

2017 Cropping Alternatives Methodology

Prepared January 23, 2017 Rawlin Thangarai, Economics Section

Disclaimer:

The following regional forecasts are based on the most current cost of production information from the AgriProfit\$ Business Analysis & Research Program and estimates of expected revenues and costs from various sources. Producers should use their own costs and revenue projections to make cropping decisions for farm operations. There is a risk of over or under-estimating costs and returns based on regional benchmarks and forecasts. Producers are advised not to base cropping decisions solely on information provided in the following budgets. The Alberta Agriculture and Forestry crop budgeting software program **CropChoice\$** and the blank individual form are available to customize your own crop budgets. You can download CropChoice\$ software free of charge at the following link: www.agriculture.alberta.ca/cropchoices.

Prices:

Expected market prices are estimates ONLY, which are based on forecasts for the 2017 crop. Prices in these budgets are estimated by Agriculture and Forestry specialists using future price outlooks less Alberta deductions, Informa Economics forecasts, and Agriculture and Agri-Food Canada's Market Outlook Reports. Prices are not adjusted to reflect differences in soil zone regions other than differences in grade. Use this information with caution as current prices may not match new crop market signals.

Yields:

There is a wide range of yields within each soil zone region. Yield estimates by crop represent average long term trend yields developed by Alberta Financial Services Corporation (AFSC) adjusted upwards by 20% for dryland soil zones and 15% for irrigated zones. For red lentils where long term yields are not available, crop specialist's recommendation has been used.

Seed Costs: (See the following Seeding Rate Table.)

Seed costs are based on data collected by the Alberta Farm Input Prices Survey (AIMS) and seed suppliers as well as a seed cost multiplier for a blend of certified and common seed that is cleaned and treated. Seeding rates for each soil zone are based on 1000 kernel weight for common varieties, 90-95% germination, 3-5% emergence mortality, and 9" spacing. Seeding rates for forages are based on 1000 kernel weight for common varieties, pure live seed and a 50-50 split of broadcasted and row seeded plantings.

Fertilizer Costs:

Prices are based on an average of high, low and medium of blend of fall 2016 and indications for spring 2017 such as fall and spring application, and pre-buying inputs. NPKS blends are based on estimated crop requirements for nutrient deficient, stubble-seeded crops in each soil zone.

Nitrogen	\$0.41/lb actual N	(\$417.5/tonne for 46-0-0)
Phosphorous	\$0.44/lb actual P	(\$601.25/tonne for 11-51-0)
Potassium	\$0.29/lb actual K	(\$391.25/tonne for 0-0-60) (\$428.75/tonne for 20-0-0-24)
Sulphur	\$0.46/lb actual S	

Soil testing is recommended to maximize fertilizer budget to field production capacity and crop choice. The Alberta Farm Fertilizer Information and Recommendation Manager (AFFIRM) is an Alberta Agriculture and Forestry software tool that can help producers optimize fertilizer requirements for crop production. Variable rate technology is also an option being explored by producers to maximize production to fertilizer and input expenses. In a mature commodity market, managing costs could mean the difference between farm profitability or farm losses.

Chemical: (See the following Chemical Application Table.)

The 2016 chemical costs on stubble-seeded crops requiring a non-selective, pre-seed burn-off, and one incrop herbicide application for broadleaf weeds, grassy weeds or both are used after adjustment with an index. Feed barley is based on 50% of the acres receiving an in-crop herbicide treatment. Fungicides, insecticides and/or pre-harvest/ dessication applications (F/I/PH/D) are indicated by an asterisk*.



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Hail/Crop Insurance:

Insurance is based on information from AFSC averaged for select areas in respective soil zones.

Trucking & Marketing:

For grains and oilseeds, trucking and marketing costs are averages for short haul and long haul. For hay, trucking and marketing costs are estimates from suppliers assuming bales shipped are large squares (1500 lbs). For silage, trucking and marketing costs are last year's estimates indexed for the 2017 year.

Fuel, Oil & Lube, Machinery Repairs, Building Repairs, Pumping Costs (Irrigation only), Custom Work, Labour (Paid and Unpaid), Utilities & Miscellaneous, Operating Interest, and Storage and/levies

These costs are based on information collected by the AgriProfit\$ program, the AIMS and irrigation specialists. Many of these costs are influenced significantly by differenc farming practices. Fuel costs also include an adjustment factor for yield.

Operating Interest:

4.64% per annum for inputs borrowed (seed, fertilizer and chemical).

Contribution Margin:

Contribution margin represents the amount a particular crop contributes to fixed costs, and return to management and equity. Use the contribution margin to compare crop choices. Positive contribution margin indicates that the enterprise/crop is economically sustainable.

Capital Costs By Enterprise:

Fixed costs generally do not vary greatly from crop to crop, but these can vary between enterprises and soil zone regions. Average fixed cost profiles by enterprise are included for your information. The capital costs are adjusted to reflect costs for the 2017 year with an index.

Summerfallow:

The summerfallow columns included in the Brown and Dark Brown budgets are only provided to reference the expected costs incurred in a non-crop year. Fallow-seeded crops are not included in this analysis because this practice has significantly declined. Producers wanting to evaluate fallow-seeded crops can use CropChoice\$ or the blank worksheet provided.

Contribution Margin Calculation:

Value of Production - Total Direct Expenses

Total Cost per Unit Calculation:

(Total Direct Expenses + Adjusted Capital Costs) divided by Expected Yield per Acre

Break-Even Yield Calculation:

(Total Direct Expenses + Adjusted Capital Costs) divided by Expected Market Price

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