



# New Technologies in Beef Production

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## Applications for Institutional Agribusiness

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Jim Lowe, President  
Midwest MicroSystems L.L.C.  
Lincoln, Nebraska








## Overview

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- Beef industry context
- Technology old and new
- Value opportunities
- Available tools
- Considerations
- Getting started



## Beef Industry Context

- National Animal Identification System
  - Locate in 48
- Age verification
  - Export markets – 20 months of age or less
- Country of origin labeling - 9/30/08 
- Value added production 
- Branded programs 
- Certified programs
  - PVP 
  - QSA 



## Define “technology”

*The American Heritage Science Dictionary* -

**tech·nol·o·gy**

(tĕk-nŏl'ə-jē) n. *pl.* **tech·nol·o·gies**

1. The use of scientific knowledge to solve practical problems, especially in industry and commerce.
2. The specific methods, materials, and devices used to solve practical problems.

*i.e. Tools*



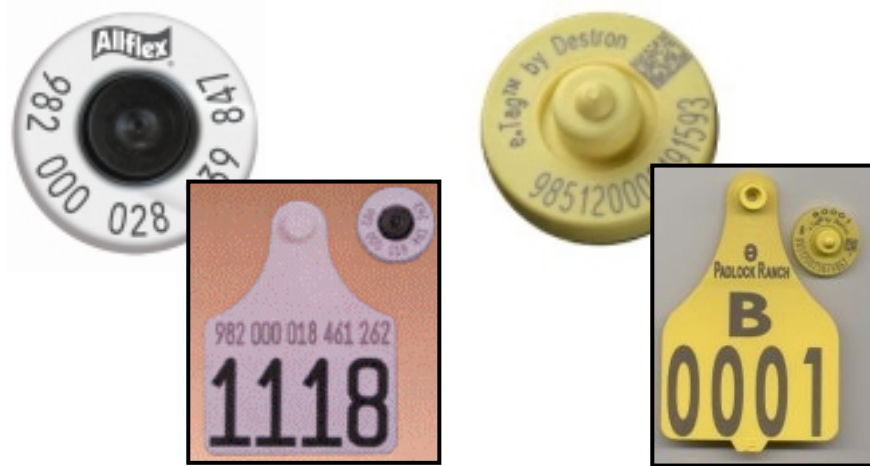
## Traditional Technologies



## Traditional Technologies

- Pickup truck
- Log splitter
- Hat
- Gloves
- Lariat
- Poncho
- Chaps
- Spurs
- Saddle
- Bridle
- Saddle bags
- Cattle panels
- Cross fence
- Vaccine guns
- Vaccine
- Castrating knife
- Branding stove
- Branding irons
- Brand
- Cow tags
- Calf catch

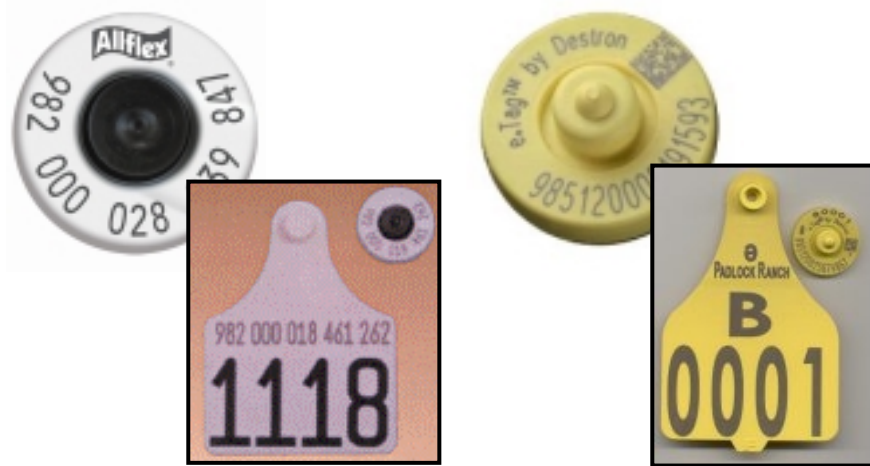
## New Technologies-EID



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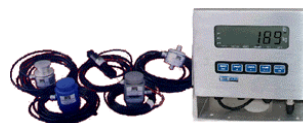
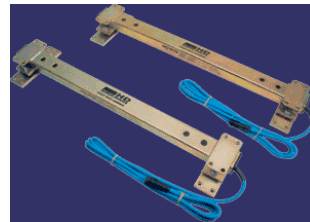
## New Technologies-Readers



## New Technologies-Mobility



## New Technologies-Scales



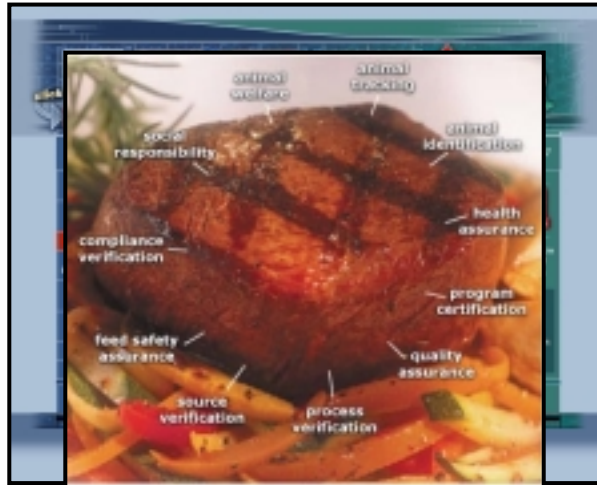
## New Technologies-Accessories



## New Technologies-Systems



## New Technologies-Systems



**ACCU-TRAC®  
Electronic Cattle  
Management**

## Value Opportunities

- Identify your bottom line.
  - What do you sell?
- Your cow herd is a factory.
  - Measure and manage variation in your herd.
- Performance evaluation
  - Not single trait
  - Reproduction is foremost
- Example 1: Sell at weaning
- Example 2: Sell at harvest



## Example 1: Sell at Weaning

Which cow is better?

**Cow A**



**Cow B**



## Example 1: Sell at Weaning

**Cow A**



**Cow B**



**MPPA 89**  
AVG WW on 5 Calves  
**377#**

**MPPA 112**  
AVG WW on 5 Calves  
**548#**



## Example 1: Sell at Weaning

**Cow A**

1885# x \$1.05 = \$1,979

**Cow B**

2740# x \$1.05 = \$2,877

**That's a \$898.00 Difference**



## Example 1: Sell at Weaning

**Cow A**



**Cow B**



Average Calving Interval:

**389 days**

**368 days**



## Example 1: Sell at Weaning

Cow A

389 Days

Cow B

368 Days

21 Day Interval Difference

$21 \times 2\text{lb/Day} \times \$1.05 = \$44.10/\text{Cow Annually}$

That's \$220.50 over 5 years!



## Example 1: Sell at Weaning

### Total Savings

**\$1,119 !!!**

(\$224 annual)

## Example 1: Sell at Weaning

The bottom line ...

*How many Cow A's  
do you have  
in your  
herd?*

## Example 1: Sell at Weaning

Cow economics: Systematic culling improves the bottom line.

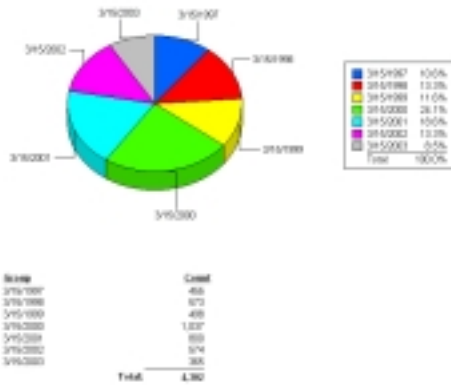
*Identify them!*





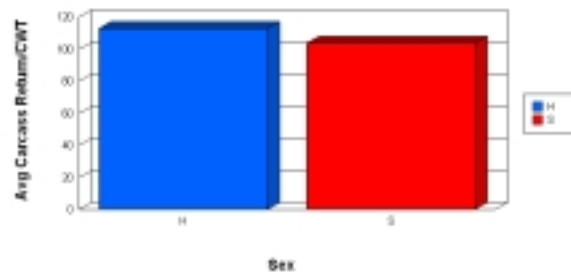
## Example 2: Sell at Harvest

Coherst Start Date Breakdown  
For 4302 Marked Calves



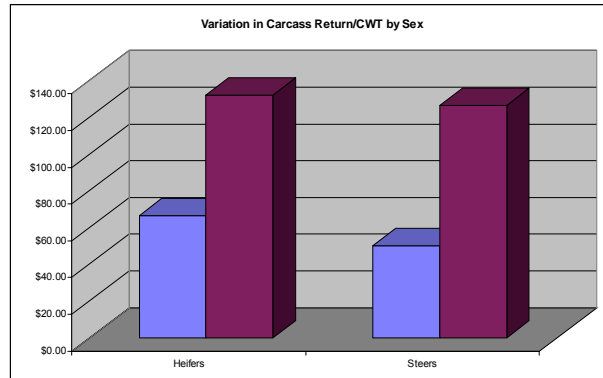
## Example 2: Sell at Harvest

Avg Carcass Return/CWT for Sex  
For 4302 Marked Calves





## Example 2: Sell at Harvest



## Example 2: Sell at Harvest

Carcass Return/CWT by Sex

For 4302 Marked Calves

	Sex	
	Heifers	Steers
Average	\$112.79	\$104.00
Minimum	\$66.61	\$50.21
Maximum	\$132.24	\$126.69
Difference	\$65.63	\$76.48
Hot Wt	774	761
Value Difference	\$507.98	\$582.01



## Example 2: Sell at Harvest

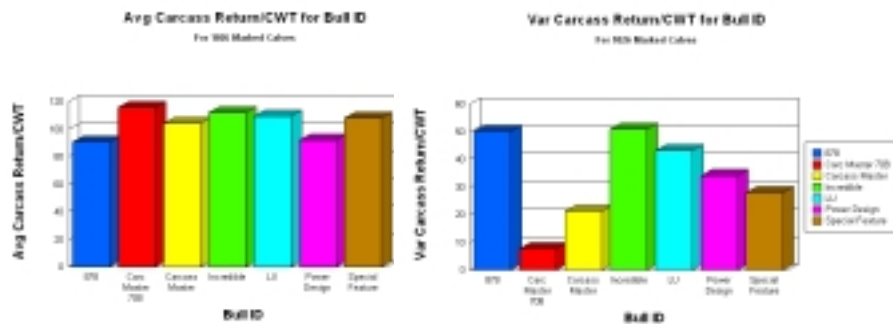
The bottom line ...

*How can you  
market more  
high value  
cattle?*



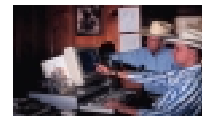
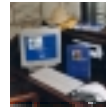
## Example 2: Sell at Harvest

*Identify them!*



## Available Tools

- ID methods
  - Visual tags
  - Electronic tags
  - Others
    - DNA
- Recording systems
  - Manual
  - Electronic
- Information systems
  - Accessibility
  - Information, not data
  - "Informed selection"



## Think about ...

- Identify your role.
- Identify your bottom line.
- Does 'it' fit your management?
- Do you need to change your management?
- Will you *have* to?



## Getting Started

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- Identify your objectives.
  - Genetic improvement
  - Source/process verification
  - Production control
- Set manageable goals.
- Choose your partners.
- Implement, review, revise.
- Resources
  - <http://www.cowsense.com/naia.htm> 



## Thank you!

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Midwest MicroSystems L.L.C.

**Cow Sense**<sup>®</sup> Herd Management Software

3100 'O' Street, Suite 7

Lincoln, Nebraska 68510

(800) 584-0040

<http://www.cowsense.com>

