Managing Cash Flow, Profitability and Honest Financials

It is critical that every business operation, particularly small-farm small-ranch operations or entrepreneurial start-ups do two things: 1.) understand how to use money or assets to the greatest advantage, and 2.) have accurate and honest financial statements.

To quote a couple of common colloquial expressions, “It is human nature to look on the sunny side of the street,” and usually “through rose-colored glasses.” Honest financial accounting and reporting comes down to accuracy, what “comes in” with respect to actual income, as well as “cash-back” credits from rebates, trade-ins, depreciation, and similar non-cash expenditures; and the “what goes out” with respect to overhead, loan interest, equipment purchases and similar payments. Anytime you can do so, make notes in your spreadsheets that reference the decision-making “assumptions” used with respect to how and why you moved that money. These notes will be invaluable later when analyzing whether or not you took the correct financial path and why, if audited or you need to double check a depreciation table, etc. When you decide on a path. List your assumptions, take a good hard look at them, discuss them with your financial advisor. This is always in your best interest.

For example, it is unfortunate, that organizations, companies and political entities often work very hard to make their fundamentals or returns look good to their banker, investors or constituents. In worst-case scenarios, this blows up in the media and can lead to lawsuits, personal and professional humiliation. All too often, the public and press easily paint this as faceless corporate greed or the misdeed of a misguided arrogant executive. Another reality is that none of this was perform in a vacuum. Those funny financials were constructed by humans just like us; people subject to performance or financial goals, group think and similar pressures.

Agricultural business, large or small, the key is to map cash flow and fully understand the assumptions used to generate any projection. Great projects, start-ups or growing operations need to exercise judgment when creating or reviewing financial projections or statements. Great looking earnings are meaningless if not supported by detailed cash-flow statements built on rock-solid accounting. Your banker and investors will respect you, and you will have the key information to influence decision-making path that leads to the most profitable outcome.

An all too often encountered misconception is that a cash-flow statement reflects profitability. They are related, but cash flow and profitability are very different.

Cash flow represents the short-term inflows to and outflows from the business, tracked over time to understand cycles and trends. Outflows subtracted from inflows yield net cash flow, aka. Liquidity. For example, consider cash flow as the transactions that affect your business checkbook; and related management decisions that reflect the monthly or seasonable needs and returns from the operation. Within your financials, tracked and summarized, these constitute a solid cash-flow statement.

Profitability represents the income and expenses of the business. Expenses subtracted from income yield either profit or loss. For example, consider profitability as the transactions that that

affect your tax return; and those management decisions that result in end-of-year or quarterly expense, return or savings. Within your financials, listed then summarized as an income statement.

To have accurate pictures of inflows and outflows, it is extremely important to log cash flow when it occurs. Keep one record of sales and expenses when incurred; but the cash-flow statement, for greatest accuracy should reflect exactly when a check is received and deposited in your account at the time of the sale. For expenses and similar cash-outflow items the expense should be logged at the time of purchase based on the date written on the check or credit transaction.

So how does one manage assets and cash flow to best advantage? Consider "non-cash" incomes and expenses. The big one is "depreciation."

Exercise great caution: Creatively accounting depreciation can mislead bankers and investors, and directly purchasing an asset instead of financing it and paying some interest cost you money up front that you could have put to better use.

For example, when one buys equipment there are various options and they all have implications:

- You can buy it outright. You now own the asset. If you need to liquidate the asset, you get the majority of its value. You can take one huge whopping write-off of the expense the year it occurred, or chose to depreciate the asset over time against your profits (depreciation is a business expense). At some point, perhaps when you need to replace or upgrade, you can sell the asset at salvage value and recover some of the cash value. Since you fully own the asset, it is yours to liquidate freely whenever you would decide to recover some of its value.
- You can borrow money or otherwise finance the purchase. You and the creditor own the asset until you pay it off. You write-off the depreciation and the interest paid on the loaned principal (business expenses). You will probably have to come up with a down payment, but will have more cash to work with for other facets of your business since you have not sunk all of it into a particular asset. You may end up spending a bit more over time on the interest payments, but again, those are a business expense. After you pay it off the asset, you can sell it at salvage value and recover some of the cash value.
- Many equipment manufacturers have lease-to-buy programs. Run big purchases past a non-vested third party to see how these stack up against other types of financing.

When looking at cash flow, depreciation, and other things on balance sheets, what looks like improved earnings, asset-value and "book value" of the venture or project may result from little more than creatively applied underlying assumptions used to build the depreciation schedule. Earnings and net asset value boosted in this way contribute nothing to improved business performance or long-term financial health.

These "non-cash" incomes and expenses reflect one facet of your cost of doing business. How you manage them put keep extra cash in your accounts and/or lower your yearly tax obligation.

Major purchases of capital assets, for example, large machines, buildings, vehicles, some forms of intellectual property, are single cash outflows if purchased for cash at the time of purchase. However, because the machine is a capital asset and has a life of more than one year, usually, and most intelligently, it is included in the expense column of the income statement by the yearly amount it declines or "depreciates" due to wear and obsolescence

If one is discussing, for example, an agroforestry resource, like a stand of trees, or an unusual habitat for aquaculture that degrades over time, and similar natural-resource-type assets, the term used is "depletion." In our discussion here, we will stick to depreciation. The accounting term, used to describe the cost-over-time allocations is "amortization." By breaking down the expense in terms of cost and asset value, one amortizes the expense.

There are standardized tables that are exist for many types of vehicles, buildings and equipment. These can be used as, or to formulate, solid assumptions upon which to base your wear-'n'-tear depreciation figures. Obsolescence, for example, based on the useful life of the machine or perhaps the practical functional life of licensing a patented technology, may be much more difficult to determine and may take a bit of research and few phone calls to figure out.

Different depreciation schedules impact cash flow. For example, if you are thinking of building an aquaculture installation, expenses will include different types of tanks, pumps, hoses, beds, monitoring equipment, etc. From a vendor, you make a single purchase of an entire installed system using one separate depreciation plan with a "full-system-out" all-inclusive salvage value. On the other hand, you also can purchase components or subsystems from various vendors. These having different depreciation plans suited to the type of equipment and based on different time-to-replacement and very different salvage values. Obviously, the second strategy is more difficult, but if carefully managed, would result in the most efficient and productive management of cash and equipment assets and tax savings. Large organizations have people who manage this complicated job; it also is why your asset-management plan should be developed or reviewed with a trusted farm-management professional.

salvage value… always something to consider, but unless part of a lease program, the actual return can be hard to pin down.

Things are further complicated by different strategies for depreciating an asset. See your accountant or farm-management professional for the best possible strategy and timeline for your business or project. These may include any one for an individual purchase or various combinations of the following for constructing and financing a large project:

- straight line depreciation
- accelerated depreciation
- annuity depreciation (internal rate of return)
- retirement depreciation.

However, there are many cash items that are not income and expense items, and vice versa. For example, the purchase of a capital asset such as a large aquaculture tank and integrated filter system is a cash outflow if you pay cash at the time of purchase as shown below (Table

1). Because the equipment is a capital asset and has a life of more than one year, it is included as an expense item in the income statement by the amount it declines in value each year (depreciates) due to wear and obsolescence.

In the tables below a $50,000 machine is depreciated over five years at the rate of $10,000 per year. Because the machine is completely depreciated over this period (is shown to have no remaining value other than "salvage value"). It is sold for salvage value for $15,000 at the end of the tenth year. This $15,000 of depreciation is "repaid" as "depreciation recapture," tenth-year additional income.

This simple example shows how depreciation can be used for tax purposes to offset income. The more realistic the depreciation calculations, the better the model for your infrastructure needs and yearly financial planning. In the example, the cash flow transactions are just at the beginning and end of the period with depreciation spread over the ten year period. The impact on annual operations from the purchase of the equipment is considerably different depending on whether the focus is asset liquidity or operational profitability.

Table 1. Equipment Direct Purchase -- No Borrowing

Purchase Price	**$50,000**	
Depreciation	5 years	
Sale Price	$15,000	
Year	**Cash Outflow**	**Depreciation Expense**
0	$50,000	$0
1	$0	$10,000
2	$0	$10,000
3	$0	$10,000
4	$0	$10,000
5	$0	$10,000
6	$0	$0
7	$0	$0
8	$0	$0

Purchase Price	**$50,000**	
9	$0	$0
10	-$15,000	-$15,000
Total	**$35,000**	**$35,000**

If one takes out a load for the purchase of the equipment, the cash outflows and expenses take a different form (Table 2). In this example, the purchase down payment is a cash and the annual principal and interest debt payments are cash outflows over the term of the loan. The total cash outflow is $42,000 in this example versus $35,000 (Table 1), with interest payments making up the additional $7,000.

At first glance, the second example (Table 2) does not look like a very good deal compared to completely buying and depreciating the asset (Table 1). That said, let's take closer look at what money is where, who the owner is (or owners are) during the life of this transaction, and the actual impact on operating expenses once depreciation and interest deductions are factored into the accounting.

Table 2. Equipment Purchase -- Borrowing

Purchase Price	**$50,000**
Down Payment	$10,000
Borrowed	40,000
Interest Rate	7%
Term	5 Years
Depreciation	4 Years
Sale Price	$15,000
	Cash Outflows
	Debt Payments

Purchase Price	**$50,000**				
Year	**Purchase & Sale Price**	**Interest**	**Principal**	**Total**	**Total Outflow**
0	$10,000	$0	$0	$0	$10,000
1	$0	$2,800	$10,000	$12,800	$12,800
2	$0	$2,100	$10,000	$12,100	$12,100
3	$0	$1,400	$10,000	$11,400	$11,400
4	$0	$700	$10,000	$10,700	$10,700
5	$0	$0	$0	$0	$0
6	$0	$0	$0	$0	$0
7	$0	$0	$0	$0	$0
8	$0	$0	$0	$0	$0
9	$0	$0	$0	$0	$0
10	-$15,000	$0	$0	$0	-$15,000
Total	**-$5,000**	**$7,000**	**$40,000**	**$47,000**	**$42,000**

	Expense		
Year	**Depreciation**	**Interest**	**Total**
0	$10,000($DP)	$0	$10,000($DP)
1	$10,000	$2,800	$12,800
2	$10,000	$2,100	$12,100
3	$10,000	$1,400	$11,400
4	$10,000	$700	$10,700
5	$0	$0	$0
6	$0	$0	$0

Purchase Price	**$50,000**		
7	$0	$0	$0
8	$0	$0	$0
9	$0	$0	$0
10	-$15,000	$0	-$15,000
Total	**$35,000**	$7,000	$42,000

When money is borrowed to finance the purchase of the machine, the amount of interest paid on the loan is included as an expense along with depreciation. Interest payments are an expense because they represent the cost of borrowing money. Conversely, principal payments are not an expense because they are merely a cash transfer between lender and borrower. The total cash outflow is $42,000 in this example versus $35,000 in Table 1 where no funds are borrowed. The additional $7,000 of cash flow is payed interest; again, a business expense.

The net cash outflow and expense of the equipment (Table 2) are the same ($42,000). However, the timing of the cash outflows and actual expenses are different. In the first example, you are using your money for the transaction and then deducting the payments. In the second example, the depreciation and interest offset your loan principal payments. In the first example, you are carrying the debt of your equipment purchase, in the second your lender is doing so.

The actual financial impact on your annual operation from the equipment purchase is considerably different. In the first example, if need be, you would have access to the liquidity of the equipment if you had to sell it to immediately recover some cash value. In the second example, you are not saddled by the impact of the purchase in that it is recovered yearly through depreciation and interest deductions.

As a small-business owner or an investor, one needs to check the assumptions under any depreciation schedule. The choice of depreciation method affects an income statement and balance sheet in the short term, modifying the (Table 2) example in ways that can make particular ends of the schedule look stronger than they really are. For example, straight-line depreciation will come up with far different numbers than accelerated double-declining depreciation, etc.

For this reason, if a company is looking to cut costs and boost earnings it will choose a strategy that best boosts its best return. Conversely, earnings- and net-asset value boosted thanks to the choice of depreciation assumption and salvage values have nothing to do with improved business performance, and in turn, may not have any actual impact on long-term fundamentals.

Talk with a reputable financial advisor or Extension farm-management professional; do what is best for you and be able to justify your assumptions…--What you did and why.

For Additional Information:

Farm Financial Standards Council: Financial Guidelines of Agricultural Producers
https://www.canr.msu.edu/farm_management/uploads/FFSC_Financial_Guidelines_2011.pdf

Farm Journal Ag Web: The Farm CPA: The Three Levels of Farm Accounting
https://www.agweb.com/article/the_farm_cpa_the_three_levels_of_farm_accounting/

Investopedia: Introduction to Fundamental Analysis
https://www.investopedia.com/articles/fundamental/04/090804.asp

Pocket Sense: How to Calculate Residual Cash Flow https://pocketsense.com/calculate-residual-cash-flow-10018898.html

Pocket Sense: How to Depreciate a Farm Tractor https://pocketsense.com/depreciate-farm-tractor-income-tax-10074954.html

Progressive Cattleman: Basic Depreciation Rules for Farm Assets
https://www.progressivecattle.com/topics/facilities-equipment/4801-basic-depreciation-rules-for-farm-assets

Successful Farming: Depreciating Farm Assets
https://www.agriculture.com/markets/analysis/depreciating-farm-assets

Successful Farming: Farm-Management Resources https://www.agriculture.com/farm-management

The Internal Revenue Service: Farmer's Tax Guide Publication 225
https://www.irs.gov/publications/p225

University of Nebraska: Farm Financial Records: Accounting Principals
https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=2560&context=extensionhist