## The Evolution of Lean Beef

#### There's something better about the beef you know and love.

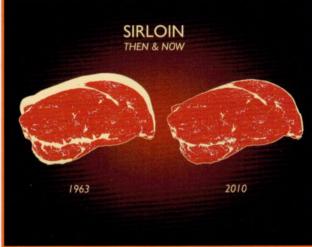
While lean beef has always been a popular, nutrient-rich source of high-quality protein that can help Americans meet their nutrient needs, today's beef is leaner than ever.

Lean beef is more widely available in the U.S. today because of many changes during the past 40 years in cattle breeding and management practices and retail trimming, many of which were driven by changing dietary recommendations and consumer preferences. An article published in the journal *Meat Science* explores the reasons behind these changes and their impact on today's beef.<sup>1</sup>

#### **Beef Production Practices**

Changes in cattle breeding and fat trimming methods have resulted in increased availability of leaner beef. Today, more than two-thirds (67%) of beef sold at retail, including popular cuts like Sirloin steak, Tenderloin, T-Bone steak and 95% lean Ground Beef, meet the government guidelines for lean.<sup>2</sup>

What most people find surprising is that less than 10% of saturated fat and total fat in the diet comes from beef, and the total and saturated fat content from trimmed steak has declined throughout the past 50 years.<sup>3,4</sup> For example, the total fat content for a completely trimmed Sirloin steak has declined 34% from 1963 to 2010<sup>5,6</sup> and the saturated fat content has declined 17% between 1990 and 2010.<sup>6,7</sup>



#### **Changes In Consumer Preferences**

Since the early 1980s, dietary recommendations have changed consumer preferences to beef that has been trimmed of fat. The 1980 Dietary Guidelines for Americans, which recommended consuming lean meats and "trimming excess fat off meats," drove increased demand for leaner cuts and increased trimming, ultimately resulting in an 80% decrease in external fat on retail beef cuts throughout the past 26 years.<sup>8,9</sup>

#### **Did You Know?**

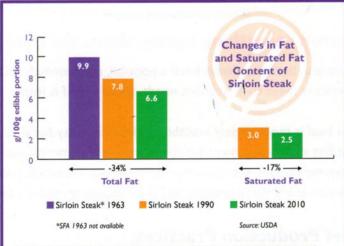
Americans are currently eating beef at levels that fit a variety of healthy eating patterns – which helps the 94% of Americans who eat beef, at least monthly, to meet the goals of the 2010 Dietary Guidelines for Americans.<sup>10,11</sup> And contrary to popular thought, Americans are currently consuming beef in moderate amounts at an average of 1.7 oz. of beef daily; a small fraction of the 5.5 oz./day of Protein foods recommended by the Dietary Guidelines.<sup>3</sup>

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### **Impact on Heart Health**

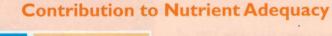
Research shows lean beef can be good for heart health. Evidence from clinical trials indicates that lean beef is equally as effective as lean white meat at lowering LDL cholesterol when included as part of a well-balanced, low-saturated fat diet.1 The Beef in an Optimal Lean Diet (BOLD) study demonstrated that eating lean beef, as part of a heart-healthy diet and lifestyle, can lower LDL (bad) cholesterol by up to 10%, as much as any other recommended heart-healthy diet.12

Contributing to its heart-health benefits, half of the fatty acids in beef are monounsaturated (the

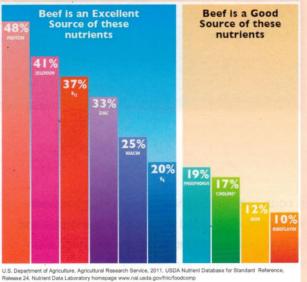


Total fat and saturated fatty acid (SFA) content of sirloin steak, completely trimmed of external fat, as reported by Watt and Merrill (1963) and the USDA National Nutrient Database (1990; 2010), Data reported for 100 g of choice grade, cooked via broiling.

same type of heart-healthy fat found in olive oil) and nearly one-third of the saturated fat is stearic acid, a fatty acid that has been shown to have neutral effects on cholesterol.<sup>1</sup>



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ce serving of lean beef provides approximately 17% of the highest adequate intake for choline (550mg)

nce Intakes, Institute of Medicine of the National Acad ies, National Academies Press, Washington, DC, 2006

Guidance for Industry, A Food Labeling Guide, U.S. Department of Health and Human Services, Food and Drug Administration, Center for Food Safety and Applied Nutrition, April 2008. http://www.cfsan.fda.gov/~dms/2ig-toc.

- Calorie-for-calorie, beef is one of the most naturally nutrient-rich foods.
- On average, a 3 oz. serving of lean beef is about 150 calories and an excellent source of six nutrients (protein, zinc, vitamin B<sub>12</sub>, vitamin B<sub>6</sub>, niacin, and selenium) and a good source of four nutrients (phosphorous, choline, iron and riboflavin).6
- Americans' favorite cuts of lean beef like Tenderloin, Top Loin (Strip steak) and 95 percent lean Ground Beef each have 10 essential nutrients for less than 10 grams of total fat in a 3 oz. portion.<sup>6</sup>
- U.S. dietary survey data shows that fresh beef is the number one source of protein, vitamin B12 and zinc in the American diet.<sup>13</sup>

I McNeill SH, et al. The evolution of lean beef: Identifying lean beef in today's U.S. marketplace. Meat Sci. 2012; 90(1):1-8.

2 Fresh Look Marketing Group, Total US Beef, 52 Weeks Ending 7/22/2012

3 Zanovec M, et al. Lean beef contribute significant amounts of key nutrients to the diets of US adults: National Health and Nutrition Examination Survey 1999-2004. Nut Res. 2010; 30(6):375-81.

4 Cattlemen's Beef Board and National Cattlemen's Beef Association. Project Snapshot: Consumer Perceptions of Leanness. 2010. Available at: http://www.beefresearch.org

5 Watt BK, Merrill AL. Agricultural Research Service, US Department of Agricu lture. Compo ocessed, prepared. Washington, DC: US Government Printing Office, 1963. [Agriculture Handbook No. 8.] 6 U.S. Department of Agriculture, Agricultural Research Service. 2010. USDA National Nutrient Database for Standard Reference, Release 23. Nutrient Data Laboratory Home Page.

7 U.S. Department of Agriculture, Agricultural Research Service. 1990. Composition of Foods: Raw, Processed. Prepared, Agriculture Handbook Number 8.

8 U.S. Department of Agriculture and U.S. Department of Health, Education and Welfare. Nutrition and Your Health: Dietary Guidelines for Americans. Washington, DC: U.S. Government Printing Office, February 1980. 9 Savell, J. W., Brooks, J. C., Delmore, R. J., Griffin, D. B., Gwartney, B. L., Hale, D. S., et al. (2005). Execu Summary 2005 National Beef Market Basket Survey. Available at: http://www.beefresearch.org Accessed April 5, 2012



<sup>10</sup> U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2010. 7th Edition, Washington, DC: U.S. Government Printing Office, December 2010. 11 IPSOS Public Affairs. Leanness Perceptions for National Cattlemen's Beef Association. Average from 10, 2009

consumer surveys, December 2009. Unpublished data.

<sup>12</sup> Roussell MA, et al. Beef in an Optimal Lean Diet study: effects on lipids, lipoproteins, and apolipoproteins. Am J Clin Nutr. 2012; 95(1):9-16.

<sup>13</sup> Cotton AP, et al. Dietary sources of nutrients among US adults, 1994 to 1996. J Am Diet Assoc. 2004; 104 (6):921-30.