

Animal Welfare in U.S. Food Animal Production: Economist Perspectives



Animal Health Cohort
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Overview

1. Expectations of the U.S. public
2. Summary of current U.S. situation
3. Synthesis of economic research
4. On-going research highlights
5. Outline of economic implications
6. Take-home points



Expectations of U.S. Public

- Livestock producers are expected to “*protect and promote animal well-being*”
 - 1 of 6 *We Care* principles (Pork Industry)
- EVEN IF there are no immediately matching consumer WTP signals
- SO AW provision is “a cost of doing business”
 - Necessary to maintain “social license” and “freedom to operate”





By affirming these principles, America's pork producers acknowledge their responsibility to:

Produce safe food

Protect and promote animal well-being

Ensure practices to protect public health

Safeguard natural resources in all of our practices

Provide a work environment that is safe and consistent with our other ethical principles

Contribute to a better quality of life in our communities

SOURCE: <http://www.pork.org/Programs/32/wecare1.aspx>



Current Situation

- The Center For Food Integrity (@foodintegrity) tweeted on Wed, Sep 04, 2013:

“Science tells us if we can do something.

Society tells us if we should do it.”



Current Situation

- AW is not a top of mind issue for typical U.S. meat, milk, and egg consumers
 - supported by direct survey assessment
 - consistent with limited AW labels on retail products
- IF AW were a top priority for consumers we would likely observe:
 - more exerted consumer WTP behavior
 - increased product differentiation by suppliers
 - “textbook, free-market adjustments” would work
 - » Note there is a growing list of USDA PVPs with claims



Current Situation

- AW impact from consumers is indirect:
 - presented attributes (or claims) regularly send cues to at least some consumers:
 - safety and quality are inferred from gestation stall use
 - “natural” triggers cues similar to “organic”
 - “Product of Mexico” vs. “Product of Canada” signals safety cues
 - meat color triggers a host of quality cues
 - consumers see AW as one of several aspects comprising the “proper way to produce meat, milk, and eggs”
 - beta-agonist use discussions are a recent example
 - within industry customers reflect indirect consumer influence



Current Situation

- Bans pass when voted upon by residents...
 - Cage-free eggs (5% mkt share vs. 2/3 voting support)
 - “Vote-buy” disconnect not unique to AW
 - Consider calls for mandatory labeling
 - GM ingredients (Prop 37), country of origin, etc.
- “Debate” being carried out more in the media, ballots, and legislative arenas than retail shelf



Current Situation

- Growing number of states with passed ballots or legislation restricting production practices
 - Implications for producers & government
 - “unfunded mandate”
 - Interstate commerce law quickly comes to play...
 - Some think non-ballot states are safe production havens
- Growing discussion over national standards
 - Leads to growing tension:
 - across species, within species (across states or ind. levels)



Existing Economics Literature

- Studies limited in overall number and replication
 - Limited funding; relatively new issue; few land-grant economists focused on AW...
 - Only known meta-analysis (Lagerkvist & Hess, 2011 ERAE) based on 24 studies (only 6 in U.S.)



Existing Economics Literature

- Issues examined include:
 - Drivers of voting behavior (e.g. Prop 2 support)
 - Consumer WTP for meat attributes (e.g. pork chop from system not using gestation stalls)
 - Indirect focus applications (e.g. WTP for antibiotic-free)
 - Evaluating necessity of bans to meet AW concerns
 - Scanner data analyses of egg purchases
 - Social media impact on AW perceptions
 - Media impact on aggregate meat demand
 - Conceptual articles on AW market signals & “externalities”



Highlights of past AW Research

Tonsor has been involved in...

- Public concerns are not unique to any species
- Trust in the source of AW information is key driver of ballot voting
- Residents are insensitive to timetables
- Online videos influence perceptions; not WTP



Highlights of past AW Research

Tonsor has been involved in...

- Public does not know about retail price impacts
- Bans are not economically needed in presence of voluntary labeling
- Media attention to AW influences meat demand
- Mandatory AW labeling has stated public support



On-Going Research

- Vote-Buy Disconnect
 - USDA grant proposal under review (Tonsor, Lusk, Norwood, and Brooks)
- Ongoing Beef & Dairy Cattle Welfare USDA Grant (Tonsor, Wolf, Swanson, and Thomson)
 - Producer & Consumer Assessment
 - Feasibility vs. Effectiveness



Vote-Buy Disconnect:

Preliminary, Illustrative Assessment

- April 2013 survey of 1,950 U.S. residents
 - Cage-free egg application (purchasing & voting)
- Majority (85%) WTP premium
 - Biases abound (<5% actual market share)
- Majority (64%) WT vote for federal reg. ban
 - Consistent with ballots to-date
- *Response combinations are of main interest...*



Vote-Buy Disconnect: Preliminary, Illustrative Assessment

- Response Combinations:
 - 9.5% NO/NO & 58.7% YES/YES
 - Conservatively can be considered “Consistent”
 - 26.2% Yes WTP/ No Ban (“Inconsistent”)
 - 5.6% No WTP/Yes Ban (“Inconsistent”)



Vote-Buy Disconnect: Preliminary, Illustrative Assessment

Table 1. Selection frequency of presented reasons for inconsistent responses.

<i>Reason</i>	<i>Willing to pay premium; not supportive of ban (26.2%)</i>	<i>Not willing to pay premium; supportive of ban (5.6%)</i>
I believe food production should be influenced more by consumer purchasing patterns than legal regulations.	28%	
I do not want to restrict the production choices of egg producers.	24%	
I did not realize my two answers reflected different buying and voting behaviors.	17%	13%
I do not want to restrict the purchasing choices of other egg consumers.	15%	
Cage-free egg production should be required of producers, but cage-free eggs should not be more expensive for me to buy.		62%
I believe food production should be influenced more by legal regulations than consumer purchasing patterns.		6%
I do not mind restricting the production choices of egg producers.		3%
I do not mind restricting the purchasing choices of other egg consumers.		1%
Other, please describe:	4%	10%
I do not know	13%	5%



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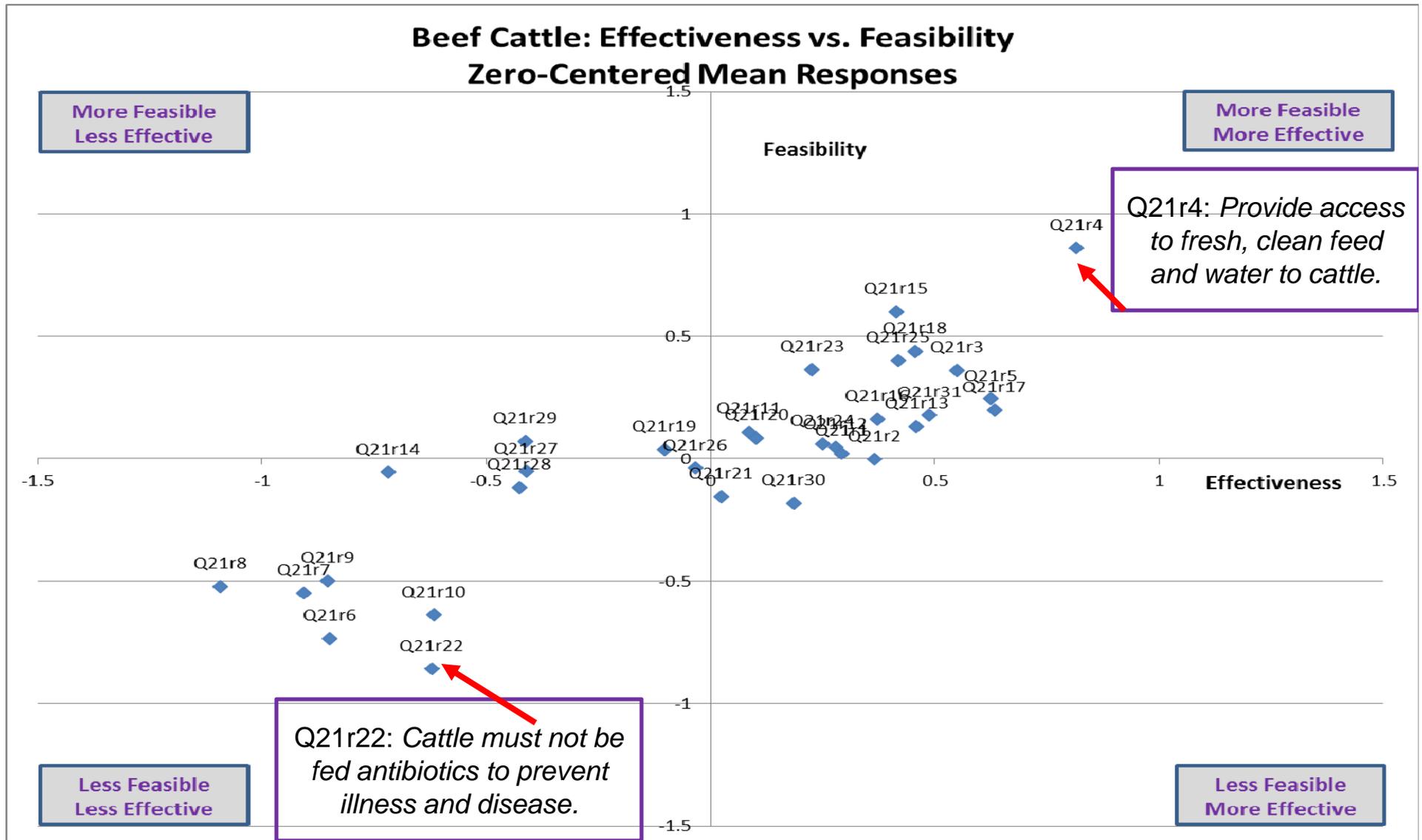


Ongoing Beef & Dairy Cattle Welfare USDA Grant

- April 2013 survey of 1,950 U.S. residents
- *“... rank how effective (feasible) each action would be to improve the welfare of beef (dairy) cattle in the U.S.”*
 - Randomly assigned Likert scale questions
 - Total set of 30 actions in design including:
 - *“Provide access to fresh, clean feed and water to cattle.”*
 - *“Cattle must not be fed antibiotics to prevent illness and disease.”*



Ongoing Beef & Dairy Cattle Welfare USDA Grant



Ongoing Beef & Dairy Cattle Welfare USDA Grant

- Effectiveness & Feasibility: 0.84 correlation
 - Do consumers distinguish the two dimensions?
 - Is it practical to think they could or will in the future???
 - Producers will *likely* separate these dimensions



Economic Implications of AW Situation

- “nothing happens in a silo”
- There are economic implications following almost all changes:
 - AW-based adjustments are no different



Economic Implications of AW Situation: Livestock Producers & Industry

- “Unfunded mandate”
 - Change is required yet not immediately paid for
 - Reduces supply (e.g. contraction of industry)
- Larger average size?
 - likely an unintended consequence
- State-by-state comparative advantage changes
 - Movement in production centers over time?
 - “In-fighting” spatially within species
- Global comparative advantage changes?
 - global demand growth critical to benefit from...



Economic Implications of AW Situation: General Public (Consumers & Citizens)

- Heterogeneity of impacts warrant noting...
 - Typical consumer
 - not WTP premium yet higher prices follow prod. costs
 - Typical resident
 - Absorbs tax implications of enforcement (opp. costs)
 - Highly concerned consumer likely better off *relative to typical*
 - **But** differentiation, labeling, etc. alternatives do exist...



Economic Implications of AW Situation: Government

- Global comparative advantage changes?
 - Implications for meeting food export targets
 - Reduced industry base for tax revenue
- Tax implications
 - Enforcement & oversight expenses follow passing ballots, legislative changes, etc.
- School lunches – costs of protein provision...



Economic Implications of AW Situation: Society

- Society always varies “weights” placed on producer, consumer, citizen, and central gov’t impacts when assessing change...
- R&D investment restrictions?
 - Food security (2050 challenge) implications
 - Likely similar impacts on meeting food safety, climate change, etc. challenges



Overall Take

- AW is a “social challenge” here to stay
 - Public perceptions frequently drive change
 - Trend of pressure coming from sources “outside the retail shelf” also likely here to stay
- AW is not univariate
 - Yet many debates treat it as such - unwise
- AW now is a “cost of doing business” in U.S.
 - Can’t be ignored
 - ***So how do the U.S. meat, milk, and egg industries go forward???***



Alternative Industry Paths

- “Do Nothing”

PROS:

- Minimize current investment
- Wait for more information & avoid “building the wrong barn”

CONS:

- Limits nearly all ability to have influence if “not at the table”
- May miss “golden opportunity” as public views farmer/rancher to have most influence...
 - Risk sending signal of indifference to AW...



Alternative Industry Paths

- “Proactive” Options [not necessarily mutually exclusive]:
 1. Negotiate with concerned groups
 - Adjustment time and requirements may (or may not) be improved
 2. Seek additional legislation
 - Ag. may have more influence than reacting to ballot initiatives
 3. Support additional labeling of practices
 - However note trade impacts of mandatory so consider voluntary labeling
 4. Support ‘phase-out’ as older facilities come out of production
 - May align w/ timetables in prior ballot initiatives & reduce adjustment costs
 5. Invest in public image
 - Reconnect (not necessarily defend) with public; may not be sufficient for short-run response but may be necessary for long-run survival
 6. Adopt increasingly transparent protocols
 - May reduce public shock impacts of “surprises”
 7. Invest in public education
 - Likely necessary but recognize information overload, time constraints, etc.



More information available at:



This presentation will be available in PDF format at:

<http://www.agmanager.info/about/contributors/individual/tonsor.asp>

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More information @ AgManager (<http://www.agmanager.info/>)

<http://www.agmanager.info/livestock/marketing/AnimalWelfare/default.asp>



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Livestock & Meat Marketing: Animal Well-Being and Welfare

Title	Author	Date	Factsheet, Paper, Presentation, or Journal article	Video
Mandatory Labeling of Animal Welfare Attributes: Public Support and Considerations for Policymakers	Tonsor and Wolf	July, 2011	Journal Article Fact Sheet (AM-GT-2011.1)	WMV MP4
U.S. Meat Demand: The Influence of Animal Welfare Media Coverage	Tonsor	September, 2010	Journal Article Fact Sheet (MF2951)	WMV MP4
Consumer Preferences for Animal Welfare Attributes: The Case of Gestation Crates	Tonsor , Olynk , and Wolf	December, 2009	Journal Article	WMV MP4
Consumer Voting and Demand Behavior Regarding Swine Gestation Crates	Tonsor , Wolf , and Olynk	July, 2009	Journal Article	WMV MP4
Consumer Use, Perceptions, and Demand Impacts of Alternative Animal Information Sources	Tonsor	July, 2009	Presentation	
Alternative Animal Welfare Responses: Options and Implications for Producers and Industry-at-Large	Tonsor	March, 2009	Presentation	

Animal Welfare Videos by [Dr. Glynn Tonsor](#)

Mandatory Labeling of Animal Welfare Attributes (New!)

Consumer Preferences for Animal Welfare Attributes: The Case of Gestation Crates

Consumer Voting and Demand Behavior Regarding Swine Gestation Crates

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