



Influence of Weather and Technology on Corn Yields

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2007 Illinois Farm Economic Summit
The Profitability of Illinois Agriculture: Where to from Here?

Conventional Wisdom

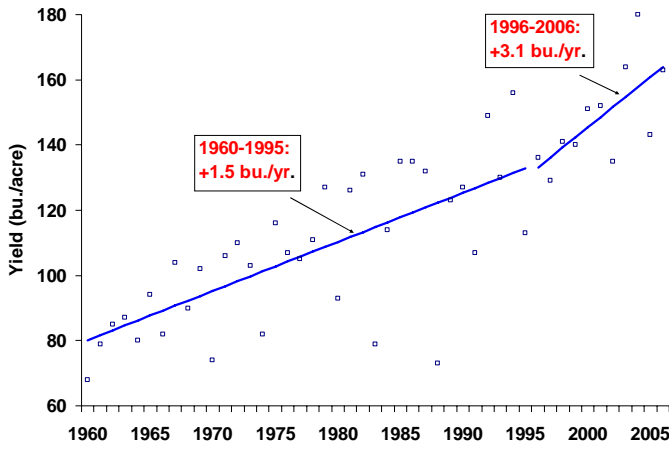


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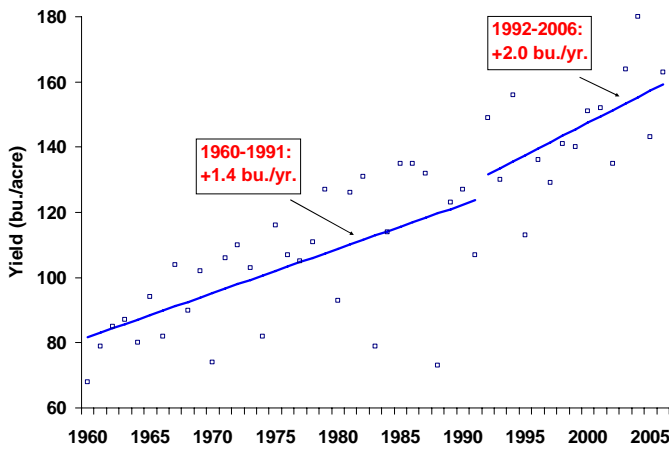
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Illinois Corn Yields, 1960-2006



Illinois Corn Yields, 1960-2006



- **Yield:** State Average for Illinois, Indiana, Iowa
- **Technology:** Linear Time Trend
- **Precipitation:** Sep-Apr, May, June, July, August
- **Temperature:** May, June, July, August
- **Weather Data:** Monthly Average
- **Time Period:** 1960-2006



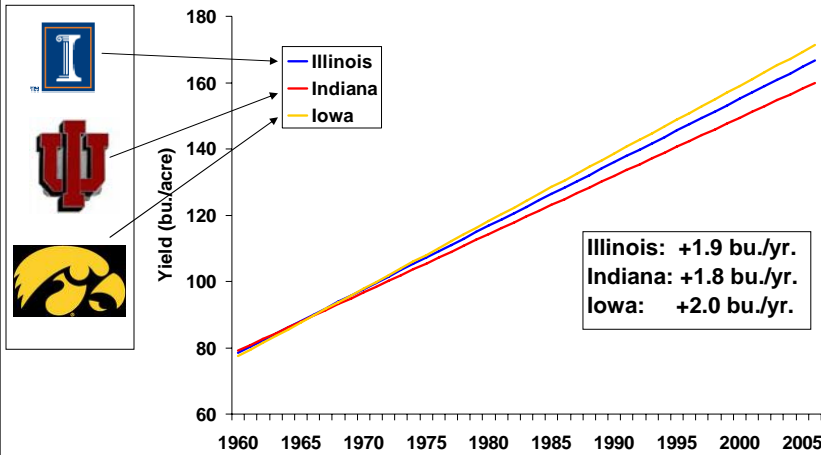
- **Yield:** State Average for Illinois, Indiana, Iowa
- **Technology:** Linear Time Trend
- **Precipitation:** Sep-Apr, May, June, July, August
- **Temperature:** May, June, July, August
- **Model Fit over 1960-2006:**
 - Illinois – 95%
 - Indiana – 94%
 - Iowa – 94%

Effects of Technology, 1960-2006



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(assuming average weather)



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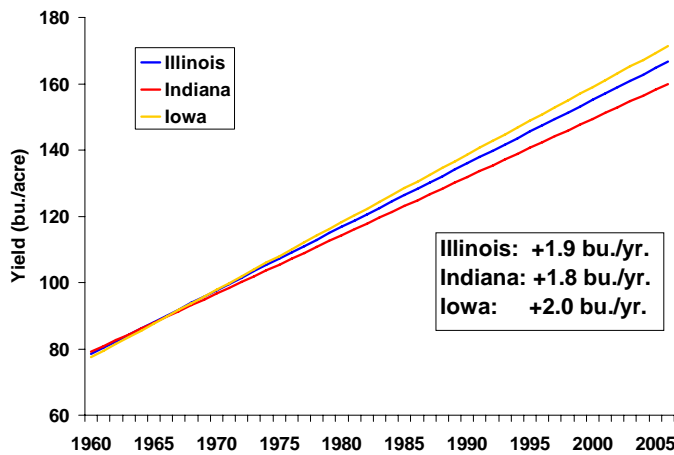
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Effects of Technology, 1960-2006



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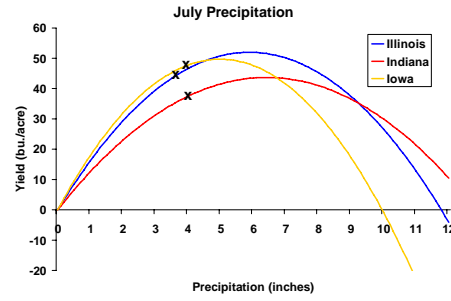
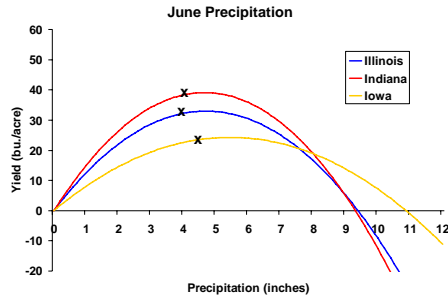
(assuming average weather)



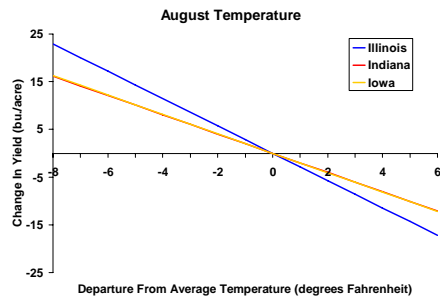
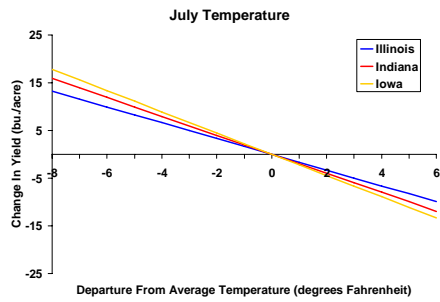
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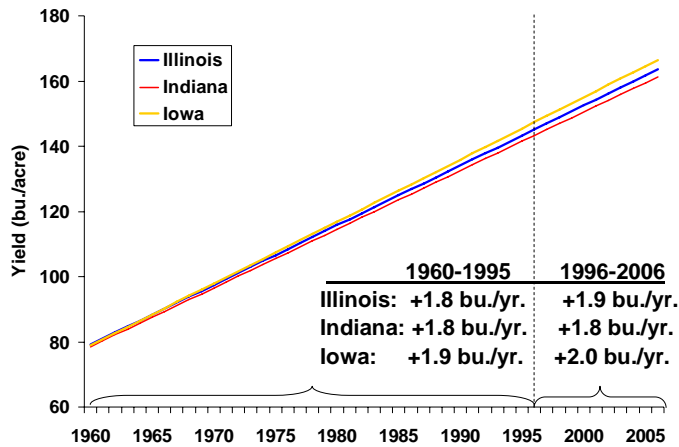
Effects of Precipitation, 1960-2006



Effects of Temperature, 1960-2006



Are Trend Yields Increasing Faster at the State Level?



New Seed Technology

Agrisure Traits: New Choices. More Control. Maximum Yield.

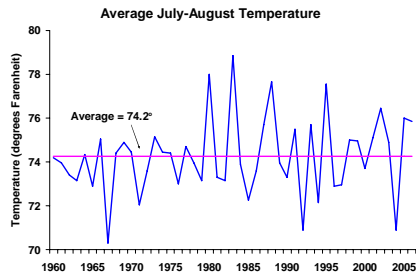
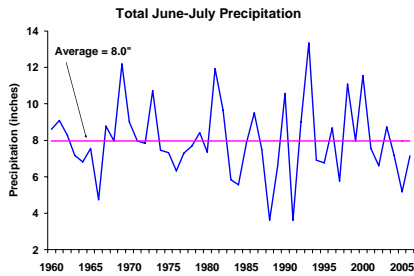
Monsanto's Yield Boom
Farm Journal Exclusive

2007 Crop Genetics Pipeline

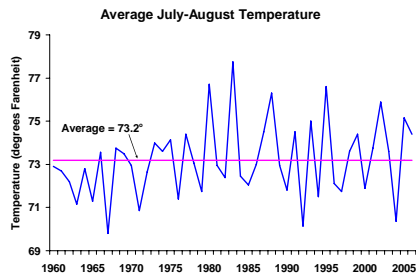
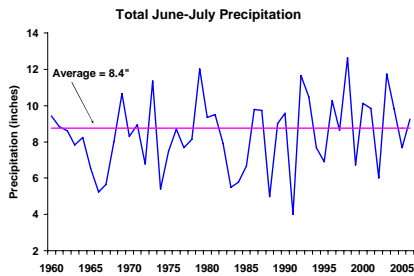
YieldGard Plus
Roundup Ready[®] Core 2

300 bushels per acre corn yield no longer a pie-in-sky goal
By Anne Fitzgerald

Key Illinois Weather Variables, 1960-2006



Key Indiana Weather Variables, 1960-2006

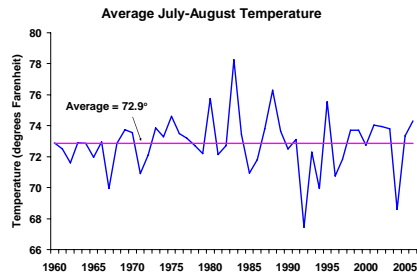
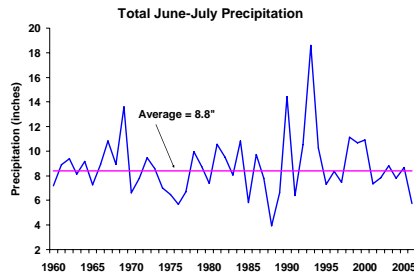


Key Iowa Weather

Variables, 1960-2006



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Have We Been Here

Before?



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The United States had so little variability in weather and grain production in the past two decades (until 1974) that an attitude of complacency had developed. There was frequent reference in the early 1970's to the fact that technology had advanced to such a level that weather was no longer a significant factor in grain production.

—L. Thompson, Iowa State, 1975

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Alternative Trend Yield Projections to 2030 for Illinois



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Corn Yields

