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THIS MONTH'S ARTICLE:

**Farm Animal Welfare Assurance:
Scientific and Retailer Perspectives**

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Farm Animal Welfare Assurance: Scientific and Retailer Perspectives

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Introduction

For the first time in history, livestock and poultry producers in the United States are being asked by food retailers to provide assurance that animals raised for their markets are cared for, transported, and slaughtered in a humane manner. The emotional impact of this request initially launched mortar fire and has eventually led to deliberations on how to best address the logistics of ensuring a decent quality of life, and merciful death, of animals entering our food chain.

There is no doubt that differences exist between the animal industries concept of what constitutes a decent quality of life for our livestock and poultry, and those of a variety of specialized interest groups and the public. Why has quality of life become an issue? What is it about our systems of animal production that people find troublesome, so much so, that defenders/retractors often refuse to find common ground?

In general, entrepreneurs selling cheap efficiently produced animal products have not experienced massive consumer boycotts based on animal welfare. In this paper we will address why animal production practices have become problematic to the public, how science and ethics play a role in deciding their fate, and why an oversight process, if properly constructed, may assist in allaying public concern.

Historical Context

Many authors have written about the development of the animal agriculture and corresponding changes in public perception. The need for mass production, economic efficiency, reduced labor costs under the intense competitive environments of the domestic and global marketplace have impacted animal agriculture. Similar to its plant-based sister, animal agriculture has morphed from a predominantly independent small family farm based economy, to a large integrated industry that employs a variety of strategies and technologies for producing food products to meet consumer demand.

The change in structure has brought social controversy regarding the preservation of the “family farm” along with the agrarian ethic that popularized it. The use of high tech methods of food production often generates debate and public/consumer concern for the environment, workers, communities and animals affected by these new technologies. Consumers are becoming more selective and vocal about what they desire and expect from food retailers.

Modern Muckrakers of Corporate Agriculture

Public distrust of “corporate” America has a portion of its roots buried in the muckraking movement of the early 1900’s. Historians acknowledge the careless regard with which some journalists wrote, but they also report this as the beginning of the Progressive Era (1901-1917) in the United States. Many legal reforms in labor, finance, insurance, government and even amendments to the U.S. Constitution occurred during this era. For example, Upton Sinclair’s *The Jungle* (1906) documented the atrocious conditions at the Chicago stockyards and led to the passage of the Pure Drug and Food Act of 1906. Today, a new wave of journalists and special interest groups has focused on animal agriculture by documenting effects on animals, workers, the environment and rural communities. Should animal

agriculture be immune from investigation? It seems to be an unavoidable consequence of becoming “big business” or in this case “Agri-business”. There is nothing sacred about agriculture that prohibits investigative excursions into the business.

Modern consumers want a variety of low cost, but high quality, food products. Suppliers, like animal agriculture, actively pursue the most effective and efficient way to produce product. However, this also creates an inherent conflict of interest in their attempt to balance the bottom line against variables like animal welfare. As growth and concentration of the industry develops, special interest groups, government, media and even private citizens become vigilant of business activity. Social pressure tends to develop when the conduct of business falls seriously out of synch with a portion or the whole of society values. These values are often based in a social consensus concerning right and wrong actions and are not necessarily elucidated from consumer behavior. This process can be unnerving for industry, particularly when less than truthful accounts of industry behavior are used to persuade the public. However, social pressure can become functional in jolting the collective conscience of an industry into re-examination of its values and how well those values harmonize with greater public sentiment. Nike, Old Navy, K-Mart and others experienced intense social pressure to improve conditions at their factories overseas and to not use child labor in the manufacture of their products. Therefore social power becomes the primary mechanism for corporate accountability when there is no single entity required to govern their activity. In the United States there is no oversight process for monitoring animal care on farms or during transport (with the exception of slaughter horses).

Science-Based Decisions: The Case of UEP

A recent example of a major change being tackled and implemented by a producer group is the cage space requirements for laying hens. The United Egg Producers (UEP) represents 210 members who own some of the largest and smallest egg layer operations in the United States. Their membership includes free range and barn raised egg producers. The UEP was the first producer group in the country to develop husbandry guidelines for their producers (UEP, 1983). In early 1998 UEP staff sought a University Department Head to chair a committee on hen welfare. The UEP Board of Directors approved the staff proposal and initiated a meeting with scientists to discuss welfare issues within the industry. From that meeting the Chair independently appointed a scientific advisory committee on hen welfare. The committee included: an avian veterinarian, an animal protection representative, three trained poultry ethologists, one stress physiologist, one producer, one food safety specialist, one poultry production specialist and one public policy specialist. The committee was given free rein to conduct a scientific review and to make specific recommendations for the revision of the existing UEP guidelines for caged laying hens. Cage space and the practice of induced molting were two of the highest profile welfare issues for egg layers. Cage space also involved considerable economic investment. However, the charge to the committee was to look at space requirements that caged hens needed and not to consider the immediate economic issues. Once the recommendations were completed, they were sent to the UEP Board of Directors for approval. After approval they were forwarded to the UEP appointed Producer Animal Welfare Committee to write a lay version of the guidelines, conduct the economic impact analysis, and develop a graduated phase-in for cage space.

In the case of cage space requirements, science provided a clear answer - - the existing UEP guidelines were out of synch with science and space allotments needed to be increased from the original recommended 48 sq in per hen to a range of 67 – 86 sq in based on bird size. Nearly 30 years of production and mortality data collected at different cage space allotments produced the new requirements. In hindsight UEP officials recognized the problem with their original strategy of formulating guidelines. “Experience has taught us that you can’t first establish guidelines with a committee of producers [and what they are willing to accept] and hope the science will support it.” said

Gene Gregory Executive Vice President of UEP (personal communication June 26, 2001). The strategy UEP developed assists them in negotiating hen welfare issues with buyers, government, the public and politicians.

In the case of cage space, science played a defining role in producing an answer for UEP. But not all issues of animal production practice are as cut and dry. When science fails to provide a concise answer to the public question ethical input is required.

Ethical dilemmas

What happens when the science does not clearly lead to a conclusion? Had egg laying hens been housed singly, would the production and mortality data been as clear? Group housed hens enter into a different dynamic with cage space. The social activity occurring within cages contributes to producing distinct limits on productivity and contributes to mortality when out of synch with bird welfare. With those pressures controlled, productivity may not have shown the same dramatic drop nor mortality rise to the degree demonstrated under crowded cage conditions. In singly housed animals a more complex set of parameters come into play, such as deprivation of movement, minimized social contact, boredom and frustration. These parameters are not easily measured and require carefully planned research protocols and interpretation of results. Even then results can be inconclusive or heavily debated.

Ethical deliberation becomes even more important in practices that involve pain, distress or sensory deprivation. For example, the provision of social conditions for social animals (dogs and primates) is federally mandated for animals used in biomedical research except under qualified and scientifically justified circumstances. Like food animals, these animals are maintained under intensive conditions and used to produce information or products that are deemed beneficial to humans. A double standard of treatment exists for animal use in the United States.

Human experience also influences our values concerning animal treatment. Consider space allocation. We are impacted by space, and space represents a multitude of ideas to people. Space can mean status, comfort, punishment, etc. The restricting of space, mobility, or the deprivation of social and sensory contact with others, represents forms of punishment in most cultures. Solitary confinement constitutes a severe form of punishment. People easily relate to what it means to have restrictions placed on movement or space. Like-wise we may judge similar restrictions placed on animals that evolved to move and have social requirements, as punishing or unethical. The question becomes moral. For example, “Is it right to chronically house an animal in conditions where it has little mobility or social contact?” This question is not amenable to data that shows the animal still produces, or stays healthy, or even whether it completely understands the predicament in a cogent way. It does not matter that we have succeeded in keeping the animal productive under those housing conditions because that is not what is being asked. The question has to do with whether inflicting this housing practice on the animal is the correct action and is intimately tied to respecting the nature of the animal.

The agricultural animal industries have an interesting dilemma. The market places downward pressure that restricts profit margin and forces enterprise to become ultra efficient. Space, feed, labor, equipment, etc. all hack away at the margin. Consequently, targeted genetic selection has produced efficient and productive livestock who are pushed to their limit. Also, the effects of a high turnover low-to-no skill labor market further complicate animal care issues. Thus industry decisions on how best to raise livestock often reflect economic realities. This is precisely where the set of circumstances that drive their value system differs from the public at large.

Issues concerning animal welfare often link scientific information directly to cultural concerns and ethics. Scientists and producers must have appropriate knowledge of both to maneuver effectively when considering “What is the right course of action to take.” The use of ethics to help resolve these

dilemmas can be as stringent as any scientific review process. Also scientists must recognize that the same difference in value systems affects how they conduct their research into animal care and production practice. Even scientists working in the area of animal welfare have sharply differing opinions on how to weight different parameters considered important to animal welfare.

Food Retailer Perspectives

Since 1999 McDonald's has audited beef, pork and poultry processors. In August 2000 McDonald's announced that standards of care for caged laying hens would be imposed on their suppliers of eggs. Burger King quickly followed McDonald's lead along with other quick service restaurants. Discussion among trade organizations, scientists, and animal producers led to the conclusion that maintaining consumer confidence with regard to agricultural animal treatment was important. However, a mechanism was needed to be certain standards were based on relevant and factual information and to provide an oversight process worthy of public support.

In January of 2001, at the request of their supermarket company members, the Food Marketing Institute (FMI) adopted a policy on animal welfare. In developing the policy, consumer focus group input was sought to define the supermarket role in this issue. The policy is based on five central points:

- 1) Animals must be raised, transported, and processed in a clean, safe environment free from cruelty, abuse or neglect.
- 2) The food industry must work together to help promote "best practices".
- 3) FMI will consult regularly with experts to elucidate best practice.
- 4) FMI will urge government to strictly enforce animal protection laws that pertain to animals used in the food chain.
- 5) FMI will communicate best practices to maintain consumer confidence.

In June 2001, FMI and the National Council of Chain Restaurants (NCCR) joined efforts to further develop and support industry policies to strengthen animal welfare. The specific goals of these combined efforts include:

- 1) Consistency across the food retail sector.
- 2) A measurable audit process.
- 3) Implementation of practicable and attainable guidelines based on science.
- 4) An ongoing advisory council of third party animal welfare experts.
- 5) Improved communications across the supply chain on animal welfare issues.

The central idea is to get in front of this issue before it elevates to the stage of crisis. The FMI and NCCR supermarket and restaurant members are sensitive and vulnerable to the loss of consumer confidence. Their members have the most direct relationship with the consumer and are often first to feel the tremors before the quake. Since June of 2001, FMI and NCCR have been meeting in person and by conference call with their respective members, advisors and producer organizations. Regular consultations are made with experts in animal and veterinary science and agricultural production to obtain objective and measurable indices for best practices in growing, handling, transport and processing of animals used in food production. Members of the respective organization's animal welfare councils constitute the council of experts advising the FMI and NCCR.

In December of 2001, the expert council produced guidance documents to assist in fostering uniformity of guidelines and to ensure integrity. The three primary objectives of the guidance documents were:

- 1) Producers are held to the same standard.
- 2) The guidelines are based on animal welfare and sound science.

- 3) Adherence to animal welfare guidelines is verified through an effective and measurable audit process.

The expert advisory council provides independent scientific counsel to FMI and NCCR on the process for writing animal welfare guidelines, interpretation of science, technical review, components and content of guidelines, and identifying the necessary components of an audit process. Legal counsel is employed to ensure sound and legal business practice is followed.

In principle, the goal is not an attempt to satisfy activist groups but to address a rapidly emerging issue of animal welfare assurance for our consumers. The FMI and NCCR are committed to working with producer organizations and our experts to a program in which the adoption of best practices will assure humane treatment of animals and maintain consumer confidence.

Implications

As the public increases their focus on issues of farm animal care, scientists, retailers and producers must be prepared to tackle questions, and provide solutions for developing/identifying best practice. Also to develop an oversight process that will ensure farm animals a decent quality of life and to provide consumers peace of mind.

HIGH COW REPORT

MARCH 2005

MILK

Arizona Owner	Barn#	Age	Milk	New Mexico Owner	Barn #	Age	Milk
* Mike Pylman	5432	06-00	38,970	* Providence Dairy	4374	05-03	38,890
* Withrow Dairy	1601	04-11	36,810	Pareo Dairy	305	06-03	38,882
* Tumbleweed Dairy	6626	03-09	35,480	* Providence Dairy	1022	03-00	38,670
* Withrow Dairy	359	05-01	35,480	* Providence Dairy	5180	03-08	38,520
* Dairyland Milk Company	1864	04-03	34,800	* Vaz Dairy	2159	04-02	38,450
* Withrow Dairy	1409	04-11	34,340	* Tallmon Dairy	316	05-11	37,800
* Mike Pylman	1310	06-01	34,300	* Providence Dairy	9783	04-01	37,800
* Stotz Dairy	16327	04-03	33,910	Pareo Dairy	1827	06-00	37,381
* Treger Holsteins, Inc.	5351	07-01	33,680	Pareo Dairy	8095	08-05	37,342
* Mike Pylman	1089	06-06	33,510	* Providence Dairy	9875	04-00	37,260

FAT

* Rio Blanco Dairy	4562	06-02	1,568	Pareo Dairy	1530	07-08	1,386
* Mike Pylman	7077	04-07	1,528	Pareo Dairy	1762	10-04	1,351
* Mike Pylman	1089	06-06	1,492	Pareo Dairy	8072	06-00	1,333
* Saddle Mountain Dairy	815	04-09	1,475	Pareo Dairy	8095	08-05	1,320
* Mike Pylman	5912	05-02	1,415	Pareo Dairy	305	06-03	1,313
* Mike Pylman	7101	04-06	1,370	Pareo Dairy	1827	06-00	1,302
* Mike Pylman	5963	05-02	1,332	* Providence Dairy	9601	04-03	1,297
* Mike Pylman	4387	07-03	1,320	* Hide Away Dairy	4013	06-06	1,289
* Mike Pylman	321	03-09	1,314	Pareo Dairy	9070	03-11	1,283
* Mike Pylman	375	03-00	1,294	Pareo Dairy	9853	05-00	1,248

PROTEIN

* Mike Pylman	5963	05-02	1,055	* Providence Dairy	8834	04-04	1,167
* Rio Blanco Dairy	4562	06-02	1,031	* Vaz Dairy	2159	04-02	1,161
* Mike Pylman	5912	05-02	1,031	Pareo Dairy	305	06-03	1,139
* Withrow Dairy	1601	04-11	995	* Providence Dairy	4374	05-03	1,131
* Mike Pylman	1089	06-06	988	* Providence Dairy	4812	04-06	1,128
* Mike Pylman	6203	04-10	980	* Providence Dairy	5180	03-08	1,116
* Withrow Dairy	359	05-01	971	* Providence Dairy	1022	03-00	1,115
* Mike Pylman	300	03-08	963	Pareo Dairy	8006	04-09	1,109
* Mike Pylman	6469	04-01	961	* Providence Dairy	9549	04-01	1,108
* Mike Pylman	7546	03-10	961	Pareo Dairy	716	08-03	1,090

*all or part of lactation is 3X or 4X milking

**ARIZONA - TOP 50% FOR F.C.M.^b
MARCH 2005**

<u>OWNERS NAME</u>	<u>Number of Cows</u>	<u>MILK</u>	<u>FAT</u>	<u>3.5 FCM</u>	<u>DO</u>
* Stotz Dairy West	2,164	26,154	951	26,725	175
* Triple G Dairy, Inc.	4,560	25,385	951	26,392	135
* Joharra Dairy	1,097	25,306	894	25,434	123
* Red River Dairy	4,523	24,636	870	24,713	140
* Del Rio Holsteins	1,068	23,906	848	24,083	125
* Stotz Dairy East	1,104	23,734	837	23,830	191
* Mike Pylman	4,129	23,418	843	23,791	163
* Zimmerman Dairy	1,135	22,886	831	23,366	154
* Arizona Dairy Company	5,701	23,250	812	23,216	173
* Shamrock Farm	8,484	23,378	799	23,060	155
* DC Dairy, LLC	1,049	22,251	806	22,687	163
* Dairyland Milk Co.	3,038	22,623	795	22,669	144
* Butler Dairy	628	23,329	771	22,585	160
* Danzeisen Dairy, Inc.	1,329	21,960	794	22,366	166
* Withrow Dairy	5,065	23,342	750	22,251	162
* Goldman Dairy	2,194	22,086	781	22,210	142
* Saddle Mountain Dairy	2,807	22,722	741	21,837	147
* Parker Dairy	4,169	21,339	776	21,806	163
Paul Rovey Dairy	272	21,404	774	21,802	157
* RG Dairy, LLC	1,342	21,631	765	21,754	146
Lunts Dairy	574	21,051	776	21,681	142
* Hillcrest Dairy	2,200	21,688	752	21,568	156
* Dutch View Dairy	1,589	21,159	743	21,193	163
* Jerry Ethington	634	20,353	729	20,618	151
* Treger Holsteins, Inc.	820	18,598	689	19,210	177

**NEW MEXICO - TOP 50% FOR F.C.M.^b
MARCH 2005**

<u>OWNERS NAME</u>	<u>Number of Cows</u>	<u>MILK</u>	<u>FAT</u>	<u>3.5 FCM</u>	<u>DO</u>
* Pareo Dairy #1	1,479	26,379	945	26,730	161
* Tallmon Dairy	488	25,809	885	25,511	171
Ken Miller	400	24,998	865	24,836	167
* Do-Rene	2,316	25,085	859	24,776	143
Milagro	3,338	24,080	855	24,277	154
Halflinger Dairy	1,949	23,398	873	24,274	119
* Macatharn	996	24,157	846	24,164	145
Flecha Dairy	1,977	23,228	864	24,054	N/A
Providence Dairy	2,795	25,185	803	23,911	141
* Pareo Dairy #2	3,217	22,968	818	23,196	132
* Goff Dairy 1	4,243	22,457	831	23,186	156
Vaz Dairy	1,770	22,784	815	23,068	155
* New Direction Dairy 2	1,860	22,208	819	22,884	148
Desperado Dairy	1,328	21,999	821	22,826	155
Baca Linda Dairy	1,238	22,474	787	22,480	122

* all or part of lactation is 3X or 4X milking

^b average milk and fat figure may be different from monthly herd summary; figures used are last day/month

ARIZONA AND NEW MEXICO HERD IMPROVEMENT SUMMARY FOR OFFICIAL HERDS TESTED MARCH 2005

		ARIZONA	NEW MEXICO
1.	Number of Herds	46	29
2.	Total Cows in Herd	76,577	53,230
3.	Average Herd Size	1,665	1,836
4.	Percent in Milk	91	87
5.	Average Days in Milk	201	200
6.	Average Milk – All Cows Per Day	62.6	61.6
7.	Average Percent Fat – All Cows	3.5	3.5
8.	Total Cows in Milk	71,750	46,230
9.	Average Daily Milk for Milking Cows	69.2	70.9
10.	Average Days in Milk 1st Breeding	82	73
11.	Average Days Open	155	147
12.	Average Calving Interval	14.0	14.0
13.	Percent Somatic Cell – Low	87	78
14.	Percent Somatic Cell – Medium	8	15
15.	Percent Somatic Cell – High	5	6
16.	Average Previous Days Dry	62	65
17.	Percent Cows Leaving Herd	30	34
STATE AVERAGES			
	Milk	21,864	22,498
	Percent butterfat	3.56	3.51
	Percent protein	2.94	3.09
	Pounds butterfat	761	793
	Pounds protein	626	692



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