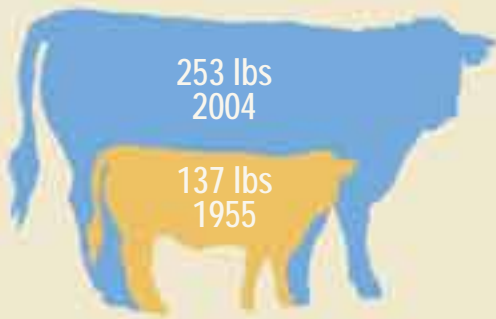




Modern beef production technology—
proven safe, economical and environmentally
friendly for more than three generations

Growth
Enhancement
Technology
Information Team





More pounds per head

Technology has helped the cattle industry increase beef production per head of cattle in the total U.S. herd from 137 pounds in 1955 to 253 pounds in 2004—an 82 percent increase in the past 50 years.

More beef from fewer cattle

Without the technological advances of the last 50 years, the U.S. cattle herd would need to number 180 million head to produce the 2004 beef supply vs. the current herd of approximately 95 million head. At current stocking rates, doubling the U.S. cattle herd would require an additional 442 million acres of land—an area equal to the combined acreage of Texas, New Mexico, Arizona, Colorado and Kansas—to provide the additional pasture and feed grains.



More beef from fewer acres

Technological advances over the past 50 years have increased the pounds of beef per acre of corn by 218 percent and the pounds of beef per acre of pasture by 700 percent. Total beef production (on a live weight basis) has nearly tripled in the last 50 years and yet, because of technology, the total acres used for production of corn and roughage has decreased by 16 percent. This reduction in acreage required to produce beef feedstuffs has made more land available to produce crops for other purposes, including grain exports, and preserved more forests, wetlands and other wild lands.



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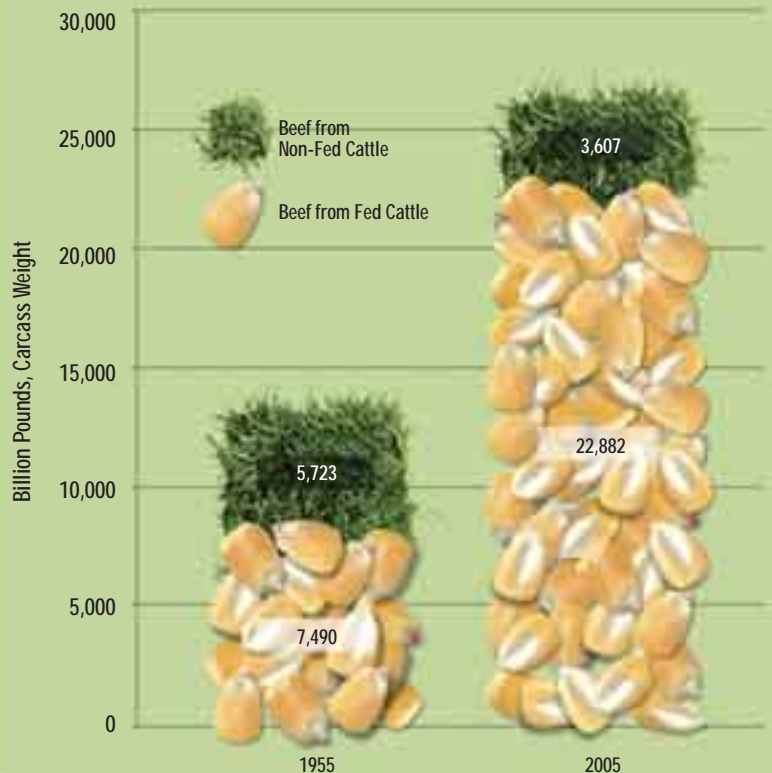
Beef production has doubled

Over the past 50 years, U.S. cattle producers have met the needs of our growing population by doubling total beef production from 13.2 billion pounds to 27 billion pounds while decreasing the amount of land and other resources used.

Better quality beef at lower prices

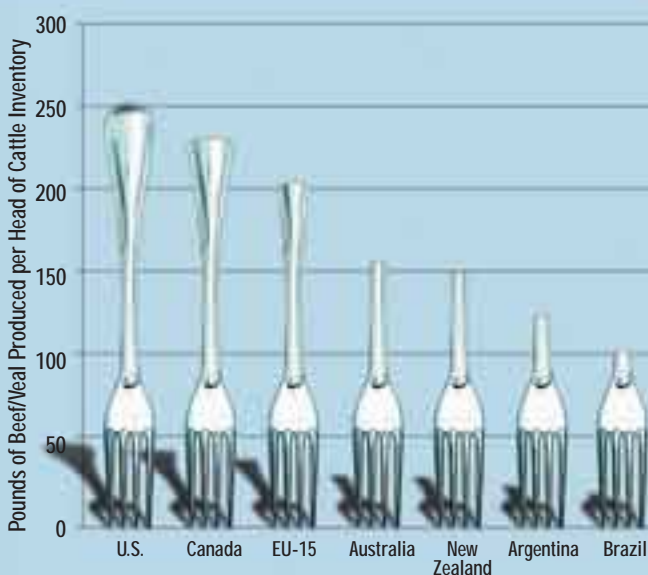
The beef supply from grain-fed cattle has increased from 7.4 billion pounds in 1955 to 22.8 billion pounds in 2004 while the non-fed beef supply decreased from 5.7 billion pounds to 3.6 billion pounds in the same period. Over the past 50 years, carcass fat has decreased from 35 percent to 27 percent, enhancing the quality and wholesomeness of modern beef. Beef quality has improved while inflation-corrected retail prices have decreased by more than 25 percent. Pharmaceutical technology is an integral part of the production systems that made these improvements possible.

Estimated U.S. Beef Production from Fed and Non-Fed Cattle



U.S. is the world leader in beef production efficiency

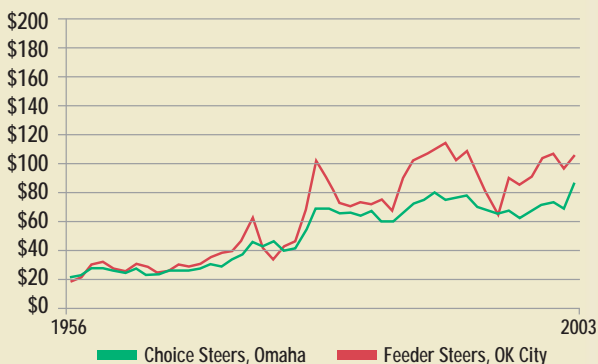
Modern management practices and technology have made the U.S. beef production system the most efficient in the world. The U.S. produces 253 pounds of beef per head of cattle in our inventory, compared to 160 pounds in Australia and only 100 pounds per head in Brazil.



Modern production technology benefits everyone

All beef production segments, including the cow-calf component, benefit from modern production technology. Production efficiencies in the feedlot have decreased the cost of feed and other inputs and increased the price of feeder calves. A comparison of feeder steer prices vs. finished steer prices indicates that, over time, feeder steer prices have increased more than finished steer prices.

Feeder Cattle/Fed Cattle Prices 1956-2003



What would the beef industry of 2004 look like without the benefit of the technological advances of the past 50 years?

Some directional trends:

1. Beef production and consumption would be significantly less.
2. Cattle prices and beef prices would be significantly higher.
3. Cattle industry costs per pound of beef produced would be much higher.
4. The cattle herd would be larger and total beef production smaller.
5. A larger cattle herd would have a significantly greater impact on the environment.
6. Consumer cost per pound of beef would be significantly higher.
7. Alternative meats would have a much larger share of the total protein market.

“...the phenomenal gains in U.S. agricultural productivity of the past century brought profound benefits to all consumers, regardless of their connection to the farm, in the form of lower prices, better quality and more choices at retail outlets.... Although dislocations are bound to accompany economic growth, we should rise to the challenges that come with innovation, because innovation brings great improvement in material well-being.”

Alan Greenspan, Federal Reserve chairman, speaking at a March 25, 2004 conference on Rural Economic Issues in Warrenton, Virginia

The information in this brochure is from Dr. Tom Elam's and Dr. Rod Preston's paper, *Fifty Years of Pharmaceutical Technology and Its Impact on the Beef We Provide to Consumers*. To receive a copy of this paper, go to www.beeftechnologies.com or e-mail doug@mccormickcompany.com.

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GET IT is an organization of animal health company executives focused on providing the beef industry with factual information about new animal health technologies.



www.beeftechnologies.com

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