

2016: Future Scenarios for the U.S. Dairy Industry

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Introduction

For the U.S. dairy industry, everything but the cow has changed — and with genetic engineering, even the cow is changing. The industry is seeing shifts in its' processes, technologies and business models. A variety of forces including new technologies, consolidation, consumer shifts and globalization are clearly transforming the industry, but how will these forces unfold? And what are the implications for different players in the industry, from producers to veterinarians, and the universities that prepare them, to pharmaceutical companies? This report, based on interviews with industry experts, broader surveys and research, and a workshop with diverse industry representatives, is designed to shed light on these questions by using a process called scenario planning.

Materials and Methods

The goal of scenario planning is to understand where uncertainties, forces that experts cannot currently predict or agree upon, might lead in the future. How could these uncertainties lead us to very different worlds that will require different capabilities for success? Scenario planning involves coming up with a set of alternative futures, several very different stories about the future.

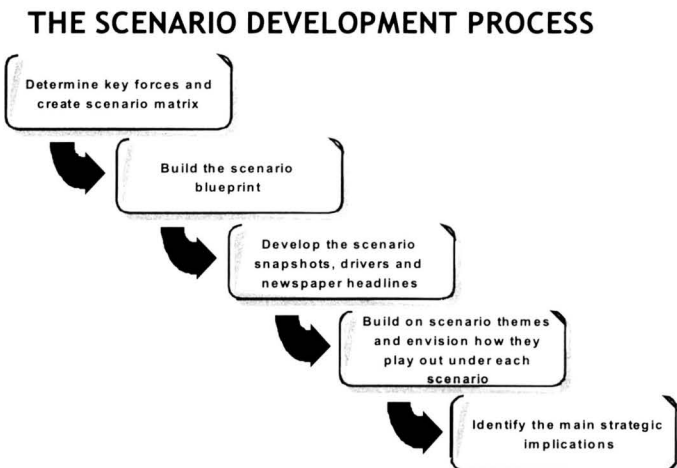


Figure 1. The Scenario Development Process

In order to paint the possible future, DSI interviewed 35 experts to identify 56 forces used to build a broader survey that was distributed to 256 people. The scope of the survey focused on the next 10 years (up to 2016). There were 100 responses dispersed across geography and the entire dairy value chain (including academics, industry organizations, veterinarians, dairy producers and product manufacturers). Through this process, the group identified an initial set of trends and uncertainties likely to impact and shape the future of the U.S. dairy industry. Through a workshop, participants identified two uncertainties as particularly important in shaping future scenarios. The extremes of these two primary uncertainties served as a frame for creating the set of four scenarios.

Results

The two uncertainties identified to frame the 4 scenarios were: Impact of Technology and Consumer Attitudes/Perceptions. Their extremes formed the matrix below and defined the foundation of the four scenarios.

2016 US Dairy Scenarios

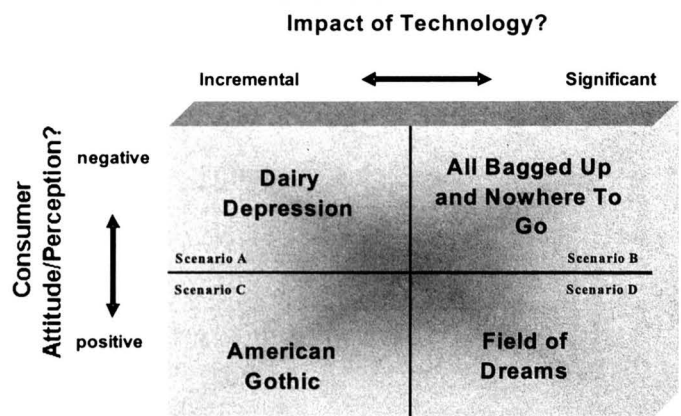


Figure 2. U.S. Dairy Industry Scenario Matrix

Other impacting trends and uncertainties were incorporated into the richer stories of these scenarios as summarized in the blueprint (see Table 1) and later reflected in the build out of the scenarios.

Table 1. U.S. Dairy Industry Scenario Blueprint

Top Uncertainties	Scenario A	Scenario B	Scenario C	Scenario D
U1: Consumer Attitudes/Perceptions	Negative	Negative	Positive	Positive
U2: Impact of Technology	Incremental	Significant	Incremental	Significant
U3: US Regulatory Posture (restrictive/supportive)	Moderate/restrictive	High negative/restrictive reaction to exogenous shocks	Neutral	Supportive
U4:Labor/Talent Availability (may need to separate skilled/unskilled)	Scarce (immigration restricted and industry is unattractive to skilled talent)	Moderate (technology advancements are attractive to skilled labor and lower industry need for unskilled labor)	Adequate unskilled / Limited skilled labor due to industry attractiveness	Adequate unskilled / Limited skilled labor due to rapid change in technology
U5:Input Cost/Availability	High Cost / Limited Availability	Moderate Cost / Limited Availability	High Cost / Limited Availability	Stable Costs / Availability (plentiful)
U6: State of the US Economy	Stagnant	Growing Economy	Slightly growing	Booming
U7:Geopolitical Environment (stable/volatile)	Volatile (Somewhat unstable; regional conflicts; US inwardly focused)	Stable (some regional conflict but cooperative international trade)	Stable (some regional conflict but cooperative international trade)	Stable / Safe
U8: Milk Price	Low	Very low	Average to High	High
U9: Exogenous Shocks	Several with high impact	A few with high impact	Few with minimal impact	None
U10: Openness of Market (i.e., trade)	Restrictive- Trade Barriers exist	Open markets, but restricted to dairy	Open Markets	Open Markets

Through this blueprint, we were able to create “memories of the future” by using the above constraints to shape the scenarios. In scenario A, entitled Dairy Depression, dairy products have become passé. In scenario B, All Bagged Up and Nowhere to Go, the age of techno-cows and mega dairies is explored. In Scenario C, American Gothic, America is in love with the farm and dairy products. In Scenario D, Field of Dreams it is a bold new world in the dairy industry.

Significance

A preliminary set of specific skills or Key Success Factors (KSFs) were identified for both veterinarians and academics of veterinary medicine.

Wellcare: Veterinarians will need skills in analyzing and improving herd performance and decision mak-

ing across all sectors for dairy production. **Strategic Thinking:** They will need increased capacity for strategic thinking to position themselves and their clients for success in the future.

Biosecurity: They will need to play a greater role in ensuring not only animal welfare but also biosecurity and food safety.

Communications: They will need better communications and marketing skills to demonstrate their value and relevance, as well as communicate with diverse stakeholders, including end consumers.

Partnering: They will need alliance and partnering skills to work with large pharmaceutical industry players or coops. Veterinarians may also create their own larger partnerships by consolidating small practices.