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Addressing International Trade Complexities of Animal Welfare

One in a Series of Educational Programs Presented by the

Future Trends in Animal Agriculture

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Edited by

Richard Reynnells
USDA/CSREES/PAS

Revised

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Preface

Richard Reynnells, NPL, Animal Production Systems
USDA/CSREES/PAS
Washington, DC

Several people have observed increasing polarization regarding food animal welfare issues over the last few years. Some meetings have been seen as opportunities for finger pointing about which party was the less virtuous, more unrighteous, more self-motivated and who cared less about the welfare of the animals, rather than as opportunities for meaningful dialogue and progress to improve the welfare of food animals. One question asked is, are the animals mere pawns in a battle of the status quo (e.g., management preferences; advocacy group goals and memberships) rather than a food resource for which we must be good stewards? Or, is this situation a religious or religion-equivalent issue that involves moral judgements that are difficult to compromise?

Through our various programs and responses to animal welfare issues are we individually and collectively creating opportunities for progress, or are we increasing issue polarization in part through our finger-pointing exercises? Is the purpose of these blame-someone-else-for-conflicts actions to create opportunities for financial gain by some advocacy groups, or to maintain the status quo by industry? How does hiding the ultimate goals of animal rights (abolition of all animal use) behind the smoke-screen of animal welfare contribute to polarization of the issues?

Why do not moderate advocacy groups and industry forge a working relationship based on an objective analysis of behavioral, physiological, and economic data, and food preferences as demanded by society through the marketplace, and use this information to create educational or other programs that maintain or improve the welfare of animals? Could they improve societal understanding of animal welfare versus rights issues? Such a cooperative effort could move groups that hide their true goals or those that are inflexible “true believers” to the margins of this debate, thus potentially creating progress rather than conflict and hopefully consistently improving the status of animals. Is such a win-win situation achievable? To not do so voluntarily would seem to invite laws and regulations that allow those with no tangible investment in agriculture (other than as a stakeholder or a job) to manage the investments of farmers. This would make farmers serfs on their own land. Or, it could help transfer US food animal production to other countries. In either case, our society loses.

Polarization of issues dehumanizes the opposition, and is a mechanism to control issues, particularly by the group perceived to have the higher moral ground. An ethical/moral approach to food animal production and processing, perhaps seen negatively as anthropomorphism, is not necessarily a bad thing. How else could farmers have been the original animal welfarists? Could they protect the animals from cold or heat or fear without having a capacity for anthropomorphism? Or is compassion a better term? Taken to extreme, probably any good concept can be detrimental and unbalanced. Today, people are not aware of why management practices are used. They do not understand that no system is perfect. Science, reason, and the farmer’s management style and capabilities must be used to evaluate the best system for a particular location. Not anthropomorphism. Not emotion. Not profit (note: everyone and every organization works for a profit, not just farmers and corporations). There is every indication

animal agriculture has lost the high moral ground in the eyes of the public through constant repetition of negative information regarding these issues, some of which is fully justified. Even though significant improvements have been made, much due to concerns publicized by advocacy groups, segments of the industry continue to provide persistent and copious evidence (animal abuse, neglect, uncaring attitude,) to groups that criticize them for whatever reason. Polarization of groups and issues exacerbates this situation and continues to stoke the fires of conflict.

What should food animal agriculture do? What should moderate advocacy groups do? Industry appears to be justifiably afraid of giving groups promoting radical reconstruction (perhaps really elimination) of intensive confinement food animal industries credibility by open discussions of animal welfare issues. The food animal industry may appear unwilling to compromise even on debatable points in fear of being pushed down that slippery slope to regulations, laws and legal standing for animals. This may happen anyway. Compromise means having to give up something, which implies having something to give up. If one does not have the high moral ground it is a matter of time before that person/group is defeated. Polarizing activist groups understand this and know time is on their side. Even though previously promoted as a concern, the welfare of small farmers does not appear to be the real concern of all animal welfare and rights groups, which would mean no size farm may be safe from conflict. If the concern for farmers was a high priority versus animal welfare goals, advocates would not help drive small farmers out of business by promoting an animal welfare referendum in a state having a very small and defenseless industry. For example, the successful Florida referendum to ban swine gestation stalls resulted in two farmers who used this management practice going out of production. This successful model is being used for an Arizona referendum. Moderate advocacy groups are actively engaged in food animal production or assistance to improve animal's lives. Scientists are focused on improving animal welfare. It would seem industry and these moderate groups could work together to address animal welfare issues outside their areas of disagreement.

Each of us that deal with animal welfare issues should ask ourselves what are our real goals regarding the well being of food animals (not animal rights, we know this ultimate goal of abolition), and if we truly represent a promoted goal of a balanced and responsible approach to improving the lives of food animals. To not do so would seem to be the first step toward hypocrisy. Many people believe we have a moral obligation to treat animals and people with respect, and provide good stewardship of our resources in the best manner possible given the conditions under which we operate. Many people on both sides of the animal welfare issue fall into this category, but differ on the mechanism of producing and slaughtering the animals. This is where cooperation, balanced scientific evaluations, and societal responsibility for their demands will result in improved welfare for animals. As interesting as these discussions may be, they do not touch on the basis for most food animal welfare discussions, which is the more difficult question as to whether we should be raising animals to be slaughtered for our consumption.

Today, we will learn of excellent progress for the benefit of animals rather than organizational benefit. Perhaps we can incorporate these lessons into how we interact with each other and make improvements for animals based on true consumer demand (what they do, not what they say in surveys).

We are honored to have Mr. Charles Conner, Deputy Secretary of Agriculture with us to provide the Welcome.

The **Mission** of the FTAA is to foster and enhance balanced and enlightened public dialogue on topics related to the nature and future of animal agriculture.

The **Vision** is: to develop programs that are inclusive and national in scope, with the committee consisting of individuals from organizations representing academia, agribusiness, animal welfare, environment, university, government and others. The FTAA seeks to present timely issues in a balanced, innovative and thoughtful manner. The Committee also seeks to enhance public dialogue and understanding about the nature and future direction of animal agriculture, and the impact of their personal decisions on this process.

FTAA **Goals** are: 1. To facilitate genuine collaboration and the ability of farmers to produce food for society, while improving animal well-being. 2. To provide opportunities for dialogue and understanding of animal well-being, environmental and other issues in an atmosphere of mutual respect of consumers, farmers, advocates, commodity organizations, and others. 3. To provide information to identify critical animal production issues and enhance greater understanding of societal desires and trends that impact production agriculture.

Introductory Comments

Richard Reynnells
National Program Leader
Animal Production Systems
USDA/CSREES/PAS
Washington, DC 20250-2220

On behalf of the organizing committee for the Future Trends in Animal Agriculture (FTAA), I want to welcome you to the 2006 symposium, "Addressing International Trade Complexities of Animal Welfare". The purpose of the 2006 symposium is to discuss some of the complicated international trade issues related to the welfare of food animals during production, transportation, and processing, including how the interaction of diverse organizations, government and industry impact management decisions. We will provide the perspectives of persons in advocacy and industry organizations, academia, and government, on these critical food animal welfare situations.

Trade issues are taking on increasing importance in how animals are raised, slaughtered, and transported. The recent initiatives of the OIE (Office Internationale des Epizooties; Organization for Animal Health) in the area of animal welfare, which are based on their worldwide leadership role in animal health issues, has significantly influenced the rapid acceptance of animal welfare as a trade issue. Presentations also include: secrets of success of the working relationship between industry, government and animal advocacy groups in Canada; several very interesting perspectives on animal welfare as a trade issue; the impact of disease threats on international trade; how, or must USA producers address trade and animal welfare issues; and, given the potential for conflict rather than cooperation, we will look at potential results of moving our animal production outside the USA. The Preface contains additional thoughts about our relationships with each other on individual and organizational levels, and how this situation affects our ability to create meaningful cooperative programs.

The FTAA organizing committee is Co-Coordinated by David Brubaker, Agri-Business Consultant; Kay Johnson, Animal Agriculture Alliance; Ken Klippen, Klippen and Associates; Richard Wood, Food Animal Concerns Trust; and, Richard Reynnells, United States Department of Agriculture (USDA), Cooperative State Research, Education and Extension Service (CSREES), Plant and Animal Systems (PAS). The FTAA organizing committee is comprised of representatives from several animal welfare and industry organizations, universities, USDA, and others. These individuals represent various views on animal production and work together to bring about positive benefits for animal agriculture and society.

The FTAA has provided a series of educational meetings dealing with current and emerging animal well-being issues and concerns. Animal well-being and production may be associated with: questions of ethics; environmental issues; food safety; consumer demands; need for regulations; rural infrastructure considerations; public health; and other concerns. These examples are thought by some to be simply directly and negatively related to today's intensive confinement commercial agriculture, while others recognize a greater complexity of these issues. The latter situation demands more than a simplistic regulatory approach to dealing effectively with these interconnected issues.

The need for everyone to understand animal welfare issues is clear, but this has been complicated by the numerous animal welfare and rights philosophies. The Future Trends in Animal Agriculture continues in our tradition of attempting to define issues of concern and then develop programs to allow persons to cooperate in discussions of the issues and to define potential alternative solutions to problems. The Mission, Vision and Goals of the Future Trends committee are outlined in the proceedings.

The organizing committee gratefully acknowledges support from several entities that allowed the symposium to take place, particularly the contributions of speakers for their significant time and effort, with some waiving the requirement for financial support. Financial support of the USDA Animal and Plant Health Inspection Service and USDA/CSREES, with the Humane Society of the United States providing the coffee break, and the Animal Agriculture Alliance for duplication of the audiotapes facilitated our ability to provide this important opportunity for improved networking and understanding.

The proceedings include the program and speaker contact information, which is provided as Appendix A. Appendix B is the list of Co-Coordinator, and Appendix C contains Power Point presentations. The primary audience members are: agency decision makers and other government personnel, representatives from animal advocacy organizations, universities, the agricultural industries, and congressional staffers. The public is welcome to attend all FTAA events. We hope that you find the proceedings enjoyable and educational. Feel free to contact any committee member for details of future programs. Contact me at 202.401.5352 for additional copies of the proceedings from this or previous years.

Please remember to fill out your evaluation form. We require your ideas to improve programs in the future.

Please note we have to adhere to a strict schedule to ensure all speakers have their allotted time. Therefore, please limit your questions to 30 seconds or less. Speakers will likewise stay within their time limitations and provide complete yet concise answers to questions. We appreciate your cooperation.

Deputy Secretary of Agriculture, Charles Conner, will provide the welcoming comments. Before his current assignment, Mr. Conner held numerous positions of importance, including several key leadership staff positions on the Senate Agriculture, Nutrition and Forestry committee. He was also a Special Assistant to the President for Agricultural Trade and Food Assistance. Perhaps of greatest significance is his farm background, where he gained first-hand knowledge of the proper treatment of animals and the complex symbiotic interrelationship between animal and crop production, and societal demands. His brother still operates the family farm in Benton County, Indiana. His strong agriculture background resulted in his deep respect for the land, the people who work it, and the animals. He has generously agreed to spend a few moments to welcome you and to share his thoughts on today's topic. Please welcome Deputy Secretary Conner.

Current Critical Issues in International Trade

David Blandford, Professor
Agricultural Economics
Pennsylvania State University

Introduction

It is almost certainly an understatement to observe that these are interesting times for those of us who spend much of our time following developments in international agricultural trade. The collapse of the Doha round of multilateral trade negotiations in July has generated considerable uncertainty about the future. Agricultural trade pressures have been building steadily since the conclusion of the Uruguay round of negotiations under the General Agreement on Tariffs and Trade (GATT) in 1994. Over one quarter of the trade disputes handled through the World Trade Organization (WTO) from the conclusion of the round to the end of 2005 have involved food and agricultural products. Two of the more celebrated cases have involved livestock products – the on-going dispute over the prohibition of imports of hormone-treated beef by the European Union, and measures used by Canada affecting trade in dairy products. It is therefore timely to take stock of the current situation and where we might be heading.

The focus of this meeting is on trade issues associated with animal welfare. In addition to reviewing some general issues relating to international trade in livestock products resulting from the collapse of the round, I shall make some comments on specific developments relating to animal welfare issues.

The Collapse of the WTO Negotiations

The latest round of multilateral trade negotiations was launched by trade ministers at their meeting in Doha, Qatar in November 2001. With respect to agriculture there was a commitment “to comprehensive negotiations aimed at: substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support.” Details of the approach to be used (the modalities of an agreement) were supposed to be finalized by the end of March 2003. This was not achieved. Following an extensive series of formal and informal meetings, the Director-General of the WTO, Pascal Lamy, recommended to member countries in July 2006 that “the negotiations (be suspended) across the Round as a whole to enable the serious reflection by participants which was clearly necessary.” The recommendation was accepted. Whether this implies that the Doha round is dead and buried is open to question. It could be resurrected, providing that there is the political will among member countries to make the concessions that will be necessary to reach a final deal. However, it seems virtually impossible that an agreement will be concluded in time for approval by the U.S. Congress before the current trade negotiating authority expires at the end of June 2007. This being so, what does the collapse of the round imply?

First, it is important to note that the commitments already agreed in the Uruguay Round Agreement on Agriculture (AoA) remain in place. Maximum bound levels of tariffs, maximum levels of trade-distorting domestic support (as defined by the Aggregate Measure of Support;

AMS) and the volume and value limitations on export subsidies that are specified in the AoA continue to apply. In terms of these three pillars of the Agreement we can note the following¹:

Domestic support

For the latest three years for which relatively complete information is available (1998-2000), the total AMS reported to the WTO averaged roughly US\$76 billion. Roughly 43 percent of that total or US\$33 billion was associated with meat and livestock products (this includes milk and dairy products and live animals). It should be noted that this dollar figure does not represent the total amount of support provided to livestock farmers in WTO member countries. Product and non-product specific support that falls under the *de minimis* provisions is excluded, as is support that falls under the blue and green box categories.⁰ It should also be noted that the actual AMS for most countries in most years is substantially below the maximum permitted level.

Export subsidies

Between 1995 and 2002, an average of US\$5.4 billion dollars was spent by WTO countries each year on export subsidies; 89 percent of the total (US\$4.8 billion) was spent by the European Union. Over that same period an average of US\$3.1 billion dollars was spent on meat and livestock product exports (58 percent of total expenditures).

Market access

The average maximum tariff on agricultural products resulting from the AoA is 63 percent. The highest permitted tariffs apply to tobacco (over 100 percent) and sweeteners (94 percent), but the next highest tariffs are dominated by livestock products. For example, the maximum average permitted tariff on frozen beef, pork or poultry is 90 percent; for dairy products it is 86 percent. Summary data available from the Economic Research Service of USDA indicate that megatariffs (tariffs over 100 percent) are commonly applied to livestock products, particularly by non-OECD countries, and that many countries use tariff-rate quotas (TRQs) to control imports of livestock products.

This brief catalogue indicates that the failure of the Doha negotiations will likely imply that domestic livestock industries in many countries will continue to be relatively highly protected. The phase-out of export subsidies that had been agreed to in principle is unlikely to take place, and since subsidies have been below the maximum permitted levels, these could be increased. Imports under TRQs are unlikely to be expanded and tariffs are unlikely to be reduced. Since many countries use tariffs that are below the maximum bindings, existing tariffs could be increased. Trade-distorting domestic support, which was to be subject to more stringent disciplines, could be increased up to the maximum levels permitted under the AMS.

Since the demand for livestock products tends to expand rapidly as incomes grow, the failure to reduce protection as a result of the collapse of the round could act as a constraint to the future

¹ Figures quoted here are based on information obtained from the websites of the Economic Research Service (USDA) and the WTO.

² Blue box payments are those made under production limiting programs. Green box payments are those that are supposed to have a minimal impact on production and trade.

development of international trade, particularly in middle income developing countries, where the growth in demand is likely to be the greatest in future years.

It may be possible to achieve some expansion of trade in livestock products by reducing protection through bilateral and regional agreements, although in the United States specific negotiating authority would need to be provided to the administration to pursue this strategy after June 2007. Even if that authority were granted, it seems unlikely that bilateral agreements would offer the potential for a significant expansion in livestock trade.

A further issue resulting from the collapse of the Doha negotiations is that the volume of trade disputes and the amount of trade litigation is likely to increase. As already noted, more than one quarter of all WTO trade disputes have involved agricultural products. To put this in perspective we should note that agricultural trade represents less than 10 percent of total world trade. If trade in services is taken into account, WTO data show that agricultural exports represented only 7 percent of the value of world trade in goods and services in 2003. While the Doha negotiations were underway some significant rulings were made on agricultural trade disputes, for example, the cotton case ruling and its implications for the legality of certain aspects of US domestic agricultural policies. Some countries chose not to initiate complaints while the negotiations were underway, but it seems likely that the collapse of the negotiations will see increased activity in this area. Whether this will have particular implications for the US livestock industry is difficult to say, but an increase in litigation could certainly affect the overall climate for the development of agricultural trade. It is also unclear whether the failure of the Doha round will affect pending accessions to the WTO. The most important of which is the accession of the Russian Federation, which has been an important, if erratic market, for US livestock exports in recent years.

Trade and Animal Welfare Issues

In recent years, several trade issues have arisen because of concerns about production methods in agriculture. The dispute between the European Union and the United States over imports of hormone-treated beef and the EU's treatment of genetically-modified products are cases in point. Another set of concerns relates to the way in which animals are raised, transported and slaughtered. Some European countries have been very active in legislating changes in production methods for livestock. The European Union has introduced a number of regulations governing animal welfare standards.

Changes in welfare standards may create additional production and processing costs, although some of these may be modest and there might even be some cost reductions.³ Consumers may be willing to pay a premium for "welfare-friendly" products, thus helping to offset additional costs, although actual experience in this regard is mixed. A recent study of the switch from traditional cage systems for laying hens to alternative systems in the European Union provides some insight into the possible cost implications (Agra CAES, 2004). It concludes that the amount of feed used per kilogram of eggs is significantly higher in free-range and organic systems, compared to traditional cages; more labor is required; and birds kept under these systems have higher mortality rates. As a result, costs per unit are 12 – 20 percent higher.

³ See Farm Foundation (2006) chapter 8 for a more extended discussion of these issues.

If all livestock producers are required to adhere to a particular standard they will all be on an equal basis in terms of competitive position, but this does not mean their competitive position will be unaffected. Product prices will tend to rise as higher costs associated with the standards are passed through to the market. If competing products are less affected, consumers may switch their purchases to those products in response to a change in relative prices. There is considerable potential for substitution among livestock products, so this could have an impact on the market share of individual products and their final prices. If products are exported, an increase in price will lead to a deterioration of competitive position with respect to suppliers in other countries who are not required to meet the standard, i.e., supply non-conforming products.

Producers who operate under the higher standard and have difficulty differentiating their product face particular risks from non-conforming products. Domestic or foreign non-conforming producers may increase their market share at the expense of conforming producers, because they operate at lower costs and can offer lower product prices. It was recognition of this fact that led the European Union to propose an expansion of the set of payments that would be permitted under the green box category, so that the EU could provide payments to producers to offset higher production costs created by animal welfare regulations. The proposal was not favorably received by other WTO member countries, and it was not being promoted by the EU when the negotiations collapsed.

There are no specific provisions dealing with animal welfare in the General Agreement on Tariffs and Trade (GATT) and the associated agreements that underpin the operations of the WTO, although two agreements are relevant to the issue (Gibson, et al., 2001). The Agreement on Technical Barriers to Trade (TBT) deals with the application of product standards in international trade. The Sanitary and Phytosanitary Agreement (SPS) deals with sanitary and phytosanitary measures that may directly or indirectly affect international trade. That agreement is limited to the protection of animal health resulting from the entry, establishment or spread of pests, diseases or disease-causing organisms. It recognizes international standards for animal health and zoonoses, the standards, guidelines and recommendations developed under the auspices of the World Organization for Animal Health (the OIE), which has operated for more than 80 years to minimize the international transmission of animal disease.

Two key principles underlying WTO rules are equality of treatment and non-discrimination. Countries should not be able to discriminate among trading partners nor among products that meet agreed international standards. Hence, technical regulations cannot be applied that create unnecessary barriers to international trade. WTO members are required to ensure that in using technical regulations, imported products are accorded treatment no less favorable than that for "like" products of national origin. Legitimate justifications are the protection of human health or safety, animal or plant life or health, or the environment. Risk assessments must be scientifically based. The agreement requires countries to use international standards, where these exist, as the basis for developing their own standards. As currently drafted the TBT does not cover animal welfare standards.

For the last five years, the OIE has been working to establish international standards for animal welfare. Its mandate was expanded under the SPS agreement. Even though animal welfare is not covered by that agreement, OIE has indicated that its member countries "wished to have guidelines and recommendations to assist them in bilateral negotiations" (OIE, 2003). The United Nations' Food and Agriculture Organization (FAO) has also issued a statement of principle on animal welfare in agriculture.

In May 2005, the International Committee of OIE Member Countries adopted four animal welfare standards covering the transport of animals by land and by sea; the slaughter of animals for human consumption; and the killing of animals for disease control purposes. General principles and a set of parallel guidelines for aquatic animal welfare have also been developed and circulated to OIE member countries for comments. In the guiding principles for the development of these standards, it is recognized that animal welfare involves both scientific assessment and value-based judgments, but that such judgments must be made explicit. It is also recognized that there is an ethical responsibility to ensure that the welfare of animals is protected, but that equivalent outcomes (performance criteria) should be the basis for comparison of standards and guidelines, rather than the systems used (design criteria).

The development of agreed international standards on animal welfare could go some way to addressing concerns over unfair competition from non-conforming products. However, it is an open question as to how far the development of standards through the OIE will proceed, particularly when more complex issues, such those associated with production systems for hogs and poultry are involved. Even if agreement on the issues is possible, it is unlikely that international standards would be set at a level that satisfies the requirements of all countries.

Conclusions

At the very least, the collapse of the Doha Round of WTO negotiations seems likely to slow the movement towards freer trade in agriculture and more open markets for US livestock producers. The impact could be more serious if there is a movement to higher protection for domestic livestock industries around the world and a proliferation of agricultural trade disputes among members of the WTO.

Trade issues relating to methods of production in agriculture are unlikely to disappear, and could well intensify. Some progress can be made on these issues within the existing framework of international law, particularly through the development of mutually agreed product standards. However, there are likely to be continued tensions over methods, such as mandatory labeling, used to differentiate conforming and non-conforming products. While much of the focus at the international level will inevitably tend to be on the actions of governments, the response of the private sector, particularly food distributors and retailers, to perceptions about the importance of issues such as animal welfare and their commercial implications are likely to become increasingly significant for U.S. livestock exporters.

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Advancing Farm Animal Welfare and the Canadian Experience: Keys to Successful Cooperation amongst Diverse Groups Above the 49th

Susan Church
Alberta Farm Animal Care (AFAC) Association
Calgary, Alberta, Canada

Introduction

When analyzing the advancement of farm animal welfare in Canada over the past 30 years, the words *'trust, foresight, transparent, non-confrontational, respect, industry-driven, pro-active'* were offered. This is hardly a decisive business plan. Yet these descriptors have enabled the Canadian livestock industry to step-by-step move farm animal welfare forward. They are the mortar for the cornerstones that make up today's Canadian farm animal welfare infrastructure. The cornerstones are:

1. The laws and how they are enforced;
2. The Recommended Codes of Practice for the Care and Handling of Farm Animals;
3. Four provincial farm animal industry groups;
4. Canada's new National Farm Animal Care Council.

This paper will review these four areas and describe the overall situation in Canada.

Overall Situation

Canadian production practices and facilities are very similar to US ones, except for scale. As far as the red meat and livestock market is concerned there is no border, according to Kevin Grier of the George Morris Centre. Demand patterns, he stated in his presentation at the USDA's Agricultural Outlook Forum October 2005, for pork, beef and even chicken are the same. Overall trends are mirror images. With regard to production systems, again they are similar. In both countries hogs are largely three-site systems and cattle are centered on large scale open feedlots and western cow-calf pastures. Large scale packers are located near the feedlots and for beef. Most are American owned. All large scale plants are audited by their US customers.

The broiler, egg laying and dairy industries are controlled by quotas and managed, for the most part, in family-run farms.

Currently in Canada there is a reasonable level of trust by consumers in how animal welfare is handled. They expect that animal handling practices are well in hand.

We are not without those outside the industry demanding greater change, faster change; nor are we without the ripple impact of celebrities making anti-animal agriculture waves in your

country. We, too, must deal with animal neglect and abuse situations that attract media – albeit rarely. And, when considering ‘diverse groups’, we too have diversity within groups and often are challenged just by the diversity within the livestock industry. **Canada’s Four Cornerstones**

1. *The Laws and How They Are Enforced*

In his February 2005 Paper, *Legislation for Animal Welfare Laws in Canada*, Dr. Terry Whiting explores public policy development related to animal welfare. He states; “in any society, the way animals are treated by people reflects a common morality.” Responding to societal concerns is the business of government.” “Regulatory intervention is one expression of the will of the people”.

“A new law results when society decides it is appropriate to surrender some aspect of individual choice and freedom for the benefit of the whole.” “Law is one of society’s responses to communally held values.”

Canada has three federal laws that cover animal care and respond to Canada’s commonly held moral position:

1. Prevention of Cruelty to Animals
2. Humane Handling and Slaughter of Food Animals
3. Humane Transportation of Animals

AFAC has prepared a detailed report entitled *Animal Welfare Laws in Canada*. Charges and conviction rates are included where information was available. The report is available at www.afac.ab.ca.

Prevention of Cruelty to Animals

A section within Canada’s Criminal Code deals with animal neglect and abuse. It was first enacted in 1892 and has not been significantly altered since that inception. It mainly deals with willful intent to cause pain, suffering, neglect or injury. It is mainly enforced across Canada by police officers. Jurisdictions where provincial acts exist have specialized enforcement personnel responsible, the Criminal Code is rarely used. Several recent attempts have been made to move revised cruelty to animals legislation forward in our parliament. To date, this has been unsuccessful.

In Alberta, the **Animal Protection Act** is used. This Act provides mechanisms to relieve animals in distress and to hold negligent owners accountable for their actions. It was just recently revised. Public consultations were held. The livestock industry responded – mainly via Alberta Farm Animal Care (AFAC). And, the industry was consulted throughout the entire process. In Alberta, the department of agriculture actually contracts and pays a provincial humane society, the Alberta SPCA, to enforce the Act in rural Alberta. AFAC meets quarterly with department of agriculture staff and the Alberta SPCA management to work towards consistency of enforcement, a policy of voluntary compliance and address ways to deal promptly with large herd seizures and perpetually livestock border-line poor management situations. We collectively discuss ethical problems on handling low value, malnourished animals.

Dr. Whiting in his January 2005 paper, *It is Meet and Right So to Do. Considerations in the Humane Treatment of Low Value Livestock* said “animal welfare enforcement is an emotive workplace where personal conviction and public opinion come into play. Open discussion of animal welfare issues in livestock production systems can only help clarify and articulate the common morality of Canadians.”

Humane Handling and Slaughter of Food Animals

This was enacted in 1960; two years after the United States passed its Humane Slaughter Act. Canadian Food Inspection Agency (CFIA) inspectors and veterinarians are stationed at every federally registered slaughter establishment to monitor livestock handling and humane killing practices. Some of our provinces have companion legislation enforcing humane practices at our smaller, local meat plants.

Humane Transportation of Animals

Again a product of the 60's, this regulation defines conditions for the humane transport of all animals in Canada by all modes of transport. It prohibits overcrowding, loading and hauling animals unfit to travel and has specific feeding and watering requirements, maximum travel times, minimum rest periods, bedding requirements and more. CFIA enforces the regulation through routine inspections, unannounced site inspections and response to reports of non-compliance. Given its age, the significant change in methods of transport and new science, some parts of this regulation are under review.

Because there is significant movement of live animals both from Canada into the US and from the US to Canada (beef, dairy, sheep, bison, horses and spent hens), the need for better harmonization has been raised. It currently only partially exists for horses coming into Canada meat plants with operational sharing of data.

Two of these three pieces of federal legislation are under Review. Change has not been an automatic process. The livestock industry is concerned about pandering to animal activists and changing to comply with stricter European Union regulations. The industry also questions the consistency of enforcement.

Yet, there is belief that these basic controls are needed. A recent Alberta Beef Producers document, that examines humane transportation, states that we need good regulations to deal with those who do not comply to acceptable humane standards. But, it states, we do not need regulations that impede commerce.

What we do not have in Canada – are the top down directives of the EU controlling production methods. Clearly, the Canadian way in advancing farm animal welfare more closely reflects the US. However, unlike the US we have not been exposed to local state ordinances decreeing prescriptive production practice restrictions.

The Canadian meat processors are influenced to some degree by the American food industry's standards for animal welfare but in most cases, Canadian production methods already met those prescribed by say McDonalds or Burger King. This was due in part to the development of Codes.

2. *Recommended Codes of Practice for the Care and Handling of Farm Animals*

Called the *Codes* they stand today as foundation documents. They were first conceived in the late 70's by a group of foresighted extension researchers, veterinarians, livestock industry leaders and humane society representatives.

The Codes are voluntary guidelines that cover recommended housing and management practices and are intended to encourage farmers, handlers, transporters and processors to adopt, reasonable standards of husbandry. Individual Codes exist for all commercially raised types of livestock. Some Codes have not been revised since the late 80's. Others like the poultry Code was significantly updated in 2002. All did receive public funds to assist with overseeing a consistent process and with printing.

At best, the Codes are 'living' documents that are relatively easy to update (compared to regulations). Currently, they are forming the foundation for new on-farm animal welfare verification programs; they are referenced in some provincial animal care acts and used by the courts as examples of 'generally accepted practices' in animal neglect cases. At their least, they are considered by some as minimum standards, only voluntary, and poorly distributed and communicated to the grassroots.

Some of our national livestock groups have on-farm food safety programs in place and have recognized the value of integrating critical animal care control measures to these programs. The Codes form the back bone of these assessments. They are new. They are being tested, tweaked, and adjusted by the egg layer, pig and chicken industries.

Five years ago a report, funded by AFAC, our Saskatchewan counterpart and the Canadian Council of Grocery Distributors, recommended on-farm verification process as a means to prove to retailers and the public that humane practices are followed. Then it was soundly criticized. Today ... three national livestock groups are moving forward.

In his presentation at the January 2006 Banff Pork Seminar entitled *A Proactive Approach to Animal Welfare*, Dr. Bill Ballentyne, Director of Technical Service, Maple Leaf Pork said, "most other countries have gone the regulatory route. Codes, with a practical audit component, appear to me to be a much-preferred option. But, they do require some focused effort on the part of the industry."

Resistance, of course, to the added expense of on-farm assessment is strong. But, examples continue to surface that point to positive economic results from improved handling, improved environmental conditions, and improved health of the animals.

Canada's Code process is currently under review – not because it is broken – but because we can do it better. The Codes are being assessed by a team of researchers who are comparing them to current science and to standards set in other countries. They are examining new ways to articulate them (the shoulds, the musts).

Drs. Jeff Rushen and Anne Marie de Passille, who lead this team, believe flexible, animal-based standards that assess the state of the animals are needed rather than prescriptive conditions. In a paper for the OIE, they have also called for a smoother integration of animal welfare and food safety standards.

At AFAC's recent Livestock Care Conference, they noted attaining these goals will take some hard work initially, but have potential to pay off not only in terms of animal welfare benefits but also for the economic strength of the livestock industry. "On the production end, there's a danger in becoming fixated on the negative consequences of animal welfare – we think it's going to cost us more, that there will be legislation and regulations and all these difficult things," says Rushen. "But many improvements to animal welfare can be cost effective. I think there are actually going to be a lot of benefits, including economic benefits."

3. *Four Farm Animal Groups*

At a 2002 Canadian Farm Animal Welfare and Codes of Practice Consultation Workshop, Dr. David Fraser, Professor Animal Welfare Program at the University of British Columbia, in reference to the federal government's limited power with respect to farm animal issues, said, "the important players are farmers, truckers, processors veterinarians and farm workers who have the direct care of the animals." He, in his capacity as an international advisor, often points to the industry-driven groups in Canada.

Several years ago, four separate provincial livestock industry groups were formed to work collectively on farm animal care issues. The first to form, the Ontario Farm Animal Council (OFAC) started over 17 years ago. AFAC started in 1993. Farm Animal Council of Saskatchewan (FACS) and Manitoba Farm Animal Council (MFAC), were set up just prior to that.

Our board members come mainly from the major provincial livestock organizations. These diverse groups make active, progressive decisions together, generate ideas and build on the successes and examples set by others at the table.

The benefits gained by having all livestock groups working together on farm animal welfare were articulated in a 2003/Strategic Review completed by AFAC. Member groups pointed to:

1. information sharing amongst groups;
2. understanding of each others' industries (narrowing of the farm-to-farm gap);
3. coordinating efforts and responses on issues that impact the entire sector (we speak with one voice);
4. joint urban (consumer) messaging;
5. keeping the industry in front of issues;
6. securing funds for extension, research, training and pooling resources for projects;
7. liaising with government, politicians and local humane societies;
8. peer pressure for continuous improvement in farm animal care.

Both government staff and politicians recognize the value of having an industry group lead and handle issues and problems.

Our success, if success is measured in the improvement and promotion of responsible animal care, is based on the openness with each other and the willingness to tackle some tough issues. And, it is due to the closed door policy regarding who is at the table. Our boards do not include animal activists as members and limit our interaction with them. This way our time and attention stays focused on our market, those who handle and care for animals.

This paper will use AFAC to demonstrate successful cooperation amongst diverse groups. Its mandate, set down by producers in 1993, is to:

1. advance and promote responsible animal care;
2. engage in discussion with the urban public to generate awareness of farmers' commitment to animal care;
3. monitor and respond to issues and legislation;
4. encourage research.

All of AFAC's operational costs are covered by industry membership or cost-recovery. The organization is entrusted with several other pools of funds for research, extension, training, benchmarking, communication, issue reports and livestock care response.

A positive attitude amongst producers towards farm animal welfare is an absolute essential. Here are some examples of strides made in Alberta to advance animal care.

Well before BSE hit, our industries stood together and declared it is inhumane to load and transport a downed animal. They defined a downer as one that cannot rise or if standing, move without assistance. Our transport regulation was changed as a result. They then set about to benchmark downers with a three year study.

In part because of our relationship with the enforcement arm of the Alberta SPCA, through what we call the Alberta Livestock Protection System, we are able to identify 'what needs fixing'. Unfit or compromised animals going to auction markets and meat plants needed to be fixed. The salvage mentality was strong yet in the minds of a growing number of producers, it was considered unacceptable to market animals in poor or weakened conditions.

The industry set to work, first on its own, defining and drawing a line in the sand regarding what was acceptable. It was clear the industry realized they needed to make these decisions – not have them dictated by those outside the industry. Then veterinarians, inspectors and the enforcement officers were consulted. The results are Humane Handling Guidelines for beef and dairy cattle, sheep and pigs. These booklets are in demand by truckers, inspectors, feedlot owners and vet clinics. Due to demand all have had to be reprinted. This is leading to many improvements and to more animals being euthanized on-farm.

AFAC has a producer-run animal care response line called ALERT. We learned that often a neighbor will hesitate to call the SPCA about a livestock care concern down the road, but will call our confidential line. We first try to lend a helping hand and we participate based on consent of the owner, only. But, we will not hesitate to call the SPCA if we experience intransigence or obvious animal distress.

AFAC's on-call veterinarian reaches out on many occasions, nipping problems in the bud, providing knowledgeable counsel, often at the request of the SPCA officers. He is often the first to insist animals be seized and distress relieved by the SPCA officers. This is an excellent example of cooperation amongst diverse groups. A portion of the funding for the veterinarian position came from the public when Alberta faced severe drought and market depression.

AFAC offers several training programs, presented by a skilled, entrepreneurial former American, Jennifer Woods. They include:

1. Good Livestock Handling Pays;
2. Livestock Handling for Youth
- ;
3. Livestock Handling for Injury Prevention;
4. Livestock Emergency Response (mainly commercial liner roll-overs).

As well, AFAC, using the talents of a Canadian living in the US, Tim O’Byrne, has developed a Quality Livestock Transport (QLT) training program for beef, dairy, pigs, poultry, sheep, horses and bison.

Our research support is focused in five areas:

1. husbandry practices – transportation, handling, capture and euthanasia;
2. livestock health – early detection of sick animals, reduced antibiotic use.
3. painful procedures – dehorning, velveting;
4. housing – environment, space, mobility, enrichment;
5. non-invasive stress measurement.

Our first priority is to respond to the needs of specific industry problems like on-farm spent hen euthanasia, sow stall retrofits, furnished cages, cold weather transport and bison dehorning. We encourage production related research to add components to evaluate stress.

Dr. Temple Grandin told me when I first took on the management of AFAC, “use your researchers; you’ve got some of the best in North America.” We’ve followed her advice and maintain a strong link with several across Canada. As an example, we are signatories to the Alberta/Canada Livestock Welfare Partnership. And, AFAC provides minor support and participates on Dr. Fraser’s UBC Animal Welfare Advisory Committee. Researchers tell us they appreciate the link AFAC provides to industry.

AFAC wouldn’t be doing its job if it wasn’t nudging, suggesting, repeating some key messages over and over. One of our vehicles to accomplish this is **Livestock Welfare INSIGHTS**, researched and written in most part by Jackie Wepruk. It is soon to be distributed by other provinces.

The industry is tackling farm animal welfare. Alberta beef industry has just hired an animal health/animal welfare specialist. The chicken farmers sponsored a conference on broiler welfare research. Cattlemen’s magazine printed a letter about a rancher using lidocaine for dehorning. The Auction Markets Association asked to be a permanent AFAC board member. Our veterinarian was asked to speak at a feedlot cowboy school on handling unfit cattle. A poultry euthanasia project received research funds. The egg industry is looking at furnished cage options. And, Canada has formed a national farm animal care council.

4. Canada’s New National Farm Animal Care Council (NFACC)

Officially launched in August 2005, our new NFACC is building capacity and brings together Canada’s national livestock organizations, the retailers and food service industry, meat processors, veterinarians, federal government and federation of humane societies ... in two official languages! There is certainly diversity at this table. And it’s not without spirited dialogue.

The primary objectives of NFACC are to provide a means for communication and collaboration about common animal care issues of a national concern.

In one year, it has a Business and Funding Plan, a part-time coordinator, recommendations for a renewed Codes of Practice process, concepts in place to work with researchers and receive their expertise and a biweekly update on national and international issues.

One of the immediate issues is to assist in the development of processes required to update the Codes of Practice and to coordinate discussions of Code verification processes. All the groups at the table have a stake in being clear about what the Codes include, in agreeing what an audit process should confirm, and in making the system or process credible to the Canadian consumer.

In the words of Dr. Ballantyne, “there needs to be a process by which concerns can be clarified, options evaluated, alternatives proposed and if accepted, incorporated into a Code. This system needs a clearer mechanism for doing the required research and recommending improvements to animal welfare. The alternative is regulation or loss of markets.”

The National Farm Animal Care Council will act as the coordinating group to create industry positions regarding trade developments. The OIE has started a process of defining animal welfare parameters as part of the WTO agreement. The National Council can act as a facilitator to ensure a reasoned and scientifically based voice is provided by the Canadian food animal industry to the Canadian representatives at such meetings.

NFACC is also partnering in a brand new ‘cooperative’ approach called *Putting Farm Animal Welfare on the Agenda*. This involves the four provincial groups and a significant drive to increase livestock welfare extension and technical transfer of animal welfare research.

Conclusion

Dr. Ballantyne put it well when he said, “In Canada, the food animal industry is given high ratings in consumer studies. There is no on-going issue with animal welfare. Maintaining this consumer attitude and confidence is dependent on the industry participants taking a leadership role and performing in a certain manner. Governments will not do this for us, nor should they be expected to do it for us. If governments must get involved, it will be to regulate. Codes of Practice are a perfectly acceptable alternative in terms of how an industry can choose to set standards by which it operates. However, standards without external monitoring processes, verification or audit are not credible.”

David Fraser in his 2001 address to the Banff Pork Seminar on the *Culture and Agriculture of Animal Production* indicated that sustainable food animal production would require refocused research, leadership from the animal industries and facilitation by government.

This describes the Canadian way – core laws enhanced by industry-driven Codes of Practice standards on-farm animal care assessment to come and a ‘fix what needs fixing’, ‘continually improve’ attitude towards farm animal care.

At the end of the day, good stock people make the biggest impact upon animal well-being and that’s where our momentum is generated.

Panel: Animal Welfare as a Trade Issue

OIE Guidelines

Michael David, Director
National Center for Import and Export
Sanitary International Standards Team
USDA/APHIS Veterinary Services

Introduction

In May of 2000 Member Countries of the World Organization for Animal Health (OIE) voted to give the organization a mandate to address animal welfare issues. Member Countries recognized that the OIE, as the international reference body for animal health and zoonoses, was the international body best placed to provide direction and guidance on animal welfare. Although the actual subject matter of animal welfare is not addressed in the World Trade Organization's (WTO), Sanitary and Phytosanitary (SPS) Agreement, Member Countries agreed that the OIE should develop recommendations that would serve as a framework should they be needed for international negotiations in the trade of animals.

Since that time the OIE has developed a mission statement on animal welfare, established a permanent Working Group on Animal Welfare, and convened several ad hoc groups to address various animal welfare issues. The OIE's mission is "to provide international leadership in animal welfare through the development of science-based standards and guidelines, the provision of expert advice, and the promotion of relevant education and research."

The OIE has recognized that animal welfare is a complex and multi-factorial issue with important scientific, ethical, economic, cultural and political implications. As such, the OIE is acutely aware that any recommendations it proposes need to be grounded on sound science and practical experiences. Their commitment is to develop outcome-based rather than prescriptive guidelines.

In May of 2005, the OIE adopted four new guidelines on animal welfare. These are:

1. Guidelines on the Transport of Terrestrial Animals by Sea
2. Guidelines on the Transport of Terrestrial Animals by Land
3. Guidelines on the Slaughter of Animals
4. Guidelines on Killing for Disease Control

These guidelines provide recommendations for the transport of animals by sea and by land, and recommendations that should be considered when animals are slaughtered for human consumption and when animals are depopulated in the face of a disease outbreak. These four

guidelines were slightly updated in May of 2006, and will likely continue to be revised as new and additional information becomes known.

Two areas specified in these guidelines which require further attention and clarity (and therefore, remain 'under study') are on the procedures for handling fetuses when animals are slaughtered, and on the use of CO₂/air mixtures for killing in disease control situations.

Future guidelines on animal welfare the OIE will next draft are on the transport of fin fish, on the slaughter of fin fish, on stray dog control, on harvesting and culling of wildlife and zoological animals, on the use in testing of laboratory animals, and on the housing and husbandry of terrestrial animals. The initial guidelines on housing and husbandry of terrestrial animals will outline some generic recommendations rather than be specific for a particular species. All these guidelines will be distributed to all OIE Member Countries as draft proposals for comment prior to adoption. Draft "scoping" papers have already been developed for some of these next guidelines.

In addition to its active role in developing recommendations for addressing animal welfare concerns, the OIE, through its Working Group, supports international animal welfare educational activities and seeks to consolidate and further develop relationships with international stakeholders.

Panel: Animal Welfare as a Trade Issue

Animal Welfare Laws and International Trade

Lorraine Mitchell, Economist
Foreign Demand and Competition Branch
USDA, Economic Research Service

The views presented here are those of the author, not the Economic Research Service or those of the USDA. The author would like to thank John Dunmore, Peyton Ferrier, Ken Mathews and Janet Perry for helpful comments and suggestions. All errors are the author's own.

Introduction

Animal welfare regulations have received increasing attention from consumers over the last thirty years. The extent of this attention has varied from country to country, leading to a host of differences in laws, private standards, and consumer behavior. These differences between countries can affect trade between those nations. This paper considers what economic theory tells us about private market reactions to animal welfare concerns, governmental reactions to welfare concerns, and their implications for trade. The paper will then examine what is occurring in practice in each of these areas, culminating in a discussion of the implications for trade.

Economic Theory

Consumer Demand and Supply Responses

If Demand For Meat Produced With High Animal Welfare Standards Is Large Enough, Consumers Are Willing To Pay More.

If consumers prefer to purchase products made with techniques that improve animal welfare, then they will be willing to pay more for those products. The demand curve for animal friendly products should therefore indicate that consumers are willing to pay more for a quantity of the animal friendly good than they are for the same quantity of the conventionally produced version of that good (Blandford and Fulponi, 1999). This demand curve, shifted outward compared to the demand curve for conventionally produced products, will result in higher prices offered and paid for goods produced with what are perceived to be animal friendly techniques. Some retailers may respond to this consumer demand by instituting standards for their suppliers that require the use of techniques that yield higher animal welfare.

Some Welfare Friendly Techniques Cost More

Some animal producers point out that maintaining animal welfare can improve returns for producers, so some practices are already incorporated in standard practice. Some of the techniques that provide animals with greater welfare, however, are more costly. Larger cages for hens require new cages and more space. Free range chickens or meat animals require the

use of outdoor space or grazing land in addition to a sheltered area for the animals (Farm Foundation, 2006). These added costs represent a shift back of the supply curve, indicating that the higher animal welfare version of the good costs more to produce than the conventional version of the good, and the price will therefore be higher (Tacken et al., 2003; Mitchell, 2001, Blandford and Fulponi, 1999).

As Long As Premium Covers Costs, Producers Might Supply The Same Quantity Of The Good

If the higher price that consumers are willing to pay covers the costs of the high animal welfare version of the good, then producers will supply the same amount, but if the shift in demand based on consumers desire for animal welfare is small compared to the shift in costs to suppliers, then producers will supply less, and consumers will buy less of the product.

Alternatively, markets may form for two versions of the good – one produced with techniques perceived to improve animal welfare selling at a higher price and a conventionally produced good selling at a lower price (Farm Foundation, 2006). The production of goods to incorporate standards that reflect consumer preferences is quite common. Consumers have different preferences and different valuations for different characteristics. The market responds to this by producing a variety of goods with these different characteristics (Helpman and Krugman, 1985).

Agricultural products have traditionally been sold in fewer varieties because of the reliance on economies of scale. Shipping products in bulk has proven to reduce costs substantially. An increase in variety of agricultural products increases the need for separating outputs into different types and niche markets, so that some of the savings of bulk shipping and handling are lost (Hobbs, 1995; Blandford and Fulponi, 1999). Consumers' desire for differentiated products needs to come with a sufficient willingness to pay (increased demand) in order to cover these higher costs of production.

Government Regulation

Although market driven solutions to consumer concerns about animal welfare exist, government may also intervene to regulate the market for animal friendly products. This occurs for several reasons.

Consumers Lack Information On Animal Welfare.

Many economists refer to animal welfare as a “credence good”, i.e., there is no way for a consumer to observe whether the good has this characteristic or not (Darby and Karni, 1973; Golan et al., 2000; Caswell and Mojduska, Blandford and Fulponi, 1999; Mitchell, 2001). If consumers believe that they are not purchasing goods with the qualities for which they are paying, they may reduce their consumption below the level of economic activity that they would generate if they had access to all of the information desired (Akerlof, 1970). Producers can label the goods to give information. If consumers are willing to pay more for a good with a given characteristic, then some producer should be willing to provide that good, and identify it in order to gain that premium (Ippolito and Matthias, 1995; Grossman, 1981; Golan et al, 2000). However, firms may not reveal negative information about their products (Golan et al, 2000; Zarkin and Anderson, 1992), and identification might be difficult (Blandford and Fulponi, 1999). Blandford and Fulponi (1999) and the Farm Foundation (2006) note that consumers may lack information about animal welfare, and that third party accreditation of labels can provide consumers with some assurances. Governments may, however, need to regulate the content of

the labels in order to prevent fraud or to achieve a commonly agreed upon definition (Golan et al., 2000). For instance, the US and the EU have legal definitions of the term “free range”. Governments, therefore, generally regulate information provision in markets in order to make certain that consumers are purchasing what they think they are purchasing.

Consumers Don't Consider Social Benefits In Deciding How To Spend Their Money

Another reason why governments may need to pass animal welfare regulations is that consumers don't consider the impact of their consumption on other consumers. If animal welfare is perceived to be a public good, then each animal raised with high welfare standards is valuable to each person who values animal welfare, so one animal preserved benefits many people (Farm Foundation, 2006; Mitchell, 2001; Samuelson, 1969). The market solution only weighs an animal's welfare against the market price, which is what one consumer would be willing to pay for animal welfare. Society as a whole, however, has many people placing a value on that animal, and the sum of what each of those people is willing to pay for that animal's welfare is greater than the amount one consumer is willing to pay (Samuelson, 1969). Thus, society as a whole is willing to pay more for animal welfare than individual consumers are. The market solution will generally spend less on animal welfare and generally results in less animal welfare than society would want (Farm Foundation, 2006; Mitchell, 2001; Samuelson, 1969). The government regulates animal welfare in order to rectify this imbalance. Blandford and Fulponi (1999) note that governments may regulate to achieve animal welfare standards in line with “generally held views.”

Government regulation of animal welfare to balance social costs and benefits might impose costs that are in excess of the premium consumers are willing to pay individually. The government could choose to subsidize producers, who use the more expensive techniques (Blandford and Fulponi, 1999; Bennett, 1997). Alternatively, consumers will pay a high premium, and producers will lose some sales due to the higher prices they must charge to recoup costs. In this way, producers and consumers are “taxed” to fund a social objective. The European Commission, for example, acknowledges that its animal welfare regulations may increase costs to producers by more than the extra premium that consumers are willing to pay (European Commission, 2002).

When Do These Issues Begin to Affect International Trade?

Differences In Regulations Can Lead To The Enactment Of Trade Barriers

If a country enacts animal welfare legislation, mandating that producers use specific animal welfare techniques to produce their products, then there may be trade consequences. If these animal welfare techniques are costly, then the production costs of firms in that country might be higher than those firms from abroad, which could mean that lower cost foreign products might undercut the sales of domestic products (Blandford and Fulponi, 1999; Vogel, 1995, Farm Foundation, 2006; Wilkins et al., 2005; EC, 2002).

If consumers are willing to pay more for the animal welfare friendly products, then these cost differences might not lead to lower sales for the domestic firm if they are offering a good that consumers desire to pay for. As noted above, governments can respond to this by regulating labeling of goods produced with the higher standard of animal welfare (Blandford and Fulponi, 1999). Labeling enables consumers to discern the difference between the two types of the

same good. This will enable producers of the more animal friendly goods to take advantage of the higher consumer willingness to pay.

However, as noted above, consumers often don't take into account the effects of their purchases on others, so the government might mandate a higher level of welfare than the market would. Governments can't regulate the production practices outside of their own borders as they did in the domestic case. In this case, the governments might try to mandate that the imported goods meet the same animal welfare standards as the domestic goods. Domestic producers could align with non-profit organizations supporting animal welfare regulations in order to lobby for these trade restrictions (Vogel, 1995).

Private Standards And/Or Consumer Demand Can Reduce Trade, Even If Government Regulation Does Not

If consumers wish to purchase goods with particular characteristics, it is possible for trade to decline, or even stop, without any government action at all. If consumers wish to purchase goods produced with a particular level of animal welfare, and in particular, if private sector wholesalers and retailers are only willing to purchase goods that meet certain standards, then international trade can decline if exporting countries are not willing or able to meet those standards. The United States, for instance, was unable to export many cars to Japan until the United States began producing cars with a right hand drive, and European cars did not have catalytic converters until manufacturers started adding them in order to comply with US regulations.

Developing countries wishing to export to the country with the higher animal welfare standards might have difficulty meeting either stringent private or public standards if the importing country or firm requires certification, or if the welfare regulations require costly capital investments (Argentina, statement to WTO).

What Is The Impact Of These Differences At The Margin?

Even if differences in regulations and private standards seem to be obstacles to trade, it is possible that the impact of a given regulation on actual trade flows is small. For example, if there are several regulatory differences that hinder trade, altering one set of regulations may have no effect on trade whatsoever (Calvin and Krissoff, 1998).

What Do We See in Practice?

Consumer Demand and Supply Responses

Studies and Surveys

Consumer demand for animal welfare has been receiving increasing attention. Some consumer groups, like People for the Ethical Treatment of Animals (PETA), have been actively lobbying food producers to improve animal welfare in many countries (Francione, 1996; Farm Foundation, 2006) . Attention has been substantial in the EU and the US, but in many other countries, even those without a history of animal welfare legislation, the issue is receiving more attention. In some cases, this is due to increased income and increased information, and in some cases it is due to increased concern about the contribution of crowding in livestock

production to the spread of disease and sanitary conditions that contribute to food safety incidents (Bennet, 1997; Blandford and Fulponi, 1999, 2000; Peoples Daily, 2005; Farm Foundation, 2006; European Commission, 2002).

Several studies and surveys indicate that consumers in the US, Canada, and the EU have a positive willingness to pay for animal welfare. That is, consumers in these countries are willing to pay more for goods perceived to be produced with higher standards of animal welfare. A survey by Bennett (1997) found that British consumers were willing to pay 6-30 percent more for eggs to cover the increased costs of banning battery cages. Bennett and Larson (1996) found that US college students were willing to pay 18 percent more for free range eggs and were willing to pay \$8.00 in taxes to provide funding to improve animal welfare. Hobbs et al (2005), using a competitive auction, found that a sample of Canadian consumers were willing to pay 5 percent more for a pork sandwich if the pork was produced with “humane treatment”, and 9.5 percent more for a similarly produced beef sandwich.

A broad survey of European consumers in 2005 found similar results. A survey of citizens in all 25 EU countries found that 43 percent of consumers thought about animal welfare when purchasing animal products, and 38 percent had purchased free range eggs (Eurobarometer, 2005). Most consumers said that animal welfare did not get enough attention from policymakers, and only 7 percent said it got too much. Twenty-five percent of EU consumers said they would pay five percent more for animal friendly products, 21 percent said 10 percent more, and 11 percent said 25 percent more. For these questions, the percentages of people purchasing or willing to pay higher prices for animal friendly products were higher in the Netherlands, Germany and the Scandinavian countries. Kishida and Macer (2003) note that less attention has been paid to farm animal welfare in Japan.

However, as numerous scholars have pointed out, most of these are surveys or studies that used the contingent valuation method, using surveys to ask people what they would be willing to pay hypothetically. This method often overstates a consumer’s actual willingness to pay as reflected by their true actions at the cash register (Blandford and Fulponi, 1999; Lusk, 2003; Farm Foundation, 2006).

Evidence From Markets

Market prices generally feature a higher price for items produced with advertised animal-friendly techniques in many markets. An informal look at on-line shopping services offered by ten different food retailers in the EU and the US indicates that actual price differences⁰ seem to exist for items produced with what are perceived to be higher animal welfare standards. The retailers² (whatever on-line services the author could find) were not a representative sample of retailers; they included some of the largest retailers in some of the countries, but also some that have a small market share in their respective countries, particularly the US and German on-line services. Attempts were made to find retailers in the US and in larger EU countries plus the

¹ These retail prices cannot be treated the same way as the studies above, since they look only at the price differences paid by the segment of the market that actually buys free range eggs, which could be quite small or quite large, while the studies on willingness to pay above give average figures across all consumers.

² See Appendix A for a list of retailers

Netherlands, which has a retailer that is important globally. Additionally, there is some evidence that on-line grocery shoppers may not be typical of grocery shoppers in general (Fox and Kempik, 2006). Prices were those available in July, 2006, and could depend on the zip code referenced to access the service. While free range eggs are on average more expensive than cage eggs or eggs with unspecified production systems, the two product ranges are somewhat difficult to compare since containers tend to be smaller for free-range eggs. Containers of the same size and number were available only for two retailers in two different EU countries, and in these cases, the premia for free range eggs were positive, but differed in magnitude substantially. Averages for the two US on-line services were within this range for the same type and number of eggs. Most average per-egg premia for free range versus conventional egg containers of different sizes and numbers of eggs were also within this range. For the largest chain in the Netherlands, all eggs offered on-line were free range or organic, which is in keeping with the pledge by retailers there to offer only non-battery cage eggs (Namnews, 2003). The UK Department of the Environment reports that free range eggs sell for almost double the price of conventionally produced eggs (DEFRA, 2006).

Free range meat seems to have a much smaller market, and many stores do not offer free range meats on-line. Many offer organic meats, which generally comes from animals raised with access to the outdoors, but which also have other costly characteristics which can include organic feed, etc. Several of the stores examined did not offer either organic or free-range meats to their on-line customers. Comparing similar cuts and weights of meat, there were one or two instances where organic offerings were cheaper than conventional, but on average, organic or free range meats were more expensive than their conventionally produced counterparts.

These prices tell us what people who buy free range eggs and meat are willing to pay for them, but how many people are there who are actually making these purchases? These goods are still a niche market in many countries. However, the market share of free range eggs in some of the EU and other European countries is very high, as seen in Table 1, reflecting a popularity of some goods produced with what are perceived to be high standards of animal welfare in the EU

Table 1. Market Share of Free Range Eggs

Country	Free-range eggs Percentage
Denmark	25% (Hirsch, 2003)
U.K.	20-34% (BFREPA, 2005); (Hirsch, 2003); (London Independent, 2005); (BEIS, 2005)
Austria	40% (Hirsch, 2003)
Netherlands	45-50 percent barn and aviary production (World Poultry, 2005), Most Dutch supermarkets will only stock free-range eggs
Switzerland	Battery cages banned (United Poultry, 2004)

Do Private Standards Incorporate The Animal Welfare Regulations?

Some private sector retailers set standards for their products that incorporate animal welfare standards (Wilkins et al.; EC, 2002). EUREPGAP standards are a set of good agricultural practice standards for food production. Most major European retailers are members of

EUREPGAP, and they require their suppliers of fruits and vegetables to conform to EUREPGAP standards. EUREPGAP is developing standards for other products as well, including livestock and dairy products. Their current standards for livestock include a base standard for all livestock production and specific standards for farms that keep sheep, pigs, chickens, and cattle, as well as standards for the production of eggs and dairy products.

While most retailers have not yet adopted the EUREPGAP standards for meat, they might do so in the future. Several leading Dutch retailers have pledged to buy only poultry and pork produced to EUREPGAP standards starting January 1, 2007 (Poultry Industry News, 2005; EUREPGAP, 2005). However, Migros, the leading Swiss retailer, has noted that while it would like to adopt EUREPGAP standards for poultry, it has had trouble ensuring that the standards are enforced all along the food chain (Zueblin, 2004).

While most European retailers have not yet adopted EUREPGAP standards, some do have animal welfare standards (Wilkins et al.). A survey of UK retailers by Compassion in World Farming (2001) found that most had a written animal welfare policy. Tesco, the UK's largest retailer states that its "codes ensure compliance with legal requirements and Government welfare recommendations" (Tesco, 2006). Ahold (2006), the Netherlands' largest retailer has its own animal welfare standards, which apply even to meat in processed foods, and notes that national laws are met for all products. Some parts of the EUREPGAP standard are taken from European law, so producers in the EU may already have to abide by their provisions. Retailers may also offer products certified by an animal welfare certification program, of which there are several in the EU (Wilkins et al.).

American retailers have also begun implementing private standards (Wilkins et al; Farm Foundation, 2006). Some retailers are beginning to notice that consumers are concerned about animal welfare, and are beginning to use this as a selling point in their literature and on their websites. Wal-Mart, for instance, notes that it endorses the Food Marketing Institute's³ standards for animal welfare, but it is not clear whether they make suppliers adhere to those standards (Wal-Mart website, 2006). Kroger requires its suppliers to meet the Food Marketing Institute (FMI) guidelines. Safeway has developed its own animal welfare standards, which it requires its suppliers to meet, and PETA, which threatened a boycott of Kroger and Safeway over enforcement of their standards in 2001, has now stated that Safeway has some of the highest animal welfare standards in the retail industry, although animal welfare groups in general are still quite critical of these private standards. PETA has also purchased stock in several of the nation's largest retailers in order to try to push for more humane slaughter conditions for chickens (PETA, 2006). A few non-profit groups, like Humane Farm Animal Care, have their own standards⁴ (Wilkins et al; Farm Foundation, 2006). Suppliers who have obtained these certifications seem to supply mostly specialty markets and restaurants (HFAC, 2006)

Fast food producers, significant purchasers of meat, are also beginning to adopt standards. McDonald's and Burger King have adopted the American Meat Institute's animal slaughter standards (endorsed by the FMI) for their US restaurants (Francione, 1996; Wilkins, et al.). McDonald's is the largest purchaser of beef in the US, and there is some evidence that the

³ The Food Marketing Institute endorses guidelines that have been developed by producer groups (see Farm Foundation, 2006).

⁴ A report by Farm Sanctuary contrasts industry and non-profit standards

pressure from McDonald's has had an effect on other purchasers of meat and meat producers (Grandin, 2005). Enforcement of these private standards depends on the willingness of the retailer or restaurant to require third party audits of their suppliers' compliance as a precondition of sales (Grandin, 2005).

Producers Who Can't Meet This Consumer Demand Or These Standards May Sell To Those Processors That Don't Have Welfare Requirements

While consumer perceptions of retail foods seems to have resulted in larger market shares for products that are perceived to be animal friendly in the EU, not all animal products are purchased directly by the consumer. Processed goods have raw ingredients that are more removed from the consumer. One study finds that 24 percent of Dutch egg production goes into producing processed egg products in the Netherlands, and some of the 53 percent of eggs that are exported go into processed egg products made in the receiving countries (Tacken, et al., 2003). The UK Ministry of Agriculture notes that 40 percent of the cage eggs are sold to caterers and food processing companies.

A study of German and Dutch buyers of egg processors indicated that these purchasers pay little attention to the housing system for hens in deciding where to purchase their eggs; quality (particularly freedom from pathogens) and price were the most important considerations. (Tacken et al., 2003). Even if voluntary regulations are adopted by retailers and fast food restaurants, meat can be sold to those processed food manufacturers that don't have welfare requirements.

Will Bird Flu Render Some Of These Differences Irrelevant?

Many free range poultry producers in Europe have had to alter their production methods, as European governments have demanded that poultry be brought indoors to protect domesticated fowl from contact with wild birds, the vectors of bird flu. Producers in some countries could lose their free range certification if they keep their bird under cover, but other countries have been offering exemptions. One alternative is to raise the chickens in barns and aviaries, a technique that avoids battery cages. This might become the egg production method of choice, with large market shares in the Netherlands already. The competing problems of bird flu and access to the outdoors also suggest that welfare itself is sometimes difficult to discern without careful research into the relative merits of alternatives.

Government Regulation

What Are Governmental Animal Welfare Regulations? Do They Differ From Private Standards?

The EU has very detailed regulations, outlining specifically required space per animal and animal husbandry methods. The EU also has specific legislation for several species of livestock. Australia has formulated fairly detailed codes of practice along with industry, and has incorporated these into national or state law (Australian Gov't, 2005).

The United States and Canada have less detailed regulations and much more general provisions in their animal welfare regulations (Wilkins, et al.). The EU, United States and Canada all have legislation in place requiring humane slaughter and regulating transport of animals (Farm Foundation, 2006). In the United States, the humane slaughter legislation does not apply to poultry. Canada also has provincial animal welfare regulations. In the United

States and Canada, some of the private standards are more specific than US or Canadian legislation. Codes of recommended practice have been developed by producer groups through the Canadian food industry (Farm Foundation, 2006). The United States' Food Marketing Institute has endorsed private standards developed by producer groups⁵ (Farm Foundation, 2006).

Table 2 (see Appendix B) compares animal welfare regulations and private standards in several countries/institutions. There are differences and similarities on a number of issues. It isn't possible to list all animal welfare issues here, we will consider some of the major differences and issues mentioned by animal welfare consumer groups and the literature (Wilkins et al.; Satya, 2005; Farm Foundation, 2006).

Hen cage size receives a great deal of attention. The EU has increased the size of cages for hens to 550 cm, and battery cages (stacks of individual cages) for hens themselves will be banned by 2012 (Wilkins, et al.; Council Directive, 1999). The ban differs from laws of most other countries (see Table 2, Appendix B), where most laws or private standards require 450-550 sq cm per bird. The EUREPGAP draft standards for chickens require that the chicken producer use stocking densities that conform to EU standards, and that birds have the room to stand and stretch their wings. While no minimum cage sizes are included in the standards, some of these behaviors require more space than is often available (between 75 and 144 square inches (Dawkins and Hardie, 1989, quoted in Mench and Swanson, 2000). Most cages in the United States give birds less than 60 square inches of space (Rahn, 2001), and even the new European cage standards are about 86 square inches, which might not allow some of these behaviors.

US humane slaughter regulations do not cover poultry, while EU and Canadian regulations do. The US broiler industry's (National Chicken Council), voluntary guidelines do spell out stunning and killing procedures, noting that birds "should be insensible to pain before killing". EU regulations require stunning before killing (Wilkins et al., 2005). Canadian regulations allow for stunning then killing, stunning which causes death, or rapid decapitation. The Australian code of practice requires stunning before killing.

Tethering pigs and having pregnant sows give birth in crates have also been considered contentious issues by animal welfare groups. EU regulations ban tethers as of 2006, and allow gestation crates (see Wilkins et al., 2005). The Commission is undertaking a study to reduce the use of gestation crates. The US swine industry's voluntary guidelines (National Pork Board) recommend that tethers not be used, and allow the use of crates. The Canadian Food Industry's code of practice for pigs also does not recommend tethers and allows crates of a specified size. Australian codes of practice allow crates and don't mention tethers. All sources note that the pig must be able to lie down comfortably. US Pork Council standards note that restricted movement tends to protect piglets from injury.

The treatment of veal calves, particularly their confinement and diet, has been another source of concern for animal welfare groups. Canadian guidelines permit tethering and allow stalls of 70-

⁵ These include the United Egg Producers' standards for laying hens, the American Meat Institute's Guidelines for Handling and Slaughter, the Pork Board's Swine Care Handbook (National Pork Board), and the Milk and Dairy Cattle Association's DQA standards for cattle.

80 cm wide. Eight hours of light are recommended. The EU has banned confinement pens, tethers (except for feeding), requires stalls to be at least 90 cm wide, and bans stalls after 8 weeks (Wilkins et al., 2005; EC, 1991). Calves must also be fed fiber and not kept in darkness (Wilkins et al.; EC). The Food Marketing Institute in the United States has not yet endorsed veal standards. The American Veal Quality Assurance Program (2006) allows tethering and pens. Australia requires that individual calf pens be at least 2 sq m.

Other Countries

China does not have as much animal welfare legislation as wealthier nations. However, bird flu has led to increased concern about poultry production conditions, and welfare laws are being drafted (People's Daily, 2005). Japan and Taiwan have general animal welfare legislation. Japan's laws note that animals must be killed painlessly (Halverson, 2001). Mexico has animal welfare legislation, including slaughter and transport legislation, but little enforcement (Farm Foundation, 2006).

Labeling

Governments have done some work in regulating labeling of foods for animal welfare concerns. Governments have defined terms like free-range. The UK definition states, "In Free-range systems the birds are housed as described in the barn system above. In addition birds must have continuous daytime access to open runs which are mainly covered with vegetation and with a maximum stocking density of 2,500 birds per hectare." (DEFRA, 2006). The US definition states, "Producers must demonstrate to the Agency that the poultry has been allowed access to the outside." (Food Safety Inspection Service, 2003).

In the EU, the government has some mandated labeling. A study by the British farm Animal Welfare Council notes that the EU requires the labeling of caged eggs, and suggests that labeling can be used to inform consumers about goods produced with particular animal welfare standards (FAWC, 2006). The EU is exploring the possibility of using animal welfare labels and considers them necessary (EC, 2006; EC, 2002)

In other cases, however, there appears to still be some difference between consumer and producer perceptions of terms. The US cooperative United Egg Producers (2006) began labeling eggs produced by producers that met its standards as "Animal Care Certified". The Better Business Bureau asked the UEP to stop using this label in 2004, arguing that the label led consumers to believe that standards for rearing hens were more humane than they are.

What Do These Welfare Regulations Cost?

The exact cost of animal welfare regulations is hard to generalize, as each regulation has a different cost structure. Some estimates of the costs of various regulations have been made. In particular, the cost of producing hens in larger battery cages or in some alternative to battery cages has been examined a great deal. A study done by the EU has found that doing away with battery cages would cause egg production costs to increase by 20 percent (FAS GAIN, 2005; EC, 2002). Tacken et al. (2003) found that improved "enriched cages" with perches increased costs of egg production over battery cages by 13 percent, and free range systems increased costs by 21 percent. Blandford and Fulponi (1999, 2000) cite several studies that indicate that costs of various welfare regulations could increase costs by 5-17 percent, but also note that one study indicates that animal welfare provisions would increase consumer food bills

by 0.25 percent. The Farm Foundation (2006) cites a number of studies considering costs of animal welfare regulations.

Will This Become an Issue for US Exports?

Do Regulations Differ Across Countries?

Clearly, the previous section indicates that animal welfare regulations differ across countries, but less so with the United States' main trading partners. US and EU regulations differ on a number of points, particularly as the US regulations are less detailed than the EU regulations. Firms meeting US regulations in production might not meet EU regulations. However, the less detailed legislation in Japan and Mexico means that US firms would have a less difficult time complying with requirements in these countries. The United States and Canada have fairly similar regimes.

Do Private Standards Differ Across Countries?

Private standards seem to differ less markedly, as private standards commonly referenced in the United States are more detailed than US legislation. They do still differ on a number of points. US and Canadian private standards differ from EU legislation on hen cage sizes and all three differ on production practices for veal calves. US and Canadian standards also differ on farrowing crates and veal calf production.

What Is The Marginal Impact Of Animal Welfare Standards On US Trade?

The United States doesn't currently export very much meat to the EU, as other phytosanitary disputes, including hormone treatment of beef cattle, slaughterhouse design, and poultry sanitation, in addition to price competition from other countries, have already substantially reduced trade (FAS, 2005c). The United States does sell some meat to Eastern Europe, and when those countries are fully integrated into the EU (i.e. adopt all of its laws) there could be some impact. Thus the marginal impact of differences in animal welfare legislation might not be large, due to major differences in other regulatory areas.

Most of US meat sales are to NAFTA partners or to Japan or Hong Kong, as seen in Table 3. Most of these export markets seem to have legislation that is less stringent or less specific than US legislation or private standards. Canadian private standards do have differences from US private and public standards. However, this does not seem to have affected meat trade. US meat exports to Canada remain large (Foreign Agricultural Service, 2005b).

Table 3. US Meat Sales

Importers of >100 Million in US Fresh or Frozen Pork, 2004	Importers of >100 Million in US Fresh or Frozen Poultry, 2004	Importers of >100 Million in US Fresh Beef, 2004
Japan	Russia	Mexico
Mexico	Mexico	
Canada	Canada	
	Hong Kong	

Source: World Trade Atlas, 2006

Will Countries Apply Animal Welfare Standards To Imports?

The EU has stated that animal welfare requirements will not be applied to imports (Lamy, 2000; UK Parliament). The British Farm Animal Welfare Council has proposed a differentiated tariff system for goods produced according to EU standards, but the EU government has indicated that it does not think that discrimination in imports along animal welfare lines would survive a challenge in the WTO. The EU is attempting to incorporate animal welfare provisions into the bilateral veterinary agreements for meat imports that it has with some countries, and is currently negotiating such agreements with Canada and Chile (EC, 2006; EC, 2002).

The major countries from which the EU does import meat include Argentina, Brazil, Australia, New Zealand, Poland and Hungary. Poland and Hungary will eventually have to meet the EU's standards as members. Some argue that Brazil's meat packers currently meet the EU's standards, while there is other evidence that they do not (Achterbosch, 2006; UK Parliament, 2002; Farmers' Weekly, 2006). Argentina has expressed concern about the possibility of having to meet developed country animal welfare standards (WTO, 2000). The outcomes for these developing countries will probably depend on whether the EU retailers adopt EU law as part of their array of private standards, and whether developing countries will receive payments for their goods that are high enough to cover the costs of certification.

The United States actually does apply one animal welfare standard to imports. The Federal Meat Inspection Act requires that imports of meat only include meat from animals slaughtered in accordance with the US Humane Slaughter Act of 1958. Humane slaughter methods are a part of the audits that the United States conducts of foreign firms (FSIS Foreign Audit Reports, various years).

WTO Dolphin Case Suggest That WTO Regards Countries As Having Limited Interest In Resources Beyond Borders (Welfare of Animals in Other Countries)

In the WTO Dolphin-Tuna Case, Mexico sued the United States for not allowing imports of Mexican tuna, which was caught with methods that harmed dolphins. The WTO ruled against the United States. The United States had claimed an interest in protecting dolphins in international waters, but the WTO said that the United States did not have standing to protect dolphins in international waters from fishermen from another country (see Blandford and Fulponi, 1999, Golan et al 2000; Vogel, 1995). Using this same logic, it is probable that the WTO would rule against a ban on importing goods because of the production techniques used. A country passing such a ban probably would not be able to convince the WTO that it had a compelling interest in the welfare of animals in a third country (Blandford and Fulponi, 1999).

The WTO did rule, however, that the United States could mandate labeling for tuna caught with dolphin unfriendly methods (Vogel, 1995). Presumably, European nations could label their animal products with an indication that they are or are not produced with certain production methods, like battery cages, barns, or open air for chickens and eggs. These measures are simply consumer information measures. This would enable consumers to purchase goods with the desired characteristics, even if the government could not ban imports of the goods to create the public good of animal welfare.

In the Dolphin-Tuna case, the WTO also ruled that countries could enter into binding agreements, like international environmental agreements, in which countries voluntarily give up some of their rights to achieve a certain goal, such as preservation of the international commons (Blandford and Fulponi, 1999; Vogel, 1995). The EU has certainly attempted to move in this direction by attempting to interest other countries in a worldwide dialogue or agreement on animal welfare (EC, 2006; Lamy, 2000).

Private Standards Might Have A Greater Impact

Currently, private standards are not quite points of contention, but they could become so in the future, as more grocery store chains adopt them. More stores in the United States and EU are adopting private standards, so exporting meat to the EU might eventually require attempts to recognize or harmonize private standards. As we have seen, private animal welfare standards across countries do differ in some

areas, although in other areas, there is a fair amount of agreement. For example, US law is silent on tethering pigs, but if a producer follows the FMI Guidelines, which recommendation against tethering, it is in compliance with the EU ban on tethering and the private EUREPGAP specification of no tethering. If a firm can meet FMI standards to sell to Safeway, it might be easier to adopt the practices necessary for EUREPGAP or EU standards, but if a firm just meets minimum US legal standards, then meeting EU standards will be more difficult. Canadian and US private standards do differ on a number of points, but it is not clear who is adopting the private standards in Canada. However, as noted above, some food processors don't have the same animal welfare standards as retailers, and firms which don't meet retailer standards could potentially sell to processors.

Will Some Countries Subsidize? If So, Will Countries Without Subsidies Be At A Disadvantage In Meeting Private Standards?

A study done by the British Farm Animal Welfare Council suggests that subsidies to farmers producing according to EU standards of welfare would be possible, and argues that such subsidies would fall under the "Green Box", which are lump sum payments designed to achieve social or environmental objectives, and which are not limited by international agreements on trade (Farm Animal Welfare Council, 2006). The European Commission (EC) is considering the possibility of offering compensation to its farmers for meeting animal welfare provisions, but remains concerned about whether such payments would be regarded by other countries as non-distorting or "Green Box" payments (EC, 2002). Blandford and Fulponi (1999) suggest compensation as an equitable way to bear the costs of higher animal welfare. The EC would like to see the Green Box amended to allow these payments (UK Parliament, 2002b; Lamy, 2000; European Commission, 2002).

Conclusions

Economic theory suggests that if consumers value animal welfare, we should see new markets developing for goods produced with techniques perceived to be friendly to animals, and such markets are evident in some countries. Economic theory also suggests that some societies might not be satisfied with the level of animal welfare obtained by the market, and in these cases, the government will regulate animal welfare. Differences in regulations and standards can become trade issues.

Animal welfare standards differ across countries and between public and private standards. The United States' major meat export markets do not have very detailed animal welfare legislation, with the exception of Canada. The EU and the United States differ on a number of different issues. The United States does not export a great deal of meat to the EU, and EU legislation will probably not be applied to meat imports, although they may be incorporated into bilateral agreements. If private standards referring to EU legislation are adopted by importers, differences between US standards and EU standards might make it difficult to export to the EU for both the US and other countries. Food processors, however, seem less likely to adopt these private standards than retailers.

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Appendix A

List of Retailers

On-line Grocery Services Observed

US

- * Peapod: <http://www.peapod.com/>
- * Fresh Direct: http://www.freshdirect.com/site_access/site_access.jsp

EU

- * AHOLD – Netherlands: <http://www.ah.nl/>
- * ASDA – United Kingdom: http://www.asda.com/asda_shop/
- * Carrefour – France: <http://www.ooshop.fr/>
- * Carrefour – Spain: http://www.carrefour.es/compras_internet/alimentacion.html
- * Coop-Italia – Italy
- * Tengelmann – Germany: <http://www.kaisers.biz/lieferservice/index.php3>
- * TESCO – United Kingdom
<http://www.tesco.com/superstore/frames/default.asp?buttons=&url=/superstore/frames/main.asp>

Appendix B

Table 2. Comparison of Animal Welfare Regulations and Private Standards.

The sources are various regulations, including: Council Directives 1991, 1993, 1999, 2001, 2001.

Method	US Law	EU Law	FMI Standards	EUREPGAP Standards	Canadian Producer Standards
Hen cage size	----	550 sq cm, banned after 2012	432-554 sq cm	Refers to EU Law	450 cm sq.
Debeaking	----	Allowed under 10 days	Allowed under 10 days	Allowed under 21 dasy	“Ideally before 14 days”
Inspections per day (chickens)	----	Once	----	Twice	Twice
Farrowing crates (sows)	----	Allowed	Allowed		Allowed, 2.4m x 50cm x 1m
Tail docking (pigs)	----	Only if proven necessary	Allowed while young	Within 7 days of birth	Avoid, but if necessary with 24 hours or first week
Tethering	----	Banned	Not recommended		Not recommended
Tooth grinding (pigs)	----	Only if proven necessary	Within 24 hrs of birth	Within 7 days of birth	Within 24 hours
Castration (pigs)	----	Method restricted	Within 7 days of birth or with anesthetic	Within 7 days of birth or with anesthetic	Within 2 weeks of birth
Inspections (pig)	----		Once a day	Once a day	Sows and piglets- twice per day
Pen sizes (veal calves)		90cm wide, banned after 8 weeks	----		70-80 cm wide
Tethers		Banned	----		Allowed
Transport – cattle (550 kg)		1.3-1.6 sq m	1.38 sq m	----	1.3 sq m
Ramp floor	Non-slip (beef and pork only)	Non-slip	Less than 3% slip, flooring specified	----	Cleats should be provided, surfaces not slick
Shocking	Used as little as possible; max 50 volts	Only 2 seconds	<25 percent shocked	----	Canadian law- Prohibited on certain areas of the body; private standards – minimized

Dragging	Banned (does not include poultry)	Banned	Banned	----	Injured animals should not be unloaded
Fed at slaughter	Every 24 hrs (does not include poultry)	Every 12 hrs		----	Every 24 hours
Stunning	Must be “rendered insensible” before slaughter (does not include poultry)	Required	95% stunned on first try (cattle)	----	Canadian law- must be rendered unconscious immediately or killed immediately by whatever renders them unconscious or by rapid decapitation

Panel: Animal Welfare as a Trade Issue

Industry Perspective

Kay Johnson, Executive Vice President
Animal Agriculture Alliance
1501 Wilson Boulevard, Suite 1100
Arlington, Virginia 22209

See Power Point Presentation

Panel: Animal Welfare as a Trade Issue

Animal Welfare and Trade Capacity Building

Marta M. Prado, Special Counsel for International Trade Policy
Jordan D. Taylor, Deputy Counsel for International Trade Policy
Jennifer Lanier, Director for Scientific Programs
Humane Society International

Introduction

One way in which animal welfare can be improved through international trade and free trade agreements is to build the capacity of developing countries to better compete domestically, regionally, and in the global economy by adopting high animal welfare standards. Through several Trade Capacity Building (TCB) projects that seek to improve animal handling, transport and slaughter, Humane Society International (HSI) has worked with livestock producers throughout Central America over the past three-plus years to demonstrate the positive impact high animal welfare can have on their bottom line. Increasing animal welfare not only improves production, but also increases the ability of livestock producers in the region to meet industry standards in their own country, as well as to reach growing niche export markets for humane products in developed countries.

The proliferation of free trade agreement negotiations undertaken by the United States with developing countries in Central and South America has put the issue of animal welfare at the forefront of the livestock and poultry industries in these countries. This is because the U.S. typically has higher health and safety standards for animal products than its free trade agreement counterparts. Under these agreements exports from Latin America will need to come into compliance with the U.S. sanitary and phytosanitary standards and regulations before they will be allowed to enter the United States.

In Latin America, however, the standards and regulations required of animal product exports are fast becoming viewed as a trade barrier. In particular, where a developing country is unable to raise, transport and slaughter an animal in accordance with the regulations of a potential export market (e.g., the U.S. or the EU), they cannot sell their product in that country.

Even within the developing world, animal welfare can be a potential trade barrier. Where a multinational corporation operating in a developing country has stricter animal welfare standards than the domestic country requires, the policy can become a barrier to local producers who do not meet the corporation's standards. The corporation may then source products from neighboring countries to the disadvantage of local producers.

This paper will seek to first clarify and define those programs that qualify as TCB in the United States, and which agencies and organizations provide funding for TCB initiatives. Second, the changing perspectives of animal welfare and their implication on trade will be outlined. Third, the paper will examine how TCB can be linked to animal welfare in practice. Finally, the paper will conclude by looking at examples of HSI's experience with TCB programs.

TCB Funding in the United States

In 2005, a U.S. Government Accountability Office (GAO) report categorized TCB in the United States as “assistance meant to help countries become aware of and accede to the World Trade Organization (WTO); implement its agreements; and build the physical, human, and institutional capacity to benefit more broadly from a rules-based trading system trade.” The GAO report, however, also noted that TCB in the United States is “primarily a collection of existing activities placed under the umbrella of trade capacity building by a U.S. government survey.” The United States Agency for International Development (USAID) has itself defined TCB as programs which help to “build the necessary capacity for developing countries to take advantage of open markets.”

A more narrow definition of TCB, however, was put forth by the Organization for Economic Cooperation and Development (OECD), which found that TCB programs should enhance “the ability of policy makers, enterprises and civil society in developing countries” to establish a trade policy process that can set agendas and identify objectives; increase the volume and value, and diversify exports and export markets; and increase participation and benefits from the global trading system. Furthermore, the OECD found that TCB programs in developing countries must focus on acquiring the necessary knowledge, skills, and access to capital in order to develop competitive export markets.

The Doha Declaration, which spurred the latest round of WTO negotiations in 2001, recognized TCB as critical for developing countries to further their integration into the multilateral trading system. The Declaration, however, also recognized that no single donor country or agency could meet all the needs of every developing country interested in becoming more integrated into the global economy. For this reason, the Declaration noted that additional partners would have to be incorporated to assist WTO Member governments to provide TCB to all those who requested assistance.

Here in the United States, Congress has remained supportive of TCB programs, finding them to be “critical elements of development assistance because of their large multiplier effects on economic growth, poverty reduction and promotion of the rule of law.” In addition, Congress also trumpeted the ability of TCB programs to help developing countries participate in and benefit from the global economy, and to promote economic growth providing resources to support social investments and reduce dependency on foreign aid.

However, a 2006 Report by the U.S. House of Representatives Committee on Appropriations requested that USAID prioritize its budget to focus on the building of trading capacity in developing countries that have preferential or free trade agreements with the United States. In particular, the Committee asked USAID to focus on certain TCB programs such as those providing training for government officials including customs officers, environmental analysts, and food safety inspectors, as well as those programs intended to improve outreach to civil society and the private sector

From the period of 2001 through 2004, the GAO found that 18 separate Federal agencies in the United States reported expenditures of almost \$2.9 billion on TCB related activities. Of the 18 agencies, USAID reported providing the greatest amount of funding at 71 percent of total TCB expenditures. The GAO concluded in 2005, however, that the agencies were “not systematically monitoring or measuring the results of their trade capacity building activities or

evaluating its effectiveness in terms of building trade capacity.” In addition, the GAO found that the main challenge related to U.S. TCB programs is that they cover “multiple categories of assistance across numerous types of trade and development programs that have many goals and are implemented by multiple agencies.” Furthermore, in 2002 Congress made the following finding:

it has become apparent that USAID lacks a clearly defined, coherent, annual trade capacity building budget process aligned with key officials who are empowered to coordinate and approve agency programs. Increasingly, it is imperative that these programs be consistent and responsive to the demands of developing countries and other U.S. Government agencies. At present, the USAID is unable to effectively meet these demands.

Of the total amount of TCB funding allotted from 2001 through 2004, 12 percent went to programs supporting agricultural development. The GAO defined these activities as those that are intended “[t]o support trade-related aspects of agriculture and agribusiness, excluding WTO agreements.” Pursuant to USAID’s 2003 strategy entitled *Building Trade Capacity in the Developing World*, the agency is now focusing on ongoing programs aimed at helping countries participate in and implement free trade agreements and to take full advantage of trading opportunities. In conjunction with USAID, the U.S. Department of Agriculture has emphasized the promotion of scientific and rules-based regulatory frameworks for agricultural trade in its TCB efforts. This includes promoting increased understanding of biotechnology related agriculture and expanding trade in safe food products associated with biotechnology.

Finally, the Trade Act of 2002 specifically stated that the negotiating objectives of the U.S. should stress the strengthening of the capacity of U.S. trading partners to engage in bilateral trade and to protect the environment. In order to further this objective, the Office of the United States Trade Representative (USTR) has been coordinating TCB activities with USAID, other U.S. federal agencies, international and regional banks, and the private sector with the specific intent to further facilitate economic integration with Free Trade Agreement (FTAs) partners of the United States.

Changing Perceptions of Animal Welfare and Trade

Society as a whole and particularly consumers of animal products, have increasingly expected producers and governments to take into consideration the welfare of animals. This is evidenced by the World Animal Health Organization’s (OIE) development of strong animal welfare criteria and expectations for animal care. Recognizing that the WTO Sanitary and Phytosanitary Agreement did not address animal welfare, OIE Member Countries asked the organization to assist in the development of guidelines and recommendations that would help them to further international negotiations on the issue.

Following the initial push by its Members, the OIE convened a group of animal welfare experts whose ultimate recommendations on animal welfare were unanimously adopted by the Member Countries and resulted in the establishment of a permanent Working Group in late 2002. In particular, the OIE has focused on the welfare of animals in the agriculture and aquaculture

industries with specific attention paid to the issues of transportation, humane slaughter, and killing for the purpose of disease control for inclusion in the OIE *Terrestrial Animal Health Code*. As the Working Group continues its work on animal welfare, the OIE has remained vigilant in its effort to involve all relevant stakeholders and, therefore, has formed and maintained relationships with various non-governmental organizations, academia, researchers, and the food industry in order to ensure that best practices are taken into consideration.

In addition to OIE, other international lending organizations such as the International Finance Corporation (IFC) of the World Bank Group have supported increased animal welfare standards. The IFC, whose mission is to promote sustainable development in the private sectors of developing countries, promotes increased animal welfare as important to stem the suffering of animals. For commercial reasons, the IFC also acknowledges that higher welfare increases the sustainability of businesses and addresses society's expectations of how animals should be treated. In particular, the IFC found that high animal welfare standards can enable businesses to increase efficiency and profitability, meet consumer demands, and comply with domestic and international markets.

Individual countries are also passing legislation and writing regulations that address welfare concerns, and corporate policies are increasingly being enacted to provide structured guidelines on how animals are to be treated. For example, in 1997, the European Union passed a legally binding Protocol on Improved Animal Protection stipulating that animals are sentient beings, defined in Webster's Dictionary as "responsive to or conscious of sense impressions; finely sensitive in perception or feeling." Costa Rica has also created a law stating that each animal must have the "possibility of developing according to its normal patterns of behavior." This means that in Costa Rica pigs are to be kept in conditions that allow them to build a "nest" before giving birth, turn around in their pens, and generally engage in their natural behaviors. Furthermore, numerous countries around the world have regulations requiring humane slaughter of food animals.

Complementing the animal welfare initiatives taken on by these governments are several international corporations such as McDonald's that have put in place strict animal welfare standards to which their suppliers must adhere, and which are subject to audit. With respect to corporate participation in developing countries, the IFC has found that "many parts of the international food supply chain now have animal welfare assurance programs that are likely to influence large livestock producers in emerging markets."

Many of these changes have been consumer-driven through increased demand and a willingness to pay a premium for products from animals that were raised under humane conditions. Consumers have made it known that governments, corporations, and producers should raise their welfare standards. People are no longer as willing to accept minimum welfare standards and producer self-regulation as the *status quo* through increased consumer expectations for verifiable and transparent regulations and labels identifying humane products.

Numerous studies have shown that producers trained in animal welfare and behavior are likely to have greater profits than those who employ untrained workers. For example, cattle can discriminate between people who have treated them well and those who have treated them poorly. Indeed, dairy cows can recognize a person who has treated them poorly during milking resulting in a decrease in residual milk by 70 percent when that person is present. In addition, the IFC found that while increased animal welfare standards may raise production costs, these

costs may be recouped through the premium prices for which humane products are sold.

Many countries, industries, and producers, however, remain unaware just how much money they are losing due to poor animal welfare practices. For instance, slaughter plants often pay only for the weight of the carcass after all bruised portions have been removed. Unfortunately, many ranchers and producers still engage in handling and transport methods that cause bruising without realizing how much money they are losing due to the poor treatment of their animals. In the United States it has been estimated that bruising accounts for a loss of \$4.03 per carcass. In Costa Rica losses have been estimated at \$2.80 – \$5.00 per carcass.

In another example, a Brazilian supermarket conducted a survey of bruises at their supplying slaughterhouse and found 20 percent of the carcasses had bruises. After training producers in low stress handling, a few minor facility changes, and frequent auditing, the carcass bruise level dropped to 1.3 percent. Once the supermarket reduced the frequency of audits, however, the number of bruised carcasses jumped to 9 percent.

These are concrete examples of the economic benefits available to producers who raise their animal welfare standards. Industries and producers, however, require better information and training on handling, transport, slaughter techniques which can demonstrate the positive economic effects of humane practices. This is where TCB can provide the extra knowledge and training in best practices that yield the most humane and economically beneficial result.

Linking TCB and Animal Welfare

In many developed countries, animal welfare laws and regulations are often fairly advanced and complex. Common animal welfare issues in these countries include proper space allowances, maximizing genetic potential, and disposal of cull or spent animals. Although similar issues are also present in developing countries, they often occur at a much lower frequency. Instead, the welfare issues facing developing countries are far more basic, including access to clean water, veterinary care, adequate nutrition, and humane slaughter, to name a few.

In addition, developing countries also suffer from the limited access to reliable information regarding proper animal care. In developed countries a large percentage of producers, processors, food retailers, and consumers are aware of many of the issues affecting animal welfare. Discussions pertaining to animal welfare in developed countries have taken place on many stages: philosophical, political, economical, religious, environmental, educational, etc. However, it is often the case that no word exists in the local language to adequately describe what is meant by animal welfare, which often becomes an issue when developing countries enter into free trade agreement negotiations with developed countries that have a completely different vocabulary when it comes to this topic.

Increased market access in agriculture available through the completion of an FTA or new concessions at the WTO create new opportunities for developing countries to increase agrobusiness efficiency. Greater efficiency, which can be helped along by TCB, ultimately frees up capital and labor to move toward production of non-traditional exports resulting in increased wealth. In order to take advantage of these opportunities in primary commodity production, however, developing countries must devise long-term diversified strategies, which are supported by the international community through TCB programs.

TCB, however, does not always provide an immediate panacea when implemented in conjunction with an FTA. In some cases, TCB can provide almost immediate entrance into international markets. For others, a great deal of time, funding, and effort with TCB is required. For example, some slaughter plants in Central America which have been working with HSI are now exporting to the U.S. only months after the conclusion of the DR-CAFTA agreement, easily meeting U.S. health and safety standards. Others, however, will require a more considerable period of time before they can comply with USDA and other developed country food regulations that will allow exports to increase.

For those industries or sectors that require extended TCB, market opportunities still exist that can be developed before they are ready to export. Supplying local purchasers has the potential to assist producers and industries in their survival as reduced tariff barriers are phased in following implementation of an FTA. In one example, as the tourism industry continues to expand throughout Central America, there is a growing trend for upscale restaurants and hotels attracting visitors that expect certain types of products. Local producers may be able to provide local hotels and stores with niche products that are produced using humane production methods.

Effective trade capacity building also requires a great deal of strategic planning. Although several developed countries and organizations have attempted to assist various food production industries in Latin America with much needed services or technology, often the aid given was not suited to the environment in which it was placed. For example, many slaughterhouses in Central America have received brand-new equipment and technology through donations that either goes unused or is employed for an unintended purpose. In particular, one slaughter house has a brand new swine de-hairing machine that is used to hold water to wash the floors because there is no electricity to run the machine, and other mechanical equipment serves as a coat rack because replacement parts were too expensive to import. Those providing TCB, therefore, must provide information and technology that is understandable, usable, and relevant to the knowledge and resources of the receiving party.

HSI's Experience with TCB

Much of the work that HSI engages in as part of our TCB programs in Central America is to bring to the countries information and expertise to assist them in complying with potential export markets regulations. HSI's sustainable agriculture TCB programs center on partnerships with local organizations and are intended to educate and train food industries in humane methods of production, transport, and slaughter.

After working with many of these industries for three years, it is evident that they realize the economic advantage to be gained through the incorporation of high welfare standards into their production activities. Indeed, they recognize that improving animal welfare is one step toward achieving compliance with the health and safety regulations of developed countries, which is a requirement under FTAs with the United States. In addition, producers that operate in some of their country's most vulnerable industries have also acknowledged the potential of increased animal welfare to help them not only survive following the implementation of an FTA with the U.S., but to compete in international markets by tapping into both traditional and more lucrative growing niche markets.

Currently, HSI operates a two-prong approach to TCB. First, we assist producers in developing a greater understanding of the economic benefits of animal welfare through practical hands-on technical assistance. HSI believes that providing hands-on technical assistance is a powerful method to further advance and sustain high animal welfare standards. For this reason, HSI staff travels extensively to the region visiting farms, slaughter plants, and auction houses in order to reach as many producers as possible providing practical information and techniques through hands-on demonstrations. HSI staff works with the existing facilities and animals to train people how to recognize, implement, and monitor Good Welfare Practices. Our technical assistance programs may include a full or partial assessment of current practices followed by an oral and/or written report with recommendations.

In order to better accomplish the goals of our technical assistance programs in Central America, HSI has partnered with Bristol University's Animal Welfare Training Team to provide a three-year, bi-annual training program on red meat slaughter. Participants in these courses represent all sectors of the red meat industry, including producers, auction houses, slaughter plants, universities, retailers, government, and veterinarians. At the conclusion of the three-year program, participants who have completed every training session will be asked to join a national welfare team. This team will be challenged with improving the welfare of food animals by assisting in the creation and enforcement of national laws, corporate policy, and various advisory positions. Currently, HSI and Bristol University are conducting courses in Costa Rica and Nicaragua, as well as one Central American regional course.

Second, HSI partners with local organizations including industry associations, corporations, universities, governments and other Non-Governmental Organizations to build trade capacity and provide better information on animal welfare through research, presentations, brochures, and posters. One example of our ongoing work is a partnership with the Costa Rican beef association, CORFOGA, which has completed three carcass studies to assess how much money the industry, individual producers, and, thus, the entire country is losing due to poor production, handling, and transport practices. The knowledge that hitting an animal can cost a producer several dollars per carcass has persuaded the entire industry to examine how it can reduce the number of bruises and injuries on individual animals. An auction in Costa Rica is also working closely with HSI to update its facilities, train employees, develop Good Welfare Practices and a monitoring system, and educate their clients on humane animal handling and transport. Furthermore, Universities in the region have begun to incorporate the lessons of the carcass study into their animal science and veterinary courses, and government positions are being created to oversee animal welfare.

In El Salvador, a lack of information about food safety, meat quality, and animal welfare has had a negative impact on the manner in which pigs are slaughtered. For the slaughterhouse managers and workers, the goal is simply to kill the pig. It makes no difference if the pig dies from exsanguination, drowning in blood, or any other means. HSI has worked with the pork industry in El Salvador to improve the condition of slaughter in order to meet USDA and EU requirements for export. In addition, HSI has brought information to El Salvador that is critical to converting slaughterhouses so that they can begin to pass an animal welfare audit and begin exporting their product to the other members of the DR-CAFTA.

Conclusion

The negotiation of free trade agreements between the United States and Central and South American countries has resulted in a need for Trade Capacity Building in these countries to improve their health and safety standards related to animal products. For the past three years, HSI has worked in Central America to build the capacity of developing countries to better compete domestically, regionally, and in the global economy by adopting high animal welfare standards. In particular, HSI has worked with partners in all facets of the livestock industry on projects that seek to improve animal handling, transport and slaughter. Through technical assistance and knowledge sharing programs, HSI has been able to demonstrate the positive impact high animal welfare can have on the bottom line for ranchers and producers, including increased production and their ability to meet local industry standards, as well as increasing their access to global growing niche export markets for humane products.

HSI's work in Central America on improving animal welfare standards is one of the many technical assistance programs necessary for developing countries to take advantage of the benefits that free trade agreements can bring to agricultural producers in these countries. Given the ever increasing links between animal welfare and international trade, it is important to both continue working on TCB related animal welfare in developing countries, and for the U.S. government and international organizations and multilateral banks to commit to long term funding of animal welfare related Trade Capacity Building.

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Panel: Animal Welfare as a Trade Issue

European Point of View

Michael Appleby, Welfare Policy Advisor
World Society for the Protection of Animals
London, UK

In 2005, a Eurobarometer survey carried out across the European Union (EU) confirmed that a large majority of Europeans is strongly concerned about the welfare of farm animals. So the EU has stated – including in submissions to the World Trade Organization (WTO) – that it aims to ensure that trade liberalisation does not undermine EU efforts to improve the welfare of animals. Animal welfare organizations including the World Society for the Protection of Animals stress that such undermining is possible if reducing trade barriers leads to import of products from animals kept in conditions that would be unacceptable in Europe.

One possible defense is classification of certain vulnerable goods, such as dried eggs, as Sensitive Products. Some payments relevant to welfare are categorized in the Green Box, with no expectation that WTO negotiations will require them to be reduced, because they are non-trade-distorting. These include payments within Europe, such as for veterinary training under the Rural Development Programme. They also include support for trade related assistance and capacity building in other countries, for example to improve slaughter conditions to meet humane and hygienic standards necessary for export to the EU. This is in the context of other stated aims of the EU such as development: the EU imports considerable quantities of agricultural goods from Developing Countries.

Furthermore, welfare organizations point out that improvements in welfare provide opportunities for trade, not just obstacles, for example in growing markets for organic and high-welfare foods. All these policies are also being pursued in bilateral agreements, such as that between the EU and Chile, and they are reiterated in the Animal Welfare Action Plan agreed by the European Commission in 2006. The Action Plan also emphasizes collaboration with intergovernmental organizations such as the World Organization for Animal Health (OIE) and the standards agreed by OIE's 167 member countries for humane slaughter and transport.

Disease Transfer Potential: Impact on Animal Husbandry and International Trade

Ron DeHaven, Administrator
USDA, Animal and Plant Health Inspection Service
Washington, DC

See Power Point Presentation

Economics and Animal Welfare: Could these Forces Combine to Move Intensive Animal Production Outside the USA?

W. R. Stricklin
Department of Animal Sciences
University of Maryland

Overview

Animal welfare is intricately and inevitably tied to economics. The economic worth of an animal absolutely affects the care and treatment it is likely to receive. As an example, Barbaro, the 2006 Kentucky Derby winner and potentially a very valuable breeding stallion, had many thousands of dollars spent on his treatment and care after his leg was broken in the Preakness race. Whereas, a spent laying hen with a broken leg is typically killed and composted on the farm because her economic worth amounts to only pennies. Basically all other trade and economic forces, especially the cost of labor, can influence how and by whom animal care is provided. As a consequence, free and open international market forces may combine to dictate the region of the world where future confinement animal agriculture systems will be located. Specifically, confinement animal agriculture may tend to move outside the USA to regions of the world where labor costs for animal care and food processing are much lower – and environmental and animal welfare expectations are less defined and/or enforced.

General Relationship Between Economics and Animal Welfare

Today, American consumers spend approximately 10% of each dollar for food, the least of any people in the world. This comes about primarily because the various animal production systems (beef, pork, poultry, dairy, etc.) compete within and among each other for the same consumer dollar. Consequently, market forces tend to drive the costs of production to a minimum which then contributes to keeping food prices low. I previously discussed (Stricklin, 2005) the general relationship between welfare and economics, and a brief overview follows.

It can be argued that relying solely on market forces to dictate food prices places human interests (food) over possible animal suffering, environmental interests, etc. In short, keeping food costs at an absolute minimum drives the “ethical equation” strictly toward a human interest – cheap food. Fortunately, in an open society, forces other than economics alone have some influence on the welfare of animals. Legislation, policy, trade laws, conscientious consumer patterns, marketing strategy (as in standards by international chain restaurants), and animal-owner behavior based on societally acceptable ethical norms and traditions all can influence the manner in which food animals are raised, housed, transported, and slaughtered.

American animal agriculture remains diverse in size of operation, type of housing, etc., but both the number and percentage of food animals housed in large scale-intensive operations continues to increase. Intensive confinement systems can have both positive and negative aspects in terms of animal welfare and environmental impact. Better health care, control of waste, predator and insect pest avoidance are examples of positive welfare aspects of confinement systems. The negative aspects include 1) restrictions on movement and behavior, 2) crowding, 3) very large group sizes, 4) housing in crates, cages or stalls, etc. And the move

toward large scale intensive systems has resulted in some dramatic shifts. As an example, data from 1990 to 2000 are presented in Figure 1 that demonstrate changes in the dairy industry including 1) more milk produced per individual cow, 2) fewer total cows in production, 3) more total volume of milk produced, and 4) fewer total dairy farmers.

Concomitant with the move toward – or maybe a driving force toward - intensive confinement systems has been an increase in the implementation of technology in animal production. Chemical technology and/or artificial selection have been used to produce more rapid growth and/or greater rates of milk and egg production. Additionally, automated mechanical technology is commonly used in many ways, especially in feeding animals. In short, increased technology on the farm has replaced labor and helped drive systems toward animal confinement and larger production sizes (Stricklin and Swanson, 1993). Because of the increased use of technology during the past Century, the overall decrease in farm labor has been quite dramatic (Figure 2). And today, procedures such as castration, dehorning, needle teeth clipping, beak-trimming are also very much welfare issues and these labor intensive practices are increasing done by workers who have immigrated to the USA and work at low wage levels.

Overall, the public is increasingly asking for assurance that farm animals experience a reasonable quality of life, and this is especially true for persons in Northern European countries. I think an argument can be made that public opinions, both inside and outside the USA, matter because the world continues to be moving rapidly toward a global economy. As an example of public opinion of Europeans affecting North American animal production, one only has to look at the implementation of welfare standards of the international chain restaurants. International concerns that market a “welfare friendly” hamburger in London face considerable pressure to have the same standards for animals they purchase in the USA or else be faced with the charge of being insincere in their actions.

Animal Welfare Legislation and International Trade

When one considers animal welfare on a global basis, the relationship of welfare to economics becomes very complex. This is due largely to the economic aspects of trade, but is also influenced by human values that differ in various parts of the world – as was mentioned above. Northern Europeans consider appropriate animal welfare to be inclusive of natural conditions for the animals; whereas, Americans tend to emphasize physiological stress, health, and disease status as the most important welfare measures of animal well-being. At times European and American scientists each charge the other with not being “scientific” when in fact the debate is based largely on different human values – not different scientific information. Americans tend to value greater control over animal health and sanitation, lower food prices, etc.; whereas, the northern Europeans tend to give greater value to the “naturalness” of both animal housing and the final food product. These different values have contributed to differing approaches to dealing with animal welfare. The European Union (EU) has adopted welfare laws and the USA has not. Europeans also express greater concern over genetically modified organisms (GMO’s) than do Americans, including concerns about the possible impact on animal welfare. As the world moves toward a global economy, these differences in human values – and those in other parts of the world – will have increasing importance on trade negotiations and agreements.

Within the EU some countries have adopted additional, more stringent, welfare legislation. In such instances producers need either protection or compensation, if they are not to be undercut

by producers operating in countries with lower or no standards. Such trade restrictions can be – and are - viewed as protectionism and ultimately will need to be agreed to by a world body such as the World Trade Organisation (WTO). To date the World Court has ruled that animal welfare is not a basis for refusing importation of animal products. However, the topic continues to be raised in trade negotiations and countries with animal welfare standards are likely to push for a universal world standard on animal welfare – and changes in WTO rules.

Europe imports a considerable amount of poultry from Brazil and Southeast Asian countries, especially Thailand. These countries have no animal welfare standards, which of course places European producers at a disadvantage, and increases the pressure to impose a global welfare standard. Even among EU countries, trade and animal welfare can have complex relations. Sweden banned traditional battery cages for hens, and some Swedish producers sold their cages to producers in Finland. At one time, Sweden was importing eggs produced in the same cages that had been banned internally, with Swedish egg producers not pleased with the outcome. This demonstrates that unilateral legislation alone does not always initially improve animal welfare globally especially when international trade is void of animal welfare standards. Legislation aimed at improved welfare paired with free trade can even have a paradoxical effect of initially bringing on more stressful conditions for animals. As an example, when Britain was phasing out the use of veal crates, some calves were shipped across to The Netherlands, even to Italy, and fed out in traditional crates. Therefore, the legislation initially did not improve the welfare of veal calves; instead, it brought on additional stress through long distance transport and simply shifted the location of veal crate production systems to another country. Lack of global standards could drive animal production to those countries without standards or to countries where enforcement is less rigorous.

North American and European developed countries could also face the possibility of a shift toward greater importation of animal food products – because of the current labor costs associated with processing and packaging food. Only 23% of the USA food dollar goes to the farm, and the biggest added cost - over 38 % - is for labor associated with processing (Figure 3). Furniture and paper production are shifting to China with the raw materials - logs and pulp - shipped from the USA across the Pacific and the finished products shipped back for sale in the USA. This is possible because of much lower labor costs in China.

Today, grain and soybean products are shipped from North and South America to Southeast Asia, fed to livestock and the food products sold in Hong Kong, Taiwan, Singapore, and Japan. Some of these operations are very large production units. Similarly, China is rapidly expanding the number of large animal units. As economic development occurs within these regions, it is likely that consumption of animal products will increase which typically follows in a society experiencing economic development. But, these regions may also increase their export of processed animal food products. The lower labor costs associated with production and processing animal food products in Asia, combined with different environmental and welfare standards, could potentially shift a considerable amount of American animal agriculture outside this country. Thus, addressing welfare and environmental standards within the USA and acting as a serious participant in international negotiations are important to ensuring both appropriate animal treatment and a sound future for American animal agriculture.

And as a final example of some current international trends having to do with animal care, the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) somewhat recently changed its name to AAALAC International. This change came about in part as a result of at least a few groups that conduct animal research, shifting their animal activities to countries

such as the Philippines where animal caretakers and technicians can be employed at wages considerably lower than those in Europe and North America. As of July 2006, the AAALAC International web site (<http://www.aaalac.org/>) listed 61 accredited programs in 24 countries (of 670 total accredited programs). Animal agriculture today uses a large amount of immigrant labor. Thus, it is maybe not appropriate to suggest that a direct comparison can be made in the trends for animal care in research and food animals. But ultimately, open and free international trade will likely tend to also drive food animal production systems to locate where labor is cheapest - and to countries where environmental and animal welfare restrictions are the least costly.

Summary and Conclusion

Many traditional North American manufacturing and processing enterprises have already moved to “offshore” locations. Similarly, cheap labor, combined with less rigorous environmental and/or animal welfare standards could combine to result in a major migration of confinement animal production systems to locations outside North America. Such a migration of production systems to other regions of the world may not be in the long-term best interests of animal producers, animal protection advocates, USA consumers/citizens, or the animals themselves. Therefore, it is in the best interests of all parties impacted for North American animal agriculture leaders and animal protection leaders and activists to focus attention on finding and implementing the most sustainable animal agriculture systems domestically.

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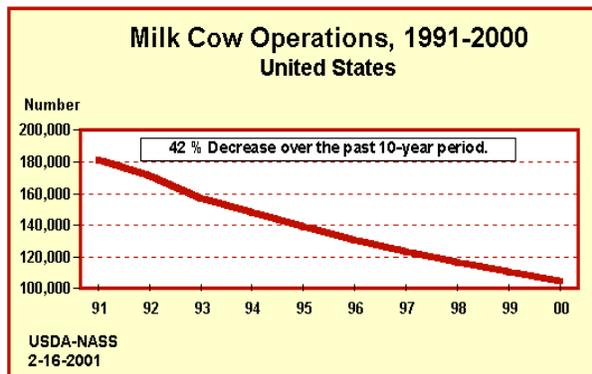
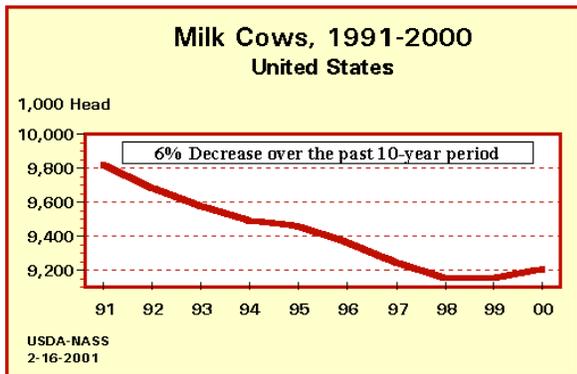
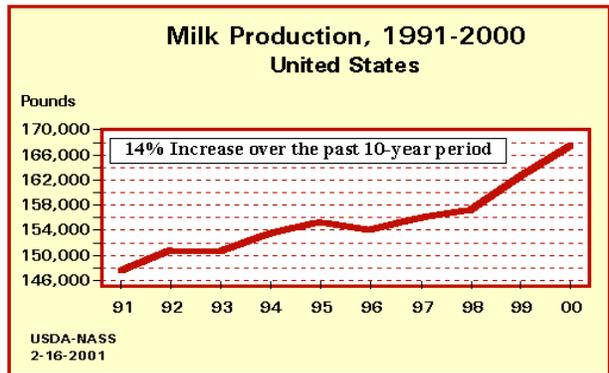
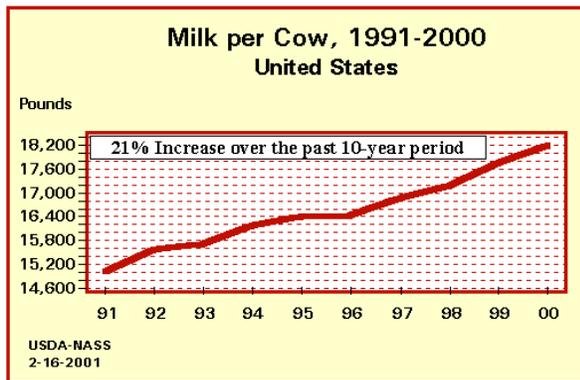


Figure 1. The above graphed data indicate that from 1990 to 2000, a) milk per cow increased 21%, b) the number of milk cows decreased 6%, c) total milk produced increase 14%, and d) the number of milk operations (farms) decreased 42%.

http://www.usda.gov/nass/aggraphs/fl_typwk.htm

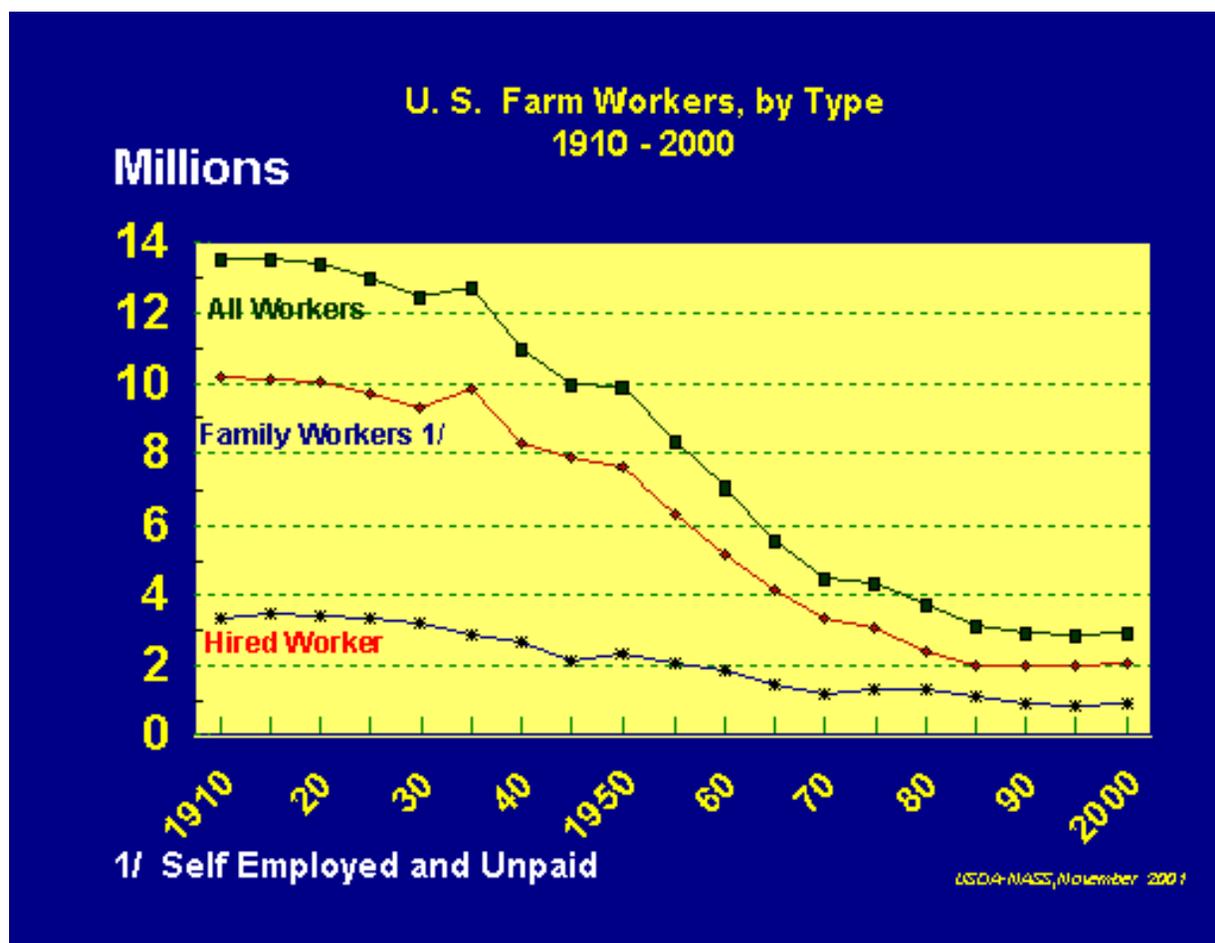


Figure 2. The number of Farm Workers has declined dramatically during the 20th Century.
http://www.usda.gov/nass/aggraphs/fl_typwk.htm

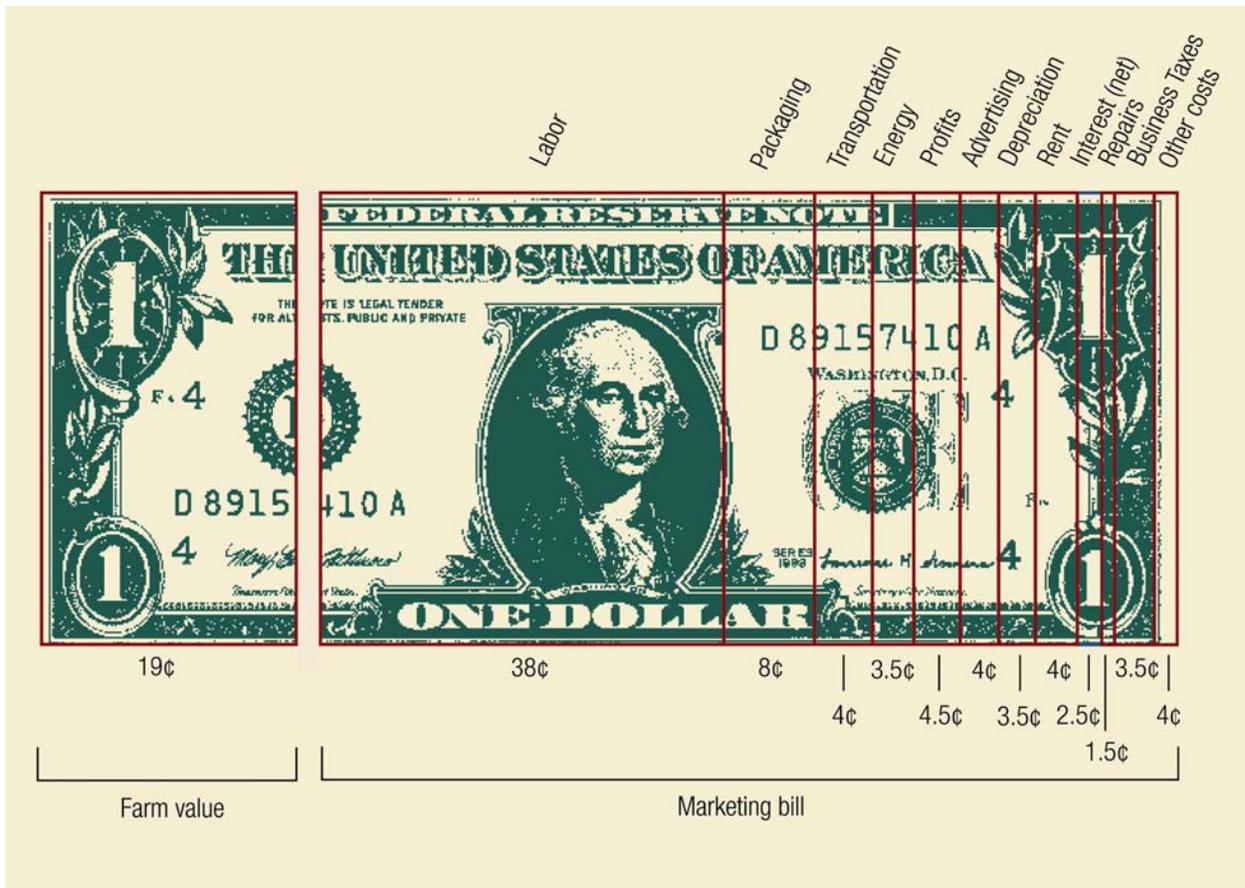


Figure 3. Only 23 cents of each dollar spent on food goes to the farm and the remainder is associated with processing and marketing (USDA, 2002). The cost of labor is the biggest part of the total food marketing bill, accounting for nearly half of all marketing costs.

<http://www.usda.gov/factbook/2002factbook.pdf>

How must or should the USA address trade and animal welfare issues?

Industry Point of View

Greg Doud, Chief Economist
National Cattlemen's Beef Association

How must or should the USA address trade and animal welfare issues?

Advocacy Group Point of View

Marlene Halverson, Farm Animal Economics Advisor
Animal Welfare Institute

See Power Point Presentation

Appendix A

Program and Speaker Contact Information

- Moderator: Richard Reynnells, National Program Leader
Animal Production Systems
USDA Cooperative State Research, Education, and Extension Service,
Plant and Animal Systems
800 9th Street, SW, Room 3140 Waterfront Centre
Washington, DC 20250-2220
T#: 202.401.5352
F#: 202.401.6156
Email: rreynells@csrees.usda.gov
- 8:30 - 8:35 **Introductory Comments**
Richard Reynnells
USDA/CSREES/PAS
- 8:35 - 8:45 **Welcome**
Charles Conner, Deputy Secretary
US Department of Agriculture
Washington, DC
- 8:45 - 9:15 **Current Critical Issues in International Trade**
David Blandford
Professor of Agricultural Economics
Department of Agricultural Economics and Rural Sociology
The Pennsylvania State University
University Park, PA 16802-5600
Tel: 1-814-863-8648
Fax: 1-814-865-3746
Email: dblandford@psu.edu
Website: <http://dblandford.aers.psu.edu>
- 9:15 - 9:45 **Canadian Experience: Keys to Successful Cooperation between Diverse Groups**
Susan Church, Manager
Alberta Farm Animal Care
Cambrian PO Box 75028
Calgary, Alberta, T2K 6J8
Canada
T#: 403.932.8050
F#: 403.932.8052
Email: info@afac.ab.ca
www.afac.ab.ca
- 9:45 - 10:00 BREAK

10:00 - 12:00

Panel: Animal Welfare as a Trade Issue

1. Michael David, Director
National Center for Import and Export
Sanitary International Standards Team Veterinary Services
4700 River Rd Unit 33
Riverdale, MD 20737
T#: 301-734-5324
F#: 301-734-8818
Email: michael.j.david@aphis.usda.gov
usa.oie@aphis.usda.gov
2. Lori Mitchell, Economist
Foreign Demand and Competition Branch
USDA, Economic Research Service
1800 M Street, NW, Room N5168
Washington, DC 20036
T#: 202.694.5234
F#: 202.694.5795
Email: lmitchel@ers.usda.gov
3. Kay Johnson, Executive Vice President
Animal Agriculture Alliance
1501 Wilson Boulevard, Suite 1100
Arlington, Virginia 22209
T#: 703.562.5160
F#: 703.524.1921
email: kjohnson@animalagalliance.org
4. Marta Prado, Special Counsel for International Trade Policy
Humane Society of the United States/Humane Society
International
2100 L Street, NW
Washington, DC 20037
T#: 202.293.5105
F#: 202.293.5109
Email: mprado@hsus.org
5. Michael Appleby, Trade Policy Manager
World Society for the Protection of Animals
Eurogroup for Animal Welfare and RSPCA
89 Albert Embankment
London, SE1 7TP, UK
T#: Switchboard +44 (0) 207.587.5000
T#: Direct +44 (0) 207.840.6243
F#: +44 (0) 207. 793.0208
Email: michaelappleby@wspa.org.uk
6. Discussion

12:00 - 1:30

LUNCH (on your own)

Moderator:

David Brubaker
Agri-business Consultant
145 South Spruce Street
Lititz, PA 17543
T#: 717.627.0410
F#: 717.627.1847
Email: PennsylvaniaB@aol.com

1:30 - 2:15

Disease Transfer Potential: Impact on Animal Husbandry and International Trade

Ron DeHaven, Administrator
USDA, Animal and Plant Health Inspection Service
1400 Independence Avenue SW
Room 312E Whitten Building
Washington, DC 20250
T#: 202.720.3861
F#: 202.720.3054
Email: Ron.DeHaven@aphis.usda.gov

2:15 - 2:45

Economics and Animal Welfare Implications of Moving Animal Production Outside the USA

Ray Stricklin, Professor
Animal and Avian Sciences Department
1413A AnSc/AgEng Building
University of Maryland
College Park, MD 29742-2311
T#: 301.405.1382
F#: 301.314.9059
Email: wrstrick@umd.edu

2:45 - 3:00

BREAK

3:00 - 3:30

How must or should the USA address trade and animal welfare issues?

Greg Doud, Chief Economist
National Cattlemen's Beef Association
1301 Pennsylvania Avenue NW, Suite 300
Washington, DC 20004
T#: 202.347.0228 E137
F#: 202.638.0607
Email: gdoud@beef.org

Marlene Halverson, Farm Animal Economics Advisor
Animal Welfare Institute
P. O. Box 286
Northfield, Minnesota 55057
T#: 507.645.8434
F#: 507.664.9448
Email: rexxie1@aol.com

3:30 - 3:55

Open Response, Audience Sign-Up

3:55 - 4:00

Summary

Ray Stricklin, Professor
Animal and Avian Sciences Department
1413A AnSc/AgEng Building
University of Maryland
College Park, MD 29742-2311
T#: 301.405.1382
F#: 301.314.9059
Email: wrstrick@umd.edu

Appendix B

2006 List of Co-Coordinator

Kay Johnson, Executive Vice President
Animal Agriculture Alliance
1501 Wilson Boulevard, Suite 1100
Arlington, Virginia 22209
T#: 703.562.5160
F#: 703.524.1921
Email: kjohnson@animalagalliance.org

David Brubaker
Agri-business Consultant
145 South Spruce Street
Lititz, PA 17543
T#: 717.627.0410
F#: 717.627.1847
Email: PennsylvaniaB@aol.com

Ken Klippen
Poultry Industry Consultant
Klippen and Associates
P. O. Box 7156
Audubon, PA 19407-7156
T#: 610.415.1055
Tcell#: 484.744.3851
F#:
Email: ken@klippenassociates.com

Richard Wood, Executive Director
Food Animal Concerns Trust
P. O. Box 14599
Chicago, IL 60614
T#: 773.525.4952
F#: 773.525.5226
Email: rrwood@fact.cc

Richard Reynnells, National Program Leader
Animal Production Systems
USDA Cooperative State Research, Education, and Extension Service, Plant and Animal
Systems
800 9th Street, SW, Room 3140 Waterfront Centre
Washington, DC 20250-2220
T#: 202.401.5352
F#: 202.401.6156
Email: rreynnells@csrees.usda.gov

Appendix C

Power Point Presentations

Panel: Animal Welfare as a Trade Issue

[Current Critical Issues in Agricultural Trade](#)

David Blandford, Professor
Pennsylvania State University

[Canadian Experience: Keys to Successful Cooperation Between Diverse Groups](#)

Susan Church, Manager
Alberta Farm Animal Care, Canada

[The World Organization for Animal Health \(OIE\) and Animal Welfare](#)

Michael David, Director, National Center for Import and Export
USDA, Animal and Plant Health Inspection Service

[Animal Welfare Regulations and International Trade](#)

Lori Mitchell, Economist
USDA, Economic Research Service

[Animal Welfare as a Trade Issue: Agriculture's Concerns](#)

Kay Johnson, Executive Vice President
Animal Agriculture Alliance

[Animal Welfare and Trade Capacity Building](#)

Marta Prado, Special Council for International Trade Policy
Humane Society of the US

[Animal Welfare as a Trade Issue: European Point of View](#)

Michael Appleby, Welfare Policy Advisor
World Society for the Protection of Animals

[Disease Transfer Potential: Impact on Animal Husbandry and International Trade](#)

Ron DeHaven, Administrator
USDA, Animal and Plant Health Inspection Service

[Economics and Animal Welfare Implications of Moving Animal Production Outside the USA](#)

Ray Stricklin, Professor
University of Maryland

[How Must or Should the USA Address Trade and Animal Welfare Issues?](#)

Marlene Halverson, Farm Animal Economics Advisor
Animal Welfare Institute

CURRENT CRITICAL ISSUES IN AGRICULTURAL TRADE

Addressing International Trade Complexities of
Animal Welfare

Washington, DC

September 20, 2006

David Blandford
Penn State University

The Issues Covered

- Implications of the suspension (collapse?) of the Doha Round of WTO negotiations
- The WTO and animal welfare issues

Collapse of the Doha Round

- Ambitious objectives for agriculture
 - Improved market access
 - Phase-out of export subsidies
 - Reductions in trade-distorting domestic support
- Is the Round dead and buried?
- What does the collapse of the negotiations imply?

Existing WTO provisions continue to apply

- Maximum bound tariffs and TRQs
- Value and volume limitations on export subsidies
- Maximum bound levels of trade-distorting domestic support (aggregate measure of support - AMS)
- Other conditions in the Agreement on Agriculture, e.g., Green Box
- Other agreements, e.g., SPS, TBT

Domestic support – some facts

- Total AMS averaged \$78 billion (1998-2000)
- 43 percent was for meat and livestock products
- Does not include all support – *de minimis*, Blue and Green Box not counted
- Many countries could legally increase trade-distorting subsidies

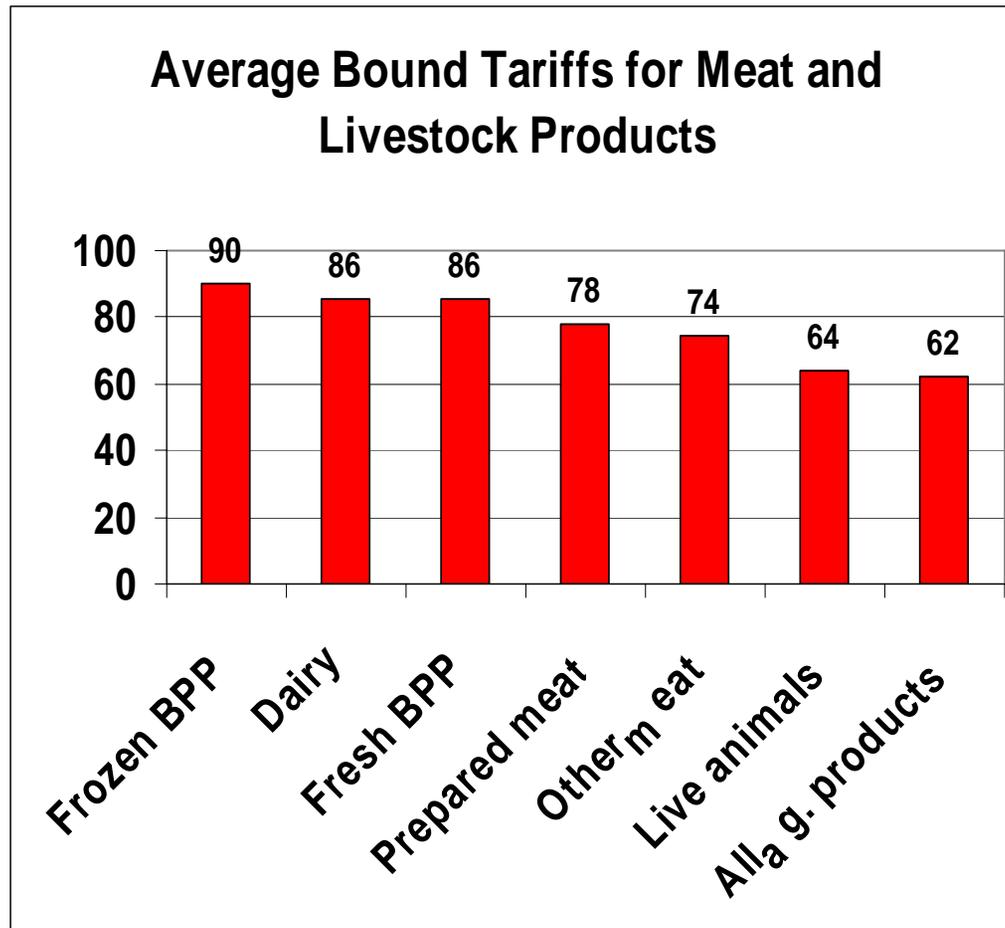
Export subsidies – some facts

- Average \$5.2 billion per year (1995-2002)
- 89 percent by the European Union
- 58 percent of subsidy expenditure on meat and livestock products
- In 2002/3 EU used roughly half of its meat and livestock product subsidy “entitlement” (value)

Market access – some facts

- Meat and livestock products have some of the highest bound tariffs

Market access – some factors



BPP = Beef, Pork and Poultry

Market access – some facts

- Meat and livestock products have some of the highest bound tariffs
- Mega tariffs >100 percent are common
- TRQs are common

Current situation – the bottom line

- Allowable protection for meat and livestock products is high (tariffs, export subsidies, domestic subsidies) and could be increased
- Protection could constrain import growth in dynamic markets (e.g., middle income countries)
- Trade disputes could increase (e.g., cotton case)

Trade and Animal Welfare Issues

- Higher animal welfare standards may affect production costs and the competitive position of livestock producers
- Trade issues result from “non-conforming” products
- How is this issue handled in the WTO?

Trade and Animal Welfare - the WTO

- No specific rules on Animal Welfare in GATT/WTO agreements
- Basic principles are equality of treatment and non-discrimination
- SPS agreement gives greater role to World Organization for Animal Health (OIE) in developing standards
- TBT agreement deals with the application of product standards

Trade and Animal Welfare - Standards

- OIE members have adopted four sets of standards covering transport and slaughter of animals (2005)
- Recognize the role of both scientific assessment and value-based judgments
- Focus on performance criteria of production systems rather than design criteria
- Complicated issues, relating to husbandry practices, still to be addressed
- May be difficult to satisfy all countries

Trade and Animal Welfare - Labeling

- TBT requires equality of treatment of “like products”
- Are meat and livestock products from systems with differing welfare standards “like products”?
- Would mandatory labeling for imports be legal?

Trade Issues – Final Remarks

- Collapse of Doha negotiations will slow the movement towards freer trade in agriculture
- There is likely to be proliferation of trade disputes
- Tensions of methods of production (e.g., animal welfare) are likely to increase
- Government actions and private sector requirements likely to become more significant for meat and livestock trade

CURRENT CRITICAL ISSUES IN AGRICULTURAL TRADE

Addressing International Trade Complexities of
Animal Welfare

Washington, DC

September 20, 2006

David Blandford
Penn State University

2006 Future Trends in Animal Agriculture

Advancing Farm Animal Welfare
and the
Canadian Experience

*Successful Cooperation
amongst
Diverse Groups*



Above the 49th



Above the 49th

- #1. The laws & how they are enforced
- #2. Recommended Codes of Practice
- #3. Four farm animal care industry groups
- #4. National Farm Animal Care Council

Above the 49th

Kevin Grier, George Morris Centre

Cattle and Beef Sales

USDA's Agricultural Outlook Forum (Oct 05)



Cattle →

↓ Beef

Above the 49th



Canada's Four Cornerstones

#1. The laws & how they are enforced



The Laws

Prevention of Cruelty to Animals

- Animal Protection Acts / Criminal Code

Humane Handling & Slaughter of Food Animals



The Laws

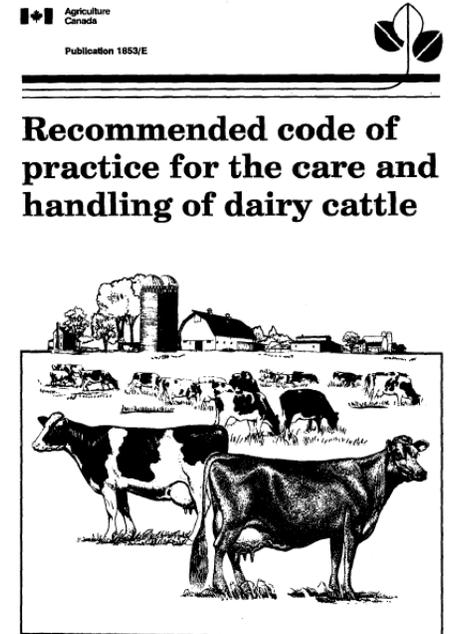
Humane Transportation of Animals



Canada's Four Cornerstones

#2. Recommended codes of practice for the care & handling of farm animals

- Conceived in late '70s
- Researchers, veterinarians, industry leaders & humane societies



Codes of Practice

- Currently under review
- Current science
- Standards worldwide
- Flexible, animal-based standards
- Benefits



Canada's Four Cornerstones

#3. Four farm animal care groups

- Ontario Farm Animal Council
- Manitoba Farm Animal Council
- Farm Animal Council of Saskatchewan
- Alberta Farm Animal Care
- ✓ Industry-driven



Four Farm Animal Care Groups

- ✓ Information sharing
- ✓ Understanding of provincial industries
- ✓ Coordinated efforts & response
- ✓ Joint consumer messaging
- ✓ Keeping the industry in front of issues
- ✓ Securing funds
- ✓ Peer pressure for continuous improvement

Alberta Farm Animal Care

Partnership of Alberta's livestock

GROUPS
AFAC'S mandate

- ✓ **Advancing** responsible animal care
- ✓ Engage in discussion with **public**
- ✓ Monitor **issues & legislation**
- ✓ Encourage **research**



The screenshot shows the AFAC website homepage with the following content:

- Navigation menu: [home](#) | [contact us](#) | [about AFAC](#) | [programs & services](#) | [industry links](#) | [site map](#)
- Header: **animal care** (in large, light blue letters)
- Tagline: **The livestock industry working together for responsible animal care.**
- AFAC Logo: **AFAC ALBERTA FARM ANIMAL CARE**
- NEW section:
 - Livestock Care Conference
 - Awards of Distinction
 - Animal Protection Act
 - T. Grandin DVDs
 - The 'Real' Dirt on Farming
- Image: A pig lying on straw bedding.
- PUBLICATIONS section:
 - INSIGHTS
 - Updates
- MEDIA section
- Livestock Care ALERT Line: **1.800.506.2273** (Action Line & Resource Team)
- Image: A red livestock transport truck.
- Livestock Transport section
- Search bar: **search:** [input field]
- Footer: Site funding provided by ALIDF

Working Together

Alberta Livestock Protection System (ALPS)

- ✓ Alberta Agriculture (gov't)
- ✓ AFAC
- ✓ Alberta SPCA
- ✓ CFIA

Dealing with Problems



Dealing with Problems

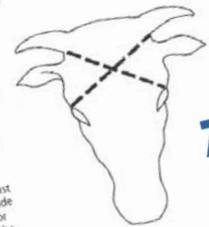
Barriers to Euthanasia

- Faint hope
- Personal repugnance (shirking)
- Ignorance of situation
- Lack of empowerment
- Deficit of equipment or training
- Lots on How to →
- Problem: when, why, who

HUMANE EUTHANASIA OF FARM ANIMALS

By Roy Lewis DVM, Westlock, Alberta

Feb. 2005... With the advent of the recent BSE sampling program a lot of older cows and bulls will be put down on farms across Western Canada. This article will outline acceptable practices which are humane and I will discuss the advantages and disadvantages of each method. Euthanasia is defined in Webster's dictionary as "the intentional causing of a painless and easy death to a patient suffering from an incurable or painful disease." You must assimilate this information and decide which euthanasia method is best for your farm. This information should be shared with your veterinarian as well. It is important for farmers to rec-

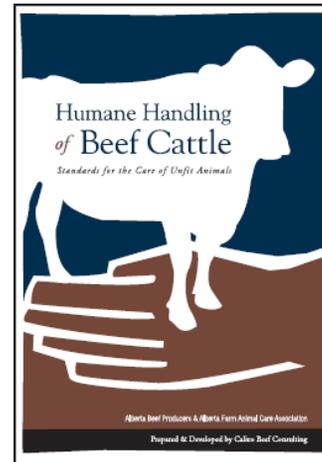
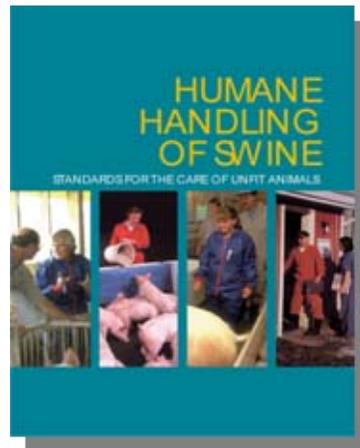
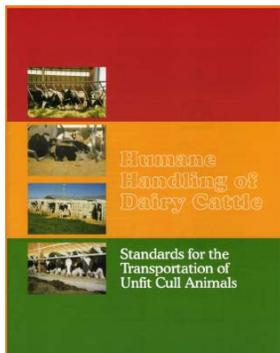


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Industry Action

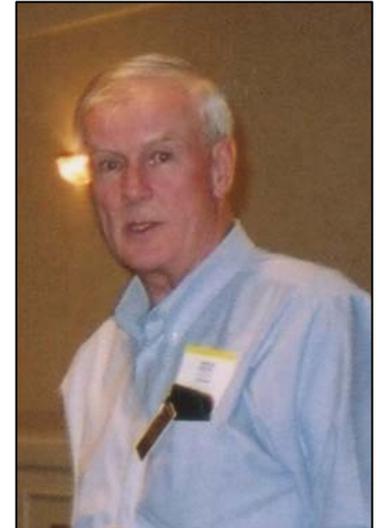
Industry Humane Handling Guidelines





Industry-Driven Change

ALERT



LIVESTOCK CARE

ALERT

Call if you have livestock care concerns

1-800-506-2273

afac.ab.ca

Supported by Alberta's Livestock Industry



Industry-Driven Change

- Benefits of Good Handling
- Calm animals
- Reduced injuries
- Better meat quality
- Better immunity
- Reduced facility wear & tear



**GOOD
LIVESTOCK
HANDLING
PAYS**

AFAC programs on livestock handling, injury prevention and facility audits.

AFAC
ALBERTA FARM
ANIMAL CARE

Industry-Driven Change



Industry-Driven Change





Industry-Driven Change

Quality Livestock Transport Training Program



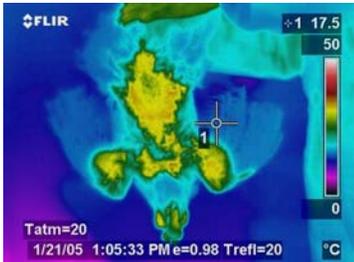
Livestock Welfare Research



Livestock Welfare Research

The Building Blocks to Change

- ✓ Effect of Precondition & Hauling Distance Beef Cattle Transport
- ✓ Humane Spent Hen Disposal Poultry Avian Flu
- ✓ Bison Dehorning, Impact on gains, meat quality Bison Pain Mgt
- ✓ Group housing of Sows (Retrofit) Pigs Codes of Practice
- ✓ Laying Hens, Alternative Housing Poultry Future Housing
- ✓ Non-invasive ways to Measure Stress All Reduce losses



Livestock Welfare Research

Acknowledge the Science:

“Common farming practices cause animals acute and chronic pain. This is not due to a lack of awareness on the part of the farmers. Using pain control methods is not easy or user-friendly and is often costly.” - Dr. Joe Stookey



Political Will



Extending the Message

livestock welfare insights

AFAC
ALBERTA FARM ANIMAL CARE

OXYMORON OR ACCEPTABLE PRACTICE
Humane Transportation of 'Downers'

"NON-AMBULATORY ANIMALS ARE A CONTRADICTORY EXAMPLE OF AT RISK ANIMALS. There is no common understanding of whether or not they are fit for transport," says Dr. Gord Downes, Canadian Food Inspection Agency (CFIA) Chief, Humane Transportation of Animals. CFIA is conducting a non-ambulatory livestock consultation to develop criteria on what constitutes "unfit for transport." In Alberta, downers are defined as, "an animal that cannot rise, remain standing, or walk without assistance."

The Federal Health of Animals Act prohibits the loading and transport of animals that "by reason of infirmity, illness, injury, fatigue, or any other cause cannot be transported without undue suffering during the expected journey."

transported if proper safeguards are followed (e.g., deep bedding, segregation). "The key is loading – can a downed animal be loaded humanely?"

"No one can ever load a downer humanely," says Dr. Terry Whiting, Epidemiologist Manitoba Agriculture. "The act of loading is the HACCP control point of animal welfare. We need to balance our purpose for an animal [food] versus its own interest." Dr. Whiting suggests that animal welfare and utilization principles must be balanced so that we may "survive the public criticism of animal agriculture."

A recent Canadian Veterinary Journal (CVJ) article on non-ambulatory livestock transport says, "It is simply impossible to move mature non-ambulatory livestock humanely, no matter how close to the slaughter plant. Early treatment, on-farm slaughter, or euthanasia should be the course of action to deal with these animals."

In this Humane of Transport Canadian Welfare Association Welfare Research Solutions Handling

Economically it is also difficult to justify transporting non-downers. A CFIA survey found that almost four out of 10 non-ambulatory dairy cows could not pass inspection for human consumption. "Considering the extra time and labor involved from initial loading through to processing at the slaughter plant, industry must ask whether it really pays to ship, transport, and accept these animals. It seems that 'economic pressure' is a weak argument for subjecting a sizable portion of downer animals to the additional stress of transportation," according to the CVJ article.

In Alberta, the Livestock Transportation Regs state, "No skipper or operator shall load or transport livestock that, by reason of infirmity, illness, injury, fatigue or any other cause, would suffer unduly during transport." However, an exception is made for livestock >

There is a wide range of opinion on the acceptability of loading an animal whose capacity to withstand the stress of transportation is in some way compromised. Conflicting views among and within the various sectors and organizations have led to inconsistent decisions and practices.

Dr. Diane Landals, Registrar of the Alberta Veterinary Medical Association, says, "The most humane method of handling non-ambulatory animals is to kill them on farm. Shipping sick animals is never acceptable, but some injured animals can be

livestock welfare insights

AFAC
ALBERTA FARM ANIMAL CARE

THE PORK INDUSTRY APPROACH
Providing Assurance on Animal Care

The Canadian Pork Council (CPC) has designed an auditable on-farm Animal Care Assessment Tool (ACAT) to operate in parallel with the industry's Canadian Quality Assurance (CQA) on-farm food safety program.

Associate Catherine Scovill says, "animal welfare was included in our industry's definition of what constituted a quality product, so it seemed natural to link the Animal Care Assessment Tool to our existing CQA program."

CPC had evidence of a need when it set out to develop its ACAT. "It was a trickle down of comments from food services industries, processors and restaurant industries that they need to have a way of addressing consumer questions pertaining to animal care," says Scovill. "The ACAT will be made available to hog producers in early 2005."

playing field is more advantageous for the industry as a whole. Scovill says, "We wanted to prevent a continuing spiral of vertical programs that compete with each other."

The public also assumes that animals are being cared for properly on farms. When carcass management is exposed it makes people wonder about their assumptions. Scovill says, "We wanted a proactive way to show consumers that we don't accept bad apples in our industry. This message was coming from our producers too. They recognize that these individuals, being the whole industry down. They believe it is better to have national standards that all must abide by to protect the entire industry."

"In the end the question became not 'should we go this route,' but 'why wouldn't we go this route?'"

CPC: www.cpc-porcs.com

Feb 05 Livestock Welfare Research Solutions Handling

livestock welfare insights

AFAC
ALBERTA FARM ANIMAL CARE

ENSURING STANDARDS ARE COMPLEMENTARY
Linking Food Safety & Animal Welfare

The OIE* has released a scientific and technical review (Volume 24 (2), August 2005), *Animal Welfare: global issues, trends and challenges*. The publication provides a global overview on animal welfare perspectives. It aims to communicate the OIE's intended role as a leader in this area.

Dr. Anne Marie de Pauille and Jeffrey Ruben, with Agriculture and Agri-Food Canada in Agassiz, BC, were invited to provide an article for the publication. It is entitled *Food Safety and environmental issues in animal welfare*.

While the public seems to believe that food safety and animal welfare are linked, consensus is not established amongst industry players. The researchers believe that it is important to develop animal welfare and food safety standards in a consistent manner to avoid potential conflicts.

"The link between animal welfare and animal health (and hence, by implication, food safety) is supported by scientific evidence... improvements in animal welfare have the potential to reduce on-farm risks to food safety...," say de Pauille and Ruben.

There is considerable evidence showing that chronic stress and reduced animal welfare render animals more prone to infectious diseases, shedding bacteria and the increased use of antibiotics. "Many endemic health problems

"Animal-based measures allow greater flexibility in designing the housing and management of animals."

are among the most serious welfare problems, especially for high producing animals," say de Pauille and Ruben.

The researchers point to a report from the European Commission stressing the importance of having animal welfare standards within the EU's food safety policy. "The report argued that on-farm monitoring of animal welfare was essential to ensure food safety. The underlying reason given was the clear link between poor animal welfare and reduced animal health and lower food safety." >>>

In this issue: Linking food safety & Animal Welfare Biosecurity Benefits Animal Welfare Audits On-Farm Behaviour Farm Animal Pain Research Use of Pain Management Rabbit Farming National Farm Animal Care Council Welfare Quality Project Foraging & Fearther Picking in Laying Hens ECRAW Report

mar 06/issue 7

INSIGHTS provides information on livestock welfare in Canada and elsewhere • Reports on research, initiatives and issues • A link for producers, researchers, government, animal welfare groups and the media • A resource for further searches

Dr. Anne Marie de Pauille & Jeffrey Ruben

Canada's Four Cornerstones

#4. Canada's New National Farm Animal Care Council (NFACC)



National Cooperation

Putting Animal Welfare on the Agenda in Canada

LivestockWelfare.com



www.livestockwelfare.com



PUTTING FARM ANIMAL WELFARE ON THE AGENDA IN CANADA

Advancing Farm Animal Welfare and the Canadian Experience



Dr. David Fraser





The World Organization for Animal Health (OIE) and Animal Welfare

Michael David, MS, VMD, MPH

National Center for Import and Export

USDA, APHIS, Veterinary Services

History

- 1924 – established
- 1976 – the United States becomes a Member
- 1994 – WTO: reference body for animal health
- 2006 – 167 Member countries
 - International Committee of the OIE





WTO

SPS Agreement



Food safety



Animal health



Plant health

INTERNATIONAL COMMITTEE

Administrative Commission

Director General

Specialist Commissions

Code, Laboratories,
Aquatic, Scientific

Regional Commissions

Africa, Americas, Europe, Asia-
Far East and Oceania, Middle East

Central Bureau

Collaborating
Centres

Reference
Laboratories

Administrative
and Financial
Department

Animal Health
Information
Department

International Trade
Department

Ad hoc Groups

Working Groups

Regional Activities
Department

Publications
Department

Regional Representations

Functions

- Collects and disseminates information
- Identifies and/or coordinates needed research
- **Harmonizes health standards for trade in animals and animal products (terrestrial and aquatic)**
- Provides guidance for disease control and eradication

New Mandates for the OIE

- 2001-2005 Strategic Plan (3rd)
 - Animal Welfare
 - Food Production and Safety
 - Farm to arrival at the slaughter plant
- 2006-2010 Strategic Plan (4th)
 - Reaffirmation these new mandates
 - Veterinary infrastructure capacity building

By taking the AW mandate, the OIE agreed to:

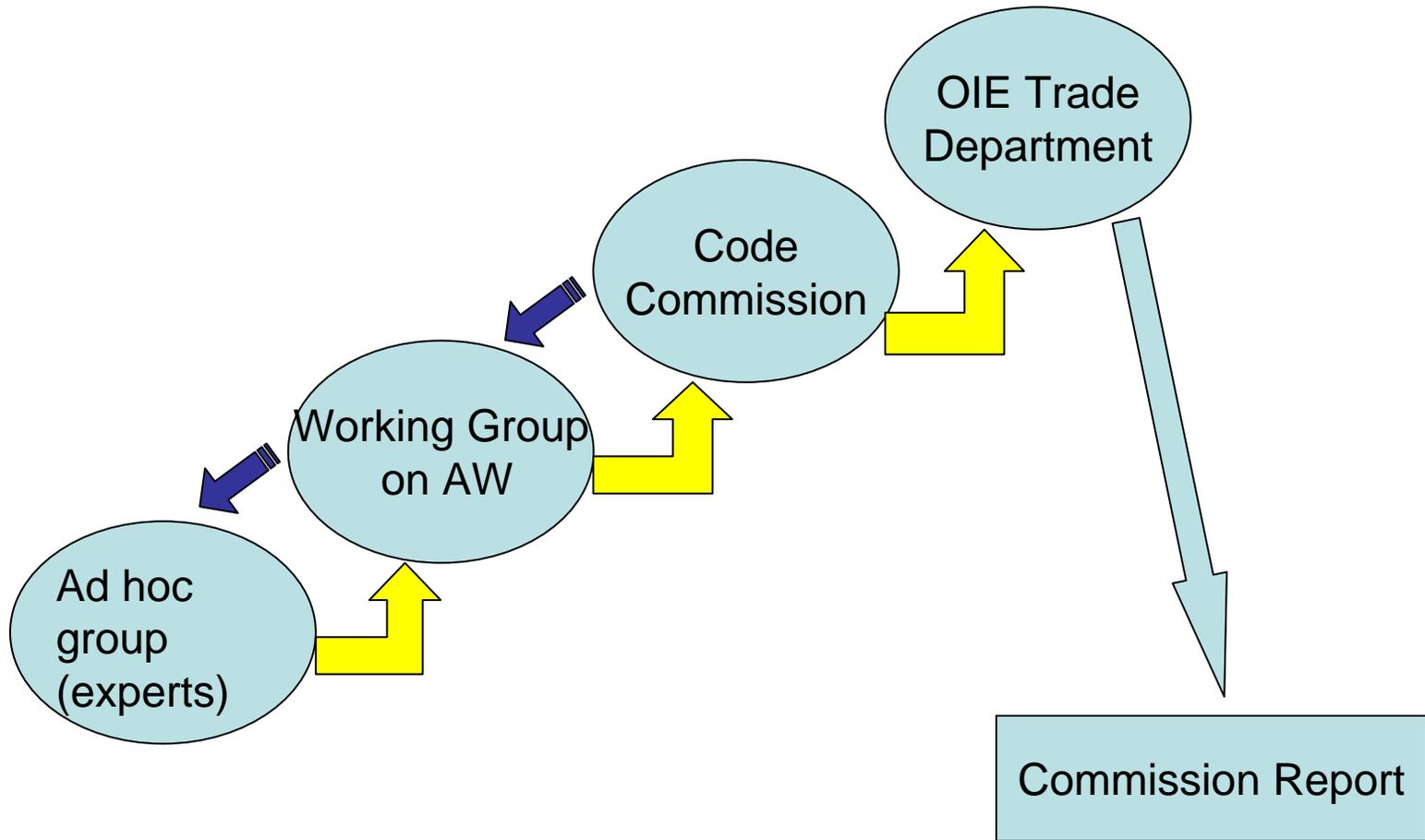
- Promote science-based understanding of animal welfare
- Utilize appropriate expertise
- Consult with all relevant stakeholders
- Recognize regional and cultural dimensions
- Liaise with academic and research institutions
- Use communication tools appropriate to all relevant audiences

OIE and Animal Welfare

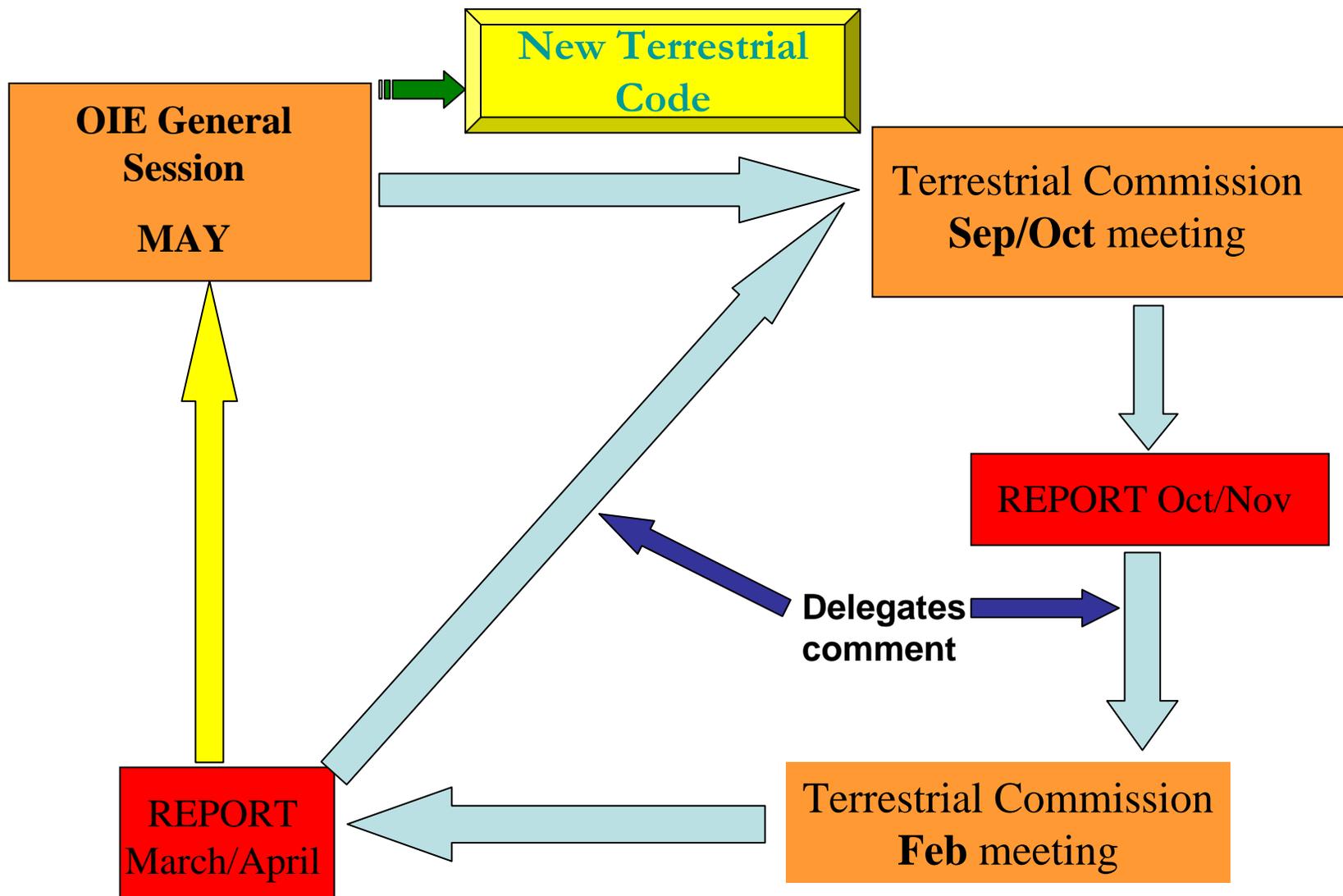
Mission Statement:

“To provide international leadership in animal welfare through the development of science-based standards and guidelines, the provision of expert advice and the promotion of relevant education and research.”

Draft development



Cycle for submitting comments to the OIE



AW Guidelines -- Adopted in 2005, slightly modified in 2006

- For the slaughter of animals
- For the humane killing of animals for disease control purposes
- For the land transport of animals
- For the sea transport of animals
- Web site: www.oie.int

AW Guidelines for slaughter

Appendix 3.7.5

- General considerations/principles
 - Personnel, animal behavior
- Moving and handling animals
 - Restraining and containing
- Lairage
 - Design and construction, care
- Stunning methods
 - Appropriate to species

• Slaughter methods

Future – 2006/07

New Guidelines

- Aquatic AW – transport of fin fish/ also slaughter
- Companion AW – stray dog control
- Wild and zoo AW – harvesting/culling
- Laboratory AW – housing, use in testing and alternative to animal use
- Terrestrial AW – housing/production (generic)

2006 Work Plan and Progress

Development of new standards

- Terrestrial Animal Welfare
 - Housing and production
 - Generic housing systems (WG to develop a scoping paper for discussion at their next meeting)
 - Draft chapter
- Wild and Zoo Animal Welfare
 - Scoping paper for next meeting



WTO

SPS Agreement



Food safety



Animal health



Plant health

SPS Agreement

- Objective: to facilitate agricultural trade while safeguarding human, animal and plant health.
- No specific mention of animal welfare in the SPS or any other WTO agreement
- There is an association between animal health and animal welfare

Application of AW measures according to WTO

- Science-based AW guidelines are not specifically mentioned in the SPS nor the TBT
- AW measures may be viewed as disguised trade restrictions
- Most AW guidelines could be classified as non-product related production/process methods (PPM)
- WTO can address AW issues if they relate to animal health



- The SPS measures are to be applied only to the extent necessary to protect health
- TBT Agreement addresses standards which regulate production, processes, packaging and labeling
- Production/process methods which do not alter the final product are considered irrelevant in differentiating like products

Alternatives within the WTO

- If Production/Process methods cannot differentiate one product from another → different processes same outcome
 - Allows producers to identify which process to use when marketing a product
 - Allows producers and consumers to consider AW aspects used in production, when final product is considered

International, bilateral or multilateral

- AW guidelines are not designed to penalize, but to encourage better treatment of animals while addressing public concerns
- Bilateral and multilateral trade agreements can encourage the use of OIE AW guidelines
- Bilateral and multilateral agreements can be reached by private parties through voluntary codes of conduct and management practices

Multinational Corporations and International Trade

- An increased attention has already been given to self-regulation by transnational corporations regarding environment, health and safety issues
- Corporations may require its suppliers to comply with OIE's AW guidelines

2006 Work Plan and Progress

- Expertise database
 - Centers of expertise
 - Individual experts
- Improved AW awareness within the veterinary profession and in the veterinary school curriculum
 - WVA meetings/congress
 - WSPA meetings
 - OIE Collaborating Center at Teramo, Italy
- *OIE Scientific Review Journal*
 - Dedicated to AW

2006 Work Plan and Progress

- Coordination with other international organizations
 - Avoid duplication
 - Collaboration
 - Organizations
 - International Dairy Federation (IDF)
 - International Meat Secretariat (IMF)
 - International Federation of Agriculture Producers
 - International transport (IATA, AATA, WAZA)
 - World Society for the Protection of Animals (WSPA)



World Organization for Animal Health

12 rue de Prony
75017 Paris, France
Tel: 33 (0)1 44 15 18 88
Fax: 33 (0)1 42 67 09 87

<http://www.oie.int>

Thank you



ANIMAL WELFARE REGULATIONS AND INTERNATIONAL TRADE

Lorraine Mitchell
USDA-ERS

Presentation, Future Trends in Animal
Agriculture Symposium
September, 2006



ECONOMIC RESEARCH SERVICE

ROOTS IN AGRICULTURE, FUTURE IN THE WORLD

- What does economic theory say about animal welfare regulations
 - Private incentives
 - Public incentives
 - Trade implications
- What do we see in practice?
 - Consumer demand
 - Differences in regulations and standards
 - Effects on trade

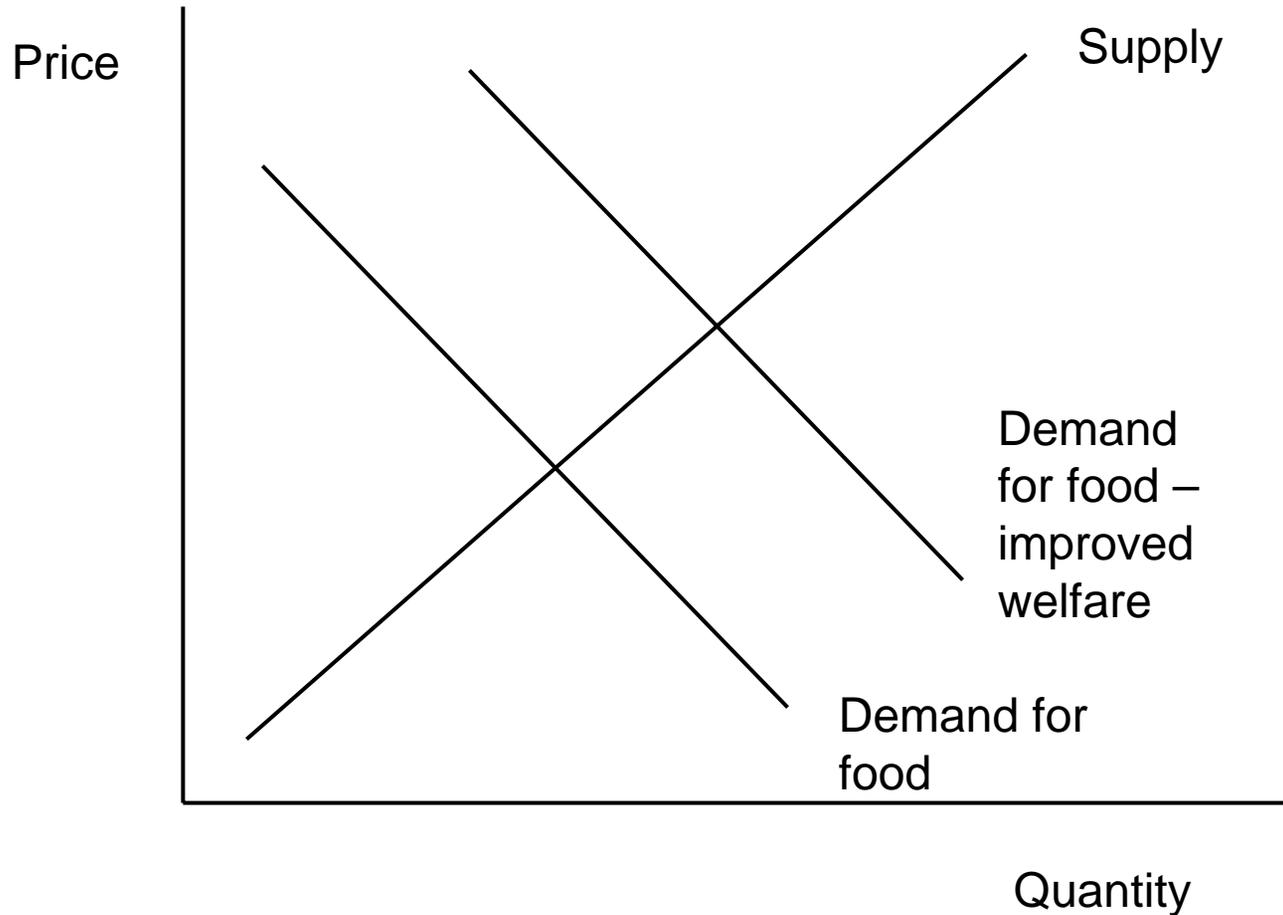


Private incentives

- Consumers value animal welfare
- Willing to pay more for goods produced with high levels of animal welfare
- Higher private retailer standards for animal welfare to capture this premium.
- Multiple markets for different levels of welfare



Demand for Animal Products

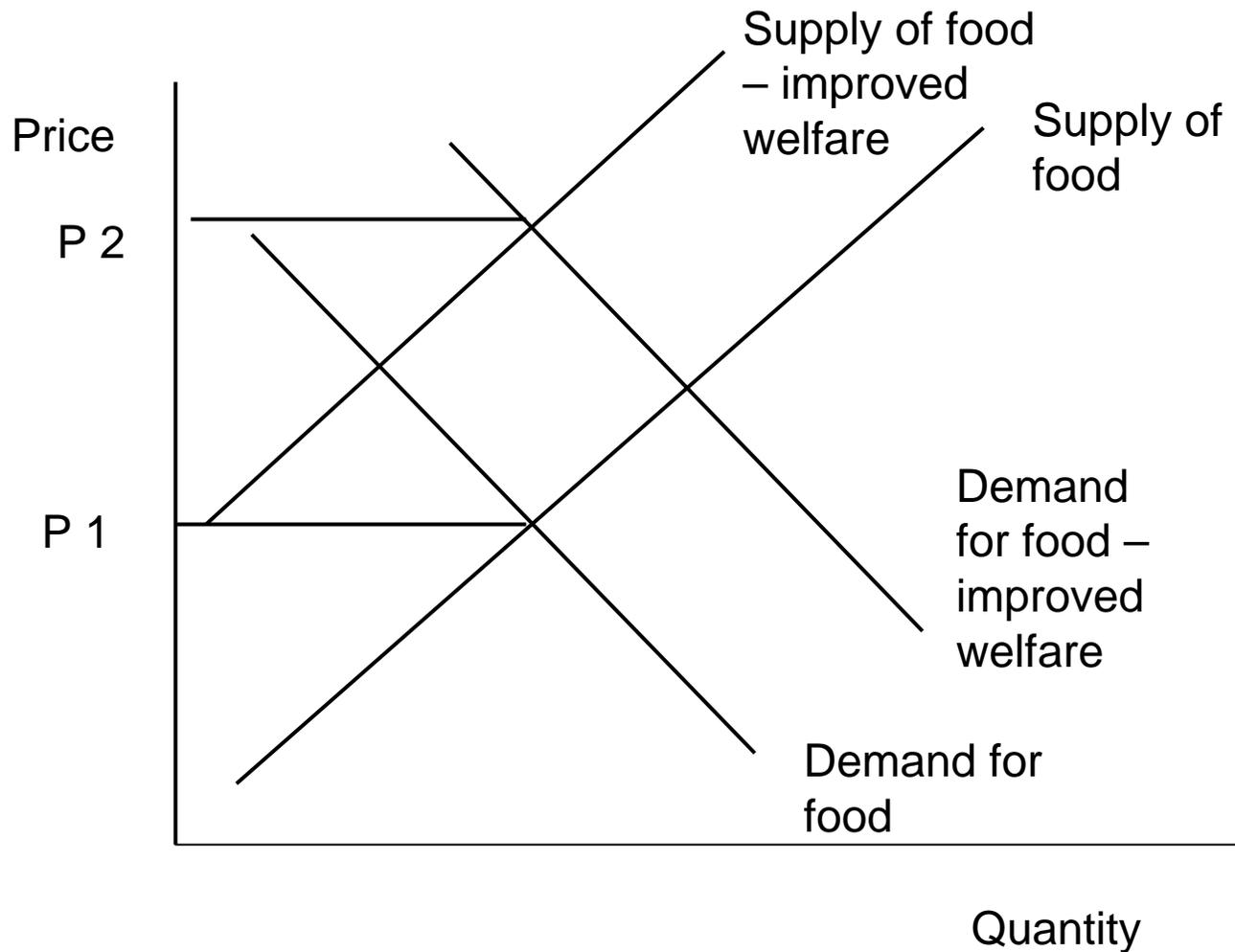


Suppliers may face higher costs

- Techniques for higher levels of welfare might be more costly
- Shifts the supply curve to the left – each level of output costs more to produce
- Firms will only be willing to supply the high welfare version of the good to the extent that consumers are willing to pay for it.



Market for Animal Products



Public incentives

- Consumers may lack information on animal welfare characteristics of goods
 - Producers may reveal
 - No incentives to reveal negatives
 - Labeling
- Animal welfare as a public good - people take into account the effect of their consumption on their valuation of animals, but not its effect on other people's valuation of animals
- As with pollution, defense , and other public goods, government regulation fills the gap



Public regulations

- National laws and regulations governing animal welfare are passed
- Can be more stringent than market outcomes. Sales may fall, as prices rise, but it doesn't mean that society is worse off.



Trade implications

- Competition from lower cost imports can lead to the application of domestic legal standards to imported goods
- Differences in private standards across countries can behave as trade barriers.
- However, producers often produce goods for different markets with different specifications
- If other regulations restrict trade, animal welfare regulations' impact may be minimal



What Do We Actually See?

- Private incentives – how do markets react?
- Public incentives – what regulations do we see? Do these differ from private standards?
- Do differences in standards and regulations affect trade?



Willingness to pay for animal welfare

- Surveys in the EU indicate a willingness to pay for animal welfare
- Studies in the US also reveal a willingness to pay
- Some of these studies do not use real market data; can lead to exaggerated results



Market Data

- In some EU countries, non-caged eggs have a large (> 20 percent) market share.
- Switzerland - banned sale of eggs from hens kept in battery cages.
- Grocery chains in the Netherlands have pledged to sell no battery eggs
- A non-representative, non-scientific perusal of on-line shopping sites in the US and EU: prices of free range eggs and meats were higher than conventional, and the margins varied a lot
- Processors might have less incentive to consider animal welfare



Animal Welfare Regulations Vary

- EU specifies practices
- US, Canada specify practices for slaughter, transport, not husbandry
- Australia has incorporated private codes of practice into federal or state law
- Japan has a general animal welfare law
- China is drafting more



Private Standards Vary

- Private standards unique to companies or countries – TESCO, Ahold; some reference national laws.
- EUREPGAP – refers to EU law, will be used by retailers, but not used extensively yet
- FMI – set of producer standards, used by some US retailers
- Australia – producer standards, incorporated into law in some cases
- Canada – producer standards
- Non-profits – many, not yet widespread in US



Differences across laws and private standards: Hen cages

- Hen cage sizes
 - EU mandates size, cages banned by 2012
 - US, Canadian law don't specify
 - US FMI, Canadian private standards – recommended sizes smaller than EU
 - EUREPGAP standards – must allow behaviors that require space
- Estimates of cost of EU regulations range from 13-20 percent more to produce eggs
- Bird flu may make outdoor production difficult



Differences across laws and private standards: Veal rearing

- EU will ban pens, and stalls after 8 weeks
- FMI – no standards yet
- Canada, Australia – private standards recommend sizes for pens



Differences across laws and private standards: Sows

- Tethering sows
 - EU Bans
 - US, Canadian laws not specific
 - US, Canadian private standards recommend against
- Sows giving birth in crates
 - Contentious, but deemed safer for piglets
 - EU law, US and Canadian private standards permit



Trade Impacts: Regulations

- Differences in regulations
 - US standards differ from EU and other countries' standards, but less trade
 - US major trading partners in meats– NAFTA and Asian countries - don't have complex standards
- Will regulations apply to trading partners?
 - Dolphin Tuna Case
 - EU won't apply, but Bilateral agreements
- EU might decide to subsidize
- Marginal impacts of difference in regulations



Trade Impacts: Private standards

- Private standards are closer together across countries
- Differences with Canada haven't been an issue
- Major differences in some areas; some standards reference national laws or vice versa
- Potential for trade barriers: consumers, not government
- Some processors less likely to impose standards



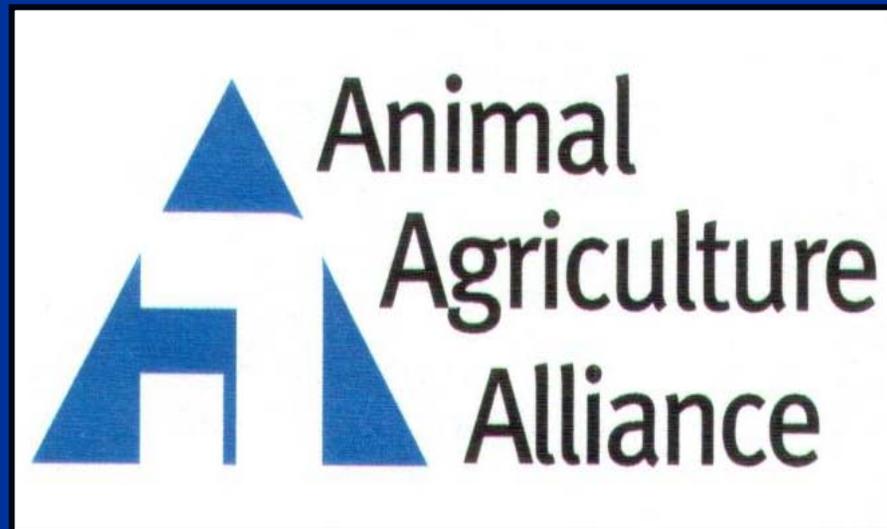
Conclusions

- Public and private incentives exist for taking animal welfare into consideration
- Markets and government regulations exist
- Not all markets respond equally to animal welfare issues
- Differences in public standards are large, but might not be trade issues
- Differences in private standards are less pronounced, but could result in greater trade impacts
- Other regulations already restrict trade in animal products



Animal Welfare as a Trade Issue

Agriculture's Concerns



Future Trends in Animal Agriculture
USDA, Washington, DC
September 20, 2006

A United Voice

Role

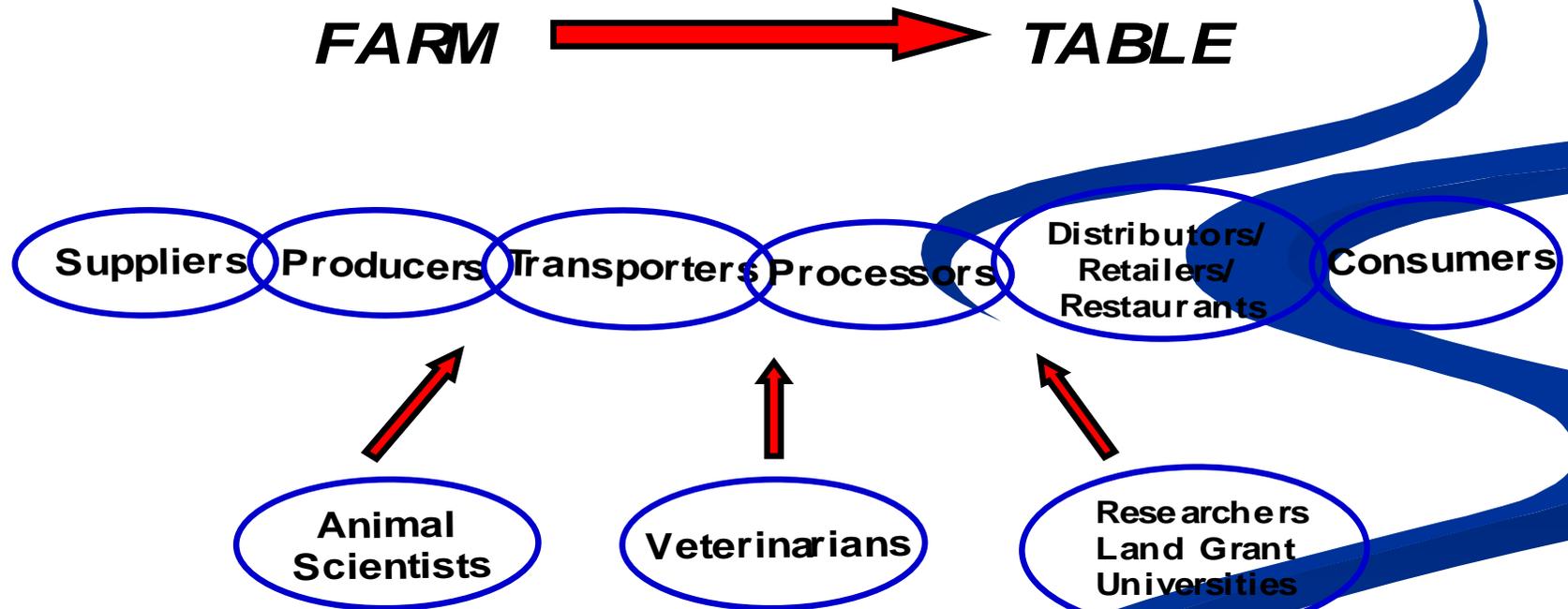
A national umbrella organization through which all stakeholders in animal agriculture and the food industry can work together to develop programs and messages to reach consumers to enhance their understanding and appreciation for food animal production

Mission

Communicate the important role of modern animal agriculture to our nation's economy, productivity, and vitality, security and that animal well-being is central to producing safe, high-quality, affordable food and other products essential to our daily lives

A United Approach

Stakeholders and Key Partners



International Animal Welfare Guidelines & Challenges

What is the US Doing?

U.S. Agriculture's Actions on AW

All Major Species groups have developed science-based animal welfare guidelines and programs for their sectors of agriculture – not regulated by government

- ***NPB's TQA-Plus***
- ***NCC's Animal Welfare Guidelines & Audit Checklist***
- ***NTF's Animal Care Guidelines for Turkey Growing***
- ***NMPF/DQAC's Reference Guide for the Care of Dairy Animals***
- ***AVA's Guide for the Care & Production of Veal Calves***
- ***ASIA's Sheep Care Guide***
- ***UEP's 5-Star Total Quality Assurance Program & UEP Certification Program***
- ***The U.S. Duck Council's Duck Care Guidelines and Certification Program***
- ***NCBA's Beef Quality Assurance Program***
- ***AMI's Animal Welfare Audit Program***



Agriculture develops consensus comments on OIE's international animal welfare guidelines through the Alliance to present to USDA & OIE

- Alliance Established OIE Animal Welfare Expert Review Team
- Alliance compiled comments of Review Team & the Animal Ag Coalition on Transportation & Slaughter reports
- Submitted consensus comments to USDA & OIE
- Submitted names of issue experts to USDA & OIE
- Will provide same coordination for future reports

International Relations

U.S. Agriculture:

Monitors animal welfare policies of other countries and maintains open door discussions internationally

Monitors policy changes of other countries to determine positive or negative impact on agriculture and animal welfare

Expressed concern internationally of increased regulation and impact on trade

Expressed concern AW will be used as a trade barrier for market access because animal welfare is not regulated on U.S. farms by the federal government

Expressed great concern that international businesses or governments might impose their standards for regulation on U.S. businesses as a gate keeper – small farms will be most impacted by additional regulation

Concerns of Increased Regulations on U.S. Farms

- Reduce private sector innovation and competition leading to solutions to issues more rapidly; ideas potentially bogged down in red tape
- Regulation could lead to higher costs, impacting markets & prices for consumers – potentially leading to meat protein becoming a luxury product for only those with greater income
- Additional regulation would prohibit many small farms from remaining in business due to increased facility costs, onerous record keeping and lack of manpower
- Fewer farms means less competition
- Federal government lacks authority to regulate on farm, and lacks resources

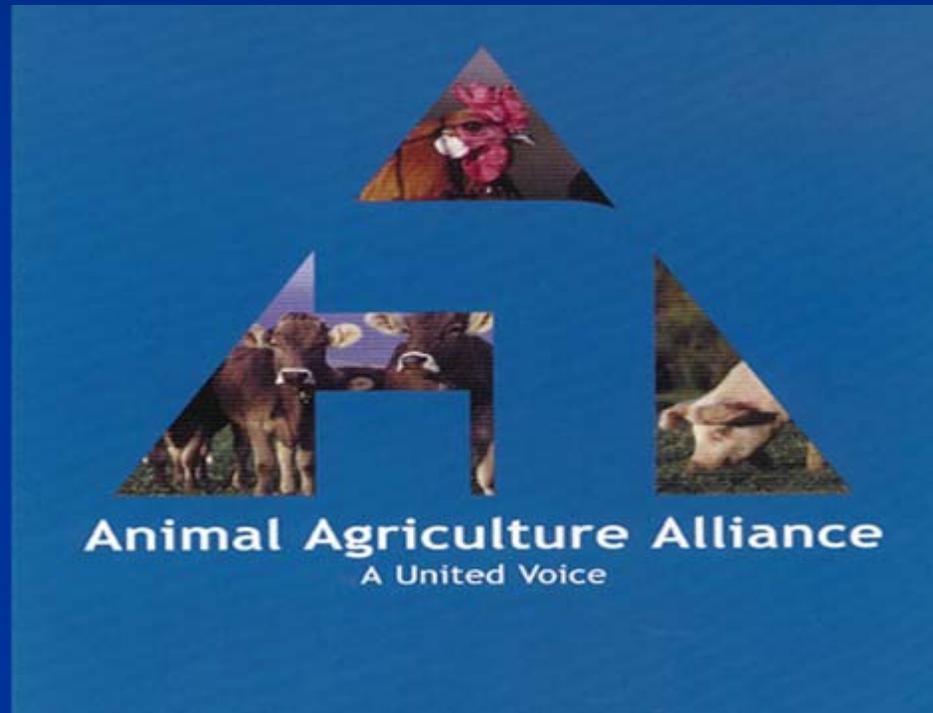
CONCERNS

- 1) What constitutes AW is subjective and guidelines will vary based upon cultural, economic and religious lines**
- 2) Belief in regulation of AW varies from country to country**
- 3) Will OIE AW guidelines be based on science given NGOs are invited to provide direct input to OIE - on AW only**
- 4) How will the cost of AW initiatives be fairly distributed across the value chain¹**
- 5) AW has potential to distort trade or become a pseudo trade barrier²**

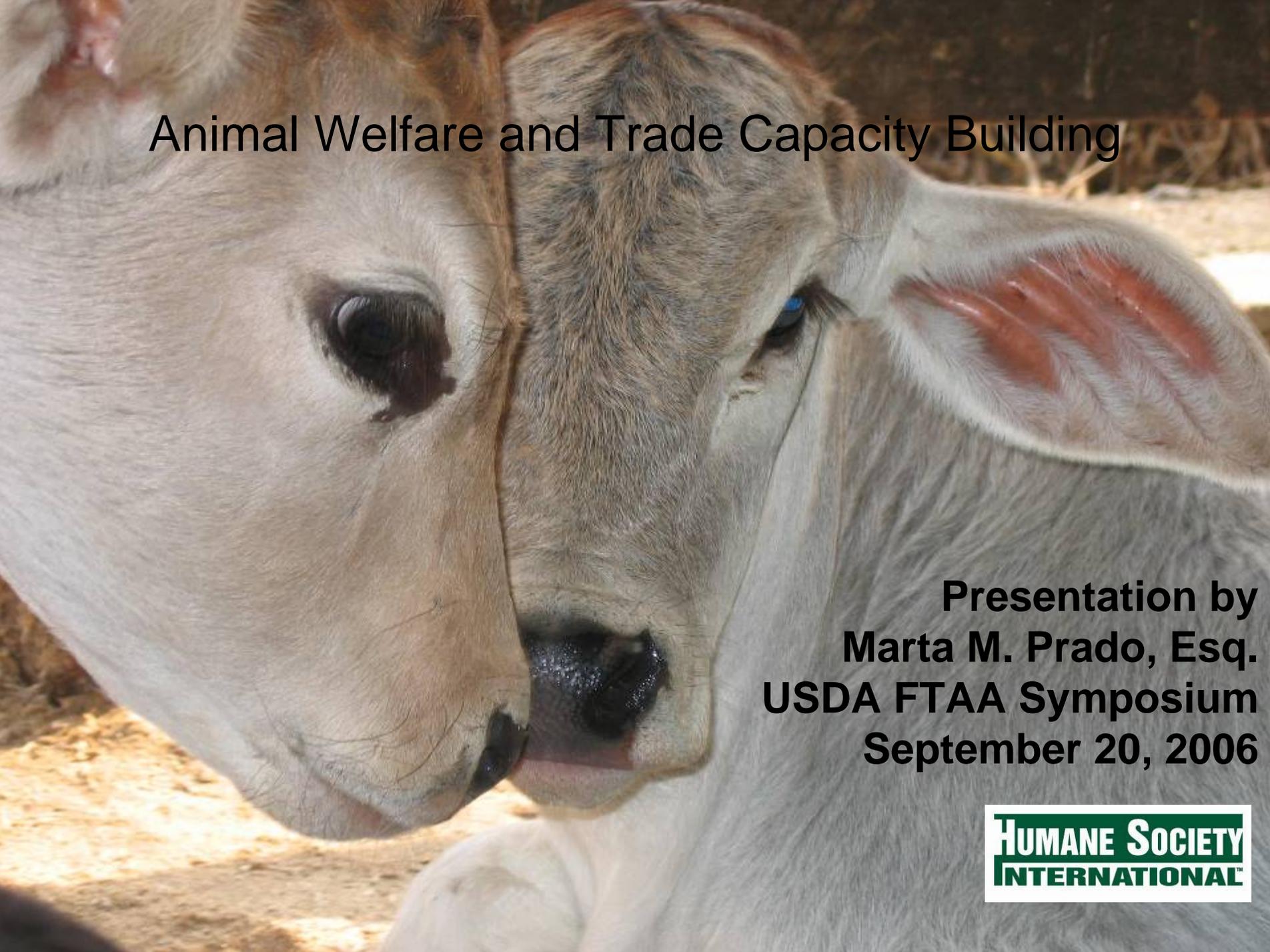
What U.S. Agriculture Needs to Do

- **Continue to monitor and actively provide input to the OIE and other International Actions on AW where possible; maintain dialogue with international community**
- **Producers/Processors must ensure AW policies & training are implemented throughout their operations – must show strong welfare practices & results in US through private industry efforts**
- **Promote and educate public, legislators and regulators about the success of private sector animal welfare programs and the need to prevent AW from becoming a trade barrier**

Thank you!



www.animalagalliance.org

A close-up photograph of two white calves. The calf on the left is nuzzling the calf on the right. The calf on the right has a blue mark on its eye. The background is dark and out of focus.

Animal Welfare and Trade Capacity Building

**Presentation by
Marta M. Prado, Esq.
USDA FTAA Symposium
September 20, 2006**

**HUMANE SOCIETY
INTERNATIONAL**

Humane Society International

- HSI operates on 4 continents, and is the international arm of The Humane Society of the United States, with over 9.5 million members and constituents
- HSI has worked on Trade Capacity Building (TCB) projects with livestock industries in Central America for 3+ years
 - Handling
 - Transport
 - Slaughter
 - Positive economic benefits of improved Animal Welfare (AW)

Free Trade Agreements and AW

- Trade Act of 2002 includes negotiating objectives for USTR to strengthen capacity of U.S. trading partners to engage in bilateral trade, and protect the environment
- Recent U.S. FTAs increased need to improve AW in developing countries in order to comply with U.S. health and safety standards

AW as a Trade Barrier



- Some in Latin America view health and safety standards of developed countries as a barrier to trade
- Within developing countries, AW can be a trade barrier where multinationals give preference to producers who follow strict AW standards

AW and TCB

- Clarify and define TCB programs in U.S.
- Changing perspectives of AW and its impact on trade
- Linkages between TCB and AW
- Examples of HSI's experience with TCB

Definition of TCB

- **GAO** – “assistance meant to help countries become aware of and accede to the WTO; implement its agreements; and build the physical, human, and institutional capacity to benefit more broadly from a rules-based trading system.”
- **USAID** – programs that help to “build the necessary capacity for developing countries to take advantage of open markets.”

Definition of TCB

- **OECD** – programs that enhance “the ability of policy makers, enterprises and civil society in developing countries” to establish trade policies that:
 - set agendas and identify objectives;
 - increase the volume and value, and diversify exports and export markets; and
 - increase participation and benefits from the global trading system

Congress and TCB



- 2001-04 U.S. invested \$2.9 billion in TCB
- 18 different Federal agencies
- 71% went to USAID programs
- 12% went to agriculture programs

Congress and TCB

- Congress acknowledges TCB helps developing countries participate in and benefit from the global economy
- 2006: Congress requests USAID to prioritize TCB in countries with preferential trading agreements with U.S.

Changing Perceptions: AW and Trade



- Society as a whole and particularly consumers increasingly expect producers and governments to consider AW
- Changes in AW requirements are often consumer-driven through increased demand and willingness to pay a premium for humane products

Changing Perceptions: Int'l Orgs.

- **World Animal Health Org. (OIE)** *Terrestrial Animal Health Code* addresses transport, humane slaughter, and killing for disease control
- **World Bank Int'l Finance Corp. (IFC)** found high AW enables businesses to:
 - Increase efficiency and profitability;
 - Meet consumer demands; and
 - Comply with domestic and int'l market standards

Changing Perceptions: Countries and Corporations



- Countries such as the EU and Costa Rica have laws requiring high AW
- Corporations (e.g. McDonald's) require strict AW standards be followed by suppliers

Economics of AW



- Many countries, industries, and individual producers remain unaware of monetary losses through poor AW
- **IFC** found that increased costs from higher AW standards may be recouped through premium pricing

AW in Developing Countries

- Common AW issues in developed world:
 - proper space allowance,
 - maximizing genetic potential, and
 - disposal of cull or spent animals
- AW issues in developing world are more basic:
 - access to clean water,
 - veterinary care,
 - adequate nutrition, and
 - humane slaughter

AW in Developing Countries



- Developing countries often lack access to reliable information regarding proper AW
- Often no word exists in the local language to adequately describe what is meant by AW

Linking TCB and AW

- Industries and producers in developing countries require information and training on proper handling, transport, and humane slaughter techniques
- TCB can provide knowledge and training in best practices to spur industry growth



TCB in Conjunction with FTAs

- For some industries, TCB can provide immediate benefits
- Others require time, funding, and effort before realizing benefits from int'l markets
 - Market opportunities still exist through supplying local purchasers
 - Strategic planning required

HSI's TCB Experience

- Central America – achieving compliance with potential export markets through improved AW



HSI's TCB Experience



- Assist producers to understand economic benefits of AW through hands-on technical assistance

HSI's TCB Experience



- Foster local partnerships (industry associations, corporations, universities, governments, and NGOs) to build trade capacity through research, presentations, and various publications

Low-Stress Handling



Reducing Transport Stress



Improving Carcass Quality



Conclusion

- FTAs with Latin America require TCB to improve health and safety of animal products
- HSI has worked in Central America to improve animal handling, transport, and slaughter techniques
- TCB programs are necessary for industry in developing countries to understand the economic benefits of high AW, and to take advantage of market access provided by FTAs

Animal Welfare as a Trade Issue: European Point of View

Dr. Michael Appleby
Welfare policy adviser
WSPA



World Society for the Protection of Animals

Animal Welfare as a Trade Issue: European Point of View

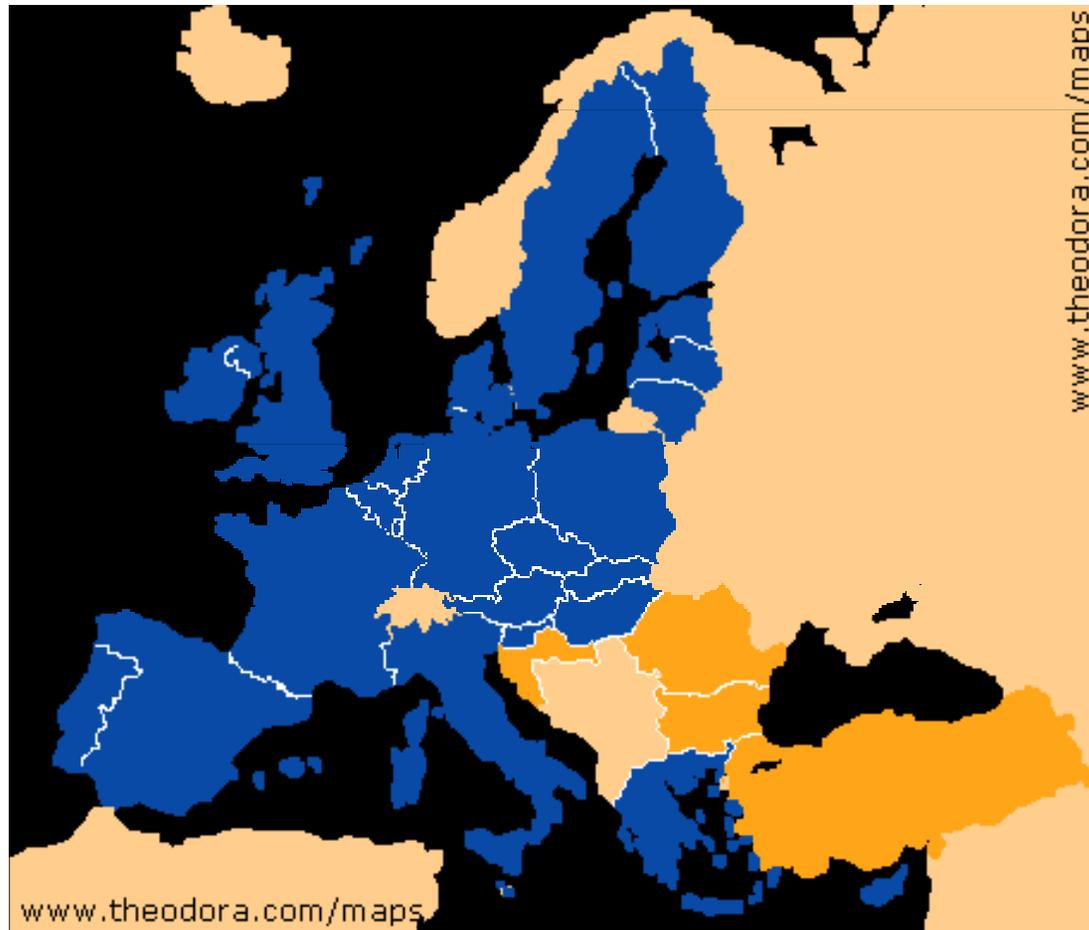
Dr. Michael Appleby

Trade policy manager

WSPA, CIWF, Eurogroup & RSPCA



European Union



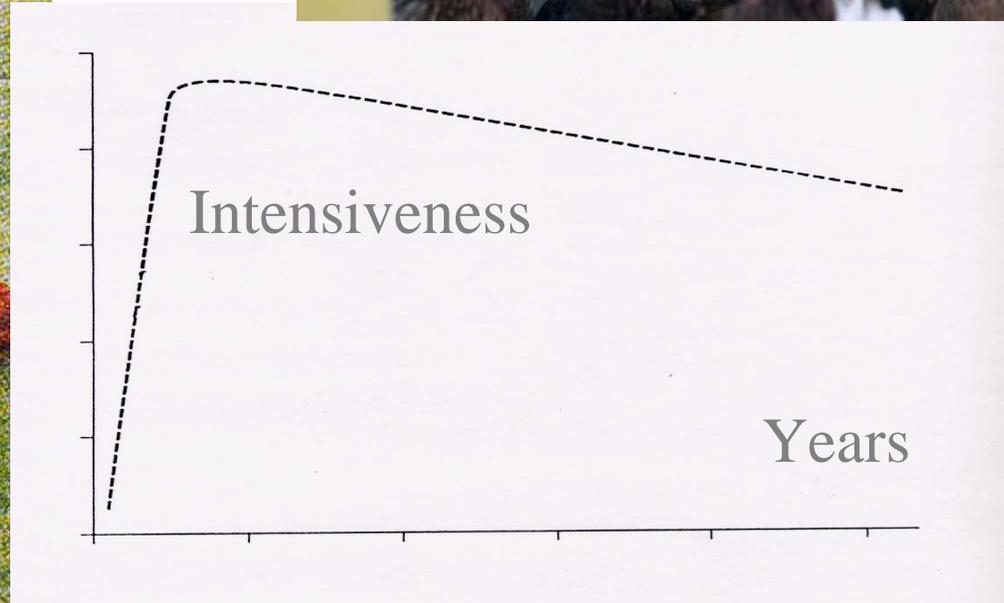
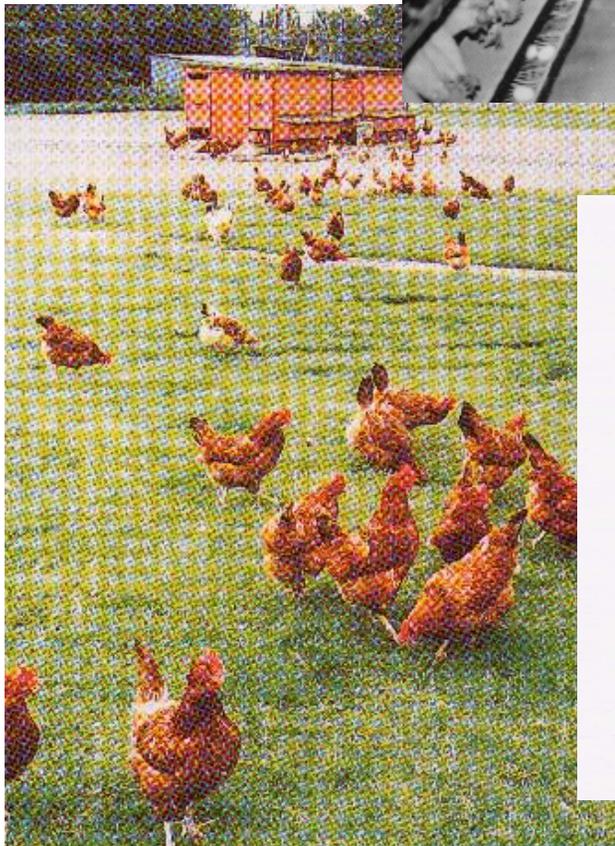
Niche markets



- High quality
- Healthy
- Natural
- Local
- Organic
- Sustainable
- Humane

European Union

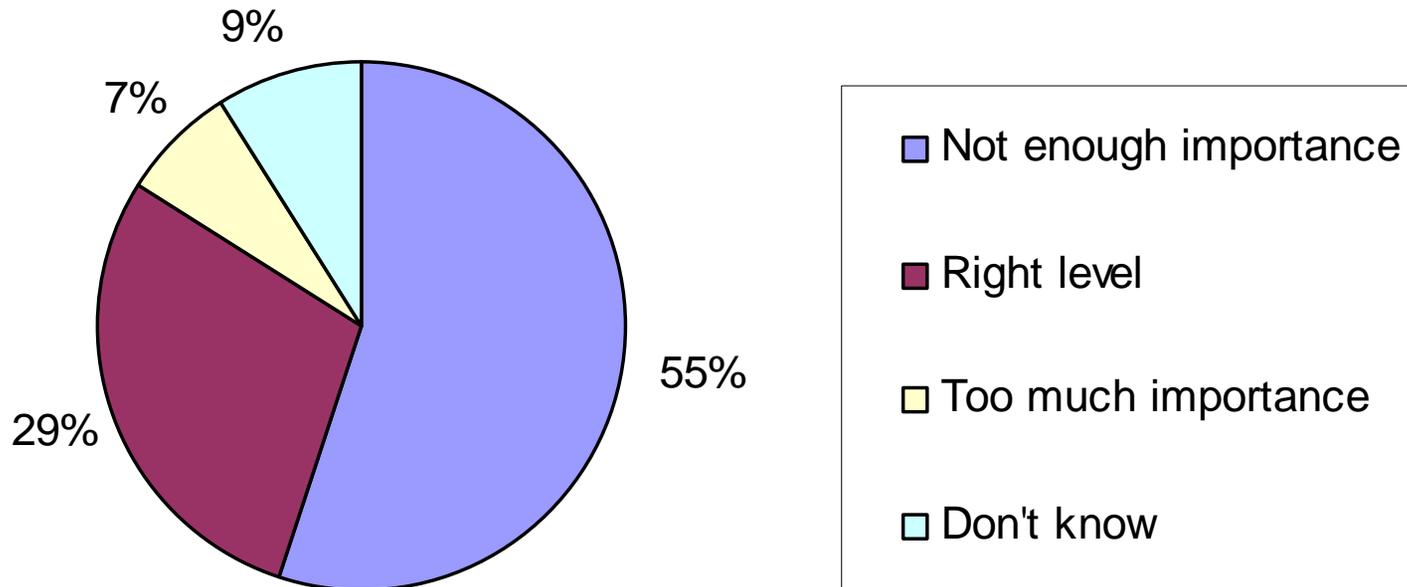




Eurobarometer 2005

Attitudes of consumers towards the welfare of farmed animals (24,708 replies)

Q12 In (OUR COUNTRY)'s current food and agricultural policy, do you believe that animal welfare/protection receives...?



European Union

... aims to ensure that trade liberalisation does not undermine EU efforts to improve the welfare of animals



Agricultural trade 2004

\$ billion

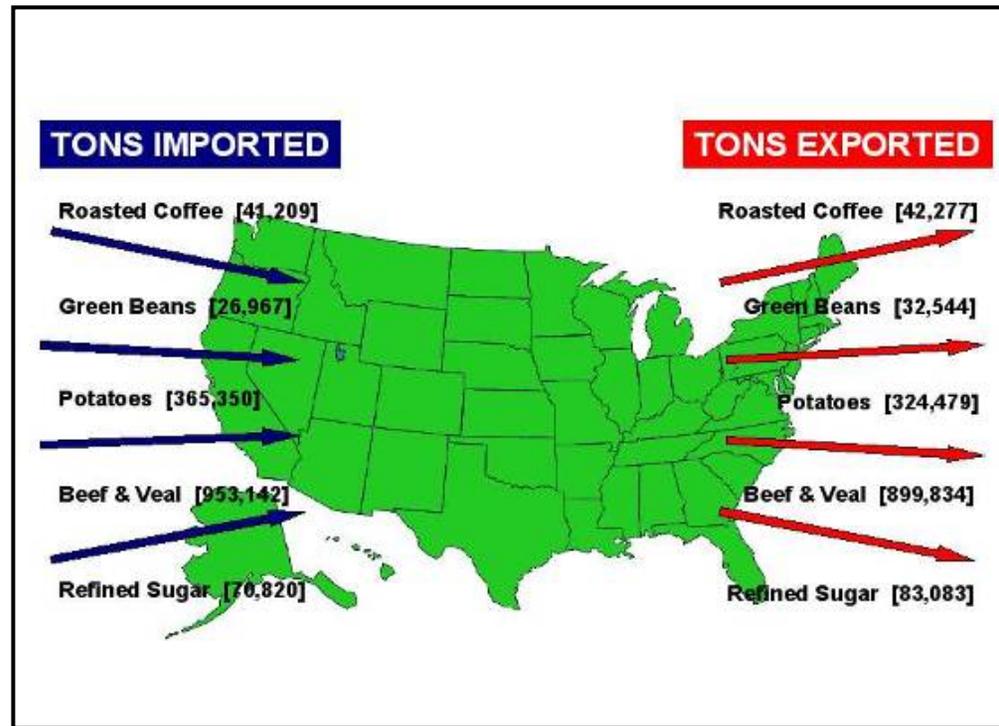
US

Exports

66

Imports

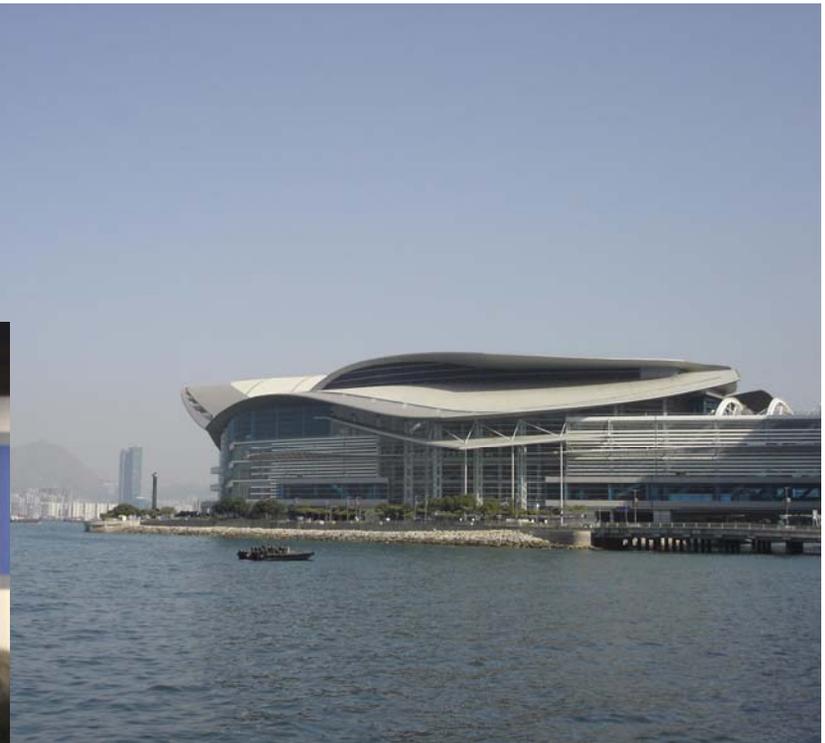
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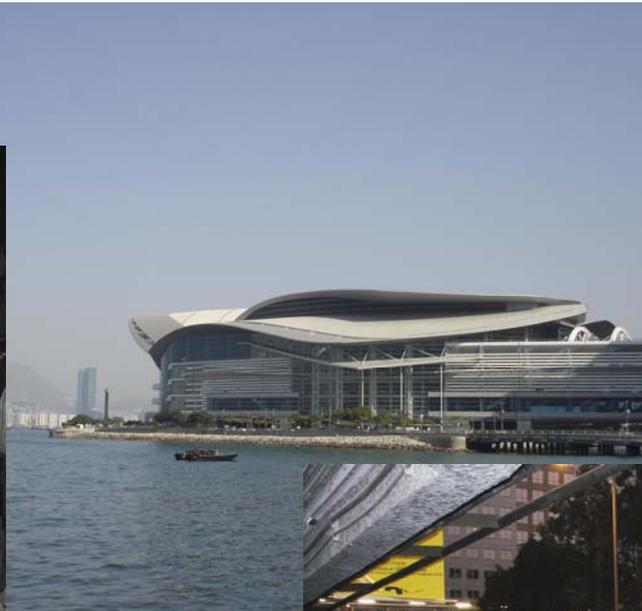
EU imports



World Trade Organization



World Trade Organization



World Trade Organization



- 149 countries
- Agreement on Agriculture
 - Doha Development Agenda
 - Hong Kong, December 2005
 - Talks suspended July 2006
- Export support (subsidies)
- Market restriction (tariffs)
- Domestic support
- Non-trade concerns

Non-trade concerns

- Food security, environment, animal welfare
- ‘Trade concerns’
- Doha Declaration:
“We take note of the non-trade concerns ... submitted by Members and confirm that non-trade concerns will be taken into account in the negotiations”

World Trade Organization



WTO rules

- Export subsidies
- Market tariffs
 - but ... Sensitive Products
- Domestic support
 - Amber box (bad)
 - Blue box (good)
 - Green box (neutral)
 - Internal eg Rural Development Programme
 - External eg Trade related assistance and capacity building



EU imports from DCs



- 40% of imports
- 20% of DC exports
- > US + Canada + Japan

Developing countries



Animals and People First



Animals and People First



- **Agriculture and the WTO**
- **Animal Welfare and Food Security**
- **Animal Welfare and Trade**
- **Animal Welfare and the Future**

EU trade

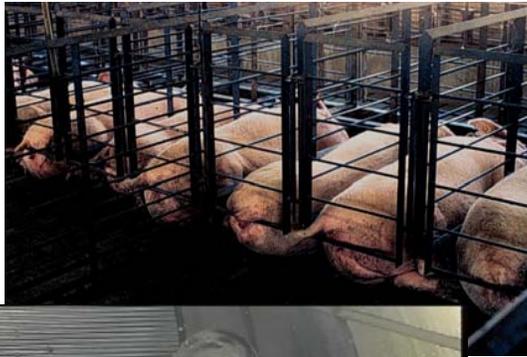


- Bilaterals
- Animal Welfare Action Plan 2006

EU Animal Welfare Action Plan 2006

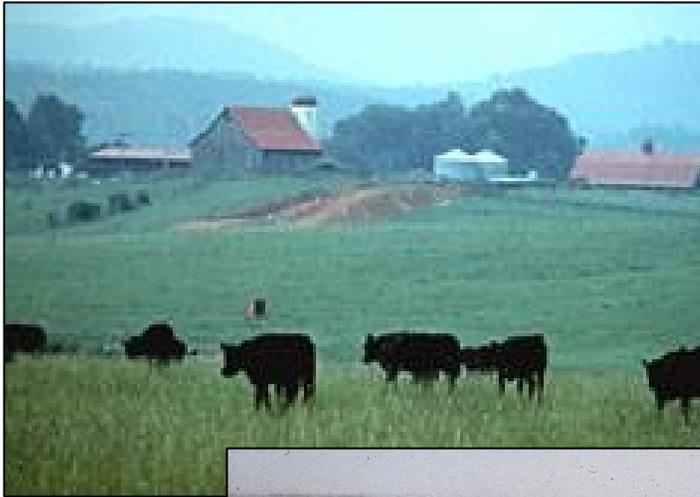
1. Upgrading minimum standards
2. Researching the 3 Rs
3. Introducing international initiatives to raise awareness and create a greater consensus on animal welfare, including standardised indicators
4. Ensuring keepers and public are informed, including engaging with Developing Countries to explore trade opportunities
5. Continuing to support and initiate further welfare friendly production systems.

Intergovernmental organizations



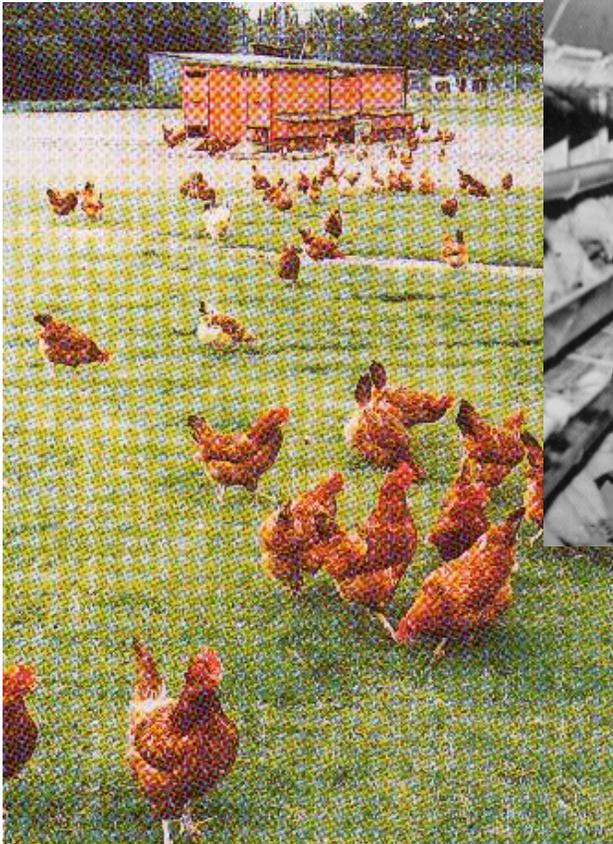
- International Finance Corporation
- UN Food & Agriculture Org.
 - Good Agricultural Practices
- World Animal Health Org. (OIE)
 - Animal welfare standards
 - **Implementation?**

World trade, sustainability and farm animal welfare



Sustainable
agriculture?
Abstainable
agriculture

Abstainable agriculture is not sustainable



Disease Transfer Potential: Impact on Animal Husbandry and International Trade



Future Trends in
Animal Agriculture

Washington, D.C.
September 20, 2006

W. Ron DeHaven, DVM
Administrator
USDA, APHIS



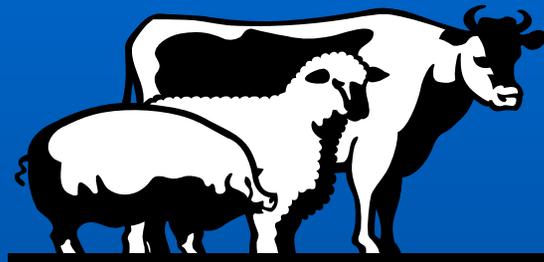
Protecting American Agriculture



APHIS and Animal Welfare



- ❖ Enforces the Animal Welfare Act (AWA)
- ❖ Safeguards Health of U.S. Agricultural Animals



Protecting American Agriculture



U.S. International Trade in Agricultural Animal Products

Role of APHIS:

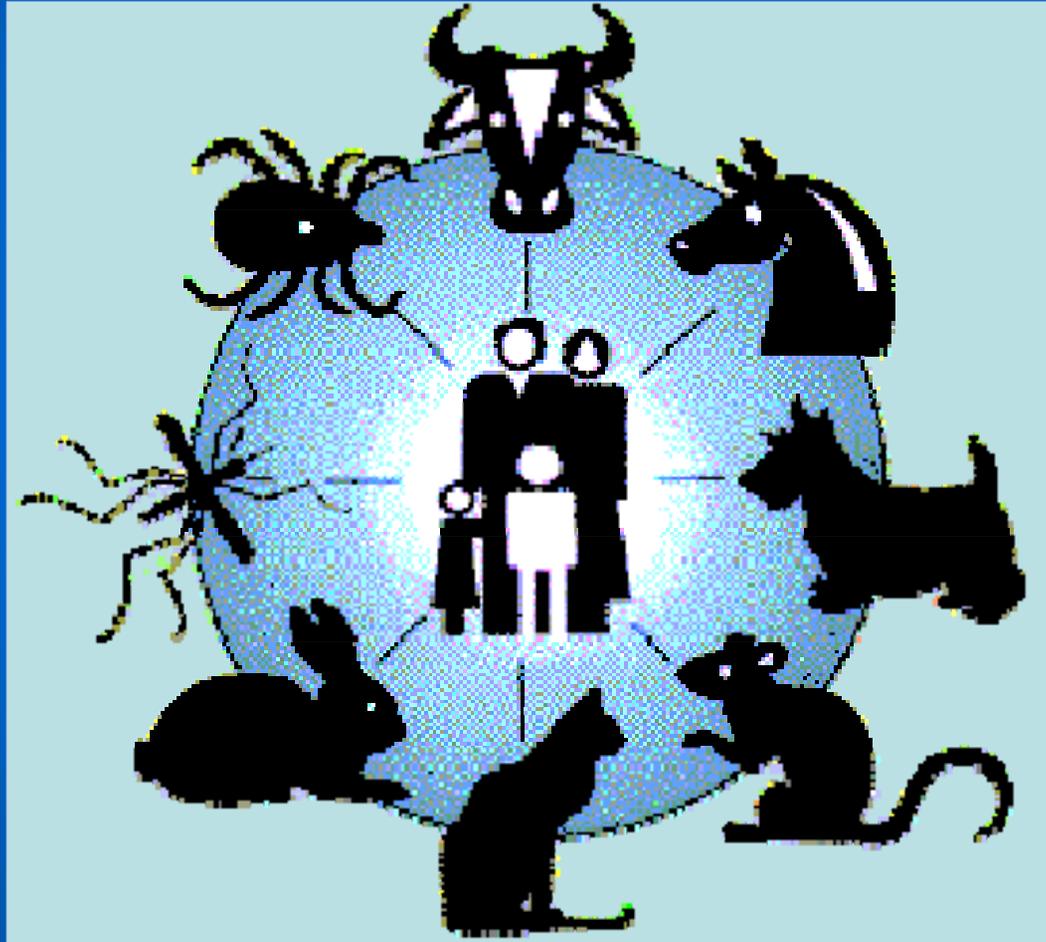
- ❖ Protects and certifies health of U.S. agricultural animals and animal products
- ❖ Regulates foreign agricultural imports to prevent entry of foreign animal diseases (FAD).



Protecting American Agriculture



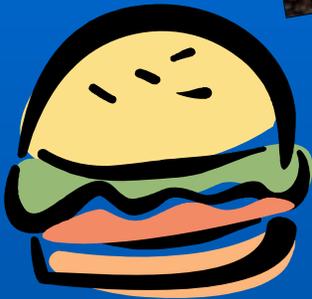
Emergence of Zoonotic Diseases



Protecting American Agriculture



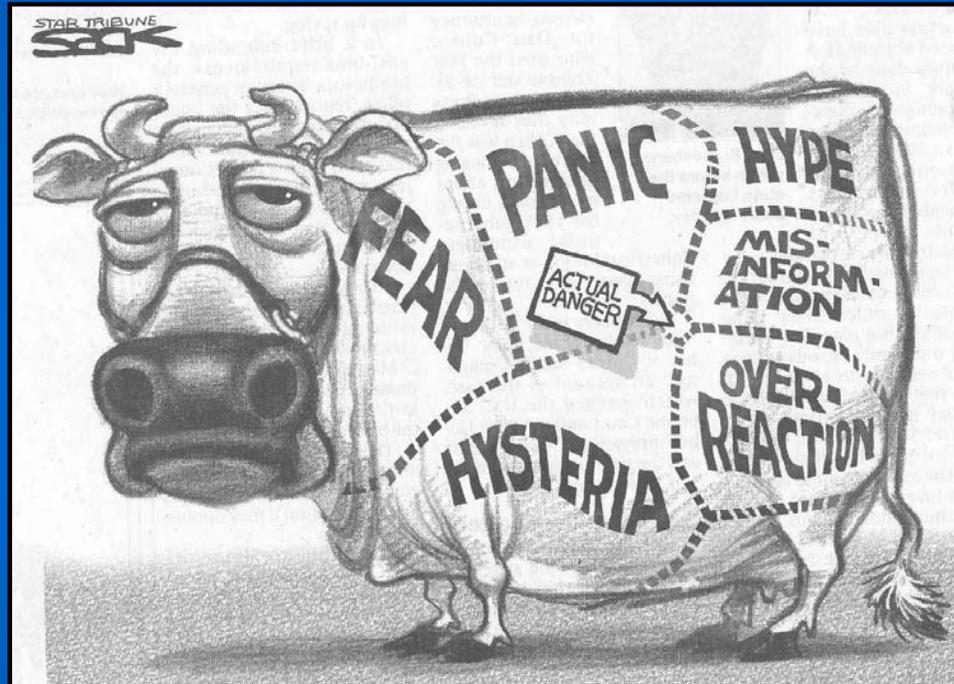
Animal Health and Food Safety



Protecting American Agriculture



BSE: Risk Communications Challenge



Science vs. public perception



Protecting American Agriculture



 Ottawa Citizen
Caglecartoons.com

REALITY CHECK...



THIS KILLED 42,643 AMERICANS IN 2003



THIS HAS KILLED 0



Protecting American Agriculture





Overlapping BSE Safeguards

Include:

- ❖ Import restrictions since 1989
- ❖ Active BSE surveillance since 1990
- ❖ Feed ban since 1997
- ❖ SRM removal since Jan 2004



USDA BSE Surveillance

- ❖ Aggressive surveillance since 1990
- ❖ Enhanced program launched in June 2004
- ❖ Targeted population:
Adult cattle, clinical
abnormality consistent
with BSE.



Protecting American Agriculture



U.S. BSE Prevalence Estimate

- ❖ Calculation based on 7 years of surveillance data
- ❖ Analysis submitted to peer review process
- ❖ Based on population of 42 million adult cattle
- ❖ Extremely low prevalence:
<1 case per million
- ❖ Used to establish appropriate level for ongoing surveillance



Ongoing BSE Surveillance

USDA's ongoing sampling level:

- ❖ Corresponds to extremely low U.S. prevalence;
- ❖ Allows USDA to detect BSE;
- ❖ Provides mechanism to identify any unexpected rise in prevalence rate.



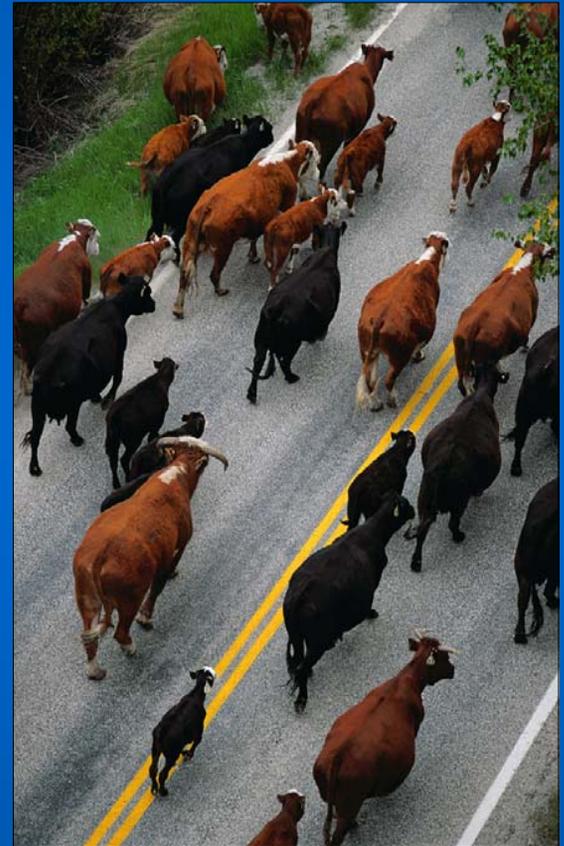
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Recent Progress in Regaining Export Markets

Examples:

- ❖ Reopening of Japanese market to U.S. cattle <20 months of age
- ❖ Reopening of Canadian border to all U.S. cattle



Aligning BSE Trade Policy with OIE Standards

OIE Guidelines:

- ❖ Based on level of BSE risk in each country
- ❖ Do not recommend complete prohibition
- ❖ Outline conditions under which live animals and animal products can be safely traded
- ❖ 3 levels of risk status:
 - ✦ negligible,
 - ✦ controlled,
 - ✦ undetermined



Avian Influenza



First and foremost, a disease of birds



Protecting American Agriculture



The United States: Currently Free of HPAI

- ❖ Robust Federal, State, local measures to control/manage AI
- ❖ Previous eradications of U.S. HPAI in 1924, 1983, and 2004
- ❖ Previous eradications of LPAI

We are prepared to deal with outbreaks of HPAI.



Protecting American Agriculture



Highly Pathogenic Avian Influenza (HPAI): Global Implications/Current Situation



Confirmations on 3 continents

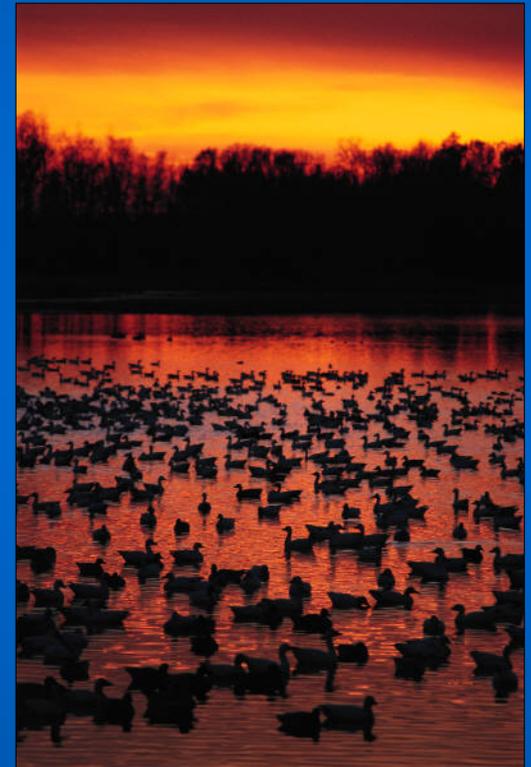




Addressing AI

Prepare for human pandemic while attacking avian source of disease:

- ❖ Prevent introduction
- ❖ Surveillance
- ❖ Vaccine research



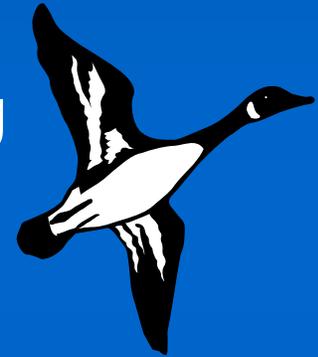
Protecting American Agriculture



Examples of Domestic AI Prevention Measures



- ❖ Enhanced smuggling interdiction and compliance
- ❖ Surveillance of wildlife/bird flyways
- ❖ Enhanced planning, equipment, training
- ❖ Continue R&D to improve tools:
 - ✦ Vaccines,
 - ✦ Genome sequencing,
 - ✦ Surveillance,
 - ✦ Biosecurity



Protecting American Agriculture



U.S. Commitment to Global AI Response Efforts

- ❖ \$25 million for AI eradication in Asia
- ❖ \$17.8 million to support international biosecurity, surveillance, diagnostic measures
- ❖ FY 2007 budget includes funds to improve overseas preparedness and response
- ❖ USDA works w/State Department and the USAID



U.S. International Efforts



- ❖ Funding
- ❖ Training
- ❖ Technical Expertise
- ❖ Diagnostic Equipment



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USDA Response in Asia

- ❖ Laboratory capacity enhancement
- ❖ “Best practices” workshops
- ❖ Wild bird surveillance
- ❖ Vaccine efficacy study



Protecting American Agriculture



International Training

- ❖ “Train-the-trainer” activities
- ❖ In-country consultancy
 - ✦ Live bird market “best practices” workshops
 - ✦ Domestic poultry surveillance pilot programs
- ❖ National Veterinary Services Laboratories workshops



Protecting American Agriculture



USDA International Efforts

Recent examples:

- ❖ Assistance to FAO for the development and staffing of Rome Crisis Management Center;
- ❖ Assistance and personnel support to Sudan; and
- ❖ August 2006 live bird market course for international participants in Minneapolis.



Protecting American Agriculture



Other International Efforts

- ❖ Emergency response teams to Turkey, Armenia, Azerbaijan, and Georgia
- ❖ Consultant to Ukraine, Cambodia
- ❖ Technical experts, rapid test equipment to Romania
- ❖ Technical expert to Nigeria
- ❖ APHIS and FAS attachés





Long-Term Strategy: A New Proposal

- ❖ A coordinated, international approach
- ❖ To be implemented through



- ★ The Food and Agriculture Organization (FAO) of the United Nations (UN)



- ★ The World Organization for Animal Health (OIE)



Protecting American Agriculture



A Dual Approach:

- ❖ Disease elimination activities
- ❖ Structural improvements to animal health services



*Requires coordination
+
defined leadership and support functions*



Protecting American Agriculture



Plan Components

- ❖ Leadership under OIE and FAO
- ❖ Consistent Assessment of Animal Health Services Capacity + H5N1 Eradication and Control Plans
- ❖ Establishment of World Bank Trust Fund



Implementation Steps

- ❖ Evaluation using standardized methodology
- ❖ Carefully planned attempts to improve animal health services capacity
- ❖ Prioritized list of needs
- ❖ Country-by-country response



Benefits of Coordinated International Approach

- ❖ Strengthened international partnerships, foundation for international animal health infrastructure
- ❖ Resources and infrastructure established to deal with future pandemic threats.



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Protecting American Agriculture



Questions?



Protecting American Agriculture



Economics and Animal Welfare:
*Could these Forces Combine to Move
Animal Production Outside the USA?*

W. Ray Stricklin
University of Maryland
College Park

Some possible indicators that outsourcing of Animal Agriculture will occur.

- China is largest pork producer (and consumer?) with enormous labor force.
- Large-scale animal ag in SE Asia based on export to Taiwan, Hong Kong, Japan, Europe, etc.
- Example of AAALAC International growth in accredited units outside the USA.
- Example of the American furniture industry
 - Logs now shipped to China
 - Furniture shipped back.
 - Piedmont no longer produces furniture.

Global Factors & Animal Welfare

- **General movement toward a Global Economy.**
- **European Union has established rules for animal welfare.**
- **Canada, Australia, New Zealand, and others also have Codes of Practice for Food Animals.**
- **USA has no federal standards for the housing, care and treatment of farm animals.**
- **Animal welfare (AW) and trade is growing issue.**
- **USA will not be able to continue to avoid addressing AW and trade on the basis that AW is not a scientific issue.**

Possible Implications of Moving Animal Production Outside the USA

- **Cheaper Food.**
- **Increased Trade Deficit.**
 - Export of raw materials (grain and soybeans)
 - Import of processed foods.
- **Less Control Over Production Practices.**
 - Less enforcement of environmental standards
 - Less legislative and societal influence on transport, slaughter, etc.
 - Less control over growth and health-related additives
- **USA Economy.**
 - Fewer immigrant workers food production and processing
 - Fewer farms and processing plants
 - Loss to rural community economies (feed suppliers, etc.)
- **Increased Homeland Security Concerns.**
 - food supply and distribution issues.

Hodges (1999) wrote:

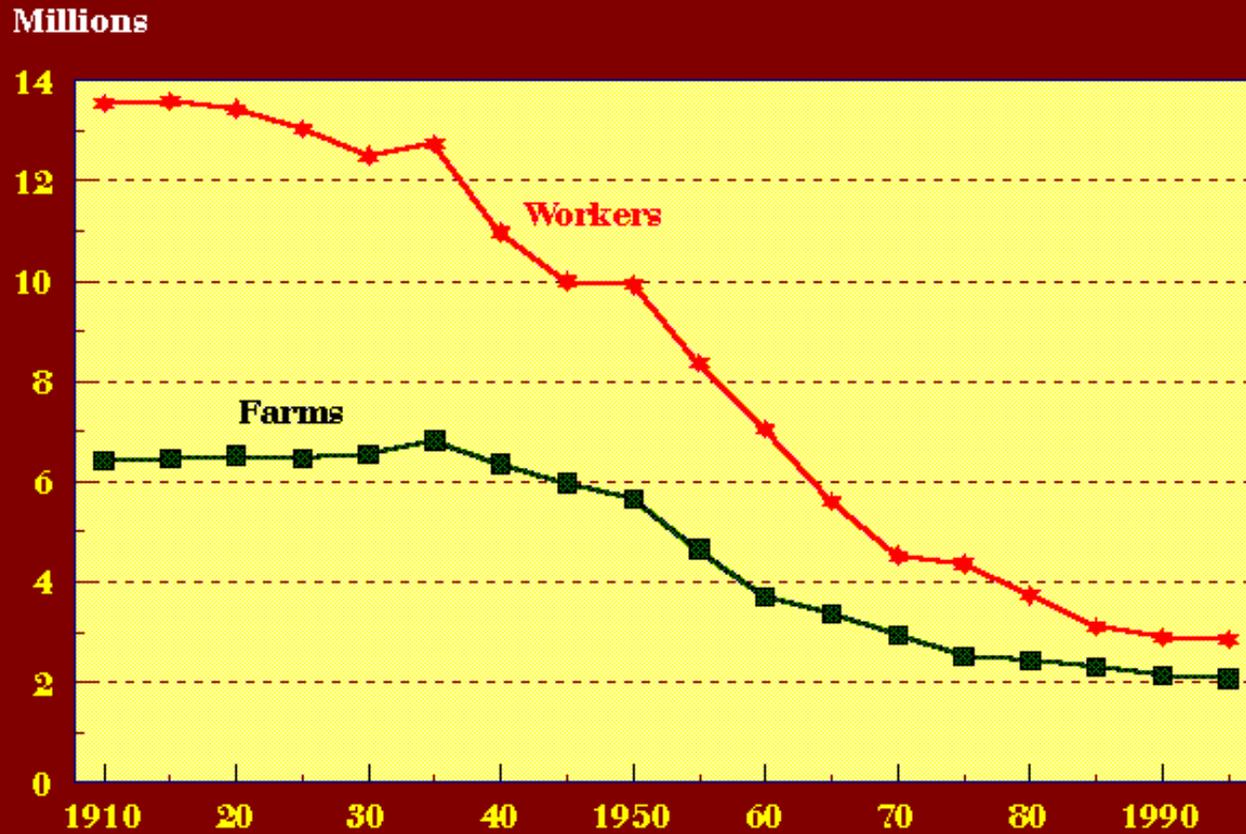
“During the 50 years since the end of World War II, *farming in the West has changed from a way of life to a business. Animal producers now make decisions as business people husbanding their profit, return on investment and costs. As the benefits of scale are captured, livestock production has intensified. Science serves the farmer less directly. Today, research impacts the farmer mainly through upstream and downstream businesses, especially the chemical, food-processing and pharmaceutical companies. Many of these businesses merged in the 1990’s, so that at the end of the 20th century a few multinational companies are enormously powerful players on the world scene.*”

Bottom Line

- Moving Animal Agriculture outside the USA is not in the long-term best interest of any party including:
 - Citizens of the general public.
 - The farm community.
 - Animal protection advocates.
 - Farm animals.
- The benefits to Americans that accrue arise primarily from short-term profits and short-term cheap food.
 - Persons of other countries benefit from trade, employment, etc.
 - Stock holders (and pensioners) benefit from profits.

U. S. Number of Farms & All Farm Workers 1910 - 1995

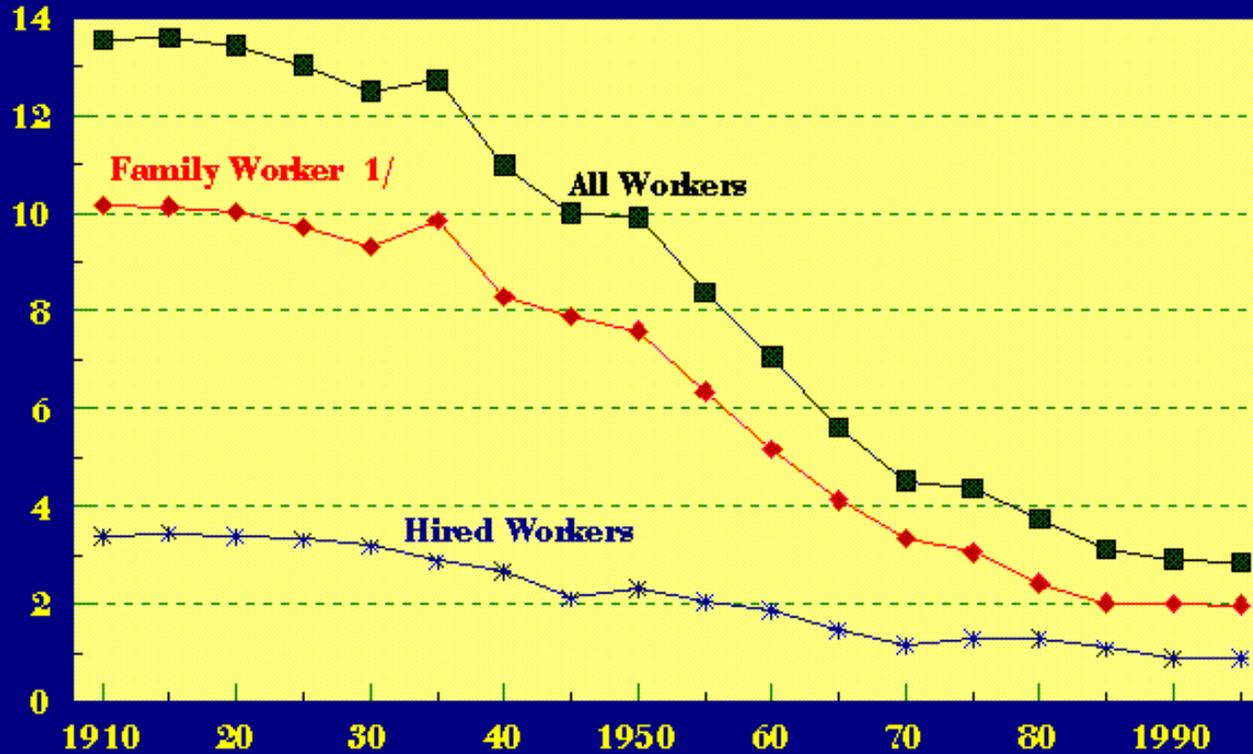
USDA-NASS
(May, 2001)



- 1) Greater use of technology has led to less stoop labor,
- 2) But it has also led to fewer farms and farm communities.

U. S. Farm Workers, by Type 1910 - 1995

Millions



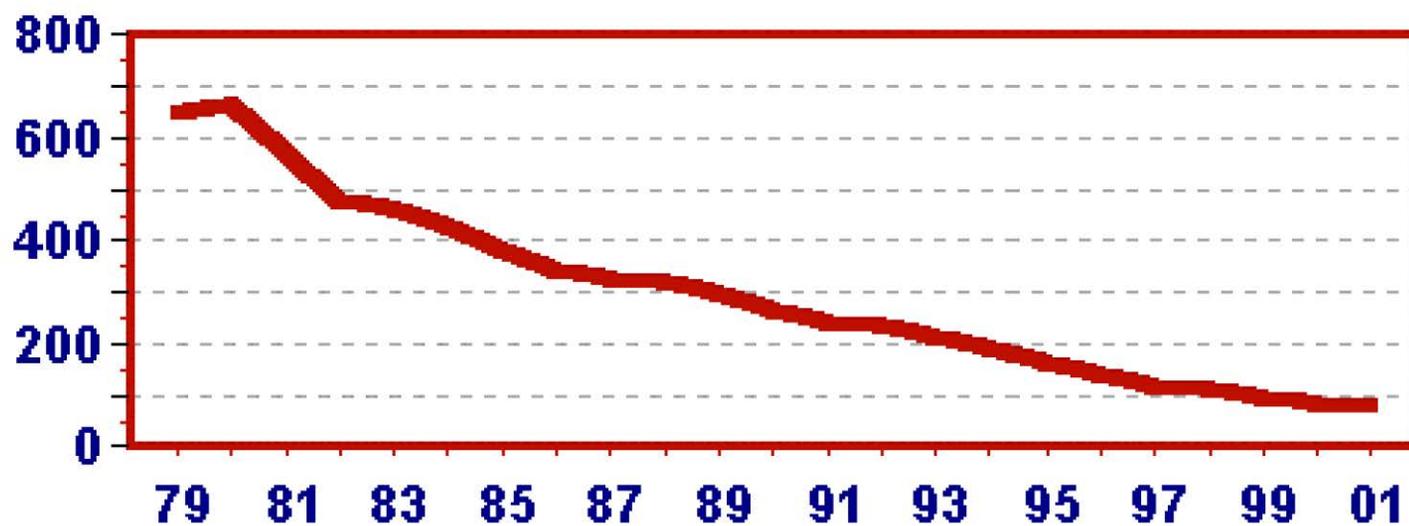
USDA-NASS
(May, 2001)

1/ Self Employed and Unpaid

Much of the decrease in the farm labor force has been in the farm family (wife and children).

Number of Hog Operations, United States

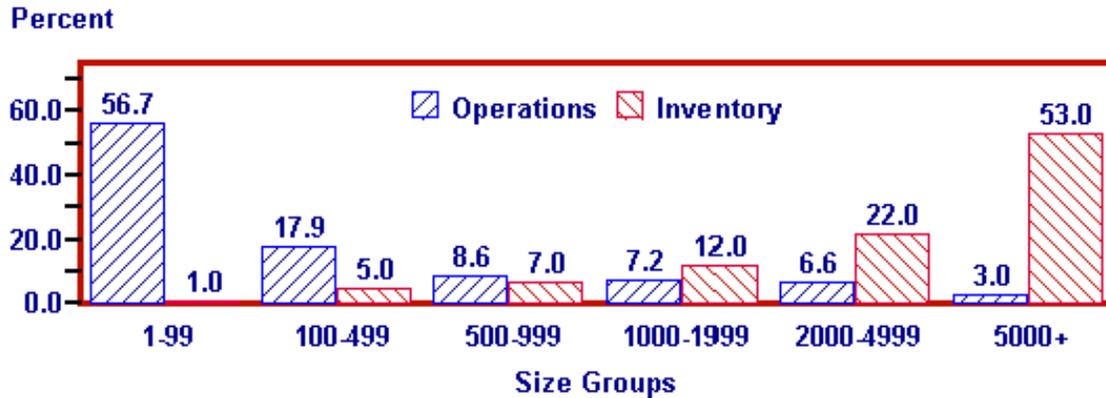
Thousand



USDA-NASS

12-28-2001

U. S. Hog Operations Percent of Operations and Inventory, 2002



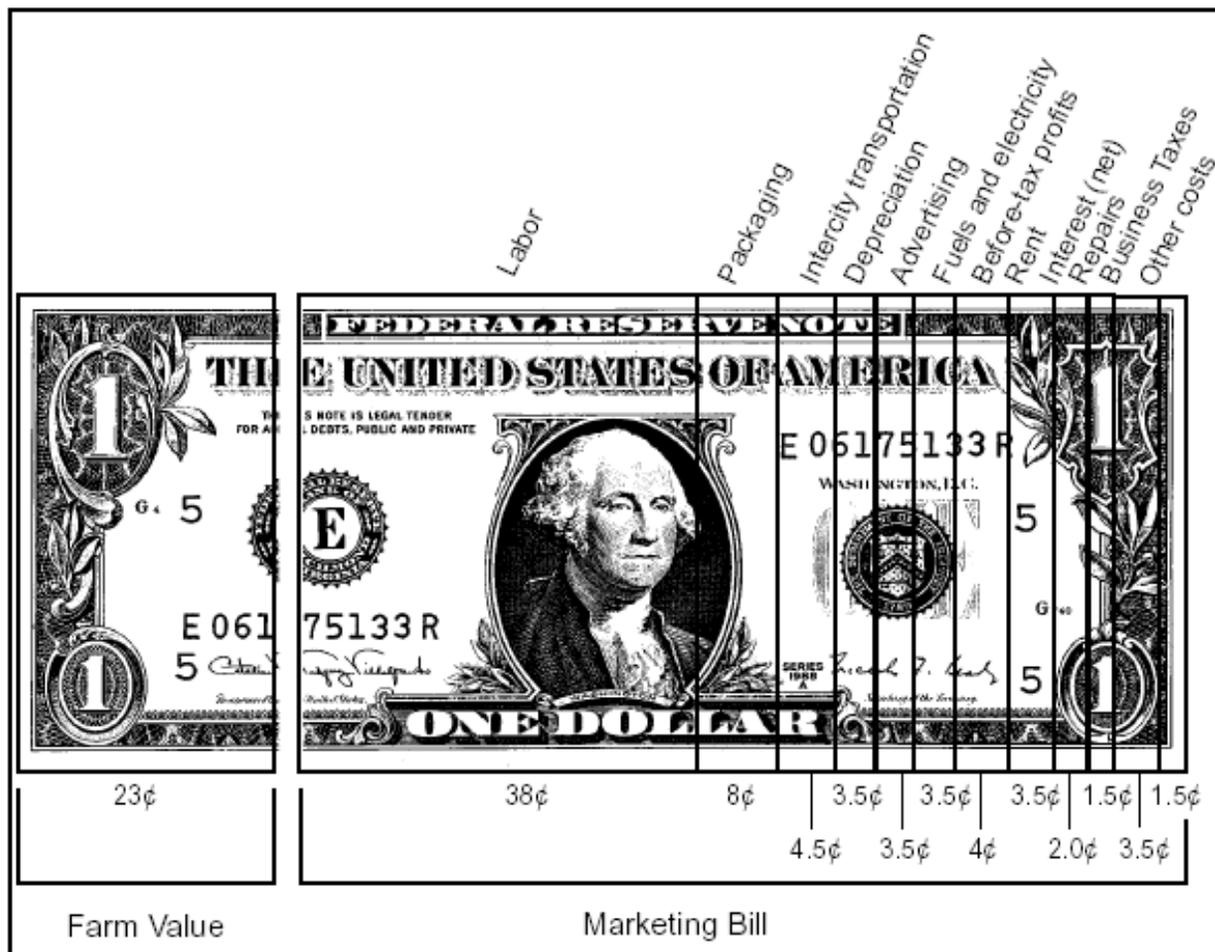
USDA-NASS
12-30-2002

10% of owners control 75% of the hogs.

85% of farms with <1000 hogs, But own only 13% of the hogs.

- 1) Animal activists need to recognize that it is very unlikely that small-scale systems will ever again produce the majority of pork.
- 2) “Corporate Ag” needs to recognize and accept the benefits of small-scale production systems including:
 - a) giving the public a choice of production systems is good public relations.
 - b) diversity/redundancy has Homeland Security benefits.
- 3) Both parties need to work toward developing “reasonable” Codes of Practice for Animal Agriculture.

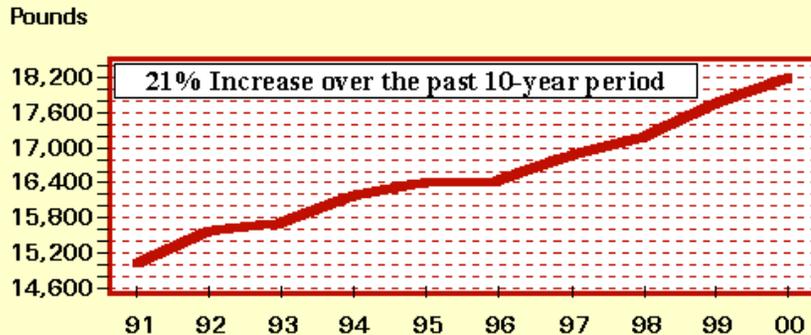
Breakdown of average dollar spent for food.



<http://www.usda.gov/factbook/2002factbook.pdf>

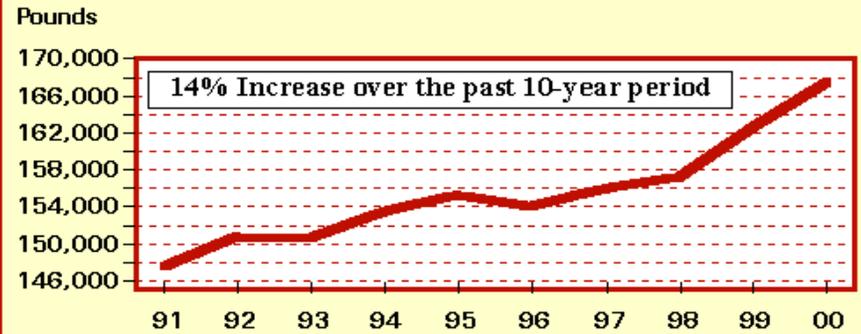
Labor in marketing accounts for the biggest expense!
 Production location will likely be based on labor costs.

Milk per Cow, 1991-2000 United States



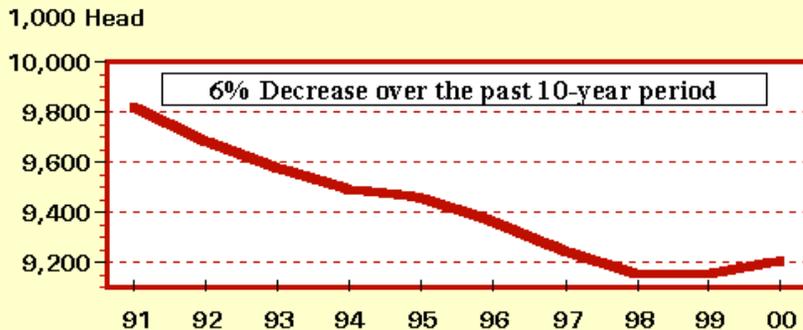
USDA-NASS
2-16-2001

Milk Production, 1991-2000 United States



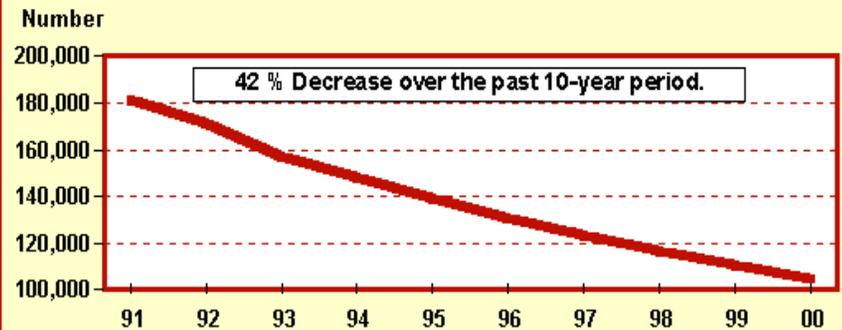
USDA-NASS
2-16-2001

Milk Cows, 1991-2000 United States



USDA-NASS
2-16-2001

Milk Cow Operations, 1991-2000 United States



USDA-NASS
2-16-2001

Swedish Farm Animal Rights - “Cows must have access to pasture”.



But many cows are kept continuously in tie-stalls from November to May!

How much milk should be asked of one cow?

- Swedish students tend to seek optimal answer through compromise by balancing :
 - Interests of the owner,
 - Impact to the environment,
 - Preservation of the rural community tradition,
 - Interests of the cow.
- American students tend to divide up into those who argue over:
 - rights of farmer vs. rights of the cow.
 - Is this the model of today's American society?
 - Red vs. Blue, Animal protection vs. Animal Ag., etc.

A review of survey data of the past 50 years.

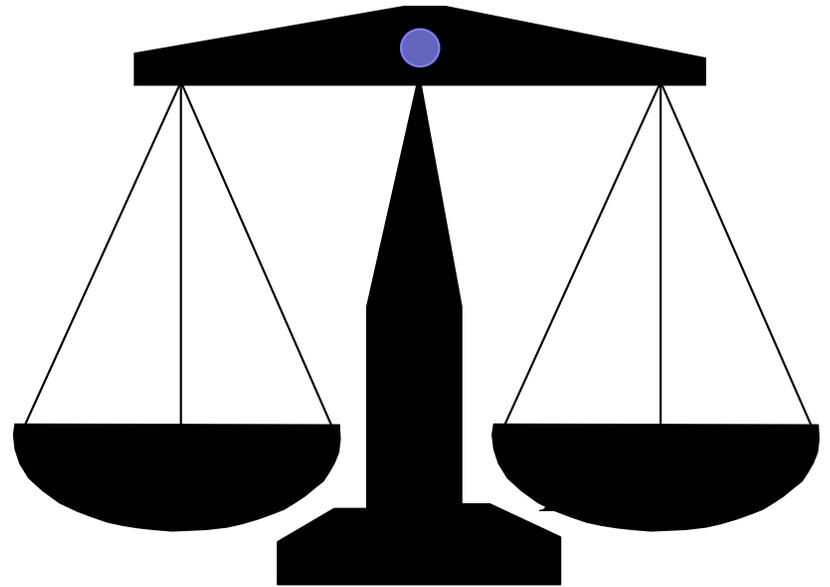
(HSUS Publication; Herzog et al., 2001)

- Believe that the majority of farmers/ranchers treat their animals humanely.
- Express greater concerns about intensive confinement (veal crates, battery cages, gestation stalls, etc.).
- Say they will pay more for products from humane systems.
- Generally believe that meat and egg industries can be relied upon to regulate/police themselves.
- Overwhelmingly believe that groups such as USDA should be involved in protection of farm animals.
- Wish to continue animal products in their diets.

Goal of Animal Agriculture

Finding an Optimal Solution

- ***Minimize the costs*** to:
 - animals,
 - environment, and
 - humans (health, worker safety, rural society, etc.)
- ***Maximize the benefits*** to each party.



A review of survey data of the past 50 years.

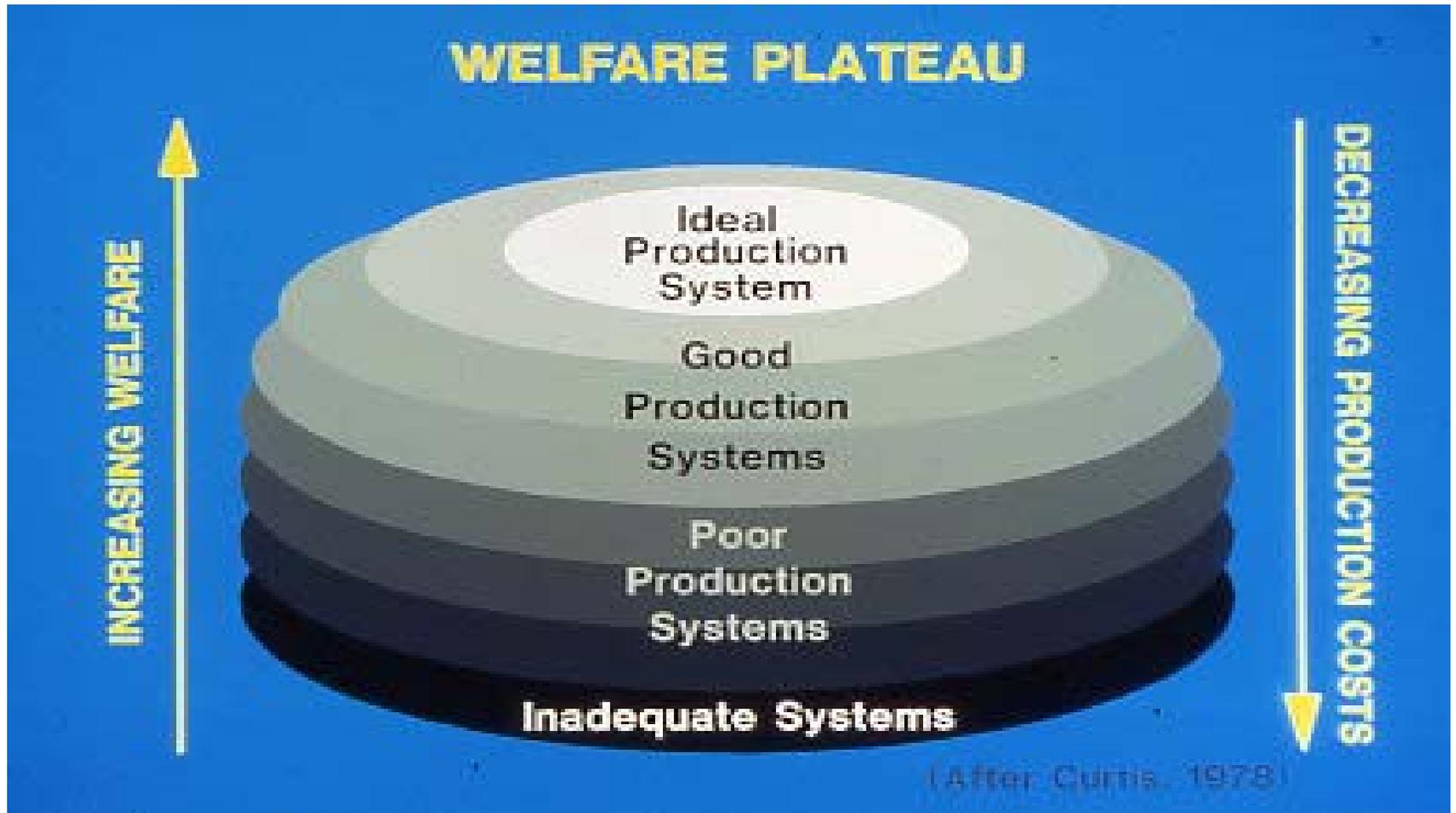
(HSUS Publication; Herzog et al., 2001)

- Only ~2% of Americans are “true” vegetarians.
- Majority of persons state that health concerns are the basis for choosing to avoid certain animal products.
- There is no detectable trend toward increasing vegetarianism.



- 1) Vegans propose to “liberate” food animals by bringing forth their non-existence.
- 2) Animals can benefit from their existence, but only IF they experience a reasonable “quality of life”
- 3) And Animal Agriculturalists need to *seriously* work toward meeting this goal.

Working toward an Optimum



Overview of The Important Questions

- ❑ Can outsourcing of American animal agriculture be stopped?
 - *I don't think so – but believe we should still discuss the topic which possibly will lessen the impact.*
- ❑ Should it be stopped – or at least lessened?
 - *I believe the cons for outsourcing outweigh the pros in total.*
- ❑ What can be done to counterbalance outsourcing?
 - *Cooperation, not continued warfare, between animal protection groups and animal agriculture.*
 - *Both sides need to move toward compromise.*

How Must or Should the USA Address Trade and Animal Welfare Issues?

Marlene Halverson, Farm Animal Economics
Advisor, Animal Welfare Institute

Addressing International Trade Complexities of Animal Welfare

Future Trends in Animal Agriculture Symposium

U.S. Department of Agriculture

September 20, 2006

Presented in two parts:

(1) Addressing animal welfare within the
WTO framework

(2) Addressing animal welfare as a trade
issue at home

(1) Addressing animal welfare within the
WTO framework

Animals have not fared well historically in the
WTO deliberations – dolphin-tuna case

Given that the WTO is the framework within
which international trade decisions are made,
however, some approaches the U.S. can and should
take to help improve the welfare of food animals

The Office of the U.S. Trade Representative, in its October 10, 2005, proposal to the WTO, included

Animal welfare in the “Green Box” category

and called for

No cap on “Green Box” expenditures

Animal welfare groups too generally support inclusion of animal welfare in the Green Box category and favor no caps on *legitimate* Green Box expenditures. Therefore,

These important steps by the USTR must not be lost with the collapse of the Doha round.

As we have heard the EU is doing, the U.S. must endeavor to make animal welfare a meaningful part of every Free Trade agreement it enters into with other nations

Why?

It is the right thing to do.

Adopting animal welfare friendly practices does not, as a rule, increase quantities of output or volume of production over conventional practices, and so is not trade-distorting

Adopting animal welfare friendly practices may result in higher costs per animal or animal product produced and may result in reduced numbers a farmer is able to manage, potentially resulting in income loss to the farmer, for which society should pay

Adopting animal welfare friendly practices has social benefits,

Less extractive production with respect to natural resource and animal use (conservation and animal longevity)

Less destructive and in some cases more beneficial impacts on the natural environment

In some cases, consumers are willing to pay more for products from farmers using higher welfare practice because of

Impacts on the animals

and because

In some cases animal welfare practices, e.g., grazing, using sturdier breeds of animals, result in products that have noticeable quality improvements – e.g., taste, texture, nutritional value.

Aspects of animal welfare whose costs cannot be recouped by increased returns to the farmer are the public good aspects of animal welfare

Placing animal welfare in the Green Box recognizes the non-commodity, public good nature of animal welfare

It further recognizes, by extension, that governments can support and reimbursements to farmers who make investments to improve the lives of their animals, without increasing production or distorting trade.

Further, engaging in these practices has social benefits.

The EU is preferring for the time being to focus on market-led solutions such as labelling and consumers willingness to pay

However, market led efforts do not always deliver a socially optimal level of a public good and are not an adequate method for ensuring that all or the majority of animals are raised by high welfare methods.

As “Green Box” supports, compensations paid to farmers in countries where society makes strong demands for high food animal welfare can help offset adverse impacts of competition from cheaper imports, given current tariff policy

Therefore, the US should hold to its position that animal welfare is a non-trade concern appropriately assigned to the Green box,

However, to avoid including among the Green Box programs potentially trade distorting practices that do not improve the lives of animals it is important to define scientifically what production practices qualify as supporting animal welfare and so

The US must rely on the science-based, international animal welfare standards for husbandry and housing of terrestrial animals that are under preparation by OIE

The US must eliminate its own trade-distorting subsidies and press other countries to eliminate trade-distorting subsidies

Why?

Trade-distorting subsidies have contributed to intensification, concentration, and industrialization of animal production which, in turn, has resulted in poorer conditions for food animals, and has had other detrimental social outcomes including on the natural environment and public health (including health of workers)

Trade distorting subsidies must be replaced by non-trade distorting agricultural supports, such as supporting farmers who meet certain standards of animal welfare.

The U.S. should support mandatory food labelling programs, as regards methods of production, incumbent on every WTO member

Consumers can choose which kinds of farms and products they want to support and whether they will pay more for them

The USTR has described the U.S. commitment to work with other developed countries to provide “aid for trade” to help developing countries build capacity to take advantage of trade opportunities.

Indigenous farmers in many developing countries already tend to keep their livestock more extensively and under less industrialized systems than in developed countries.

Training and trade capacity building programs that help them retain and enhance the best aspects of their production methods as regards animal welfare and improve others, will improve their ability to market their products as meeting specific welfare standards, potentially increasing their incomes and having positive impacts on their social welfare

It is important to be concerned with what form trade building assistance takes and who recipients of the aid are.

The U.S. must distinguish between truly trade-capacity-building assistance for indigenous producers and trade distorting assistance that enables U.S. and other corporations to help themselves to sectors of a developing country's agricultural economy.

Contrasts:

True trade capacity building:

HIS efforts to assist Central American farmers in trade negotiations and in building trade capacity for themselves, discussed earlier in program

Trade-distorting and exploitive measures

Assistance to help Smithfield Corporation recruit contract growers from among poor, indigenous farmers for its industrial pig production facilities in Poland and Romania, as a means of getting its pork into the European Union

The U.S. and WTO must recognize the right of countries to protect livelihoods of their agricultural producers when those producers are held to higher standards of animal welfare that are unique to their country

Such countries must have the possibility to place tariffs on imported goods produced to a lower standard and more cheaply, by classifying their own high-welfare products as sensitive products

Countries must be able to decide which goods they will import

The Doha Development Agenda was intended to help poor countries with improving farmers livelihoods through sustainable rural development

In a soon to be published Institute for Agriculture and Trade Policy report, it is noted that many of the DDA's major benefits would not have accrued to the poor countries but to multinational trading entities and corporations in richer countries

The U.S. must rethink its policy of zero-tariffs, zero-subsidies, and free market access and recognize that tariffs and subsidies can have an important place in protecting people, animals & environment

(2) Addressing animal welfare as a trade issue at home

In addition to the direct commodity outputs of agriculture, there are non-commodity outputs or byproducts of the agricultural production process that are not traded but that nevertheless have significant impacts on people, animals, and the environment.

The U.S. has acknowledged their existence and expressed its support for the “Green Box” concept to account for them

Yet, industry disputes the existence of *multifunctionality*

Responsible agencies within the U.S. government and other institutions that have the ear of agriculture can and should educate the food and farming industry concerning this useful concept that farmers could potentially benefit from,

For example, through garnering financial supports for adopting socially desirable production methods that deliver social goods

The U.S. animal agriculture industry must accept that societal demands for higher animal welfare in animal agriculture are not going to go away just because they are denied

Continued resistance to consumer concerns costs valuable time and money that could be better spent on improving the industry's technologies and performance with regard to treatment of agricultural animals and bring the U.S. into balance with other developed nations that have made animal welfare a priority in their program and policy development

We only have to look at the many U.S. farmers already making transitions on their own with the help of domestic policies such as EQIP, the Conservation Reserve Program, and the Conservation Security Program.

The Canadian model of constructive dialogue and voluntary code setting discussed earlier in this program is instructive in this regard.