Introduction

For beginning producers, farm financial management is essential. A critical component of farm financial management is debt management. It is important for farm owners to consider all facets of borrowing, including accessing credit and how to manage debt after securing a loan. This article will assist farm managers in understanding the basics of credit, developing questions to ask when obtaining new credit or refinancing existing credit, and estimating the costs of borrowing. Goals for your farming operation should be considered when obtaining credit or managing existing loans. Credit can be obtained to expand or improve the operation, modify loan structure, assist in long-term debt reduction, or withdraw equity from a farm asset. As beginning farmers grow their business, it is critical to maintain financial stability. Understanding what affects access to credit, loan repayment, loan structure, and the terms and conditions to borrow can save a beginning producer money.

The 5 C’s of Credit

The five C’s of credit are variables that will affect access to credit, repayment terms, interest rates, fees and other borrowing conditions. The first C is capacity; capacity is the ability of the borrower to repay the loan. In other words, does the borrower have sufficient income that will allow them to make payments on the loan? A lender can evaluate producers’ capacity by looking at their debt-to-income ratio or debt service capacity. Debt service capacity is the amount of income available, by a borrower, to pay loans. Lenders may look at both income generated from farming operations and off-farm sources when evaluating capacity. The second C is capital; capital addresses the borrower’s available financial resources. This can include a down payment and net worth or equity. A lender may look at the producer’s asset mix (current, intermediate and long-term), debt-to-asset ratio or debt-to-equity ratio to determine a borrower’s capital. The third C is collateral; collateral is an asset that a borrower pledges as an alternative form of repayment to the lender if they are unable to repay the loan. Lenders will look at the quality of the asset pledged...
and the loan-to-asset value. Collateral could include land, equipment, livestock, crops growing or accounts receivable. The quality of collateral should be reflected in the interest rate, fees, and terms and conditions of the loan. For example, all else equal, a loan secured with land should be expected to be available at a lower cost or more beneficial terms than one secured with a crop growing. The fourth C of credit is character, which analyzes the producer’s business experience, repayment history, relationship with the lender and credit score. Someone who has a history of making payments on time and is known to be reliable is more appealing to a lender. Additionally, establishing a repayment history with smaller loans can assist in obtaining larger loans in the future. The final C is conditions; this involves analyzing the conditions surrounding the loan a producer is requesting. Some examples of conditions are how the producer plans to use the loan, the state of the agricultural economy, the market for the commodity or product produced, and industry trends. These conditions will be carefully considered by the lender to determine the overall risk.

Credit Score
Lenders commonly look at your individual credit score to determine the risk of lending money. Credit scores change over time so it is important to know your credit score prior to obtaining credit. Factors that affect your credit score include payment history, amounts owed, length of credit history, new credit and types of credit. Making sure that all owners of the farm (and future generations when appropriate) have established credit scores will help maintain borrowing capacity if a key principle retires or passes away. Fair Isaac Corporation, or FICO, scores are an example of commonly used credit scores.

Credit Reports
A lender will also look at your credit report to get a more complete picture of your credit history. All credit reports contain basically the same types of information:

1. Personal Information - Your name, address, Social Security number, date of birth and employment information. This information is not used in calculating your credit score; it is only used to identify you. Updates to this information come from information you supply to your lenders.

2. Your Credit Accounts - Most lenders report information about each account you have established with them. They report the type of account (bank credit card, auto loan, mortgage, etc.), the date you opened the account, your credit limit or loan amount, the account balance, and your payment history. It is important to note that some agricultural loans will not be reported on your personal credit report.

3. Requests for Credit - When you apply for a loan, you authorize your lender to ask for a copy of your credit report. This is how inquiries appear on your report. Your credit report lists inquiries that lenders have made for your credit report within the last two years.

4. Public Record and Collection Items - Consumer reporting agencies also collect information on overdue debt from collection agencies and public record information such as bankruptcies, foreclosures, tax liens, garnishment, legal suits and judgments from state and county courthouses. In general, these items remain on your credit report for seven to 10 years.
Interest Rates

An important factor to consider when deciding to obtain a loan is the interest rate. The prime rate is the interest rate that commercial banks charge their “most credit-worthy” customers. The prime rate is often used as a starting point for lenders when they consider interest rates offered to personal or agricultural borrowers. Interest rates can be variable or fixed.

Variable interest rates change with movements in a benchmark interest rate. The prime rate is an example of a benchmark interest rate. For example, if you obtain a loan at the prime rate plus 2.0 percent and the prime rate is 3.25 percent, your initial rate would be 5.25 percent. If the prime rate then increased by 0.5 percent, your new interest rate would also increase by 0.5 percent to 5.75 percent and would be effective immediately. Your monthly or annual payment (or amortization) is adjusted up or down to reflect the higher or lower interest rate. Therefore, variable interest rate products can be beneficial if you expect interest rates to decline because your borrowing cost will reflect this lower interest rate.

Fixed interest rates do not change for the term of the loan. Credit cards as well as operating, machinery, livestock, and building or land loans can all have fixed interest rates. Fixed interest rates are beneficial if you expect interest rates to increase in the future because you will keep your interest rate the same rather than adjusting to the new higher benchmark rate.

Fees

There are also two main types of fees that a borrower should be aware of before considering a loan: recurring fees and one-time fees. A recurring fee happens when a lender automatically charges a borrower for specified products or services on a prearranged schedule. The lender must get the borrower’s initial permission to impose a recurring fee. An example of a reoccurring fee would be an annual credit card fee. A one-time fee is a cost of borrowing that usually occurs at the loan origination and is not repeated over the duration of the loan agreement. One-time fees can include document preparation fees, appraisal fees and loan origination fees. A lender must disclose all fees to the borrower.

Annual Percentage Rate

An annual percentage rate (APR) is the annual rate charged for borrowing. APR is expressed as a percentage that represents the actual annual cost of funds over the term of a loan. This includes any fees or additional costs associated with the transaction. As loans or credit agreements can vary in terms of interest-rate and fees, a standardized computation, such as the APR provides borrowers with a number, they can easily compare the costs of obtaining credit at multiple lenders. The following equation can be used to calculate the APR of a loan:

\[ \text{APR} = \frac{((\text{Fees} + \text{Interest})/\text{Principal})/n \times 365 \times 100}{1} \]

Where:

- Fees = Total estimated fees paid over the life of the loan
- Interest = Total interest paid over the life of the loan
- Principal = The amount borrowed
- n = Number of days

Fees can be obtained from the loan documentation (disclosure), principal, interest paid and number of days from the amortization schedule.
In Table 1, the APR in option 1 is calculated as: \(\frac{($500 + $8,500)}{50,000}/\frac{1,825 \text{ days}}{365 \times 100} = 3.60 \text{ percent}\); and option 2 as: \(\frac{($1,000 + $7,500)}{50,000}/\frac{1,460 \text{ days}}{365 \times 100} = 4.25 \text{ percent}\).

Calculating APR allows producers to estimate the cost of alternative lending options. When using the APR calculation all fees should be included. Borrowers should calculate the APR to ensure that all fees are included, as some lenders will exclude certain fees in their APR (appraisal fees are an example of fees that are not included in lender APR).

### Term, Amortization, and Compounding Period

The term of a loan is the length of time you are committed to an interest rate, lender and conditions set by the lender. Amortization is the length of time it takes you to pay off your entire loan. The term and the amortization of your loan can be the same duration, or the term can be less than the amortization. A shorter term can provide risk/reward based on current interest rate offerings and future expectations.

Amortization should never exceed the useful life of the asset you are financing. Longer amortization schedules can reduce annual or monthly payments which reduces cash flow requirements, but this results in a greater amount of interest being paid. Shorter amortization schedules can increase annual or monthly payments which requires greater cash flow but saves on interest expenses. It is important to consider these factors and allow for a sufficient amortization to avoid cash flow stress and keep interest expenses as low as possible. More interest is typically paid on the front end of the loan than the end of the loan, which can be important when considering if you should refinance debt.

Compounding period is the span of time between when interest was last compounded and when it will be compounded again. Annual compounding means that a full year will pass before interest is compounded again; when interest compounding occurs, interest is added to the principal, or payment on a loan. A lender may engage in more aggressive monthly or quarterly compounding, which increases the amount to be repaid by the borrower.

### Repayment

Your repayment period can be weekly, monthly, semi-annually or annually; however, the repayment period should coincide with the frequency of cash flow from your operation. In some cases, repayment may coincide with income generated from the financed asset. Payment dates should be modified to occur after income is received, such as three to five days after a milk check is received or November, December or January for crops. It is important to consider tax implications in your loan repayment strategy. Discussing payment timing with your tax preparer is advisable.
Some lenders allow borrowers to choose to repay their loan annually at a fixed principal amount and vary annual interest. This method would have decreasing interest payments as you pay down more of the loan and subsequently have reduced principal plus interest payments in future years. A more common approach is to pay the same amount of principal and interest each year, so that the payment does not change annually only the amount of interest versus principal changes. Borrowers should always ask lenders if prepayment of the loan can occur without penalty. If prepayment without penalty is available, you can add years on the amortization to lower the annual payment, rather than stress your cash flow. Prepaying loans, without penalty, can reduce debt rapidly as payments are applied to principal only.

**Types of Farm Credit**

There are three main categories of farm credit: revolving credit, intermediate loans and long-term loans. Revolving credit includes credit cards, operating loans and supplier lines of credit. Every farm should have a credit card if it is used correctly. An appropriate limit on a credit card will vary by industry and operation. Credit cards can earn reward points and cash back or dividends. If you decide to use a credit card for your operation, you should pay the full balance every month, on time to avoid fees, penalties and interest. It is also important to be aware of purchases that add to the price of a product or service if a credit card is used for payment. Credit cards can have a fixed or variable interest rate, but if you pay your balance monthly on time and do not obtain cash advances, this should be irrelevant as interest charges will not be applied. Make sure you read the fine print and understand how your credit card fees and interest are calculated. For example, cash advances typically immediately start accruing interest while purchases do not. Minimize credit card fees subject to rewards. For bookkeeping purposes, it is strongly recommended to keep a farm credit card separate from credit cards used for personal expenses.

Operating loans should revolve at least annually and are typically renewed by the lender on an annual basis. Make sure to be aware of any fees including loan administration fees, annual review or maintenance fees, and document preparation fees. Furthermore, the securities pledged, farm’s financial situation and ability to repay should be reflected in the interest rate and fees negotiated with the lender. Your operating loan limit depends on all the farm’s short-term liabilities, cash flow and should be farm enterprise specific. For example, dairy operating loans should be less than 100 percent of your typical milk check, and crop operations should be less than 75 percent of your annual production expenses. If you are always at or approaching your operating loan limit you have one of three problems: your limit is too low, your loan structure is poor and/or capital expenditures have not been term out, or your operation has a lack of profitability. Supplier lines of credit can be used to replace operating loans for some agricultural enterprises.

Machinery and equipment loans are a type of intermediate loan. Dealer financing can be beneficial, but understanding the terms and conditions of these types of loans is important. Purchase prices for cash offers and dealer financing can be very different. Down payment requirements and revolving capital loans should be considered before seeking financing. Furthermore, the amortization of machinery or equipment loans should not exceed the useful life of the item being financed. You should also avoid financing redundant equipment or purchasing equipment when other alternatives are more beneficial (leases, custom work, etc.) Liquidating unproductive or unnecessary assets should be considered. Have a replacement plan for equipment that is essential for your business and do not buy equipment solely for the purpose of avoiding income taxes.
Borrowing Considerations for Beginning Farmers: An Introduction to Lending

Land loans and mortgages are both long-term loans and should be carefully considered before purchasing or refinancing. Think about how a land purchase fits into your operation and if it will be able to pay for itself. Can the farm afford the payments of a land loan and is capital available for a down payment? If a land purchase is desired, seek out beneficial credit arrangements, such as beginning farmer programs. Purchasing farm real estate can be a tool to bring the younger generation into the farming operation and provide them with “skin in the game.” All fees, interest rate offerings, and terms and conditions should be evaluated before making a decision.

Refinancing

Low interest rates are a good time to refinance debt, but only after you do your due diligence. There are several reasons to refinance, including saving on interest, improving the loan structure, terming out short-term losses and drawing equity as part of a long-term strategy. Refinancing revises the interest rate and payment schedule, and amalgamates credit and terms of previous credit agreement(s).

There are several types of refinancing options to best address your needs. Rate-and-term refinancing involves paying out existing notes with a new note at a more beneficial interest rate, terms or conditions. Cash-out refinancing can be done when the underlying asset collateralizing the loan increases in value or exceeds the loan-to-value required by the lender. This type of refinancing involves withdrawing a portion of the value or equity in the asset in exchange for a higher loan amount. Consolidation refinancing can be used to combine multiple loans into one loan to reduce monthly or annual payments and/or obtain a lower average interest rate. Consolidation refinancing can reduce average annual or monthly payments but comes at the cost of time and interest paid.

Refinancing may not solve fundamental issues with profitability in an operation. Furthermore, most lenders are not receptive to refinancing every year or multiple times in a five-year period. Refinancing should be part of a larger financial plan or strategy to move the business forward. Calculating borrowing costs, debt servicing requirements and term will determine if refinancing makes sense for your operation.

Figure 1. Types of farm credit - examples and uses

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<tr>
<th>Revolving</th>
<th>Intermediate</th>
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<td>Uses:</td>
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<td></td>
<td>• Cover months with cash flow deficiencies</td>
<td>useful life of greater than 10 years</td>
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Revolving:
- Examples: Credit cards, Operating loans, Supplier lines of credit.
- Uses: Finance operating expenses, Input purchases, Cover months with cash flow deficiencies.

Intermediate:
- Examples: Equipment loans, Livestock loans, Dealership financing.
- Uses: Purchase breeding stock, Purchase equipment, Purchase building fixtures with a useful life less than 10 years.

Long-term:
- Examples: Mortgages, Land loans, Building loans.
- Uses: Purchase land, Construct farm buildings and infrastructure with a useful life of greater than 10 years.
Working with a Lender

Starting your relationship with a potential lender early is important to build trust. Make sure your lender understands your goals and aspirations for your operation and communicate details of your plan and essential information with your lender. Arrange and keep meetings with the lender, always be organized and try to fulfill reporting requirements accurately and on time. Talk to your lender if you are experiencing financial distress or unforeseen circumstances, they are experts and want you and your business to succeed. Lenders will have more options to assist distressed borrowers if the conversation occurs earlier rather than later.

Checklist for a loan renewal or application:

2. Last year’s production/yield history or crop insurance record for each crop or animal enterprise on your farm.
3. A list of outstanding loans.
4. A list of inventory (crops/products) carried over into the next fiscal year.
5. A list of capital purchases.
6. A projection and budget for the upcoming crop year.
7. A succession plan.
8. Discuss any proposed changes to the business or management structure.
9. Discuss any issues that affected or may affect the financial performance of the business.
10. Discuss planned capital purchases or other key decisions.

Conclusions

Overall, you should evaluate all current debt instruments for potential savings by calculating costs and reading the fine print. Always fully explore borrowing costs for new credit before committing to a loan or asset purchase. Be sure to structure your loans appropriately for your operation and build a relationship with your lender. Review your debt annually to assess changes in your operation, asset purchases or necessary refinancing. Build a relationship with a lender and maintain regular communication.

References and additional resources:

An Introduction to Basic Farm Financial Statements: Balance Sheet (extension.tennessee.edu/publications/Documents/W884.pdf)

An Introduction to Basic Farm Financial Statements: Income Statement (extension.tennessee.edu/publications/Documents/W983.pdf)

US Department of Agriculture - Farm Service Agency - Farm Loan Programs (www.fsa.usda.gov/programs-and-services/farm-loan-programs/)

St. Louis Federal Reserve - Effective Federal Funds Rate (fred.stlouisfed.org/series/FEDFUNDS) and Prime Rate (fred.stlouisfed.org/series/DPRIME)
Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.