COVID-19 is, first and foremost, a global humanitarian challenge. Thousands of health professionals are heroically battling the virus, putting their own lives at risk. Governments and industry are working together to understand and address the challenge, support victims and their families and communities, and search for treatments and a vaccine.

Companies around the world need to act promptly. This document is meant to help Agriculture leaders understand the COVID-19 situation and how it may unfold, and take steps to protect their employees, customers, supply chains and financial results.
Basis for our perspective

Dairy leaders
>150
Executives (survey and interviews)

Dairy Consumers
>2,000
Consumers

Research studies and databases

Proprietary data
(MGI, DnA benchmarks, digital experts)

External sources
(Numerator, USDA, syndicated databases, MilkPep, & IDFA)
Today’s agenda

What happened?
Since we last met, COVID-19 has impacted every aspect of our lives, and has had far-reaching effects on dairy.

What does it mean?
Dairy companies face an uncertain future, but scenario-based thinking can help dairy companies prepare.

What should be done?
Individual and collaborative efforts will be critical to meet key strategic imperatives for the dairy industry.
WHAT HAPPENED?
Compared to last year, the world looks quite different

105 » Countries locked down

>3.9 » Billion people asked to stay at home

55 » Day average global lockdown duration

Impacts

- Human interactions
- Work environments
- Shopping habits
- Living preferences

A digital decade of progress was achieved in months

- **Online delivery**: 10 years in 8 weeks increase in e-commerce deliveries
- **Telemedicine**: 10x subscribers in 15 days
- **Remote working**: 20x participants on Zoom in a month
- **Remote learning**: 250mn students in two weeks
- **Online entertainment**: 7 years in 2 months

1. Disney Plus achieved in two months, what Netflix did in 7 years (CNET, CNN);
2. Students who went online in China
COVID-19 has touched all aspects of dairy

1. What consumers buy
   - New consumer trends, and acceleration of existing

2. How consumers shop
   - Abrupt shift in channel mix, with demand lurching from foodservice to retail

3. How goods move
   - Massive supply chain disruption, with milk dumped alongside stock-outs

4. How dairy performs
   - Strong retail tailwinds helped boost performance for dairy companies
WHAT CONSUMERS BUY: For dairy consumers, COVID-19 has reignited some trends and accelerated others

- Experimentation
- Wellness
- Cooking and eating at home
- Sustainability
- Focus on value
- eCommerce

HOW CONSUMERS SHOP: COVID-19 has transformed how consumers shop, including for dairy

**Tried new shopping method**

<table>
<thead>
<tr>
<th>Method</th>
<th>% respondents</th>
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<tbody>
<tr>
<td>Grocery delivery</td>
<td>11</td>
</tr>
<tr>
<td>Click and collect</td>
<td>8</td>
</tr>
<tr>
<td>Takeout delivery app</td>
<td>6</td>
</tr>
<tr>
<td>Meal kit</td>
<td>6</td>
</tr>
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</table>

**Ecommerce household penetration**

<table>
<thead>
<tr>
<th>Item</th>
<th>% y-o-y growth, March-Aug 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>247</td>
</tr>
<tr>
<td>Ice cream</td>
<td>189</td>
</tr>
<tr>
<td>Cheese</td>
<td>168</td>
</tr>
</tbody>
</table>
HOW GOODS MOVE: Massive dairy supply chain disruption in the first several months of COVID-19

Up to 3.7m gallons of fluid milk poured out per day in April

By May, ~1/3 of processors reported reduced production capacity

>50% of processors rationalized portfolio

~50% rise in retail purchases in March

14% of consumers reported dairy stockouts in May

10% drop in freight rates between March and May 2020

1. NYT - Dairy Farmers of America estimate
2. IDFA Member COVID Pulses (April - May 2020)
3. Member interviews
4. World Economic Forum - Nielsen reference
5. Bloomberg - NPD Group reference
6. St. Louis Fed, FRED
HOW DAIRY PERFORMS: Despite market turmoil, 72% IDFA members reported neutral to positive margin performance

How has COVID-19 impacted your margin YTD (November)?

% of respondents (N=44)

100%  
36  
36  
27

The higher margin and higher volumes in retail have outbalanced our losses in foodservice

We have been able to flex some of our facilities to shift production from foodservice to retail

While we’re spending more than we budgeted on employee safety, we’ve kept margins flat by simplifying manufacturing processes with fewer SKUs
WHAT DOES IT MEAN?
Surveyed dairy executives feel optimistic about the near term... with good reason

What level of annual revenue growth are you expecting over the next 3 years?

% (N=44)

<table>
<thead>
<tr>
<th></th>
<th>0% or negative</th>
<th>1-2%</th>
<th>3-5%</th>
<th>6-10%</th>
<th>&gt;10%</th>
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| 16%   | 43%            | 23%  | 18%  | 16%   

Source: 2020 IDFA Member Survey; USDA estimated volume sales by product, YOY and YTD averages 2016-2020

<table>
<thead>
<tr>
<th>Product</th>
<th>FY 16-19</th>
<th>FY 20</th>
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<tbody>
<tr>
<td>Butter</td>
<td>1.80%</td>
<td>5.50%</td>
</tr>
<tr>
<td>Fluid milk</td>
<td>-1.70%</td>
<td>0.40%</td>
</tr>
<tr>
<td>Yogurt</td>
<td>-1.70%</td>
<td>-0.40%</td>
</tr>
<tr>
<td>Ice cream</td>
<td>-0.60%</td>
<td>-0.30%</td>
</tr>
<tr>
<td>Cheese</td>
<td>3.10%</td>
<td>0.60%</td>
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<tbody>
<tr>
<td>FY 16-19</td>
<td>+3.7</td>
<td>+2.1</td>
<td>+2.1</td>
<td>+0.9</td>
<td>-2.5</td>
</tr>
<tr>
<td>FY 20</td>
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Still, executives recognize the longer-term will be influenced by a number of uncertainties.
How these uncertainties are tackled could lead to distinct scenarios

- Wellness driven growth
- (Innovation/premiumization) driven growth
- A green new future
- Alternatives become the conventional
- Local is the new global
- Channel driven disruption
- Consumption declines after decades of gains
Are industry players prepared?

While industry players are taking action to react to these uncertainties, more can be done
Dairy companies are responding to consumer trends

Consumer trends

Source: Forrester Analytics, 2020 IDFA Member Survey

- **Sustainability**
  - 56%
  - Dedicating resources to sustainable packaging

- **Convenience**
  - 29%
  - Investing in extended shelf life packaging

- **Health**
  - 39%
  - Plan to launch protein enriched products in 2021
However, confidence in consumer insights gathering is declining

I think my company has a .... level of insight into consumer trends and behaviors (%)
Dairy companies have started to harvest the power of Digital & Analytics, and plan to continue investing in Science & technology.

- **30%**: Use predictive analytics for better forecasting & planning
- **34%**: Use technologies that address end-to-end value chain for better visibility, planning, and control
- **66%**: Report using robotics & automation to reduce reliance on manual work

**Do you plan to deploy new digital and analytics tools in the next 12-24 months? (%)**

- Yes: 80%
- No: 11%
- Unsure: 9%

*Source: Forrester Analytics, 2020 IDFA Member Survey*
However, many still do not feel confident with the capabilities built so far

Science & technology

How would you characterize your company’s data collection and monitoring capabilities?

- **We collect large amounts of data and are optimally and regularly processing these into insights**: 16%
- **We’re collecting much data, but have not yet mastered how to effectively process the information**: 61%
- **We do not collect data at scale**: 20%
- **Other**: 2%

Source: 2020 IDFA Member Survey

2% report “very strong” digital and analytics capabilities today
Many are addressing COVID-19-driven channel mix shifts
Retailers & channel mix

73% of members report being able to shift from food service to retail to some degree during the first 3 months of COVID-19

67% report investment in ecommerce capabilities

Source: 2020 IDFA Member Survey and interviews
However, many feel there is room to improve response speed

In your opinion, to what extent does your company respond to consumer trends, seize market opportunities and respond to market volatility/uncertainty today? (%)

- Very agile/fast: 9%
- Somewhat agile/fast: 59%
- Somewhat static/slow: 27%
- Very static/slow: 5%

Source: Forrester Analytics, 2020 IDFA Member Survey
WHAT SHOULD BE DONE?
Dairy companies can consider a mix of active strategic postures

3 Strategic Postures

Shape the future
- Play a leadership role in establishing how the industry operates through **big bold moves**

Adapt to the future
- Capture opportunities in existing markets in a timely way through **real options and risk mitigation**

Reserve the right to play
- Invest sufficiently to stay in the game through **no regret moves**

Source: Harvard Business Review
Strategic imperatives for the dairy industry

**Shape the future**

- Reimagine sustainability performance
- Reimagine our go-to-market (direct to consumer platform)
- Make significant international bets
- Make dairy the career of choice for talented people

**Adapt to the future**

- Focus on consumer insight driven innovation
- Embrace digital
- Use programmatic M&A&D to realign portfolio of businesses
- Invest in research and consumer education to articulate the benefits of dairy
- Bring one industry voice

**Reserve the right to play**

- Explore product diversification to alt. food & beverages
- Invest in technology and research to improve sustainability, health and wellness attributes
- Expand trading relationships with new countries/partners
- Improve operation agility and resilience
Progress towards strategic imperatives requires both internal and external efforts

**Internal efforts**
- Differentiation improvement
- M&A
- Resource reallocation
- Productivity improvement

**External efforts**
- Capital expenditure
- Dairy coalitions
- Outside-dairy collaborations
Closing thoughts

The dairy industry can influence divergent future scenarios by investing in areas of uncertainty.

The degree of action will determine which strategic imperatives are met.

There is no one size fits all approach, but all companies must act together to define a positive future for dairy.
Thank you