What Are Verification Programs & Why Do We Need Them?

International & Domestic Marketing Perspectives

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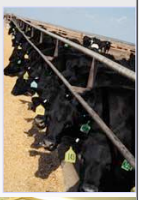
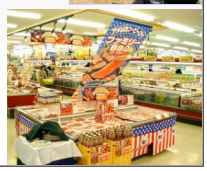
Why AID, Traceability, Source Verification &/or Process Verification?

(1) **Protecting our nation's livestock herds** -- preparedness for disease & bioterrorism.

(2) **Promoting consumer confidence** -- to assure export-market access & to deliver on brand promise.

(3) **Adding value as a benefit of supply-chain management** -- improving ability to capture & evaluate critical information that will improve management capabilities & profitability.





SOURCE: Leann Saunders (IMI Global, Inc.) 2004.

Depth, Breadth & Precision Of Traceability In Global Beef Supply Chains

Depth: "how far back &/or forward relevant information is tracked" -- best systems are EU & Japan.

Breadth: "amount of information collected" -- Brazil, Japan, Australia & EU have the broadest systems.

Precision: "degree of assurance with which a tracing system can pinpoint a particular food product's movement or characteristics" -- Japan, EU, Australia & Brazil are most precise because individual animals & their farms-of-origin can be linked with beef systems & their systems rely on verification by public or private auditors.

SOURCE: Souza-Monteiro & Caswell (2004), http://www.umass.edu/resec/workingpapers.htm.

Types of Traceability (Depth, Breadth, Precision)


Ranch


Stocker


Feedlot

Plant (FSIS Inspection)

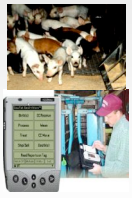

Carcass Fabrication

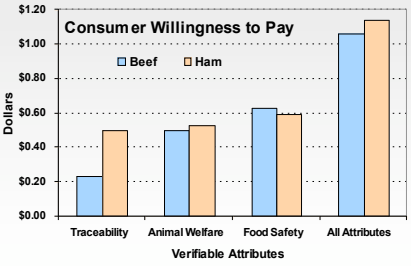

Packaging


Distribution


Retail / Food Service/Consumer

Traceability & Consumer Demand





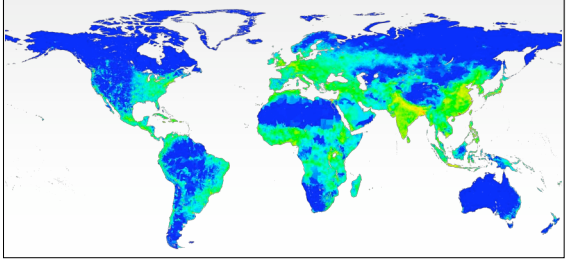
SOURCE: Kevin Smith, USMEF (citing: 2002 Dickson & Bailey, "Meat Traceability: Are US consumers willing to pay for it?") 2004.

World & U.S. Populations

June 5, 2007 Source: U.S. Census Bureau

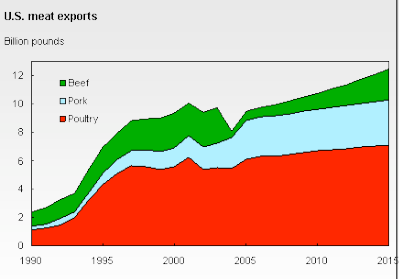
U.S. = **302,011,413** Rest of World = **6,297,713,397**

- Therefore, only **4.6%** of global consumers live in the U.S.
- Opportunity for growth lies with **95.4%** that live outside the U.S.



Trade of Red Meats & Poultry

- U.S. beef exports reflect demand for high-quality fed beef. Market recovery in Japan & Korea will increase exports; beef exports per month doubled since 2005 (54,000 tons/mo).
- Current low valued U.S.$ is helping make U.S. meat attractive to overseas buyers.



Source: *USDA Agricultural Baseline Projections to 2015*, February 2006. Economic Research Service, USDA.

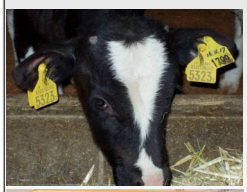
SOURCE: USDA-FAS ("Livestock & Poultry: World Markets & Trade," March 2006)

Verification & Beef Export Markets

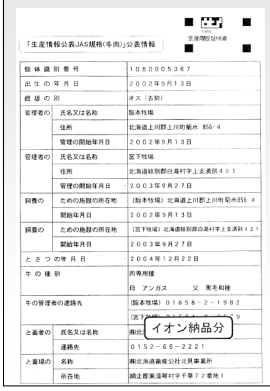
Phillip Seng, USMEF

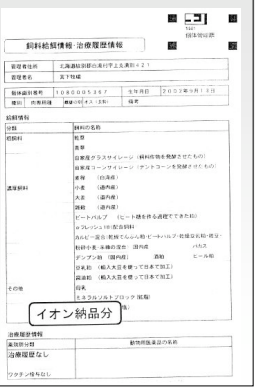
- Export markets for red meat are as important now as they ever have been; the beef industry was made acutely aware of this December 23, 2003 with discovery of BSE.
- A growing trend among consumers globally is the fact that most are no longer willing to simply accept what they are told.
- International consumers seem to desire verification of claims more than U.S. domestic consumers; this is thought to be driven by the overall level of trust in government & non-government organizations.
- Being able to verify certain attributes through auditing, traceability, & AID is becoming one of the hottest topics for global meat trade.
- The EU market is now beef deficit (demand exceeds production), & has considerable potential for growing U.S. beef exports. In order to access this market, individual AID & traceability are required to provide necessary verification.
- Some lucrative markets for U.S. beef, like Japan & South Korea, require some kind of processor verification program for participation . . . therefore AID, traceability, & verification will be the "price of admission."
- Not only did BSE remove the U.S. from many international markets, it gave momentum to competitors like Australia, Argentina, & Brazil. Our competitors have generally surpassed the U.S. in AID, traceability, & verification.
- There is value for producers participating in export programs which should be capitalized on as quickly as possible, before more market share is lost.

Japanese ID System



Japanese Kiosk Printouts





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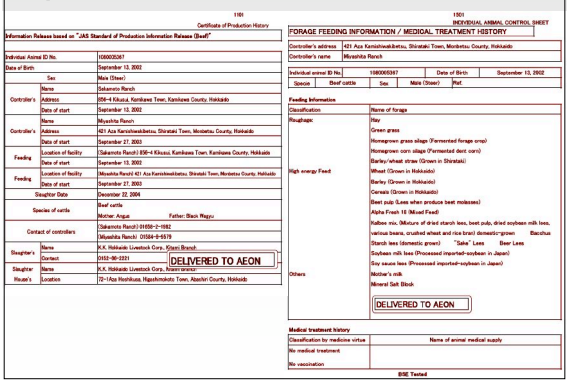


Brazilian Agricultural Production

AGWEEK
8-2-04

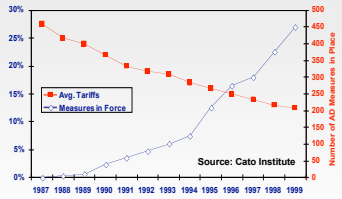
BOUND FOR BRAZIL

▶ About 170 John Deere tractors, built in the Waterloo, Iowa, factory, pass under Edgewood Road Northeast in Cedar Rapids, Iowa, on board an Iowa Northern Railway Co. train enroute to Galveston, Texas, for shipment to Brazil. Iowa Northern Railway Co. President Daniel Sabin says the train was more than a mile long with 85 rail cars of tractors.

Emerging Market Access Issues

As tariffs fall . . .

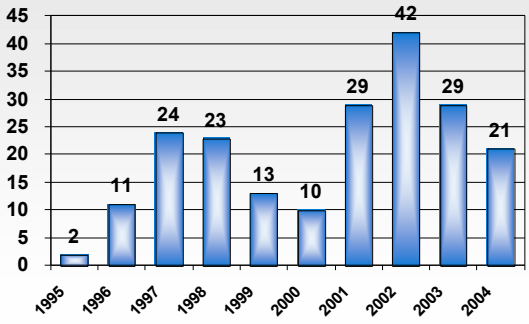
- ✓Unscientific SPS standards (e.g., hormone ban, disease restrictions, zero tolerance).
- ✓Technical barriers (e.g., burdensome paperwork, slow approvals).
- ✓Anti-dumping measures (traditionally used by developed countries, but use is increasing among developing countries).



World Health Organization

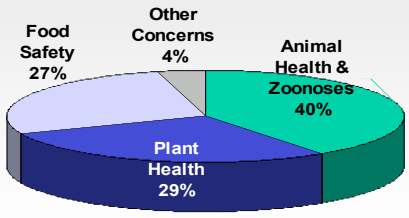
About 75% of new diseases affecting humans over the past 10 years were caused by pathogens originating from an animal or animal products.

Number of New SPS Issues Raised Each Year



Source: WTO

SPS Trade Concerns by Subject



Source: WTO

Select (of 87) Animal Health Market Access Issues: Beef (October 2006)

Country	Issue Name	Description
Japan	BSE Restriction	Only accepts beef from cattle certified by USDA as being ≤20 MOA; rigorous import inspection.
China	Defacto Quota	AQSIQ uses health certificates to restrict imports, resulting in a defacto quota.
Hungary	BSE Ban	Bans imporatation of beef due to BSE concerns.
Romania, Russia	VSV Ban	Bans beef imports from states/counties, with confirmed cases (bovine or equine) of Vesicular Stomatitis (VSV) within last 12 mo.
Israel	BSE Testing	Requires importers to certify that beef is derived from cattle ≤30 MOA; waives requirement for domestic cattle since all are tested.
Australia	BSE Restriction	A defacto ban on U.S. imports because USDA cannot certify that cattle imported from Mexico are free from BSE.
Saudi Arabia	MBM Ban	Requires exporters to certify that beef & lamb were not fed MBM or animal tallow.

SECOND A SECTION

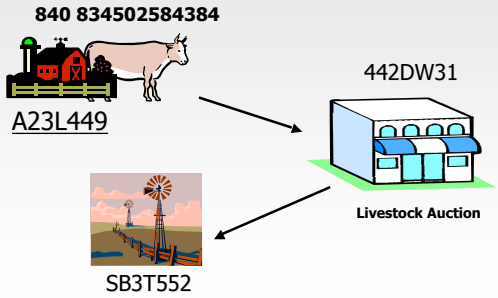
U.S. to create cattle ID system

Discovery of lone mad-cow case last year spurs USDA plan

USDA-NAIS Key Objectives

1) Allow producers, to the extent possible, the flexibility to use current systems or adopt new ones.
2) Have a system that is technology neutral, so that all existing forms of effective technologies and new technologies that may be developed in the future may be utilized.
3) The system should use and build upon the excellent data standards developed by the US Animal Identification Plan (USAIP).
4) The system must not preclude producers from being able to use it with production management systems that respond to market incentives.
5) The architecture must be designed so that the system does not unduly increase the role and size of the government.

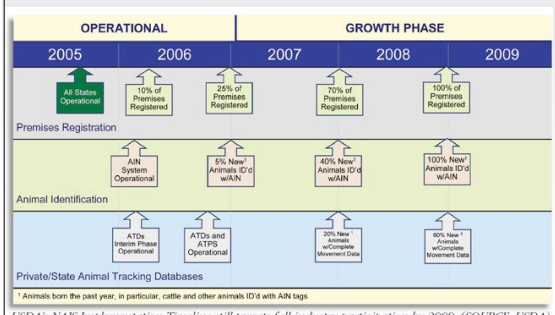
USDA-APHIS Individual Animal Tracking Between Premises



SOURCE: USDA-APHIS Veterinary Services (April 28, 2004).

Animal ID: Building a System

Source: Meat Processing, May '06



USDA's NAIS Implementation Timeline still targets full industry participation by 2009. (SOURCE: USDA)

Johanns Says Traceability Is Becoming A Critical Trade Issue

John Gregerson on 3/31/2006

- Agriculture Secretary Mike Johanns said that the difficulty of tracing the origin & history of U.S. livestock underscores the need for national animal identification.
- "It is critical that the U.S., like other nations, have this in their trade arsenal. Australia is aggressively marketing traceability to gain an advantage. Competitors are out there saying, 'We've got I.D. They don't.'"
- USDA still plans to have full participation in a national identification system by 2009.
- "Our hope, which I think is the same as yours, is to bring the system along & hit the benchmarks on a voluntary basis. But I just think it's going to be absolutely necessary."
- Because of the retail market & foreign competition, nobody can afford to be left behind."

"Biosecurity"

- Kirkpatrick & Selk (OSU; 2006): "biosecurity is used to describe programs for preventing the introduction of pathogens considered potentially harmful to the health & well-being of the herd."
- NRC (2006): "the policies & measures taken to minimize the risk of introducing an infectious pathogen into the human, agricultural animal, & research animal populations."
- The Sunshine Project (2003): "on a very practical level, there may be differences between means to prevent an unintended release into the environment (sometimes referred to as 'biosafety') & means to prevent abuse or theft (sometimes referred to as 'biosecurity')."
- These three definitions:
  - Either address or do not address risk to animal health.
  - Either address or do not address risk to public health.
  - Reflect or do not reflect unintentional release of biohazards vs. terrorism.
  - Reflect or do not reflect abuse or theft of biohazards.

Biosecurity *vs.* Biocontainment

•**Biosecurity**:

A series of management practices designed to minimize or prevent the importation of infectious agents onto a farm:

– Testing & screening
– Isolation & quarantine
– Immunization
– Selective purchasing
– Monitor & evaluation

•**Biocontainment = Biosafety**:

Series of management strategies to minimize the spread of infectious agents within groups of animals or into the environment:

–Testing & screening
–Isolation & quarantine
–Immunization
–Selective culling
–Monitor & evaluation


December 24, 2003

Mad cow disease hits U.S.

Infected animal found in Wash. state; risk to humans described as very low

World markets ban import of U.S. beef

Infected tissue headed to Britain for testing

December 25, 2003

U.S. beef industry

Prime ribbing

Effects of BSE on U.S. Beef Exports

Source: Cattle-Fax 2004

•**Beef exports**: 2.5 bill lb/yr

•**Weekly avg. beef exports**: 45-48 mill lbs

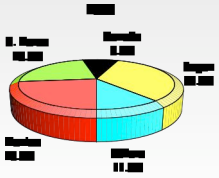
•**Weekly avg. slaughter equivalent**: 60,000 hd

•**Market impact**:

✓Beef cut exports = $9.50 to $10.00/cwt

✓Variety meat exports = $3.00 to $4.00/cwt

✓Other export value (items not on hide & offal report) = $0.50 to $1.00 per cwt



•**Total impact of lost export markets per year**:

$13 to $15/cwt = $165 to $190/hd

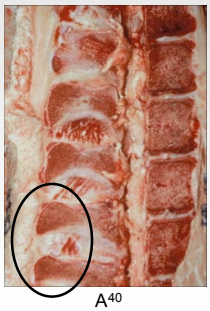
Joint "Press Statement" For The Resumption of Trade In Beef, 10-23-04

•Permission for Japanese Export to the U.S.
•U.S. Export to Japan: Marketing Program.
✓SRMs must be removed from animals of all ages.
✓Bovine animals included in the BEV Program must be traceable to live animal production records which indicate that they are 20 MOA or younger.
✓Experts will continue to consult "with a view to verifying physiological age to evaluate carcasses to be 20 MOA or younger" (USDA Maturity Study).
•Domestic Procedures & Timing ("as soon as possible" following FSC deliberation).
•Continued Joint Scientific Consultations.
•BEV Program Review (in July '05).
•Prevention of Trade Disruption.
•Audit System (reciprocal equivalency audits of food safety systems).

Market Re-Opening Press Event

Swift & Co., Greeley, CO, December 15, 2005

Lumbar Evaluation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USDA-AMS-LS
Audit, Review & Compliance Branch

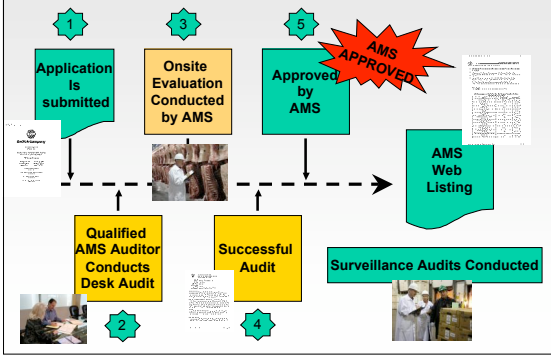
Provides services for
Quality System Verification Programs

USDA PROCESS VERIFIED

ISO International Organization for Standardization

http://processverified.usda.gov/

Beef Export Verification



USDA Export Verification

USDA Agricultural Marketing Service | Audit, Review, and Compliance Branch | STOP 0294 - Room 2627-S, 1400 Independence Avenue SW, Washington, DC 20250 | ARC 1030J Procedure, December 12, 2005, Page 1 of 4

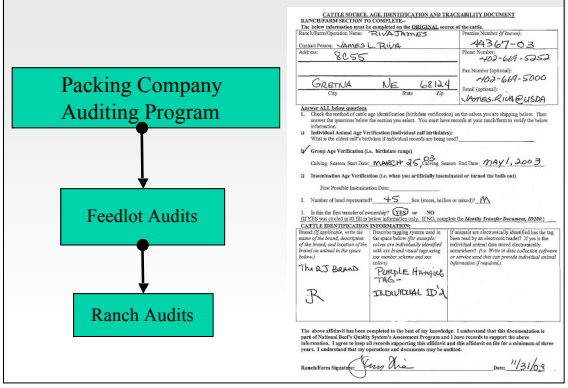
USDA Export Verification (EV) Program
Specified Product Requirements for Beef - Japan

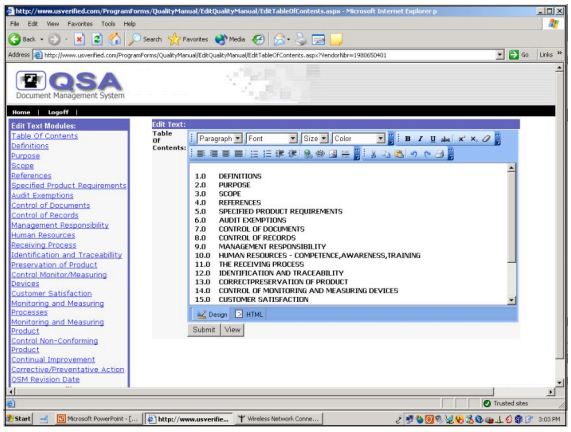
1 Purpose
This document provides the specified product requirements for marketing U.S. beef to Japan under the USDA Export Verification (EV) Program. It also provides the additional requirements for the USDA Quality System Assessment (QSA) Program for marketing U.S. beef to Japan.

2 Scope
This document applies to U.S. companies, producers, feedlots, slaughterers, fabricators *(fabricators perform the initial separation, or cutting of carcasses into wholesale cuts)* that supply beef and beef offal that are eligible for export to Japan as listed on the Food Safety and Inspection Service (FSIS) website. Companies must meet the specified product requirements for Japan under the EV Program through an approved QSA Program. The requirements for the QSA Program are defined in *ARC 1002 Procedure, Quality System Assessment (QSA) Program*. The QSA Program ensures that the specified product requirements are supported by a documented quality management system.

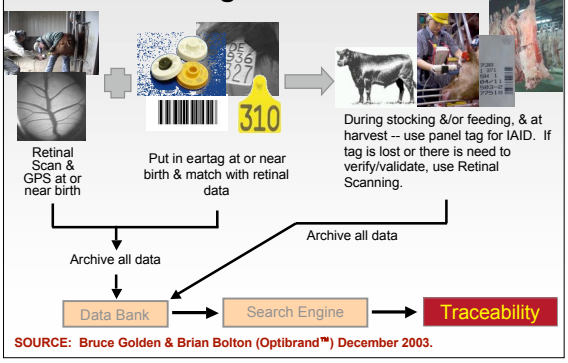
Only companies with an approved QSA Program for the EV Program for Japan may label and sell product as meeting the specified product requirements for Japan under the EV Program.

Quality Systems Assessment (QSA)





Secure Tracing of Cattle With Retinal Scanning



SOURCE: Bruce Golden & Brian Bolton (Optibrand™) December 2003.

NBQA-2005: Questionnaires Returned By Packers (VanOverbeke & Scanga)

(A) Purchased harvest-cattle that were individually identified: 31.5%

(B) Average number of branded-beef programs: 5.3
Branded-beef programs having specifications for: breed (37%), marbling (62%), hide color (48%), Yield Grade (42%)

(C) Changes from 1995, to 2005, in:

Average number of branded-beef programs	1.33	to	5.25
Average number of Angus programs	0.67	to	3.00
Average number of Natural/Grass-Fed programs	0.50	to	2.25
Harvest cattle purchased on a "grid"	15%	to	34%
Harvest cattle purchased "in the beef"	20%	to	

SOURCE: Strategy Workshop of the NBQA - 2006 (Oklahoma City, OK) October 2006

"Story Meat"

- Voluntary.
- Marketing Tool.
- Shows Producer, Farm & Livestock.
- Let's Consumers Know Someone Stands Behind Products.

Partnership For Quality

HARRIS RANCH

(71 Ranches; 47,300 Cows; 29,350 Feeder Cattle)

Year	Using PQ Genetics	Feedlot Medicine	Prime & Choice	Premium At Feedlot Purchase	Carcass Premium Retain	Carcass Premium Transfer	Total Premium Retain	Total Premium Transfer
1998	10.3%	$6.41	38.1%	$6.41	$2.12	$0.53	$8.53	$6.94
1999	15.2%	$4.90	33.3%	$12.65	$5.00	$1.25	$17.65	$13.90
2000	32.1%	$3.18	37.8%	$15.82	$8.08	$2.02	$23.90	$17.84
2001	46.0%	$4.36	51.4%	$18.92	$11.32	$2.83	$30.24	$21.75
2002	60.0%	$5.88	60.9%	$22.77	$10.88	$2.72	$33.65	$25.49

SOURCES: Jim Dempsey (Harris Feeding Company) HR-PFQ Coalinga, CA.