

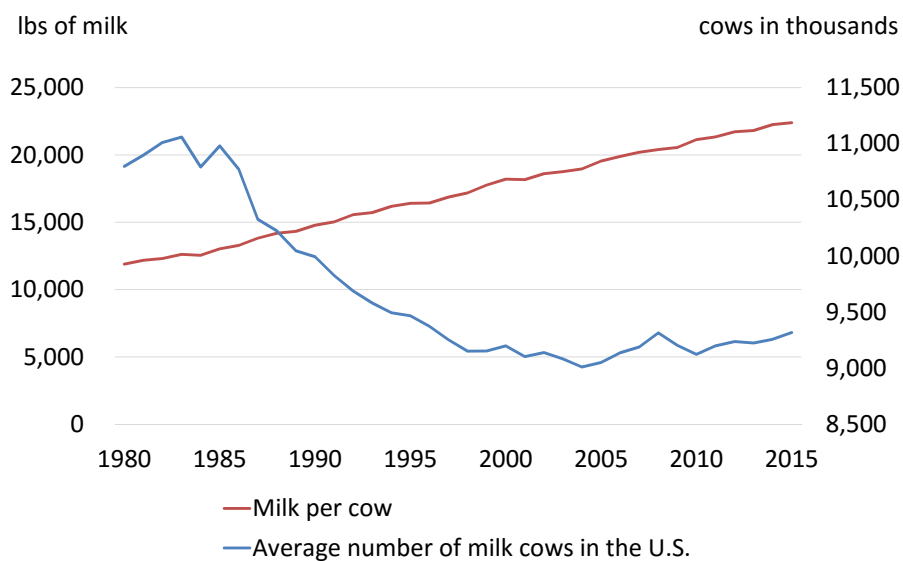
Long-Term Supply and Demand for Dairy in the U.S.

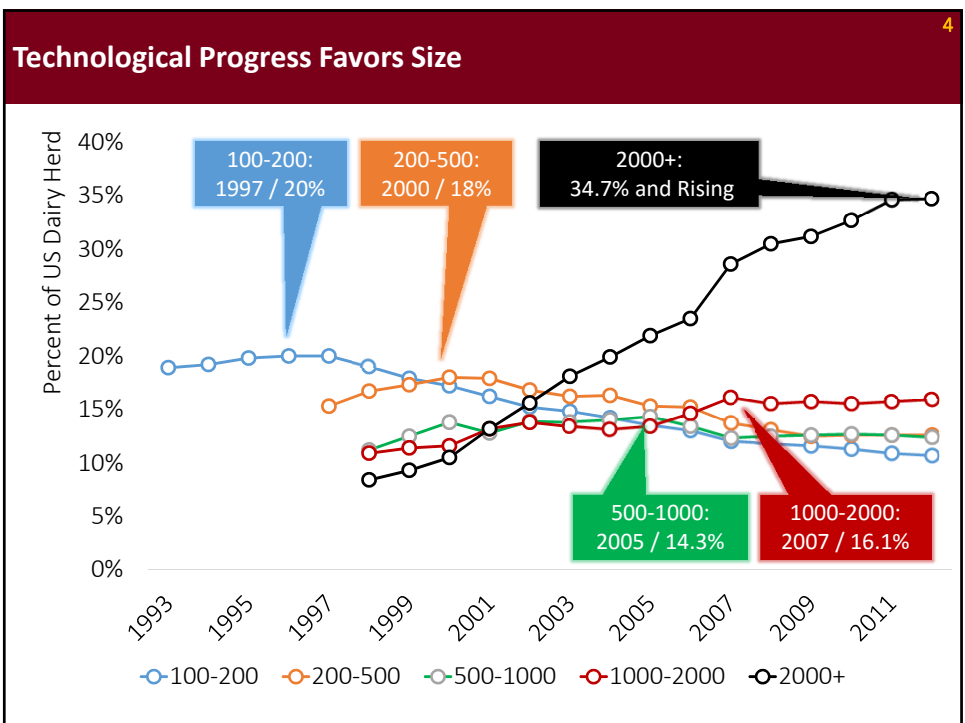
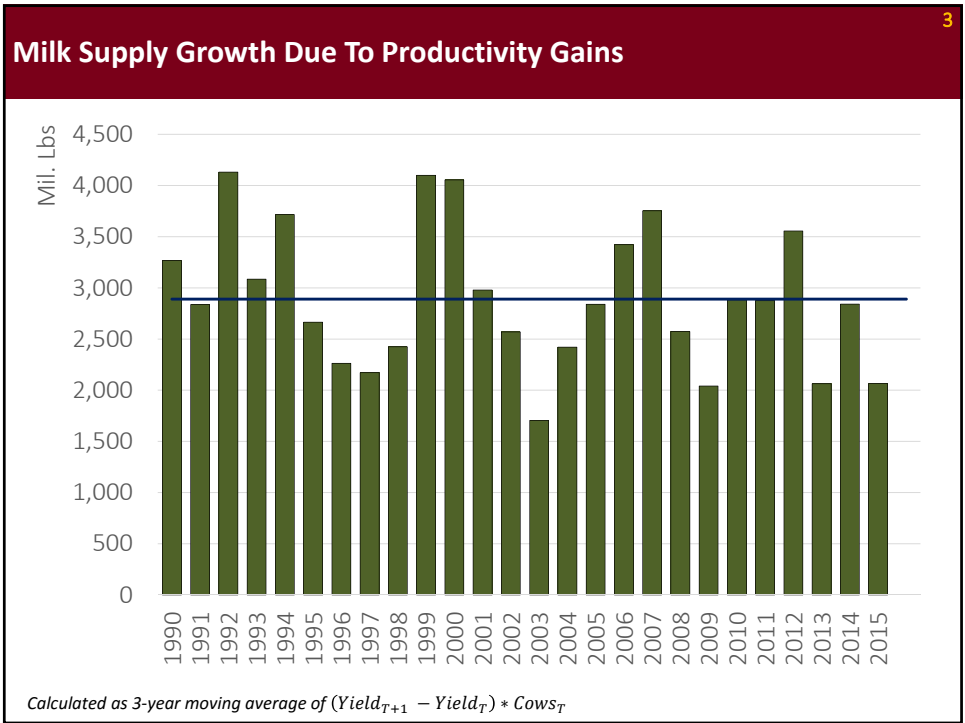
Dr. Marin Bozic, University of Minnesota
 Matt Gould, Dairy and Food Market Analyst

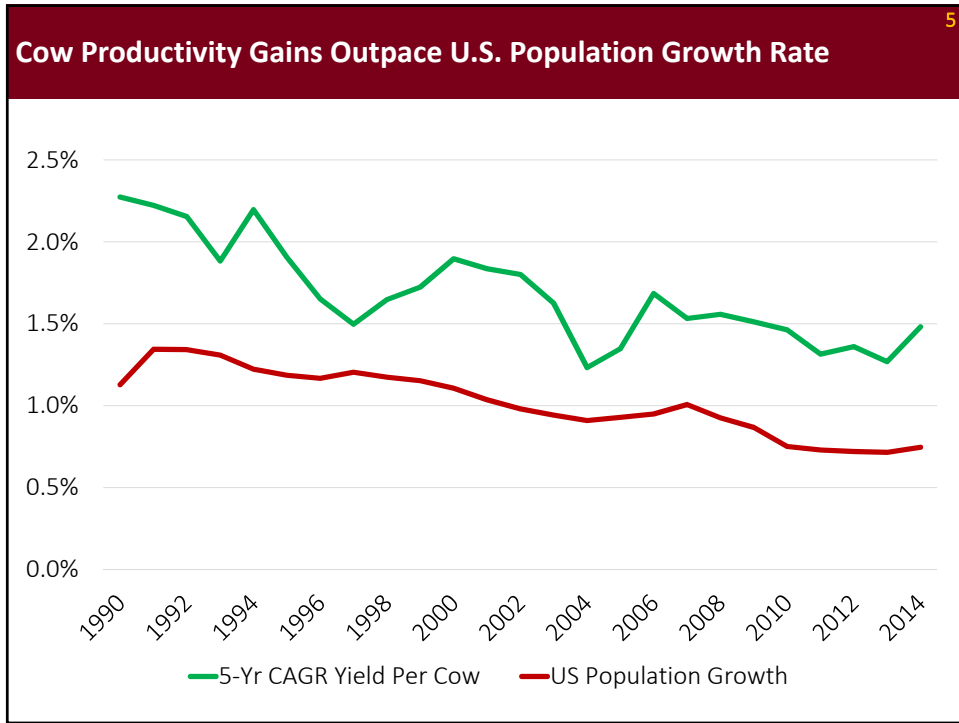
National Workshop for Dairy Economists and Policy Analysts
 Buffalo, NY May 2, 2016

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Milk Per Cow and Size of U.S. Dairy Herd



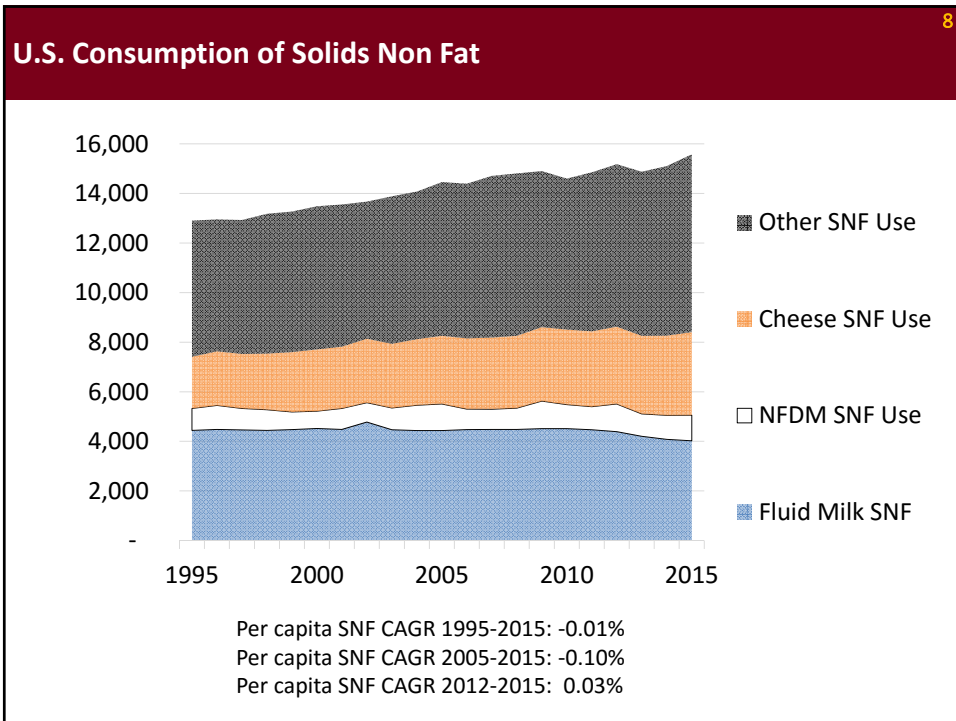
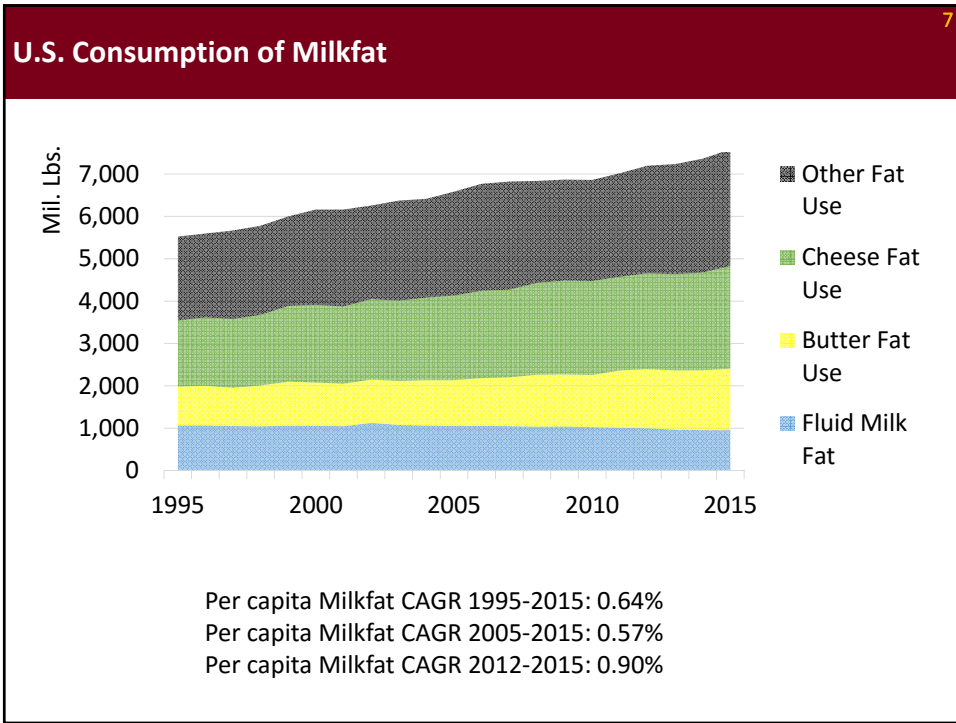




6

Average Annual Per Capita Growth in Cheese Demand (in Lbs)

	American	Italian	Other
1970s	0.29	0.24	0.11
1980s	0.16	0.45	0.09
1990s	0.17	0.23	0.07
2000s	0.07	0.18	0.05
2010s	0.04	0.16	0.10



Domestic Butterfat Demand in 2025 9

	Conservative (Below 20-Yr Trend)	Optimistic (At 3-Yr Trend)	Realistic (10-Yr Trend)
Population Growth	0.8%	0.8%	0.8%
Per Capita Growth	0.5%	0.9%	0.6%
Total CAGR	1.3%	1.7%	1.4%
Butterfat U.S. Demand in 2015	7,583	7,583	7,583
Butterfat U.S. Demand in 2025	8,667	9,018	8,753
Additional Milk Needed	28,514	37,756	30,794

Domestic SNF Demand in 2025 10

	Conservative (10-Yr Trend)	Optimistic (Above Trend)	Realistic (Long-Term Trend)
Population Growth	0.8%	0.8%	0.8%
Per Capita Growth	-0.1%	0.3%	0.0%
Total CAGR	0.7%	1.1%	0.8%
SNF U.S. Demand in 2015	15,583	15,583	15,583
SNF U.S. Demand in 2025	16,774	17,458	16,943
Additional Milk Needed	13,387	21,071	15,282

Growth of U.S. Exports / US Milk Production Growth

11

Year	Total Solids	Milkfat	Nonfat Solids
2003-2013	64%	27%	80%
2007-2013	73%	36%	90%
2009-2014	74%	37%	91%
Jan-Nov 2015	-97%	-137%	-78%

U.S. exports 'only' cca 15% of total milk solids, but exports have been absorbing most of the *growth* of U.S. milk production over the past decade. In 2015, decline in exports acted as if the U.S. milk production growth was twice as strong as it was – depressing domestic prices.

Experts Are In The House To Help Us Go Deeper

12

Christian Edmiston, Land O'Lakes – Butter
 Tom Benson, Milk Specialties Global – Dry Dairy Ingredients
 Marc Beck, USDEC – Exports

Bill Curley, Blimling and Assoc. – Structural Change in the U.S. Dairy
 Tom Haren, AgroPROfessionals – Migration of Large CAFOs
 Jay Waldwogel, DFA – Dairy Processing Strategies