



Joseph A. O'Donnell, Ph.D. California Dairy
Research Foundation

As Nature Intended

- Milk
- Designed by nature
- Deliver nutrition and health to mammals



Milk - Natural for Health

- Designed to be eaten
 - No toxins, thorns, horns, bad taste etc.
- Extends use of other foods
 - Point often lost by narrowly focused commodity marketers and researchers
- Adds balance to a diet
 - Unbalanced diets at the root of many of today's ills
 - Weight management
 - Diabetes
 - Heart disease





Evolving Messages

Research will continue to move forward. We have some health claims already.

The industry and research community is focused on attaining new claims especially in the Structure/function category.



Milk - Natural for Health

- Weight management
- Blood pressure
 - Balance of minerals
 - Bioactive protein
- Trans fat
 - Natural vs. Chemically hydrogenated
- Immunology
 - Immunosenescence



Demand for Protein

 Worldwide demand for SMP, whey protein rising

 Price rising according to classic economic elasticity



Supply/Demand

- Keeping price down and supply up challenged by:
 - Environmental issues
 - Air
 - Water
 - Animal Health, Welfare and Food safety
 - Production technology
 - Processing value added products
 - Target to consumer needs



Get It Right

- Environmental protection needs to be effective relative to capital and operating costs
 - Need clean air/water
 - Need balanced and affordable nutrition
- Productivity technology to increase efficiency without compromising consumer confidence (read rBST)



Consumer Confidence

- Healthy food from healthy animals
 - Meet consumer expectations for:
 - Animal health
 - Animal welfare
 - Supports high productivity



Value Added Products

- Efficiently meet the nutritional needs
 - Food formulation that fits culture and specific nutritional needs
 - Technology that can draw from the pool of benefits within milk to deliver nutritional products efficiently
 - Drying
 - Separating
 - Thermal treatment



Deliver Nutrition

- Balanced nutrition always in demand
- Production/transport ation/processing of food must be consistent with sustainability
- Implement those technologies that can support sustainability at least cost

- Deliver products designed to meet specific nutritional needs
- Do all this at least cost in order to maximize distribution of benefits







Joseph A. O'Donnell, Ph.D. California Dairy
Research Foundation