

2006 Farm Profitability and Soybean Rust

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Rust Fungicide Analysis

- University of Arkansas Division of Agriculture Rust Fungicide Comparison Trials.
- For the economic study:
 - 11 Single application trials.
 - 9 Two application trials.
 - Ground applications at 13 gpa.
 - Aerial applications at 7 gpa.
 - Consider a \$5.00/acre scouting charge.
 - In an ASR year, 1 irrigation application will not be needed.

Cost of Fungicide, Application, & Scouting Less 1 Irrigation Application

Fungicides	Rate	1 Application (\$/ac)	
		Aerial	Ground
Tilt	4 oz/ac	13.03	8.64
Quadris	6 oz/ac	15.33	10.94
Headline + NIS	6.2 oz/ac+.125% v/v	13.62	9.23
Propimax	4 oz/ac	11.98	7.59
Headline SBR + NIS	7.8 oz/ac+.125% v/v	16.50	12.11
Laredo EC	7 oz/ac	12.38	7.99
Stratego	19/oz/ac	24.04	19.65
Quilt	14 oz/ac	14.64	10.25
Domark 230	5 oz/ac	15.55	11.16
Echo 720	20 oz/ac	8.39	4.00
Headline SBR	7.8 oz/ac	16.35	11.96

Scouting increases costs by \$5.00/ac and 1 irrigation reduces costs by \$8.11.

Cost of Fungicide, Applications, & Scouting Less 1 Irrigation Application

Fungicides	Rate	2 Applications (\$/ac)	
		Aerial	Ground
Stratego fb Tilt	19 oz/ac fb 4 oz/ac	39.97	31.23
Quadris fb Folicur	6 oz/ac fb 4 oz/ac	29.21	20.47
Headline fb Folicur	6 oz/ac fb 4 oz/ac	27.00	18.26
Folicur fb Folicur	4 oz/ac fb 4 oz/ac	24.84	16.10
Folicur fb Headline SBR+NIS	4 oz/ac fb 7.8 oz/ac + .125% v/v	30.34	21.60
Folicur fb Stratego	4 oz/ac fb 19 oz/ac	37.83	29.09
Echo 720 fb Folicur	20 oz/ac fb 4 oz/ac	22.27	13.53
Topsin M 4.5F fb Folicur	15 oz/ac fb 4 oz/ac	29.32	20.58
Topsin M fb Folicur	15 oz/ac fb 4 oz/ac	32.29	23.55

Scouting increases costs by \$5.00/ac and 1 irrigation reduces costs by \$8.11.

Average Treatments Costs

Aerial	Ground	Single Application	Two Applications
\$21.74/ac	\$15.40/ac	\$12.52/ac	\$25.97/ac

Average Treatments Costs

Single Application

Two Applications

Aerial	Ground	Aerial	Ground
\$14.71/ac	\$10.32/ac	\$30.34/ac	\$21.60/ac

Partial Budgets

■ Positive Impacts

– Additional Income

- (list the items of income from the **alternative** plan that would not be received with the **base** plan)

– Reduced Expenses

- (list the items of expense for the **base** plan that will be avoided with the **alternative** plan)

■ Negative Impacts

– Reduced Income

- (list the items of income for the **base** plan that will not be received from the **alternative** plan)

– Additional Expenses

- (list the items of expenses for the **alternative** plan that are not required with the **base** plan)

Example

Base plan - Soybean production prior to Asian Rust
Alternative - Fungicide spraying

■ Additional Income

- Possible higher yield from controlling other foliar diseases.

■ Reduced Income

- Possible lower yields from not spraying at right time, etc.

■ Reduced Expenses

- 1 reduced irrigation in an ASR year.

■ Additional Expenses

- Fungicide cost(s)
- Application(s)
- Scouting

Example

Base plan - Soybean production prior to Asian Rust
Alternative - Fungicide spraying AND crop insurance

■ Additional Income

- Possible higher yield from controlling other foliar diseases
- Possible crop insurance payout

■ Reduced Expenses

- 1 reduced irrigation in an ASR year.

■ Reduced Income

- Possible lower yields from not spraying at right time, etc.

■ Additional Expenses

- Fungicide cost(s)
- Application(s)
- Scouting
- Crop insurance premium

Example

Base plan - Fungicide spraying, NO crop insurance

Alternative - Fungicide spraying AND crop insurance

■ Additional Income

- Possible crop insurance payout

■ Reduced Income

- None

■ Reduced Expenses

- None

■ Additional Expenses

- Crop insurance premium

Net Returns of Soybeans

AG-933 UA Early Season Roundup Ready Budget

Yield Loss %	Yield bu/ac	Cost of Fungicidal Chemicals, Application(s), & Scouting Less 1 Irrigation Application (\$/ac)					
		0	5	10	15	20	40
0	40	30	25	20	15	10	-10
8	37	11	6	1	-4	-9	-29
16	34	-8	-13	-18	-23	-28	-48
24	30	-27	-32	-37	-42	-47	-67
35	26	-54	-59	-64	-69	-74	-94
50	20	-90	-95	-100	-105	-110	-130

Assumed: Yield 40 bu/ac & soybean price \$6.00/bu. Land rent is not regarded.
 AG-933 total specified expenses = \$212.99. Crop insurance is not considered in this example.

Net Returns of Soybeans

AG-943 UA Full Season Roundup Ready Budget

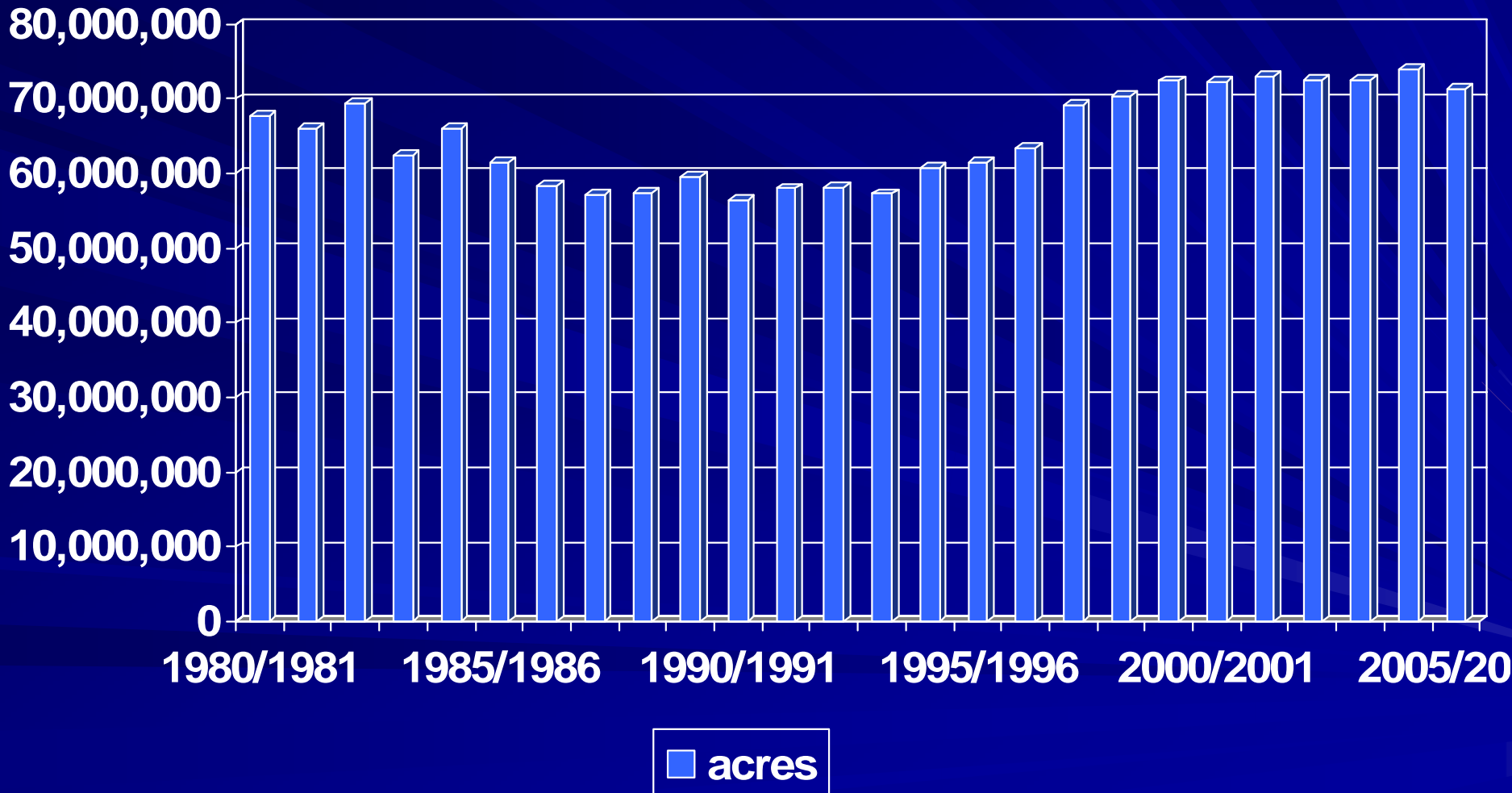
Yield Loss %	Yield bu/ac	Cost of Fungicidal Chemicals, Application(s), & Scouting Less 1 Irrigation Application (\$/ac)					
		0	5	10	15	20	40
0	40	11	6	1	-4	-9	-29
8	37	-8	-13	-18	-23	-28	-48
16	34	-27	-32	-37	-42	-47	-67
24	30	-46	-51	-56	-61	-66	-86
35	26	-73	-78	-83	-88	-93	-113
50	20	-109	-114	-119	-124	-129	-149

Assumed: Yield 40 bu/ac & soybean price \$6.00/bu. Land rent is not regarded.

AG-943 total specified expenses = \$231.63. Crop insurance is not considered in this example.

Soybean Outlook

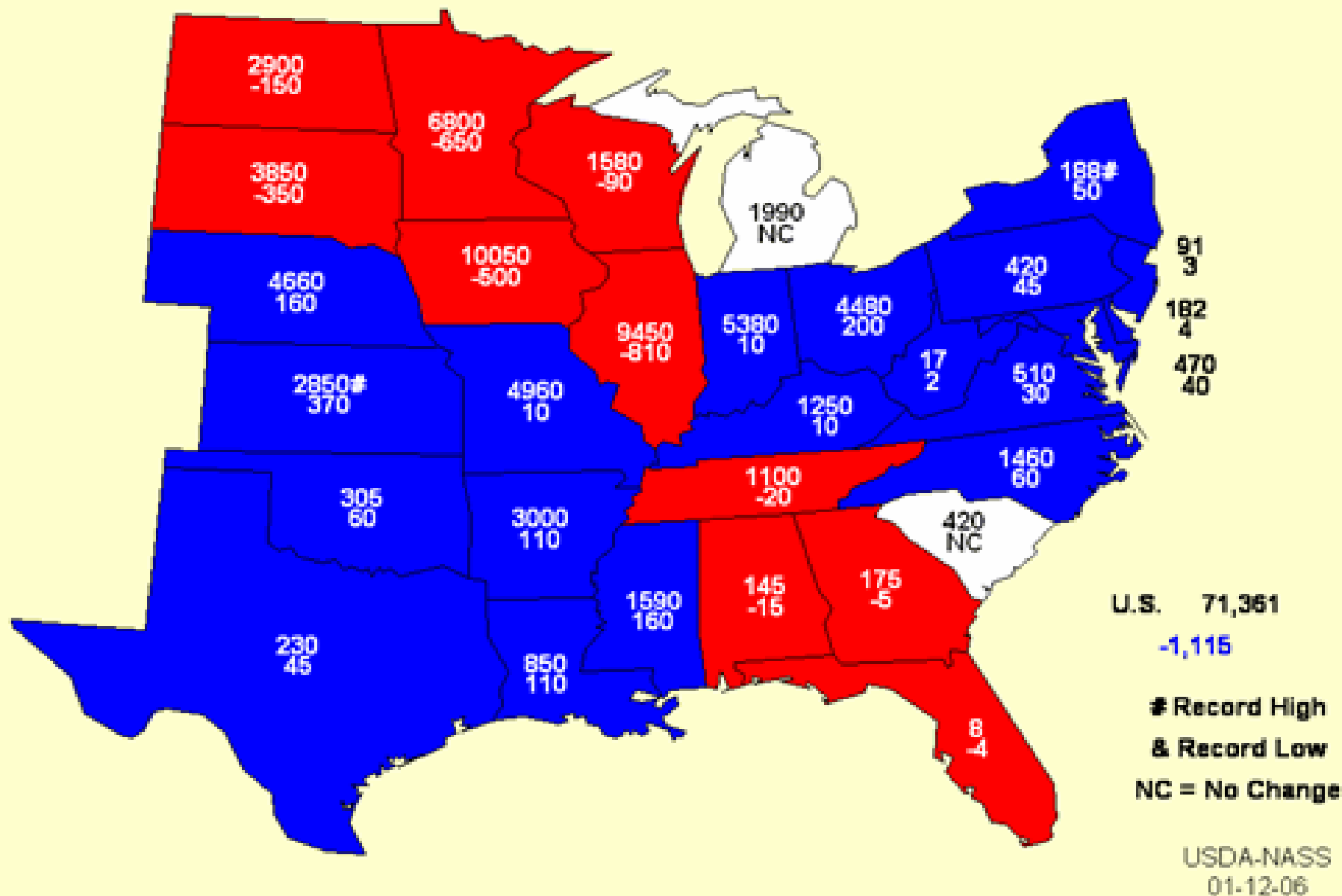
U.S. Soybean Acreage



Source: USDA-ERS

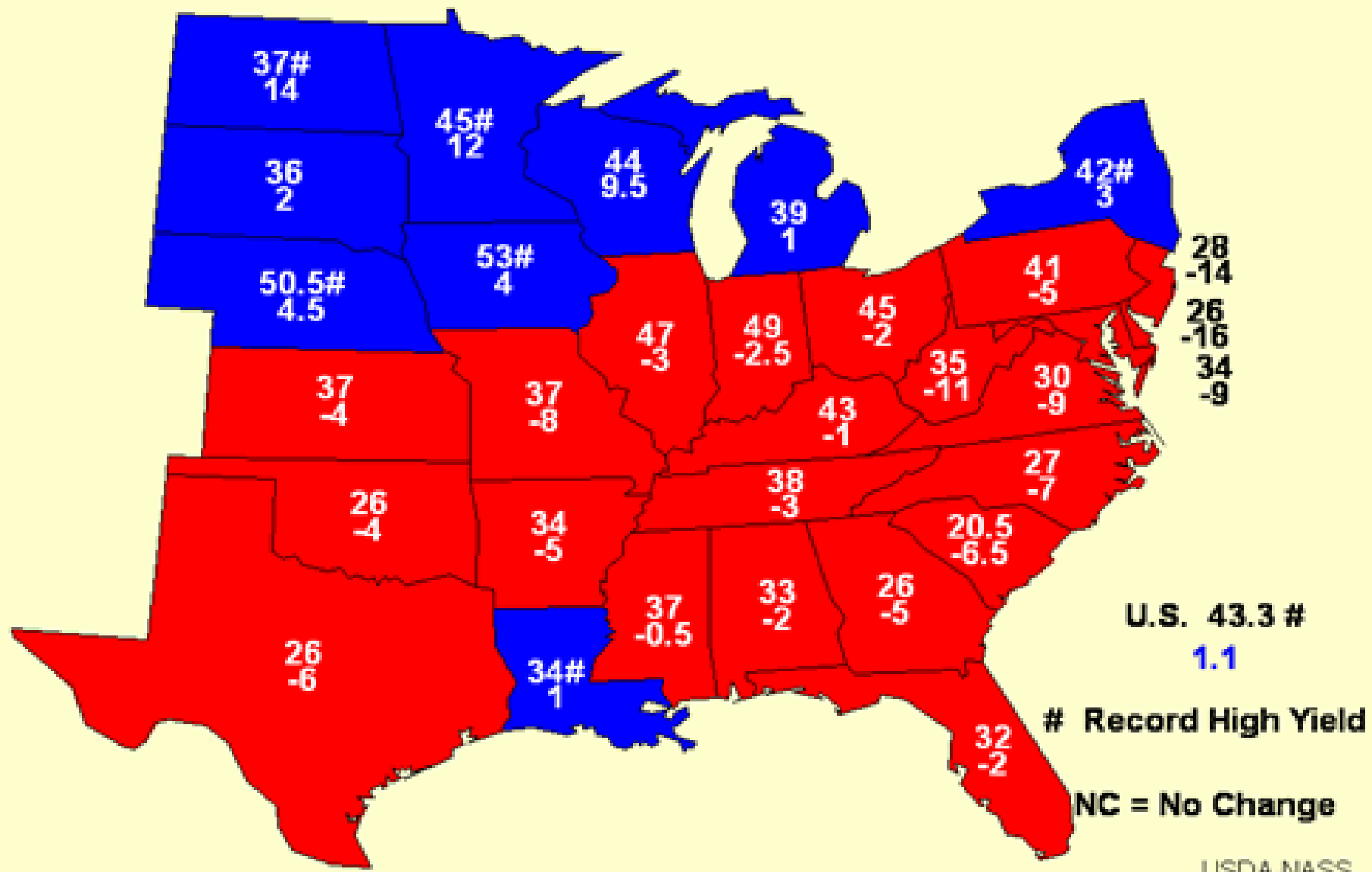
2005 Soybeans Harvested

Acres (000) and Change From Previous Year



Soybean Yields 2005

Bushels and Change From Previous Year



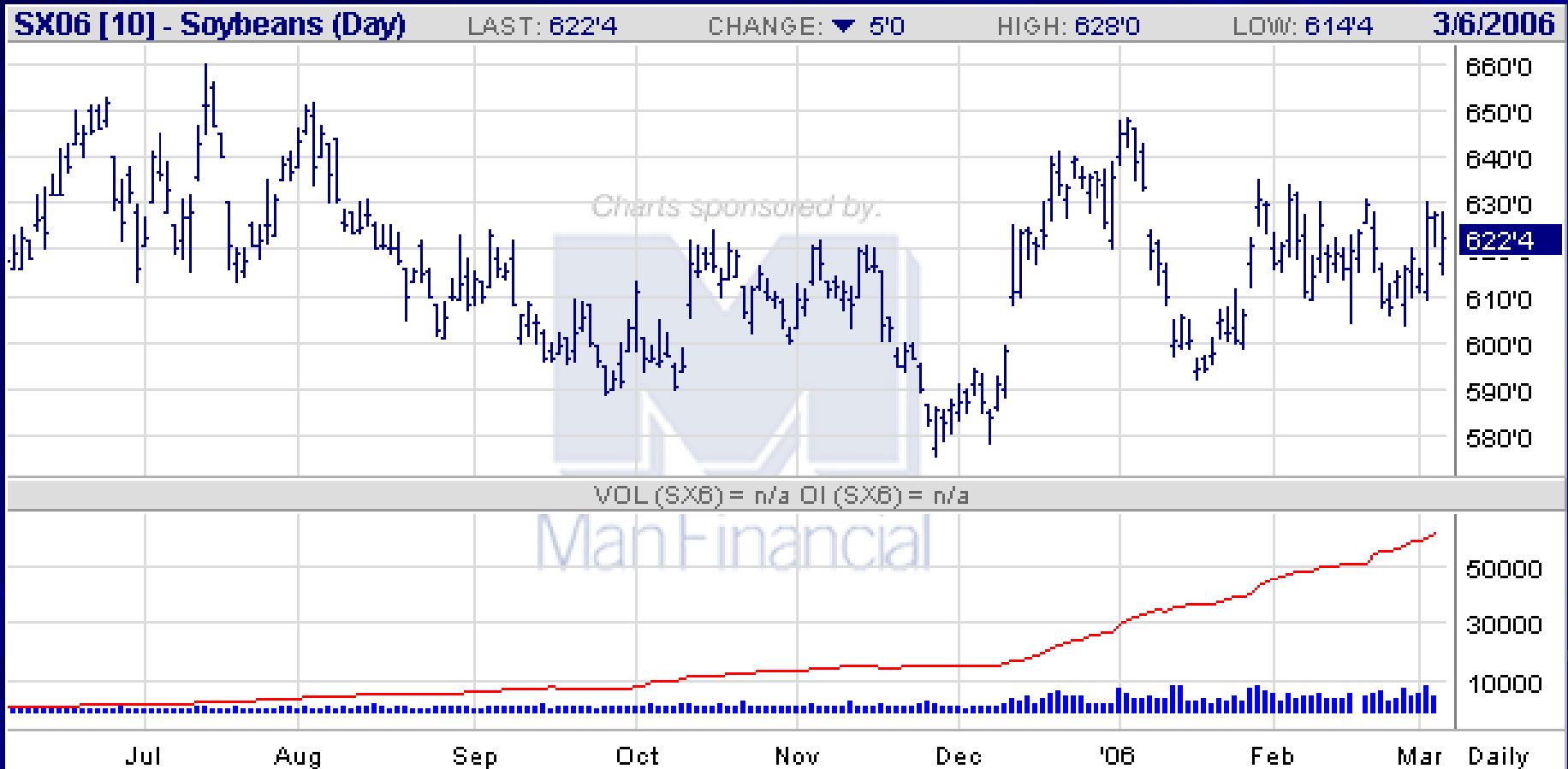
Global Soybeans – The Supply Side

Unit: MMT	2003/04	Estimated 2004/05	Projected 2005/06
Beginning Stocks	33.50	35.68	44.87
Production	186.75	215.34	222.76
Total Supply	227.25	251.02	267.63

Global Soybeans – The Demand Side

Unit: MMT	2003/04	Estimated 2004/05	Projected 2005/06
Total Use	191.57	206.15	213.80
End. Stocks	35.68	44.87	53.83
S/U Ratio	19%	22%	25%

November '06 Soybean Futures



USDA Soybean S/D Estimates

■ **January report viewed as very bearish:**

- Increased U.S. 2005 production
- Reduced U.S. export projection
- Increased U.S. 2005/06 ending stocks

■ **February report viewed as bearish for the second month:**

- Reduced crush
- Reduced U.S. export projection
- Record high U.S. 2005/06 ending stocks

2006 Soybean Market Outlook

- **Given the possibility of 2 million additional acres of soybeans and normal yields in 2006:**
- **There is no fundamental reason for November '06 soybean futures to be trading at \$6.00 or above.**
- **A new crop futures price in the \$5.00 range is more likely, with average cash prices below \$5.00.**

Keys to Soybean Price Recovery in 2006

- Rapid increase in U.S. soybean export sales.
- Reemergence of Asian Soybean Rust.
- Confirmation of La Nina effect.
- Serious South American crop deterioration.

2006 Soybean Marketing Plan

- With expected increased production, decreased exports, and increased ending stocks, harvest prices will likely be lower than they currently are.
- This may be a “golden” opportunity to price '06 production.
- Producers might consider expected '06 production alternatives:
 - Book some now or on any price move toward \$6.40—\$6.50 per bushel, maybe up to 20%.
 - Hedge more on each price rally, maybe up to another 30%.
 - Options offer a good opportunity right now.

Summary

- 2006 could be a difficult year.
 - Higher expenses.
- Management even more important.
 - Right crop mix.
 - Correct fungicide/correct spraying.
 - Use of safety nets such as crop insurance.

Final Thoughts

- The ability to cover such costs as land rent and term debt will be unique to each producer.
- This ability will be greatly influenced by government payments and productivity associated with individual farms.
- And, producer marketing skills.

Questions?



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