2022 Calculating Crop Land Rental Rates
RentPlan
Crop Land Rental Rate Calculator

Date: January, 2022

This guide is designed to provide planning information, economic considerations, and a format for calculating fair and reasonable values for crop land rental rates for both tenants and land owners to share the risks and rewards associated with annual crop production in Manitoba. General Manitoba Agriculture and Resource Development recommendations are assumed for input costs and economic calculations. Non economic considerations such as land care, tenure, and personal attributes are not included in the calculations but should be considered in any land rental agreement. The calculated rental values do not necessarily represent the average crop land rental rates in Manitoba.

These budgets may be adjusted by putting in your own figures. As a producer you are encouraged to calculate your own crop land rental rates for land with differing productive capacity. On each farm, costs and yields differ due to soil type, climate and agronomic practices.

This tool is available as an Excel worksheet at: www.manitoba.ca/agriculture or at your nearest ARD and MASC Service Centre. The Farm Machinery Custom and Rental Rate Guide is also available to help determine machinery costs.

Note: This budget is only a guide and is not intended as an in-depth study of agricultural land values. Interpretation and use of this information is the responsibility of the user. If you need help with a budget, contact your nearest ARD and MASC Service Centre.
RentPlan - General Information 2022

What is the fair market rent for farmland in Manitoba? This is a question that both landlords and producers ask quite often. Unfortunately there’s no rent transaction listings for land rental rates in Manitoba, making it difficult to determine what others are paying. However it is important to remember what makes rental agreements successful for both producers and landlords alike. This includes:

- The landlord and producer should be open and honest with each other, and be able to resolve disagreements cordially.
- To maximize long term profit, the terms of the lease should be fair to both the landlord and producer.
- Written agreements help to prevent conflict between the landlord and producer, and force them to think through an equitable and reasonable lease.

Manitoba Agriculture and Resource Development’s Contracts and Leases.

- Leases should be flexible enough to permit fair adjustments to any unexpected situations.
- A lease should be adapted to suit each individual situation, yet remain simple enough to work.
- The lease period should also be long enough to allow the producer to adopt good farming practices.

There are ways to start the discussion on determining the value of fair market rent in absence of knowing what others are paying and receiving. The two most common methods of calculating fair market rent are:

1. Production cost based land rental rate.
2. Land value based rental rate.

The production cost based land rental rate method is calculated from the producer’s perspective. Essentially this method determines the costs associated with growing crops, factors in the probable yield and projected price of the crops, and identifies the producer profit expectation in growing the crops. What is left is the maximum cash land rental amount that can be reasonably paid by a producer. The strength of this method is that it is a very logical way to calculate what a producer can pay for land rent – whatever is left over after all costs and profit expectation are removed is the maximum that can be paid for rent. The downside to this method is that most producers grow a combination of crops during the land rental period, making the calculations more complicated. RentPlan factors this into account by creating a weighted average for the crops grown during the rental period.

The land value based rental rate method is calculated from the landowner’s perspective. This method considers the value of the land and what a similar type of investment would yield on an annual basis. The strength of this calculation is that it is easy to do – take the value of the land and multiply by a similar investment (in terms of both risk and return) rate of return, then add back in the property taxes. The weakness to this method is one has to know the value of the land. Land that is valued higher than the agricultural value of land (for example, land next to an urban setting that has subdivision potential) will often yield results higher than the market land rental rates. An important point to remember using this method is to choose a comparable investment rate of return for a low risk asset. Often a 5 year non-registered GIC rate can be used for comparison purposes.

Flexible Land Rental Agreements
It is common for landlords who are willing to take on some risk to consider flexible land rental options. With this option, landlords can choose to capture a higher rental rate in years with above average returns, in return for receiving a lower rental rate in years with below average returns. Over the long run these rates will average out, however this option allows landowners to give a financial break to their producer tenants in poor years, while allowing them to share in the profits during a good year. An important component to these agreements is that there is a level of trust, communication and cooperation between the landlord and producer.

Flexible lease agreements can be complicated so it is best to keep the procedures to calculate flexible rent simple with only 1 or 2 variables. The simplest flexible rent is only having the yield be the variable.
component. A range of percentage of probable yield would be agreed upon ahead of time to create the rental range for the flexible rent agreement. Another common flexible rental agreement is having both yield and grain price be the variables. With this option, it is important to determine how the grain price will be determined. Manitoba Agriculture and Resource Development’s Contracts and Leases have more great information on flexible rental agreements.

**Manitoba Agriculture and Resource Development’s Contracts and Leases.**

**Further Considerations**
There are some further considerations both landlords and producers should have when entering into rental agreements. Timing of payment is an important factor with most agreements ranging from 100% paid in the spring before seeding, to half in spring and half in fall after harvest, to 100% paid in fall. Generally the earlier the payment is made, the less risk there is to the landlord for non-payment, which often leads to a small discount in the cash land rental amount. Please see Rentplan’s Further Considerations page (link above) for more information on how to calculate rental discounts for early payment.

Recently there has been a focus on the change in nutrient levels in soils during the duration of a land rental agreement. If a landlord has a higher nutrient level in the soil at the start of an agreement and a lower nutrient level at the end of an agreement, there is a hidden cost to the lower nutrient ending levels. Likewise, if a producer builds up the nutrient levels in the rented land during the land rental agreement and is not compensated for this, the cost of renting the land is more expensive to the producer than just the land rental amount. Please see Rentplan’s Further Considerations page (link above) for more information on how to calculate costs associated with differing nutrient levels.
Rentplan User Guide

Rentplan can be used by both farm producer and landowners in Manitoba to assist in the determination of fair and reasonable crop land rental rates. Follow the steps below to successfully use RentPlan for your crop land rental rate calculation.

**Step #1 - Land Rent Worksheet:**

**Crop Production, Revenue and Cost Summary:**
- **Select Crops** - select your crops grown on your farm based on your planned crop rotation during the rental agreement period.
- **Acres** - enter the total acres for each crop grown on your farm to calculate the weighted average gross revenue and production costs.
- **Probable Yield** - adjust the default probable yield for each crop selected, based on your farm's average yields.
- **Price** - adjust grain prices to reflect the average net market price for the duration of the crop year.
- **Operating Costs Per Acre** - to review and change operating costs, click on the link or go to the Production Costs Worksheet. Make any changes required for the crops selected for your farm's actual production costs.

**Calculation #1 - Producer Production Cost Maximum Land Rental Rate:**
- **Production Cost Based Land Rental** - low to high range is calculated in $ per acre.
- **Share of Margin Over Operating Costs & Gross Revenue Graphs** - indicate percentage share of land rent, producer profit, operating costs, equipment costs, storage costs, labour & owner salary.

**Calculation #2 - Land Value Based Rental Rate:**
- **Land Value** - enter land value per acre. Values are typically based on assessed value or productive value rather than solely based on market or trade value.
- **Investment Rate of Return** - enter investment or opportunity cost percentage rate. Typically approximated by an average 5 year non-registered GIC deposit rate.
- **Property Tax** - enter your local average property tax rate in $ per acre.
- **Land Value Based Rental Rate** - is calculated in $ per acre.

**Step #2 - Flexible Land Rent Worksheet:**
- **Current Crop Grown** - select your crop for flexible rent determination for the current year.
- **Probable Price Per Unit** - enter your average or probable yield per acre for your farm. This can be found on your MASC Statement of Insurance or your IPI for each crop.
- **Probable Price Per Unit** - enter your projected or probable price per unit for your farm.
- **Land Rental Rate** - enter rate per acre. Default value is average of Land Rental Rate in Calculation #1.
- **Minimum Rate %** - enter percent rate, less than 100%. Typically range is 70 to 90% per acre.
- **Maximum Rate %** - enter percent rate, more than 100%. Typically range is 110 to 130% per acre.
- **Actual Yield Per Acre** - enter your final marketable yield after harvest.
- **Actual Price Per Unit** - enter your final marketed price after harvest.
- **Flexible Land Rental Payment** - is calculated in $ per acre.

**Step #3 - Further Considerations:**
- **#1 Land Rental Breakeven Calculations**: For the range of land rental rates the share of margin over operating costs and gross revenue are calculated. The breakeven (before profit) land rental rate is calculated and the share of margin over operating costs and gross revenue.
- **#2 Flexible Land Rental Breakeven Calculation**: The breakeven (before profit) yield and percentage of probable yield is calculated.
- **#3 Estimated Land Value Calculation - Based on Land Rental Rates**: A range of estimated land market values are calculated based on land rental rates, property tax rates and investment rate of returns.
- **#4 Discount for Early Payment**: enter operating interest rate (time value of money) percentage to calculate the value of early full or partial payment discount for producers.
- **#5 Soil Test (Nutrient Bank) Level Comparison**: enter nitrogen and phosphate soil test values, term of rental agreement, and current fertilizer costs per tonne to calculate the change in value of nutrient bank account balance.

**Step #4 - Information:**
Refer to the Information page for more in-depth information on both the producer and landowner perspectives in calculating fair and reasonable crop land rental rates. Links to other Manitoba Agriculture and Resource Development resources can also be found here.
Land Rental Rate Calculation

Note: Land rental rate analysis is part of long term strategic planning for your farm and caution should be exercised if short term crop yields and prices are utilized. It is generally recommended for land rental rate planning and analysis that a minimum of 3 to 5 year average crop yields and commodity price outlook should be considered.

### 2022 Crop Production, Revenue & Cost Summary

<table>
<thead>
<tr>
<th></th>
<th>Canola</th>
<th>Wheat - Hard Red Spring</th>
<th>Soybeans</th>
<th>(Select Crop)</th>
<th>(Select Crop)</th>
<th>(Select Crop)</th>
<th>(Select Crop)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Crop Acres</td>
<td>2500</td>
<td>1000</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(Percent of Crop Rotation)</td>
<td>100%</td>
<td>40%</td>
<td>20%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Probable Yield per Acre (bu or lb.)</td>
<td>39</td>
<td>56</td>
<td>32</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Price ($ per Unit)</td>
<td>$16.50</td>
<td>$9.75</td>
<td>$13.50</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Operating Costs/Acre</td>
<td>$348.61</td>
<td>$389.61</td>
<td>$344.21</td>
<td>$275.43</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Gross Revenue per Acre 1</td>
<td>$562.20</td>
<td>$643.50</td>
<td>$546.00</td>
<td>$432.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Marginal Return Over Operating Costs</td>
<td>$213.59</td>
<td>$253.89</td>
<td>$201.79</td>
<td>$156.57</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

1. Gross Revenue Per Acre = Price per unit x Yield per acre (weighted based on % of crop rotation)

### Calculation Option #1 - Production Cost Based Land Rental Rate

- Gross revenue
- Operating Costs
- Owner Labour & Living Costs
- Equipment Costs
  = Maximum Break-even Land Rental (before profit)
  = Producer Profit Expectation (range)
  = Production Profit Based Rental Rate

- Per Acre $91 to $106 (Avg. $98/acre)

### Calculation Option #2 - Land Value Based Rental Rate

- Land Value (local market or assessed value)
- Investment Rate of Return - (approx. 5 year GIC rate)
  + Property taxes (area average value)
  = Land Value Based Rental Rate

- Avg. Production Cost Based Rental Rate - Share of Margin Over Operating Cost
- Avg. Production Cost Based Rental Rate - Share of Gross Revenue

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Flexible Land Rental Calculation

Minimum & Maximum Rental Rate Calculation

Step #1  Current Year Crop to be Grown

Wheat - Hard Red Spring

Step #2  Probable Wheat - Hard Red Spring Yield per Acre  56.0 (bu or lb.)
Probable Wheat - Hard Red Spring Price per Unit  $9.75 (bu or lb.)

Step #3  Land Rental Rate  $99/acre

Step #4  
\[
\begin{align*}
\text{Minimum Rental Rate} & = \frac{56.0 \times 80\%}{9.75} \\
& = \frac{44.8}{9.75} \\
& = $79/acre
\end{align*}
\]

\[
\begin{align*}
\text{Maximum Rental Rate} & = \frac{56.0 \times 120\%}{9.75} \\
& = \frac{67.2}{9.75} \\
& = $79/acre
\end{align*}
\]

Flexible Land Rental Rate Calculation

Step #5  Enter Your Actual Harvested Yield & Market Price Here

100% = (56 bu actual yield / 56 bu probable yield) X ($9.75/bu actual price / 9.75/bu probable price)

\[
\begin{align*}
\text{If less than Minimum Rate, then $79/acre} \\
\text{If more than Maximum Rate, then $118/acre}
\end{align*}
\]

Step #6  Total Flexible Land Rental Payment Due  = $99/acre

Flexible Land Rental Analysis

Producer - Flex Rent Risk & Reward Analysis

Landowner - Flex Rent Profitability Analysis

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Crop Land Rental Rate - Further Analysis

#1 - Land Rental Breakeven Calculations

Maximum Land Rental Payable (with $15 to $30/acre producer profit) is calculated at $91 to $106 per acre (43 to 50% of margin over operating costs or 16 to 19% of gross revenue).

Maximum Breakeven Land Rental (before profit) is calculated at $120.58 per acre (56% of margin over operating costs or 21% share of gross revenue).

#2 - Flexible Land Rental Breakeven Calculation

Flexible Land Rental Breakeven (before profit) is calculated at 55 bu/acre Wheat - Hard Red Spring or 98.2% of the 56 bu/acre probable yield.

#3 - Estimated Land Value Calculation - Based on Land Rental Rate

<table>
<thead>
<tr>
<th>Land Rental Payment</th>
<th>$91 /acre to $106 /acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Property taxes (area average value)</td>
<td>$17.50 /acre</td>
</tr>
<tr>
<td>+ Investment Rate of Return - (approx. 5 year GIC rate)</td>
<td>1.75% to 2.25%</td>
</tr>
</tbody>
</table>

= Estimated Land Market Value $3,267 to $5,057/acre (Avg. $4,162/acre)

#4 - Producer Discount (or Landowner Premium) for Early Land Rental Payment

Operating interest rate 5.00%

100% payment in spring $2.70 / acre
50% payment in spring $1.30 / acre

#5 - Soil Test (Nutrient Bank) Level Comparison

<table>
<thead>
<tr>
<th>Nitrogen Soil Test Level (lbs./ac)</th>
<th>40</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphorus Soil Test Level (P2O5 lbs./ac)</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>Land Rental Term (Number of Years)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fertilizer Type</th>
<th>Bulk Price $/tonne</th>
<th>Actual Nutrient $/lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphorus: 11-52-0</td>
<td>$1,175</td>
<td>$0.798</td>
</tr>
<tr>
<td>Nitrogen: (urea) 46-0-0</td>
<td>$1,090</td>
<td>$1.075</td>
</tr>
</tbody>
</table>

= Change in Soil Nutrient Bank Account Balance ($11.20) per acre each year

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Created and maintained by Manitoba Agriculture and Resource Development Farm Management January, 2022

For more information, contact your nearest ARD and MASC Service Centre location or:

Roy Arnott
Farm Management Specialist

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Farm Management Specialist
Questions to Ask Before Buying or Leasing Farmland

Strong commodity prices the past few years have generated positive margins for most producers. With current low interest rates and more cash on hand, many producers are thinking about buying more farm land. Before you decide, make sure you have a thorough financial plan and that you consider the pros and cons of both options.

Why do you want to buy farmland? Think about why you want to buy. Decide if you want to expand your own operation; bring in a partner; ensure control of productive acres, etc. Be clear about whether it’s a business or an emotional decision and, if you have business partners, that everyone is in agreement.

What is your farm’s financial condition? Consider your current financial situation, what kind of investment is needed, what it’ll cost over time and projected crop conditions. Decide if your farm is financially healthy enough to handle the increased debt load and if it’s the best use of your cash.

Have you created a cash flow statement? Research the expected revenue of the potential land purchase and see if it fits into your business plan. Decide if the potential return meets your goals and objectives, if your farm can handle the additional debt and what the risk is on your current equity.

Given your revenue forecast, are you overpaying? If you are paying a premium land price, figure out how long it will take you to recoup your investment. Decide how much debt the farm can prudently carry and the total revenue required to repay that debt. Decide if you can weather the possibility of lower commodity prices or increased interest rates in your profitability and revenue forecasts.

Should you go all-in with your cash? Talk to your banker or accountant about alternatives to using all your ready cash to buy. Using all your cash will affect your farm’s working capital and its ability to meet all your commitments as they come due. Look at the loan amortization length and resulting loan payments to see if they meet your cash flow and ownership goals. A longer loan amortization with a pre-payment privilege may mean less stress on cash flow if your crop margins tighten.

How will you register the property title? Will you register title individually; jointly with a spouse, partner or family member; or with a family owned corporation or trust? The pros and cons of how you own the land will depend on your long term goals. Get advice from your lawyer or accountant.
How long will you actively farm? Make sure your financing plan matches the rest of your intended career as an active producer. Decide if you will fully pay off all debt from the purchase before you retire; if you have sufficient credit, life and disability insurance; and if you have enough cash to meet your living expenses.

A clear, detailed purchase plan will help you decide if buying land now is a good investment.
Contact us

- Go to manitoba.ca/agriculture
- Toll free at 1-844-769-6224
- Email us at mbfarmbusiness@gov.mb.ca
- Follow us on Twitter @MBGovAg
- Visit your nearest ARD and MASC Service Centre

Available in alternate formats upon request.