

# Educational Efforts With FAST Tools

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## FAST Tools

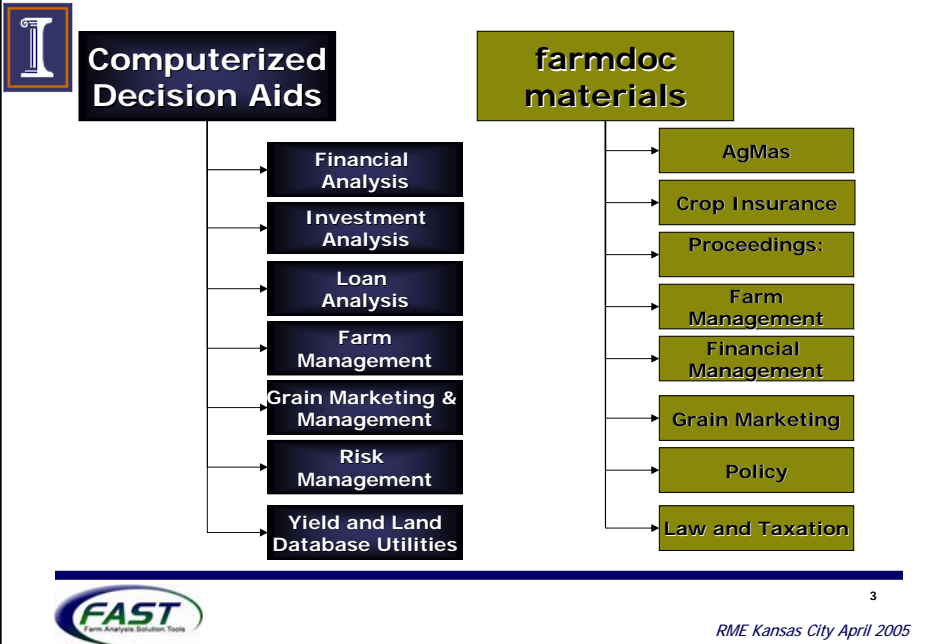
- **farmdoc** companion project initiated in 1999
- Development of spreadsheet-based tools to aid decisions for producers, lenders, consultants and investors
- Facilitate use, access, distribution of tools and resources through CD and internet distribution
  - Quarterly subscription
  - **farmdoc** download
  - via workshops
- Approximately, 23,000 CDs produced and another 25,000 downloads
- Increased demand for education and training



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## FAST Tools - Overview



## Financial Analysis

Assist in preparing and interpreting financial information and measuring financial health

- ❖ Appraisal of current financial position
- ❖ Balance sheet
- ❖ Ratio calculator
- ❖ Cash flow planning
- ❖ Cash to accrual income approximation
- ❖ Estimates of deferred taxes
- ❖ Repayment capacity analysis
- ❖ Net worth allocation



## Investment Analysis

Assist in measuring the economic returns and performance of alternative types of investments.

- ❖ Capital budgeting
- ❖ Grain bin analysis
- ❖ Land purchase analysis
- ❖ Lease versus purchase
- ❖ Machinery financing
- ❖ MACRS calculator
- ❖ Savings calculator
- ❖ Time value of money calculator



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## Loan Analysis

Assist in calculating loan payments and schedules; comparing alternative loans; and measuring the sensitivity of payments to changes in loan parameters

- ❖ Loan amortization
- ❖ Loan comparison
- ❖ Revolving loan calculator



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## Farm Management

Assist in developing enterprise budgets and breakeven levels; estimating costs of machinery operations; and comparing crop insurance and farmland leasing alternatives

- ❖ Break even analysis
- ❖ Crop budgeting tool
- ❖ Crop insurance calculator
- ❖ Enterprise allocation and analysis
- ❖ Farmland lease analysis
- ❖ Machinery lease analysis



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## Grain Marketing and Management

Assist in tracking grain inventory and estimating the costs and returns of grain storage and delivery

- ❖ Crop storage analysis
- ❖ Grain delivery model
- ❖ Grain pricing model
- ❖ Grain inventory management



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## Risk Management

Assist in evaluating the impact of farmland lease types as well as marketing and crop insurance strategies on revenue and income distributions.

- ❖ Crop insurance historical evaluator
- ❖ Farm rent evaluator
- ❖ Marketing and crop insurance risk model



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## Yield and Land Database Utilities

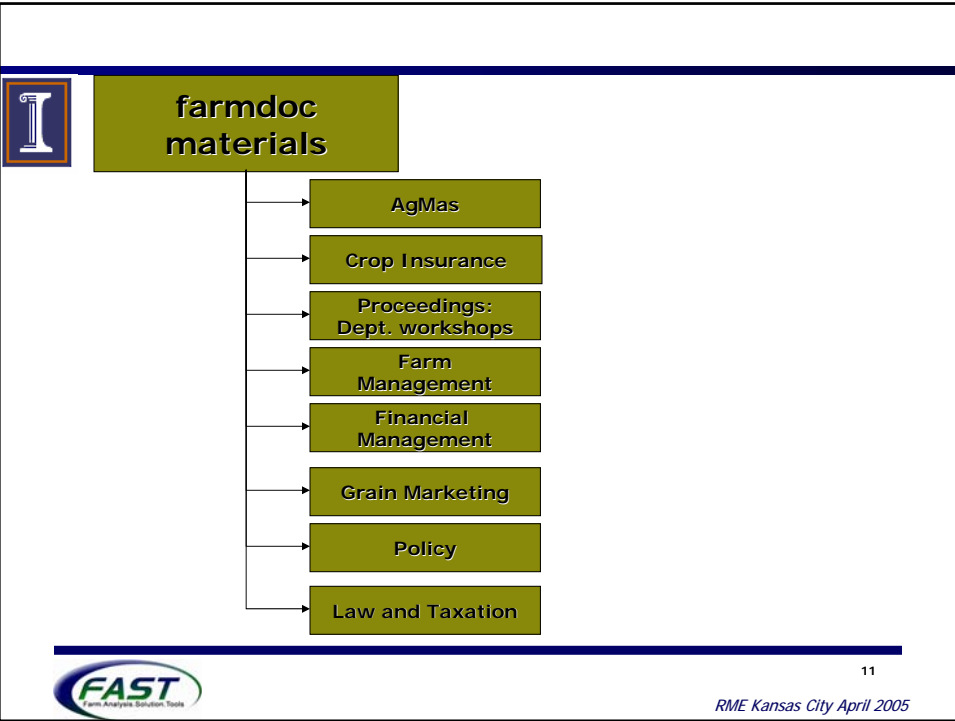
Assist in analyzing county-level historical crop yields and land prices and assist with common computations related to soil productivity measures and yield predictions

- ❖ Illinois, Indiana, Iowa crop yield database
- ❖ Illinois farmland sales database
- ❖ Illinois soil productivity index utilities



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- farmdoc* resources:  
Farm Management**
- Farm Economics: Facts and Opinions
  - Costs of operating machinery
  - Costs of production
  - Crop budgets & Crop revenue less variable costs
  - Hog budgets
  - Farmland index numbers and Soil Productivity Ratings
  - Leasing forms
  - Share rent leasing characteristics by crop reporting district
- FAST**  
Farm Analysis Solution Tools
- 12  
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## *farmdoc* resources: Financial Management

- Farmers Guide to Agricultural Credit
- Producer preferences for lender attributes
- Getting ready to prepare a balance sheet
- Financial analysis primer
- Credit analysis reports
- Family living tables
- Financial characteristics of Illinois Farms:2002-03
- Financial Characteristics: historical tables
- Machinery Investment per acre
- Time value of money concepts & investment primer



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## Current Resources and Activities

- 40 laptop computer lab
- New FAST educator / coordinator
- CD duplication
- 70+ meetings in past 12 months that have addressed / integrated FAST

Theme & Focus  
Teach Decision Making  
Integrate and utilize FAST  
Not just computer training



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## Educational Efforts 3 Dimensions



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## Content: Modules

- Crop insurance
- Financial management
- Grain inventory pricing and management
- Machinery management
- Land investment and lease analysis
- Enterprise analysis



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## Audiences

### *Targeted and General*

- Lenders
- FSA
- Farmers
- Farm bureau managers
- College and High School Students
- Educators (train the trainer programs)
  - College and Jr College instructors
  - Vo-Ag Teachers
  - Extension Educators
  - State record fieldstaff (Iowa, KY, Illinois and Alabama)



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## Hosts

### *“Getting the right people at the table”*

- Typical Extension Channels
- Farm Bureau
- Farm Credit System
- Commercial Banks
- Growmark
- State Record Keeping Associations



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## Meeting Examples

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## Train-the-Trainer

- 2 separate, 2-day workshops
- Each tool is taught from a teacher perspective
  - Cases and teacher guides available for each tool
  - Teacher guides
    - quick cases
    - In-depth cases



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## Meeting Examples

- Financial Management
- Crop Insurance
  - Schnitkey-Show Them the Data
- Lender sponsored meetings/appreciation events
- Annie's Project
  - Ruth Hambleton
- Integration into annual lender school



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## Meeting Examples

- Break-out sessions at annual *farmdoc* meeting
- Farm Bureau sponsored meetings
- Integration w/Growmark
- Undergraduate Classroom
- FSA Lender training
- China Bankers



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## What is ahead?

- Developing a longer-term risk management tool
- Partner with other states to deliver and develop programs
- Develop livestock tools



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## Demo of Tools



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# FAST Tools -- Demo

FAST Resources CD  
RUNNING FROM HARD DRIVE



**FAST Spreadsheet Tools**  
**FAST Program Descriptions**  
**FAST Case Studies**  
**FAST Hands-on Training Sessions**  
**How to use the CD**  
**CD Contents**  
**Explore CD Resources**  
**Install CD Resources**  
**Subscribe to FAST CD Updates**

**Resources**  
**farmdoc** UNIVERSITY OF ILLINOIS  
**AgMas Reports**  
**Crop Insurance Resources**  
**Farm Income 2005 Proceedings**  
**Farm Management Resources**  
**Financial Management Resources**  
**Grain Marketing Resources**  
**Illinois Rural Policy Center**  
**Law and Taxation Publications**  
**Livestock Outlook**

**Exit**

 **ILLINOIS**  
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN  
Version: February 25, 2005

FAST Spreadsheet Tools  
RUNNING FROM HARD DRIVE



**Help: Program Descriptions**

**Financial Analysis**  
Appraisal of Current Financial Position  
Balance Sheet & Historical Financial Statements  
Benchmark Ratio Analysis  
Ratio Calculator  
Cash Flow Planning  
Cash to Accrual Income Approximation  
Estimation of Deferred Taxes  
Repayment Capacity Analysis  
Net Worth Allocation

**Investment Analysis**  
Capital Budgeting  
Grain Bin Analysis  
Land Purchase Analysis  
Lease vs. Purchase  
Machinery Financing  
MACRS Calculator  
Savings Calculator  
Time Value of Money Calculator

**Loan Analysis**  
Loan Amortization  
Loan Comparison  
Revolving Loan Calculator

**Farm Management**  
Breakeven Analysis  
Crop Budgeting Tool  
Crop Insurance Calculator  
Crop Rotation Tool  
Enterprise Allocation and Analysis  
Farmland Lease Analysis  
Machinery Economics

**Grain Marketing and Management**  
Crop Storage Analysis  
Grain Delivery Model  
Grain Inventory Management  
Grain Pricing Model

**Risk Management**  
Farm Rent Evaluator  
Marketing & Crop Insurance Risk Model

**Yield and Land Database Utilities**  
Illinois Crop Yield Database  
Illinois Farmland Sales Database  
Iowa Crop Yield Database  
Illinois Soil Productivity Index Utilities

**Return to Main**      **Explore Saved File Directory**

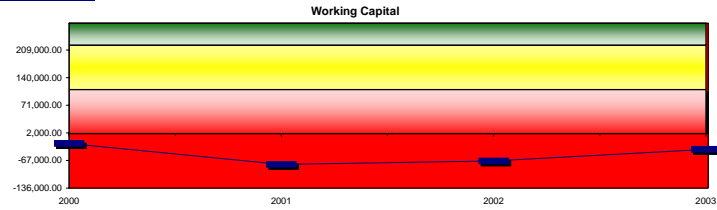
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# Trend Analysis

## Trend Analysis

- 2000
- 2001
- 2002
- 2003

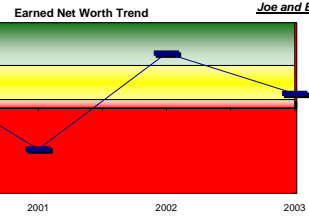


Joe and Elise Farmer	2000	2001	2002	2003	High Performance Benchmark	Health Index	Trend Index	Include in Ratio Report
Liquidity								
Current Ratio	0.832	0.584	0.646	0.751	1.500	1.0	3.0	
Working Capital to VFP (gross revenue)	(0.05)	(0.20)	(0.14)	(0.09)	0.50	1.2	4.0	
Working Capital	\$ (24,743)	\$ (76,824)	\$ (67,968)	\$ (39,415)	\$220,742	1.2	NA	

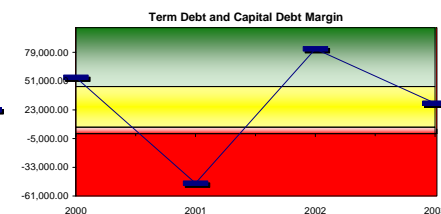
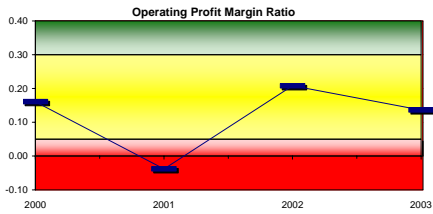
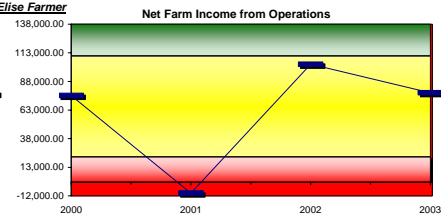


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Joe and Elise Farmer

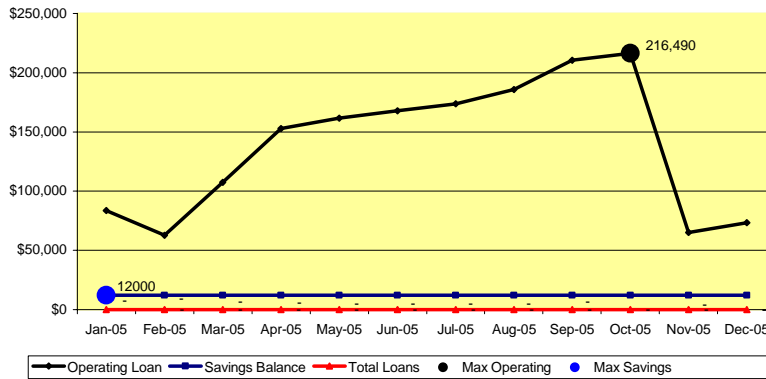


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### Loan and Savings Balances



Monthly Cash Flow Sources and Uses



### Cash Flow Sensitivity

Sensitivity Report	Sensitivity analysis 1	Sensitivity analysis 2	Sensitivity analysis 3	Baseline
	Yield Drop	Yield and Price Drop	Yield, Price and Cost	
Net farm income before taxes	\$ (2,461)	\$ (22,288)	\$ (26,774)	\$ 19,845
Net income before taxes	\$ 29,783	\$ 9,955	\$ 5,470	\$ 52,089
Net cash income after depreciation	\$ (6,927)	\$ (26,580)	\$ (30,762)	\$ 10,900
Capital debt replacement capacity	\$ 9,075	\$ (10,753)	\$ (15,238)	\$ 31,381
Capital debt replacement margin	\$ (15,120)	\$ (34,947)	\$ (39,433)	\$ 7,186
Term debt coverage ratio	0.643	0.174	0.068	1.170
Maximum operating loan balance	\$ 216,490	\$ 220,099	\$ 223,767	\$ 216,490
Ending operating loan balance	\$ 91,066	\$ 110,719	\$ 114,901	\$ 73,239
Net cash from operating activities	\$ 4,589	\$ (15,064)	\$ (19,246)	\$ 22,416
Net cash from investing activities	\$ -	\$ -	\$ -	\$ -
Net cash from financing activities	\$ (4,589)	\$ 15,064	\$ 19,246	\$ (22,416)
Corn yield	147	147	147	163
Soybean yield	46	46	46	51
Wheat yield	-	-	-	-
Other Crop 1 yield	-	-	-	-
Other Crop 2 yield	-	-	-	-
Other Crop 3 yield	-	-	-	-
Corn price	\$2.30	\$2.07	\$2.07	\$2.30
Soybean price	\$5.50	\$4.95	\$4.95	\$5.50

