

Agriculture and water quality

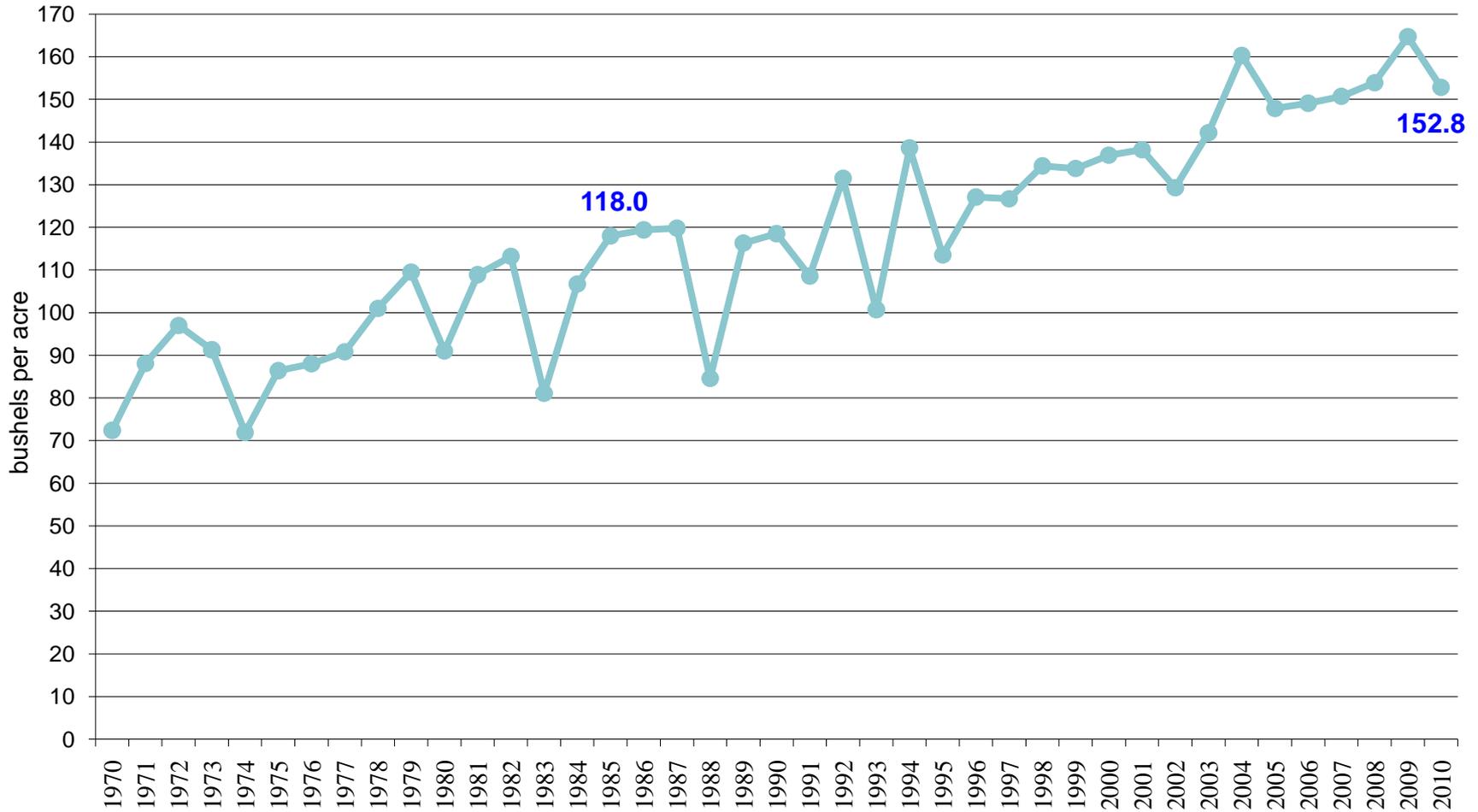


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Conservation Agriculture

Water Quality Issues

- Agriculture and sustainability
- Sediment
- Nutrients
 - Nitrogen
 - Phosphorus
- Lack of water quality research on farm
- Regulations without basis or applied research
- Need to target priority watersheds
- conservation programs

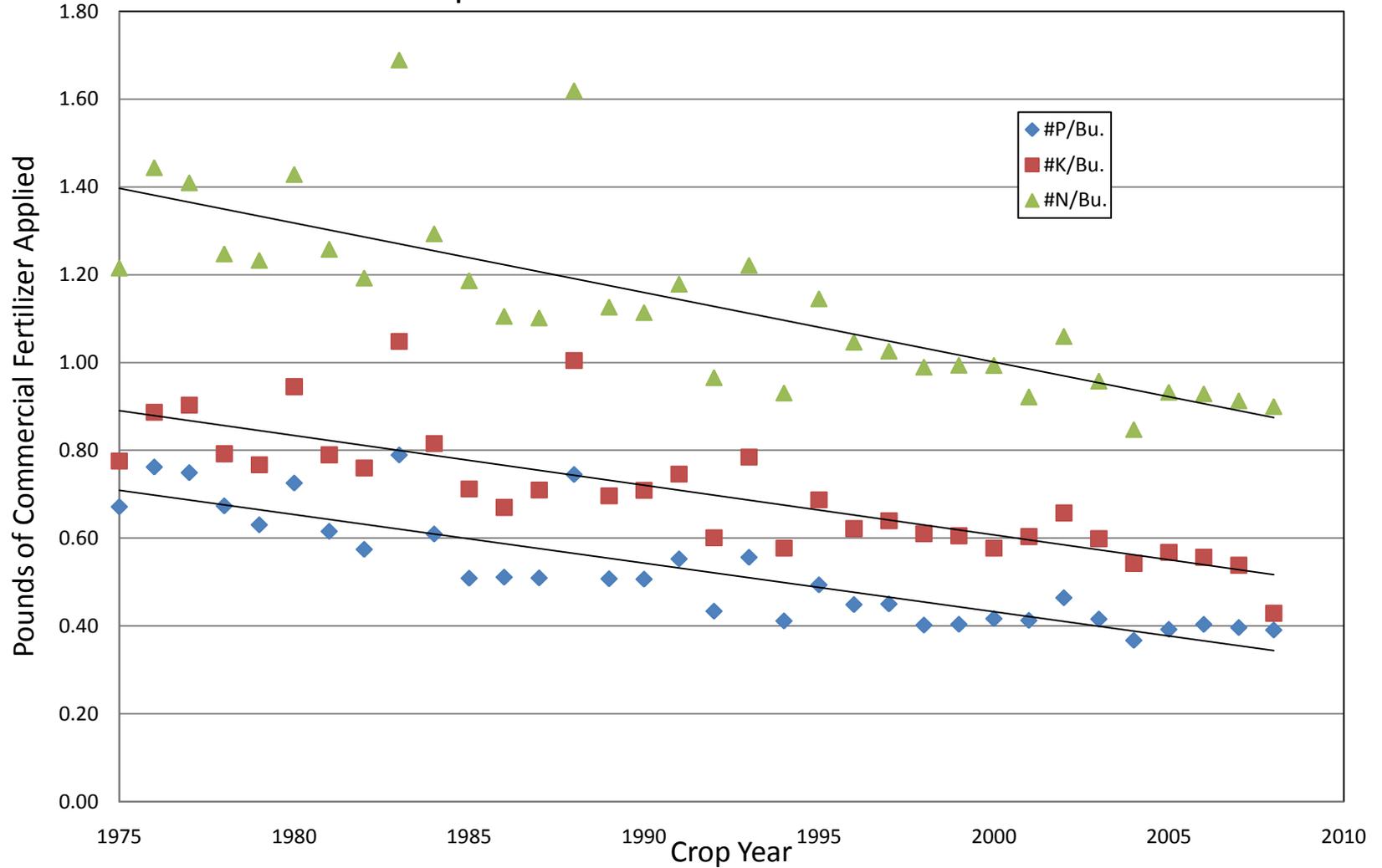
U.S. Corn Yields



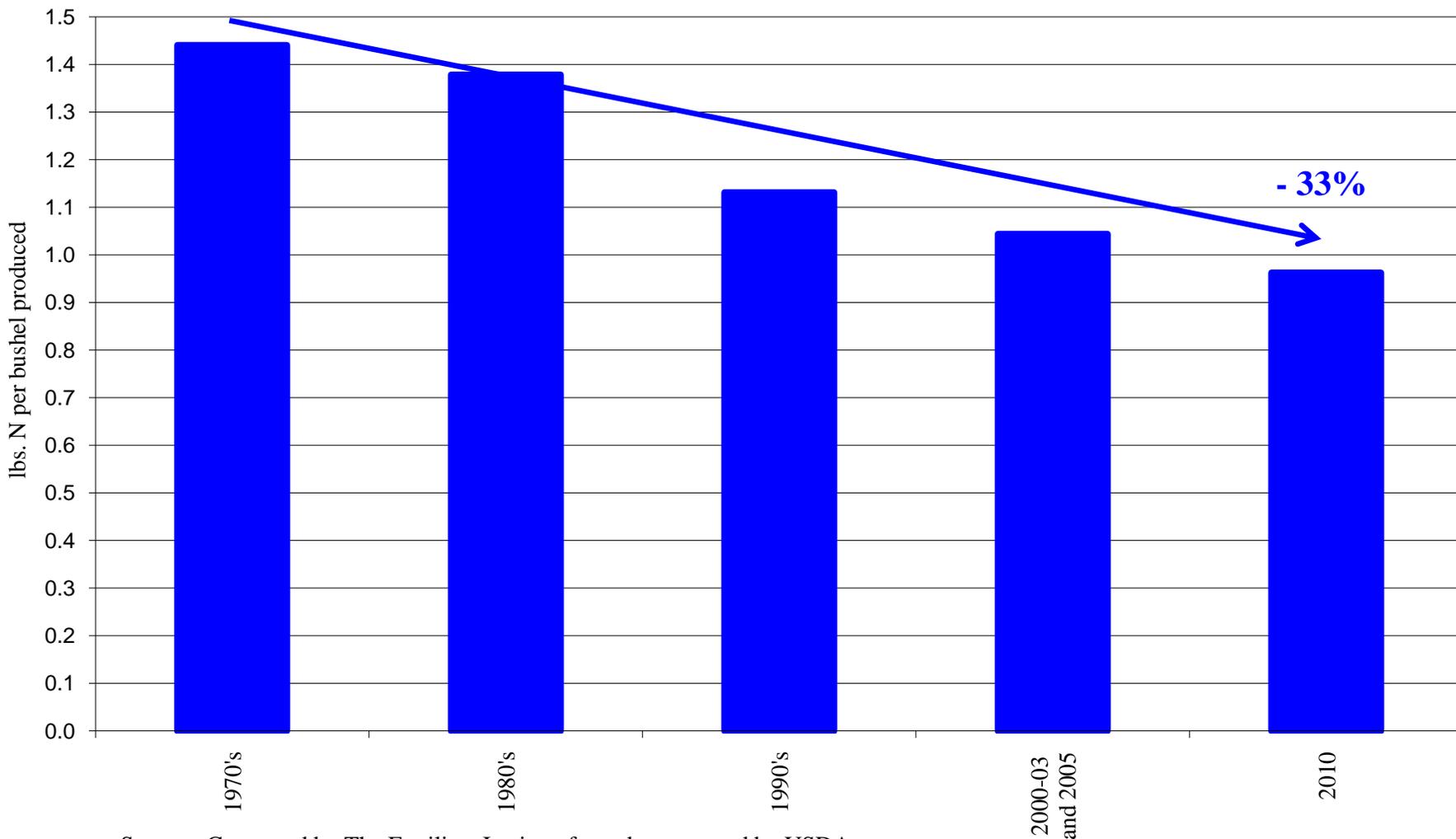
Source: NASS, USDA.

Status of Illinois

Pounds of Commercial Fertilizer Applied per Bushel of Corn Produced

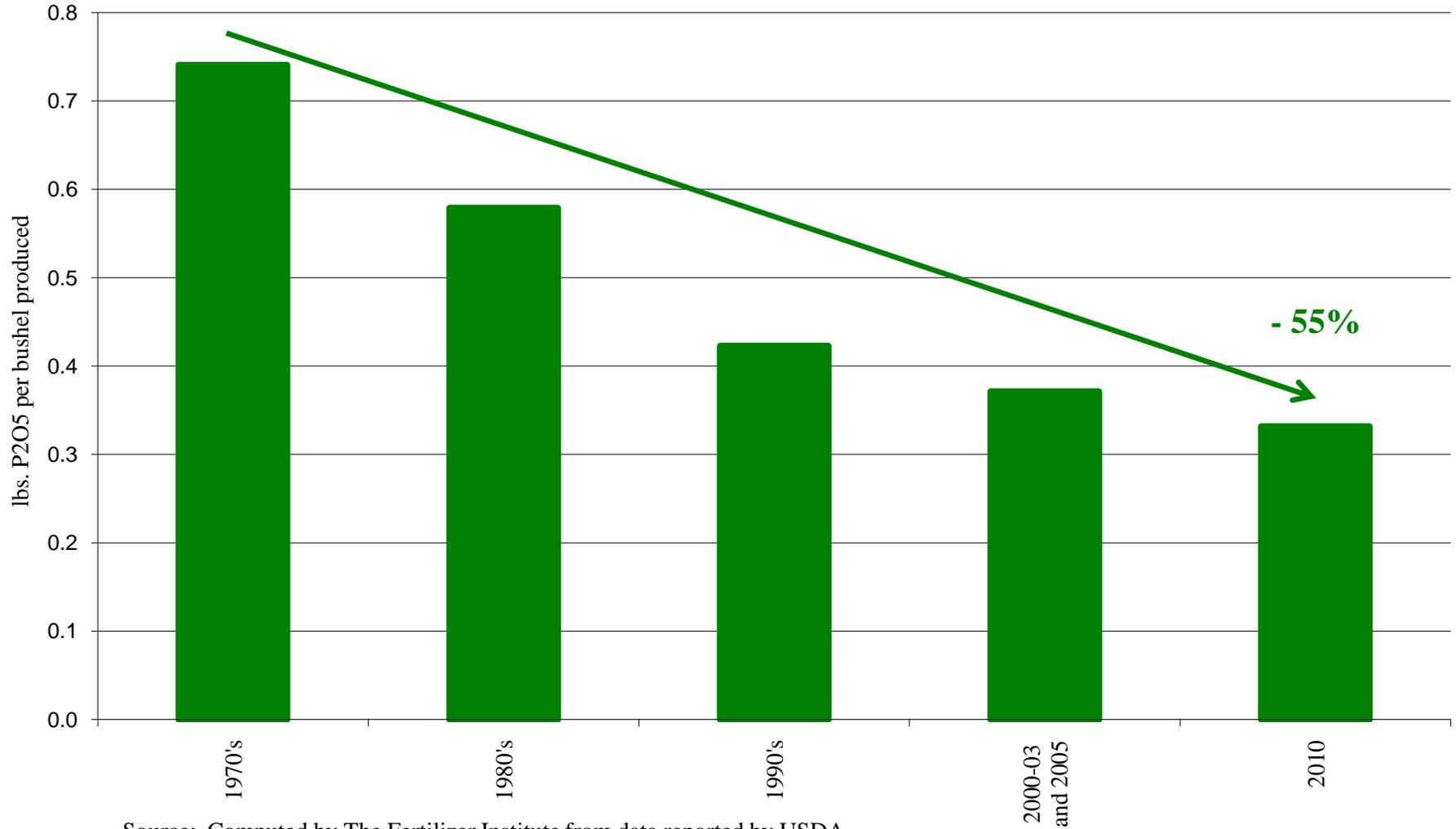


Nitrogen Use per Bushel of Corn Produced



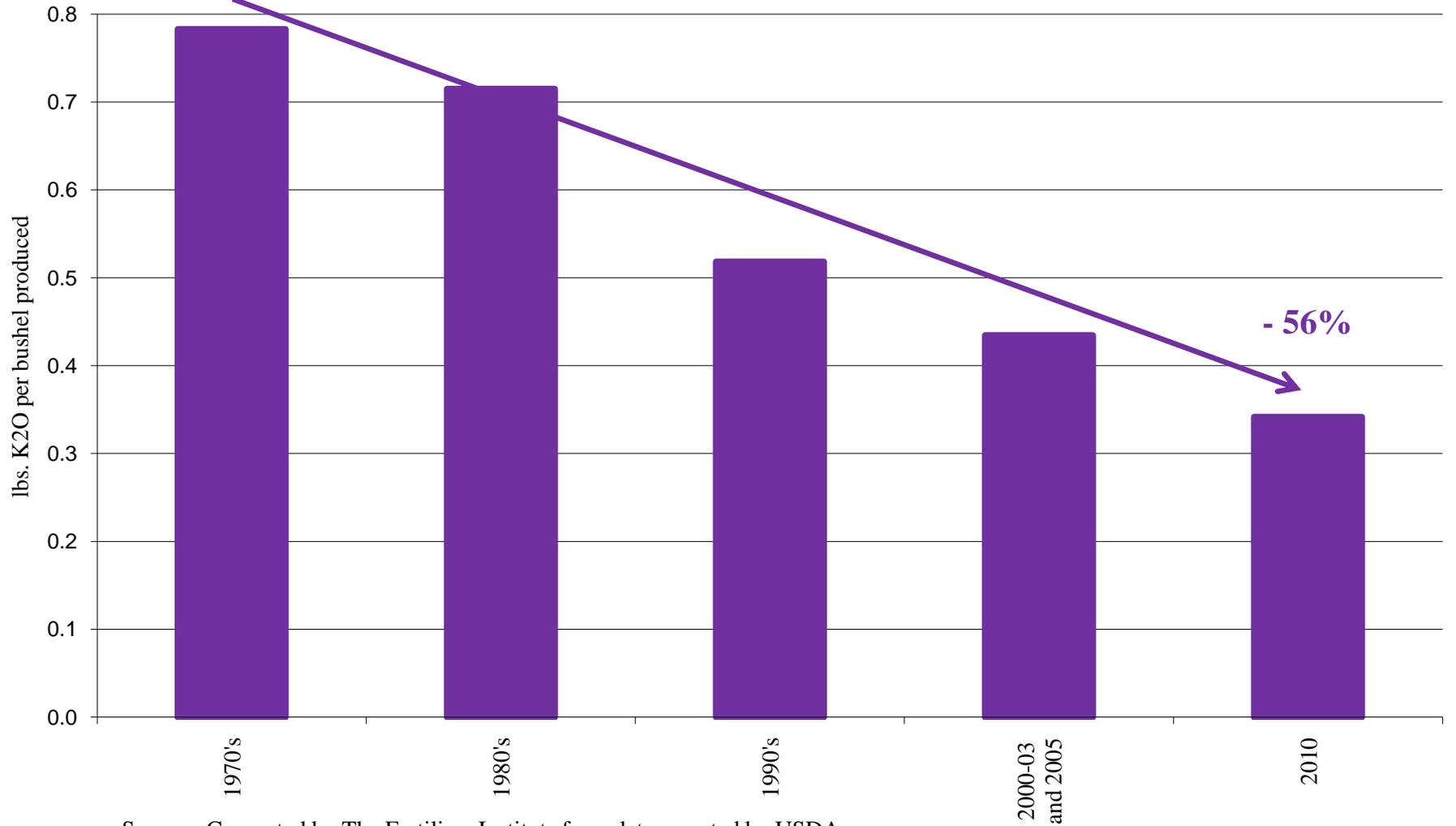
Source: Computed by The Fertilizer Institute from data reported by USDA.

Phosphate Use per Bushel of Corn Produced



Source: Computed by The Fertilizer Institute from data reported by USDA.

Potash Use per Bushel of Corn Produced



Source: Computed by The Fertilizer Institute from data reported by USDA.

Nitrogen Issues

- Illinois 37% fall applied anhydrous ammonia
 - Time saving
 - Risk reduction to farmer
 - Issue with nitrogen inhibitor and soil temperature
 - Large cost to Illinois industry infrastructure (\$2 Billion)
- Spring and sidedress- weather issues
 - Anhydrous ammonia or liquid.. Some dry
- I use all sidedress liquid 32% N

Issues of Spring Nitrogen

- More expensive
 - Spring cost \$100+/ton more than fall
 - Anhydrous \$.52/pound N
 - Liquid 32% \$.68/pound N
- High risk to get all the acres covered
- 4 wet springs delayed planting and application
 - Delays may require liquid or dry nitrogen application
 - Delays reduce corn yields

What I am doing

- Use of Best Management Practices
 - Waterways
 - Buffer strips
 - Nutrient management plans—zone sample
 - Sidedress nitrogen
 - 100% no-till since 1980
 - Cover crops
 - Wetland/wildlife
 - Riparian area

How operation is affected by conservation practices

- Increased cost/ increased risk
 - Higher level of management and risk
 - Increased equipment costs-planters, sprayers, maintenance equipment
 - Fertilizer application– time, place, rate and source
 - Increased risk of timely application by specialized equipment in wet spring conditions
 - Increased land cost due to acres idled
 - Increased practice maintenance –time and equipment
 - More landlord issues/ potential land loss
 - Lack of usable conservation programs

Issues

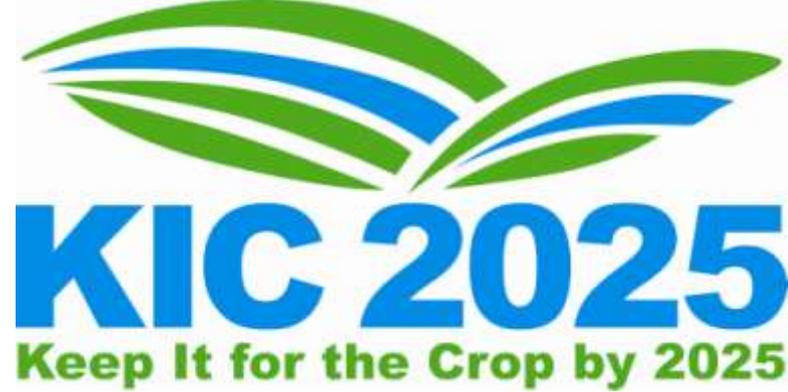
- Huge differences in Conservation program rules and administration state to state
- Need for conservation programs and standards that use sound agronomic principles
- Access to specialized equipment –cost or rental
 - Nitrogen application
 - Planting
 - Cover crop-- no-till drills
- Knowledge of management needed

Practical approach to conservation which leads to better water quality

- Establish policies that:
 - Provides practical incentives for more voluntary conservation adoption
 - Accurately **measure** the impact of conservation practices on water quality
 - Provide regulatory relief to producers who are actively working toward a reduction in nitrogen, phosphorus and sediment loads

Illinois Water Quality Initiative

- Agriculture groups and farmers developed water quality program
- Provides education and research for voluntary adoption
- Funded by farmers and ag industry
- Targeted state wide and priority watersheds



- Education program to reduce nutrient losses
- Provide education programs to farmers, suppliers, youth and communities
- Dedicate resources to nutrient research and Best Management Practices validation
 - Critical to developing practices to reduce nutrient losses
- Totally funded by farmers and industry



schedule

- 2011
 - Develop self funding program for research and education--- SB2010
 - Forms the Nutrient Research and Education Council to develop the education and research program
 - Replaces the Fertilizer Research and Education Council
 - Implement and administer funds, projects and programs
- Bill and Program blocked by Illinois Legislature

SB 2010 Supporters

Illinois Environmental Protection Agency

Illinois Chapter of Sierra Club

Environmental Law Policy Center

Illinois Department of Agriculture

Illinois Fertilizer & Chemical Association

Illinois Farm Bureau

Illinois Corn Growers Association

Illinois Soybean Association

Illinois Seed Trade Association

Illinois Association of Drainage Districts

Grain & Feed Association of Illinois



Farmers are concerned about water quality for the future

Questions?