

Ranch Accounting and Analysis

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Ranch 101 - Ranch Accounting
Texas & Southwestern Cattle Raisers Association
Ft. Worth, Texas

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The Role of the Accounting System

- **Income Tax Preparation**

- Comply with Federal tax laws
- Minimize income tax



- **Management Information**

- Access to transaction, balances, etc.
- Determine profit (loss) for business
- Determine profit (loss) for each activity
- Determine financial health and performance
- Provide information for strategic decisions
- In other words, determine the 3 "P's"

Ranch MA: If you are not going the whole distance, then stay where you are.

- Implementing and completing the MA system.
 - Accounting Skills
- Analysis and Change
 - Analytical Skills
- Interpretation and Communication
 - Communication Skills



Who is involved with the Information System & Who is in Control

- Lender
- Tax Accountant
- Data Entry Person (Daily Grind: Bookkeeper)
- Information User (Information manager: both financial and production)



Who is involved with the Information System & Who is in Control

- **Lender**
 - Becomes the “quasi” information manager and user.
 - Motive: Board Members/ Owners & Bank Auditors
- **Tax Accountant**
 - Motive: Lower the producers tax liability. Probably wants to keep you as a customer. **Are they doing the rancher a favor or not?**



Who is involved with the Information System & Who is in Control

- **Data Entry Person (Daily Grind: Bookkeeper)**
 - Usually the spouse or the rancher.
 - Either the system must be simple and user-friendly, or else this person better have some accounting skills.
 - Serves as the “Soul” of the system.
 - Motive: Typically thinks their motivation is to the tax accountant, however should be to the following...
- **Information User (Information manager: both financial and production)**
 - This is where most ranchers fall down.
 - Don't know how to generate it and/or don't know how to interpret and use the information.
 - Motive: Doesn't exist for most operations.

Start your Ranch MA with the “End Products” in mind

- Ranchers are always told, “you need good financial records” but what is that?
 - Meaningful information, which can impact the management of the business
- We defined the End Product to be:
 - Financial Statements
 - Beginning and Ending Balance Sheet
 - Profit and Loss Statement
 - Financial Analysis as defined by the Sweet 16 ratios as recommended by the FFSC.
 - Profit & Loss by Class
 - Total Unit Cost (TUC)
 - Commodity Cycle Reports
 - Ultimately KPI's defined by the team



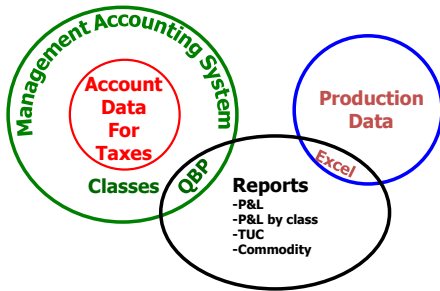
Question: How do we get there?

- QuickBooks Pro will partially get you there, however, some accounting knowledge is required and the program's flexibility can cause problems.
- Need some type of Livestock Inventory system.
- Integration of the two?

Managerial Accounting Using QuickBooks Pro

- Create the system with the end product in mind.
- Create a rigid structure for QB Pro and I don't give the user many choices.
 - My Ranch Chart of Accounts
 - Your Class List using My Approach.
- Follow the Timeline...
 - Introduction to QuickBooks Pro (Daily Grind)
 - Advanced QuickBooks Pro (The Rest of the Story)
- Incorporate Microsoft Excel or some other spreadsheet.

Accounting & Analysis Relationships



Management vs. Tax Accounting

- **How is “tax” integrity maintained?**
 - MA transactions take place below “Net Ordinary Income”
 - Except for depreciation, mgmt. labor, cost of good sold, gains/losses on sale of assets.
 - Your tax preparer should re-calculate
 - MA transactions accomplished with “classes” and *additional accounts*

Management vs. Tax Accounting

- **Major differences**
 - Tax = cash, MA = accrual adjusted
 - Depreciation method
 - Capitalization
 - Handling of “management and labor”
- **However, within the MA system, tax integrity is maintained**



Management vs. Tax Accounting

- **Depreciation Differs**

- Tax = accelerated + sec 179
- Book = represents allocation of asset's cost over useful life
- Book depreciation can be easily provided with minimal cost, or...
- in some operations, you may want to purchase your own "fixed asset" software



Management vs. Tax Accounting

- **Capitalization of raised livestock and establishment cost of crops**

- Only if *determinable* useful life
- If indeterminable, must expense in current year
- BIG PROBLEM with the cow-calf industry
- Without this, you never really know the financial health of your cow herd.



Management vs. Tax Accounting

- **MA includes management (owner) labor as expense (non-deductible)**

- There is value to the services that you provide your ownership. If there wasn't you wouldn't be doing it
- I encourage you to write yourself a check (withdrawals) and deposit it into a personal account
- What would it cost you to hire someone to do what you do?

Management vs. Tax Accounting

- **Accumulated costs for incomplete classes are transferred to B/S**
 - Use journal entry to increase “Investment in ...” account (current asset) and decrease expense for that class
 - Recognized as expense in year income occurs (matching principle)

MA System Design

- **QuickBooks Pro**



“This is a \$250 program with a \$5000 design”

- Works with Excel to integrate production data
- Expanded chart of accounts
- “Step up” accounting
 - Profit, cost and support centers, where the profits centers must pay all expense

Implementing the MA System

- **Chart of accounts**
- **Set up classes**
- **The daily grind**
- **Reconcile bank accounts**
- **Reconcile loans ****
- **Other resources used (Mgmt Labor)**
- **Examine P&L by class**
- **Year end activities**
- **Create and analyze reports**

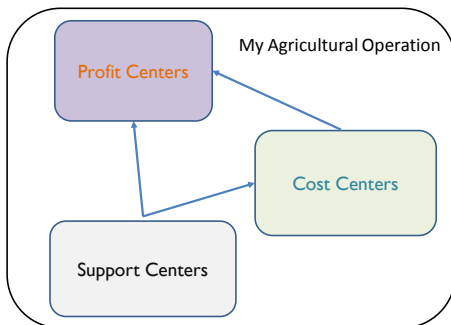


Implementing the MA System

- **Import Ranch Managerial Accounting chart of accounts**
 - Add & delete accounts to fit your operation (use caution)
 - Understand the transfer accounts
 - Includes BIS accounts
 - Get to know your COA
 - Print COA for reference



Every Operation is Made up of Various Pieces. All Can, and Need, to be Managed



Implementing the MA System

- **Set up class list**
 - Use sub-classes of PC, CC, SC
 - PC (Profit Center) = those activities (commodities) that sell a product at the end of the production cycle
 - CC (Cost Center) = “factories” that accumulate costs to be transferred and paid by other PCs
 - SC (Support Center) = types of expenses that cannot readily be allocated and will eventually be paid by PCs



Implementing the MA System

- **Support Centers**
 - Interest
 - Machinery & Equipment (M&E)
 - Labor & Management (L&M)
 - General & Administrative (G&A)
- These are always the same
- Can be Considered the “Fixed Costs” of the Operation
 - Is L&M Fixed?



Implementing the MA System

- **Cost Centers**
 - Cow-calf (maybe)
 - '16 Replacement Heifers
 - '15 Replacement Heifers
 - Hay Production
 - Grazing
- Here, you begin to customize the system to your operation



Implementing the MA System

- **Profit Centers**
 - '15 Yearling Heifers
 - '15 Yearling Steers
 - '16 Weaned Calves
 - Wildlife
 - Cow-calf (maybe)
- Continue to customize the system to your operation

Implementing the MA System

Time Line

1. "Daily Grind"
2. Check *Unclassified* Column
3. Track Loans- Loan Transaction Histories
4. Update Asset List (Additions & Disposals)
5. Book Accrual Adjustments (Mgmt Labor & Other Resources Used)
6. Is it reasonable?

Implementing the MA System

Time Line

7. Allocate Support Centers
8. Transfer Cost Centers
9. Capitalize Unfinished Profit Centers
10. Reports
 - Profit & Loss by Class
 - FinAnalysis
 - Total Unit Cost
 - Commodity Reports

Implementing the MA System

• The daily grind



- Not much more than you should be doing already
- Assign **account** and **class** to every transaction that affects the Profit & Loss Statement
- Develop your routine and **be consistent**

Implementing the MA System

- **Reconcile accounts**
 - Bank accounts (checking)
 - Payables
 - Clean up bills to be paid
 - Were note payments handled correctly? (principle vs. interest)

Implementing the MA System

- **Reconcile Loans**
 - Get "Loan Transaction History" from creditor
 - Reconcile each loan advance and each payment with QuickBooks
- **Asset disposals/additions**
 - "Book" asset disposals
 - Was purchase made with check or loan proceeds? Was there a trade involved?
- **Management Labor**
 - Your labor is a resource that was used by the business!

Seek advice or services of an accounting professional

Implementing the MA System (Accounting Short Course)

- When you sell an asset, are the proceeds considered **Income**?
 - Answer: Only the gain/loss on the sale is considered income/expense.

Cost of Asset		Proceeds
- <u>Accum. Depreciation</u>	-	<u>Basis</u>
Basis		Gain/Loss

Implementing the MA System

- **Examine P&L by class monthly**
 - Watch for “unclassified” transactions
 - Were transactions classified correctly?
 - Memorize re-occurring transactions



Year End Activities

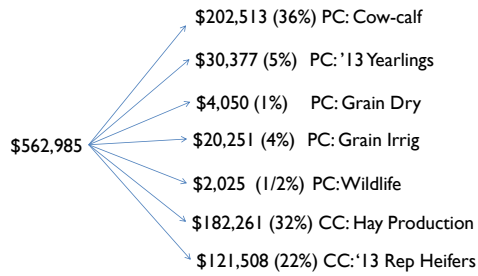
- **Accrual adjustments**
 - Prepaid expenses, payables, receivables
 - Management labor
 - Inventory
 - Depreciation (straight-line basis)
- **Allocate support centers** (Excel worksheets)
- **Transfer cost centers** (Excel worksheets)
- **Send “incomplete” centers to the balance sheet**
- **Compile reports** (Excel worksheets)



REAL LIFE EXAMPLE

Slides taken from a specific ranch and it's manager's presentation at the Board of Directors meeting. Salary committee meeting to determine ranch manager's compensation followed this presentation.

Real Life Example SC G&A Allocation



After allocations are made, all support centers should have a zero net income.

YEA – Reports

- P&L (Net Ordinary Income) to CPA
 - P&L by class and balance sheet
 - Fin Analysis
 - Total Unit Cost Report
 - Commodity Reports
- Note: Bottom 2 reports combine with production data

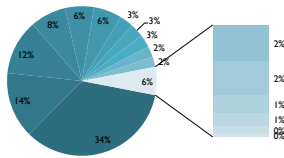
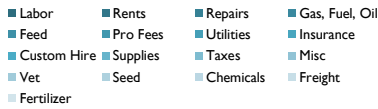
3,500 Beef Cow Ranch

	2011	2012	2013	2014	2015	2016
ROA	7.26%	12.63%	11.19%	14.57%	20.02%	7.44%
Net Income from Operations	\$724,470	\$1,367,148	\$1,283,677	\$1,687,673	\$2,312,529	\$842,574
Asset Turnover Ratio	26%	30%	29%	34%	40%	28%
Operating Expense Ratio	44.9%	35.3%	35.8%	34.9%	31.0%	45.0%
Interest Expense Ratio	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Depreciation Expense Ratio	26.7%	22.3%	25.3%	22.4%	19.4%	28.6%
Net Income Ratio	28.4%	42.5%	39.0%	42.7%	49.6%	26.4%

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Percentage of Operating Expenses



3,500 Beef Cow Ranch

	2011	2012	2013	2014	2015	2016
Cow-calf (/ Female)	\$678.82	\$723.31	\$713.32	\$787.56	\$787.26	\$757.24
Cow-calf (/ Cwt. Weaned)	\$98.35	\$106.77	\$99.11	\$109.75	\$131.97	\$119.37
Hay Production (/ Ton)	\$62.98	\$70.59	\$61.01	\$96.41	\$79.96	\$61.45
Replacement Heifer (/Head)	\$1,028	\$1,281	\$1,076	\$1,128	\$1,246	\$1,231

Key Performance Indicators

- Based on management and Board of Director input, Key Performance Indicators (KPI's) have been established
- They include both production and financial measures
- These indicators are use to evaluate performance and establish goals

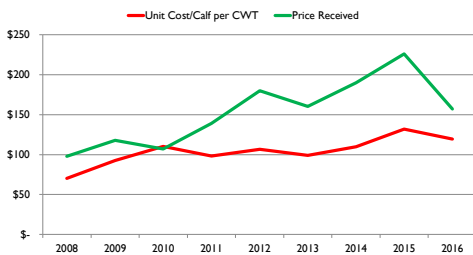
KPI

Production

- Pregnancy percentage
- Calving percentage
- Weaning percentage
- Weaning weight per head
- Lbs. weaned per cow exposed
- Total cost per cow
- Unit cost of weaned calf (break even)

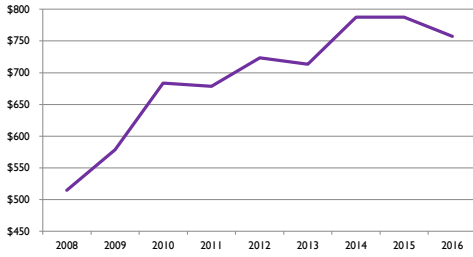
KPI

Market Price versus Unit Cost (Breakeven)



KPI

Total Cost per Breeding Cow

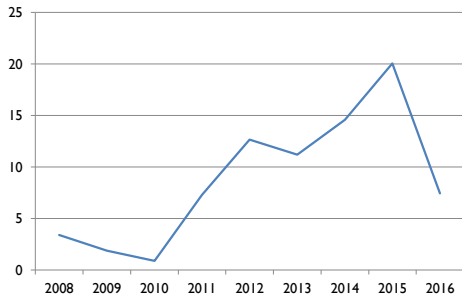


KPI

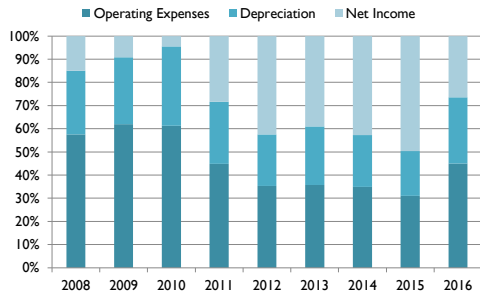
Financial

- Working capital
- ROA
- Net Income from Operations (pre interest & income tax)
- Ratios
 - Operating Expense
 - Depreciation Expense
 - Interest Expense
 - Net Income from Operations

Financial KPI: ROA



Financial KPI: Operating Ratios



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