

International Beef Marketing  
University of Nebraska–Lincoln Extension

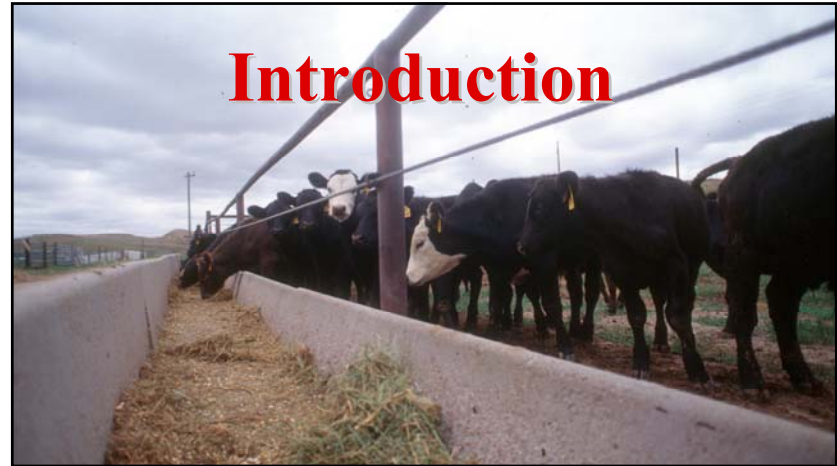
***International Beef Marketing***

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University of Nebraska–Lincoln  
Nebraska Department of Agriculture  
Nebraska Beef Council

**Introduction**



**The Nebraska Advantage**

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- #2 in Cattle on Feed
  - ✓ 2.7 million head (2007)
- #2 in Commercial Cattle Slaughter
  - ✓ 7.07 million head (2006)
- #1 in Commercial Red Meat Production
  - ✓ 7 billion pounds (2006)

Source: USDA-NASS

**Exports Bring Value To  
Nebraska Beef Production**

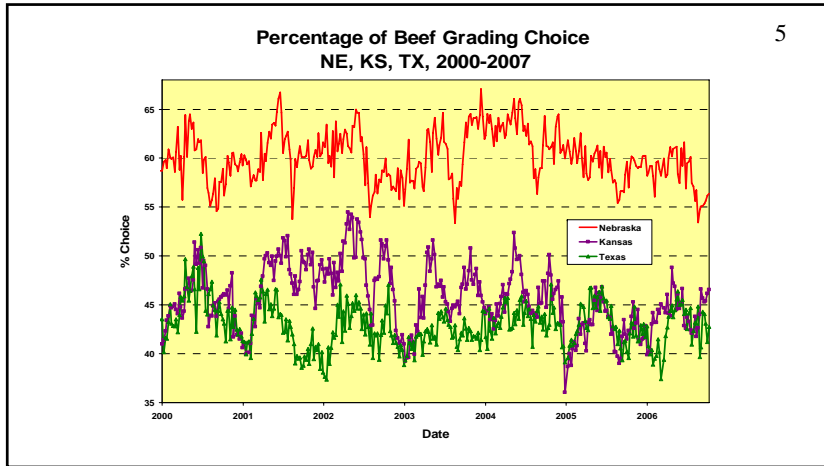
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- Approximately \$30 million in beef export premiums
- Equivalent of 1,100 head of Nebraska cattle exported per day (5% of production) in 2006
  - ✓ Exported 10% in 2003
- Exported 60,300 bushels of corn through Nebraska beef every day in 2006

Source: U.S. MEF

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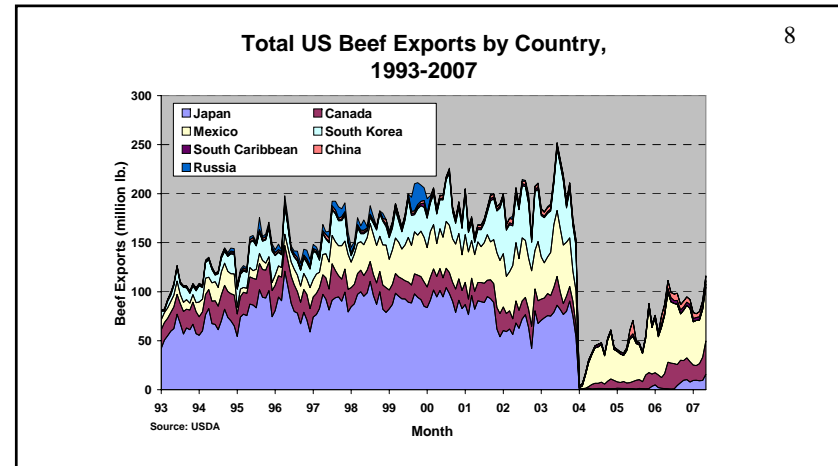
## Resources

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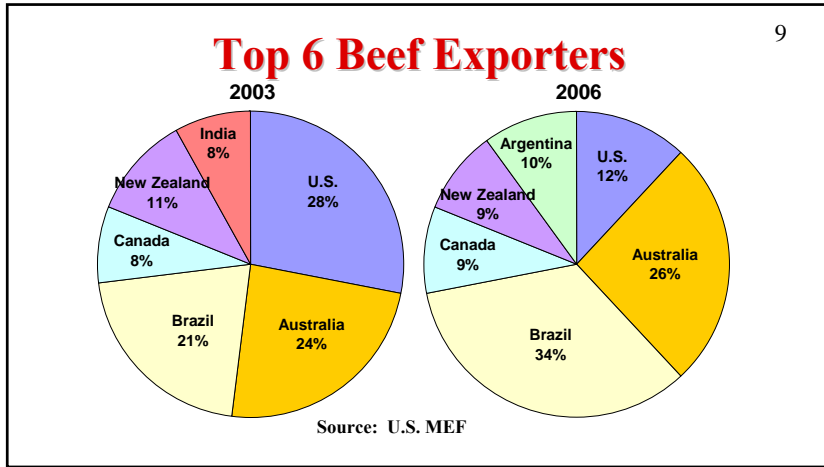
- International Beef Market Opportunities Seminar  
✓ February 27, 2007
- UNL publications & information links

<http://beef.unl.edu>

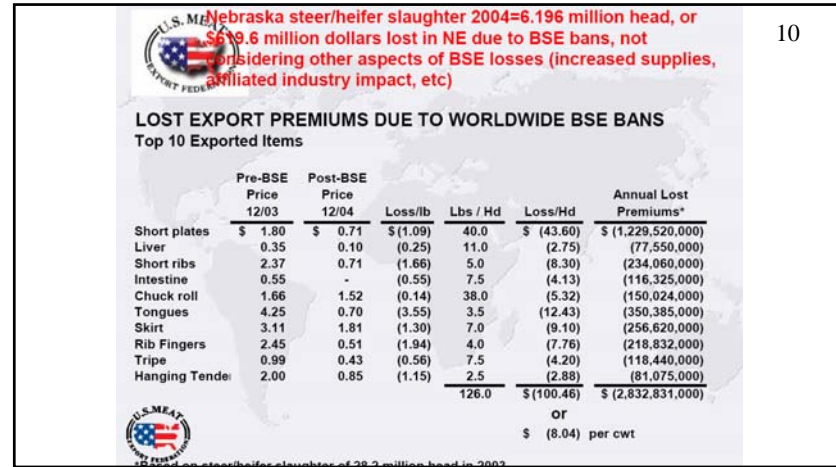
<http://www.agr.state.ne.us>



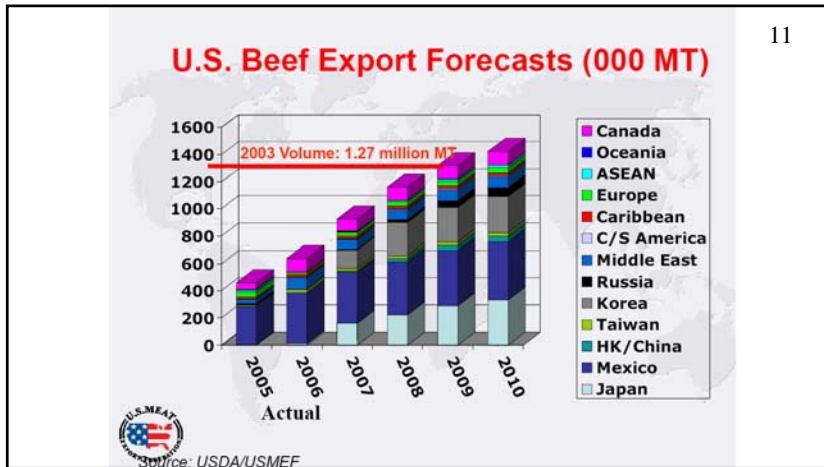
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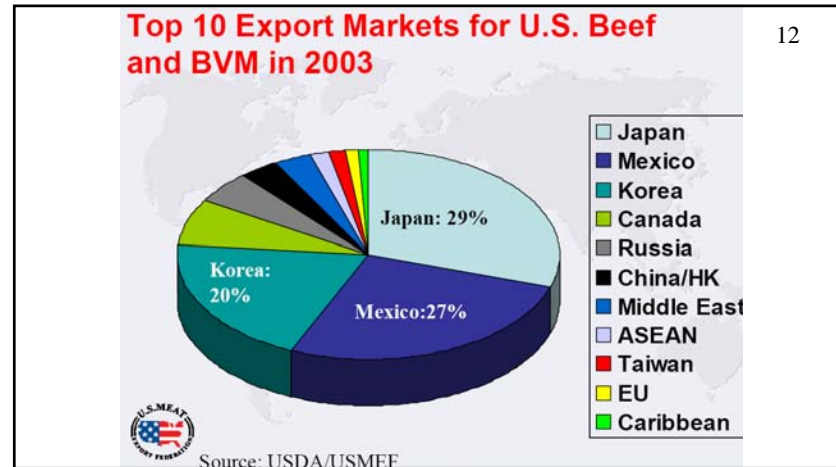
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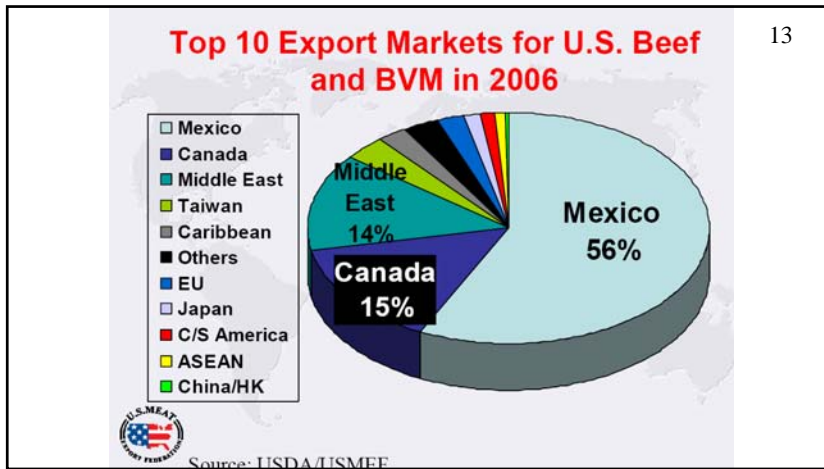


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- Export Market Verifications** 14
1. Source
  2. Age
  3. Non-hormone treated cattle (NHTC)
  4. Antibiotic-free (Natural)
- Requirements & definitions differ by country & program

- Identification** 15
- Providing verification of these claims likely requires use of ID system
    - ✓ Visual tags, RFID tags, brands, & combinations
  - 2 Ways:
    - ✓ Individual: each animal receives unique number & individually tagged
    - ✓ Group: each animal in cohort has same number & may each be tagged or otherwise documented

- Source Verification** 16
- Document & verify where the animal was born and fed
    - ✓ Start at ranch level, end at processor
    - ✓ Can be paper copy or computerized
  - Accurate traceback is important
  - Generally want third-party verification

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## Age Verification

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- Records documenting the age of the animal
- Two Ways:
  - ✓ Individual ID: record birth dates for each animal & correspond to individual ID numbers/animals
  - ✓ Group ID: record birth date of first born animal in the cohort & assume the rest are all that old
- Most export markets: ≤ 30 months
- Japan: ≤ 20 months

## Non-Hormone Treated Cattle

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- Document and verify that hormone use is restricted
  - ✓ Includes MGA, beta-agonists, and implants
- Must have Program Compliant Tag (PCT) before leaving ranch of origin
  - ✓ One-time use, tamper evident tag with unique, non-repeatable number
- Must enroll calves before 12 months old or before leaving ranch
  - ✓ All levels of supply chain must be enrolled in program
- Record keeping required (shipping/receiving procedures), on-site audits

## Antibiotic-Free/Natural

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- Expansion of NHTC requirements
- Meet natural market requirements
  - ✓ Third-party verification
- Requirements vary widely
  - ✓ Participate in a program that meets requirements for all the markets you want to be eligible for
  - ✓ Usually restriction of implants, MGA, and feed antibiotics (tylosin, CTC, etc); may include monensin, beta-agonists
  - ✓ Treating cattle with therapeutic antibiotics disqualifies

## These Four Verifications Build

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1. Source
  2. Age
  3. Non-hormone treated cattle (NHTC)
  4. Antibiotic-free (Natural)
- If cattle have to be treated for illness, they may still be eligible for 1, 2, and/or 3.
  - Similarly, if cattle are implanted, they may still qualify for source (1) and age (2) verification

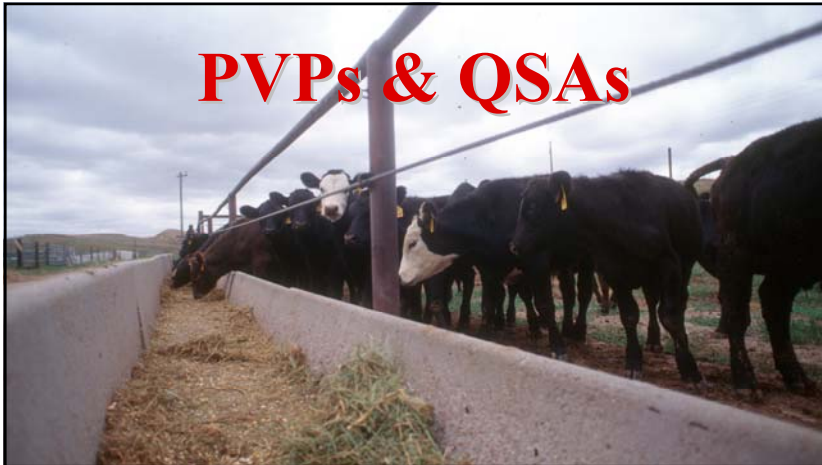
## Meeting Verification Requirements<sup>21</sup>

- Individual ID may assist with moving cattle between levels
  - ✓ Some animals in birth cohort may qualify for more restrictive age requirements, etc. ( $\leq 20$  months vs.  $\leq 30$  months)
- Higher levels require more paperwork
  - ✓ System of documenting what you are going to do, that you did it, and how you can verify it

## Programs To Verify Export Marketing Claims<sup>22</sup>

- Beef Export Verification (BEV) Program
  - ✓ Specific rules for any beef producers/suppliers to meet in order to export to foreign countries
  - ✓ Vary by export destination
- Participate in BEV through:
  - ✓ Quality Systems Assessment (QSA) Program
  - ✓ Process Verified Program (PVP)

## PVPs & QSAs



## QSAs & PVPs<sup>24</sup>

- Quality Systems Assessment (QSA)
  - ✓ ISO 9000 program to verify marketing claims specifically to qualify animals for export
  - ✓ Source, Age, and NHTC
- Process Verified Programs (PVPs)
  - ✓ ISO 9000 program to verify marketing & other claims, both for export and domestic market
  - ✓ Age, Source, NHTC, Antibiotic-free, Natural, etc.
  - ✓ Includes USDA Process Verified Shield



## QSAs & PVPs

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- Written explanation of how cattle are managed
  - ✓ Records that document events (age) and activities (vaccination)
- Describe how management practices/records are verified
- Evaluate actual production activities compared to written plan

## PVP & QSA Alternatives For Cattle Producers

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1. Develop own unique program & get it approved by USDA
2. Join with other individuals to form a program & get it approved by USDA
3. Use “umbrella” program
  - Another company’s existing program to which you supply cattle

## Developing Own Program

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### Advantages

- Can target to specifics of your production system
- Make exactly the marketing claims you want to
- Control marketing options

### Disadvantages

- Expensive
- Time & labor intensive
- “Learning Curve”
- Responsible for your suppliers’ compliance

## Using An Umbrella Program

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### Advantages

- Save expense of developing own program
- Buyers (packers) will be familiar with third-party program (don’t have to audit you)

### Disadvantages

- Must comply with guidelines established by other party
- Might limit marketing options
- Will still be audited

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## QSA or PVP?

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- **PVPs document additional marketing attributes**
  - ✓ Vaccinations, genetic history, corn-fed, etc.
- **PVPs generally more inclusive of end-user demands**
- **QSAs require bi-annual audit**
- **PVPs require annual audit**

## Record Requirements

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- **Cattle must be traceable to live animal production records to verify age, source, etc.**
  - ✓ Sufficient documents to verify birth dates
- **May include existing forms, procedures, & records**
  - ✓ Health, feed, shipping, purchase, breeding, brand, identification
- **Retain records**
  - ✓ 3 years from date of birth for cow-calf operation
  - ✓ 2 years from sale for stocker operation
  - ✓ 18 months from sale for feedlot operation

## Identification Requirements

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- **Can use visual tag, electronic ID (EID) tag, or radio-frequency ID (RFID) tag**
  - ✓ Good idea to use both visual tag with EID or RFID
- **Program Compliant Tags (PCTs)**
  - ✓ One-time use, tamper evident tag with a unique, non-repeatable number
  - ✓ Required for many PVPs and QSAs
  - ✓ Required for NHTC programs



## Cow-Calf Producer Responsibilities

32

- **Maintain breeding and calving records**
- **Apply tag (at birth, at weaning, or maybe at auction barn)**
- **Record birth dates**
- **Possibly record other management information**
  - ✓ Vaccinations, hormone use, feed

## Cattle Feeder Responsibilities

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- **Maintain tags and records for cattle**
- **For NHTC and/or antibiotic-free programs:**
  - ✓ **Buy only cattle with PCTs applied at ranch of origin**
  - ✓ **If feeding program & non-program (conventional) cattle**
    - **Maintain records of rations fed to all cattle, identifying the source & ingredients of feeds & supplements; document that cattle are not implanted**
    - **Periodically test feeds to be sure antibiotics and hormones are not fed to program cattle (or have feed supplier provide certificate of compliance if their additive-control program is monitored by state/federal agency)**

## Who Does Audits?

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- **If your own program, USDA's Livestock & Seed Program**
  - ✓ **On-site audits**
- **If umbrella program, the company with the program conducts supplier evaluations in accordance with the PVP/QSA**
  - ✓ **USDA may still audit umbrella company's suppliers**
- **Generally whoever requests the audit pays for it**

## Is An Affidavit Sufficient?

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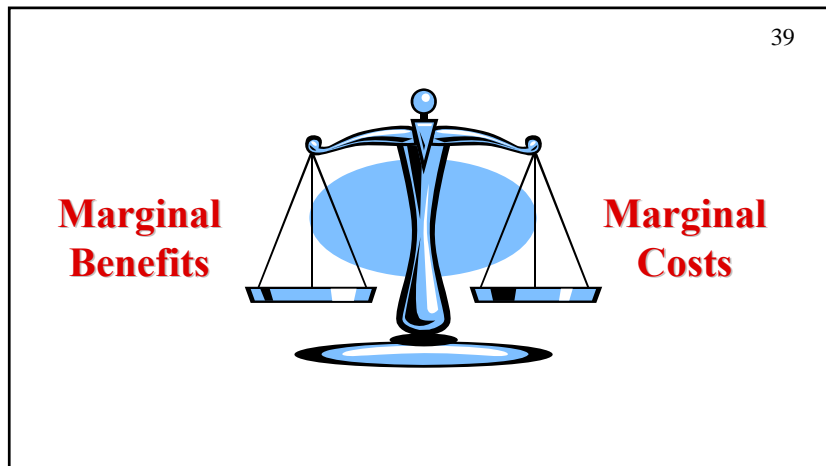
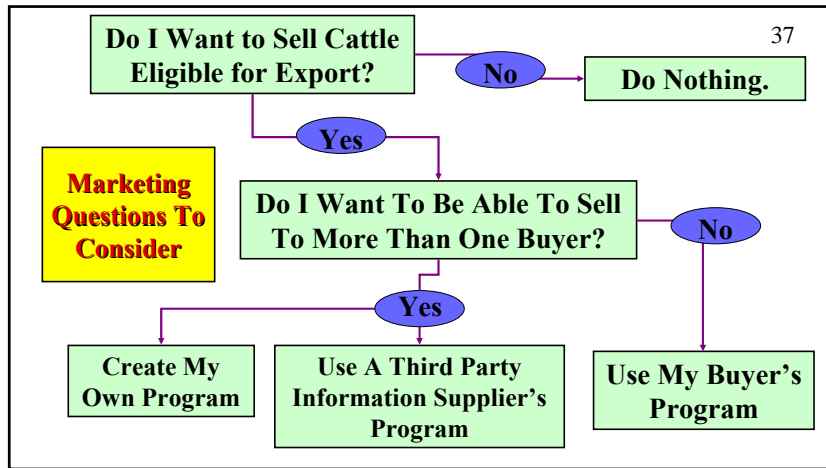
- **No**
- **USDA requires a QSA program or PVP to qualify beef for the BEV program**
- **Signed affidavits might be part of a QSA or PVP**

## Information on Existing Programs

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- **List of approved PVPs and QSAs available through USDA**
  - ✓ <http://processverified.usda.gov/>
  - ✓ <http://www.ams.usda.gov/lsg/arc/qsap.htm>
  - ✓ <http://www.ams.usda.gov/lsg/arc/ARC1002.pdf>
  - ✓ <http://www.ams.usda.gov/lsg/arc/arcQA.htm>

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- ### Marginal Benefits
- The premium received from selling cattle in a PVP or QSA and any additional income received
    - ✓ Will you improve management or quality of cattle overall?
  - Market driven
    - ✓ Currently about \$20-25/head for age & source verification
    - ✓ Generally more for NHTC
  - Change over time
    - ✓ Demand changes (best in May & June in Japan)
    - ✓ Supply of PVP & QSA cattle change (low supply of ≤ 20 month cattle in winter months)

## Adoption Rate

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- Premiums exist and are largest for those that meet the demand first
- Those with existing records that verify age and source benefit the most

## Marginal Costs

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- The additional costs incurred in producing cattle under PVP or QSA program
  - ✓ Will be very small if you are already doing many of those things
  - ✓ Can be substantial if the program is quite different than your current management
- Generally low to verify age & source for most producers
- Different for every producer
  - ✓ Know & understand the requirements of the program

## Possible Marginal Costs

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1. Tagging
2. Record keeping & enrolling in program
3. Cost of removing technology
  - Cow-calf: implants and treatment
  - Feedlot: implants, Rumensin, Tylan, MGA
4. Cost of sickness & death

## Tagging, Record Keeping, & Enrollment

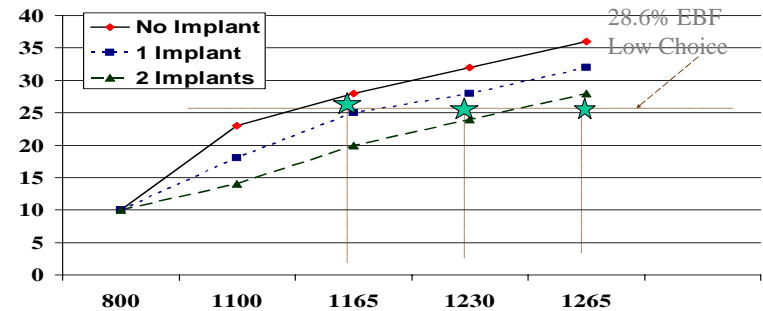
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- Program Compliant Tags
  - ✓ About \$2/head for EID, or \$3.25/head for matched EID and visual tag
- Record Keeping
- Enrollment
  - ✓ One-time fee (e.g., \$100, \$250)
  - ✓ Cost per animal (\$1.50-6.00/head, depending upon tagging service, software, etc.)
  - ✓ Audits (preparation, time, travel, etc. at ~\$64/hour)

## Cost of Not Using Implants <sup>45</sup>

- Implants increase protein deposition
- Implants cause a upward shift in the growth curve
- The shift in the growth curve influences body composition at a given weight

## Implants Change the Growth Curve <sup>46</sup>



## Implant Impact on Steer BW <sup>47</sup>

	Weight @ 28% Fat	Increase	
Non-implanted	1145		
Rev-IS	1175 <sup>a</sup>	+30	Implants add 60-90 lbs extra weight at same % backfat
Component-ES			
Ralgro/Rev-S	1212 <sup>b</sup>	+67	
Revalor-S 1 x			
Syn-S/Rev-S	1223 <sup>c</sup>	+78	
Rev-IS/Rev-IS			
Rev-IS/Rev-S	1237 <sup>d</sup>	+92	
Rev-S/Rev-S			

Source: Guiroy et al., 2002

## Implant Impacts on Quality Grade <sup>48</sup>

	none	revalor-S	Diff	%change
N	1040	1040		
DOF	135	135		
ADG	3.18	3.79	0.61	19.2
F:G	6.62	5.92	-0.7	-10.6
HCW	727.6	779.2	51.6	7.1
FW	1155	1237	82	7.1
% Choice	75.0	63.7	-11.3	-15.1

Source: Intervet and Texas Tech Implant

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**Marginal Cost of Not Using Implants** 49

- **Lost weight gain = ~ 80 lbs/head**
  - ✓ At \$85/cwt cattle price, worth about \$68/head
- **Higher quality grade = 15% reduction in Choice**
  - ✓ \$10/cwt Choice-Select spread
  - ✓ 800 lb. carcass
  - ✓ ~ \$12/head
- **Save cost of implanting = \$5/head**
- **Marginal Cost = \$68 - \$12 - \$5 = \$51/head**

**Feed Additives** 50

- **Ionophores**
  - ✓ Rumensin, Bovatec, Cattylist, Gainpro, Vmax
- **Coccidiostats**
  - ✓ Deccox, Amprolium
- **Antibiotics**
- **Hormone**
  - ✓ MGA
- **Beta-agonists**
- **Parasites**

**Rumensin Performance** 51

**Four Trial Summary (2,904 Steers)**

	DM Intake	Daily Gain	Feed/Gain
Deads Out			
Control	19.4	3.20	6.08
Rumensin	19.1	3.25	5.89
	-1.5%*	1.6%*	3.1%*
Deads In			
Control	19.4	3.13	6.21
Rumensin	19.1	3.21	5.97
	-1.5%*	2.6%	3.9%*

Source: Laudert, 1990

**Marginal Cost of Not Using Rumensin** 52

- **Rumensin improves F:G by 4%**
  - ✓ 1% change in F:G improves \$2.80/hd (\$2.50 to \$3.00)
  - ✓ \$10-12 return from performance
- **Cost: 2 cent/hd/d: ~\$3.00**
- **Benefit to using Rumensin: \$7-9/head**
  - ✓ Cost to not using Rumensin: \$7-9/head

Source: Elanco Animal Health; Laudert, 1990

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**Tylan Performance**

	none	Tylan	%change
Trials	40	40	
DOF	134	134	
ADG	2.84	2.90	2.1
F:G	6.90	6.72	-2.6
Liver abscesses	27.9	7.5	
Dressing %	61.65	61.80	

Source: Elanco Animal Health; Laudert and Vogel

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**Marginal Cost of Not Using Tylan**

- Tylan improves F:G by 2.6%
  - ✓ 1% change in F:G improves \$2.80/hd (\$2.50 to \$3.00)
  - ✓ \$6.50-7.80/head return from performance
- Cost: 1 cent/hd/d: ~\$1.50
- Benefit to using Tylan: \$5.00-6.30/head
  - ✓ Cost to not using Rumensin: \$5.00-6.30/head

Source: Elanco Animal Health; Laudert, 1990

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**Marginal Cost To Not  
Using Hormones**

<b>Implants:</b>	<b>\$51</b>	<b>30-75</b>
<b>Rumensin:</b>	<b>\$8</b>	<b>7-9</b>
<b>Tylan:</b>	<b>\$5.65</b>	<b>5-6.30</b>
<b>TOTAL:</b>	<b>\$64.65</b>	
<b>MGA<sub>(heifers)</sub>:</b>	<b>\$7</b>	<b>5-8</b>
<b>Sick cattle:</b>	<b>?</b>	
<b>Lower energy:</b>	<b>\$10</b>	

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**Calculate Your  
Marginal  
Benefits &  
Costs Yourself**





## PVP & QSA Cattle

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- Not necessarily “better”
- Meet particular attributes of specific markets
- There are potential benefits to producing cattle that are age, source, NHTC, and antibiotic-free
  - ✓ Doing so creates extra costs
- Be sure **Marginal Benefits exceed Marginal Costs for your operation**

## Other Marketing Considerations...

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- If you invest in a program, you need to market where that's valued
- Does that include your current buyer?
  - ✓ Stocker, feedyard
  - ✓ Sale barn, private treaty, video/Internet sale
- Will you need to retain ownership to gain the value?

## How are PVPs & QSAs Related to NAIS & COOL?

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- NAIS = National Animal Identification System
  - ✓ Voluntary program to uniquely identify animals and trace them to specific premises for disease control
- COOL = Country of Origin Labeling
  - ✓ Currently mandatory labeling program to start September 30, 2008 that would label certain beef products according to country of origin

### How are PVPs & QSAs Related to NAIS & COOL?

61

- PVPs & QSAs are not the same thing as NAIS & COOL
- Participation in some PVPs and QSAs may also provide compliance with NAIS & COOL at no additional cost

### The Bottom Line

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- Source, Age, NHTC, and Antibiotic-free (Natural) Verification is all about expanding your marketing opportunities
  - ✓ You may already be doing most of the things required to participate in a PVP or QSA



### Resources

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- Publications, links, videos, etc.

**beef.unl.edu**