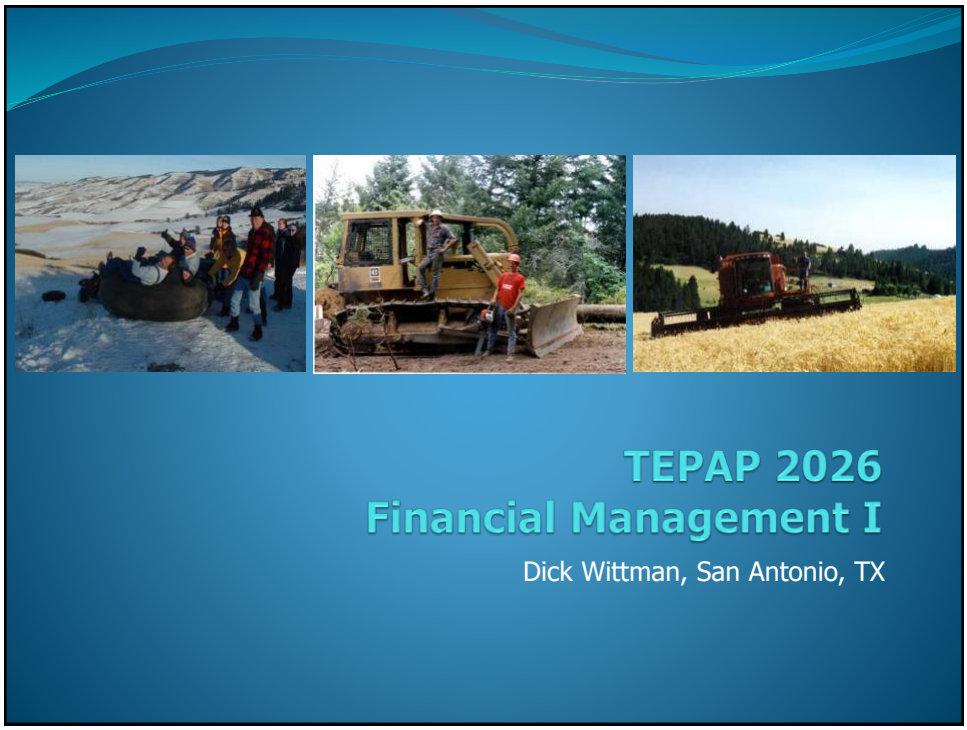


1

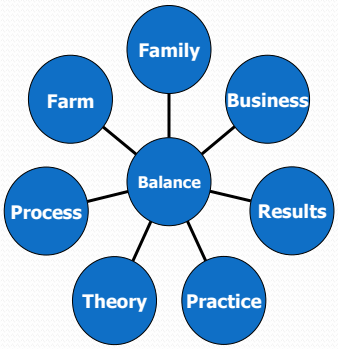
2

My Background

- Former Ag Lender – Farm Credit System
- Partner/CEO in diversified family farm business
  - ***Transitioned from CEO in 2017 to Board Chair/Transition Coach***
- Farm management consultant initiated in 1980
  - Farm Family Transitions, Financial Planning
  - Building professional governance; consultants training workshops
- Industry boards/affiliations
  - Farm Financial Standards Council – Past President
  - PNW Direct Seed Assn – Director, Past President
  - Farm Journal Legacy Project Board of Advisors
  - Commodity group and bank boards – *Past Director*

3

My Business Philosophy



- Committed to <u>Family</u> + <u>Farm</u> + <u>Business</u>
- Need balance between "process" & "results"
- Education only valuable if theory is put into practice

<u>My Goal</u>: Change Management Behavior

4

Management Behaviors I will implement OR change.....

Priority

1. ☐ _____
2. ☐ _____
3. ☐ _____
4. ☐ _____
5. ☐ _____
6. ☐ _____
7. ☐ _____
8. ☐ _____
9. ☐ _____
10. ☐ _____
11. ☐ _____
12. ☐ _____
13. ☐ _____
14. ☐ _____
15. ☐ _____
16. ☐ _____
17. ☐ _____
18. ☐ _____
19. ☐ _____
20. ☐

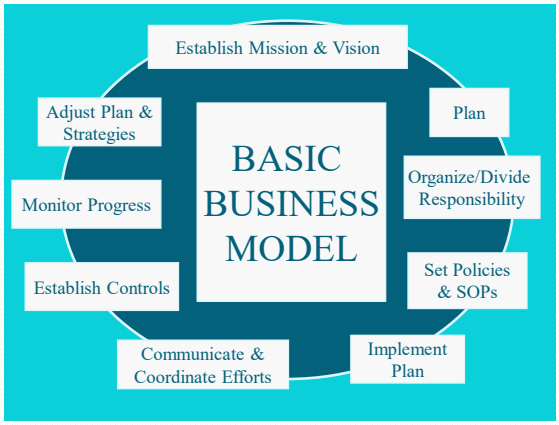
Pull up favorite Reminder or Task Management Application

- **Remember the Milk**
- **iPhone – Reminders**

Label New List - TEPAP

5

Where does Financial Management fit?



- TEPAP looks at total Farm Management process
- Financial Management plugs into each phase of process

6

AGENDA
4 Core Elements in Financial Management

1. Understanding relationships in basic financial reports
   - How statements flow from transactional process
   - Proper report structures for evaluation

2. Analyzing Performance
   - Ratio analysis, trend analysis – whole farm
   - Performance @ manageable segment level (profit & cost centers, cost of production) – *focus on FFSC standards for Managerial Accounting in Agriculture*

7

AGENDA
Core Elements – cont'd

3. Using financial principles to optimize performance
   - Operating and strategic planning & decisions
   - Capital investment planning & decisions

4. Building proficiency in the farm management team to understand and adapt financial management concepts

Selected resources & Guidebook Order Form available at www.wittmanconsulting.com

8

…After 40+ years of Transition

- 16 different crops
- Quadrupled size of farm
- Three partners (was 6)
- Calves fed - retained ownership
- Managing timber - harvesting, replanting
- Equipment and House Rentals, Land Development
- Numerous strategic alliances, joint ventures
- Self-service fertilizing and direct (no-till) seeding
- Expanded home storage
- Long haul trucking
- Bio-farming; RO Water Systems
- Numerous "value added" crops

Created huge Financial Management challenge. WHY? Everyone trying to remain competitive & viable.

10

Our Competitive Environment

- Global competition pressuring margins
- Consumer focus on sustainability influencing how we farm
- Policymakers and consumers increasingly misinformed about farming industry—can't count on sound policy
- "Way of life" nepotism-oriented farmers succumbing to professionally managed farms
- Not everybody will survive

11

Stage III Mix - Principals in Operation

Cousins, nephews, father/daughter, son-in-laws

Empower a skilled team of *responsibility center managers* to make quality decisions.

13

Questions We Ask Constantly…

- What strategies are keeping us successful?
- What strategies should change?
- How will change impact performance?
- What information is needed to make good decisions?

14

Metric of a Good Decision

- Optimizes financial results – least cost, most profitable
- Improves or sustains profitability
- Financially feasible – Cashflows, services debt, and supports family living
- Contributes to long-term financial soundness – *proactive…not reactive*
- Promotes quality of life and teamwork

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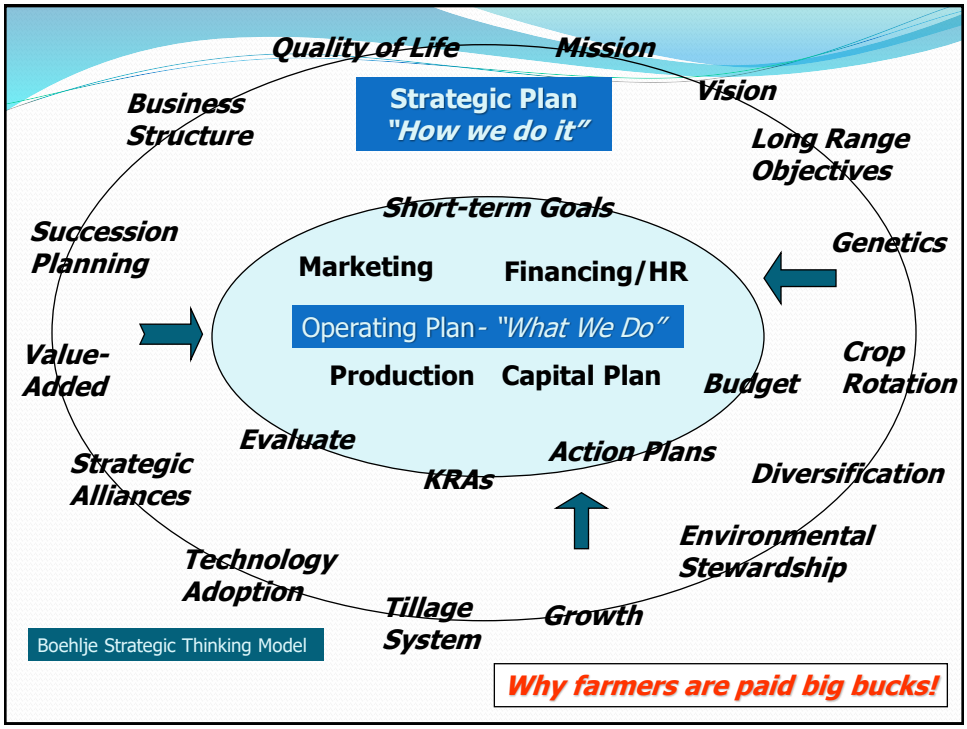

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What gauges do we monitor?

What are the consequences when it goes in the RED?

- Seeding Rate
- Temperature
- Oil Pressure
- Acres/Hour
- Gallons/Acre

- Working Capital
- Debt/Asset Ratios
- ROE & ROA
- Accrual Net Income
- Cap Debt Rep Capacity
- Unit Cost of Production

17

What are the Key Farm Management Proficiencies we should master to manage a farm in today's environment?

?

18

Survey Results*

Percent Adoption of Key Farm Management Proficiencies

Management System/Personnel Management Proficiencies	2001 – '25 Range	AVE	2026
Mission, Vision, Values defined	22 – 56	37	47
History documented	17 – 59	44	51
Goals and Objectives documented	13 – 44	29	47
Operating Plan and Cashflow Budget compiled annually	38 – 63	46	49
Strategic Plan in place that periodically addresses strategic issues	15 – 41	28	38
Written Job Descriptions/Division of Responsibility in place	18 – 44	34	42
Personnel & Operating Policies written & distributed	18 – 49	34	31
Standard Operating Procedures documented-repetitive duties	11 – 41	24	31
Compensation program matched to market rates	25 – 51	38	45
Performance Appraisals done regularly	12 – 37	24	35
Hold quality meetings for investors, owners, spouses	36 – 49	42	46
Owner Board is transparent and functioning part of governance	24 – 38	31	47
Advisory board or peer groups used to bring outside influence	22 – 37	27	3
Critical Agreements documented & reviewed	24 – 49	36	43
Culture or Management Audits used to assess farm buy-in	11 – 17	15	23

29% set goals, 28% have strategic plans
1/3 write job descriptions, 1/4 have performance appraisals & SOPs

**Surveys administered to participants of TEPAP Program*

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Survey Results

Percent Adoption of Key Farm Management Proficiencies

Financial Management Proficiencies	TEPAP '2001-'25	AVE	2026
Financial records updated and circulated monthly	43 – 68	52	47
Balance sheets & income statements prepared annually (12/31 basis)	87 – 100	95	90
Balance sheets reflect cost and market values & deferred tax liability	32 – 75	50	43
Income statements calculate cash (tax) and accrual net income	47 – 80	63	76
Audit systems in place to assure financial statement integrity	36 – 73	56	59
Profit and Cost Center performance is tracked on at least annual basis	30 – 60	48	45
Budget Projections and Performance reports are used regularly	38 – 58	50	51
Field or livestock records complete and accessible to unit managers	49 – 70	60	63
Key performance measures (ratios) reviewed at least annually	13 – 43	28	47
Policies for owner investments and withdrawals defined and followed	7 – 32	20	29
Policies for dividing earnings (owners vs labor/mgmt) clearly defined	9 – 39	25	24
Capital Investment Analysis tools understood & accessible	25 – 49	34	36
Partial Budget techniques understood and utilized regularly	29 – 58	38	37
Activity Based Costing used to ID standard cost of repetitive operations	33 – 59	45	46

→ 1/2 do budgets & track profit/cost centers
→ 1/4 track key ratios
→ 1/4 have policy for dividing earnings & withdrawing capital

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Survey Results

Percent Adoption of Key Farm Management Proficiencies

Marketing and Risk Management Proficiencies	TEPAP Score Range	AVE	2026
Inventory to market is defined well in advance of marketing	53 – 85	70	72
Market Targets are established based on known Break Even Point, Cost of Production, & Cash Flow requirements	44 – 75	59	64
Forward contracts, hedging, and option tools are understood & utilized regularly	44 – 82	67	41
Crop Insurance provides balanced protection-hail, fire, all risk	60 – 96	82	89
Liability insurance covers balance of risks – liability, health, environmental exposures	75 – 97	86	64
Business Risk Assessment and contingency plans designed to cope with catastrophic events	23 – 29	26	31

2/5 market production with no idea of production cost!

Would you loan money or invest in an industry that gets a flunking grade in core management proficiencies?

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Evolution of Financial Management

Shoebox Era

Early 1950-70's

- Cash accounting only
- Lenders prepared financial statements
- Inconsistent balance sheet dates
- Ratio analysis non-existent
- Lender focus: collateral lending
- Producer performance measured by:
  - $ owed bank
  - inventory values
- Primary performance goals
  - Production – all you can produce
  - Marketing – minimize tax bill
  - Finance – annual pay off's

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Evolution of Financial Management

Shoebox Era

↓

Stone Wheel Technology Era

Early 1980s

- Prosperity, but record inflation & interest rates
- CFS = new fin stmt model (Frey,Klinefelter)
  - Cash to accrual analysis
  - Dual column Balance Sheets (cost/MV)
- More 12-31 Bal Sheets – grower prepared
- Rush to automate accounting
  - by 1983 numerous PCs & programs
- More multiple entities, diversified operations
- Enterprising "crudely" done
- Ratio analysis – done mostly by bankers
- Bankers loaning on "Collateral"

→*Rationale: "Inflation will bail us out!"*

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Evolution of Financial Management

Shoebox Era

↓

Stone Wheel Tech Era

↓

New Religion Era

1985 thru Early 90's – *New Religion*

- Farm Crisis of 80's – massive exodus from ag
- Huge losses in banking industry
- Financial principles found new fervor
  - Liquidity and cashflow
  - Repayment capacity
  - Financial Efficiency ratios
- Farm Financial Standards Council (**FFSC**) formed to standardize industry financial practices
- Cashflow lending in…Collateral lending out

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Evolution of Financial Management

Shoebox Era

↓

Stone Wheel Tech Era

↓

New Religion Era

↓

The New Millennium

Late 90's through Present

- Massive adoption of technology
  - Accounting, crop, livestock records
  - Biotech, GPS, Field mapping, VRA
- More emphasis on *organizing and using* data vs. data *collection*
- Strategic management, accountability and performance measurement "in"
- Enterprising → Management Accounting
  - Cost & profit centers
  - New emphasis on cost of production
- More CFOs, MIDs (Mgmt Info Dir), and CTOs (Chief Technology Officers)

What's next?

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Financial Information Hierarchy

Audience

Tax Reporting
- Cash-Basis Net Income

IRS, Provincial Tax Entity – Minimum Requirement

External Financial Reporting
- Accrual Basis Income Statements
- Cost/Market Value Balance Sheets
- Capital Debt Repayment Analysis

Investors & Owners Lenders

Managerial Reporting
- Financial and physical units tied together
- Profit & Cost Centers
- Focus on Cost Production
- Integrates Financial &
- Economic Analysis

Responsibility Segment Managers – crop production, marketing, equipment support, etc.

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Financial Analysis: A Quick Tour

Can't move to Third Level - Management Accounting until master basic concepts

- Balance sheet & income statement construction
- Accrual vs. cash income analysis
- Financial ratio analysis

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Analyzing Financial Performance is About…

- Defining key indicators - KPAs
- Analyzing trends and projections
- Defining and comparing to benchmarks
- Setting acceptable performance targets
- Understanding key drivers of financial performance & relationships – Dupont Model

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Key Uses - Financial Ratios and Benchmarks

- **Performance comparisons**
  - Own historical performance
  - Benchmark comparisons – competitors, industry norms
- **Goal setting** and **decision making**
- **Lenders/creditors**
  - Risk assessment; constructive use of debt leverage
- **Investors**
  - Assess alternative opportunities to maximize ROE

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Foundation for Financial Analysis

- **Balance Sheets** – Cost & market; fiscal year-end
- **Income Statements** – Accrual based
- **Statement of Changes in Financial Position** – Funds Statement
- **Statement of Cash Flows** – Historical & Projected

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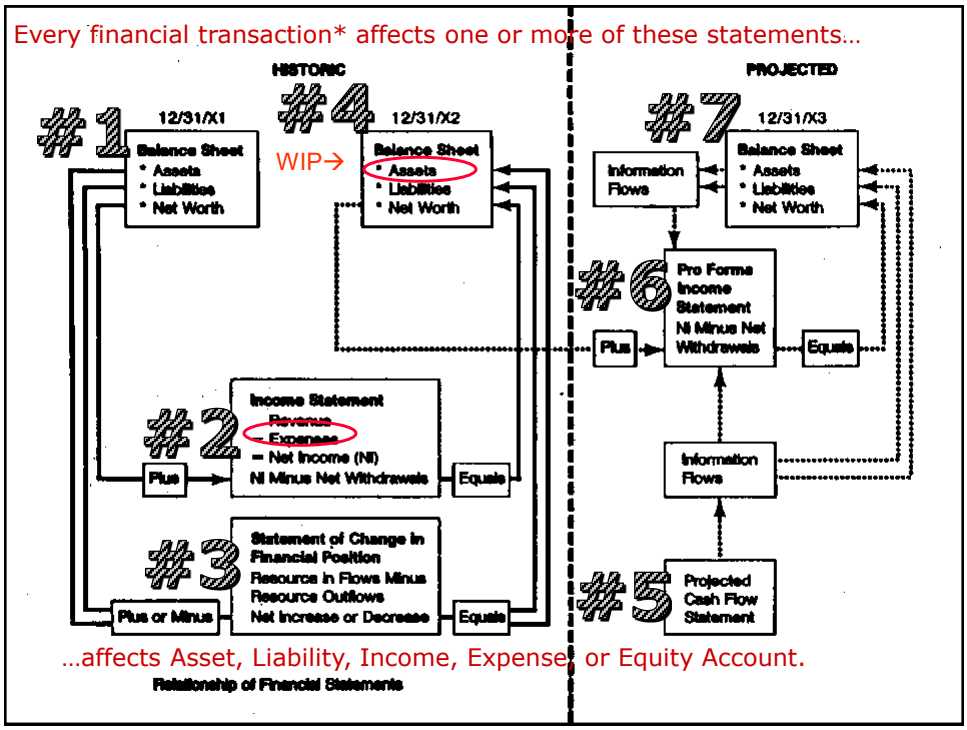

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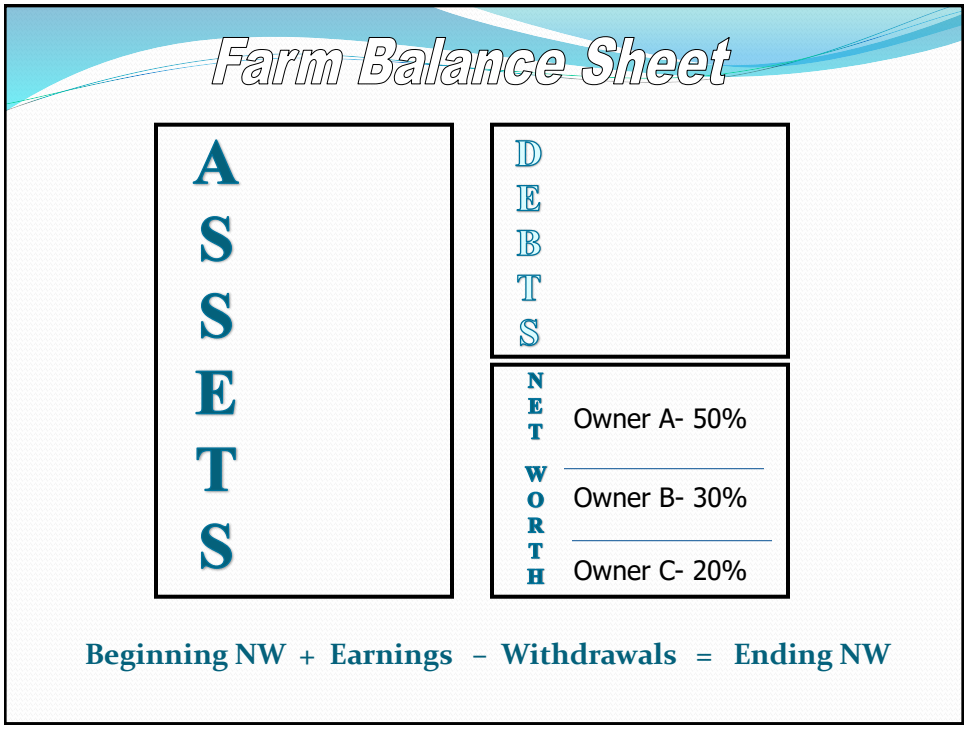

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History of Financial Ratios

- Used in agriculture and lending for decades
- Definitions and ratios standardized 1989-1991 – Farm Financial Standards Council*
- Five focus areas – "Sweet 16 Ratios" – *modified to "Legal 21"* – **New in 2021!** 13 Key Metrics

Pull out your trend sheets now....

****FFSC is a 40-member board of farm financial experts from all phases of agriculture. Focus is standards and guidelines for financial analysis and reporting.***

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1 Liquidity

Measures the ability of farm business to meet obligations as they come due

Expressed As Two Measures:

1) Working Capital = Current Assets – Current Liabilities

2) Current Ratio = $\frac{\textbf{Current Farm Assets}}{\textbf{Current Farm Liabilities}}$

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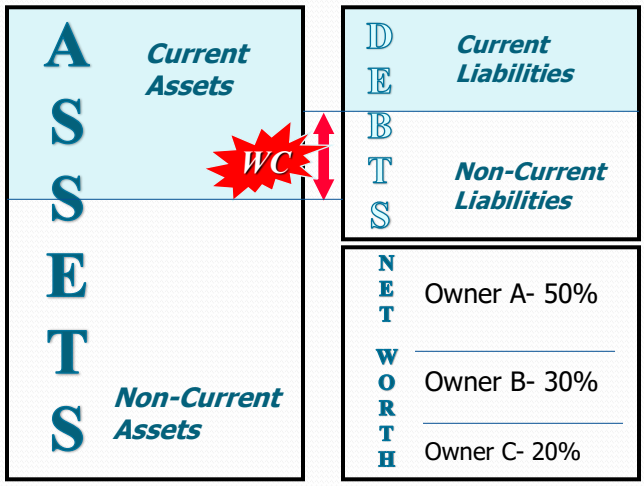
Farm Balance Sheet



Current Ratio = Current Assets / Current Liabilities

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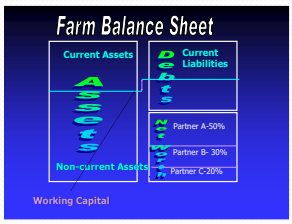
Liquidity

What is your Working Capital "burn rate"?

Key Concepts & Benchmarks for Goal Setting

- No magic ratio or $ amount
  - Depends on production & price risk
  - 1:1 minimum; 1.5:1 better
- 3 key uses
  - Transactions due 1-12 months
  - Operating expense risk
    - *keep 33-50% operating budget*
  - Opportunities - "Cash is King!"
- Working Capital "Reserves"
  - Borrowing capacity – CV Life Ins
  - Letters of Commitment, L-O-C



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Solvency

Measures ability to repay indebtedness, withstand risk, and continue operations after financial adversity.

Three Measures *(only need <u>one</u>)*: TEPAP D/A '20 =.37;'24= .24; '25 = .36; '26=.21

1) **Debt* Asset Ratio =** $\frac{\text{Total Farm Liabilities}}{\text{Total Farm Assets}}$
   *aka Liab/Asset Ratio

2) **Equity to Asset Ratio =** $\frac{\text{Total Farm Equity}}{\text{Total Farm Assets}}$

3) **Debt/Equity Ratio =** $\frac{\text{Total Farm Liabilities}}{\text{Total Farm Equity}}$
   (aka Leverage Ratio)

2010=.45 2012=.31 2013=.35 2015=.28.4 2016= .32:1 2017 = .36:1; 2018 = .45

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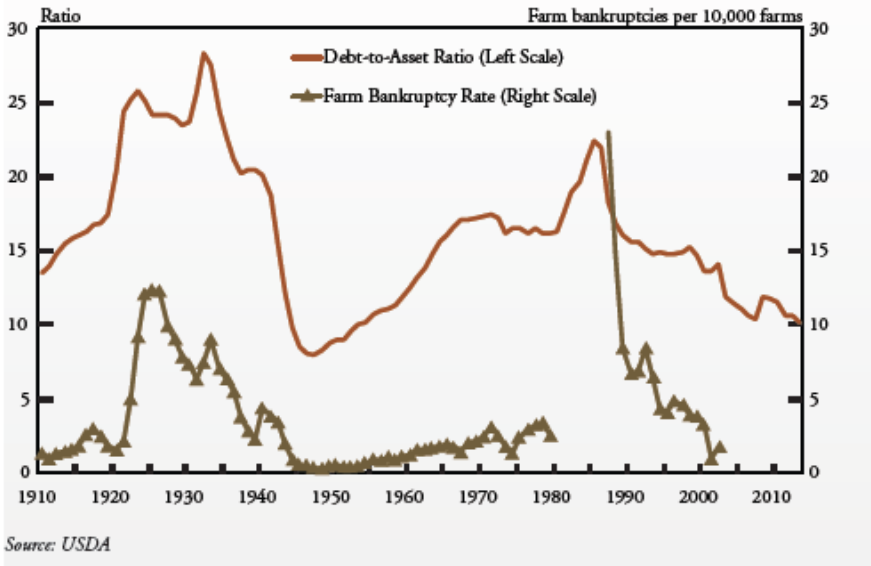
Farm Debt-to-Asset Ratio and Farm Bankruptcies



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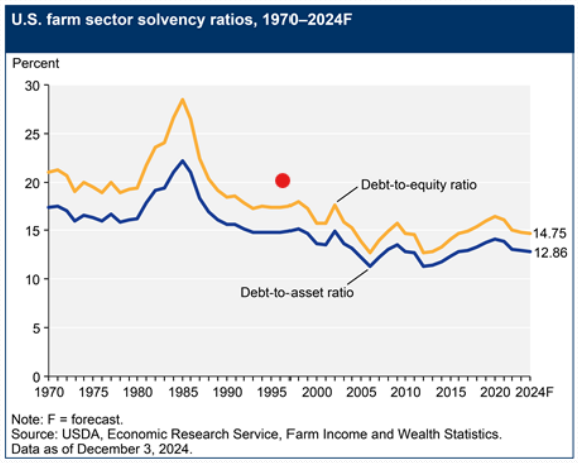
Recent Trends – D/A Ratios



2025F 13.40%
4% increase

D/A Ratio bottomed 2010 @ 10%...peaked 2020 @ 13.90

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Recent Trends – D/A Ratios

Source: USDA ERS

Year	Debt /Asset Ratio	USDA % Incr-RE
2013	11.39	na
2014	11.78	5.4%
2015	12.39	0.4%
2016	12.84	1.5%
2017	12.99	3.0%
2018	13.30	1.5%
2019	13.67	1.4%
2020	13.90	3.7%
2021	13.56	9.7%
2022 Forecast	13.05	10.0%

D/A Ratio bottomed 2010 @ 10%...peaked 2020 @ 13.90

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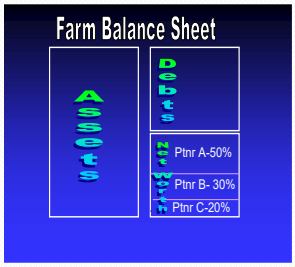
Solvency

Key Concepts & Benchmarks for Goal Setting

- Debt/Asset Target < 50%



- Factors to consider:
  - Climate and market risks
  - Asset mix – leased, owned
- Capitalization policies
  - Minimum capital needed?
  - Ownership Transitions/Equity withdrawal policies?

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Profitability Measures

Measures ability of farm business to generate a profit as well as a return on assets and equity

Five Measures

1) Net Farm Income (NFI) = Revenue – Expenses + Gains/Losses

(must be Accrual Based to be meaningful)

2) Operating Profit Margin Ratio (OPM) = ***←Key Performance Indicator***

$$\frac{\text{Net Farm Income + Interest Exp – Value of Unpaid Labor/Mgmt}}{\text{Gross Revenue}}$$

Median OPM = '16-18%; '17-19%; '18-18.9% '19=12.4; '20=14.9; '24=8.1; '25=9.1; '26=15.5

3) EBITDA – Earnings Before Interest Taxes Depreciation and Amortization

Net Farm+ Non-Farm Inc + Deprec/Amort + Int Exp – Family WD*)

**if WD proxy for unpaid labor/management*

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Profitability Measures (cont'd)

4) Return on Assets (ROA) = ***←Key Performance Indicator***

$$\frac{\text{(Net Farm Income + Farm Interest Exp – Value Unpaid Labor/Mgmt)}}{\text{Average Farm Assets}}$$

TEPAP Median '20=5.3; '23=5.8%; '24 = 5.2%; '25 = 5.2; '26 = 7.4

5) Return on Equity (ROE) = ***←Key Performance Indicator***

$$\frac{\text{(Net Farm Income – Value of Unpaid Labor/Mgmt)}}{\text{Average Total Farm Equity}}$$

TEPAP Median: '20=5.5;'23=9.8%; '24 = 7.1; '25 = 7.1; '26 = 8.6

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Profitability
Key Concepts & Benchmarks (cont'd)

ROA

- Should be > cost of debt
- Goal - depends on % owned vs. leased assets
- **Key drivers**:
  - Operating Profit Margin - operating efficiency indicator
  - Asset Turnover Ratio (Revenue/$ of Assets)

ROE

- Ultimate "Bottom Line" indicator
- Key indicator for investment analysis

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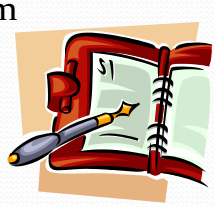
What is "Family Living Cost"?

Averages – Farm Bus/Farm Mgmt Assn Records

University of Nebraska	$56-60,000	2000
University of Nebraska	$97,000	2013
University of Illinois*	$102,662	2024

*incl. living expenses and personal capital outlays; this equates to $102/ac on 1,000 acre farm



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Compensation Summary				Name:	Joe Owner-Operator	
				Year:		
	Period	Rate/Mo			No Mos.	Yearly Total
Salary	Nov-Feb	$4,000	Base		12	$48,000.00
		Rate/Hr	Hrs/Mo			
Wages	Mar-Oct	$0.00	250		0	$0.00
	Cash Salary & Wages Subtotal:				*$48,000*	
Employer Pd Soc Sec/Gov't Retirement % Rate:					7.65%	$3,672.00
			Rate/Mo			
Housing			$1,200.00		12	$14,400.00
Utilities - Power, Phone,etc			$350.00		12	$4,200.00
Meal Allowance, Groceries			*270 days @ $6.00/day*			$1,620.00
Beef, Farm Produce			*1/2 beef - 350# @$1.40/lb*			$490.00
Other-			$0.00		12	$0.00
Medical Insurance			$900.00		12	$10,800.00
Uncovered Medical Reimbursement						$4,000.00
Other-						
Commuting Pickup						$3,000.00
Other- Auto Insurance, gas, maint.-			Spouse & children			$4,000.00
Other-						$ -
Total Wage and Benefits Value			(Items 1-7)			$94,182.00
Bonus- Based on Yearend Results					10%	$4,800.00
Retirement Contribution @					7%	$3,360.00
Total Compensation:						$102,342.00

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Total Hours Worked Per Year	2700	**Days Worked**	270
	(excl bonus & ret.)		**(incl bonus/ret)**
Total Compensation per Hour	$34.88	(line 8/line 11)	$37.90
Total Compensation per Day	$ 348.82		$379.04
Total Value of Non-Taxable Benefits (Items 4-7)			$42,510.00
Non-Taxable Benefit Analysis @ Tax Rate: *		43.15%	30.15%
Pre-Tax Wage Equivalent (Line 12/(1-TaxRate)		$74,776	$60,859
Total Tax Savings (Line 13-Line 12)		$32,266	$18,349
Tot. Pre-Tax Wage Equivalent-(Line 9c+ Line 14)		$134,608	$120,691
" " " " " **- Per Hour**		$49.85	$44.70

*** Tax Table Summary**	**High Rate**	**Low Rate**
Federal Tax	28.00%	15.00%
State Tax	7.50%	7.50%
Social Security/Gov't Retirement Prgm Tax	7.65%	7.65%
Total Tax Rate	43.15%	30.15%

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Survey Results – TEPAP 2026

	2003-2025 Average	Median 2025
Total Value of Compensation	$83,412	$130,310
Total Non-Taxable Compensation	$18,842	$16,347
Est # Days Worked Per Year	296	278
Est # Hours Worked Per Year	2,873	2800
Total Pre-Tax Salary/Wage Equiv* *At 36% tax rate	$98,946	$139,505

	Per Day		Per Hour	
Total Farm Package Value	$285	468	$29.52	$46.50
Pre-Tax Wage Equivalent	$324	501	$33.48	$49.80

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Repayment & Replacement Capacity

Measure ability to service debt, pay lease obligations and replace capital

Multiple measures – Two <u>important ones…</u> **'17 = 1.6:1; '18 = 1.5:1 '19 = 2.25; '20 = 1.74**

1) **<u>Debt Coverage Ratio</u> –**
Repayment and Replacement Capacity/Scheduled Principal and Interest*

2) **<u>Replacement Margin & Ratio</u> - Median '24 = 2.9; '25 = 2.8; '26 = 2.36**

Margin = Capacity* – Commitments**
Ratio = Capacity/Commitments

**Capacity* = Inc from Oprns + Non-Farm/Misc Inc + Depr – Inc Tax– Owner WD*
***Commitments* = Total Debt Repayment + Unfunded Capital Replacement*

<u>Repayment and Replacement Capacity Measures and Ratios</u>

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Repayment & Replacement Capacity
Key Concepts & Benchmarks

- Key credit factor
  - Earnings pays debt service, <u>not</u> asset liquidation or appreciation
- Profitability <u>not enough</u>; must also:
  - service term debt & leases
  - pay living & taxes, and
  - replace capital
- **Goal** for Repayment & Replacement Margin
  - 1:1 minimum; 150% better
  - Depends on
    - Equipment replacement needs
    - Growth patterns
    - Operating Profit Margin

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Asset Use Efficiency

Asset Turnover Ratio (ATR)

Measures how efficiently a farm's assets are being used to generate revenue.

Asset Turnover Ratio (ATR) = $\frac{\text{Total Revenue}}{\text{Average Total Assets}}$

Median Nos.

'19 =.32:1; '20=.34:1; '23 = .35:1; '24=.35; '25 = .39; '26 = .30

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Asset Turnover Ratio
Key Concepts & Benchmarks

- Depends on enterprise
  - Grains, orchards, cow-calf turn assets every 3-6 yrs
    - →ATR .33 to .17
  - Feedlots, dairies, nurseries turn assets 1-2 yrs
    - → ATR 1.0 to 0.5
- Ratio shows <u>downside</u> of *asset accumulation*
  - *"Farmers love to own toys and land!"*
- Major driver of ROA along with OPM Ratio

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Relationship – GFR to OPM

(Gross Farm Revenue divided by Operating Profit Margin)

Assumptions:
Operating Profit Margin = 12%
Compensation to Fund Family Unit = $60,000

GFR required to sustain added family:

$$\text{GFR} = \frac{\$60{,}000}{.12} = \$500{,}000$$
$$\text{OPM}$$

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The Dupont Model

Looks at Big Picture & Inter-Relationships

- Developed early 1900s at Dupont
- Shows how bottom line (ROE) affected by:
  - Asset Use Efficiency (Turnover Ratio)
  - Operating Efficiency (Operating Profit Margin)
  - Financial Leverage (Assets to Equity Ratio)

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Dupont Model – **ROA** Drivers

(Asset Turnover Ratio)* x (OPM Ratio) = Return on Assets**

*Gross Farm Revenue / Ave Farm Assets x **Inc from Operations / Gross Farm Revenue = **ROA**

Note: ***Income from Operations*** *and* ***ROA*** *are before interest deduction and adjustments for other revenue and expense*

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Dupont Model – **ROE** Drivers

ROE = (Profitability x Asset Efficiency) x Leverage Impact

= (OPM x ATR) plus [(ROA – COL*) x Debt/Equity Ratio]

$$\frac{\textbf{NFI}}{\textbf{Equity}} = \left[\frac{\text{Inc Oprns}}{\text{GrFarmRev}} \times \frac{\text{GrFarm Rev}}{\text{Farm Assets}}\right] + \left[(\text{ROA-COL*}) \times \frac{\text{Debt}}{\text{Equity}}\right]$$

***Cost of liabilities (COB) = Interest Expense/Total Liabilities**

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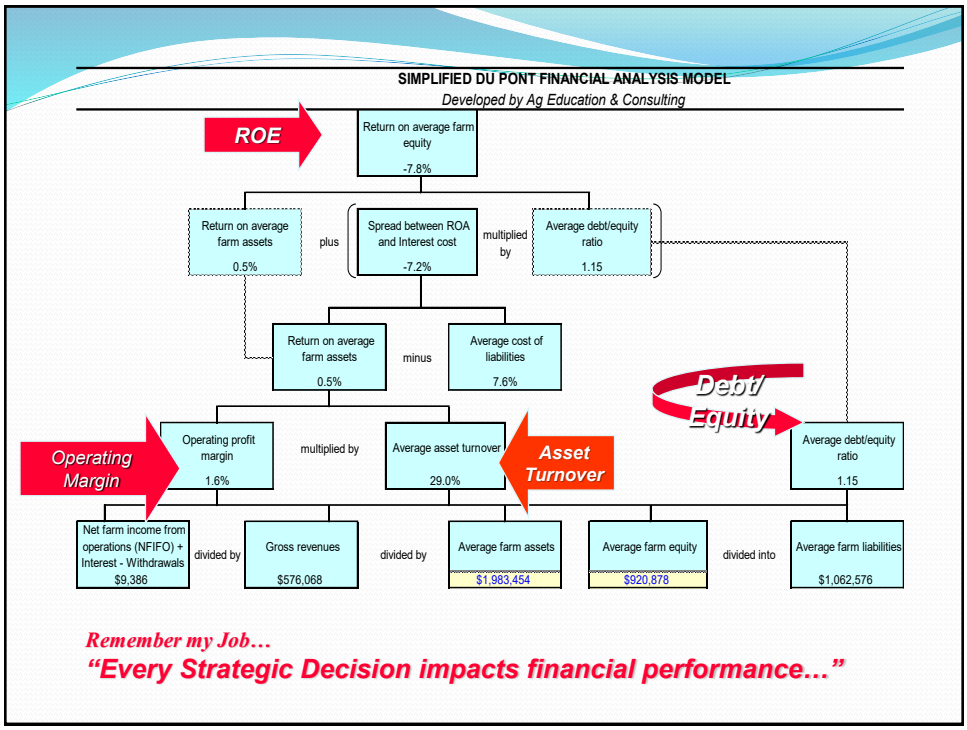

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Dupont Simulation Case Study

Refer to Case Study at www.wittmanconsulting.com

Du PontCentrec-RLW Case Examples

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What's better: Grow? Or reduce costs?

Dupont Model
Simulation Exercise

Review Cases A – D, test data

Test Alternative Strategies

1. Identify strategic shift
2. Develop $ changes in operation
3. Enter revised $ compared to baseline (Case A)
4. Record data changes and revised ratios on worksheet.

Data Set	Case A	Case B	Case C	Case D
Revenue	$7,760,000	$8,536,000		
Var Oper Costs	4,990,000	5,489,000		
Fixed Op Cost	950,000			
Interest Costs	780,000			
Net Farm Income	1,040,000			
Labor/Mgmt W/D	600,000			
Average Assets	18,000,000			
Ave Liabilities	10,000,000			
Average Equity	8,000,000			
OPM	15.7%	17.5%		
ATR	43.1%	47.4%		
ROA	6.8%	8.3%		
ROE	5.5%	9.0%		

Case A – Baseline data - grain and livestock operation

Case B – Increase through-put by 10%. Revenue & variable operating costs **go up 10%**

Case C – Decrease operating costs by 5%. Operating costs decrease $

Case D – Reduce assets required to produce same revenue. Example: Share ownership of drill & power unit. Financial impacts: Assets & debts -$200,000; Depreciation -$10,000 (Fixed Costs), Variable Oper Costs -$4,000, Interest Costs -$14,000.

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Partial Budget Analysis Template

Situation: *(Describe below the strategic challenge you are trying to address and objectives you hope to achieve by considering a strategic change in the business)*

Goal: Reduce outlays - chemical by producing inert, pH neutral, super soft water

Proposal: *(Briefly describe the strategic proposal you wish to simulate)*

Invest in Reverse Osmosis (RO) Water Treatment System to improve leaf uptake & increase efficacy of chemical

Partial Budget Analysis:

Change in Assets: 51,900 eq, plumbing etc; 20,300 storage tanks

Purchase or acquisition of 3000 storage shed $ 75,700

Liquidation or sale of 0 — 0

Change in Liabilities:

Debt financing to fund change in assets +$ 75,700

Debt paid down as result of strategic shift (-) 0

Change in Fixed Expenses & Interest:

Depreciation (economic)[1] $ 15140

Insurance & Prop Taxes —

Interest on average debt change @____%[2] 3040

Total Change in Fixed Expenses 18186

Change in Variable Expenses:[3]

Increases in variable costs Labor +$ 5000 ↑

Decreases in variable costs Chemical (-) 65000 ↓ 33–50%

Total Change in Variable Expenses $ 60000

Change in Revenue optimistic 1% → 50,000

Net Change in Income - Conservative projection[4] → $ 0

---

[1] **Depreciation Calculations:** Assume 5 year life with no salvage value. Economic depreciation is figured as follows: $ 75,700 / ___ yrs life = 15140.

[2] **Interest Calculation:** Initial outlay adds to debt structure by full purchase amount, interest is figured as if debt is paid off over life of new purchase. Ave debt level = $ 76,000/2 x 8 % = $_____/year.

[3] **Variable costs that change:** Reduced chem inputs

Net **Revenue Change:** optimistic case for revenue change Net Income ↑ $41,820

Worst case scenario – revenue change ____

Payback $\frac{75,700}{41820}$ = 1.8 years

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Special Topics – Financial Analysis

- Cash, Accrual Adjusted, vs. True Accrual
- Cost vs. Market Value Balance Sheet
- Trend analysis – Key Ratios, Dupont Model
- Analyzing multiple entities
- Sustainable Growth Rate
- Unrealized Gain & Deferred taxes
- Tax vs. economic depreciation
- Net Present Value (NPV) –Time Value Money
- Activity Based Costing (ABC)

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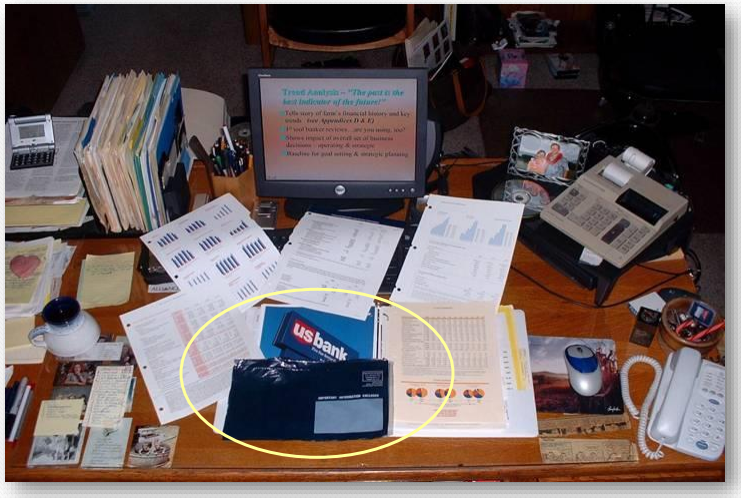
Look familiar?



Annual Reports, Trend Sheets

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SSPC Snapshots

To see more pictures of what's going on at SSPC, like us on Facebook and Instagram!

Cindy Hood, Dodie Ainsworth, Laura Lee Jack, Stacie Koger and Elizabeth Jack decked out in pink for breast cancer awareness.

Joe Young on the cotton picker with Lorrin Elba-Shepherd from Marketry.

Elizabeth Jack and Stacie Koger with their peer group members at the Executive Women in Ag conference in Chicago.

Jeremy, Stacie, Laura Lee and Willard showing their support for 4H during National 4H week.

Our new employee, Kenyone Banks, with his family at the Employee Appreciation Dinner.

Our new employee, Robert James, working at the grain bins.

Emma Grace and Audrey Koger working the name tag table at the Employee Appreciation Dinner.

Trey Koger, Austin Henderson, and Anna Lauhon at the Employee Appreciation Dinner.

Silent Shade Planting Company
P.O. Box 534
Belzoni, MS 39038

Do you do a newsletter?

Silent Shade Planting Company

December 2014 Volume 2, Issue 4

Happy New Year from Silent Shade!

422 Old Silver City Rd.
P.O. Box 534
Belzoni, MS 39038
Phone: 662-247-1214
Fax: 662-247-1217
TF: 800-844-1213

Photo taken at Silent Shade and Willard Jack Trucking Appreciation Dinner on November 6.

"Your present circumstances don't determine where you can go; they merely determine where you start."

~ Nido Qubein

Optimist or Pessimist

Jeremy Jack

With commodity prices falling and input prices higher than they have ever been, it is hard not to become a pessimist even for the most optimistic of farmers. I always enjoyed the story of the optimist and the pessimist that worked together. The pessimist said that things couldn't get any worse, the optimist disagreed, he said things could get a lot worse! It is how you look at your challenges and opportunities.

This fall, Guaranty Bank and Trust sent me with a few other local business men to a training course called Inner Circle Entrepreneur. The class was at High Point University (HPU) in North Carolina, and one of the speakers was Dr. Nido Qubein, President of HPU. Before this trip, I had not heard of either of them, but after two days on campus, I became a lifetime fan. Dr. Qubein took HPU from 1,450 to 4,300 students, increased faculty from 108 to 260, and led the construction of 51 new buildings on campus - a total investment of one billion dollars. He did all of this in less than a decade and during a recession. Across campus were banners with ***Choose to be Extraordinary*** on them.

As we start a new year and a new crop, remember that whether you're an optimist or a pessimist, your outcome is up to you, regardless of your circumstance.

We Work Harder in Pink

Cyrus du Plessis and Kevin Van Heerden

#farmingforacure #SSPC2014

Tony Young showing off our breast cancer awareness shirt.

During the month of October, we wore pink for breast cancer awareness. The shirts, which were designed in the color "safety pink" to increase visibility and safety in the fields, say "I work harder in pink." Next to skin cancers, breast cancer is the most common cancer among women, and according to cancer.org, approximately 1 in 8 women will be diagnosed with invasive breast cancer during their lifetime. While the shirts may not really make the employees work harder, Silent Shade hopes that these shirts remind women to be aware of the breast cancer risk and get checked regularly.

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Trend Analysis

The past is the best indicator of the future!

- Tells story of farm's financial history and key trends *(see your data)*
- 1st tool banker reviews… about 25% do this!
- Shows impact of operating & strategic decisions
- Great tool for communicating with owners & family stakeholders
- Key baseline for goal setting & strategic planning

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Liquidity-WC

Solvency-D/A

Profitability

ATR, OPM

ROE, ROA

Debt Serv Cap.

Ratios & Indicators

Joe P Sample
Cust # Example

Balance Sheet	FYE 2008 12/31/2008	FYE 2007 12/31/2007	FYE 2006 12/31/2006	FYE 2005 12/31/2005	FYE 2004 12/31/2004	FYE 2003 12/31/2003
Total Current Assets	288,955	215,020	217,052	217,725	231,100	212,900
Total Current Liabilities	144,045	97,697	118,525	128,510	125,175	107,100
Working Capital	144,910	117,323	98,527	89,215	105,925	105,800
Liquidity Ratio	2.01	2.20	1.83	1.69	1.85	1.99
Total Assets	1,208,705	1,171,370	1,202,152	1,191,725	1,184,600	1,166,450
Total Liabilities	547,127	545,807	590,050	641,080	661,475	673,650
Total Equity	661,578	625,563	612,102	550,645	523,125	492,800
Debt to Asset Ratio	45.27%	46.60%	49.08%	53.79%	55.84%	57.75%
Equity to Asset Ratio	54.73%	53.40%	50.92%	46.21%	44.16%	42.25%
Debt to Equity	0.83	0.87	0.96	1.16	1.26	1.37

Income Statement (VFP) *Ag - Pers.*	Avg 5 Yr. Avg.	Projected Cash Flow 01/01/2009 12/31/2009	FYE 2008 01/01/2008 12/31/2008*	FYE 2007 01/01/2007 12/31/2007*	FYE 2006 01/01/2006 12/31/2006*	FYE 2005 01/01/2005 12/31/2005*	FYE 2004 01/01/2004 12/31/2004*
Gross Revenue	517,170	545,028	614,369	495,353	499,187	476,305	500,635
VFP / Gross Profit	437,949	457,028	530,199	416,503	419,282	398,025	425,735
Operating Expense (excl. depr. & int.)	251,140	269,487	281,392	240,933	247,428	252,928	233,019
Oper. Exp. Ratio	57.34%	58.97%	53.07%	57.85%	59.01%	63.55%	54.73%
Depreciation Expense	31,948	30,700	28,450	31,600	32,600	35,640	31,450
Depr. Exp. Ratio	7.29%	6.72%	5.37%	7.59%	7.78%	8.95%	7.39%
Interest Expense	57,875	40,348	45,481	76,157	52,360	55,580	59,795
Int. Exp. Ratio	13.21%	8.83%	8.58%	18.28%	12.49%	13.96%	14.05%
Asset Turnover Ratio	0.37	0.38	0.45	0.35	0.35	0.33	0.36
Net Income From Oper.	**96,986**	**116,493**	**174,876**	**67,813**	**86,894**	**53,877**	**101,471**
NIO Ratio	22.15%	25.49%	32.98%	16.28%	20.72%	13.54%	23.83%
Rate of Return on Assets	10.18%	9.67%	15.05%	9.22%	8.97%	6.72%	10.93%
Rate of Return on Equity	10.73%	11.56%	20.76%	5.37%	9.46%	4.51%	13.53%
Oper. Profit Margin Ratio	27.59%	25.57%	33.78%	26.26%	25.60%	20.05%	30.19%
Income After Owner Withdrawal	**75,405**	**100,493**	**148,026**	**47,713**	**67,224**	**34,339**	**79,721**
Term Debt & Cap. Lease Cov. Ratio	1.64	2.11	2.59	1.43	1.56	1.22	1.56
WC/AGI	22.58%	30.06%	25.63%	21.52%	19.49%	23.14%	23.11%

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Items to Add to Trend Analysis

- Growth Rate
  - Production base
  - Gross Farm Revenue growth
- Gross Revenue per Family Unit
- Diversification Profile
  - Farm vs Non-farm assets (Stocks, Retirement, Housing, etc.)
  - % of Personal NW in Farm Equity

See www.WittmanConsulting.com for Trend Sheet Template

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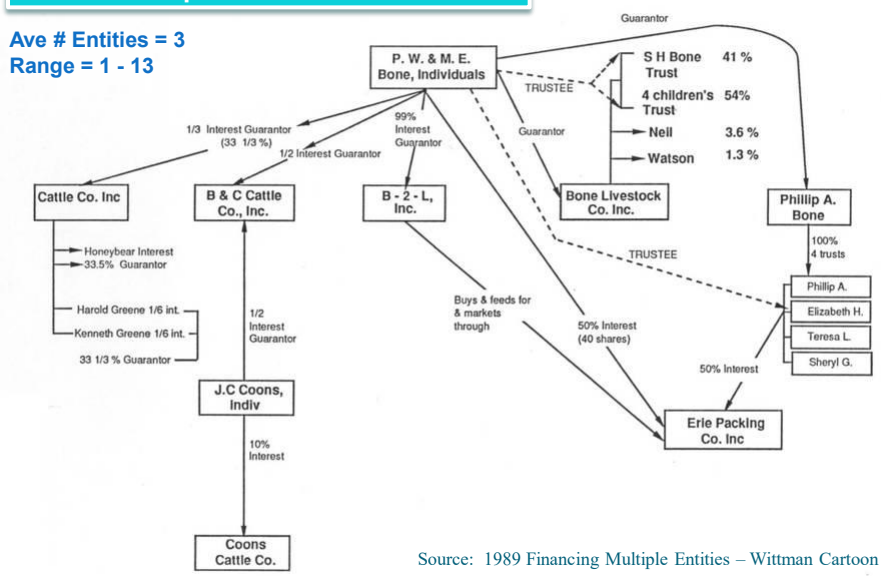
How do you do ratio & trend analysis in this kind of operation?

Ave # Entities = 3
Range = 1 - 13



Source: 1989 Financing Multiple Entities – Wittman Cartoon

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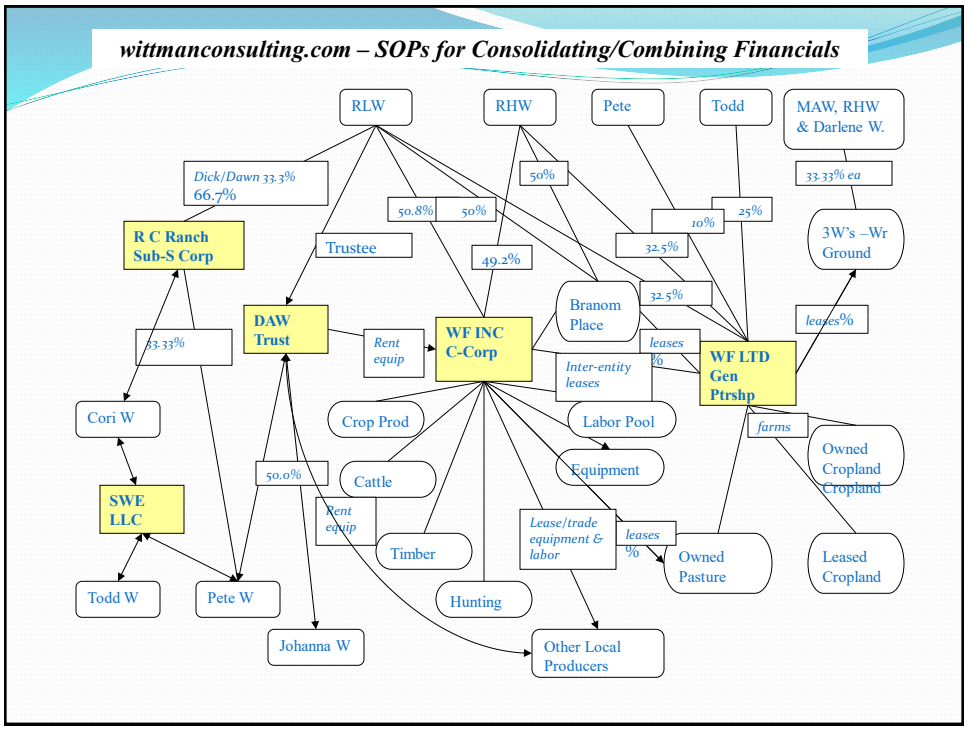

Should Deferred Tax be Recorded?

Options:

1. **Record on the balance sheet as Deferred Liability**

   Pros – more realistic presentation of net worth
   Cons – bankers don't like this…distorts serviceable debt and financial ratios (WF case in point!)

2. **Record as footnote to financial statements**

   Pros – recognizes the liability exists; acknowledges that $ amount is not an exact science (tax laws subject to change)
   Cons – tends to overstatement recognizable equity

Tax vs. Economic Depreciation

- FFSC Prior Position
  - Tax depreciation can be used as proxy for cost based income analysis
- Current Problem: Accelerated write-offs distort real depreciation expense
  - Section 179 – added write off $25,000
  - Special Depreciation Allowance – new equipment
- New Guidelines:
  - If tax depreciation differs significantly, cost based analysis should use "book" instead of "tax" depreciation

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Part II – Analyzing Performance of Manageable Segments of the Business

Drilling Deeper into Financial Performance

The Essence of Management Accounting

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Relationship:
DuPont Model to Managerial Accounting

- Financial ratio analysis provides "whole farm business" perspective
- Managerial Accounting goes to next level
  - Responsibility centers
  - Drives to "heart" of decision-making processes
  - Answers more clearly "cause-effect" of strategic & operating decisions

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Mgmt Info System Hierarchy

Audience

Tax Reporting
- Cash-Basis Net Income

IRS, Provincial Tax Entity – Minimum Requirement

External Financial Reporting
- Accrual Basis Inc Statements
- Cost/Market Value Balance Sheets
- Capital Debt Repayment Analysis

Investors & Owners Lenders

Managerial Reporting
- Financial and physical units tied together
- Profit & Cost Centers
- Focus on Cost Production
- Integrates Financial &
- Economic Analysis

Responsibility Segment Managers – crop production, marketing, equipment support, etc.

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Key Questions of Decision Makers

- Margin in each profit center
- Cost of production compared to:
  - My peers, or my own historical trends
- How cost and margins impacted by:
  - Tillage, genetic or production strategies
  - Growth in the business
  - Price & yield variability
  - Key input cost trends
- How capital asset use efficiency affects ROE

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Farm Financial Standards Council Managerial Accounting Project – 1998-2002

- National guidelines for managerial accounting
- Goal: consistent approach for
  - Calculating total Cost of Production
  - Assessing performance of manageable segments
  - Benchmarking and peer group comparisons

WEBSITE: www: ffsc.org

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Implementation Topics

- Sorting out Accounting and Economic Analyses
- Identifying manageable segments
- Profit/Cost center design
- Handling unusual transactions – cost recovery, revenue adjustment
- Integrating financial and physical quantities ($, bu, acres, employees)
- Definitions: Direct vs indirect; variable vs. fixed
- Transfer pricing
- Alternatives for allocating indirect costs/overhead
- Other technical issues
  - Inventory valuations
  - Equipment gains/losses
  - Tax vs. Book Depreciation
- Case studies of sample farms

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Key Management Question

"How can ***managerial accounting*** be used to measure the impact of ***strategic decisions***?"

....primer for later session on Strategic Planning

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5 Steps to Strategic Management

- **Step #1** – Analyze costs and activity in each management activity center
- **Step #2** – Identify strategies that influence performance
- **Step #3** – Simulate impact of alternative strategic decisions
- **Step #4** – Implement high impact strategic options
- **Step #5** – Measure the impact of decisions made

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Strategic Options – Revenue Enhancement

- Adopt technology to improve yields
- Marketing options to maximize price
  - Value-added
  - GMOs
  - Organics
- Off-farm supplementation
- Custom services to utilize underemployed assets, fixed overhead

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Strategic Options - Cost Structure Management

- Strategic Alliances/Joint Ventures-inputs, equipment
- Precision Farming
- Direct Seeding/NoTill
- Optimizing buy, lease, custom hire decisions
- Feed enhancements- rBST, Ralgro
- GMO crops-Bt corn, RR
- Pre-pricing key inputs
- Optimizing in-sourced vs. out-sourced services
- Growth/OH Cost dilution

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Management Accounting Standards CDS Test Drive

- RME Grant ('02-03): 30 growers in info exchange group following *similar management practices*
- **Goals:**
  - Learn MA concepts/benefits
  - Design MA system to fit how business is managed (segments)
  - Identify cost of production
  - Build benchmarking model
  - Optimize strategic decisions

We learn by doing.

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Expected OUTCOMES from Direct Seeding

- Reduced operating costs
- Increased operating margins
- Improved environmental quality
- Improved capital asset use efficiency

Ultimate Target: Higher ROA & ROE

Key Questions:
1. Can we measure impact of strategic decisions?
2. Are we making progress?

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Be careful how you draw conclusions

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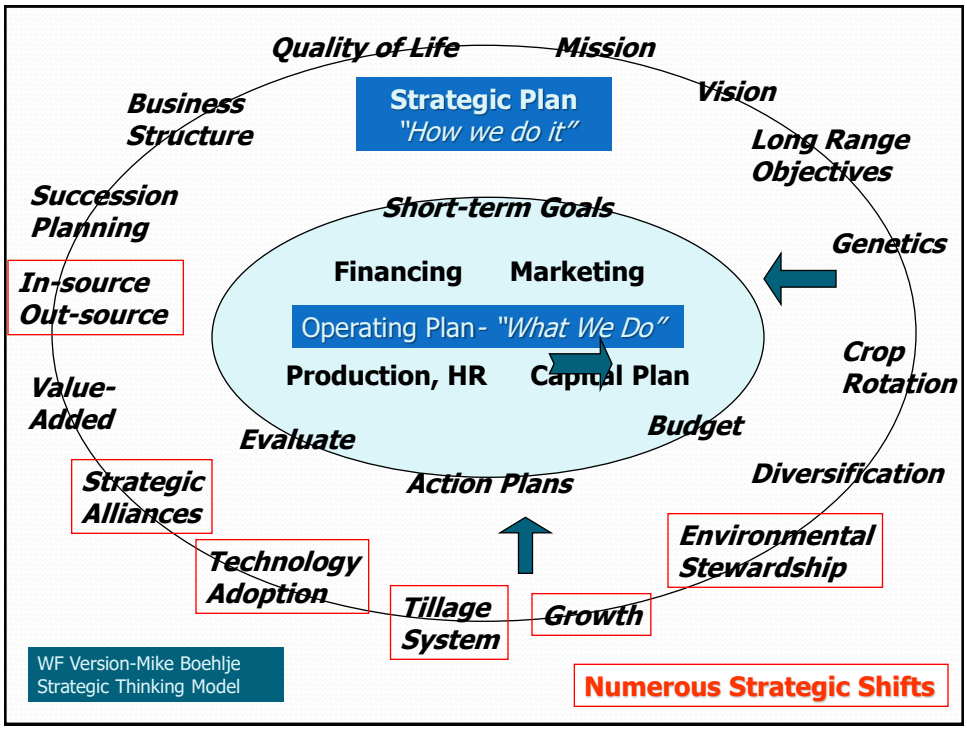

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Step 1
Re-think how we organize data

Standardized Profit Center format to organize data

Recommended by
Farm Financial Standards Council

Profit Center - Managerial Report Format

		Total $	$/Acre	$/Bushel
1	Commodity Revenue			
2	Production Costs-Direct			
	Seed			
	Fertilizer			
	Chemicals			
	Crop Insurance			
3	Production Costs-Indirect			
	Fuel			
	Repairs			
	Depreciation-Equipment			
	Gains/Losses on Equipment Sales			
	Custom Hire			
	Hired Labor and Benefits			
	Rent/Lease payments			
	Supplies			
	Utilities			
4	Total Dir & Ind Production Costs			
5	Production Margin *(Line 1-4)*			
	Sales, General & Administrative Expense			
	Storage			
	Marketing Costs			
	Freight			
	Management Labor & Benefits			
	Liability Insurance			
	Office Expense & Professional Services			
6	Total Sales, General & Admin Exp			
	Other Expenses & Income			
	Finance Expense			
	Operating Interest			
	Term & R.E. Interest			
	Govt Payments-non commodity linked			
	Losses (Gains) on R.E. Sales			
7	Other Expenses (Income)			
8	Total Oth Expenses & Income			
9	Total Costs *(Line 4+6+7)*			
10	Operating Margin *(Line 1 - 8)*			

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	1996-98	1999	2000	2001
Direct Production Costs	$93.03	$82.21	$98.88	$107.84
	$1.29	$1.14	$1.11	$1.20
			Production Costs dropped $.29/bu – 12%	
Indirect Production Costs	$92.74	$85.12	$97.48	$96.78
	$1.28	$1.18	$1.10	$1.08
			SG & A Costs dropped $.26/bu – 48%	
Sales, General & Admin Costs	$39.61	$21.83	$30.84	$25.42
	$0.54	$0.30	$0.35	$0.28
			Finance Costs dropped $.15/bu – 68%	
Finance Costs	$15.93	$10.12	$9.06	$6.36
	$0.22	$0.14	$0.10	$0.07
Total Costs	$241.31	$199.28	$236.26	$236.40
	$3.31	$2.77	$2.65	$2.63
			Total Costs dropped $.68/bu –21%	
Yield (bu/acre)	73.6	72.0	88.1	90.0

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DuPont Financial Analysis (Review)

Improvements in capital use and operating efficiency

↑ ROA & ROE

Asset Turnover Ratio x OPM Ratio = Return on Assets

(Return on Assets – [Interest Adjustment) x (Financial Structure)] = Return on Equity

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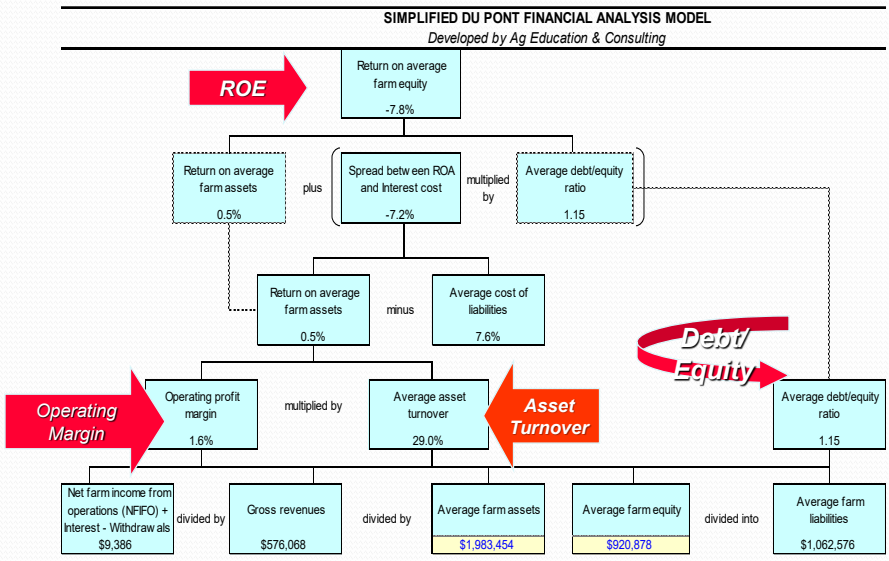

Every strategic decision impacts financial performance…

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A Tale of Two Tillage Systems

	Conventional	Direct Seed / NT
ATR	.50 : 1	1.05 : 1
OPM	12.8%	16.3%
ROA	6.47%	17.14%
ROE	3.88%	**22.61%**

Which set of strategies is more likely to survive?

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How Do We Implement Managerial Reporting?

- Learn core concepts of managerial accounting
- Standardize definitions and methodology
- Work through case studies
- "Test drive" concepts in your business

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Six Core Concepts of MA

1. Requires **cost-based, accrual accounting**
2. Uses **Responsibility Centers** (manageable segments) for accumulating and summarizing transactions
3. Integrates **production** factors and **financial measurements** (i.e. /cwt, /bu)

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Six Core Concepts (cont'd)

4. Core transactional information is accumulated, then supplemented with economic analysis
5. Follows GAAP, commercial industry practice, multi-commodity applicability
6. Must accommodate multiple period production cycles – (crop, livestock, perennials)

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Major Benefits from MA

- Identifies Unit Cost of Production (UCOP)
- Assess activity and performance of center managers
- Isolate strategies to improve business performance
- Enables real-time **WIP and Inventory Valuation system**

→ monthly financials more useful for management interpretation compared to cash to accrual practice.

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Monthly Records Using Accrual Adjusted Accounting

Month	Monthly Net Income	Year to Date Net Income	YTD NI as % of Tot Yr NI	Month End Net Worth	% Change from Beg NW
Beg of Yr				$ 376,334	
January	$ 22,419	$ 22,419	23.6%	$ 398,753	6.0%
February	$ 25,205	$ 47,624	50.1%	$ 421,959	12.1%
March	$ (28,781)	$ 18,843	19.8%	$ 393,177	4.5%
April	$ (132,953)	$ (114,111)	-120.1%	$ 211,298	-43.9%
May	$ (14,732)	$ (128,842)	-135.6%	$ 196,566	-47.8%
June	$ (81,326)	$ (210,168)	-221.2%	$ 115,240	-69.4%
July	$ (27,570	$ (237,738)	-250.2%	$ 87,670	-76.7%
August	$ 112,079	$ (125,659)	-132.3%	$ 199,749	-46.9%
September	$ 151,387	$ 25,727	27.1%	$ 351,136	-6.7%
October	$ 6,135	$ 31,862	33.5%	$ 357,271	-5.1%
November	$ (230,138)	$ (198,276)	-208.7%	$ 122,133	-67.5%
December	$ 293,283	$ 95,007	100.0%	$ 474,453	26.1%

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Definitions – Cost Categories

Depends on behavior of cost and what drivers change cost

- Direct Cost – cost item identified with single cost object
- Indirect Cost – cost item common to two or more cost objects; can't be identified with one cost or profit center

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Fixed vs. Variable Costs

- **Fixed Costs** – remain static for the production cycle regardless of production level or base units
- **Variable Costs** – increase or decrease proportionately with changes in base units of production
- **Fixed and Variable Costs** can be both direct and indirect costs (Examples: fuel, rental expense, etc)

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Cost versus Expense

- Cost is associated with building an asset value (inventoriable or capitalizable)
- Expense doesn't "build value"
  - Period Expenses: Interest expense, marketing costs, transportation, etc.

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Handling Unusual Transactions

- Integrity of MA System keys on proper handling initial transaction
- Ask: Is transaction revenue, cost, revenue adjustment, or cost adjustment?
- Examples: Handling Unusual Transactions
  - Refer to FFSC MA Guidelines www.ffsc.org
  - Have bookkeeper download or acquire copy

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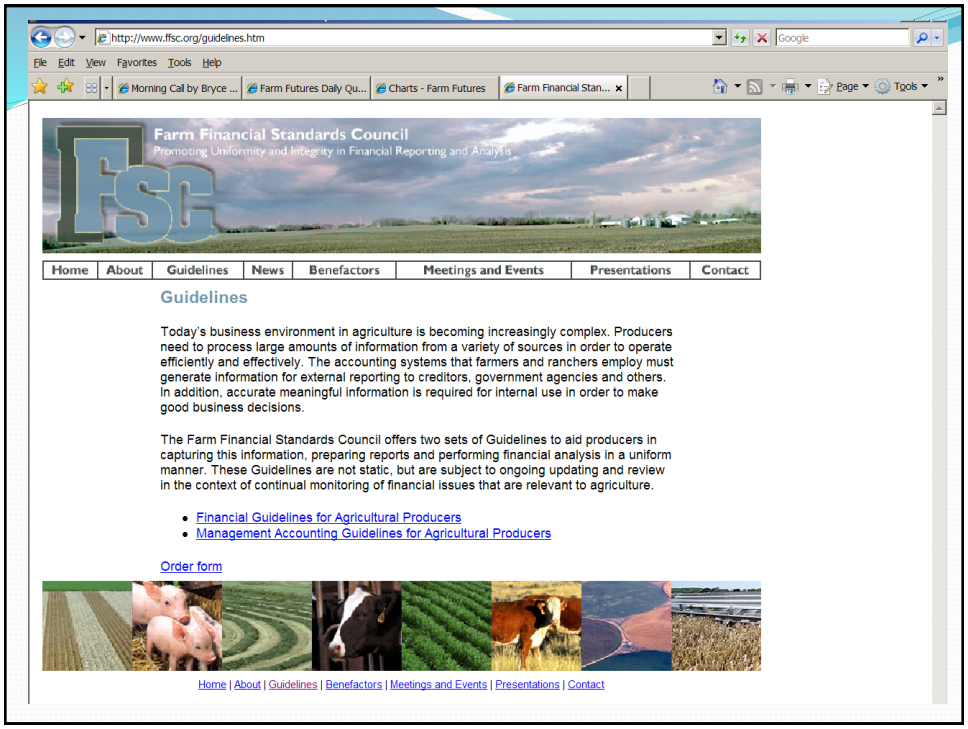

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Case Illustrations
Unusual Transactions

- Case A – Equipment Rental Income
- Case B – Custom apply & re-sell fertilizer
- Case C – Sell surplus machinery repair parts
- Case D – Receive Yr-End Quantity Discount
- Case E – State/Federal fuel tax refunds
- Case F – Sale of raised wheat for seed
- Case G – Custom haul grain for landlord, neighbor

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Center Types

- Production (production stages, activity sequences)
- Support Operations
- Sales, General and Administrative (SG&A)
- Financing

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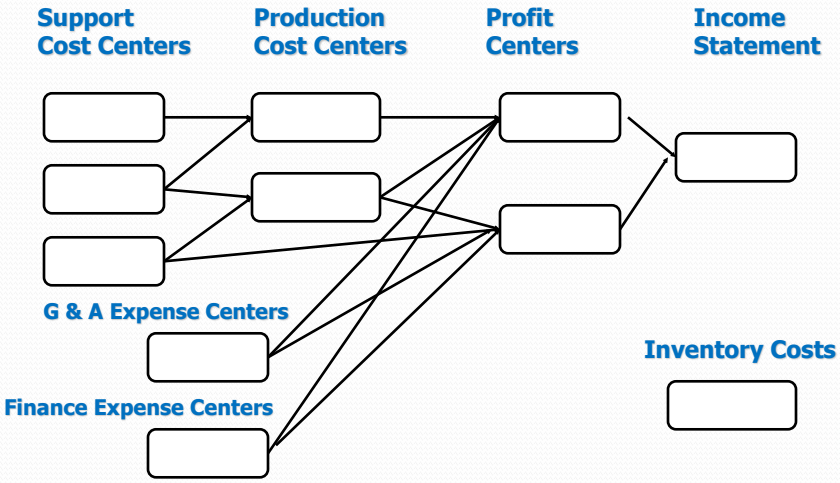
Allocation Process



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Deciding Centers to Track

- Management intent
  - For profit
  - Cost of doing business
- Management behavior expected of center managers
- Threshold of activity to justify tracking performance
- Question: When is it a profit vs. cost center?
  - Hay or corn
  - Custom trucking or fertilizing

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Allocation Procedures

- Define best objective and measurable manner in which one cost center supports another cost or profit center
- All cost centers ultimately are allocated to profit centers
- Keep product costs and period expenses separate
- Do not allocate SG&A and Financing to production focused cost centers—period costs are not capitalized in inventory

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What is Transfer Pricing?

- Situations where applies
  - Inter-entity transactions
  - Enterprises transfers – costs & revenues
  - Examples:
    - Raised grain fed to livestock enterprise
    - Raised grain used for seed
    - Rental house used for farm laborer
    - Beef provided to employees
- Pricing SOP to use when transferring cost
  - Arms length pricing?
  - Cost or market value?
- Importance of consistency when recording entries

…who's ready to DEBATE???

109

Spread-N-Grow Case Study*

- **Goal**: Design profit, cost and support centers for diversified farm with custom enterprise
- Unique features:
  - Multiple crop enterprises + custom operation
  - Distinctly separate accountability roles
  - All managers desire improved information
  - Management accounting system mirros management structure of business

**** 1 of 4 FFSC Case Studies***

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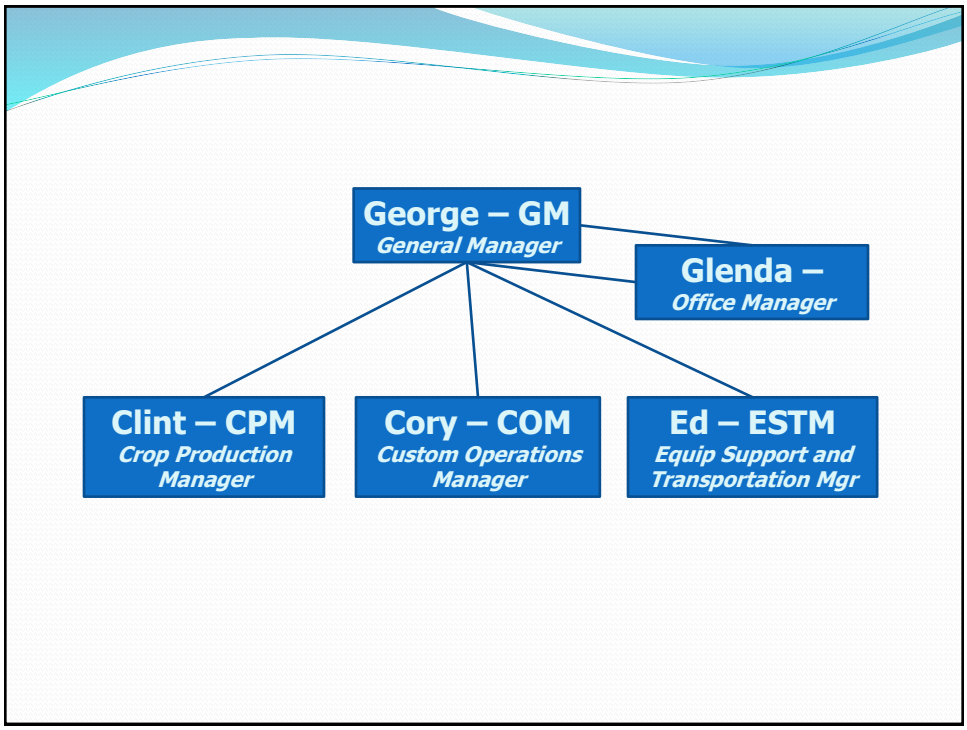
Operational Data

- 6,000-acre diversified farm – wheat, barley, and canola under direct seed/NT program
- Gross revenue = $1,350,000 (3 yr ave.)
- Custom seed 2,500 acres @$25/acre
- Custom fertilize 5,000 acres - $300,000 revenue generated from application and fertilizer sales

111



112

Management Intent

- Manage three commodities and custom application as "for profit" enterprises
  - Criteria: significant activity to manage & opportunity to control performance
- Custom trucking – incidental income viewed as "cost recovery" to reduce net cost of equipment support

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Case Solution – Profit Centers

- Four profit centers
  - Wheat
  - Barley
  - Canola
  - Custom Application
- Ruled out custom trucking – not significant activity managed "for profit"

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Cost/Expense Centers

- Production Cost Centers – set up one for each crop enterprise to accumulate work-in-progress costs
- Support Cost Centers
  - Equipment Support
  - Labor
  - General Farm
  - Land Cost Center
- SG&A* & Finance Expense Centers

* *SGA = Sales, General and Administrative Expense*

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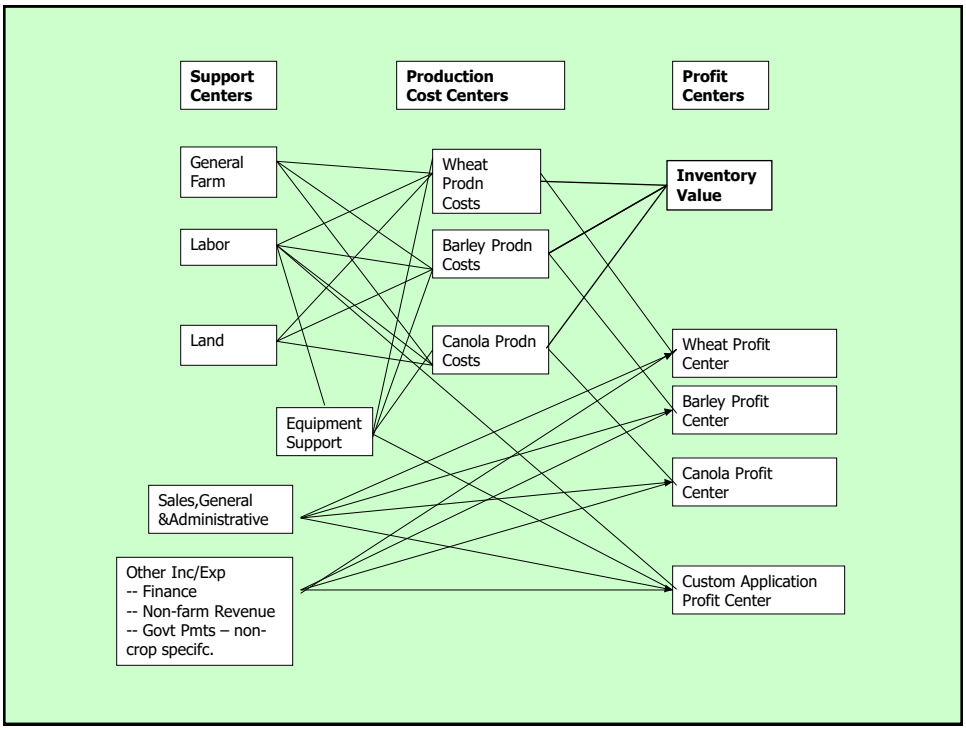

117

Production Cost Center

Report Design (same for Wheat, Canola, Barley)

Revenue/Cost Recovery

- Grain by-products, straw

Production Costs

Direct Costs

- Seed
- Fertilizer
- Chemicals
- Crop Insurance

Indirect Costs

- Costs Allocated from *General Farm Overhead Center*
- Costs Allocated from *Equipment Support Center*
- Costs allocated from *Labor Support Center*
- Costs allocated from *Land Cost Center*

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General Farm Overhead Cost Center

Report Design

Revenue/Cost Recovery

- Coop Dividends – Supplies

Production Costs

Direct Costs

- Labor and Benefits *(include here or in separate Cost Center?)*
- Utilities
- Supplies
- Fuel – *(non-farm related, i.e. boss's pickup, wives and kids)*

Indirect Costs

- *No transactions likely to come as indirect allocation to GFO*

Allocation Criteria

Allocate to Wheat, Barley, Canola, & Custom Application

Use a two-step staging of allocation rules:

1. Allocate between custom application and grain
2. Allocate portion going to each grain crop by pro rata share of acres in each crop

119

Equipment Support Cost Center

Great report for peer comparisons!

Revenue/Cost Recovery

- Gains (Losses) on Equipment Sales
- Custom Trucking Income

Production Costs

Direct Costs

- Fuel
- Repairs
- Depreciation (Mach & Equip)
- Property Taxes (Equipment)
- Custom Equipment Hire
- Equipment Rental Expense

Indirect Costs

- General Farm Overhead (allocated from GFO Cost Center)
- Labor (allocated from Labor Center)

Allocation Options:

Use standard rate for assigning costs to custom farming; allocate balance of costs to crop enterprises on pro rata basis

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Land Cost Center*

Revenue/Cost Recovery

- Gains (losses) on sale of real estate
- Land rental income
- Fixed government payments – base related

Operating Costs

- Cash Rent
- Repairs Costs – Building & Improvements
- Real estate taxes
- Fire & Liability insurance – Fixed Improvements
- Professional fees – land management fees, lease renewal fees and transaction costs
- Property management fees

Allocation Method: Allocate to crop production cost centers based on % of farm in each crop

*** Controversial concept still being debated**

121

Custom Application Profit Center

Revenue	
Custom Seeding Income	$xx,000
Custom Fertilizer Sales	$xx,000
Production Expenses	$xx,000
Direct	
Custom License Fees	$xx,000
Cost of Fertilizer Resold	$xx,000
Indirect	
Gen Farm Overhead *(allocated from GFOH center)*	**$xx,000**
Equipment *(allocated from Equipment Cost Center)*	**$xx,000**
Labor *(allocated from Labor Support center)*	**$xx,000**
SG & A - allocated	$xx,000
Finance – allocated	$xx,000
Net Profit – Custom Application	**$xx,000**

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Implementation Conclusions

#1 Bigger job than most realize

- Few have adequate skills to implement MA
  - Accrual understanding; cost vs. market values
  - Accurate ratio analysis
- Full implementation will likely involve
  - Developing skilled CFO (internal or outsourced)
  - More rigorous accounting software & implementation

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Implementation Conclusions

#2 Managerial Accounting (MA) design should mirror business management structure

- MA core premise: desire to measure performance by manageable segment
- Attempts to implement MA often expose poorly delineated accountability
- MA provides a "teachable moment" for re-evaluating personnel management
  - **Look at Organization Chart & Center Design**

124

Responsibility Center Managers

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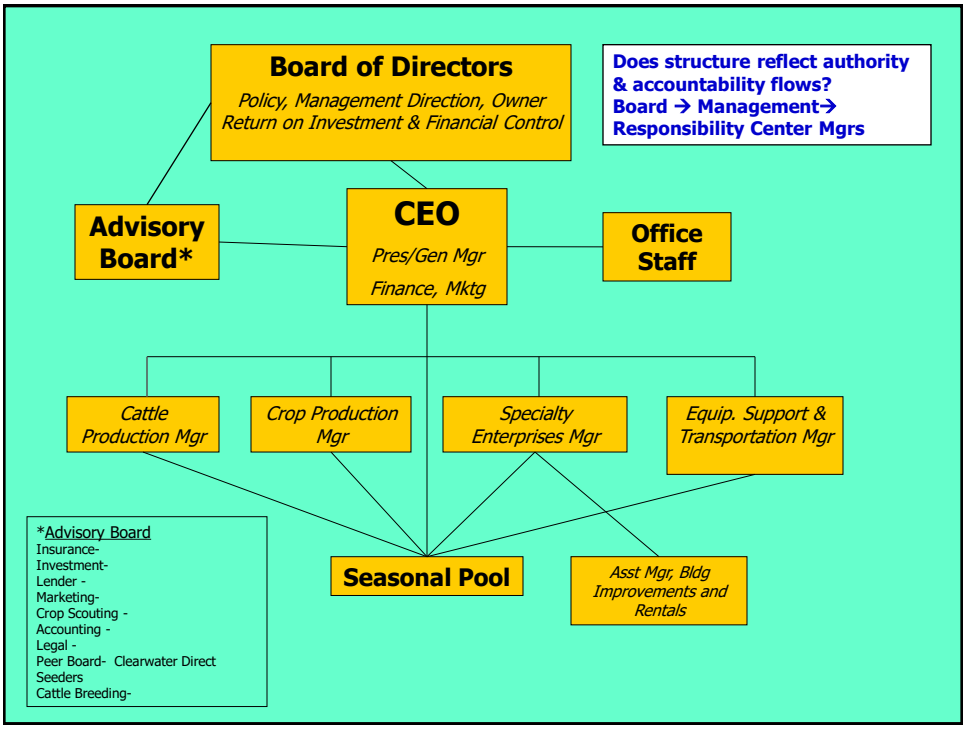

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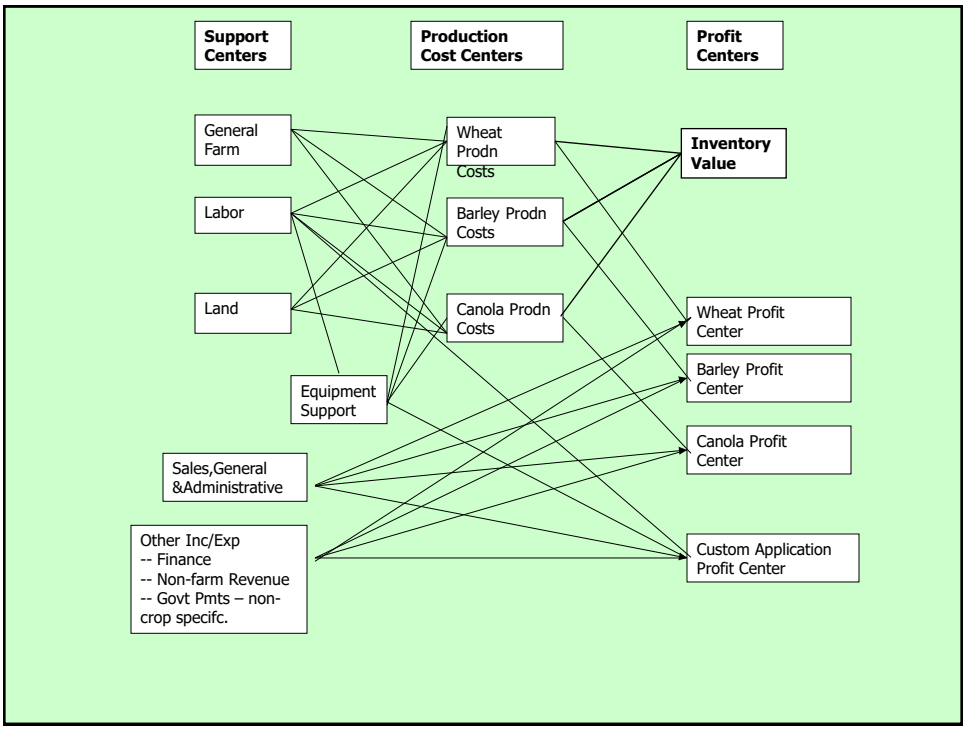

127

FFSC goal: Expand application models for other ag industries

MA Center Designs for DAIRY

Two Extreme Cases:

- Full Service Phil
- Cell Phone Charlie

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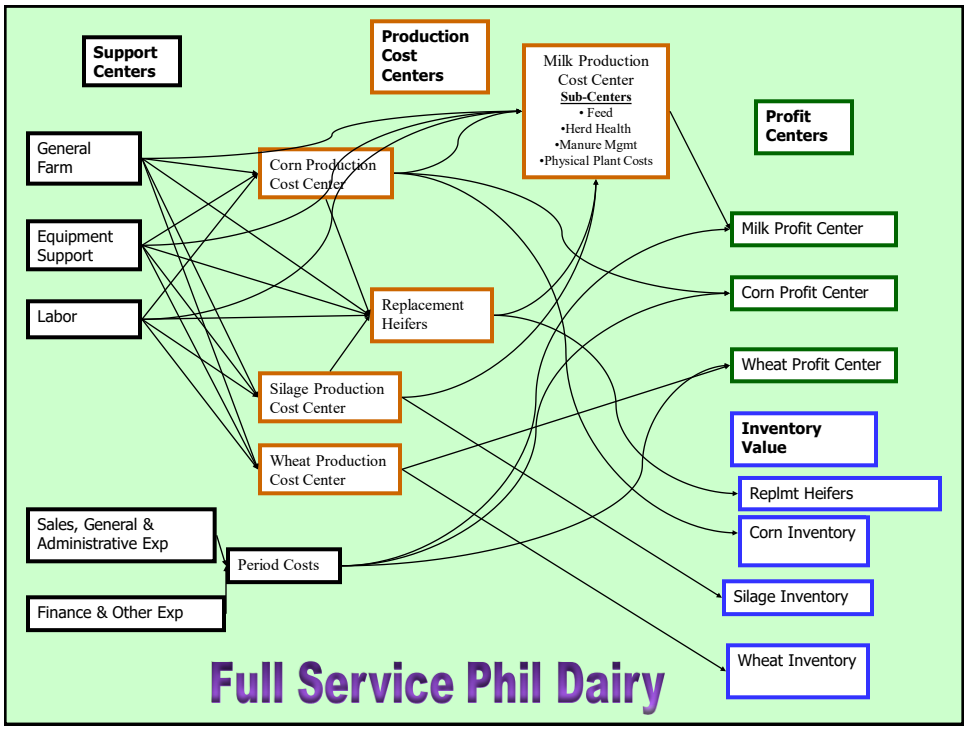

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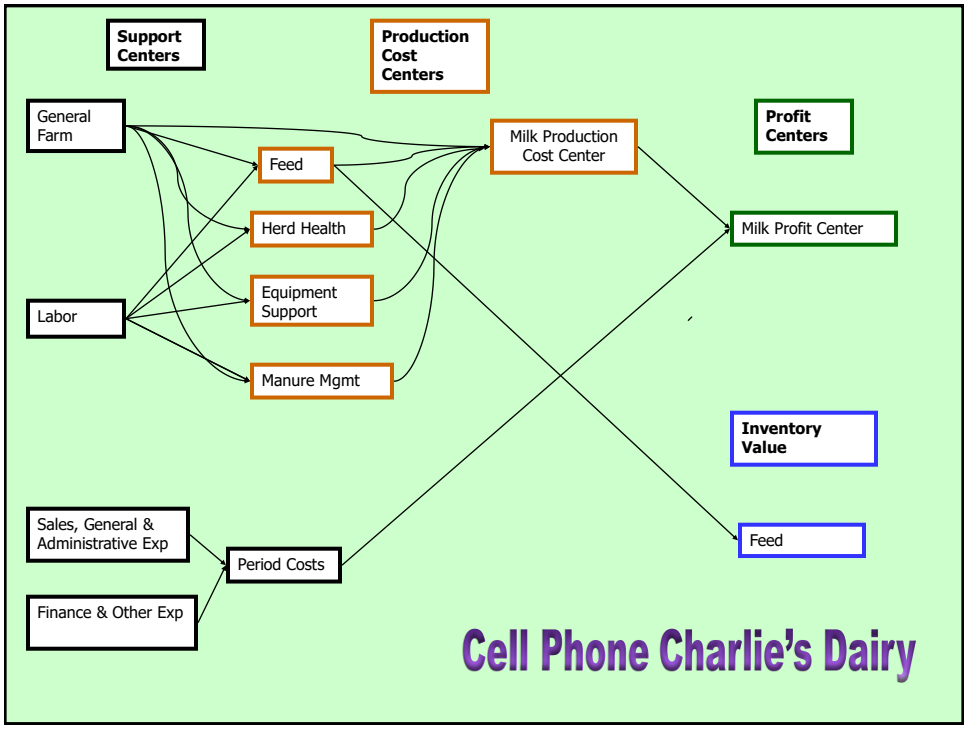

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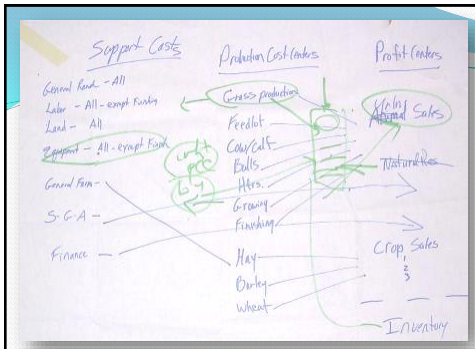
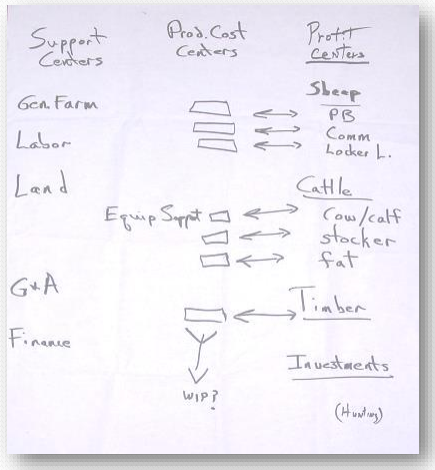
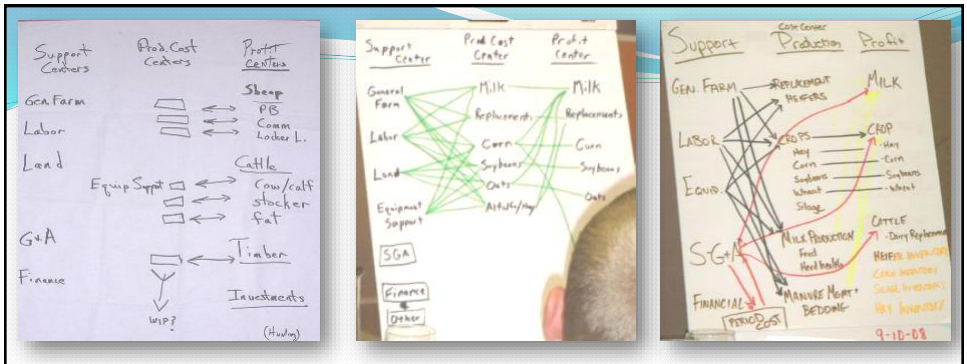
Farm & Ranch Center Design Examples – *Padlock Workshop*





We learn by doing!

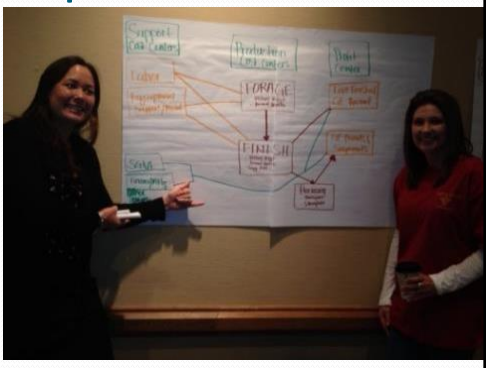
131



PDPW Workshop 9-10-08 Cost & Profit Center Designs

132

Parker Ranch → Ulupono Initiative



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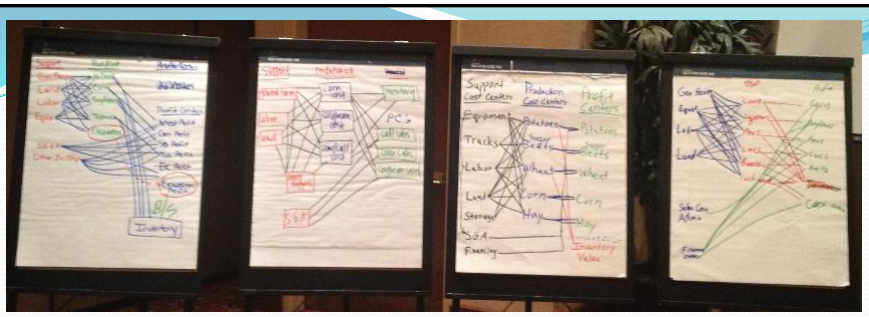
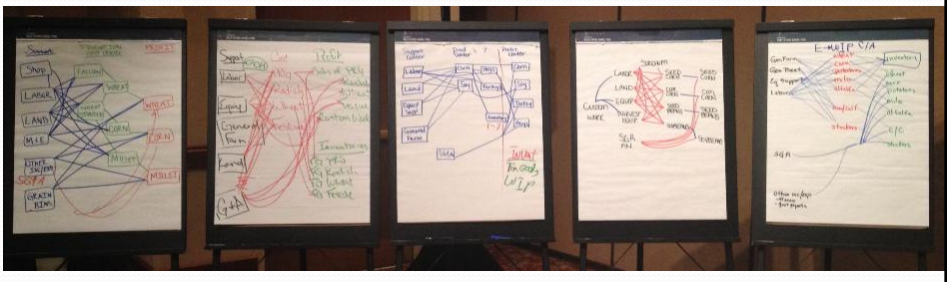


2014 MA Workshops – AAPEX Alumni – Dallas and Chicago



134

Cell Phone Charlie

Report Design:

Replacement Heifers Cost Center (100 hd)

Revenue/Cost Recovery	**Total $**	**$/Head**	
• Calf Sales -	**$**	**$**	
Operating Costs - Direct			
• Purchased calf –	$_____	$800.00	
• 1st 140 days @ $2.20.day	_____	308.00	
• 2nd 540 days @ $1.65/day	_____	891.00	
• Final 55 days@$2.50/day	_____	138.00	
• Cost of raised feed/pasture	_____		
•Vet & medicine	_____		
• AI expense	_____	?	
• Calf barn feeding	_____		
• Bedding –	_____		
• Death Loss - 5%	_____	70.00	
Allocated Costs			
• Insurance, repairs, utilities – OH _____		0.00	
Total Costs→	**$**_____	**$2207.00**	**+$1,300**

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Implementation Conclusions

#3: Peer Group Benchmarking is secondary benefit

- Benchmarking billed as key reason for MA
- Loses importance once get into process
  - Too many variations in structure, strategy, enterprises, and methods of operation
- REAL VALUE: comparing current to past trends in same operation … examine how strategic shifts can enhance performance in the future.

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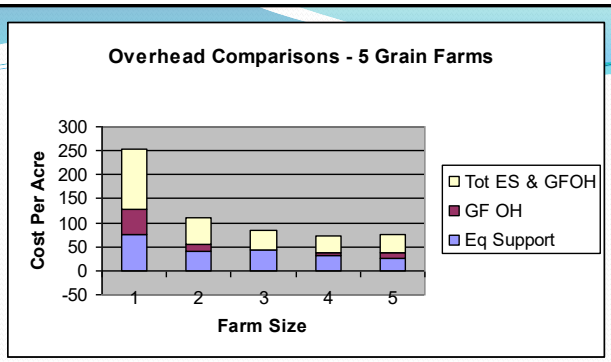
Implementation Conclusions

#4: Cost Management is "land of opportunity"

- Historical focus on revenue enhancement
  - Milked cow 'til it is dry!
  - Government bailouts less helpful
- Big opportunities lie in managing costs – direct vs. indirect (overhead) costs
- Segment analysis helps identify problems and opportunity areas …

  → focus on bottom line doesn't tell us much

137



Farm Size	Equip Support	General Farm OH	Tot Eq Supp & Farm OH
1123	74.95	52.17	127.12
2100	41.09	13.78	54.87
2198	42.57	-0.44	42.13
4013	30.27	5.89	36.16
4126	25.24	12.04	37.28

How do you stack up against your competitors?

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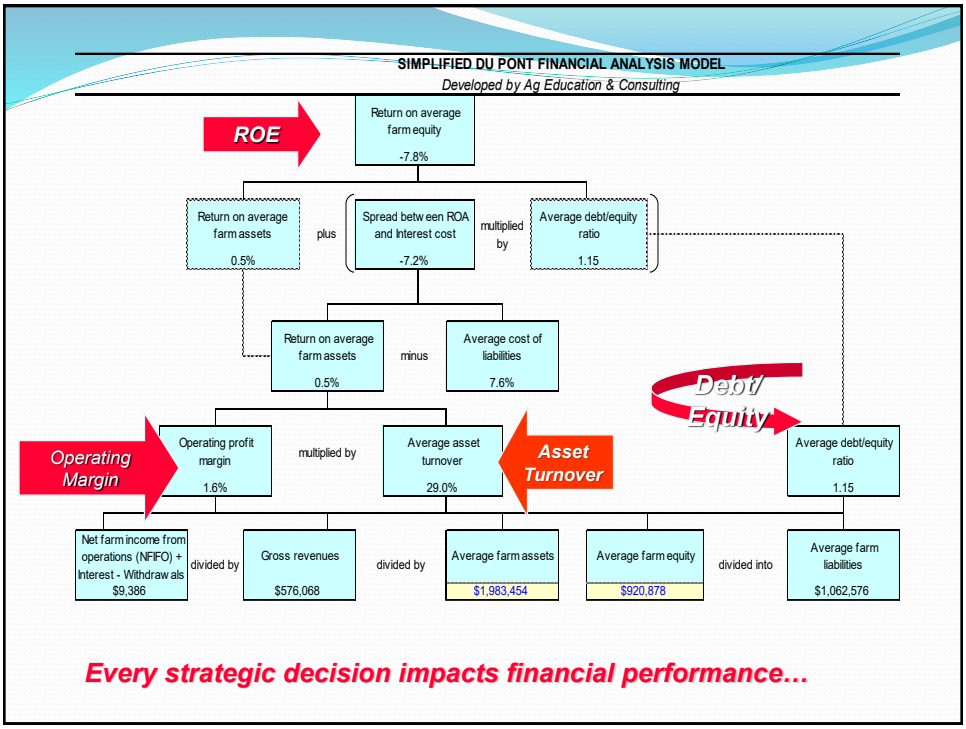
Implementation Conclusions

#5: What carrot motivates implementation of MA?

- NOT satisfaction of doing cost and profit center reports!
- MA helps identify strategies to enhance performance in specific segments
- Challenge: how to link *performance analysis* and *strategic management*

→ Dupont Model Simulation experience demonstrates this visually and vividly

139



Every strategic decision impacts financial performance…

140

Dupont Model – Simulation Exercise

Review Cases A – D; test data

Test Alternative Strategies

1. **Identify strategic shift**
2. **Develop $ changes in operation**
3. **Enter revised $ compared to baseline (Case A)**
4. **Record data changes and revised ratios on worksheet.**

Data Set	Case A	Case B	Case C	Case D	Case E	Case F
Revenue	$776,000	$853,600				
Variable Oper Costs	499,000	548,900	449,100	495,000		
Fixed Op Cost	95,000			85,000		
Interest Costs	78,000			64,000		
Net Farm Income	104,000					
Labor/Mgmt W/D	60,000					
Average Assets	1,800,000			1,600,000		
Average Liabilities	1,000,000			800,000		
Average Equity	800,000					
OPM	15.7%	17.5%	22.2%	17.5%		
ATR	43.1%	47.4%	43.1%	48.5%		
ROA	6.8%	8.3%	9.6%	8.5%		
ROE	5.5%	9.0%	11.7%	9.0%		

Case A – Baseline data is for mixed grain and livestock operation summarized from balance sheet and income statement. In this strategic shift gross farm revenue and variable operating costs both go up 10%.

Case B – Increase through-put by 10%. Possible ways to do this: Feedlots-more inventory turns; farming-increasing base production units (acres, head, etc.); processing plants-more shifts; longer hours

Case C – Decrease operating costs by 10%. Potential ways to do this: minimum/NT, pre-buying strategies (fuel, fertilizer)

Case D – Reduce assets required to produce same revenue. Example: Share ownership of drill & power unit. Financial impacts: Assets & debts -$200,000; Depreciation -$10,000 (Fixed Costs), Variable Oper Costs -$4,000, Interest Costs -$14,000.

Management Accounting allows analyst to build new level of performance analysis at the base of the Dupont Model

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#6: It's OK to be "half pregnant" in MA implementation

- Purists say MA is "all or none"… ***I disagree!***
- Accumulating inventory costs on balance sheet IS ideal…but not only worthwhile goal.
- Major value in taking "baby steps"
  - Revisiting ratio analysis
  - Standardizing cost & profit center reports
  - Differentiating direct and indirect costs; allocations
  - Accumulating direct costs in WIP
  - Isolating manageable segments that people manage
  - Handling unique transactions to insure integrity of reporting

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#7: MA can change marketing management behaviors

- Helps identify cost of production
- Can set price targets and execute marketing strategies tied to profit margin objectives
- Alternative is: Market based on "hope"…
  - That selling price covers costs
  - That you hit top of market (whatever that is…)

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How would you feel about a 25% income margin?

…keep in mind

Historical operating profit margin (OPM) = 17-18%

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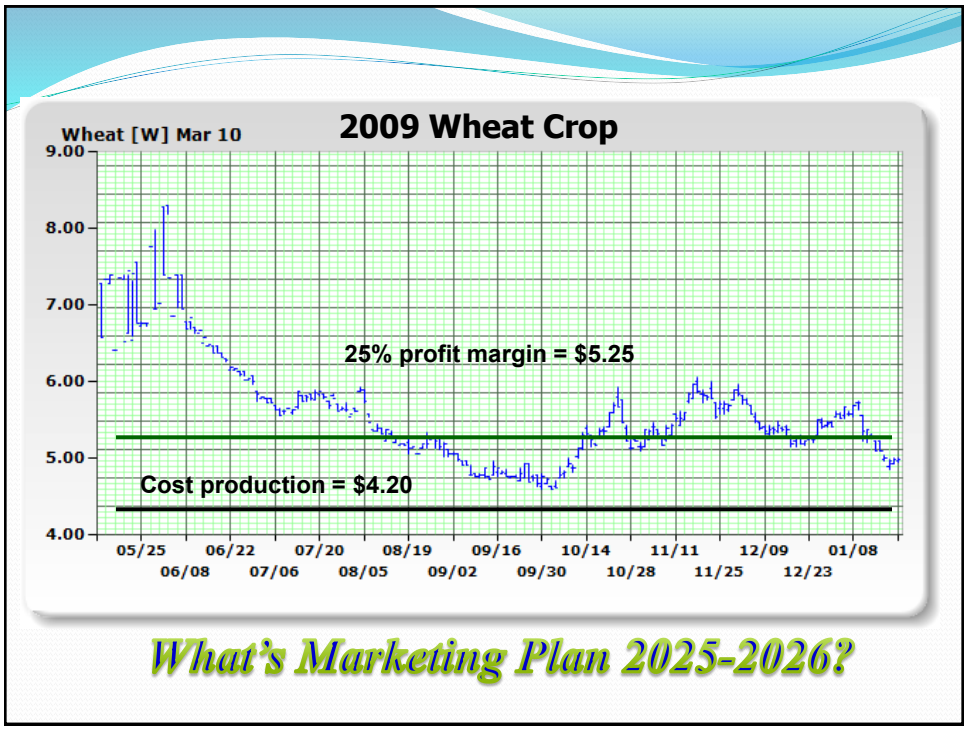
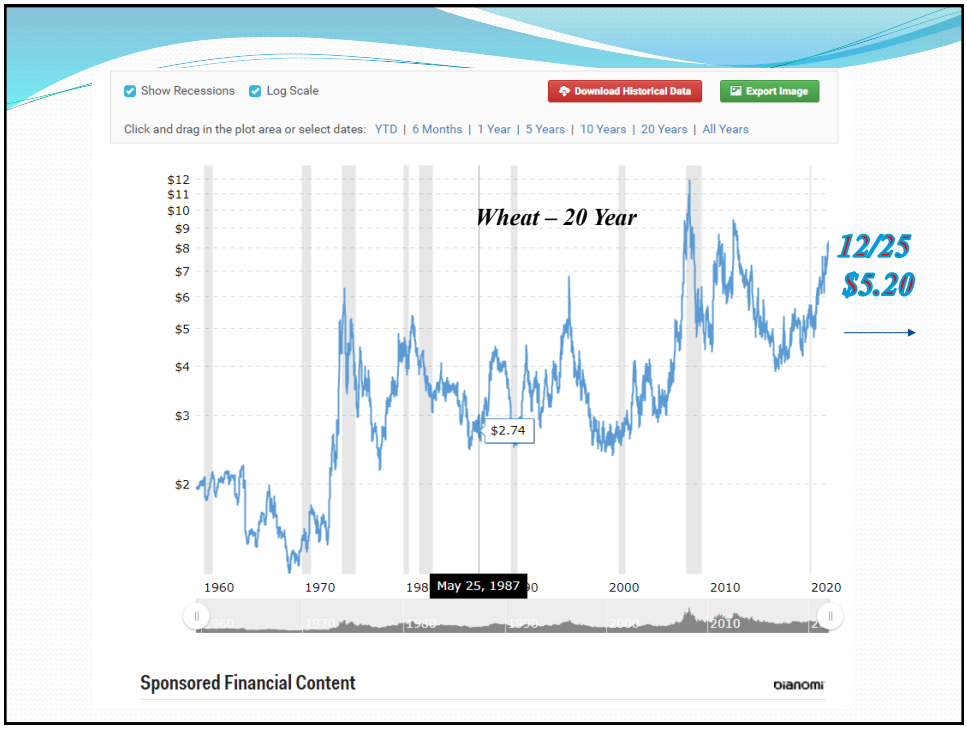

Wheat [W] Mar 10
2009 Wheat Crop
9.00
8.00
7.00
6.00
5.00
4.00
25% profit margin = $5.25
Cost production = $4.20
05/25
06/08
06/22
07/06
07/20
08/05
08/19
09/02
09/16
09/30
10/14
10/28
11/11
11/25
12/09
12/23
01/08
What's Marketing Plan 2025-2026?

145


Show Recessions
Log Scale
Download Historical Data
Export Image
Click and drag in the plot area or select dates: YTD | 6 Months | 1 Year | 5 Years | 10 Years | 20 Years | All Years
$12
$11
$10
$9
$8
$7
$6
$5
$4
$3
$2
Wheat – 20 Year
12/25
$5.20
$2.74
1960
1970
May 25, 1987
2000
2010
2020
Sponsored Financial Content
Dianomi

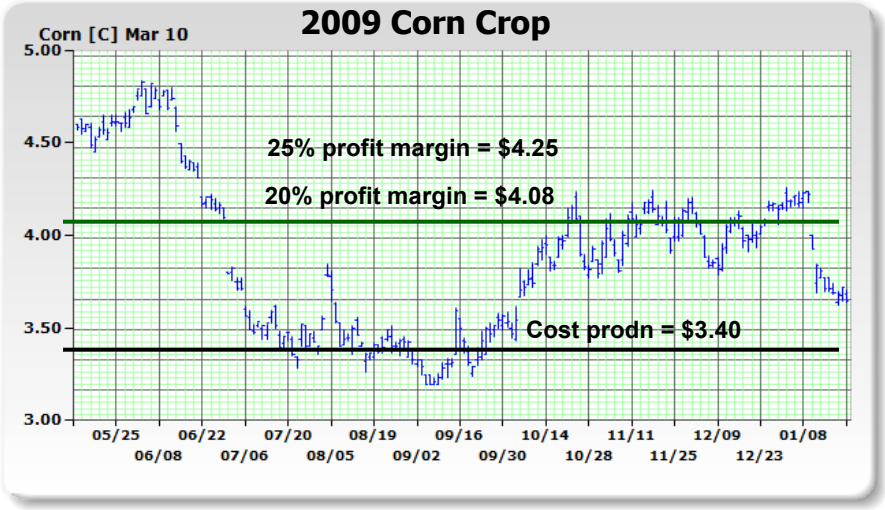
146

What is connection – price trends vs. cost of production trends

- Look at PNW Wheat producer data
  - 2002 $3.56
  - 2012 $5.86 +65%
  - 2022 $7.04 +20%
  - 2023 $7.16 +2%
  - 2024 $7.21 +1%

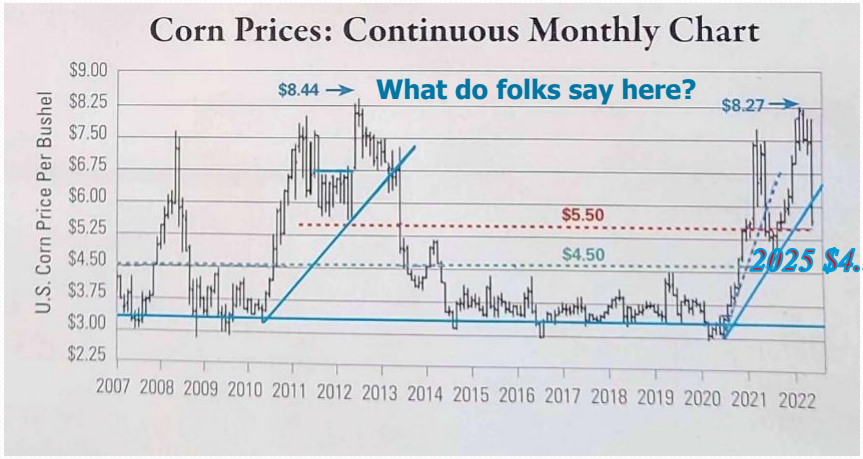
..\..\..\CONS\Management Accounting\Cost of Production Trends-2023 Schulteis.xlsx

147



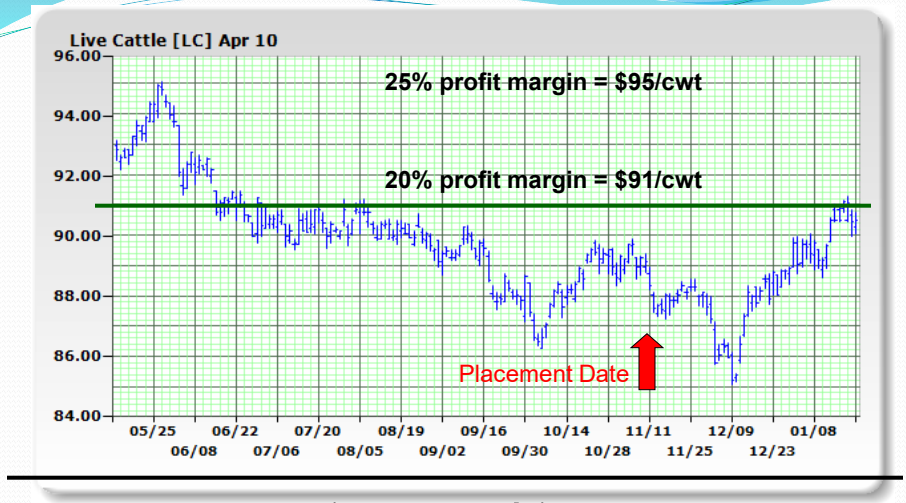
What about 2025-26?

148



Source: CME, Gulke Group – <u>Top Producer Aug/Sept 2022</u>

149



2010 Cost Prodn = $76/cwt …2013 → $1.00 …2025 ????

How does this affect Future Marketing Plan?

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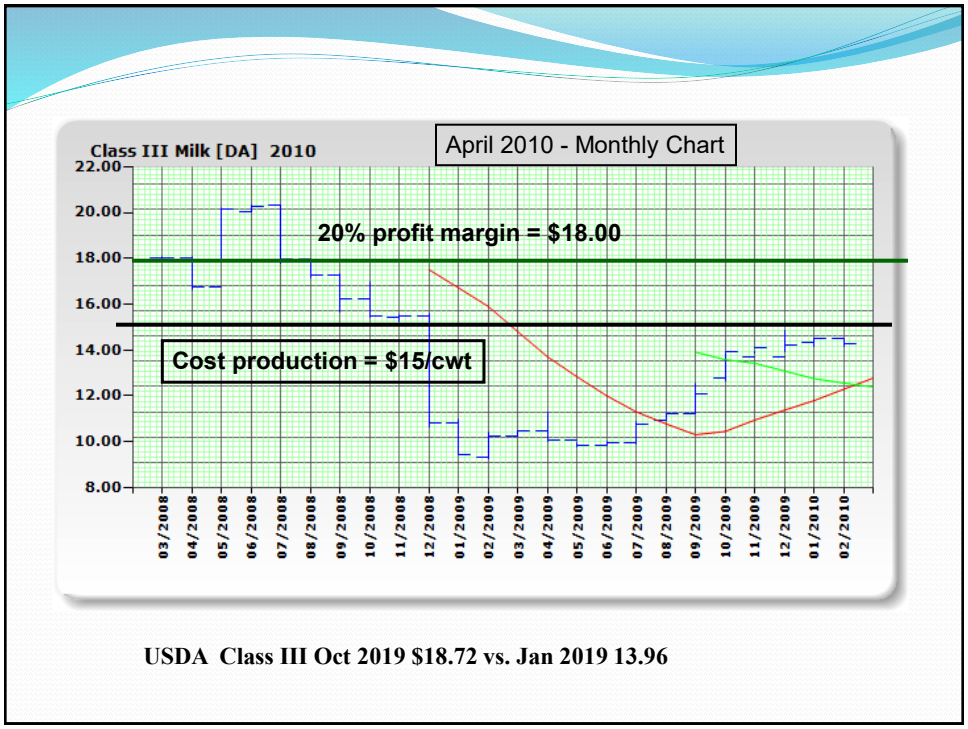
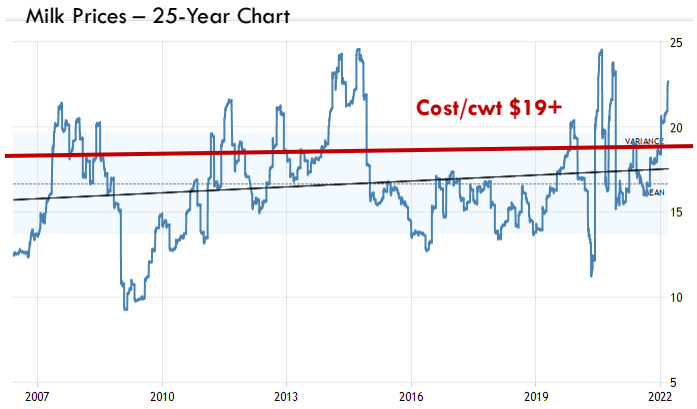
Feeder Cattle 20-yr range $.75-3.80/cwt

151



USDA Class III Oct 2019 $18.72 vs. Jan 2019 13.96

152



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#8: Developing adequate computer software is critical

- Software vendors actively engaged in MA debate…some more than others
  - Red Wing, FBS, AgManager, Quickbooks
- Producers will find most current software inadequate to do MA properly & efficiently
- ???? What are farmers using

….**Great discussion for Bear Pit!!!**

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Accounting Software Users*

- 47.8% - Quickbooks ('26 = 35.1%)
- 12.0% - Red Wing/Centerpoint ('26 = 16.2%)
- --- SagePro (16.2%)
- 4.7% - Farmworks
- 3.0% - Quicken
- 2.9% - FBS Systems
- 2.5% - Peachtree
- 1.6% - Famous, PC MARS, FINPACK
- 25% - 20 Other software systems

Can software generate management information beyond basic financial reporting?

***Based on TEPAP surveys 2003-2026**

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Detail Needed for Tax Reporting, MA and Production Mgmt – *The Integration Challenge*

Basic Transaction Data to file a Tax Return

- Date
- Bank account affected
- Vendor/customer name
- Transaction no.
- Account assignment (asset, liability, equity; income, expense)
- Amount
- Memo/Notation

Additional Data needed for Unit Cost of Production (UCOP) & Mgmt Acctg Reporting

- Units/Quantity
- Responsibility Center
  - Cost Center; Profit Centers
- Production Year
  - As separate field
  - Use date range to select
- Production Center/Location

***Agronomic/Livestock* Data**

- ***Soil types & tests***
- Prescriptions-VRA maps
- ***Crop input records***
- Field activity records
- FSA compliance info (acres, owners, crop share, farm- *t*ract-Fd#, legal descriptions/location
- ***Crop Insurance/RMA***
- Inventory management and storage locations; grade attributes by commodity
- CCC loan information
- ***Pasture treatments /AUM use***

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Lessons Learned – As Software User & Educator

- Never paid for ag software
- Beta testing software NOT bargain but has benefits!
- Software doesn't MAKE you an accountant—you need education and skills to use software successfully
- Most who say software "doesn't work"
  - don't have skills to run it
  - don't take adequate time to get trained on how to use it
  - don't invest in support/mentoring to set it up correctly
- Having ability to "convert" data is over-rated
  - Old database often inconsistent with good accounting standards (chart of accountant, enterprise structures, cost/profit centers)
  - Better to start fresh and set things up right

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Differences – Enterprising vs. MA

- Enterprising built foundation for MA
- OK for investors, bankers & 1-horse management team…not Responsibility Center Managers
  - Investors & bankers concerned about "bottom line"
  - Managers concerned about responsibility areas
    - Goals, decision-roles, strategies, resources
    - Performance results, cost management

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Building Blocks – MA Implementation

1. Evaluate capacity of accounting system to provide accrual income and cost/MV balance sheet
2. Review FFSC Guidelines; audit compliance of reporting formats and analysis methods
3. Complete 5-year trend analysis & ratios
4. Simulate alternative operating/strategic shifts – analyze impact on OPM, ATR, ROA, ROE

It's like climbing Mount Everest…

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Building Blocks – cont'd

5. Identify manageable segments – clearly assign accountability to segment managers
   - Organization chart, job descriptions, reporting relationships
6. Complete compensation summary (Salaries, benefits)…key tool in analyzing overhead
7. Set performance benchmarks for employee performance measurement

2017 TEPAP Student (Jason Fox) preparing to climb Mt. Everest

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Building Blocks – cont'd

8. Standardize use of terms: direct vs indirect; fixed vs variable; cash vs accrual vs economic analysis
9. Review sample cases: management intent; types of cost & profit centers; MA center design solutions
10. Identify areas/practices for handling transfer pricing on your farm – develop MA solution
11. Define cost and profit centers needed to aggregate your farm's transactional data
12. Complete cost and profit centers for historical data using FFSC formats; then move to current year data

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MA Wrap-Up Quiz

- What is the cost/unit to produce each commodity?
- How have costs changed in the last 5 years?
- What are the key strategies that will be re-evaluated in the next 1-5 years?

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Part III
Capital Investment Decisions

→Types of Decisions
→Analysis Methodology
→ Simulation Models

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Capital Investment Decisions

- Capital Items
  - Equipment
  - Facilities
  - Land
- Optimizing access
  - Buy, lease, custom hire, joint venture?

We don't believe in racial profiling!

166

Case Study - Equipment Replacement

Four Scenarios – Have you experienced these situations? What tools have you used to optimize the decision?

- Case Scenario 1 -
- Case Scenario 2 - Combine Buy or Lease
- Case Scenario 3
- Case Scenario 4 - Combine Overhaul Cost
- Case Scenario 5 - Custom Harvest Cost

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Key Questions to Ask

- Is it Profitable Investment?
- Financial feasibility?
  - Impact on liquidity and leverage
  - Debt service capacity; coverage ratio
- Risk considerations
- Exit plan
- Impact on management structure; capacity to manage revised infrastructure

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Capital Investment: Grain Storage

- L. R. Objective (1983)
  250,000 bu + leg,pit, Scale
- 12-31-00 Status
  54,000 bu + Axle Scale
- 2001 Action Plan
  add 3 bins, extend 2, pit, leg, and load out Bin
- Feasibility Study
  pros, cons, Cap Inv Analysis
  - Used CSU/MSU model to simulate results for Profitability & Financial Feasibility

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Microsoft Excel - capinvWF_storage facility.xls

File Edit View Insert Format Tools Data Window Help Adobe

60%

Reply with Changes...

E35

CAPITAL INVESTMENT ANALYSIS

Calculations, Profitability and Financial Feasibility Analysis>>>

Donald W. Lybecker and Karen L. Holman
Department of Agricultural & Natural Resource Economics
Colorado State University, Fort Collins, CO 80523, July 1987

Modified for Windows Spreadsheets by Duane Griffith
Extension Farm Management Specialist
Montana State University, December 1995

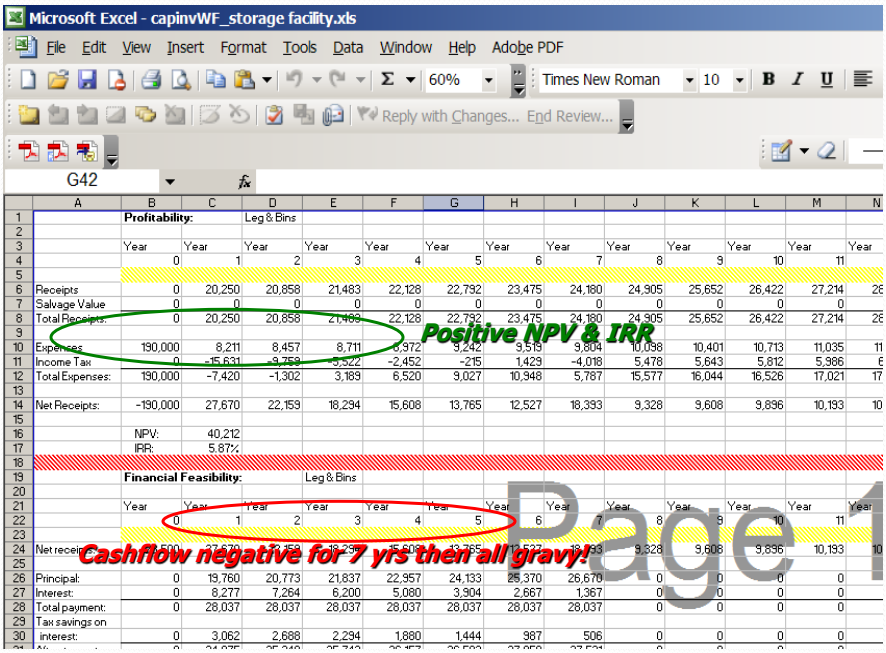
The double lined box below is the ONLY input required for this program.

Inputs for Analysis:		Comments/Error Messages
Name (tractor, combine, etc.):	Leg & Bins	50,000 bu plus leg & pit
Purchase Price:	$190,000	excl cost of put-thru bin
Salvage Value:	$95,000	
Recovery Period (3,5,7,15,20 yrs):	7	
Asset Life (2-20 yrs):	20	
Expensing ($10,000 maximum):	$0	
Income Tax Rate:	37.00%	6% St, 15% Fed, 14.3 SS SE
Percent Financed by Loan:	85.00%	
Loan Interest Rate:	5.13%	doesn't include 2% buydown
Loan Length (years):	7	
Opportunity Cost:	6.00%	
Cash Income:	$20,250	
Cash Expenses:	$8,211	add 5,000 for original bin combo
Inflation Rate:	3.00%	

Page

Results and Interpretation for NPV and IRR.	
Net Present Value (NPV)---------->	$40,212.22
Internal Rate of Return (IRR)---------->	5.87%

170



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1		**Profitability:**		Leg & Bins										
2														
3		Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year
4		0	1	2	3	4	5	6	7	8	9	10	11	
5														
6	Receipts	0	20,250	20,858	21,483	22,128	22,792	23,475	24,180	24,905	25,652	26,422	27,214	28
7	Salvage Value	0	0	0	0	0	0	0	0	0	0	0	0	
8	Total Receipts:	0	20,250	20,858	21,483	22,128	22,792	23,475	24,180	24,905	25,652	26,422	27,214	28
9														
10	Expenses	190,000	8,211	8,457	8,711	8,972	9,242	9,519	9,804	10,098	10,401	10,713	11,035	11
11	Income Tax	0	-15,631	-9,759	-5,522	-2,452	-215	1,429	-4,018	5,478	5,643	5,812	5,986	6
12	Total Expenses:	190,000	-7,420	-1,302	3,189	6,520	9,027	10,948	5,787	15,577	16,044	16,526	17,021	17
13														
14	Net Receipts:	-190,000	27,670	22,159	18,294	15,608	13,765	12,527	18,393	9,328	9,608	9,896	10,193	10
15														
16		NPV:	40,212											
17		IRR:	5.87%											
18														
19		**Financial Feasibility:**			Leg & Bins									
20														
21		Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year
22		0	1	2	3	4	5	6	7	8	9	10	11	
23														
24	Net receipts	-190,000	27,670	22,159	18,294	15,608	13,765	12,527	18,393	9,328	9,608	9,896	10,193	10
25														
26	Principal:	0	19,760	20,773	21,837	22,957	24,133	25,370	26,676	0	0	0	0	
27	Interest:	0	8,277	7,264	6,200	5,080	3,904	2,667	1,367	0	0	0	0	
28	Total payment:	0	28,037	28,037	28,037	28,037	28,037	28,037	28,037	0	0	0	0	
29	Tax savings on													
30	interest:	0	3,062	2,688	2,294	1,880	1,444	987	506	0	0	0	0	

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Next question….

"Should I buy, rent, custom hire, or joint venture?"

Can you look your partner or spouse in the eye and say with confidence:

"We OPTIMIZED!"

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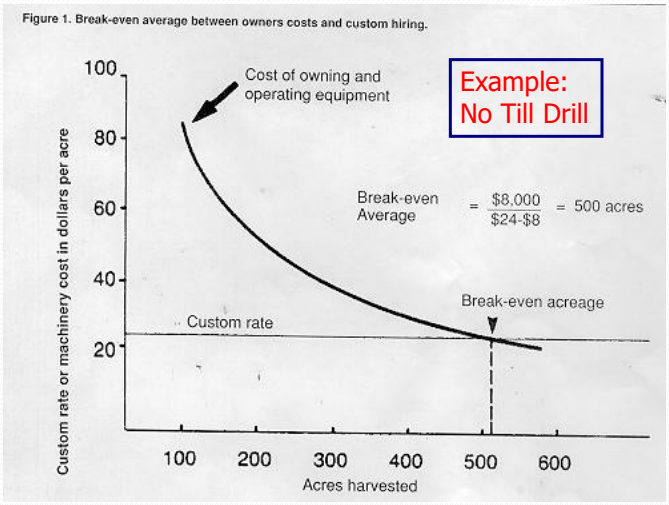
Step 1. Determine BEP – Owning vs Custom Hiring



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Doing the Analysis

- Define facts and assumptions to analyze
  - Cost data: purchase, rent, lease custom hire rates
  - Usage data: acres or hours unit
- Select model to crunch the numbers
- Interpret results and act accordingly!

175

Case Study #1

"I'm buying a new drill. How should I access?"

- Own
- Rent/Lease
- Custom Hire
- Joint Venture

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Step #1 – Identify Cost Components

- Ownership Costs
  - Fixed - Deprec, Interest, Taxes, Housing, Ins
  - Variable - Maintenance, Fuel, Labor, Other
- Rental/Lease Costs
  - Fixed - Lease Pmt; Rent/Unit of Use, Insur
  - Variable - Fuel, Labor, Other Inputs
- Custom Hire Costs - Rate/Acre

177

Purchase Option

Purchase Price	$53, 750
Down Payment (30%)	$16,125
Loan Repayment Period (yrs.)	5 years
Annual Payments (10.15% interest)	$9,963.44
Salvage Value - 5 years	$22,500
Maintenance Costs	#3.00/acre

Lease Option

Lease Length	5 years
Annual Lease Fee	$11,854

Short Term Rental Option

Rental Fee ($/acre)	$14.00
Annual acreage seeded	800 acres

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Step #2

Calculate break-even threshold for **owning** vs. **renting** drill.

179

Be sure to use "economic depreciation" …not "tax depreciation"

Purchase Price = $53,750
Salvage Value in 5 years = $22,750

Annual Economic Depreciation:

$$= \frac{\$53,750 - \$22,500}{5 \text{ years}} = \$6,250$$

180

Solution #2 - **Simple Formula - Break-even Analysis***

Break-even Acreage = $\frac{\text{Annual Ownership Costs}}{\text{Custom Rate/Ac - Operating Costs/Ac}}$

Annual Costs = deprec, inter, taxes, insur*, and housing
= $6,250 + $3,870 + $572 + 0* + $0
= $10,692

Rental = $14/ac; Operating Costs (Maintenance) = $3/ac

Break-even Acreage = $\frac{\$10,692}{\$14 - \$3}$ = 972 Acres

Source: RLW Excel Spreadsheet

181

Buy, lease or custom hire harvest?

1996 Costs/hour to Operate Class 8 Combine + 30' Head @ $177,000 cost Vs. **Cost TODAY** ***…what has changed?***

Hrs Use		1996 Data Cost/Hr	2026 Data Cost/Hr
100		$258.45	
200		149.85	
300	BEP->	125.56	
400		111.39	
500		101.85	

182

Let's look at some more sophisticated models

183

Knowing Usage History is Key

			Equipment Utilization History - Wittman Farms						
	Dec-95	Dec-96	Dec-97	Dec-98	Dec-99	Dec-00	Dec-01	Dec-02	Ave Use
JD4650					7068	7698	*8348*	8865	
- Ann Usage						630	650	517	599
75C-30" '94		885	1039	1515	1913	2188	2549	2875	
- Ann Usage			154	476	398	275	361	326	332
85D-35"					802	1408	*1900*	2445	
- Ann Usage						606	492	545	548
85D-30"	Bot 9-19-99			1056	1347	1859	2297	2626	
- Ann Usage					291	512	438	329	393
JD8400T-'97						2107	2288	2856	
- Ann Usage							181	568	375
Case 7150		1461	1676	1828	2125	2409	2766	sold- 10/1	
- Ann Usage			215	152	297	284	357		261
NH9680			867	1387	1889	2138	2300	2400	
- Ann Usage				520	502	249	162	100	307

Hours: Tractors, combines
Miles/Hrs: Trucks
Acres/Hrs: Drills, Major Tillage Implements

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Information Needed to do Analysis

- Ownership costs
  - Cost of power unit/implement
  - Planning Horizon/useful life
  - Salvage value
  - Cost of capital or borrowing
  - Insurance & housing costs
  - Tax rates
- WARNING: Use YOUR costs
  - NOT economic costs from someone else's data
  - NOT replacement cost
- Annual usage of power unit – all operations
- Operating costs
  - Fuel
    - Consumption/hour
    - Cost of fuel
  - Labor cost
    - Primary operators
    - Support personnel
  - Repairs and Maintenance
  - Other Equip Support Overhead Costs (combine labor vs parts example)
- Productivity of Operation
  - Working width
  - Speed
  - Field efficiency %

185

ABCs of Farming

Activity Based Costing

186

What is it?

Activity-based approach to tracking cost of production

Examples

- Crop Operation:
  - Pre-plant ground preparation
  - Seeding/Fertilization
  - Pest Control
  - Harvest
  - Post Harvest Land
- Hog Operation:
  - Breeding
  - Farrowing
  - Weaner
  - Finishing

Hay Harvest:

- Swathing
- Raking
- Turning
- Baling
- Hauling & Stacking
- Tarping

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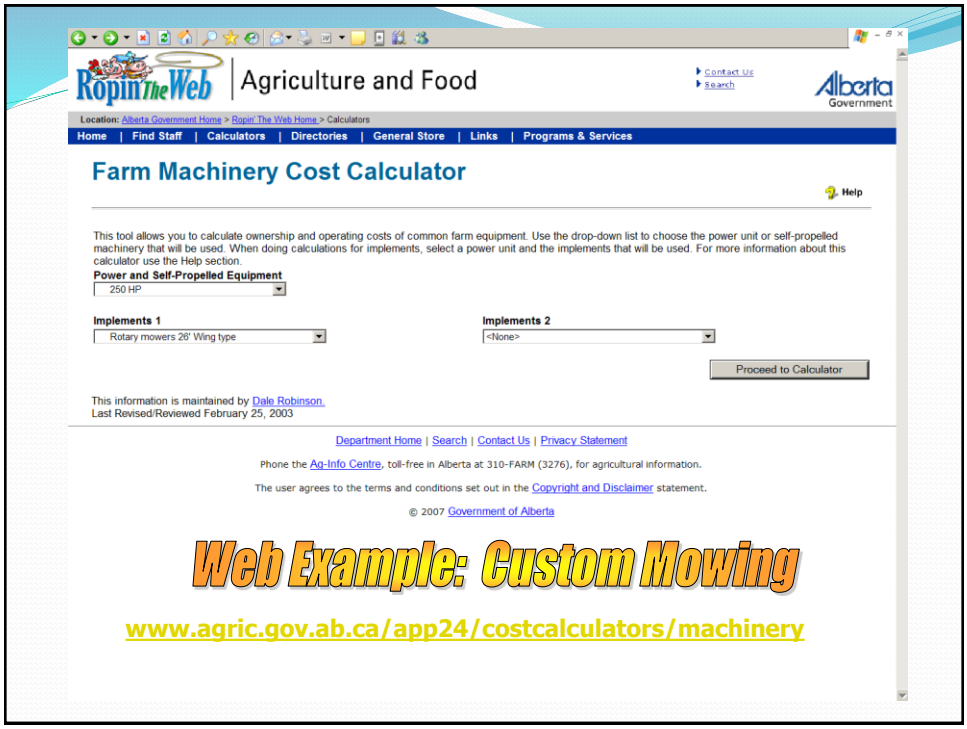

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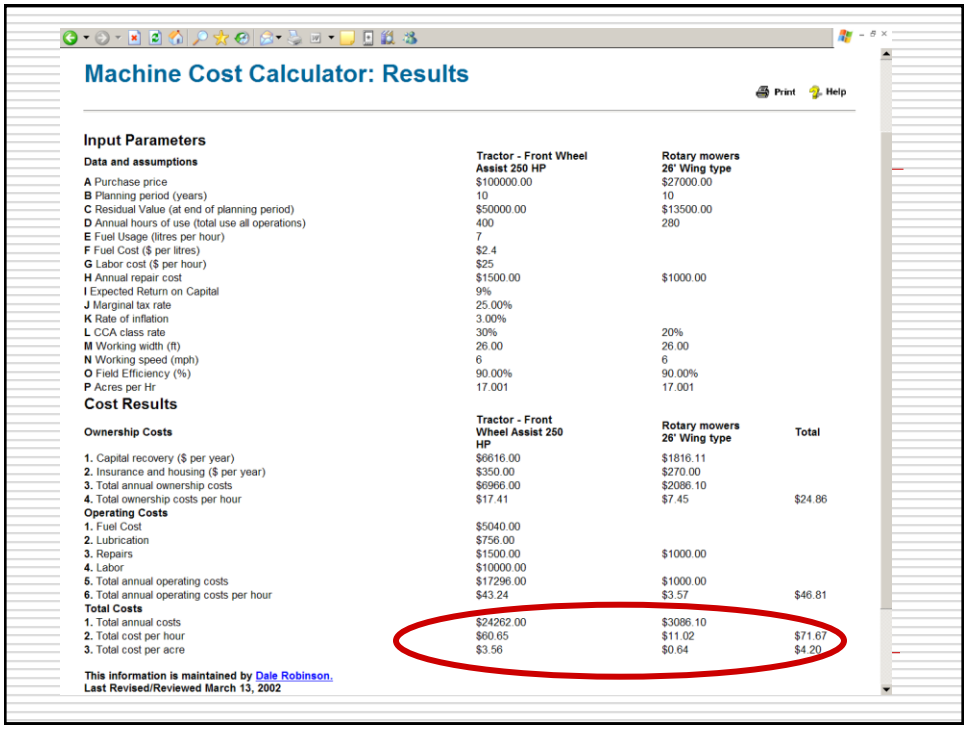

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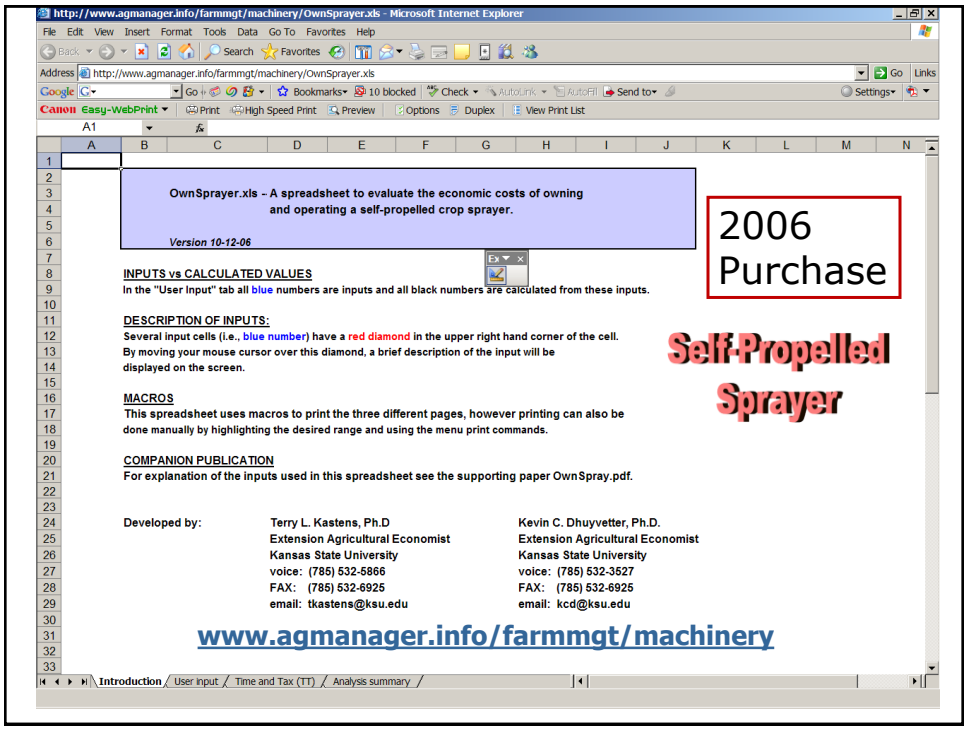

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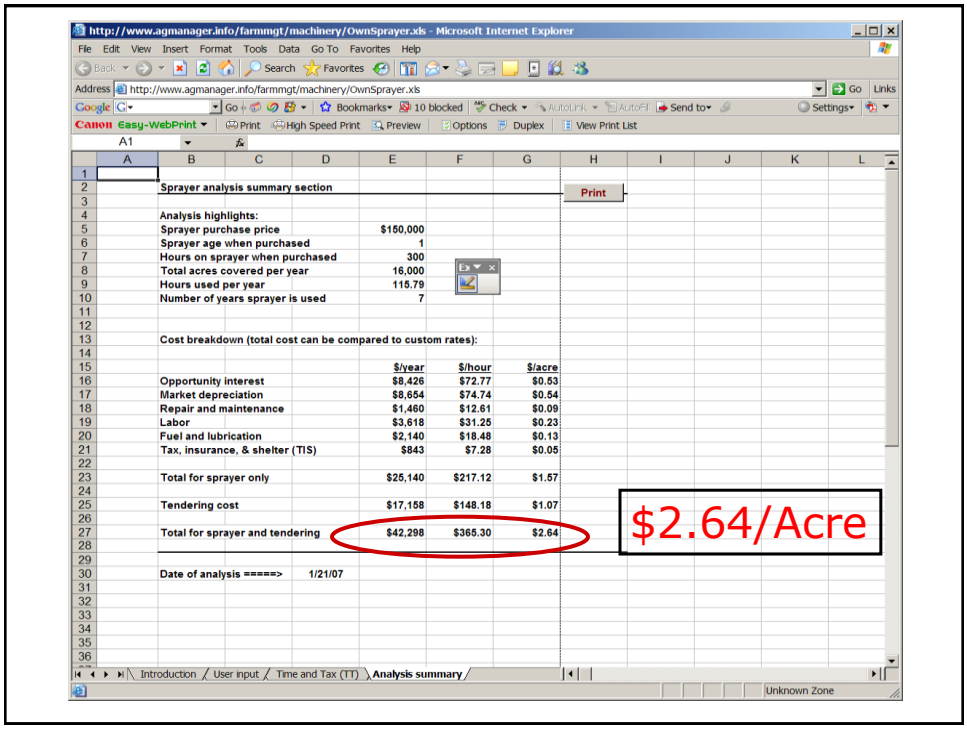

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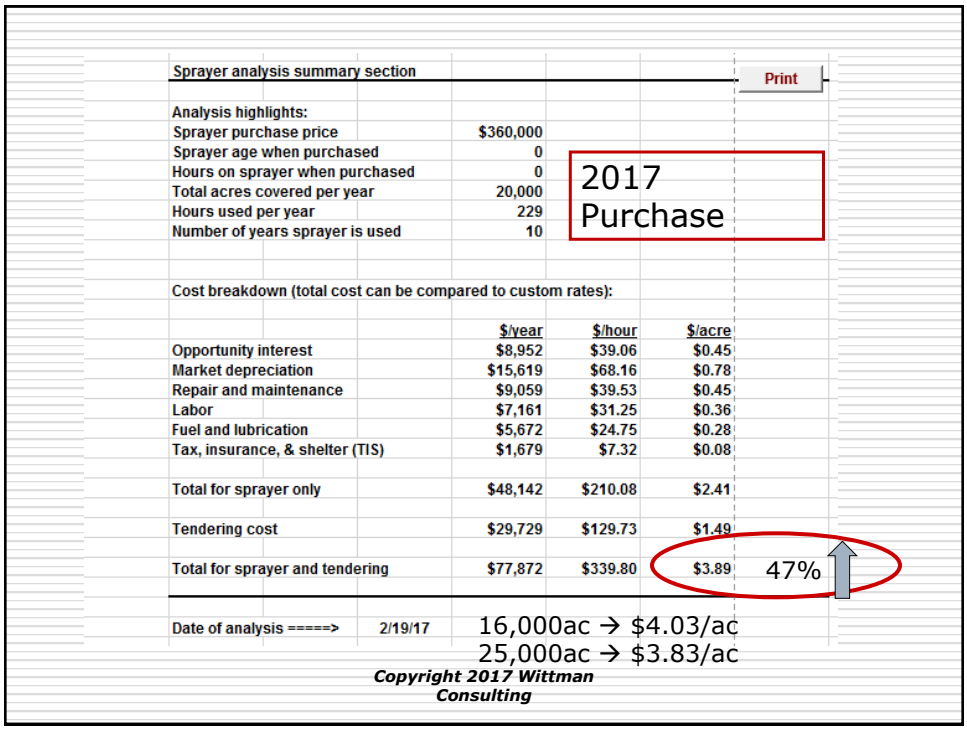
Sprayer analysis summary section
Print
Analysis highlights:
Sprayer purchase price $360,000
Sprayer age when purchased 0
Hours on sprayer when purchased 0
Total acres covered per year 20,000
Hours used per year 229
Number of years sprayer is used 10
2017 Purchase
Cost breakdown (total cost can be compared to custom rates):
$/year $/hour $/acre
Opportunity interest $8,952 $39.06 $0.45
Market depreciation $15,619 $68.16 $0.78
Repair and maintenance $9,059 $39.53 $0.45
Labor $7,161 $31.25 $0.36
Fuel and lubrication $5,672 $24.75 $0.28
Tax, insurance, & shelter (TIS) $1,679 $7.32 $0.08
Total for sprayer only $48,142 $210.08 $2.41
Tendering cost $29,729 $129.73 $1.49
Total for sprayer and tendering $77,872 $339.80 $3.89
47%
Date of analysis =====> 2/19/17
16,000ac → $4.03/ac
25,000ac → $3.83/ac
Copyright 2017 Wittman Consulting

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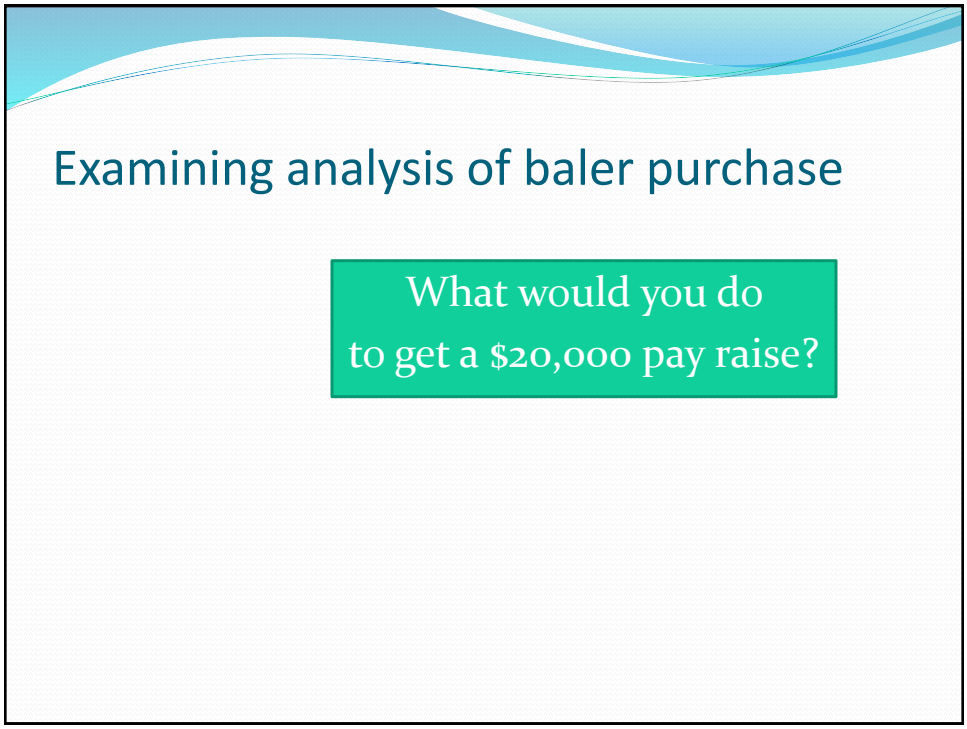
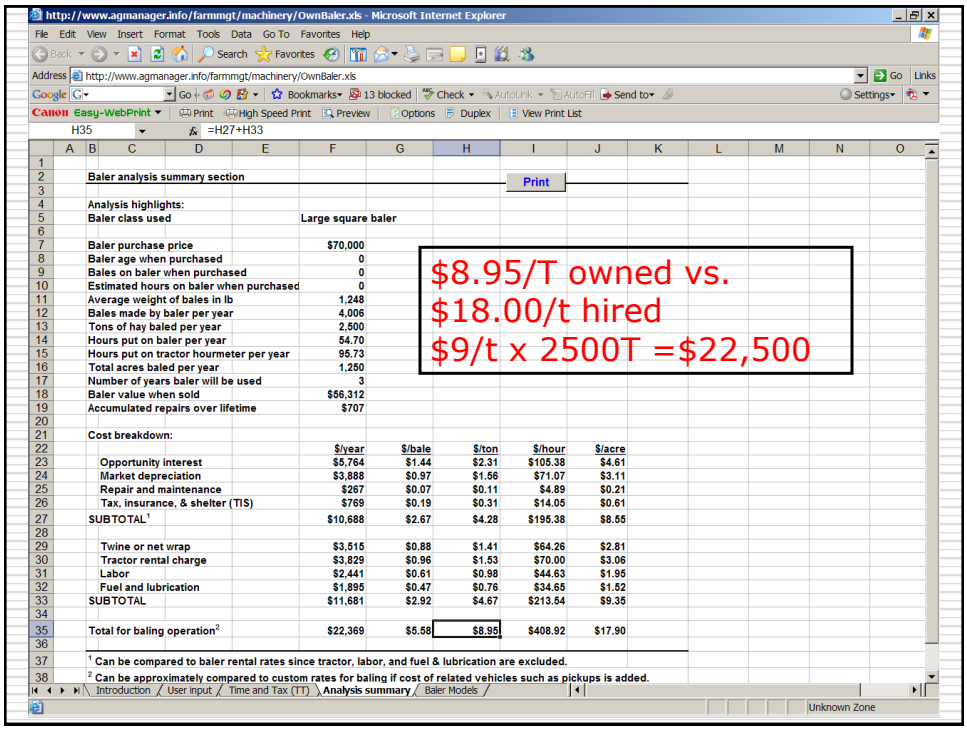
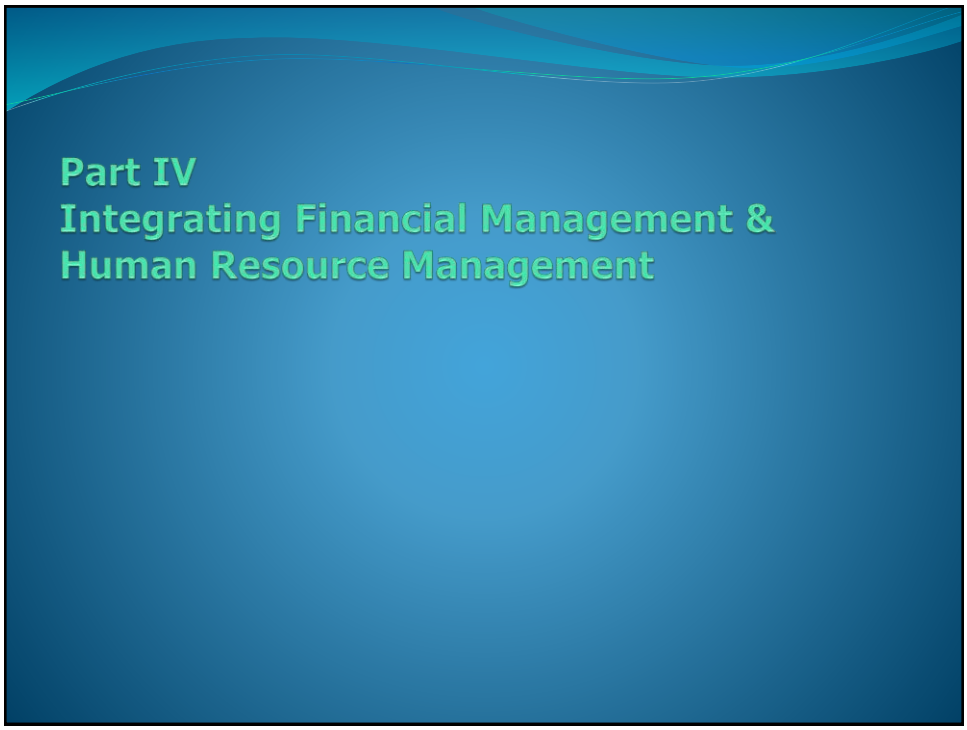

Examining analysis of baler purchase
What would you do to get a $20,000 pay raise?

193



Conclusions about ABC

- Critical information for making incremental decisions - expansion
- Identifies when it's best to in-source vs. outsource
- Sets accurate base for pricing in custom work & trade relationships
- Can be reasonable alternative to cost center tracking & allocation approach



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Integrating Finance & Mgmt – 5 Issues

- Role of Chief Financial Officer (CFO)
  - Duties, proficiencies, & performance expectations
  - Who is CFO now…who should be?
- Financial Policies & SOP's
- Building financial management knowledge – owners and management team members
- Use of Peer Groups for Performance Review

197

CFO Role

- Emerging as ***key position*** in Ag Businesses
  - Unique skills technology, finance, & info management
  - One person can't be "jack of all trades"- agronomist, GPS expert, mechanic, marketer, herdsman
- Career Path: Bean counter → Financial Analyst → Strategic Planner → CFO → CEO

198

TEPAP Survey Results*

Financial positions staffed in farm business…

Bookkeeper	68%
Office Manager	43%
Controller	20%
Chief Financial Officer	34%

**Based on 44 responses January 2015 TEPAP Year I*

199

Duties, Skills & Expectations- CFO

- Primary role: provide information & analytical services that help others optimize decisions
- Focus areas
  - Empower members of management team
    - Administer accounting system & MIS
    - Facilitate/coordinate financial planning and budgeting
  - Capital investment analysis
  - Arrange financing - operating and strategic plans
  - Performance analysis – whole business; management segments; cost of production; *ABC's*

200

Finance (CFO) and Marketing

- Budget preparation and variance analysis
- Maintain records and circulate to management team
- Arranging credit for operating and capital purposes
- Banking responsibilities
- Member of executive committee; key player in strategic planning
- Capital investment analysis; negotiate purchases
- Market grain commodities
- Preparation of tax returns
- Manage insurance & risk management programs
- Liaison with attorney on legal matters

Detailed description www.wittmanconsulting.com

201

Challenge: Converting Data to Decisions

- Data - numbers-meaningless by themselves
  - yield data, transaction journals, calving records
- Information - data transformed into medium we can understand
  - color maps, graphs, financial statements
- Knowledge - Human understanding applied to information
  - Ratio analysis, profit/cost center, herd data
- Better Decisions: Ultimate payoff → improved profits & financial performance

202

Who is CFO now…who should be?

Questions we should ask:

"How much time do I currently spend on each function?"

"…how much time should I spend?"

203

Where do you find a good CFO?

- 3 TEPAP alumni – multi-site grain operations and farm supply businesses
  - Hired controller/CFO from big firm …60 hrs/wk
  - Paid $75,000/yr for 30 hrs/week
    + $35,000 secretary/data entry person
  - Formed service bureau with office, computers, accounting systems, 401k
  - Total cost = $150,000 split 3 ways
- Rent-a-CFO
- New buzzword: ***Fractional CFO***

204

2

Defining Financial Policies and SOPs

4 Sloppy Areas

- Compensation/division of earnings
- Capital contributions/withdrawals
- Inter-entity transactions/transfer pricing
- Intra-family financing practices

205

Dividing Returns: Mgmt vs. Owners

Assumptions:

Farm Operating Margin* = $400,000

Position	Value of Mgt/Labor**	Ownership Share
Sr. Farm Manager	$60,000	50%
Asst. Farm Manager	50,000	30%
Jr. Farm Manager	40,000	20%

** Margin before management and owners are compensated*
*** Excluding $40,000 non-cash employee benefits*

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Process for Dividing Returns

Farm Operating Margin		$400,000
less: Mgmt / Labor Allocation		150,000
Balance to Allocate to Owners		$250,000
Sr. Farm Mgr	50%	$125,000
Asst Farm Mgr	30%	75,000
Jr. Farm Mgr	20%	50,000
		$250,000

Total Returns:	**Mgmt**	**Ownership**	**Total**
Sr. Farm Mgr	$60,000	$125,000	$ 185,000
Asst Farm Mgr	50,000	75,000	125,000
Jr. Farm Mgr	40,000	50,000	90,000
Totals	$150,000	$250,000	$400,000

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Policy on Path to Ownership
Capital Contributions, Withdrawals

- Minimum balances to maintain?
- Should everyone be "equal?"
- Is revenue earned based on ownership ratios or other criteria?
- Compensation for excess balances?
- Who can invest in the farm?
- ***"Can I ever get my money out?"***

Audience experience with these problems?
...only 1 in 5 say they have a policy!
...MANY have problem & DON'T KNOW IT!

208

Example: Minimum Capital Target*

Minimum Capital Target = $5,000,000

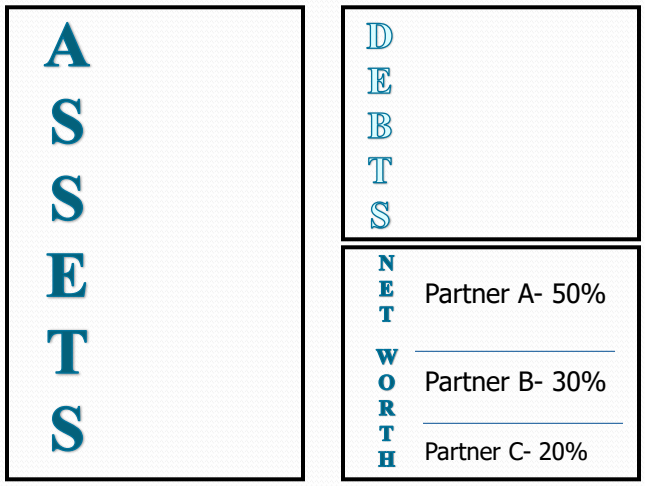
Owners	Share	Book Capital	Target	Excess (Deficit)
Partner A	50%	$3,000,000	$2,500,000	+500,000
Partner B	30%	1,500,000	1,500,000	-0-
Partner C	20%	800,000	1,000,000	(200,000)
Totals	100%	$5,300,000	$5,000,000	+300,000

Based on goals set for debt/asset ratios & working capital

...Are you getting your $'s worth from your professional advisors?

209

Farm Balance Sheet



Beginning NW + Earnings – Withdrawals = Ending NW

210

Good Management Practice

Make Valuation Equity Transparent!

Owners	Book Capital	Unreal Gain*	Total Equity
Partner A	$1,750,000	$1,300,000	$3,050,000
Partner B	1,500,000	1,113,000	2,613,000
Partner C	900,000	675,000	1,575,000
Totals	$4,150,000	$3,088,000	$7,238,000

Unrealized Gain (Valuation Equity)= 43% of Total Equity Value

...How much of your NW is YOURS vs. TAX owed to government?

211

Retained Earnings and Capital Withdrawals – (Partnerships and Sub S Corporations)

SAMPLE POLICY

The amount of capital provided by each capital provider is a key component in determining how net revenue of the business will be shared among owners or risk takers. The partners, joint members, or stockholders providing capital shall establish at least annually a common agreement on the base level of capital each capital provider is expected to keep invested in the joint operation. This base level will be established giving consideration to:

- Minimum financial constraints or objectives (i.e. targets for working capital level, debt to equity ratio, and borrowing reserves)
- Needs of the business to fund future growth
- Ratio of ownership each capital provider wishes to maintain for future revenue sharing.

An analysis of capital account balances will be done following final draws for tax purposes on April 15 annually. Capital providers can withdraw excess capital for personal living and tax payments, outside investments, or other needs. Excess funds can also be loaned to the joint operation at a market rate of interest.

If a capital provider cannot maintain a target capital share level after an extended shortage situation, the partners will re-evaluate the at-risk capital resources provided and adjust the revenue sharing arrangement to reflect the change in capital contribution level.

212

Inter-entity/Insider Transactions

Keeping Policies "Arms-length"

- Common Situations:
  - Personal side-ventures
    (Use of feed, farm inputs, supplies, pasture)
  - Loans to the business
  - Leases of land/equip to/from the business
- Are transactions done on "arms-length" or competitive market basis?
- Arrangements renewed regularly?

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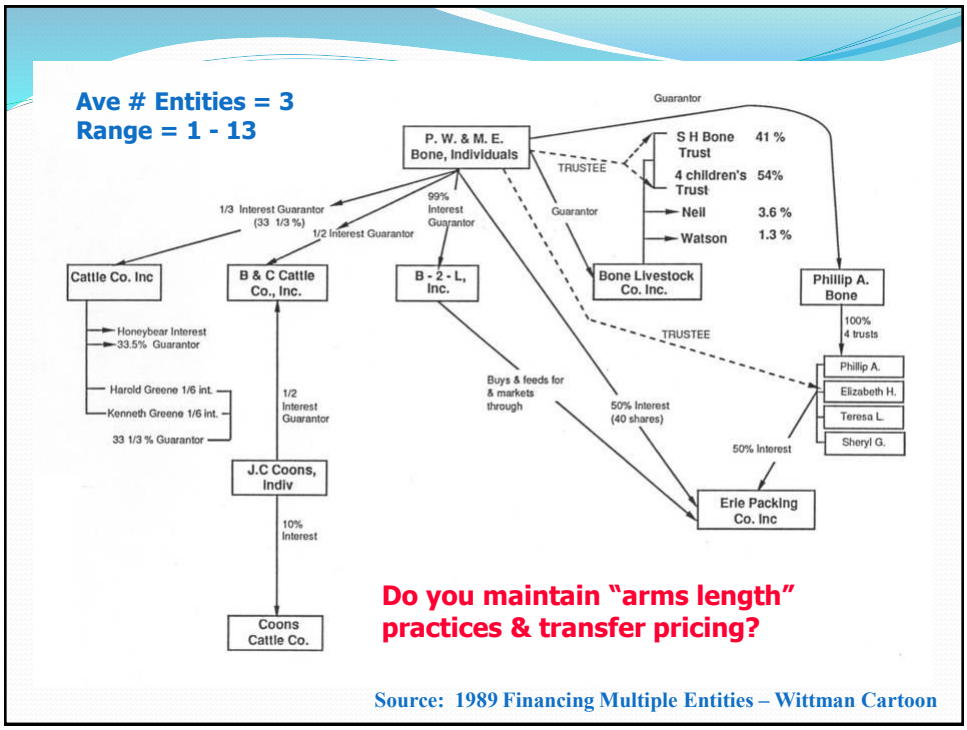

Source: 1989 Financing Multiple Entities – Wittman Cartoon

214

Using Intra-Family Financing

$50,000 to invest

6% Rate

Gen I John — Gen II Sue

Bank MM Rate = 3%

Lender Rate 9%

Could owners loan funds to the business?

215

3

Building Financial Literacy
Owners and Management Team

- Lifetime learning process
- Individuals responsible for own education … CFO only coach & trainer
- Engage full management team in data collection, analysis, technology use
- Share records professionally

216

Are Your Farm Records …

- Open to all?
- Circulated monthly?
- Reviewed annually?
  - cash vs. accrual
  - cost and market value balance sheets
  - profit & cost center (enterprise) analysis
  - key ratio calculations – trend analysis

Confucius say: "People do what is inspected… not what is expected!"

217

4 Peer Groups Comparisons

Benchmark Groups

- FBFM Associations
- "20 Groups" – Spader
- Local "information exchange" groups

"Comparability" Pitfalls

- Non-standardized data
- Dissimilar operations, agronomics, climate, enterprises
- Un-reconciled year-year data

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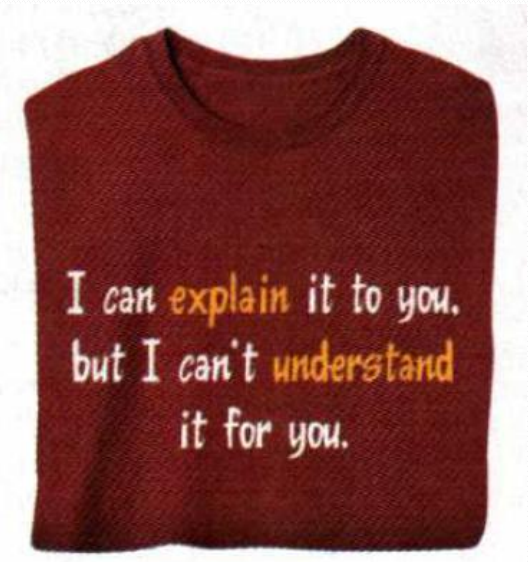

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Financial Literacy Resources

- Farm Futures Magazine/FFSC – Financial Boot Camp
→ https://www.farmfuturessummit.com/en/ag-finance-boot-camp/boot-camp
- King Ranch Institute – Managerial Acctg Lectureship
→ http://krirm.tamuk.edu/accounting/
- NW Farm Credit System – Learning Center
→ www.northwestfcs.com/eLearning
- Centrec Consulting
→ www.centrec.com/self-study
- Farm Financial Standards Council – Financial Guidelines
→ www.FFSC.org
- Wittman Consulting-Financial models, templates, trend sheets
→ www.wittmanconsulting.com
- FINPACK – ratio definitions, templates
→ www.cffm.umn.edu/finpack/
- Wisconsin-PDPW: Financial Literacy Program
→ pwww.pdpw.org/programs/PDPWFinancialLiteracyForDairy20192020/details
- Kansas (*Approved for FSA Borrowers Financial Training Credit)*
→ Kansas:www.agmanager.info/events/farm-financial-skills-kansas-women-agriculture

220

Time to Head to the Barn!

Key Points – Finance I

- Your challenge: Data → Information → Knowledge → ***Better*** Decisions
- Add <u>key</u> financial "gauges" to your dashboard
- Use proven models to <u>optimize</u> results
- <u>Empower</u> whole business team to <u>understand</u> and <u>benefit</u> from good financial mgmt

221

Do we seek better management skills *"just for the fun of it?"*

Wheel of Life- 7 Habits

222

Accounting Software

- Quick Books $1,200-2,800/yr
- Red Wing Centerpoint - $3,200 cost + Support $500-1,000
- FBS – MASA
- Traction - $950 - $3,800
- MS - Navision

ERP/Field Activity Tracking

- Granular
- Conservis
- Ag World
- Harvest Profit
- Cropzilla

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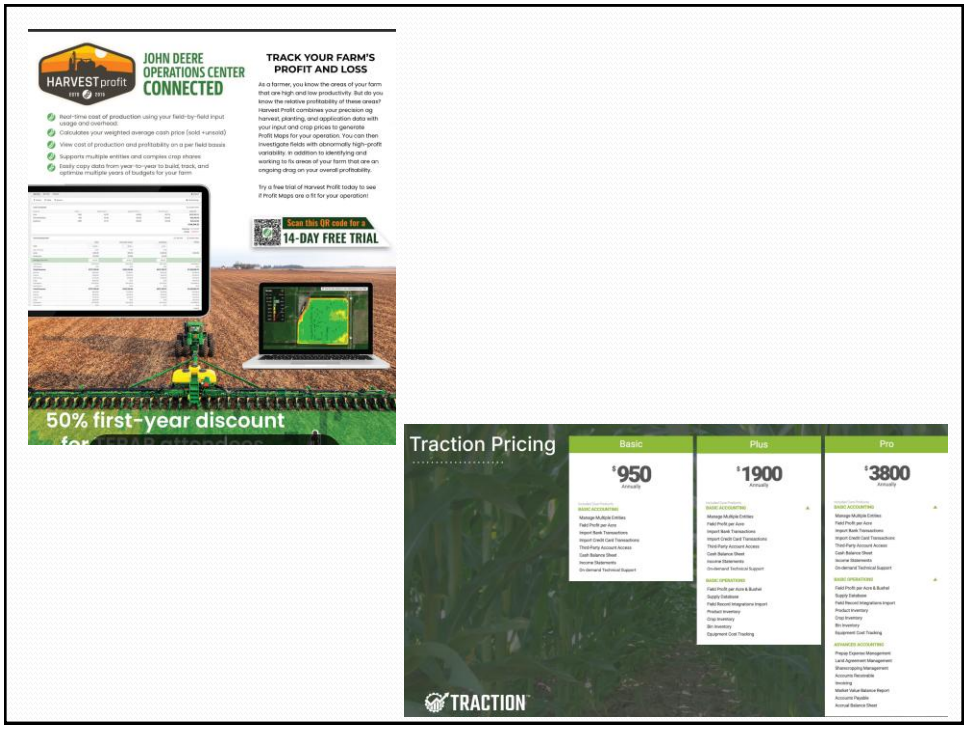

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