How to Appraise Agricultural Land in a Declining Market

Donald Hoover

Factors to consider when appraising agricultural land values in the current and foreseeable markets.

Agricultural land values across Canada have fluctuated over the past 70 years in response to numerous economic and non-economic forces. A general trend of increasing values was experienced in most years up to 1981, with a reversal of that movement since then. The topic of "appraising agricultural land in a declining market" is timely, especially when considering:

- the values are continuing to slide
- there are few recent sales
- the comparables you do have are over a large geographic area, over a long period, and are often financially forced sales, and
- the future holds little short-run prospects for improvement.

Recently, there have been a few presentations on this very topic as it is of concern to many. It is probably fair to say we have now been appraising under this "new situation" long enough to feel some comfort in what we are doing.

Acknowledgements for this presentation are extended to the Deloitte Haskins & Sells Associates staff across Canada, the Farm Credit Corporation, and the American Society of Farm Managers and Rural Appraisers.

Historic Information on Agricultural Land Values

To provide background to current values, it is relevant to consider what has happened to values in the past. Tables 1 and 2 illustrate the movement of agricultural land values in Canada since 1915.

The land values in Canada, when considered in constant 1985 dollars, did not move dramatically up or down until after 1970. In fact, the 1915 value of $361 per acre was not exceeded until after 1970, some 55 years later. Values have been on an upward trend since the early 1940's, with the increase from 1960–1965 being significant at 34%. Significant increases of 33 and 65% were also experienced in the two 5-year intervals between 1970 and 1980. Since 1980, the values have declined overall by 30%, but they still exceed the values prior to 1970.

Price Changes by Province

There seem to be artificial barriers in the minds of purchasers, somewhat similar to the stock market. To illustrate, note the $100 per acre, the $200 per acre, and the $300 per acre values. In each case, Ontario's values far exceeded other provinces, but the peak in value occurred at the same time, independent of where the land was located (Table 3).

Ontario values were, on average, over $1,500 per acre when they peaked in 1981, as compared to peaks in Nova Scotia, Manitoba, and Alberta at approximately $500 per acre.

Table 1. Agricultural Land Values: Canada 1915–1985

	Nominal Dollars		Constant 1985 Dollars	
	$/Acre	% Change	$/Acre	% Change
1915	35	—	361	—
1920	48	+37	267	−26
1925	38	−21	262	−2
1930	32	−16	221	−16
1935	24	−25	207	−6
1940	24	—	189	−9
1945	30	+25	207	+10
1950	43	+43	217	+5
1955	52	+21	232	+7
1960	62	+19	251	+8
1965	90	+45	337	+34
1970	115	+28	357	+6
1975	218	+90	474	+33
1980	547	+151	783	+65
1985	545	−0.4	545	−30

Table 2. Agricultural Land Values: Average Growth Rates by Time Interval

	Nominal Dollars		Constant Dollars	
	Total % Change	Average % Change	Total % Change	Average % Change
1915–1930	−9	−1	−39	−3
1931–1950	+54	+2	+1	+0.25
1951–1970	+145	+5	+66	+3
1971–1985	+374	+12	+58	+3

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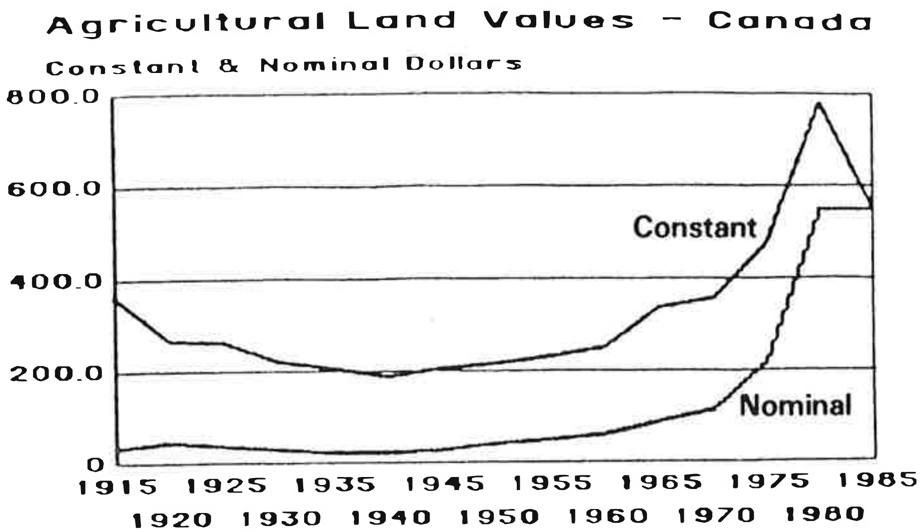
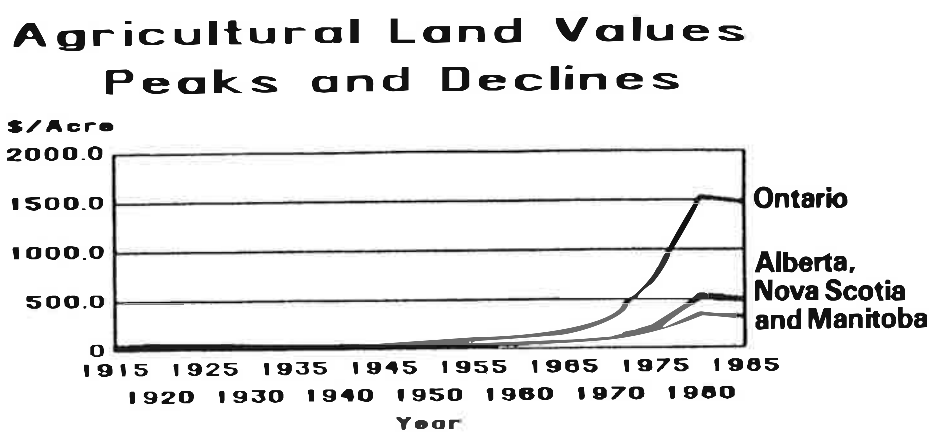


Table 3. **Breaking the Barriers**

	$100/Acre	$200/Acre	$300/Acre
Nova Scotia	1969	1975	1978
Ontario	1954	1967	1969
Manitoba	1974	1978	1980
Alberta	1968	1976	1979

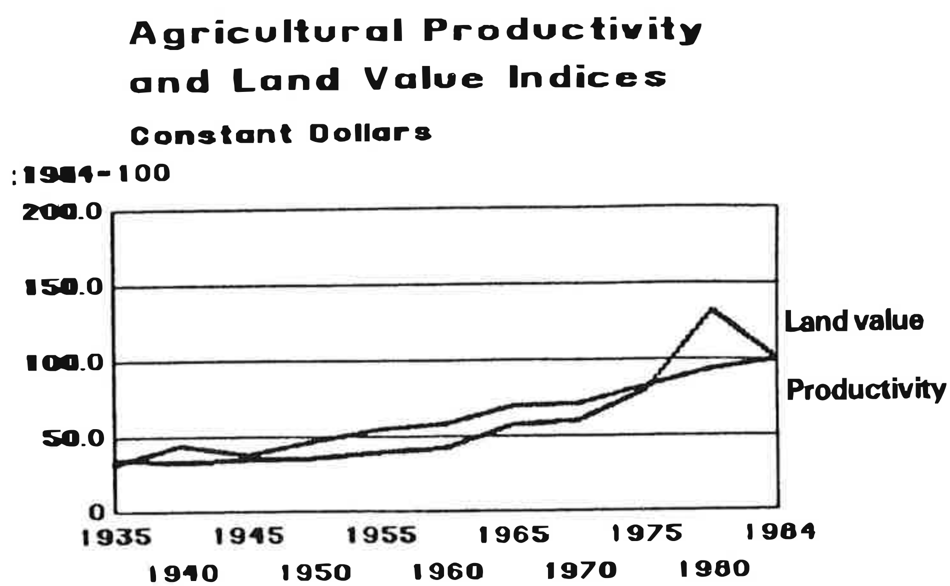


During the period 1915–1981, there were only 11 years of decline, and in some of those years the decline totaled a mere $1 per acre. Since 1941, there has been an upward trend in land values, except for the 4 years of 1945, 1954, 1970, and 1971.

The values have been basically steady for the first 30 years, when considering the dramatic increase in the 10-year period ending in 1981. Since 1981, agricultural land values across Canada have been declining and doing so at a fairly rapid rate.

Market Productivity Relationships

Before analyzing the current situation, or entering into a discussion of the topic at hand, namely how to appraise in a declining market, let us review historic market value to productivity value relationships.



Up to 1975, the productivity index exceeded the land value index. Then, for 5 years, land value increases far exceeded the productivity increases. Since 1980, the relationship has been working back toward a "normal" situation.

The graph below illustrates the difficulty in attempting to use a "capitalization of income" approach to value. It is possible, but the appraiser must know the present position in the market/productivity cycle. Currently, we are heading toward a market value closer to the productivity value—if you use a 3–5 year average for farm productivity. If current incomes are used, the spread between market and productivity is as wide now as ever! It is easy to note the "good times" and the "bad times" for those attempting to pay for their land from the productivity of the land.

Current Values 1976–1985

To appreciate the current circumstances, the past 10-year period requires a detailed review.

Land values in this time have fluctuated more than in any other period since records were kept! The reasons are numerous:

- food shortage to surplus
- oil shortage to surplus
- government programs in the E.E.C. and the U.S.
- and of course, local factors such as subsidized credit, support prices on some products, supply management on others, direct subsidies on inputs and product prices, etc.

Table 4 illustrates land values by region in Alberta:

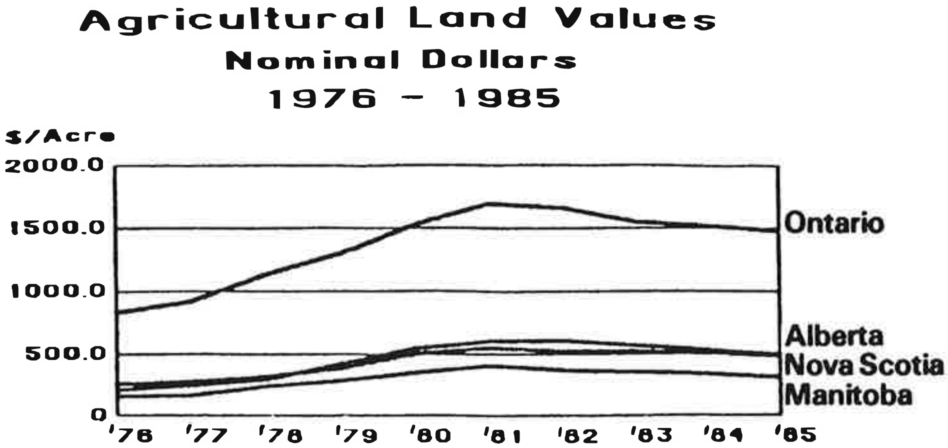


Table 4. Regional Land Values: Alberta

	Irrigation/ Acre	Dryland/ Acre	Edmonton-Calgary Corridor/ Acre	Peace River/ Acre
1976	$363	$182	$327	$120
1977	431	220	371	147
1978	459	276	428	184
1979	481	341	612	255
1980	613	426	842	312
1981	715	588	911	341
1982	826	600	854	347
1983	747	503	697	278
1984	676	417	664	301
1985	527	410	603	237

The fluctuations in land values are attributable to the microeconomics alive and active in the different regions. The table illustrates Alberta, but it could be any province in Canada.

This is currently even more pronounced with the microeconomics becoming more clearly defined geographically, and each having an impact on land values. This is a point appraisers must be cognizant of when placing a value on land in 1986.

Currently, productivity and market relationships vary by region, but overall the gap is narrower now than it has been for at least the past decade. This is another important factor to keep in mind.

The contribution of building values varies from year to year and region to region. Information from our files on properties we have appraised that have sold and statistics from Farm Credit Corporation both indicate that the contribution of buildings to market value of land is currently very low. An economic or locational obsolescence for buildings in Alberta varies, at present, from 10 to 40%. This means the contribution of building/improvement values to land is, at this point in time, low; in other words, the market place is discounting their worth. It seems difficult to imagine spending $1 on a building or improvement and having it add only 20¢ to 50¢ to the value of the asset it sits on. One must be fully convinced of the income potential for the building or improvement for a long period of time or it becomes questionable as to the logic of investing in buildings or improvements at this point in time.

What Does All of This Tell Us?

The tables and graphs indicate that land values from 1915–1985 in Canada have basically been on a continual upward trend, with very few declines. Those years of decline were often very slight. It is obvious that we do not have experience, in Canada, of appraising agricultural land in a declining market where the declines are of the magnitude of recent years.

It is also apparent that market values and productivity values have not been consistent and only tend to indicate the impracticality of using an income approach to value agricultural land without considerable other knowledge to complement the approach.

The current year's information points out the importance of understanding today's market and how to appraise in it. All appraisers who have gone through the 1960's, the 1970's, and now the first half of the 1980's will have had the best experience an appraiser could ever imagine gaining!

The Foreseeable Future

One must define the "foreseeable future" before discussing it. A few years ago, when asked what was the foreseeable future, I would respond with "5 years and maybe as long as 7–10 years, but with some confidence 5 years." Now when asked the same question, I say "2 months" and perhaps even now down to 24 hours. For instance, the Chernobyl disaster in the USSR immediately sent grain, oilseed, and also crude oil prices, upward. If this type of situation can change world prices, then our "foreseeable future" for commodity prices, and hence land values, is certainly shortened.

When considering land and improvement values, it appears that what will happen in the next 12 months is still fairly certain, and therefore a 12–24 month horizon seems understandable. Beyond that, land value forecasting becomes almost purely speculative. Let us, for the fun of it, look at the next 12–24 months, and the next 60 months.

Before trying to forecast land values, consider some of the influencing factors.

- **Grain prices:** Because of the E.E.C./U.S. conflict in subsidization of production, it seems likely that grain and oilseed prices will remain low for up to 3 years, and maybe longer.
- **Cattle prices:** There is a glut of red meat in the world, and, in addition, our diets are changing and consumption of red meat is decreasing. These two factors certainly do not point to anything but a continuation of the low cattle and hog prices now experienced.
- **Government policies:** A number of government programs have recently gone from an economic base to a social program. In other words, a number of government programs are now geared to help all, and they tend to perpetuate incompetence and result in overproduction and continual low product prices.
- **Inflation:** Inflation is, to a large degree, under control. During periods of low inflation, agricultural land—or land in general for that matter—is not considered a good investment for ap-

preciation, or not as good as in periods of inflation. Typically, the major part of the return on investment in agricultural land has been from capital gain rather than from an annual cash flow. To illustrate, about 8–10% of the annual return of land is from appreciation and 3–7% is from cash flow or net returns.

Investors want liquidity now rather than stability, so buyers are more cautious, and view land values in relation to its productivity and net returns. This tends to depress land values because of the market productivity relationships.

- **Growth to maintenance:** Mental attitude is very important when dealing with land values. Currently, in western Canada, and certainly Alberta, we have gone to a maintenance (trying to keep what we have) vs. growth mentality. The growth mentality (i.e., "they do not make any more of it,") and the need to expand to keep abreast of technology have all gone, and with their demise is also gone a big reason that land values increased so in the late 1970's and early 1980's. Without that attitude, we can expect land values to continue to slide.
- **Supply/demand:** In the late 1970's and early 1980's, it was probably the strongest sellers' market for agricultural land we have or will ever experience. Demand far exceeded supply, and consequently, we had wild increases from year to year and even month to month. Studies we completed during that period indicated that buyers placed the emphasis on the increase in values (land appreciation), and that this factor exceeded the cost of borrowed capital. We developed the "you could not go wrong" philosophy. Well, it is so much the other way now that we are probably near the other end of the pendulum. There are not a lot of "for sale" signs in the rural areas, but if the truth be known, probably close to 30% of all of the agricultural land in Alberta is for sale. There are a number of reasons for this, but basically they are: financially stressed farmers; the banks; retiring farmers; and discouraged young farmers, among others.

The 30% is an estimate, and certainly will vary by region, but, in the late 1970's and early 1980's, all land listed was basically sold. Information from our records indicates that no more than 5% of the agricultural land in Alberta has ever sold in 1 year, even in the peak period. We are now down to probably one to 1.5% of the land being sold on an annual basis. That means the average age of the farmers owning their land is going to have to go from 20–100 years!

Where does all this leave us? Without a doubt, in a state of near panic! All indications point to a continual decrease in values for the next 12 months, the next 24 months, and probably the next 60 months.

Recently, Mr. Don Cormie, President of the Principal Group, Edmonton, spoke to the Edmonton Branch of the Alberta Institute of Agrologists. It was his view that land values increase over a 20-year period, remain basically static for 20 years, fluctuate rapidly for a few years, then decline over an extended period of time. He is of the opinion that we are now into the downward trend for probably 20 years. Coupled with this, he sees an increased tax burden by taxation authorities (municipalities and counties, for example) on land as it is a visible wealth. He also feels good investments in this time period are Mutuals, RRSPs, and the stock market, but not land—similar to a point made earlier.

I do not have such a belief in cycles and, therefore, do not feel we are in for such a long period of depressed land prices. However, for the next 12–24 months, an extension of the current situation seems quite likely.

In December 1983, I spoke on land values to the Edmonton Branch of the Appraisal Institute of Canada. My prediction was a decline in values through to 1986. If it had not been for the oil price drop, the grain price drop, the change in eating habits, and myriad other factors, maybe it would not have happened.

Other Influencing Factors

Agricultural land values are heavily influenced by the general economy. If the expansion of towns and cities takes place, a ripple effect is felt throughout the farm sector. For the foreseeable future, all indicators are for continued and increasing unemployment, increasing tax burdens on urban residents and businesses, no megaprojects, and continued low oil prices. Since none of these have any positive implication for Alberta, more pessimism is inevitable.

Points to Consider When Appraising in the Current and Foreseeable Markets

Time. Remember that appraising in a declining period is merely the same as an increasing market except you put a negative sign in front of your time adjustment. You take historic information from the market and apply it to your sales to bring them to your effective date. It was easy to apply a 1 or 2% per month increase, so it should be easy to apply a negative time adjustment. I know it was not at the start of the price decline, but it is now an adjustment we make with little concern.

Sales. Because of the dearth of sales in most areas, either Essex County Ontario or the County of Mountainview in Alberta, you must:

- look harder for sales, and resort to a bigger geographic area
- analyze the data very carefully including all terms and conditions, and contact the vendor/purchaser to determine pressure to sell
- determine the cash equivalence of the sale, and
- obtain and utilize land auction information, talk to the auctioneer, the vendor and/or purchaser.

Microeconomies. Be cognizant of the market or economic area in which you are appraising. The economic activity can vary considerably within a few miles. If your appraisal subject is in an area where a number of beginning farmers are located, or in an area where poor crops have been experienced for 2 or 3 years, then attempt to find "like areas" for your comparable sales. Conversely, if you are in an area with well-established, high-equity farms, look for areas with similar characteristics to find your sales, even if they are some distance away.

Improvements. Specialized or overadequate improvements will contribute least to the value of properties. In fact, they may only contribute 20–30% of their depreciated values. The super-large homes built on some farms in the late 1970's have fallen into the same trap. Be aware of the market influence on the value of improvements.

Lenders. A source of valuable information will be lenders in the area, the banks, FCC, and provincial lenders. They will know of properties listed and likely will tell you of offers received on these properties even though they are probably not generally known to be for sale.

Income Approach. There are instances where the market value of land is approaching its productivity levels. This is, of course, if you use 3–5 year income/expense data. To use 1-year information would not result in reliable information. Develop the capitalization rate from the market, and, if necessary, use a wide range of comparables. Cash rentals will decline in favor of crop share. Cash rental rates lag in a declining market. The appraiser who is knowledgeable of this area can utilize the income approach to his benefit. Analyze the market as a purchaser would; be realistic.

Conclusions

In summary, values have, over time, gone through a long period of basic stability. More recently, from 1974 up to 1981 and from 1981–1986, the values have become quite erratic. Values have now been declining since 1980, 1981, or 1982, depending on the area in Canada you are considering.

The reasons for the decline are now firmly entrenched in our minds and will continue to deteriorate land values for the foreseeable future, and probably even beyond that horizon.

There are many factors on how to appraise agricultural land values in a declining market. Consider them carefully and use your good common sense. If you do, then there will be no problems!!

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Announcement from the Intl. Exec. Com.

"President-Elect Ron Williams, SR/WA, reported that the political activity ballot failed."
