**Explanation of Cash Flow Budget Spreadsheet Tabs (worksheets)**

The Cash Flow Budget spreadsheet includes several tabs (worksheets) that provide means and help in developing the cash flow budget.  Following is a short description of each tab.

‘Title’ Tab

Provides contact information for questions and comments.

‘CASH FLOW’ Tab

This is the main tab (worksheet) and all other tabs are there to support and provide information for completion of the ‘CASH FLOW’.  Note, the information and results from the other tabs IS NOT automatically entered into the ‘CASH FLOW’, all information must be manually entered.  There are places on the ‘CASH FLOW’ tab where information from other tabs is shown, but it is only for information and will not be a part of the math of the ‘CASH FLOW’ until the user manually enters the information.  Thus, one can do a full cash flow without ever using the other tabs, they are there to facilitate depth of planning only.

General steps for completing the cash flow include:

* Begin by entering the beginning balances for cash on hand, term debt principal balances and operating loan principal balances at the top of the ‘CASH FLOW’, rows 3, 4 and 5.
* Enter last year’s cash inflows and outflows (green-shaded column E).  This is not required, but it does give historical perspective and context for the estimates.
* Enter the annual total projections for cash flows this year (green-shaded column F).  Often it is easier to start with the total estimated cash flows for the year before splitting it up into each quarter or month.  Plus, it is a good comparison to last year as well.
* Now the hard work!  Enter the cash inflows and outflows each time period (monthly or quarterly) for the year in the yellow-shaded cells.  Note, any gray-shaded cells are either for information only or are formulas that sum up a category.
* Gray-shaded cells K, L and M in the quarterly cash flow (S, T and U in the Monthly cash flow) are for user information.
	+ Column K (S in monthly) shows the sum of all entries for the year, sum of quarters or months.
	+ Column L (T) shows the difference between the Projected column F and the sum in column K (S).  It is a way of determining that all inflows and outflows that were projected have been accounted for somewhere in the quarters or months.
	+ Column M (U) simply takes the Projected column F and divides by four if quarterly cash flow or by twelve if monthly cash flow.  It shows what an equal distribution across the time periods would be.

The “Final Net Cash Flow” shows the math result of all cash inflows minus all cash outflows.  Note, that on the spreadsheet it can be a negative number, but in real life it can **NEVER** be negative.  In real life, something else will happen, the most likely of which may be that bills will go unpaid, loans unpaid and higher accounts payable and credit cards.  The point is that in real life, something will happen that causes the “Final Net Cash Flow” to be zero or positive.  So, if your spreadsheet bottom line is negative, then that is a strong signal for you to proactively plan how it will get back to zero or positive, rather than real life dictating that for you.

‘Market Sales’ Tab

The ‘Market Sales’ tab is a marketing plan providing a place to estimate prices and quantity of sales for major products produced including corn, soybeans, milk, feeder cattle and fat cattle.  It also enables the incorporation of marketing tools such as forward contracts, options, and futures.  Yellow- and green-shaded cells are for user input.

The worksheet is split into three major areas - grain sales, milk sales and market cattle sales.  The subtotals from each of these areas will be shown on the ‘CASH FLOW’ tab, but only as information.  Users must still enter the total sales for each month or quarter on the ‘CASH FLOW’ tab.  This provides flexibility for users to be very specific about their marketing plans or they can ignore the ‘Market Sales’ tab and just enter totals on the ‘CASH FLOW’.

The ‘Market Sales’ tab accommodates marketing plans.  For example, if a user has purchased one 5,000-bushel corn PUT option with a strike price of $3.75 then $3.75 and $5,000 bushels can be entered.  The user also has the flexibility of entering a higher price if they feel it is warranted.  Price and marketing information should be entered as follows:

* Cash Sales only:  Estimated sales price and amounts to be sold.
* PUT Option:  Strike price or estimated market price, whichever is higher, and amount to be sold under the option contract.
* Hedge: Hedge price and amount to be sold under the hedge contract.
* Forward contract: Forward contract price and amount to be sold under the contract.

Begin by entering the type of marketing (cash, option, forward contract or hedge) in column C followed in column D by how much will be sold in total in that way (bushels, cwt, lbs, etc.).  Enter the estimated price and specific quantity sold each time period in the yellow-shaded cells.

Column I and J calculate if the total quantity specified in column D has been accounted for.  The weighted average price and weighted average total sales are automatically calculated at the bottom of each section.

Note, the cost of marketing and hedge losses are estimated on the next tab.

‘Marketing Costs’ Tab

The ‘Marketing Costs’ tab enables a user to estimate the costs of marketing and enter that as an expense item on the ‘CASH FLOW’.  The ‘Marketing Costs’ tab will provide an estimate of marketing costs from:

* Option premiums
* Hedge losses
* Brokerage costs

This tab is only applicable if options or futures contracts are used.  Like the ‘Market Sales’ tab, the results are transferred to the ‘CASH FLOW’, but only as information.  Users must manually enter marketing costs each time period even if they completed the ‘Marketing Costs’ tab.

‘Current Debt Schedule’ and ‘Debt and Interest Calculators’ Tabs

These two tabs provide different ways to estimate interest and principal that is to be paid in the next cash flow season.  The ‘Current Debt Schedule’ tab is a worksheet primarily for recording current operating and term loans, dates of payment, interest rates, and estimated cash interest and principal payments.  This tab is the one to use to estimate the cash debt service that will go on the ‘CASH FLOW’ tab.

The ‘Debt and Interest Calculators’ tab is an extra.  It is not really needed for finding information for the ‘CASH FLOW’ tab.  Instead it is just for the interest of users to have multiple ways of analyzing the use of debt capital in the farm business.   Calculators include:

* Table 1: Operating Loan Calculator
	+ This table enables the user to enter the principal balance, interest rate and months of accrued interest before the next payment in order to calculate interest that has accrued.  Note, the same can be accomplished in the ‘Current Debt Schedule’ tab by using actual dates.
* Table 2: Term/Installment Debt Calculator
	+ This table enables the user to enter the original loan balance when the loan was created, interest rate, loan length and the current payment being made this year.  From that information the interest and principal due this year is calculated.  The table accommodates both annual and monthly payments.
* Table 3: Principal, Interest, Total Payment and Remaining Balance for each Year/Month of a Loan
	+ Given the beginning loan amount, interest rate and loan length, this table shows the interest and principal paid for each year/month of the loan.  A very useful feature of this table is that it shows the impact (interest saved) of additional principal payments.

‘Sensitivity’ Tab

The ‘Sensitivity’ tab is not needed to construct the ‘CASH FLOW’.  Its value is the ability to analyze the sensitivity of the cash flow budget to changes in prices, production and costs of production.  It enables the user to play “what if”.  For example, if the cash flow is based on corn prices of $3.50/bu then what happens to cash flow results if prices are $3.20 or $3.80 or if production is 210 bu/ac instead of 180 bu/ac?

The ‘Sensitivity’ tab reads information from the ‘CASH FLOW’ and ‘Market Sales’ tabs.  Thus, both of these tabs must be completed before the ‘Sensitivity’ tab can be used.

The top part of the sensitivity tab shows the original situation as it exists on the ‘CASH FLOW’ and ‘Market Sales’ tabs.  The middle section titled “Changes in Prices, Production and/or Costs” enables the user to calibrate the ‘Sensitivity’ tab (column B) and then shock the cash flow with different prices or production (column F for corn, milk and soybean sales and column C for feed and other costs).  The results of any cash flow changes are showed in the green-shaded section at the bottom titled “Resulting Changes in the Cash Flow.”

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