

# A current look at farmland rental rates and arrangements

Cash rental rates and price/yield conditions

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This is the first in a series of three articles on this topic.

Farmland prices have replaced weather as the main point of casual conversation in the coffee shops and curling rinks of rural Ontario. People shake their heads in amazement when discussing the rapid increases in the prices for both purchased and rented farmland over the last several years.

While the increase in the selling price may include long-term considerations, such as expectations of future growth over many years, the rental rate should reflect the value that the farmer can generate from the land for a single year. Can the increase in net returns to cropping explain the approximate 50% increase in rental rates over the last several years? What might be the projected rental rates this coming crop year? And what rates can farmers afford to pay?

The maximum rental rate that can be paid should be no more than revenues less non-land variable costs. This net return is the amount that can be split between the tenant and landowner. We have listed net returns per acre for growing corn under different price and yield scenarios in Table 1.

The four corn prices in Table 1 represent a range of potential prices that may occur in 2013. The \$5.50 corn price is roughly the forwarded contracted price for delivery in the fall of 2013 and sets the most likely scenario. Given the tight stock to use ratios, difficult weather conditions next year could push prices up to \$6.50 and beyond as we have seen in 2012. However, prices in the \$4.50 are also possible if yields are high on the record acreage of corn expected to be planted in 2013.

The four sets of yield conditions reflect either difference across the province or across time. Soil quality and heat units vary across the province and thus so will yield. However, corn yields can also vary significantly between years for a given location. For example, parts of southwestern Ontario enjoyed record high corn yields

in 2012 while nearby farms on sandy soils with little rainfall suffered from yields well below average.

While revenue changes with price and yield, it is assumed that the variable costs of growing corn remain the same across the scenarios at \$540 per acre.

This projected cost is from Publication 60 by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA 2012). The actual cost will vary by operator but do not differ significantly across regions due to similar input prices across the province.

The revenue less non-land variable costs (\$540 per acre) given in Table 1 represent the maximum rental rate that can be paid by the tenant under the respective price and yield conditions. This rent would leave nothing to cover mortgage payments or returns to the farmer's labour and management. However, rental rates in an area are often set by the maximum amount that one individual pays. Adjustments to this maximum rate must be made by the individual tenant

Table 1. Revenues less Non-Land Variable Costs for Corn under Alternative Price and Yield Conditions (\$/acre)

PRICE (\$/BU)	YIELD (BU/ACRE)			
	120	150	180	240
4.50	0	135	270	405
5.50	120	285	450	615
6.50	240	435	630	825
7.50	360	585	810	1,035

Variable costs are \$540 per acre and do not include principal and interest on long-term debt. The net returns represent returns to the tenant's labour and management.

Table 2. Net Returns to Tenant for Corn under Alternative Corn Price and Yield Conditions and Cash Rental Rates

PRICE (\$/BU)	YIELD (BU/ACRE)	CASH RENTAL RATES (\$/ACRE)			BREAK-EVEN (\$/ACRE)
		250	300	350	
4.5	150	115	-65	-215	135
	210	155	105	55	405
5.5	150	35	-15	-65	285
	210	365	315	265	615
6.50	150	185	135	85	435
	210	575	525	475	825

depending on factors such as yield and debt load as we will see in Table 1.

Variable costs are \$540 per acre and do not include principal and interest on long-term debt. The net returns represent returns to the tenant's labour and management.

Given the current expected price in 2013 of \$5.50, rental rates per acre would then vary from \$120 under low yield conditions to \$615 with yields of 210 bushels per acre. With yields of 120 bushels per acre, the tenant could not afford to rent land with a price of \$4.50 while

the maximum that could be paid is \$360 with the most optimistic price condition. In contrast, tenants with yields of 210 bushels per acre could afford \$400 per acre rental rates even with low price conditions.

The actual returns to tenants from paying three alternative rental rates (\$250, \$300, and \$350) under alternative price and yield conditions are listed in Table 2. The last column provides the break-even rental rates, which can also be seen from Table 1. A farmer offering \$300 per acre for rent in the spring based on booking an expected output of 210 bushels

per acre at \$5.50 per bushel will generate a return of \$315 per acre for returns to labour and management. However, the tenant will not cover variable expenses and lose \$15 per acre if actual yields are less than expected at 150 bushels per acre.

Given rental rates have moved into the \$300 range and above in many regions of the province, the values in Table 2 highlight that both price and yield need to be solid in order for the tenant to cover expenses. In making their bids, tenants

should consider back to last year at this time when expected harvest prices were in the same range. Farmers with an average yield of 150 bushels offering \$250 for cash rent would have expected to make a small positive return with an anticipated price of \$5.50. However, the drought in the US Midwest sent CBOT prices for corn around \$8 in the summer and current local cash prices for corn are around \$6.75. The increase in actual prices that are over \$1 higher than expected resulted in a profitable return to the rental arrangement.

Prices will not always continue to be higher than what are expected in the spring. The past few years have been anomalies and should be considered as such when making rental bids. For example, Schnitkey at the University of Illinois has estimated there is a 20% chance of CBOT prices falling below \$5 from the current expected level of \$6 on the basis of historical price changes. The chance of falling prices and its effect on the net returns should be accounted for by the individual tenant when making rental bid offers.