The quality of the forage going into the animals is also better with strip-grazing."

Skeeles adds that with strip-grazing the length of time the cattle remain on any particular site can be controlled. Animals can intensively graze a strip and then be removed in accordance with a predetermined management plan.

In such a grazing scenario, strips are given adequate time to rest and regrow (approximately 30 days) before cattle are reintroduced for a second grazing opportunity.

He notes that strip-grazing also offers the producer the unique opportunity to manipulate manure quality and distribution as the cattle move across the field, which, in turn, improves soil fertility for future crops.

While the economic benefits of strip-grazing are evident, Skeeles has, until recently, seen reluctance on the part of some producers to adopt the practice. He attributes this to the higher demands on manpower associated with switching over to strip-grazing.

"There is a hesitance on the part of the producers to increase management input into their system," he says. "The major reason why they don't strip-graze is that they don't want to or can't put more time into their cattle."

He adds that producers, to a lesser degree, have been reluctant to try strip-grazing because of the capital costs associated with building permanent perimeter fencing and installing the water sources necessary to implement a strip-grazing system.

Now, with the new farm program, and the recognition, on the part of the federal government, of the important role intensive crop-grazing can play in the new farm economy, more money is available to help producers with the initial costs of transitioning to crop-grazing.

"We are seeing significant government resources being allocated to fencing and water," Skeeles says. "When you have 70% to 90% cost share paid for by the government, that changes the economics."