BARNYARDS & BACKYARDS

July 2017

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New financial tool unravels fiscal statement info

The RD Financial tool is a comprehensive, interactive financial analysis tool to help managers assess their business financial health.

Entering information into the RD Financial tool (users can either enter their own data or use the pre-loaded example) was highlighted in the last installment.

The tool generates five financial statements for analysis: the beginning and ending balance sheets, cash flow, income (accrual adjusted), and statement of owner equity. The tool helps users see the interaction of information entered across the statements. To use the tool, go to RightRisk.org and select Risk Management Tools from the Resources tab.

The example farm in Figure 1 depicts over the given year a small increase in equity of $10,890, a positive net cash flow of $57, 831, and accrual net income of $110,890. Examining the statement of owner equity, we see ending net worth equals the reported ending net worth, which results in zero discrepancies.

Important Financial Ratios

The RD Financial tool also generates 16 financial ratios based on the financial statements. These ratios are divided into five categories commonly used by lenders to evaluate a borrower's financial situation including: liquidity, solvency, profitability, repayment capacity, and financial efficiency.

To see a detailed explanation of each ratio, click the "on/off" button next to each ratio. The tool provides "stoplight" indicators for each ratio (green/yellow/red) to suggest whether the resulting value should be of concern based on industry standards.

In Figure 2, we see the excellent solvency ratios for the example farm, with debt/asset at a low 0.179 and debt/equity of 0.22. The more troublesome ratios are in the profitability and income areas.

This farm has low rates of return on assets and equity, 4.96 percent and 4.58 percent respectively, and a low operating profit ratio of 0.13. These ratios taken together indicate an operation with low debt levels, but also a low level of profitability and efficiency.

Credit Scoring

The RD Financial tool includes a credit-scoring function. This section gives two examples of how a lender might evaluate the creditworthiness under two different loan models: operating and term loans.

The tool generates a credit score for each loan type based on the information entered. In the operating loan example, the loan model relies on four ratios with a score for each from one to five (one being excellent and five being high risk).

For the example farm, the low debt levels help offset the rather low profitability numbers to rate the operating loan score at 1.6. This feature can give the user a way to identify and address problem financial areas in their business before meeting with a potential lender.

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Using the RD Financial Tool

Select the "Tool Support" button from the bottom of the opening RD Financial screen to learn more about using the tool. Several interactive videos are available, highlighting various applications and examples, such as how capital asset purchases affect the financial health of a business.

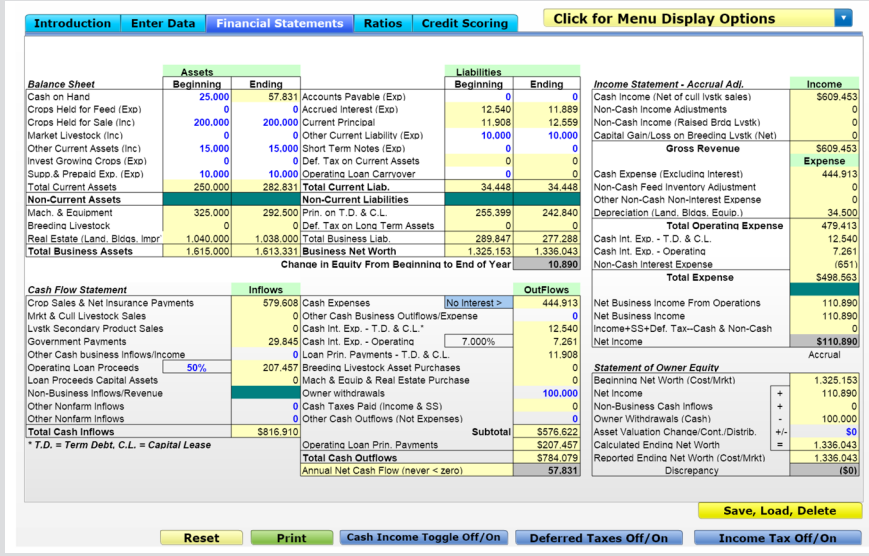

Figure 1. Example farm data depicting increasing owner equity.

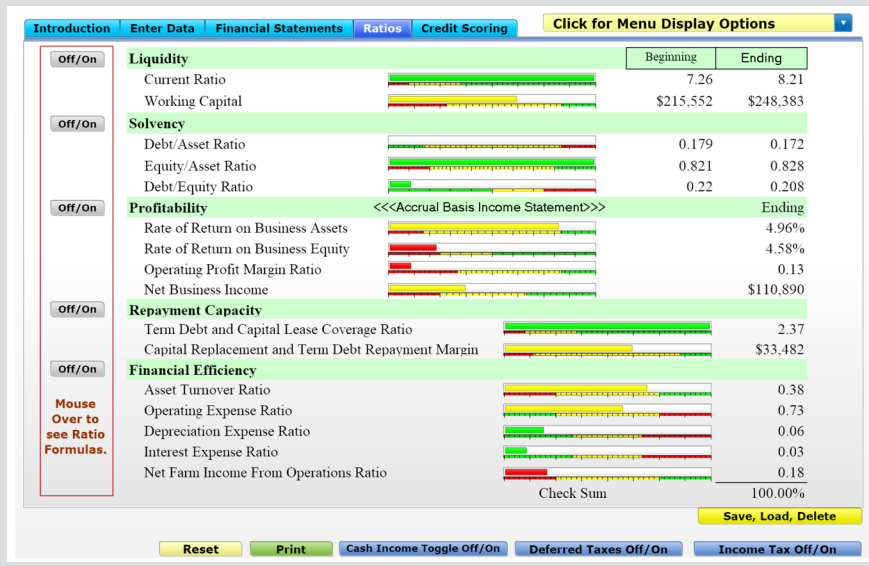

Figure 2. Example farm financial ratios.

For more information

The RD Financial tool is just one of many useful resources available from RightRisk.org. There are other online tools and courses (including RightRisk Analytics) covering a wide variety of agricultural risk management topics ranging from crop insurance programs, production management and risk calculators, to estate planning and many others. Visit RightRisk.org to get started today.

Correctly identifying problem soil critical for finding solutions

"Alkali" is often used loosely to describe challenging soils with saline, sodic, or alkaline characteristics. There are important differences, and an accurate diagnosis will make management more effective.

SALINE soils have excessive levels of water soluble salts. In extreme cases, salts accumulate on the soil surface leaving fine, white crystals. Saline soils are most common in arid or semi-arid climates, where potential evapotranspiration is greater than precipitation. Water soluble salts are simply positively and negatively charged ions dissolved in water. This includes table salt (sodium chloride) as well as many other ions. For example, ammonium nitrate ($NH_4^+ + NO_3^-$) and potassium sulfate ($2K^+ + SO_4^{2-}$) are common fertilizers and also salts.

Calcium, magnesium, potassium, sulfate, chloride, sodium, and carbonates are the ions that most commonly accumulate in soils. With the exception of the last two, all are essential plant nutrients. The goal is not to eliminate salts but to maintain them at levels that support healthy plant growth.

Saline soils are best managed by improving drainage, leaching salts below the rooting zone, keeping the soil surface soil covered to reduce the upward movement of salts, and minimizing the addition of salts in irrigation water or fertilizers.

SODIC soils have excessive levels of sodium (Na), which causes a condition called "soil dispersion." Dispersed soils have very poor structure and drainage and are highly susceptible to compaction and erosion. Sodic soils typically have a pH greater than 8.5 and are very difficult to manage.

Reclamation of sodic soils requires first replacing the sodium with calcium (typically gypsum) and then leaching the resulting sodium salts below the crop rooting zone.

SALINE-SODIC soils have excessive levels of both water soluble salts and sodium. The physical conditions in saline-sodic soils are typically better than sodic soils; however, as the water soluble salts are leached from the system, the sodium remains behind, and conditions worsen.

Remediation of saline-sodic soils is similar to sodic soils in that adding calcium followed by leaching is required. Keep in mind leaching prior to adding calcium can significantly worsen conditions in a saline-sodic soil.

ALKALINE soils have a pH greater than 7. While most plants prefer a near-neutral pH, some can thrive in alkaline soils. As soil pH increases, plant-available phosphorus, iron, zinc, boron, copper, and manganese decreases. This can cause nutrient deficiencies. A pH of 8.5 or higher indicates excessive sodium. Most Wyoming soils are alkaline due to high levels of calcium carbonate.

If you suspect you are dealing with any of the above conditions, get a soil test before attempting any remediation to know exactly what conditions you are dealing with. Accurate diagnosis of soil and water salinity or pH can be done by a lab or using a handheld meter. Sodicity must be measured in a lab. UW Extension educators can help collect soil samples or interpret results. For a listing of county offices, go to www.uwyo.edu/uwe and click County Offices.

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