Summary of Current Livestock Industry Issues: Animal Welfare, Traceability, Food Safety, & Consumer Demand

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Thumb Cattlemen’s Meeting
March 11, 2009
Meat Demand

- Beef Board Study (Jan. 2009)
  - [https://www.msu.edu/~gtonsor/BeefCattle.html](https://www.msu.edu/~gtonsor/BeefCattle.html)
Meat Demand Study Results

- 10% increase in:
  - Expenditures: +9% qu. beef demanded
    - Weak U.S. economy ...
  - Beef Prices: -4% qu. beef demanded
    - Rather insensitive to competing meat prices
  - Beef recalls: -0.2% qu. beef demanded
    - 18 in 2006 to 38 in 2007 = 2.6% impact
  - Female Employment:
    - - 6% qu. beef demanded (+6% for poultry)
  - FAFH Expenditures:
    - -16% qu. beef demanded (+18% & 19% for pork & poultry)
Meat Demand Study Results

- **Health information impacts:**
  - Cholesterol, heart disease, arteriosclerosis:
    - Articles quadrupled from 1982-2004 = 9% decline in beef demand (1/3rd of 28% decline experienced)
  - net Positive Atkins:
    - 1998-2003 increase of 245% = +2% impact
    - Decline after 2003 = -0.8% impact
  - Zinc, Iron, or Protein:
    - 268% increase (1982-2007) = 7% increase in beef demand (13% increase for poultry)
Meat Demand Study Conclusions

- Beef has benefited from rising incomes/expenditures
  - Per capita consumption likely will decline in 2009
- Non-price factors are substantial
  - Cholesterol media = 1/3rd of decline
  - Recalls doubled from 06’ to 07’
  - Convenience matters
  - Convenient, Microwaveable, Ease of Use: 3,579 new beef products; 5,633 new poultry products (Mintel, 1997-2008)
Animal Welfare Research: 3 Surveys Conducted (Drs. Glynn Tonsor and Christopher Wolf)

- **Nov. 2007; 1,000 surveys in MI**
  - 205 completes available for analysis

- **June 2008; 1,001 surveys across U.S.**
  - Focused on pork; gestation crate use

- **Oct./Nov. 2008; 2,000 surveys across U.S.**
  - Focused on gestation crates, laying hen cages, dairy pasture access

- Several projects/grant proposals underway
Please rank the following species in order of concern you have regarding current animal welfare/handling practices (1 being most concerned):

Mean rankings

- Beef cattle 2.47
- Dairy cattle 3.01
- Swine/hogs 3.28
- Broilers 2.99
- Laying hens 3.25

- Beef cattle have highest mean concern
  - Hallmark (Chino, CA) perceptions may underlie this...
- Interesting difference from ballot initiatives...

Source: Survey of 2,000 U.S. residents
CA’s Proposition 2 Question:
Law would require farmers **nationally** to confine calves raised for veal, egg-laying hens, and pregnant pigs only in ways that allow these animals to lie down, stand up, fully extend their limbs, and turn around freely.

- **CA actual vote:** 63% FOR
- **Survey national question:**
  - National support: 70% FOR
  - CA residents: 70% FOR
  - MI residents: 69% FOR
  - IA residents: 57% FOR
  - Weakest support in SD: 33% FOR

Source: Survey of 2,000 U.S. residents
<table>
<thead>
<tr>
<th>Organization</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Humane Society of the U.S. (HSUS)</td>
<td>4.93</td>
</tr>
<tr>
<td>University Scientists/Researchers</td>
<td>4.47</td>
</tr>
<tr>
<td>People for the Ethical Treatment of Animals (PETA)</td>
<td>4.22</td>
</tr>
<tr>
<td>National Milk Producers Federation (NMPF)</td>
<td>4.20</td>
</tr>
<tr>
<td>U.S. Poultry &amp; Egg Association</td>
<td>4.18</td>
</tr>
<tr>
<td>National Cattlemen's Beef Association (NCBA)</td>
<td>4.11</td>
</tr>
<tr>
<td>United Egg Producers (UEP)</td>
<td>4.10</td>
</tr>
<tr>
<td>National Pork Producers Council (NPPC)</td>
<td>4.07</td>
</tr>
<tr>
<td>State Governmental Agencies</td>
<td>4.00</td>
</tr>
<tr>
<td>Federal Governmental Agencies</td>
<td>4.00</td>
</tr>
</tbody>
</table>
Perceived Ability to Influence and Assure Animal Welfare (1=Very Low Ability, ..., 7=Very High Ability)

<table>
<thead>
<tr>
<th>Category</th>
<th>Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer/Grower</td>
<td>5.33</td>
</tr>
<tr>
<td>Government Inspectors/Regulators</td>
<td>5.16</td>
</tr>
<tr>
<td>The Humane Society of the U.S. (HSUS)</td>
<td>5.00</td>
</tr>
<tr>
<td>Meat or Milk Processor</td>
<td>4.68</td>
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<tr>
<td>Animal Industry Representative Groups</td>
<td>4.58</td>
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<tr>
<td>People for the Ethical Treatment of Animals (PETA)</td>
<td>4.44</td>
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<tr>
<td>Consumer – Food Purchaser</td>
<td>4.38</td>
</tr>
<tr>
<td>Retail Grocer</td>
<td>3.71</td>
</tr>
<tr>
<td>Food Service Restaurant</td>
<td>3.59</td>
</tr>
</tbody>
</table>
Lexis-Nexis Media Indices: Consumer Group Sourced Articles


Westland/Hallmark; Chino, CA Event:
Summary AW Points

- Consumer desires regularly drive change
  - “Accurate knowledge” is NOT necessary to be influential (perception drives decisions)
- Consumers associate “good AW practices” with smaller farms, higher food safety
- Voting behavior & regulation impacts all
- Little is known about true desires
  - Is group indoor housing sufficient or outdoor pasture necessary???
- “True demand effects” are uncertain; not necessary to drive substantial industry change
TRACEABILITY & ANIMAL IDENTIFICATION
Changing International Meat Market and Associated Traceability Drivers

- **Drastic changes:**
  - Rising demand of Southeast Asia
    - Huge increase in pork exports in 2008
    - “non-US” meat consumption is viewed as the future
  - Traceability’s use in meeting COOL is building ...

- **Example interconnections of industries:**
  - USDA Process Verified Programs (PVPs):
    - Uruguay: INAC
      - USDA certifies source, grass fed, no hormone-antibiotics-antibiotics-antibiotics-animal proteins-confinement of cattle raised in URUGUAY
    - Argentina: SENASA
      - USDA certifies Angus breed association of cattle raised in ARGENTINA
## Beef Traceability Systems:

<table>
<thead>
<tr>
<th>Country</th>
<th>System</th>
<th>Depth</th>
<th>Breadth</th>
<th>Precision</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU &amp; Japan</td>
<td>B</td>
<td>Retail to Farm</td>
<td>Safety &amp; Origin</td>
<td>Individual animals to birth place</td>
</tr>
<tr>
<td>Australia</td>
<td>ME</td>
<td>Farm to Abattoir</td>
<td>Safety &amp; Origin</td>
<td>Individual animals to birth place</td>
</tr>
<tr>
<td>Brazil, Argentina, Canada</td>
<td>ME</td>
<td>Farm to Abattoir</td>
<td>Safety &amp; Origin</td>
<td>Group of animals to birth place</td>
</tr>
<tr>
<td>U.S.</td>
<td>V</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
</tbody>
</table>

M=Mandatory, V=Voluntary, B=Both Man. & Vol., ME=Mand. For Export
P = Potential characteristic
3. Crude Eastern Cornbelt Snapshot

(2.08’ Cattle Feeding Shortcourse)

What is the minimum premium you would accept to do these 4 things:
1) keep unique birth/placed and sale dates,
2) ensure all animals are individually and uniquely tagged,
3) record prior owner of all animals, and
4) keep all records available for audit for at least 3 years.

5.) What is the minimum premium you would accept to do those 4 things?

<table>
<thead>
<tr>
<th>Premium Range</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 / “I already do all 4 things”</td>
<td>21%</td>
<td>16</td>
</tr>
<tr>
<td>$1-$5/head</td>
<td>17%</td>
<td>13</td>
</tr>
<tr>
<td>$6-$10/head</td>
<td>27%</td>
<td>21</td>
</tr>
<tr>
<td>$11-$15/head</td>
<td>18%</td>
<td>14</td>
</tr>
<tr>
<td>Over $15/head</td>
<td>16%</td>
<td>12</td>
</tr>
<tr>
<td>“I would never do these 4 things”</td>
<td>1%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>77</td>
</tr>
</tbody>
</table>
Highlighted Suggestions for U.S. Beef Industry

- **Int’l meat market changes**
  - Keep up or get out
    - Cost/benefit analysis of NAIS
    - Example: Australia has benefited in Japan from BSE

- **Domestic issues**
  - Keep up with poultry/pork or lose demand
    - Quality/consistency issues must be addressed
    - Traceability can improve reward/penalty systems
  - Address consumer concerns
    - Food safety, animal welfare, general production practices all require traceability & verification
FOOD SAFETY
Recent Beef Board Study (Class I and II FSIS recalls):

- Small but statistically significant impacts
- Impacts can be large:
  - 18 in 2006 to 38 in 2007 = 2.6% reduction in qu. beef demanded
Consumer Valuations of Beef Steak Food Safety Enhancement in Canada, Japan, Mexico, and the United States

Glynn Tonsor; Michigan State University
Ted Schroeder; Kansas State University
Joost Pennings; Maastricht Univ., Wageningen Univ., and Univ. of Illinois
James Mintert; Kansas State University

Canadian Journal of Agricultural Economics
Forthcoming
Conclusions/Implications

- **Canada /US= Concave; Japan/Mexico = Convex;**
  - Optimal food safety investments will likely differ across and within countries

- **If consumers view food safety improvements as marginal:**
  - Beef industry should consider investing in improving tenderness
    - US consumers may be better target than Canada, Japan, Mexico

- **If consumers view food safety improvements as significantly reducing risk:**
  - F.s. investments targeting Japan or Mexico become more viable
  - US consumers may still prefer enhanced tenderness

- **Preference heterogeneity is strong within countries as well**
  - Investments that only need a small market share may be viable
    - Even if the average consumer isn’t WTP associated premiums.
QUESTIONS

- Tonsor’s website (includes presentation):
  - http://www.msu.edu/user/gtonsor/
Other charts from meat demand study:
Weaker Consumer Incomes Means Consumer Spending Will Decline

Personal Disposable Income vs. Personal Consumption Expenditures
Quarterly at Annual Rate, Seasonally Adjusted, 1982-2008

Source: Bureau of Economic Analysis
Consumers Pushing Savings Rate Back Up Which Will Also Hold Down Consumption

Source: Bureau of Economic Analysis
Beef Expenditures Are Small Relative to Income

Beef, Pork, and Poultry Expenditures
As a Percentage of Disposable Personal Income, 1982-2007

Source: USDA and LMIC
Beef Food Safety Recalls Increasing

Source: U.S. Food Safety Inspection Service
Medical Journal Info. on Heart Disease Peaked, But Still Having a Negative Effect

Articles Published Referencing Heart Disease & Diet Medical Journals, Quarterly, 1982-2007

Source: Medline
Atkins Diet Did Boost Beef Demand But The Atkins Diet Fad Is Over

Net Articles Published Referencing Atkins Diet
Positive Minus Negative Articles, U.S. Newspapers, Quarterly, 1982-2007

Year & Quarter

Source: LexisNexis
Consumer Awareness About One of Beef’s Positives Is Increasing

Articles Published Referencing Zinc or Iron or Protein & Diet
U.S. Newspapers, Quarterly, 1982-2007

Source: LexisNexis
Female Employment Surged in ‘80’s & 90’s But Leveled Off Over the Last Decade

Source: U.S. Department of Commerce
Food Consumed Away from Home
Increased But Leveled Off Recently

Percentage of Food Consumed Away From Home
Quarterly, 1982-2007

Source: U.S. Department of Commerce