Grazing Cover Crops for Winter Feed

In a Nutshell

- Cover crops can provide a high-quality, low-cost feed during times when farmers normally would be feeding hay and other stored forages.
- Dave and Meg Schmidt planted and grazed cover crops and crop residue to extend their grazing season and reduce hay expenses.
- Over four winter seasons, they have maintained animal performance through a feeding of combination of hay and winter grazing.

Key findings:

- Grazing cover crops and crop residue in late fall delayed the onset of regular hay feeding.
- Cows maintained body condition and calves met average daily gain goals while grazing cover crops and crop residue.
- Utilizing cover crops as forage allowed the Schmidts to feed less hay than previous years, while also increasing their herd size.
- Grazers should consider entering into cost-share agreements with row crop neighbors to reduce cover crop establishment costs.

Economics

The Schmidts essentially offset three months of feeding hay by grazing cover crops and crop residue. The feed, equipment and labor costs for cover crops and crop residue. The feed, equipment and labor costs for these calculations show that by keeping cattle on the land and continue to establish relationships with neighboring row crop neighbors to reduce cover crop establishment costs.

Project Timeline: September 2014 – May 2015

100% Hay:

From Nov. to April, the herd required 86.5 tons of DM, which equates to about 102 tons of hay. The time period between coming off fall pasture and being turned out on spring pasture was 174 days. If bales were fed every other day, this equates to 87 bale feeding events:

- 102 tons of hay required x $10/ton = $1,020 hay expense
- Labor: $12/hr x 5 hr/bale x 87 bales = $5,220
- Fuel: $2.31/AUD x 300 hrs/yr = $693

Totaling hay + labor + fuel expenses together:

Cost comparisons for winter 2014-2015 feeding systems

- 2014 hay feeding system: $17,933
- 2015 hay feeding system: $17,016
- 2016 hay feeding system: $17,016
- 2017 hay feeding system: $17,016

Comparisons of hay consumption and hay costs over the last four winters at the Schmidt farm. Their feed costs have increased by less than 2,000 compared to four years ago, despite feeding 17,800 more pounds of cattle (C. Mac.) They have accomplished this by feeding less to a feed lower percentage of hay to meet their winter nutritional needs.

Over the four years the Schmidts have tracked winter feed intake, they have been able to successfully offset the amount of hay fed by extending their grazing season through Cover crops. Grazing cover crops and crop residue allowed the Schmidts to feed less hay than previous years, while also increasing their herd size.

Grazing + Hay:

Dave and Meg make some of their own hay and purchase the rest. The hay they purchased cost them on average $74/ton, less than the market value of hay in January 2015, which was $130/ton (USDA, 2015). Dave and Meg regularly fed hay from Jan. 31 to April 30, on average feeding one large round bale every other day for 90 days. During this time period, they incurred 46 bale feeding events (at times feeding multiple bales) which equated to 49 tons of hay.

When applying the market value to the home-raised and purchased hay, the value of 40 tons of home-raised and purchased hay combined was $56,700. Setting bales out for cattle took about 15-30 minutes of tractor time and twice as much human time. 46 bale feeding events required 14 equipment hours and about 28 human hours. From a previous PFI Cooperator’s Program research report on grazing cover crops for winter feed the Schmidts were involved in, consider the following cost estimates:

- Cost: $14/hr x 5 hr/bale x $3.50/hr = $245
- Labor cost: $28/hr x $15/hr = $56
- $3,094 total cost of grazing expenses

Totaling hay + grazing expenses together:

$17,265 (hay expenses) + $3,094 (grazing expenses) = $20,359 total winter feed expenses

For an animal unit per day basis: $14,495 (total expenses)/174 days = $83/AUD

Grazing Cover crops and crop residue over the winter saved the Schmidts approximately $4,464 over the 2015 winter feeding season.

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References

Dunn, M. D. Schmidt and M. D. Schmidt. 2014. Grazing Cover Crops for Winter Feed. Practical Farmers of Iowa, Ames, IA.

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Vough, L. R. 2015. Cover crops, small grains and crop residue provide fall/winter supplemental forage. University of Maryland, College Park, MD.

Dunn, M. D. Schmidt and M. D. Schmidt. 2014. Grazing Cover Crops for Winter Feed. Practical Farmers of Iowa, Ames, IA

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Grazing + Hay + Cost-Share:

Keep in mind that the above estimates do not include any cover crop cost-share benefits. Dave and Meg worked out a deal with a farmer near by where they pay for seed and Richard pays for a seed application. Incorporating this cost savings breaks down as follows:

- $6,600 (establishment of cover crops) - $3,885 (cost of aerial application) = $2,715 (labor)
- $2,715 (labor) + $7,035 (hay expenses) = $9,750 (total winter feed expenses)

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