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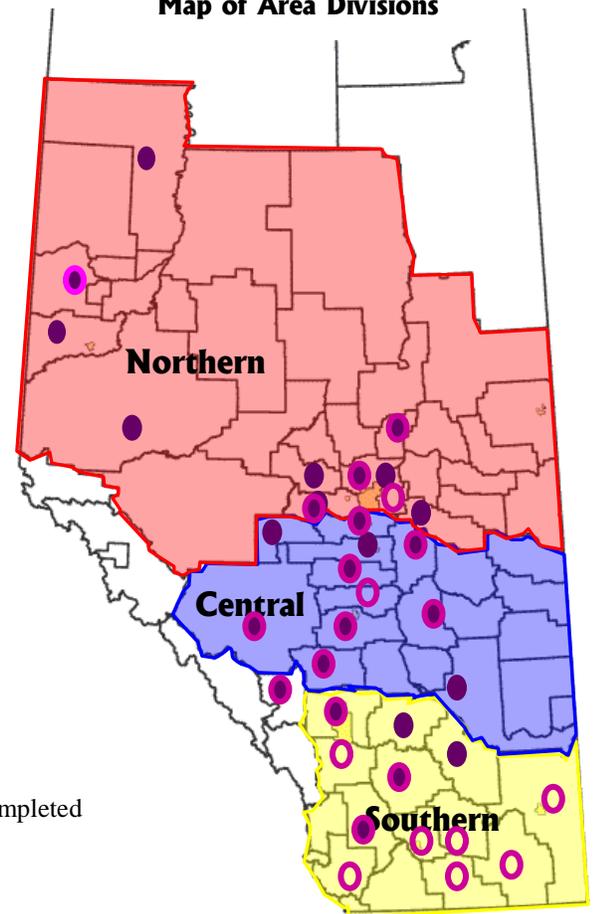
We have now prepared the sale information to complete our general market analysis for the Fourth Quarter of 2011 (October - December). The following map illustrates the locations where data has been obtained. The Q4, 2011 sales are summarized individually in the tables on the following page. Our Regional Analysis and Cultivation Comparison are also included on the following pages. We have also included an article looking at factors that could influence land purchase decisions.

In Q4, 2011 the average value for land in Northern Alberta was lower than Q3, but still higher than Q2, 2011. Central Alberta was relatively consistent to previous average land values (Graph 2). In Southern Alberta, the average value returned to a lower average after last month's average was influenced by some non agricultural related sales (Graph 3). Graph 4 shows the average for each area together.

In Q4, 2011 the provincial average land value was relatively consistent with the previous period (Graph 5). The difference between cultivated and uncultivated land was consistent with the previous period and the 4 and 8 period moving averages converged closer and indicated a difference around approximately 30% (Graph 6). The averages for Central Alberta showed a smaller difference than the previous period, but still consistent with other periods (Graph 8).

This quarter had lower number of total sales than Q3, but it was similar to Q4, 2010. The sale : list ratio was relatively similar to previous quarters, although the Southern Alberta had a slightly lower ratio (Graph 9).

### Regional Analysis Map of Area Divisions



- Indicates municipalities in which an appraisal was completed during Q4, 2011.
- Indicates municipalities in which we have obtained information on at least one sale that occurred during Q4, 2011.

## SALE SUMMARY

Fourth Quarter (October - December) 2011

### Bareland Sales

Northern Alberta – Q4				
Municipality	Sale Price	Acres	\$/acre	Primary Land Use
Athabasca	\$130,000	149.00	\$872	Bush
Athabasca	\$103,000	107.70	\$956	Bush, Pasture
Athabasca	\$130,000	149.00	\$872	Bush
Beaver	\$151,500	148.96	\$1,017	Cultivated, Pasture
Beaver	\$340,000	152.44	\$2,230	Cultivated
Grande Prairie	\$115,000	158.00	\$728	Bush
Grande Prairie	\$240,000	149.00	\$1,611	Bush
Grande Prairie	\$225,000	148.00	\$1,520	Bush
Grande Prairie	\$450,000	160.00	\$2,813	Hay
Grande Prairie	\$110,000	157.01	\$701	Bush
Grande Prairie	\$135,000	158.00	\$854	Pasture
Greenview	\$105,000	160.00	\$656	Bush, Hay
Lac Ste. Anne	\$215,000	159.00	\$1,352	Bush
Lamont	\$184,000	160.00	\$1,150	Cultivated
Lamont	\$110,000	79.44	\$1,385	Bush, Pasture, Hay
Lamont	\$200,000	80.00	\$2,500	Bush, Pasture
Northern Lights	\$995,000	1120.00	\$888	Cultivated
Northern Lights	\$85,000	116.00	\$733	Hay
Northern Lights	\$75,000	159.00	\$472	Bush
Northern Lights	\$85,000	159.00	\$535	Bush, Cultivated
Saddle Hills	\$80,000	141.96	\$564	Cultivated
Sturgeon	\$150,000	77.67	\$1,931	Pasture, Bush
Sturgeon	\$192,500	80.00	\$2,406	Cultivated
Sturgeon	\$192,500	77.91	\$2,471	Cultivated
Sturgeon	\$272,500	74.00	\$3,682	Cultivated
Sturgeon	\$90,000	77.53	\$1,161	Pasture
Sturgeon	\$550,000	160.00	\$3,438	Cultivated
Sturgeon	\$1,015,000	452.00	\$2,246	Bush, Pasture
Sturgeon	\$215,000	160.00	\$1,344	Hay
Thorhild	\$115,000	160.00	\$719	Pasture, Bush
Thorhild	\$155,000	148.97	\$1,040	Pasture, Bush

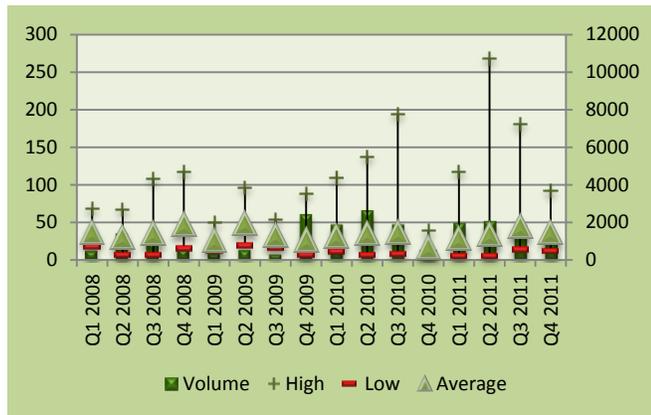
Central Alberta – Q4				
Municipality	Sale Price	Acres	\$/acre	Primary Land Use
Brazeau	\$230,000	160.00	\$1,438	Bush
Brazeau	\$230,000	148.76	\$1,546	Pasture
Brazeau	\$232,000	158.00	\$1,468	Bush
Brazeau	\$440,000	160.00	\$2,750	Pasture, Bush
Camrose	\$257,000	159.70	\$1,609	Bush, Pasture
Clearwater	\$285,000	85.56	\$3,331	Bush
Leduc	\$500,000	240.06	\$2,083	Cultivated
Leduc	\$1,525,000	469.33	\$3,249	Cultivated
Leduc	\$1,200,000	117.58	\$10,206	Urban Influence
Mountain View	\$590,000	158.98	\$3,711	Cultivated, Pasture
Mountain View	\$658,000	158.00	\$4,165	Bush
Mountain View	\$480,000	158.97	\$3,019	Cultivated, Pasture
Mountain View	\$540,000	155.00	\$3,484	Bush, Pasture
Mountain View	\$410,000	160.00	\$2,563	Bush, Pasture
Mountain View	\$239,000	83.00	\$2,880	Pasture
Mountain View	\$435,000	153.96	\$2,825	Bush
Mountain View	\$525,000	160.00	\$3,281	Hay
Mountain View	\$590,000	160.00	\$3,688	Hay, Cultivated
Ponoka	\$105,000	160.00	\$656	Bush, Pasture
Ponoka	\$650,000	320.99	\$2,025	Cultivated
Red Deer	\$245,000	141.32	\$1,734	Pasture, Hay
Red Deer	\$270,000	140.00	\$1,929	Hay
Red Deer	\$385,000	75.40	\$5,106	Pasture
Special Area 2	\$160,000	307.80	\$520	Cultivated, Hay, Pasture
Special Area 2	\$160,000	314.30	\$509	Pasture
Special Area 2	\$160,000	640.00	\$250	Pasture
Stettler	\$390,000	160.00	\$2,438	Hay
Wetaskiwin	\$215,000	160.00	\$1,344	Pasture
Wetaskiwin	\$225,000	160.00	\$1,406	Pasture
Wetaskiwin	\$257,500	157.70	\$1,633	Bush, Pasture
Wetaskiwin	\$230,000	80.01	\$2,875	Cultivated

Southern Alberta – Q4				
Municipality	Sale Price	Acres	\$/acre	Primary Land Use
Bighorn	\$420,000	79.82	\$5,262	Bush
Newell	\$198,750	159.00	\$1,250	Pasture
Parkland	\$200,000	154.46	\$1,295	Hay
Rocky View	\$650,000	160.00	\$4,063	Cultivated
Rocky View	\$749,900	71.87	\$10,434	Water Frontage
Rocky View	\$320,000	78.36	\$4,084	Hay
Rocky View	\$350,000	150.40	\$2,327	Pasture
Vulcan	\$280,000	148.30	\$1,888	Cultivated
Vulcan	\$295,000	154.93	\$1,904	Cultivated
Wheatland	\$200,000	160.00	\$1,250	Pasture
Wheatland	\$250,000	236.00	\$1,059	Pasture
Wheatland	\$135,000	130.00	\$1,038	Hay
Willow Creek	\$565,000	196.00	\$2,883	Pasture

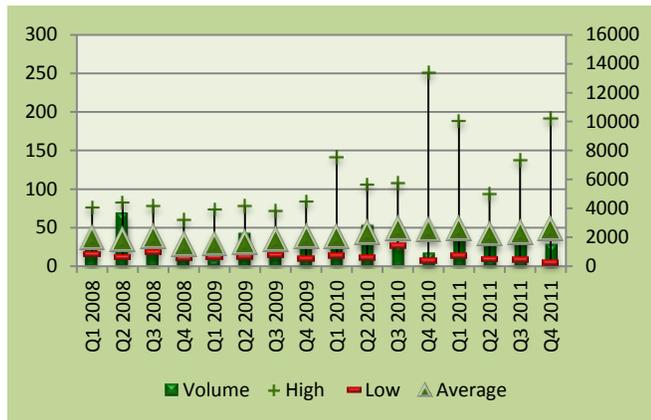
# REGIONAL ANALYSIS

In the following graph we have excluded sales that we believe are expected to have significant urban influence.

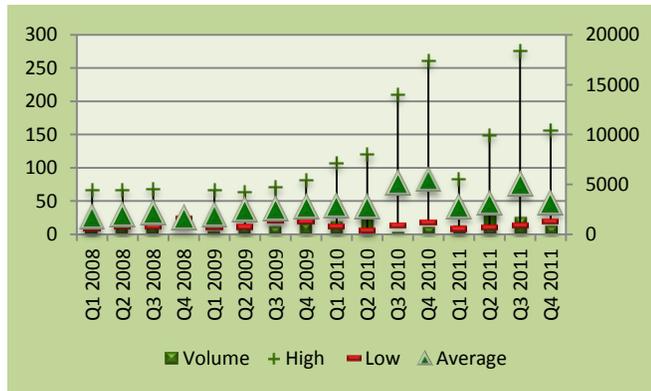
**Graph 1: Northern Alberta**



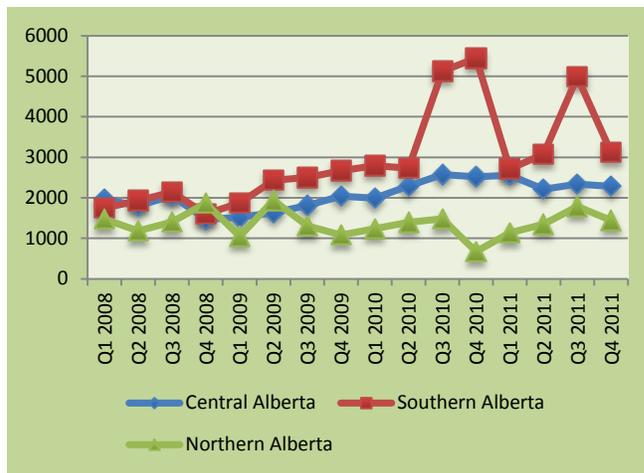
**Graph 2: Central Alberta**



**Graph 3: Southern Alberta**



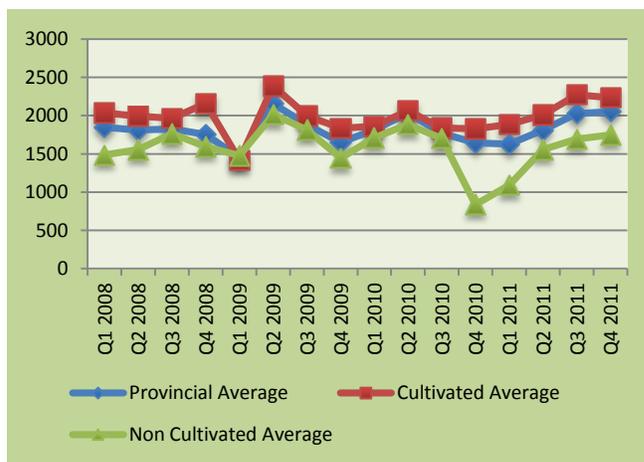
**Graph 4: Average Value of Each Region**



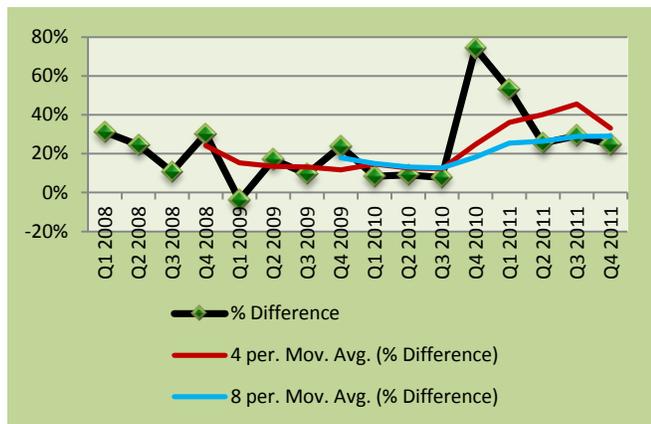
Within each of the above regions, there are areas with different agricultural productivity. There is also variation with respect to regional population, urban development, or demand for country residential properties. Therefore, there is frequently a wide difference between the range of high and low values per acre.

# CULTIVATED VS UNCULTIVATED COMPARISON

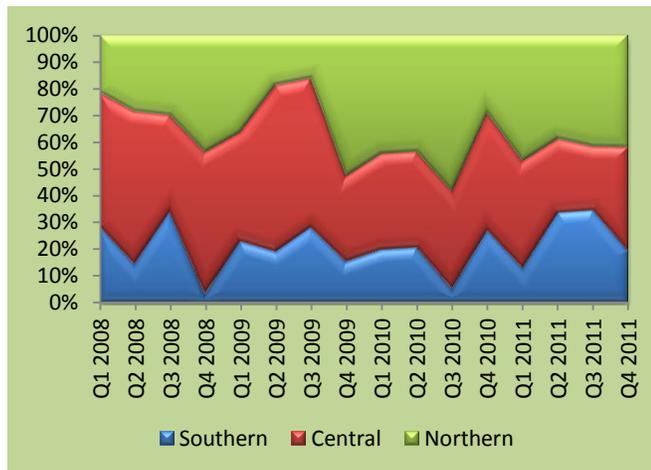
**Graph 5: Provincial Cultivated vs Uncultivated**



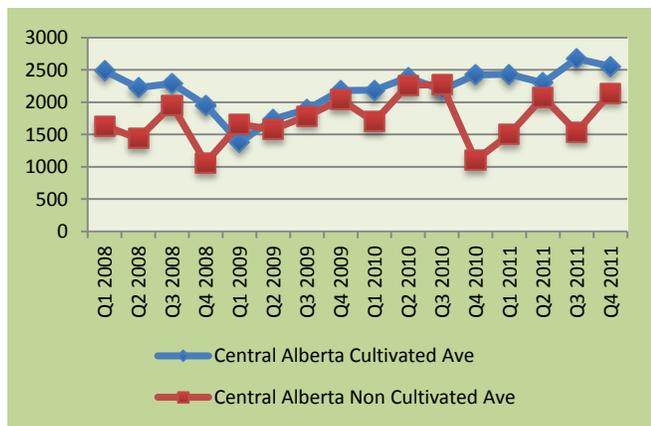
**Graph 6: Percent Difference Cultivated vs Uncultivated Land**



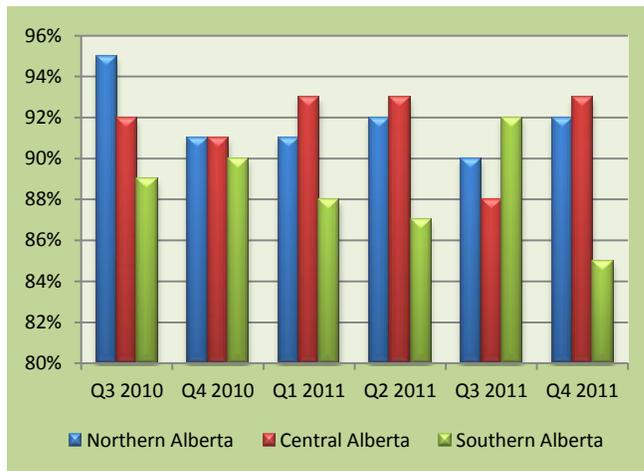
**Graph 7: Proportion of Sales by Region**



**Graph 8: Central Alberta - Cultivated vs Uncultivated**



**Graph 9: Sale Price : List Price**



Given the limited arm’s-length sales data and variable information available in the rural real estate market, it is often difficult to determine trends and quantify time adjustments in the market for agricultural properties. Therefore, the information contained in this newsletter should not be relied upon solely for purchasing or financing decisions. It is prepared with the intent of providing a general indication of the activity in the rural real estate market. If an estimate of value is required for specific properties, it is recommended that an appraisal be obtained. Benchmark studies can also be completed if approximate land values are required for a specific area.

## DOES LESS EXPENSIVE LAND COST MORE?

Even during the recent economic uncertainty farmland values have continued to remain strong, and even increased in many areas. With strong demand and increasing competition for farmland, farmers may be considering buying cheaper land in different areas, or buying lower priced, marginal land in their local area. However, when making decisions about investing in farmland, it may be necessary to consider more than just market value.

To help explain we have considered a case study of two farmers.

Farmer Green purchased land for \$2,000 per acre. He reasonably expected to grow a canola crop of 50 bushels per acre and a spring wheat crop of 70 bushels per acre. Farmer

Brown was looking around for farmland and decided to buy some land for \$1,000 per acre and believed that he could produce a canola crop of 30 bushels per acre and a wheat crop of 40 bushels per acre.

Farmer Brown believed that he was getting a better deal; his land was half the price of Farmer Green's, but his yields were expected to be more than 50% of Farmer Green's.

### Gross Income Multiplier

Farmer Brown knew that calculating a Gross Income Multiplier (GIM) is one way that appraisers can use the Income Approach to estimate value. Therefore, to support his assertion that he had the better deal; Farmer Brown did some calculations to estimate the GIM.

GIM is calculated by dividing the price of the land by one year's expected gross income. Essentially it is an indication of how many years of gross income is required to cover the cost of the land. The following are the calculations Farmer Brown used to estimate the GIM for both properties.

	Farmer Green's Land		Farmer Brown's Land	
	Canola	Wheat	Canola	Wheat
Yield (bushels per acre)	50	70	30	40
Price (\$ per bushel)	\$11.00	\$6.50	\$11.00	\$6.50
Gross Revenue	\$550	\$455	\$330	\$260
Average	\$502		\$295	
GIM	3.98 (\$2,000/\$502)		3.39 (\$1,000/\$295)	

Based on the above calculation it would take 3.98 years of gross income to cover the cost of Farmer Green's land and approximately 3.39 years to cover the cost of Farmer Brown's land. Therefore, although both GIM were reasonably similar, the above calculation would suggest that Farmer Brown's land would be a relatively better investment.

However, several years following the purchase of the land Farmer Brown is dismayed that Farmer Green has enough money saved to take his family on a vacation while he has limited spending money.

### CAP Rate

To help understand why, we will consider another method that appraisers can use to estimate value using the Income Approach. A capitalization (CAP) rate is used as a factor to

estimate value using Net Operating Income (NOI). It can be calculated as:

$$\text{Market Value} = \text{NOI} / \text{CAP}$$

The CAP rate reflects the net income as a percent of the purchase price. Typically, more risky investments have a higher CAP rate.

To estimate the CAP rate for both farmers' land the following is a partial budget of input expenses for both Farmer Green and Farmer Brown. Although the budgets below are hypothetical, they are based roughly on production costs reported by Alberta Agriculture and Rural Development in the black and brown soil zones, as well as our own experience.

	Farmer Green	Farmer Brown
A Average Gross Income	\$502	\$295
<b>Estimated Operating Expenses</b>		
B Seed	\$35	\$30
C Fertilizer	\$65	\$40
D Chemical	\$35	\$30
E Fuel	\$17	\$12
F Interest	\$100	\$50
G Other	\$35	\$25
H Total Operating Expenses (Sum B to G)	\$287	\$187
I Gross Margin (A - H)(Net Operating Income)	\$215	\$108
J CAP (I/Land Price)	10.75%	10.80%

Given the potential for variance in the income and expenses used in the analysis above, both land purchases are considered to have reasonably similar CAP rates. Therefore, from an investment perspective both acquisitions could be considered reasonably similar.

However, this still does not help us understand why Farmer Brown has less financial security than Farmer Green.

### Additional Analysis

From a wealth perspective the dollars of gross margin that Farmer Brown achieves is approximately half (\$108/\$215) the gross margin that Farmer Green obtains. Therefore, Farmer Brown would need to farm approximately twice the acres that Farmer Green does in order to achieve a similar net operating income.

The impact is even further exacerbated when fixed costs are considered. Although fixed costs can vary significantly, depending on management decisions, it is considered reasonable to expect that if both farmers operated the same number of acres, they should be able to farm using similar equipment. Although it is recognized that each farmer would buy equipment to match their financial circumstances, for the purpose of this analysis, we will assume both farmers operate the same equipment. This assumption considers that both farmers would have an equal desire to enhance their work environment by operating equally modern and comfortable equipment. For most equipment the fixed costs would be the same between each farmer and location, if they farmed the same number of acres. However, with a higher yielding crop, the depreciation on the combine would be higher due to the extra hours that would be incurred, regardless of the maintenance and repair schedule. For the purpose of our analysis we will assume that the combine is responsible for one-third of the total fixed equipment costs and, that due to the extra hours, the fixed costs on the combine would be twice as high in the higher yielding area.

The following table shows the estimated net income for each farmer, based on assumed fixed equipment costs of \$60 per acre for Farmer Brown. Therefore, based on the above assumptions Farmer Green’s fixed costs would be \$70 per acre ( $\$60 \times 1/3 \times 1.5$ ) +  $\$60 \times 2/3$ ).

	Farmer Green	Farmer Brown
Gross Margin	\$215	\$108
Fixed Equipment Costs	\$70	\$60
Net Margin	\$145	\$48

Based on the above calculation of net margin, if both farmers operate a total of 1,000 acres, Farmer Green has a total net income of \$145,000 and Farmer Brown only has total net income of \$48,000. Using this analysis, Farmer Brown would need to farm approximately three times the number of acres as Farmer Green in order to receive the same net income. However, if fixed costs increased to \$80 per acre for Farm Brown (\$93 per acre for Farmer Green), the following table shows that Farmer Brown would need to farm more than four times the amount of land as Farmer Green.

	Farmer Green	Farmer Brown
Gross Margin	\$215	\$108
Fixed Equipment Costs	\$93	\$80
Net Margin	\$122	\$28

**Summary**

The analysis of both the Gross Income Multiplier and Capitalization Rate indicated reasonably similar returns for Farmer Green’s and Farmer Brown’s investment in their land. Therefore, from an investment perspective, both land acquisitions could be considered reasonably similar. However, from a welfare perspective, the actual net dollars that Farmer Brown would be expected to earn each year was much less than Farmer Green. Therefore, in order to maintain the same standard of living as Farmer Green, Farmer Brown may be required to farm a proportionately larger area or attempt to operate more efficiently with reduced costs.

Based on the analyses above, less expensive land may not actually cost more, but there can be significant differences in the operating efficiencies between different properties that affects the welfare of someone attempting to farm the land.

It should be noted that the above article has a relatively narrow focus and there a number of other factors that need to be considered when making land purchase decisions, including the consideration that Farmer Green has a much higher capital investment in his land. Not only would Farmer Green confront higher principal payments, but there is also a greater opportunity cost attributed to the higher sunk costs of his land investment. Future newsletter articles will look at other factors, and additional analyses, that can be considered when making land purchase decisions.