

Given a situation where your existing crop is essentially written-off, direct seeding an annual cereal for later season grazing is an option. The objective is to replace drylot feeding days later in the season.

A direct cash cost budget, as presented on this page, builds in a number of the key considerations in pursuing this option. The major assumptions underlying this budget include:

- Soil moisture conditions are sufficient to achieve germination and growth,
- Cereals are direct seeded into existing crop land at a custom rate of \$10/acre (reasonably reflective of the cash costs of doing the seeding yourself),
- Chemical and fertilizer inputs are specifically excluded - for cash flow reasons, reduced likelihood of benefit to their application, plus some expected carryover from the original crop,
- The potential yield over a two-month window is penciled in at 2,000 lbs. of dry matter per acre. At a grazing efficiency rate of 60%, this works out to a grazable yield of 600 lbs of dry matter per acre per month, or 46.2 Animal Unit Days (AUD) per acre.
- Direct cash grazing activity costs are estimated at \$0.10 per AUD, including a nominal amount for feed supplements as required. This estimate does not include a valuation of operator labour used to manage the grazing activity (which can effectively double this cost).

- A \$40/AUM market value of grazing is used to reflect the value side of the budget. Depending on your locale, this amount may, or may not, seem realistic. The sensitivity table on the next page provides cash break-evens over a range of market rates.

Focusing on a cash items only, at the assumed rates and costs, direct cash costs associated with laying in the additional grazing days tally to \$24.62 / acre, or \$16.27 / AUM. The cash margin, incorporating a market value for the grazing, works out to \$35.91/acre, or \$23.73/AUM.

Seeding Annuals for Grazing					
Crop Seeded to be Grazed:			<b>Rye</b>	<b>Given:</b> lbs Grazing DM Req'd / AUD: 26 days / mo. 30.5	
Livestock Parameters:	{	<b>Given:</b>	1,350	lbs/head - Avg. Grazing Wt.	
		1.35	AU/head		
		793	lbs DM Req'd / AUM		
		1,071	lbs DM Req'd / Head Grazed / Month		
Production & Value:	{	over	2,000	lbs DM / Acre - potential yield	
			2	months of grazing	
			60.0%	grazing efficiency (lbs DM grazed / lbs. DM potential)	
			600	lbs DM / Acre / Mo. - grazed yield	
			34	Head-Days / Acre	
			46.2	AUD / Acre	
			1.51	AUM / Acre	
			\$40.00	/ AUM - Market Value of Grazing	
Unit Production Cost Parameters:	{	<b>Establishment Costs - \$ / Acre</b>			
		\$10.00	Seed		
		\$0.00	Chemicals		
		\$0.00	Fertilizer		
		\$10.00	Other Operating		
		<b>Direct Cash Grazing Activity Costs</b>			
		\$0.10	/ AUD		
Grazing Contribution Margin Elements					
\$/Head	\$/Hd-Day Grazed	\$/AUD	\$/AUM		\$/Acre
\$108.00	\$1.77	\$1.31	\$40.00	Value of Production	\$60.53
			\$6.61	Direct Establishment Costs	
			0.00	Seed	\$10.00
			0.00	Chem.	0.00
			0.00	Fert.	0.00
			6.61	Other Operating	10.00
\$35.69	\$0.59	\$0.43	\$13.22	Total Direct Establishment Costs	\$20.00
\$8.24	\$0.14	\$0.10	\$3.05	Direct Grazing Activity Costs	\$4.62
\$43.92	\$0.72	\$0.53	\$16.27	Total Direct Costs of Grazing	\$24.62
\$64.08	\$1.05	\$0.78	\$23.73	Contribution Margin of Grazed Crop	\$35.91

# Budget Sensitivity, in \$/Acre, to Yield and Market Value of Grazing

The purposes of the cash budget were:

- To determine whether or not this option would pencil out on a cash basis, as a short term measure to lay in grazing head-days, and
- To lay out costing elements to be included in the overall cash flow for your farm.

The margins, in essence, reflect the net cash benefit over renting grazing at the posted rate. They represent the amount remaining to cover operator labour and other overhead costs.

From an agronomy perspective, a few production management considerations include:

- Seed a mixture of spring cereals and winter cereals (seeding rate of 90 lbs/acre of winter cereal along with a bushel of oats or barley),
- This seed mixture will take advantage of the quick growth of the spring cereals, but will allow for the regrowth provided by the winter cereals along with their ability to continue growth after fall frosts, and
- Rotationally graze these annuals to reduce wastage and increase grazing efficiency.

Further detail on grazing cereal crops is available in the Alberta Agriculture Agri-Facts publication “Winter Cereals for Pasture” (1) Agdex 133/20-1.

Given reasonable growing conditions, this approach should optimize the number of “days” you can re-coup from your acreage.

Net Advantage \$/Acre		----- Market Value of Grazing (\$/AUM) -----						
		25	30	35	40	45	50	55
Carrying Capacity (AUD/acre)	5	(16.40)	(15.58)	(14.76)	(13.94)	(13.12)	(12.30)	(11.48)
	15	(9.20)	(6.75)	(4.29)	(1.83)	0.63	3.09	5.55
	25	(2.01)	2.09	6.19	10.29	14.39	18.48	22.58
	35	5.19	10.93	16.66	22.40	28.14	33.88	39.61
	45	12.39	19.76	27.14	34.52	41.89	49.27	56.65
	55	19.58	28.60	37.61	46.63	55.65	64.66	73.68
	65	26.78	37.43	48.09	58.75	69.40	80.06	90.71

The final consideration in assessing this option is the potential down-side risk, particularly as related to yield. The “budget sensitivity” table shows the net cash margin under different yield and grazing value scenarios. Realistically, yields need to be in the 20 AUD / acre range to have this “seed and graze” option work.

Dale A. Kaljel  
Sr. Economist: Production Economics  
Economics & Competitiveness Division

If you have questions or require further assistance on this topic, please call the AgInfo-Center at 1-866-882-7677