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SOUTHERN EXTENSION RISK MANAGEMENT EDUCATION

UNIVERSITY OF ARKANSAS
Dale Bumpers College of Agricultural, Food & Life Sciences

Balance Sheet Basics: Financial Guidance and Insight

Distressed Borrowers Assistance Network (DBAN) Cooperators Training

January 27, 2026, 1:00pm

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Today's RoadMap

1. Last Training Session Refresher

2. Asset Inventory & Valuation

3. Applied Examples:
   - Large Arkansas delta row crop Farm
   - Small-to-medium-sized Arkansas specialty crop farm

4. Wrap-Up, Questions, and Future Work

Last Training: Refresher

Recall last training on December 18, 2025:

Major Topics:

- How to read and structure a balance sheet
- Liquidity, solvency, and net worth
- Using ratio analysis and realistic benchmarks, consistent with FFSC guidelines.

This training:

How a balance sheet behaves under market shocks and common asset valuation issues.

	Your Farm:				Desired Trend
Liquidity		Vulnerable	1.3	2.0	Strong	
Current Ratio	___.___					↑
Working Capital as % of Gross Revenue	____%		10%	30%		↑
*Working Capital as % of Operating Expense**	____%		20%	40%		↑
Solvency		Vulnerable	60%	30%	Strong	
Debt-to-Asset Ratio	____%					↓
*Equity-to-Asset Ratio**	____%		40%	70%		↑
*Debt-to-Equity Ratio**	___.___		1.5	0.43		↓
Profitability		Vulnerable	4%	8%	Strong	
Rate of Return on Assets	____%					↑
Rate of Return on Equity	____%		3%	10%		↑
Operating Profit Margin Ratio	____%		15%	25%		↑
Asset Turnover Ratio	____%		30%	45%		↑
Repayment Capacity		Vulnerable	1.25	1.75	Strong	
Debt Coverage Ratio	___.___					↑
Replacement Coverage Ratio	___.___		1.1	1.5		↑
*Term Debt & Finance Lease Coverage Ratio**	___.___		1.25	1.75		↑
Financial Efficiency		Vulnerable	80%	60%	Strong	
Operating Expense Ratio	____%					↓
Depreciation Expense Ratio	____%		10%	5%		↓
Interest Expense Ratio	____%		10%	5%		↓
Net Farm Income Ratio	____%		10%	20%		↑

* Denotes Acceptable Alternate Measures of the FFSC (https://ffsc.org/)

Asset Inventory & Valuation – Getting it *Right*

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Asset Inventory: Does it Really Matter?

- Short answer, YES!

Valuing Asset Inventory:
- Treat your balance sheet as a *tool*, not *just* paperwork
- When reviewing financial ratios, ask yourself: "Is everything I own recorded?"
- Rule of thumb: If something can be sold, borrowed against, or insured, **it belongs on the balance sheet**

Asset Accuracy:
- Borrowing capacity, liquidity ratios, and stress-test outcomes.
- Inaccurate assets *can* lead to incorrect decisions even when ratios are calculated correctly.

How does this playout in real life?
- Farmer John believes they are overleveraged b/c their debt to asset ratio is high (>60%)
  - However, their equipment values are grossly understated

- Farmer Jessica believes her liquidity is weak (CR <1.3)
  - However, they never listed stored grain or pre-purchased inputs.

Balance Sheet Problems are not math; they are often inventory problems!

What can be done to improve asset valuation?

- Commit to an **annual inventory review** (separate from tax preparation).
  - **Be sure to update asset values before** lender meetings, major capital purchases, and expansion/restructuring conversations.

In the previous examples, how does that *actually* happen?

- We talk often about "under valuing assets" but never discuss <u>how</u> this happens.

Common mistakes (these are just a few examples)

- Tax depreciation is mistaken for market value
- Equipment values never updated after market shift or are 'conservative' estimates
- Only "primary" equipment is listed
- Stored assets are excluded because its 'already sold'
- Inventories are not properly reconciled at the end of the year
- Prepaid inputs are viewed as expenses, not assets.

The Cost of Inaccurate Asset Values

Undervalued assets can…

- Weaken on-paper solvency
- Reduce negotiation power with lenders
- In extreme cases, trigger unnecessary on-farm restructuring

Overvalued assets can…

- Mask financial position risk
- Delay corrective action (e.g., restructuring)

In practice, this can lead to…..

- Undervalued land, which can cause a lender to:
  - Cap operating credit
  - **Require additional collateral******
- Overvalued equipment can lead to:
  - Delay in selling (or restructuring)
  - Sticker shock when liquidation is not as strong as expected.

What Can be Done?

- Use value **ranges**, not a single point. (help with stress test)
- Reconcile differences between tax basis, insurance values, and current market estimates

Commonly Missed (or Misstated) Assets

Common "forgotten" assets:

- Stored grain
- Prepaid Inputs (e.g., seed or chemicals)
- Older (or secondary) equipment
- Irrigation systems and/or on-farm wells
- Buildings (not incl'd in land value)
- Livestock inventory

In practice:

- Prepaid inputs last fall never appear → Working Capital understated
- Irrigation system fully depreciated but still worth $$$$ → Assets understated

"if it has resale value, list it!"

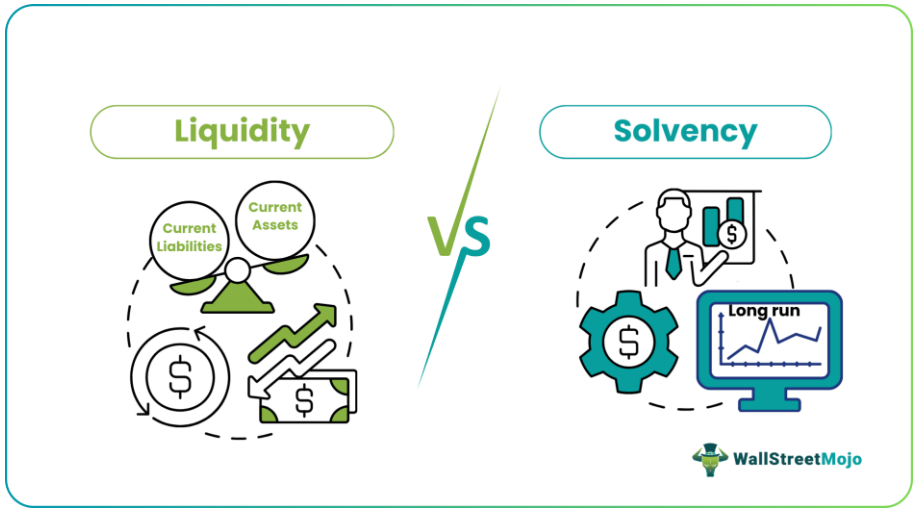
What can be done?

- Make it a point to walk the farm at least once per year, and ask:
  - "What could be sold?"
  - "What would/could be insured?"

Correctly Classifying Assets: It Matters!!

Among others, incorrect classification can distort:

- Working capital (e.g., current ratio (CR))
- Liquidity and solvency (some cases)



Examples

- Listing pre-purchased inputs as equipment
  - Current assets are understated → CR is artificially low
  - Stored grain or seeds listed as "other assets" → hiding liquidity

"Don't let accounting convenience drive classification!!"

Correctly Valuing Assets

What would this sell for in today's market?

- Use a **fair market value**
  - What are similar items bringing at auction?
- Think before using purchase price, book value, or tax value

Examples

- A combine purchased a few years ago might be worth more now.
- Inherited land's value is understated.

What can be done?

- Annual updates: stored grain/inputs and equipment
- Periodical updates (3-5 years): land, improvements, and buildings

Practical Valuation Methods

These are starting points and does not encompass all options

Grain: local cash bids (past year) * inventory on hand

Inputs: resale or replacement costs

Equipment: Dealer trade-in quotes, auction sales, comparable listings.

Land: Recent local sales, lender or professional appraisals.

Examples

- Checking local auctions can recalibrate equipment values, quickly.
- Talking with an equipment dealer can give an additional estimate (+ depreciation schedule).

Undervaluation, Collateral, and Stress-Tests

Asset Accuracy

- Undervaluing → over-pledging collateral → reduced future borrowing flexibility.
- Collateral decisions today constrain options during downturns.
- Stress tests depend upon:
  - Starting asset values & liquidity quality (cash vs. inventory)

Practically

Small loan secured by high-valued equipment (asset is fully tied up)

Later financing needs are encumbered by fewer remaining assets.

Stress test appears catastrophic…..

Case Study Examples – How Shocks Impact Viability

Let's Switch Gears……

- We are now going to take a deeper dive into some applied examples.
- In these examples, we analyze how common market 'shocks' impact a farm's balance sheet.
- Two cases: 1) 2,000-acre row crop farm, and 2) 80-acre specialty crop farm
  - Each example starts with a "healthy" balance sheet.

- **Please note:**
  - These examples are only scratching the surface
  - We do not analyze the income statement or statement of cash flows***

Farm Financial Standards Council (FFSC) Benchmarks

- **Current Ratio (CA/CL):** ≥2.0 strong | 1.3–2.0 caution | <1.3 vulnerable
- **Working Capital / Gross Revenue:** ≥20% strong | 10–20% adequate | <10% vulnerable
- **Debt-to-Asset (TL/TA):** ≤30% strong | 30–60% adequate | >60% vulnerable

Case 1: 2,000-Acre Arkansas Row-Crop Farm

Setting the Stage

- 2,000 acres: 1,200 soybeans, 500 rice, 300 corn
- Land Tenure: 25% owned, 75% cash rent; moderate equipment line; disciplined prepay
- Marketing: modest forward sales; carries some grain into next marketing year
- Overall, they are in *good* financial shape

Case 1: Baseline Balance

CURRENT ASSETS	Market Value
Cash	$320,000
Grain inventory	$680,000
Accounts receivable	$45,000
Prepaids & supplies	$155,000
Total current assets (CA)	$1,200,000
NONCURRENT ASSETS	
Machinery & equipment (net)	$2,050,000
Land	$3,250,000
Total assets (TA)	$6,500,000
CURRENT LIABILITIES	
Operating note	$360,000
Accounts payable & accruals	$110,000
Current portion term debt (CPLTD)	$90,000
Total current liabilities (CL)	$560,000
NONCURRENT LIABILITIES	
Intermediate term debt	$820,000
Real estate debt	$720,000
Total liabilities (TL)	$2,100,000
Equity (TA − TL)	$4,400,000

Case 1: Ratio Analysis and Benchmarking

- Working capital = $1,200,000 − $560,000 = $640,000
- Current ratio = 1,200,000 / 560,000 = 2.14 (Strong: ≥2.0)
- **Assume gross revenue ≈ $2.6M** → WC/GR ≈ 25% (Strong: ≥20%)
- Debt-to-asset = 2,100,000 / 6,500,000 = 32% (Adequate: 30–60%)

Case 1: Operating Stress Shock (assumptions)

- Soybean price −15% on unpriced bushels; basis weakens modestly
- Corn yield −10% (localized weather)
- Rice expenses largely unchanged; interest +1% on operating note
- **Net cash draw to cover margins: −$260,000**
- **Inventory revalued −8% (market reality at 12/31)**

Case 1: Post-Shock Balance Sheet: *What Happened?*

CURRENT ASSETS (changes)	
Cash	$60,000 (↓$260,000)
Grain inventory (revalued)	$626,000 (↓$54,000)
Accounts receivable	$45,000
Prepaids & supplies	$155,000
Total current assets (CA)	$886,000
Total assets (TA)	$6,186,000
CURRENT LIABILITIES (unchanged)	
Total current liabilities (CL)	$560,000
Total liabilities (TL)	$2,100,000
Equity (TA − TL)	$4,086,000

Case 1: Ratio Analysis (Post-Shock)

- Working capital = $886,000 − $560,000 = $326,000
- Current ratio = 886,000 / 560,000 = 1.58 (Caution: 1.3–2.0)
- Gross revenue falls to ≈ $2.2M → WC/GR ≈ 15% (Adequate: 10–20%)
- Debt-to-asset ≈ 2,100,000 / 6,186,000 = 34% (Adequate)

Case 1: Another Shock

- Land value −15% (balance-sheet shock) and interest rates stay elevated.
- Land drops from $3.25M to $2.76M (−$487,500)
- No immediate cash impact, **but** collateral cushion and refinancing terms tighten

- In this case, assume lender raises required liquidity floor and reduces advance rates

Case 1: Another Shock Cont.

KEY BALANCE-SHEET CHANGES	
Land (after −15%)	$2,762,500
Total assets (TA)	$5,958,500
Total liabilities (TL)	$2,100,000
Equity (TA − TL)	$3,858,500 (↓$541,500 from baseline)
Current assets (CA)	$886,000
Current liabilities (CL)	$560,000

Case 1: Ratio Analysis (Another Shock)

- Debt-to-asset = 2,100,000 / 5,958,500 = 35% (Adequate)
- Liquidity remains the binding constraint: CR 1.58 (Caution) and WC/GR ~15% (Adequate)
- In reality: more scrutiny and a higher required WC floor
- This can also work *for* you……..

Case 1: Key Takeaways and Insights

- 'Good' farms often lose flexibility first through liquidity, not solvency.
- **Action:** pause discretionary capital expenditures until CR ≥2.0 and WC/GR ≥20% again.
- **Action:** rebuild WC via tighter withdrawals, input discipline, and a marketing plan that protects downside.
- **Action:** pre-empt refinancing risk by re-amortizing where possible.

- A land valuation shock can tighten credit terms even if the farm stays 'adequate' on D/A (current). The concern is '*what comes next?*'

Case 2: Delta Specialty Crop Farm

- 80 acres Sweet potatoes and squash; direct + wholesale mix
- High labor share; rapid cash cycles; thin year-end working capital is common

- Goal: show that timing risk can sink otherwise profitable farms

Case 2: Baseline Balance Sheet

CURRENT ASSETS	
Cash	$25,000
Accounts receivable	$45,000
Inventory (pack/inputs)	$60,000
Prepaids & supplies	$70,000
Total current assets (CA)	$200,000
NONCURRENT ASSETS	
Equipment/infrastructure	$400,000
Land	$600,000
Total assets (TA)	$1,200,000
CURRENT LIABILITIES	
Operating/seasonal line	$105,000
Accounts payable & accruals	$55,000
Total current liabilities (CL)	$160,000
NONCURRENT LIABILITIES	
Term debt	$490,000
Total liabilities (TL)	$650,000
Equity	$550,000

Case 2: Analysis (Pre Shock)

- Working capital = $200,000 − $160,000 = $40,000 (thin)
- Current ratio = 200,000 / 160,000 = 1.25 (Vulnerable: <1.3)
- Assume gross revenue ≈ $700,000 → WC/GR ≈ 6% (Vulnerable: <10%)
- Debt-to-asset = 650,000 / 1,200,000 = 54% (Adequate)

Case 2: Market Shock

- Timing shock: buyer payment delay (45→90 days) + harvest delay
- Payroll and packing costs continue; cash draw →$35,000
- Accts. Receivable increases by $35,000 (revenue earned, not collected)
- No change in equity yet, but the problem is **cash timing**

Case 2: Post-Shock Highlights

CURRENT ASSETS (changes)	
Cash	$-10,000 (↓$35,000)
Accounts receivable	$80,000 (↑$35,000)
Inventory	$60,000
Prepaids & supplies	$70,000
Total current assets (CA)	$200,000 (unchanged)
Total current liabilities (CL)	$160,000
Working capital (CA − CL)	$40,000 (unchanged, but liquidity quality worsened)

Case 2: Post Shock Analysis

- Current ratio remains 1.25 (Vulnerable), but risk increased because cash is negative

- Think about it! → Annual ratios can miss a liquidity crisis if cash timing is ignored

- What can be done: move to weekly cash tracking and a minimum cash-on-hand rule

Case 2: Another Shock (Labor)

- Cost shock + mitigation: labor costs +15% for season; build a cash buffer plan
- Assume additional short-term borrowing +$25,000 (operating line) to cover payroll
- Then implement mitigation: raise cash buffer target and tighten receivable policy
- Net: CL rises; without pricing changes, vulnerability increases

Case 2: Labor Shock (Current Liabilities)

CURRENT LIABILITIES (changes)	
Operating/seasonal line	$130,000 (↑$25,000)
Total current liabilities (CL)	$185,000
Current assets (CA)	$200,000
Working capital (CA − CL)	$15,000
Current ratio (CA/CL)	1.08

Case 2: Labor Shock Analysis

- Current ratio = 1.08 (Vulnerable)
- WC/GR falls further (≈2%)

- Takeaway: specialty crop farms may need higher liquidity buffers relative to timing risk

- Management fix must include pricing/collections and cash reserves. Try not to just add more credit.

Case 2: Key Takeaways

- Key takeaway: specialty farms can struggle due to timing gaps; 'profitability' measures are not enough***.
- **Action:** set a minimum cash buffer (e.g., 4–6 weeks of payroll/packing costs).
- **Action:** tighten receivable terms, use deposits/contracts, and monitor accounts receivable weekly.
- **Action:** treat operating line draws as an early warning; do not normalize 'rolling the line.'

- liquidity quality (cash today) matters more than year-end totals.

Conclusion and Future Work

Today, we covered:

- Importance of accurate asset valuation
- How market shocks can impact balance sheet quality, reemphasizing the importance of regular record-keeping habits.
- For DBAN cooperators, our goal is to give you a baseline to analyze financial statements and help highlight areas of improvement/concern.

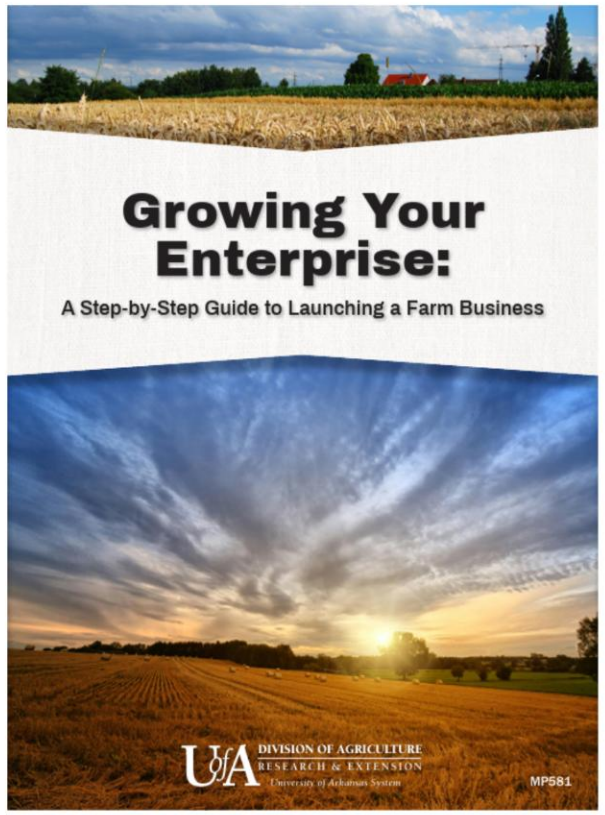
Future Work

- Balance Sheet Pocket Guide
- Understanding a credit score and other financial statements
- Building fruitful relationships with Ag. lenders.

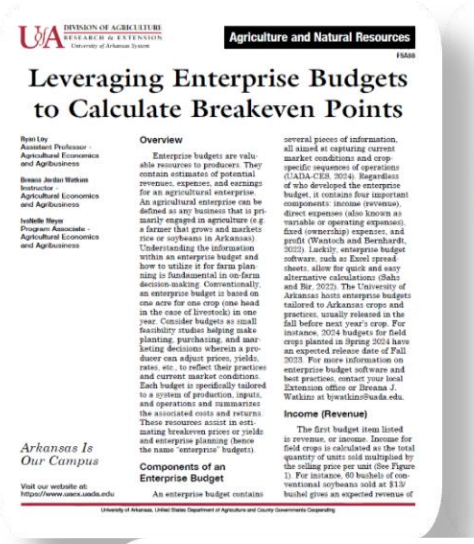
Please keep your eye out for these resources

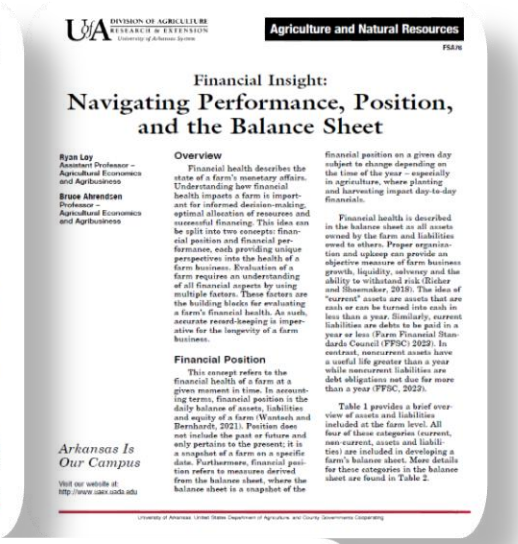
Other Available Resources

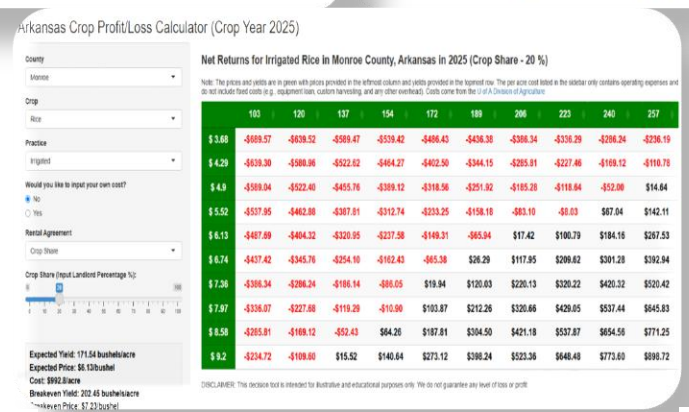
Phase 1:
Starting the Farm Business



Phase 2:
Financial T.A. & Risk Management







Thank You!! Questions?

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AR Profit/Loss Calculator

National Cotton Profit/Loss Tool