Dairy Farmer Willingness to Supply Animal Welfare Related Practices

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The U.S. dairy industry is facing unprecedented pressure to adjust production practices in response to societal concerns. A particular area of pressure surrounds how production practices impact the welfare of farm animals. Residents in multiple states have determined, through ballot initiatives or legislation, that particular production practices will be banned due to perceived associated undesirable animal welfare impacts. However, it does not take formal policies to change production practices. Many food service establishments—from grocers to restaurants—are also increasingly purchasing their food from "humanely raised" sources. Periodically under-cover videos are released of abuse—or perceived abuse—on dairy farms which re-focus the spot-light on these issues.

In response to the increased scrutiny of dairy farm management practices related to cow welfare, the dairy farm organizations have rolled out a voluntary program, Farmers Assuring Responsible Management (FARM), to assure the public at large. Recognizing these new programs and the broader background discussions and interest in animal welfare on U.S. dairy farms, this research has the following objectives: determine the percent of US dairy farms are currently performing important animal welfare related practices and determine what practices would be widely supplied for a milk price premium.

Survey

This research uses surveys—conducted in March through May 2014—of US dairy producers (n=656) to examine supply of animal welfare related production practices. Dairy producers were randomly drawn from producer lists of seven states including California, Florida, Indiana, Michigan, New Mexico, Vermont, and Wisconsin. Together, these states producer more than 40 percent of the US milk supply.

Table 1 displays summary statistics of respondents. On average the herds had 346 milk cows which is larger than the average US operation with milk cows according to USDA but is in line with typical commercial dairy farm operations. Operator characteristics, income, and other demographic variables assured that this was a representative sample.

In order to examine dairy cow welfare, potential farm production and management practices related to cow and calf welfare were obtained from the Farmers Assuring Responsible Management (FARM) program, Humane Farm Animal Care, and expert opinion from Animal Behavior and Welfare Specialists. The list of potential actions includes providing basics like clean feed and water to employee training or eliminating production practices such as tail-docking. The list of practices included is displayed in the first column of Tables 3 and 4.

In the survey dairy farmers were asked about: which practices they currently supplied; which they felt were important to consumers; which they felt would result in the largest increase in production costs; and, which they would supply for a given (random) premium per hundredweight of milk sold.

Results

The dairy farmers were asked to score the ability of farmers, consumers, government, industry and welfare related groups' ability to influence dairy cattle welfare. Table 2 reveals that they thought that they had by far the most influence on dairy cattle welfare—and presumably the most responsibility as well. In second place were University Scientists which parallels producer groups desire that science be the guiding force behind animal welfare related rules and regulations.

Respondents were asked to indicate all the practices that were currently implemented on their operation but had the option to skip any questions. As such, a non-response could indicate that the practice was not supplied or that they skipped the question. We can therefore interpret these responses as having a downward bias. For example, 96.9 percent of respondents indicated that they gave cattle access to fresh, clean feed and water (Table 3). We would expect that all farms provide this so the 3.1 percent that did not indicate it were likely respondents that skipped the question. The story is similar with assuring clean, dry conditions for cattle. On the other hand, third party verification of animal welfare is not common on US dairy farms so it is unsurprising that a minority indicated that practice.

Farmer respondents thought that fresh feed and water and clean living conditions would be most important to consumers Table 3). They also thought promptly treating or euthanizing sick cattle and third party verification would be important to consumers. With respect to what would be the most expensive practices to implement, respondents indicated that access to outdoor exercise areas would be the most expensive. Given the prevalence of free-stall facilities and the relative high cost of land that limits the use of pasture in the US dairy farm industry today, it would potentially be quite expensive to provide this outdoor access. The second most expensive practice was thought to be third party verification of animal welfare related practices.

Table 4 displays the practices that respondents said they would be willing to supply for a $0.50/cwt or $1.00/cwt premium. The supply of every practice increased with premiums. The largest percentage change indicated was having a consistent training program on cow care and handling for employees and managers which was currently provided on 54 percent of respondent operations but increased to over 90 percent with the premium. Third party verification also increased greatly with the premiums from the current level of 43 percent to 69 percent with a

$1/cwt premium. Access to outdoor exercise areas also increased but to a much lesser extent (60 to 68 or 75 percent) reflecting the fact that many operations would require significant investments in facility and land changes to make this a feasible practice.

Implications and Conclusions

The practices analyzed here focused on many practices that have been the subject of under-cover videos from dairy operations in recent years that have shocked much of the US public. Often these videos show filthy dairy cattle that are being struck, drug on the ground or hung from loaders or otherwise physically abused. The trust that the US public places in dairy farmers can be shaken by these videos. Farmer organizations have reacted to these incidents with programs to assure and verify appropriate cow care which represents several of the practices we examined.

Our results reveal that the majority of dairy farms currently provide most of these practices. However, some practices, such as tail docking, were more common on larger herds. Larger herds were more likely to indicate they would require a premium to supply access to outdoor exercise areas. All herds required a premium to utilize third party verification of animal welfare on farm. Potential for segmenting production to allow for premiums may be important if premiums are to be actually realized..

Dairy farms today must increasingly consider the role of consumer demand for animal welfare related production attributes. This paper supplies the first comprehensive look at what practices are common on U.S. dairy farms, how they relate to farm characteristics (e.g., herd size) and what these farmers would provide for a premium.

References.

National Milk Producers Federation. “National Dairy FARM Program: 2014 Year in Review.” Available online: http://www.nmpf.org/publications/national-dairy-farm-program Accessed November 13, 2014.

Table 1. Summary Statistics US Dairy Producers and Public Survey

Variable		Mean	St Dev
Milk cows	(head)	346	946
Milk/cow	(pounds)	20,231	8,489
Operator age	(years)	51.9	12.8
Operator experience	(years)	31.4	15.3
Operator Education		% respondents	
< High School		17.8	
High School		41.3	
Technical School		20.3	
Bachelor's Degree		16.7	
Grad or Prof Degree		3.8	
Household Income		% respondents	
Less than $25,000		13.3	
$25,000-$49,999		26.1	
$50,000-$74,999		22.1	
$75,000-$99,999		13.2	
$100,000-$124,999		5.3	
$125,000 or more		20.2	
Income from Dairy Enterprise		% respondents	
Less than 25%		7.7	
26%-50%		13.3	
51%-75%		17.7	
Over 75%		61.3	

Table 2. Perceived Ability to Influence Dairy Cattle Welfare

1=Very Low Ability, …, 5= Very High Ability	Average Score
Dairy farmer	**4.60**
Processor/Cooperative	**3.82**
Retail Grocer	**3.50**
Food Service Restaurant	**2.99**
Consumer - Dairy Purchaser	**2.86**
Resident - Likely Voter	**3.57**
People for the Ethical Treatment of Animals (PETA)	**3.13**
Local Veterinarian	**2.98**
University Scientists/Researchers	**4.02**
National Milk Producer's Federation (NMPF)	**3.32**
The Humane Society of the United States (HSUS)	**3.25**
United States Department of Agriculture (USDA)	**3.14**
American Farm Bureau (AFB)	**3.56**
International Dairy Foods Association (IDFA)	**3.16**
American Veterinary Medical Association	**3.50**

Table 3. Dairy Farm Animal Welfare Related Production Attributes

Practice	Current Practice	Consumers Want	Most Expensive
		% Respondents	
Access to fresh feed and water.	95.9	38.1	13.2
Assure clean, dry, sanitary conditions for cattle.	94.8	41.3	15.5
Consistent training focusing on cow care and handling.	54.4	16.9	19.9
Access to outdoor exercise areas for at least 4 hours per day.	60.2	24.5	42.6
Third party verification of cow care.	42.6	28.3	28.6
Maintain foot health.	86.0	21.6	11.2
Promptly treat or euthanize injured or sick cows.	91.3	25.1	7.0
Sticks and flags must not be used for hitting cattle.	52.6	14.0	3.8
Tail docking is prohibited.	50.6	17.6	4.6

Table 4. Practices Dairy Farmers would Supply for Premiums

Practice	Current Practice	For $0.50/cwt	For $1.00/cwt
	% Respondents		
Access to fresh feed and water.	95.9	97.1	97.1
Assure clean, dry, sanitary conditions for cattle.	94.8	95.9	96.0
Consistent training focusing on cow care and handling.	54.4	90.2	90.2
Access to outdoor exercise areas for at least 4 hours per day.	60.2	68.8	74.8
Third party verification of cow care.	42.6	65.4	68.8
Maintain foot health.	86.0	90.7	91.0
Promptly treat or euthanize injured or sick cows.	91.3	93.0	93.0
Sticks and flags must not be used for hitting cattle.	52.6	68.6	71.1
Tail docking is prohibited.	50.6	63.9	70.3