

A CLOSER LOOK:

Conventional and Organic Agriculture

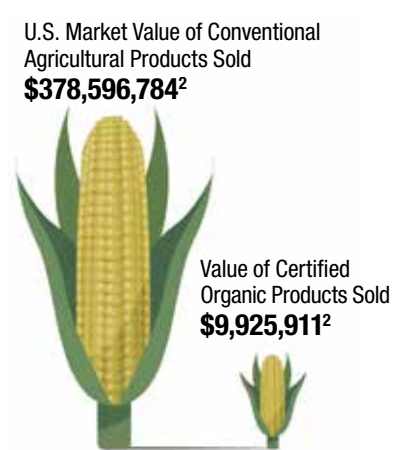
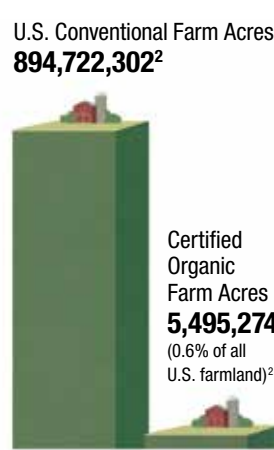
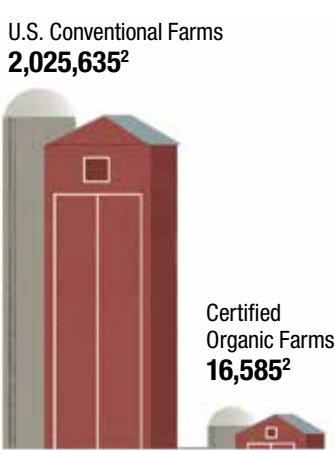
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While still a relatively small agricultural sector, organic production has surged in recent years with sales of \$9.9 billion in 2019, an increase of 31% in three years.¹ Agricultural professionals generally agree that both conventional and organic agriculture have roles to play in meeting consumer and downstream market demands. Today, many growers employ both agronomic practices on their farms. However, misinformation about farming practices runs rampant among the public. Knowing a few key facts about the differences between conventional and organic farming practices can go a long way toward helping people understand the importance of various agronomic practices.

The Big Picture

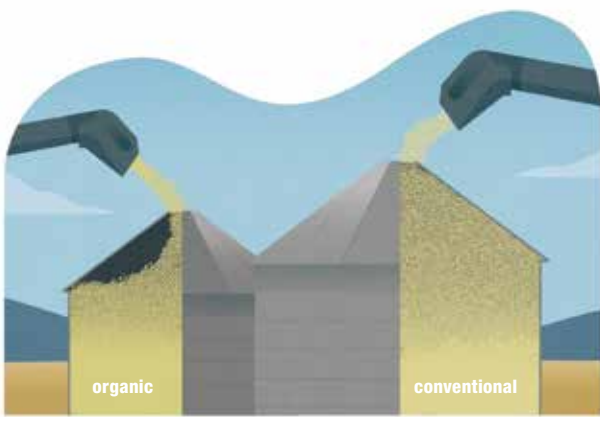
Despite its rapid growth, organic agriculture is a niche market within the broader U.S. farm economy.



Yield Differences

10%–18% lower yields result from organic agriculture.³

100 million+ more acres would be needed for organic agriculture to grow the amount of food currently produced by conventional agriculture.⁴



Organic Agriculture's Environmental Challenges



50%–70% more greenhouse gas emissions would be released if all agricultural production were converted to organic agriculture.⁶

37% higher potential for eutrophication (excessive richness of nutrients in a body of water) and **13% greater risk of acidification** (dangerously decreased pH level in a body of water) result from organic farming runoff, posing serious threats to aquatic life.⁷

Cost Differences

7%–13% higher labor costs are required by organic agriculture.³

Conventional Agriculture's Progress



Modern pesticides have enabled U.S. growers who use conventional agronomic practices to **increase farm output by 300% on 10% less land** since 1950, preserving 120 million acres for wilderness and for other purposes.⁸

Conventional no-till farming can decrease soil erosion up to 98%.⁹ No-till farming practices also reduce labor costs.¹⁰

Pesticide toxicity has declined 98% since the 1960s.¹¹

47% higher costs on average for consumers who purchase organic products.⁵



Footnotes

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- Box Figure 4.1, "Average Quality Characteristics of Pesticides Applied to 4 Major Crops, 1968–2008," USDA, ers.usda.gov/webdocs/publications/43854/46739_pesticideu-seinusagriculture21selectedcrops.xlsx?v=0.