2012
A Record-Breaking Year for the Dairy Industry
New record, 2012
55.3 degrees Fahrenheit

Average
52.1 degrees Fahrenheit

Contiguous U.S., Temperature, January-December

9-Point Binomial Filter
Trend +1.28°F/Century
Long Term Average
Temperature

National Climatic Data Center, National Oceanic and Atmospheric Administration
Contiguous U.S., Temperature, March

New record
March 2012
50.4 degrees Fahrenheit
Drought in Contiguous U.S. (2000 to Present)

- Moderate +
- Severe +
- Extreme or exceptional

Peak for moderate +: 9/25/2012, 65 percent
Peak for Severe +: 8/07/2012, 46 percent
Peak for extreme or exceptional: 8/07/2012, 24 percent
Prices of Feed Ingredients

2012 record highs:

Soybeans: $13.96 per bushel
Alfalfa hay: $205.4 per ton
Corn: $6.67 per bushel
Milk Cows Slaughtered

3.6 million head
(year of Dairy Termination Program)

2012: 3.1 million head
2012 Milk Production Passes 200 Billion Pound Mark

2012 record high
200.3 billion pounds
1.8% above 2011
on daily basis
### Dairy Cow Percentage Enrollment in Dairy Herd Improvement (DHI) Test Plans as of January 1 by Breed

<table>
<thead>
<tr>
<th>Breed</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holstein</td>
<td>89.1</td>
<td>87.6</td>
<td>86.8</td>
<td>86.0</td>
<td>84.7</td>
</tr>
<tr>
<td>Mixed</td>
<td>5.1</td>
<td>6.6</td>
<td>7.5</td>
<td>8.2</td>
<td>8.6</td>
</tr>
<tr>
<td>Jersey</td>
<td>5.1</td>
<td>5.2</td>
<td>5.1</td>
<td>5.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Other</td>
<td>0.7</td>
<td>0.6</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Annual Milkfat Test**

- **2011 and 2012:** 3.71 percent
- **December 2012:** 3.86 percent
Relationship of Cheese Prices and Exports

Convergence of Oceania export prices and U.S. Domestic prices

- 2005 to 2010: Price difference and exports move together.
- 2011 and 2012: Price gap narrows, but exports increase.

U.S. cheese exports
U.S. Cheddar domestic price
Oceania Cheddar export price
Oceania minus U.S. price
Closer Look at 2010 Through 2012
Milk Production and Milk-Feed Ratio

- Milk production
- Milk-feed ratio

Milk-feed ratios above 2 for 2010 and 1st qtr, 2011.

Daily milk production increases moderately, 1.8 percent, in 2011.

Unseasonably warm, surge in milk production

Record high monthly all-milk price $22.10 per cwt August 2011

Peak of drought, milk prod. down

Surprising milk production increase

Record low milk-feed ratio, 1.38
Margins on average were smaller in 2009 than in 2012.
Transition
From 2012 to 2013
Still in a Drought
Projections Assume Return to Normal Weather

38% of contiguous U.S. in severe or worse drought.
Down from peak of 65%.

U.S. Drought Monitor
February 12, 2013
Valid 7 a.m. EST

http://droughtmonitor.unl.edu/
Feed Price Projections

- **Corn (Marketing Year: Sept.-Aug.)**
  - 2011/2012: $6.22 per bushel (historical data)
  - 2012/2013: $6.75 – $7.65 per bushel
  - Expectations of a relatively large planted area and trend yield growth
  - 2013-2014: $4.80 per bushel

- **Soybean Meal (Marketing Year: Oct.-Sept.)**
  - 2011/2012: $394 per short ton (historical data)
  - 2012-2013: $430 - $460 per short ton
  - 2013-2014: $300 per short ton

- Note: Feed price projections are per applicable marketing year.
  Milk price, supply, and use projections are per calendar year.

- The lower feed price projections for 2013/14 marketing suggest some relief for dairy farmers in the latter part of calendar year 2013.
On a per-business-day basis, December 2012 slaughter (13.6 thous.) was above December 2011 (13.1 thous.).
A Look Forward to 2013
Daily Output per Cow (pounds)

<table>
<thead>
<tr>
<th>Daily output per cow</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>% chg prev. yr.</td>
<td>58.5</td>
<td>59.3</td>
<td>60.1</td>
</tr>
<tr>
<td></td>
<td>+ 0.9%</td>
<td>+ 1.4%</td>
<td>+ 1.3%</td>
</tr>
</tbody>
</table>

![Chart showing daily output per cow for different quarters and years, with projections for 2013.](chart.png)
Daily Milk Production (mil. pounds)

<table>
<thead>
<tr>
<th>Milk Production</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>% chg prev. yr.</td>
<td>537.7</td>
<td>547.3</td>
<td>550.8</td>
</tr>
<tr>
<td>+ 1.8%</td>
<td>+ 1.8%</td>
<td>+ 0.6%</td>
<td></td>
</tr>
</tbody>
</table>

![Graph showing daily milk production for years 2011 to 2013, with projections for 2013-I to 2013-IV. The graph indicates a general increase in milk production over the years.](image)
Domestic Commercial Use (bil. lbs)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat Basis</td>
<td>189.2</td>
<td>193.5</td>
<td>195.7</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td>+ 0.9%</td>
<td>+ 2.2%</td>
<td>+ 1.2%</td>
</tr>
<tr>
<td>Skim Solids basis</td>
<td>168.3</td>
<td>171.4</td>
<td>172.1</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td>+ 1.6%</td>
<td>+ 1.8%</td>
<td>+ 0.4%</td>
</tr>
</tbody>
</table>

![Graph showing domestic commercial use over time with projected trends.](image-url)
### Commercial Exports (bil. lbs)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fat Basis</strong></td>
<td>9.4</td>
<td>8.8</td>
<td>9.0</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td>+10.3%</td>
<td>-6.8%</td>
<td>+2.6%</td>
</tr>
<tr>
<td><strong>Skim Solids basis</strong></td>
<td>32.5</td>
<td>33.5</td>
<td>33.7</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td>+7.0%</td>
<td>+2.9%</td>
<td>+0.7%</td>
</tr>
</tbody>
</table>

The diagram illustrates the trends for both fat basis and skim solids basis from 2011-I to 2013-IV, showing the actual data points and projections.
## Imports (bil. lbs)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fat Basis</strong></td>
<td>3.5</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td>-13.5%</td>
<td>+12.4%</td>
<td>+0.8%</td>
</tr>
<tr>
<td><strong>Skim Solids basis</strong></td>
<td>5.3</td>
<td>5.7</td>
<td>5.4</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td>+9.0%</td>
<td>+7.9%</td>
<td>-5.7%</td>
</tr>
</tbody>
</table>

![Graph showing imports over time]
Ending Commercial Stocks (bil. lbs)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th></th>
<th>2012</th>
<th></th>
<th>2013</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat Basis</td>
<td>10.9</td>
<td>+ 0.8%</td>
<td>11.9</td>
<td>+ 8.9%</td>
<td>11.1</td>
<td>- 6.5%</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skim Solids basis</td>
<td>11.8</td>
<td>- 2.7%</td>
<td>12.0</td>
<td>+ 1.2%</td>
<td>11.6</td>
<td>- 3.2%</td>
</tr>
<tr>
<td>% chg prev. yr.</td>
<td></td>
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</tbody>
</table>
Average Net Cash Income per Dairy Farm Operation

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013 Projection</th>
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</thead>
<tbody>
<tr>
<td>thous. $</td>
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</tbody>
</table>

14.5 percent decrease from 2012
Long-Term Baseline Projections
Milk Production

1.6% CAGR after 2013

bl. pounds

Milk production
latest projections
baseline
All-Milk Price

0.7 % CAGR

2022: $20.80

- 1.6 % CAGR
Thank you