



United States Department of Agriculture

**Innovations in Organic Food Systems  
for Sustainable Production and Enhanced Ecosystem Services**  
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**Meeting top challenges of producers:  
Innovations in organic research and policy**

Catherine Greene  
Economic Research Service, USDA  
[cgreene@ers.usda.gov](mailto:cgreene@ers.usda.gov)

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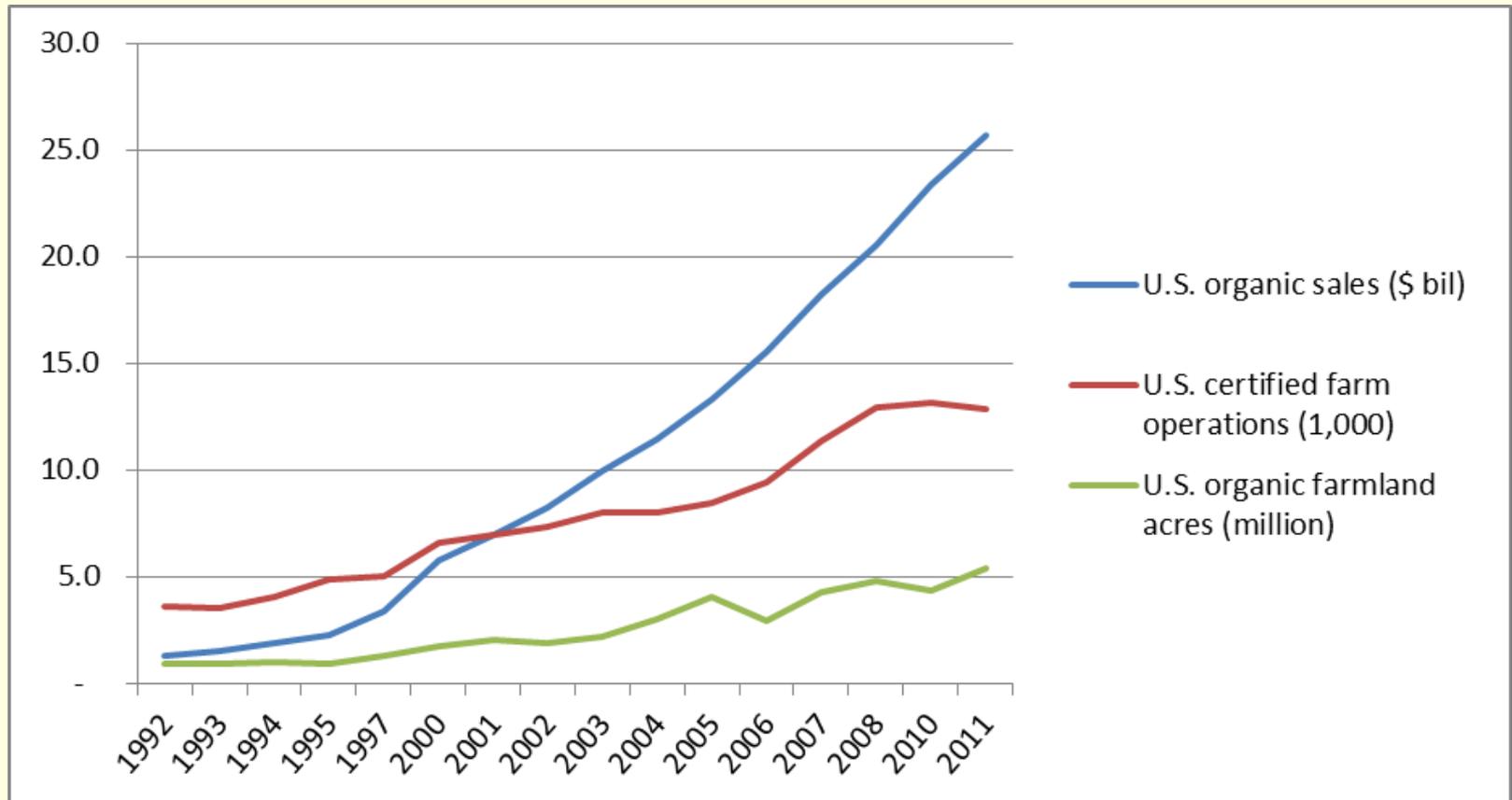


# U.S. Organic Markets, Organic Production Challenges, and Policy Responses

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- U.S. demand for organic food
- Adoption patterns in the U.S.
- Profitability of organic production
- Producer challenges and research needs
- Federal funding for organic agriculture
- Research and policy innovations?

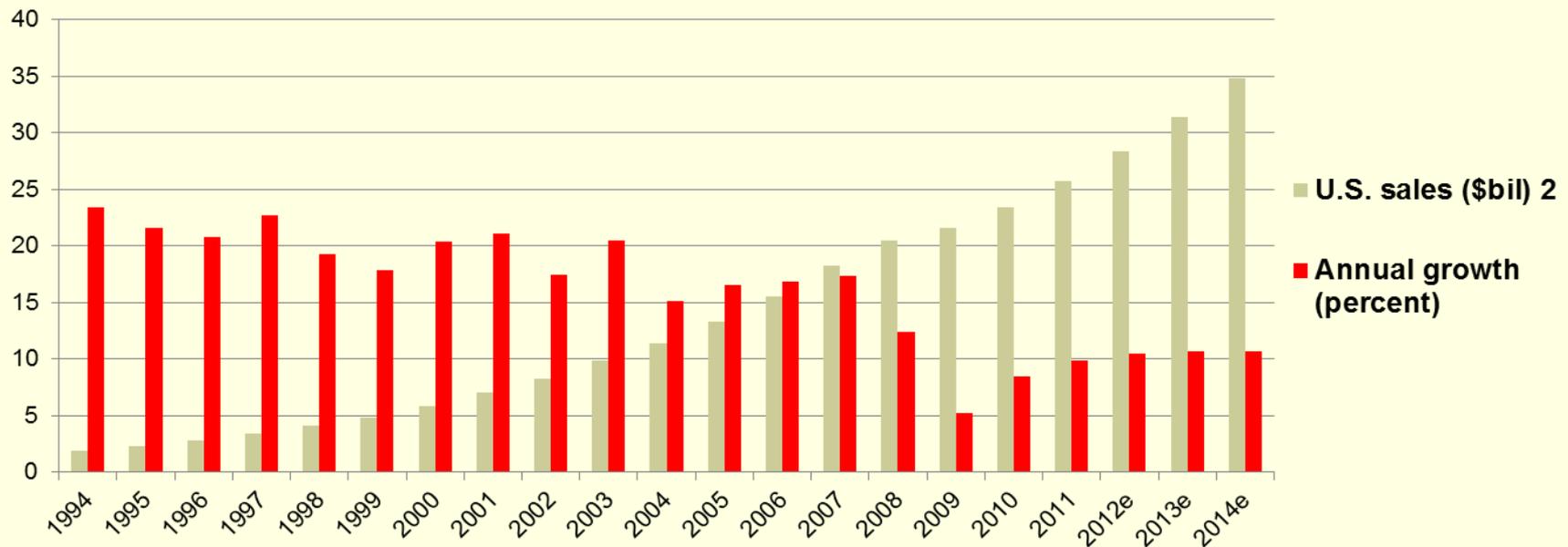
# Growth in U.S. Organic Sales has Outpaced Domestic Production Since Early 2000s



Sources: USDA (acres, operations); NBJ, NFM (sales)

# Annual U.S. Organic Sales— Double-Digit Growth Continues

Annual growth dipped to 5 percent with the Great Recession—has rebounded to a new lower level

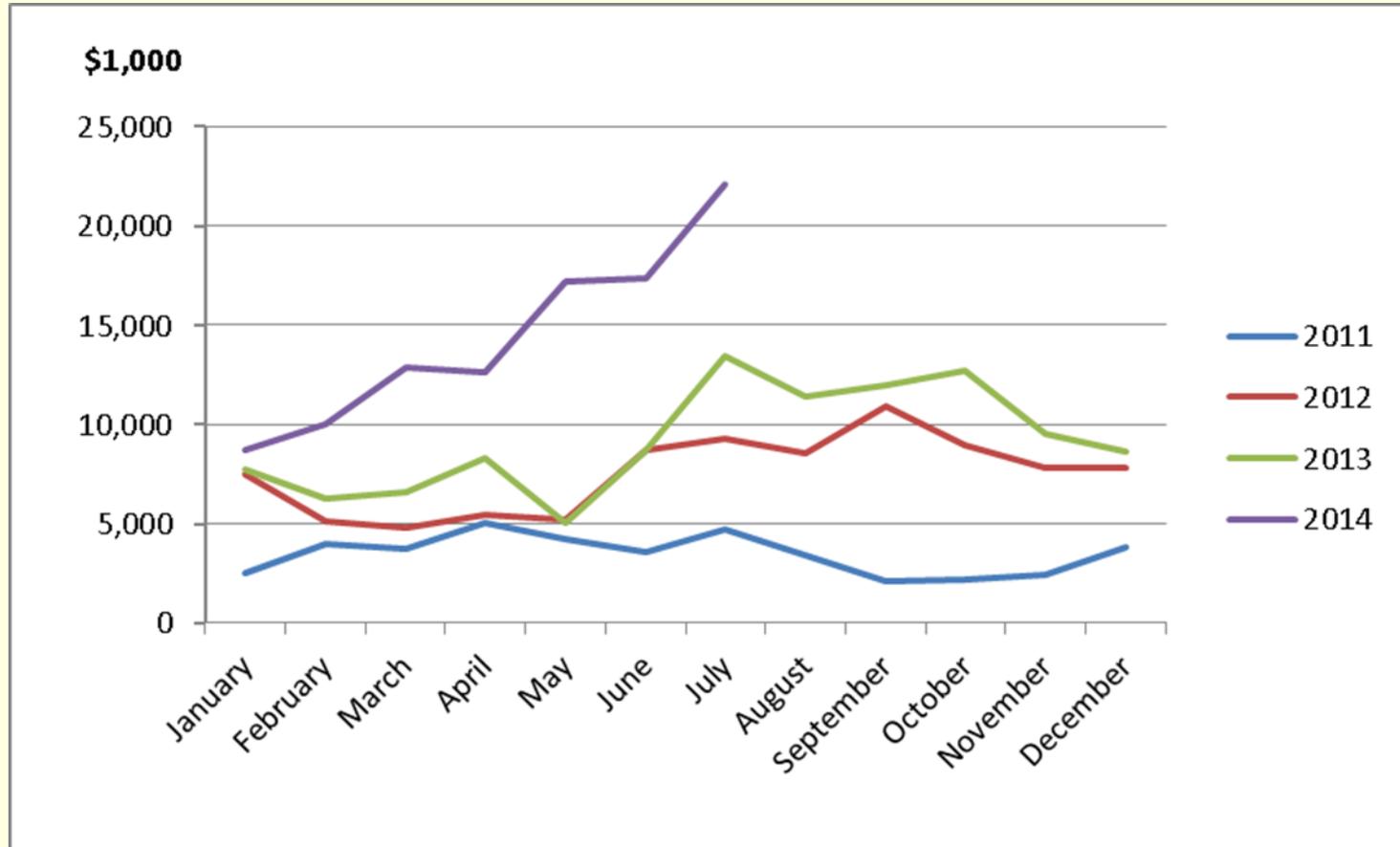


■ Sources: (1994-1999, Natural Foods Merchandiser; 2000-2014e, Nutrition Business Journal)

# Adoption of Organic Systems Varies Substantially by Commodity Sector

	Certified Acres (2011)	% Total (2005)	%Total (2011)
<b>Grains &amp; Oilseeds</b>			
Corn	234,470	0.2	0.3
Wheat	344,644	0.5	0.6
Oats	62,015	1.1	2.5
Barley	63,903	1.0	2.5
Sorghum	17,360	0.1	0.3
Rice	48,533	0.8	1.8
Rye	21,458	0.6	1.7
Soybeans	132,411	0.2	0.2
<b>High-Value Specialties</b>			
Tomatoes	9,271	1.6	2.5
Lettuce	34,967	3.7	11.6
Carrots	12,080	5.8	14.3
Fruits	131,498	2.7	4.6
SOURCE: ERS-USDA, Based on data from organic certifiers			

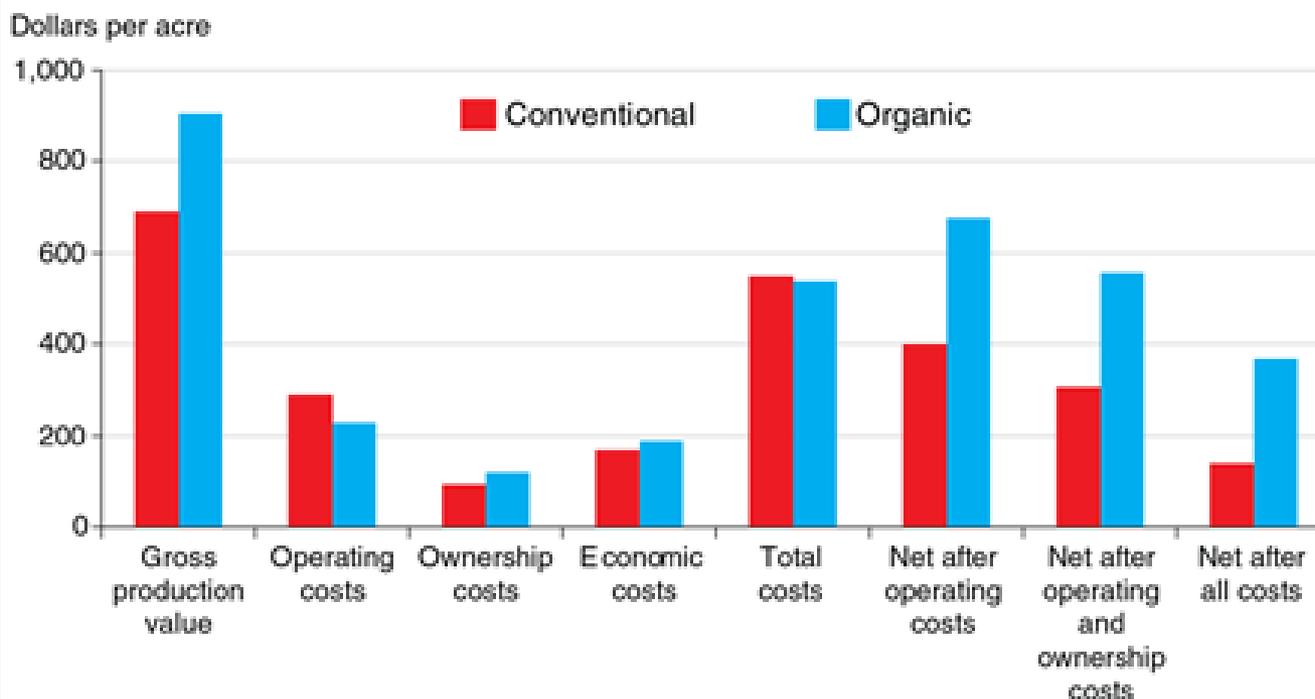
# Organic Imports have helped fill the Supply Gap for Grains & Oilseeds—for example, Soybean Imports continue to climb



Source: U.S. Census Bureau Trade Data; USDA-FAS GATS Database

# ERS Analysis Shows Net Returns for Organic Corn Exceed Those from Conventional

Conventional and organic corn production value, costs, and returns per planted acre in 2010



Source: USDA, Economic Research Service and USDA, National Agricultural Statistics Service, 2010 Agricultural Resource Management Survey; and USDA, Economic Research Service, Cost of Production accounts.

# Challenges for Transitioning to Organic Field Crop Production

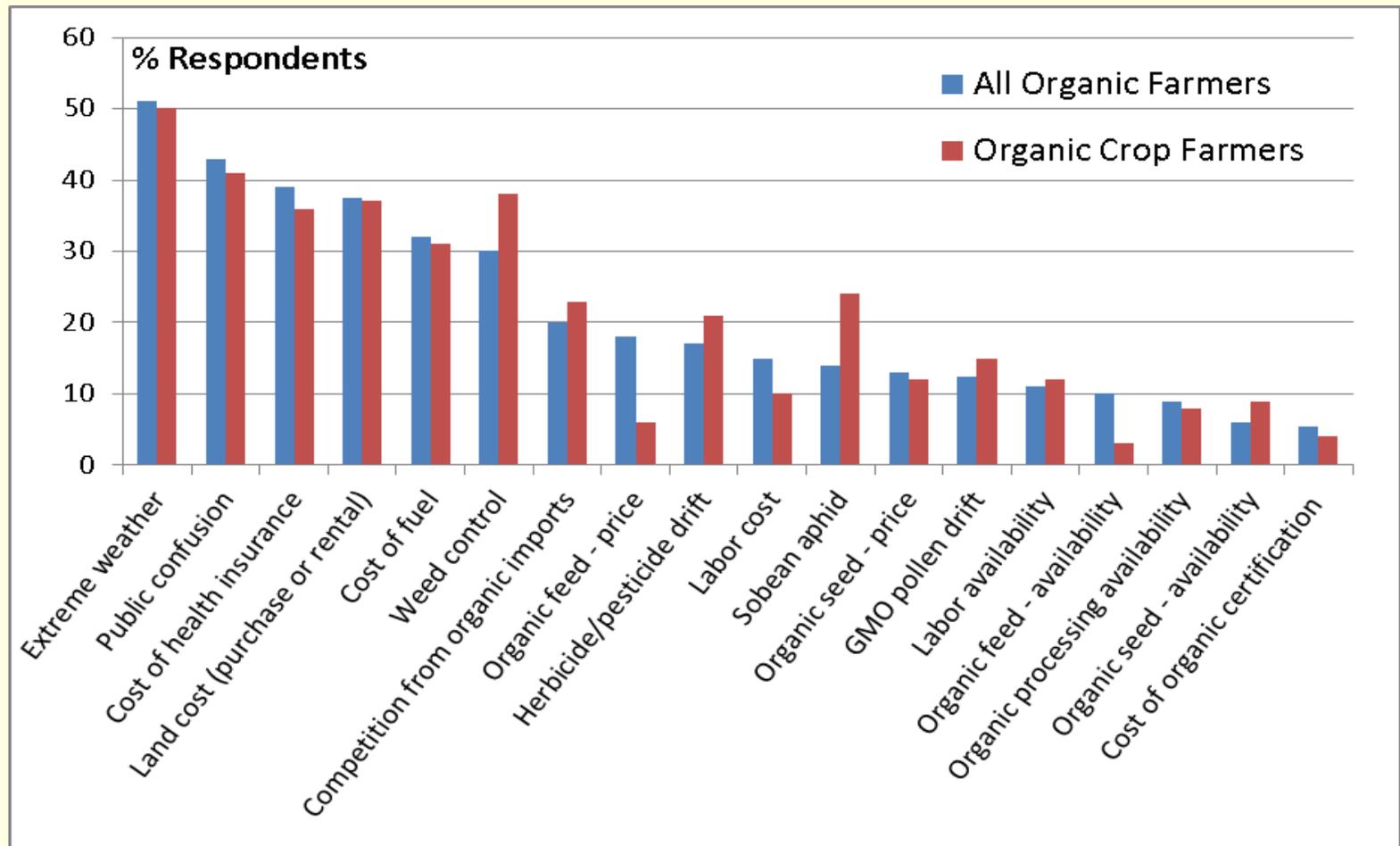
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ERS analysis shows higher U.S. production costs per acre for organic corn & soybeans... but also higher profitability (due to premiums).

## **Challenges other than profitability include:**

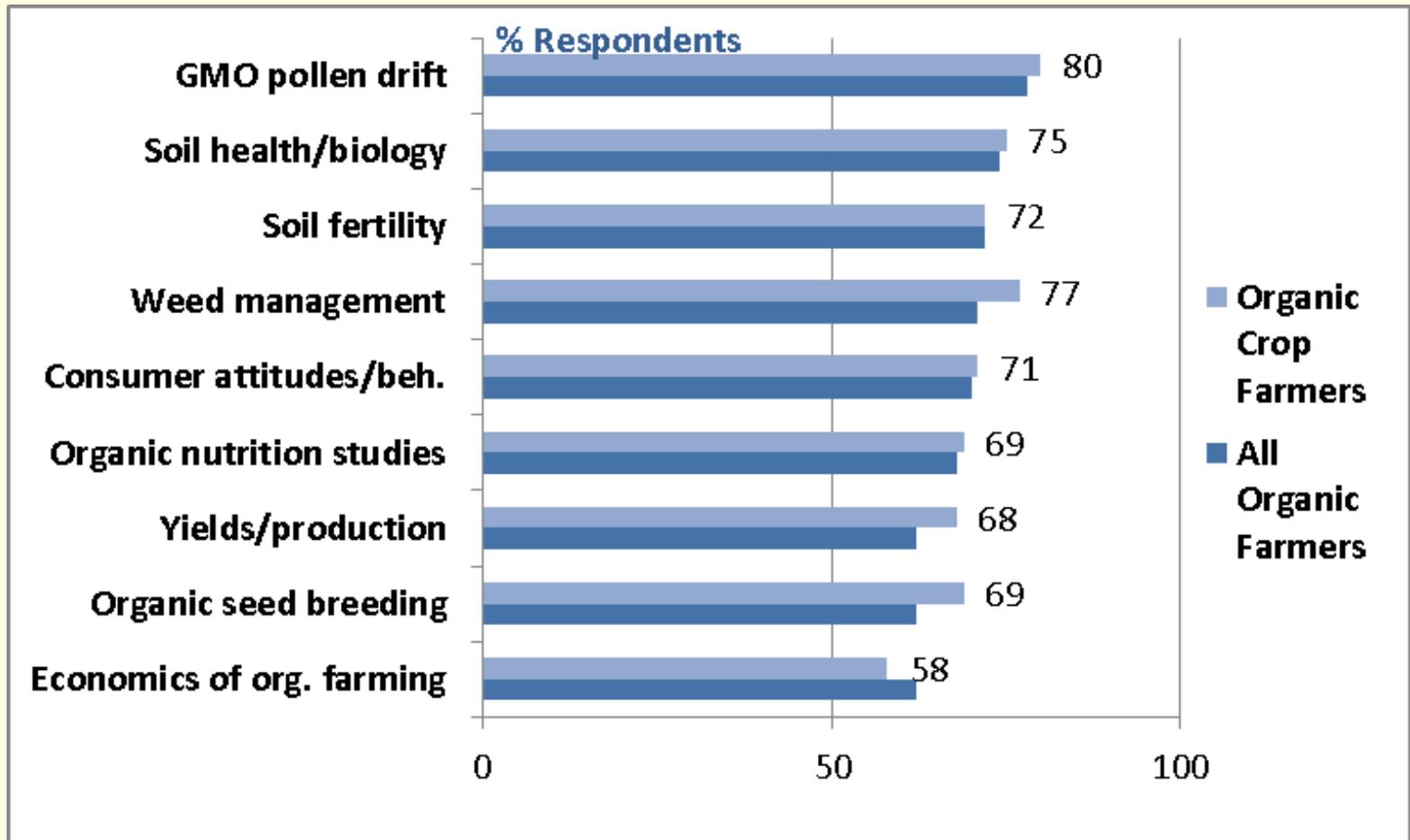
- High managerial costs and risks
- Limited marketing & technical infrastructure
- Three-year transition period
- Commodity crop price spikes
- Different policy setting than specialty crops

# “Big Problems” for Minnesota Organic Farmers in 2013



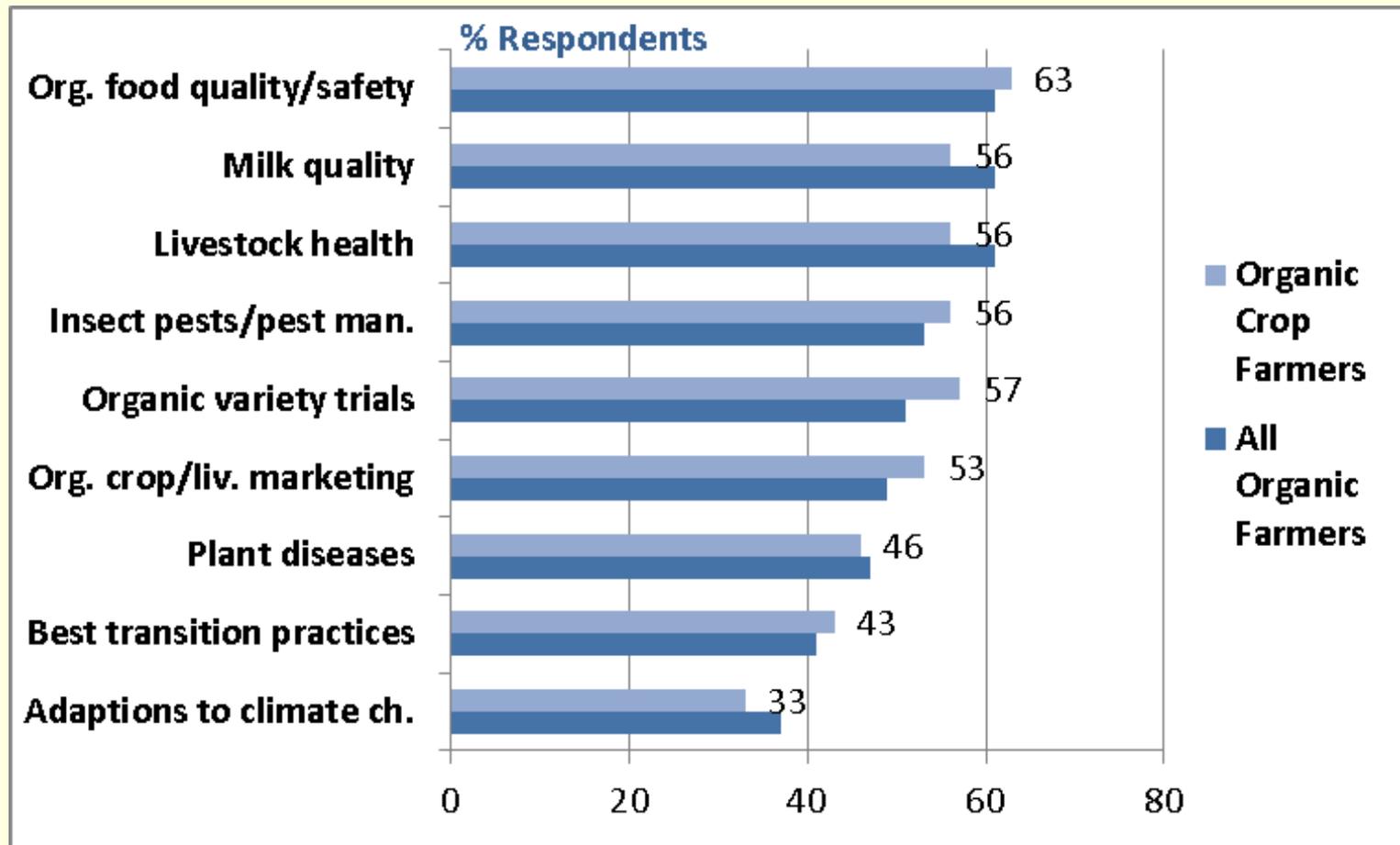
Source: 2013 Minnesota Organic Producer Survey, preliminary findings

# Research Topics "Very Important" to Organic Agriculture in Minnesota



Source: 2013 Minnesota Organic Producer Survey, preliminary findings

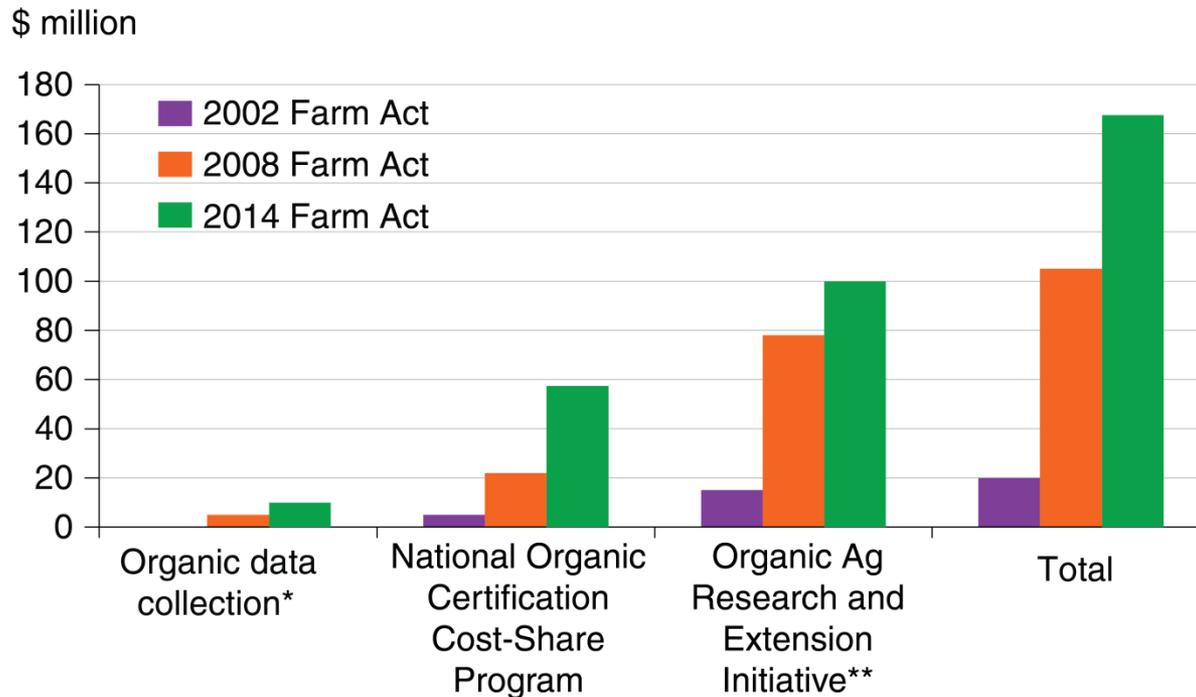
# Research Topics "Very Important" to Organic Agriculture in Minnesota



Source: 2013 Minnesota Organic Producer Survey, preliminary findings

# Mandatory Federal Spending on Organic Agriculture up in 2002, 2008 & 2014

**Mandatory spending on organic agriculture, 2002-2014 Farm Acts**



\*Includes \$5 million in 2014 for National Organic Program database and technology update.

\*\*Does not include intramural organic research funds in USDA, Agricultural Research Service.

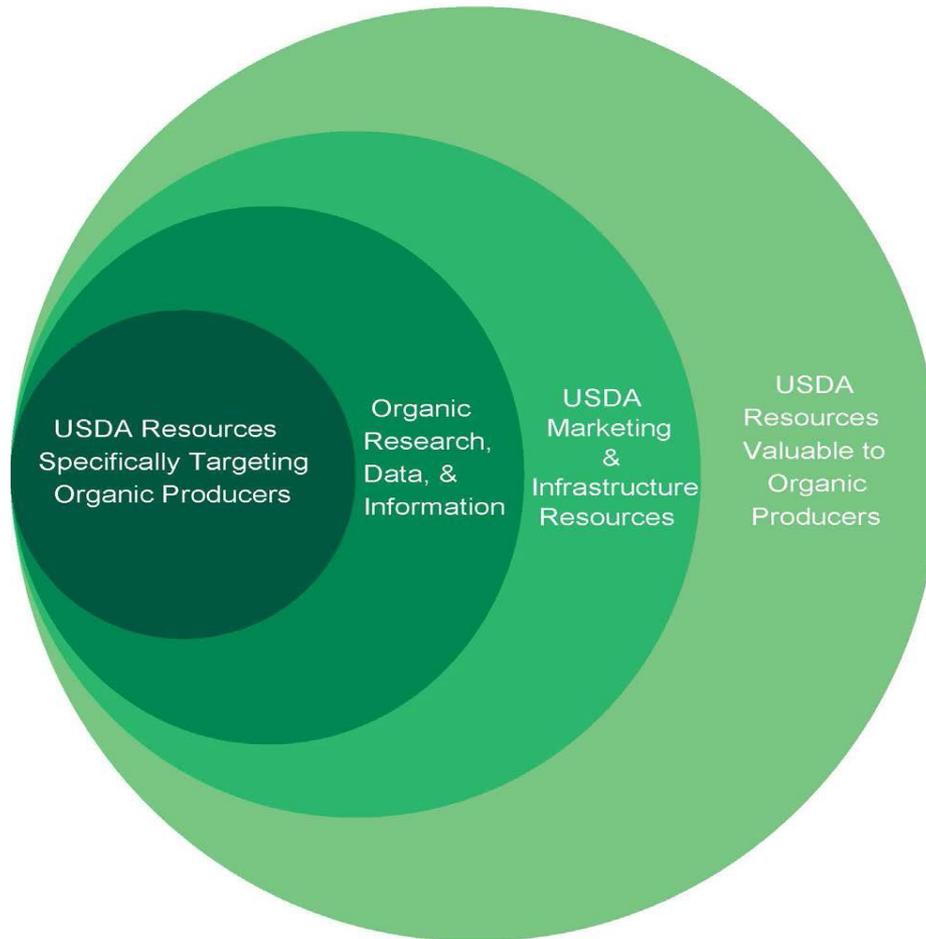
Source: Office of Budget and Policy Analysis budget summary data (2002), Congressional Budget Office (2008), and 2014 Farm Act .

# USDA Implementing Research, Data & Certification Assistance Programs

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- **Organic certification cost-share payments provide significant share**—many producers unaware of program.
- **Improvements in economic data** to support organic production and marketing
- **Funding for USDA's organic competitive grant program increased**—high-quality applications have substantially exceeded funding since program began in 2002.

# USDA has four types of support for organic farmers



## USDA Resources Specifically Targeting Organic Producers

- **National Organic Program**
- **Certification Cost-Share Assistance**
- **Conservation Practices Cost-Share Assistance**
- **Crop Insurance**

## Organic Research, Data, and Information

- **Intra-mural Organic Agricultural Research**
- **Grants to Universities**
- **Economic Research and Analysis**
- **Cooperative Extension--eOrganic**

## USDA Marketing & Infrastructure

- **Producer Grants**
- **Specialty Crop Grants**

## USDA Resources & General Services

Source: USDA Organic Research Guide 2012

# Many states administer certification programs, and a few pioneer new policies

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- Twenty states operated organic certification programs in 2011, easing access to, and often the cost of, certification services
- Iowa and Minnesota used the major USDA Conservation Program to support organic farmers a decade before Congress expanded it to all organic producers in 2008
- In 2014, Minnesota initiated the first State transition program in the U.S. that features direct support payments

# Innovative USDA Research on Organic Agriculture—

Excerpts from USDA's Chief Scientist, Dr. Catherine Woteki,  
at the 2011 Organic Farming Systems Research Conference

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## **Food Security Challenges**

“USDA is supporting research on-farm that emphasizes the observation of, experimentation with, and innovation for working organic farms, including animal and crop production issues... Organic farming practices offer much interest as we look at food security. In particular, we are looking at how some organic practices contribute to drought resistance in a crop, the role of cover crops and rotation, and how organic practices can potentially enhance high yields on small to medium size acreage.”

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## **Energy and Climate Challenges**

“One of our 2010 priorities was to evaluate carbon sequestration and other environmental services in organically managed systems. Building soils is fundamental to organic agriculture. There is much to be learned about the character and retention capabilities of these soils, including their potential for drought resistance. Research supported by NIFA funding and collaborative efforts of ARS and university scientists and farmers has led to pioneering systems and methods for organic no-till practices.”

# **Innovative USDA Research on Organic Agriculture—**

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## **Sustainable use of natural resources.**

“Our primary science priorities with respect to natural resources are water management-for both quantity and quality-and landscape-level conservation. In 2009, NIFA combined funding from its Organic Transitions program and its Integrated Water Quality Program to fund studies to improve understanding of the effects of organic farming practices and systems on water quality and/or water quantity.”

# Findings on U.S. Organic Markets, Organic Production Challenges, & Policy Responses

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- U.S. demand for organic food—consumer demand is high and a supply gap emerged in the late 1990's for organic feed grains.
- Adoption patterns in the U.S.—adoption is much higher for organic fruits, vegetables and other high-value crops; imports help meet the supply gap for organic feed grains.
- Profitability of organic production—price premiums are key in making organic feed grain crops and dairy more profitable than their conventional counterparts.
- Producer challenges and research needs—a broad spectrum of production and marketing challenges were reported in a recent state survey, and research needs are similarly broad.
- U.S. organic funding for organic agriculture—the 2002, 2008 and 2014 Farm Acts have increased funding/programs for organic agriculture.
- Research and policy innovations are taking place at the state and Federal level.

# References

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- **USDA Organic Agriculture (links to all agencies)**  
<http://www.usda.gov/wps/portal/usda/usdahome?navid=organic-agriculture>
- **USDA-ERS Organic Topic Page** (organic acreage, prices, trade data, costs of production and returns) <http://www.ers.usda.gov/topics/natural-resources-environment/organic-agriculture.aspx>
- **2011 USDA Organic Farming Systems Research Conference**  
On March 16-18, 2011, USDA held a major conference in Washington, DC to examine findings from research on the agronomic, economic, ecological, and quality-of-life performance of organic farming systems. Conference proceedings are published in the online interdisciplinary journal [\*Crop Management\*](#). Most sessions were recorded live and are available on the university extension website, [eOrganic](#).