

Natural Beef

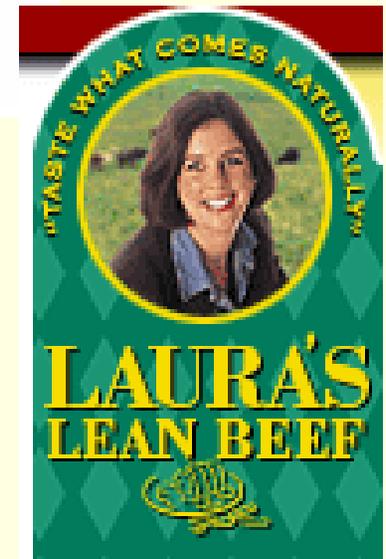
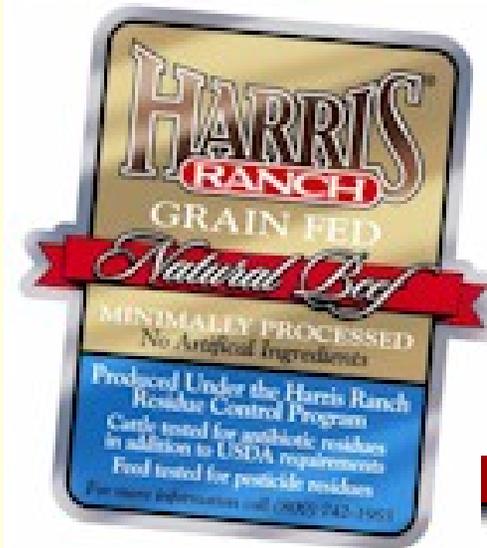
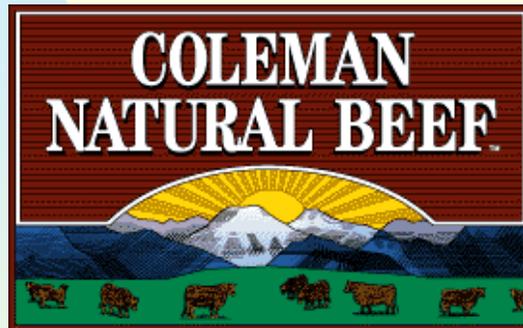


What, Why, Who, How

John Dhuyvetter, NDSU Ext, NCREC

What is Natural Beef?

1 billion \$ sales – 2% of market – growing 20+%/yr



What is Natural Beef

- USDA
 - Minimally processed
 - No artificial ingredients
- Market Differentiated (Natural Branded Beef)
- Added Label Claims if documented with verification
 - No antibiotics
 - No hormones
 - No animal by products
 - Humanely raised
 - Environmentally sustainable
 - Source and Age
 - Breed
- USDA hearings on definition of “Natural”

Natural Beef Strategies

- Never Ever
- Extended Withdrawal
- Laboratory Tested

Natural is different than ..

■ Organic Beef

- Organic Foods Protection Act
- National standards
- Certified by USDA accredited certifying agency
- Specified criteria
 - Organic feed
 - Welfare
 - No antibiotics, pesticides, implants
 - No GMO

■ Grass Fed Beef

- 90% of lifetime feed supply from forages
- USDA defined

Market drivers for beef

- Availability
- Price/value
- Palatability – taste/tenderness
- Convenience
- Healthfulness – nutrients/safety
- Social responsibility – environment/animal care
- Brands – recognition/loyalty

“Sell them what they want and are willing to buy”

Healthy Food, Happy Cows, Clean Environment, Caring People

- Safe, healthy, wholesome
- Humanely raised and handled
- Animal welfare and compassionate care
- Natures way
- Sustainable ranching
- Environmental stewards
- Families and communities
- Family Farms and Ranches

Consumers say

- If regular sirloin cost \$4.00/lb, and natural costs \$5.60/lb, I would buy.....

	Kansas City	Dallas	Okla City
Natural	57	82	47
Regular	43	18	53

- Okla. State Univ. 2001

New market opportunities

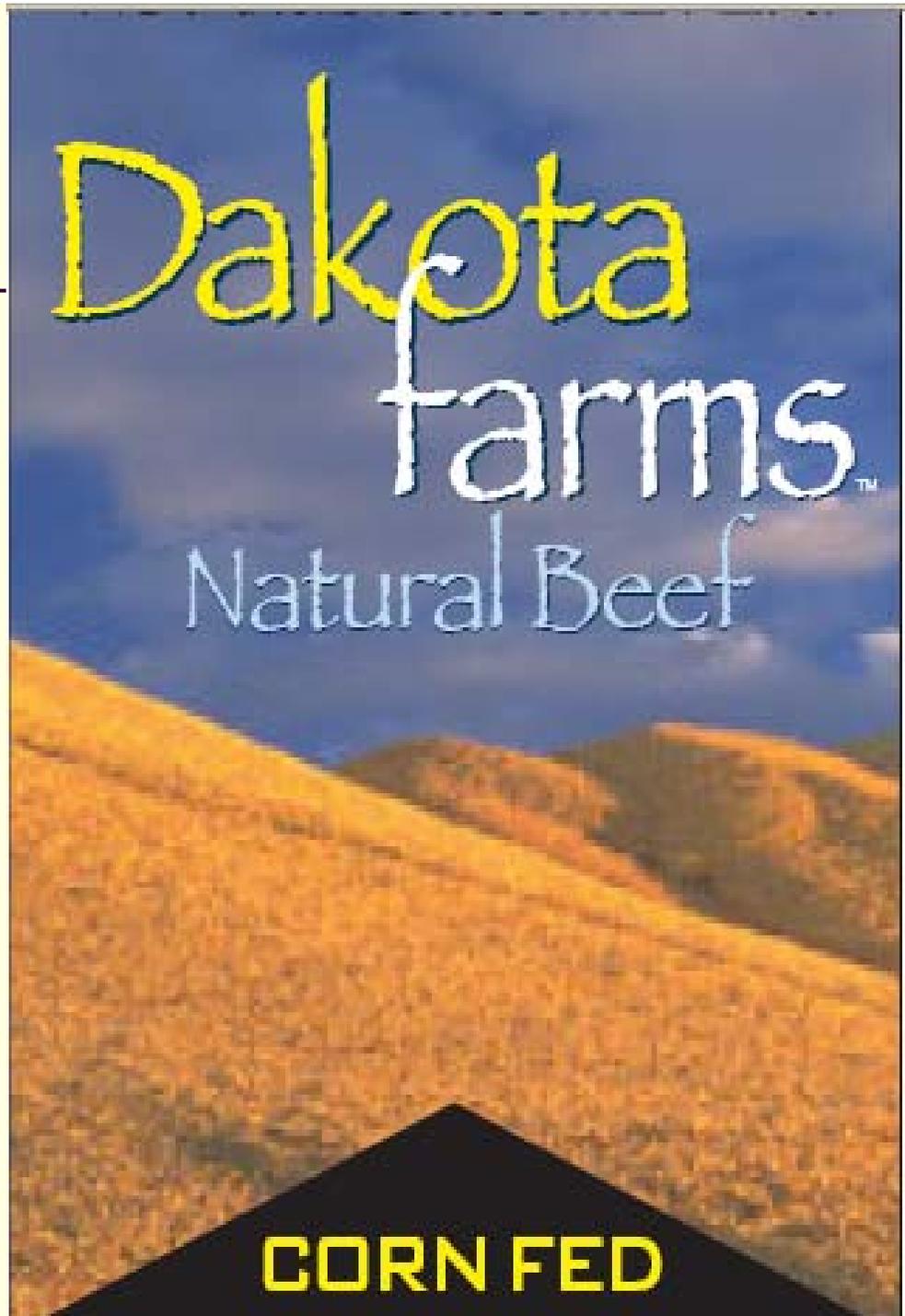
- Driven by apparent customer demand
- Several companies expanding into natural beef
 - ND Natural Beef LLC
- Potential for adding value - premiums??
- Supplying “Natural” feeder calves
- Feeding and Selling “Natural” beef
- Best management practices need attention

Growing Natural Beef Market

- Tyson (natural CAB)
- Swift
- Coleman
- Meyers Natural Angus
- Laura's Lean
- Maverick Ranch
- Oregon County Beef
- Creekstone Farms
- Painted Hills
- BR3
- PM Beef
- Ninman Ranch
- ND Natural Beef, LLC

NORTH
DAKOTA
NATURAL
BEEF, LLC

“Never- Ever”



ND Natural Beef - Specifications

- Natural
 - No growth promoting implants
 - No MGA or Prostaglandin
 - No antibiotics
 - No ionophores (Rumensin, Bovatec, Cattlyst)
- Genetics
 - No bos indicus
- Feeding
 - Minimum of 100 days on concentrate diet feeding
 - Minimum of 50% corn or corn by-products in diet
- Age
 - No more than 24 months

Additional program affiliations

■ Certified Humane (Meyer Natural Angus)

- Bio-Security Policy
- Feed and Water
- Body Condition Scoring
- Facilities
- Waste Management
- Pest Control
- Animal Health Procedures
- Casualty Stock Policy
- Emergency Action
- Records
- Employee Training

■ Food Alliance (Country Natural Beef)

- Sustainable agricultural practices
- Environmentally friendly
- Socially responsible

Marketing Natural Cattle

- Natural Beef Branded Programs buy compliant **fed cattle**
- Compliant cattle must be according to the program's **protocols**
 - Genetics, husbandry, feeds, antibiotics, implants, vit E, country of origin, age,
 - (allowable and approved feeds and products lists)
 - **Documentation/pre-approval**
 - **Supplier affidavit**
- Most purchased for processing **“slots”**
 - Contract for price and delivery
- Base price + **natural premium** + grid adjustments
 - \$10 – 14/cwt carcass weight

Supplying “Natural” feeder calves

- Many North Dakota calves are managed as natural calves
 - No implants
 - Few treated with antibiotics
 - Must identify these animals and records
 - Creep feeds without ionophores
 - Receiving diets may not contain antibiotics
 - Supplements may not contain animal byproducts
 - Good vaccination essential
 - Some latitude for parasite control
- “Owner Certified Natural” (Superior Video Auction)
- Some potential for premiums
 - \$2-5/cwt weaning 500 to 600 lbs
 - \$3-7/cwt backgrounded/yearling 800-1000 lbs

Natural feeding

- Conventional diets with grain most common
 - Several new additives on the market
 - Feed companies support natural feeding
- Little restriction on diet formulation
 - No ionophores or animal by products
- Grain levels may be lowered slightly in finishing ration
 - From 85-90% to 80-85% concentrate
 - Maintain more stable rumen pH
 - Reduce risk of bloat and other problems
- WDGS preferred feed
 - Rumen stabilization
- Typically lower ADG and FE,
 - Higher COG
 - Higher BE

Natural feeds

- Feed resources
 - GMO vs non-GMO, not an issue
- Grains
 - Corn, barley, peas, oats
- Co-products
 - Wide variety available
 - Highly digestible fiber
- Forages
 - Quality important
 - Vegetative vs. mature hay/residues
- Supplements
 - Yeasts, enzymes
 - Fermentation products
 - Minerals and vitamins

Non-approved feed supplements

- Ionophores, Antibiotics, Animal Byproducts



Health management

- Vaccinations encouraged
 - Work with local veterinarian
 - 4-way MLV, pasturella, 7-way, mycoplasma?, deworm?
 - cow herd, branding, preweaning, recieving
- Treat calves needing therapy
 - Identify calf and keep records
 - Market these calves in conventional channels
- BQA procedures
- Minimize stress
 - Pre wean castrate, dehorn
 - Bedding and protection
 - On ranch preconditioning
- Good mineral and nutrition

Ionophores -

- Improve gain 1-6 %
- Improved efficiency 6-8%
- Estimated returns \$12/hd

- Manage digestive upsets
 - Bloat
 - Acidosis
 - coccidiosis

Carrington REC – ionophore feeding research project

- 128 preconditioned steers-16 pens
- Cattle sources
 - Carrington Research Ext Center
 - Eastern Dakota Feeder Calf Club
- Four treatments (4 reps/tmt)
 - Conv suppl, 85% grain- NEg 57 Mcal
 - Nat suppl, 85% grain – NEg 57 Mcal
 - Nat suppl, 70% grain – NEg 52 Mcal
 - Nat suppl, 55% grain - NEg 47 Mcal

Trial protocol

- Fenceline bunk fed TMR once daily
- 28 day weights, feed intake, feed eff calc
- Cattle were not implanted
- Calves bedded with straw
- Wind protection with wind fence and trees
- Carcass data collected at slaughter
- Economics calculated for feed cost/lb gain

Supplements used in natural feeding

- Rumensin® used in control ration
 - Improves feed efficiency
 - Reduces bloat potential
 - Elanco Animal Health
- Bovi-Sacc ®
 - Combination of yeast, enzymes, microbials
 - Yea-Sacc ® and Fibrozyme ®
 - Supports rumen stability and digestion
 - Alltech, Inc.

Diets for naturally fed cattle

(Percent dry matter basis)

	C-85	N-85	N-70	N-55
Barley	60.6	60.4	39.7	30.0
Peas	12.9	12.9	12.7	8.27
Corn Sil	15.3	15.3	22.5	22.0
Oat Hay	9.4	9.4	23.0	37.6
Suppl	2.0	2.0	2.0	2.0

Results

- Start Date

 - Dec 10

- Days on feed

 - C85 - 154

 - N85 - 154

 - N70 - 180

 - N55 - 210

- No difference in disease or treatment %

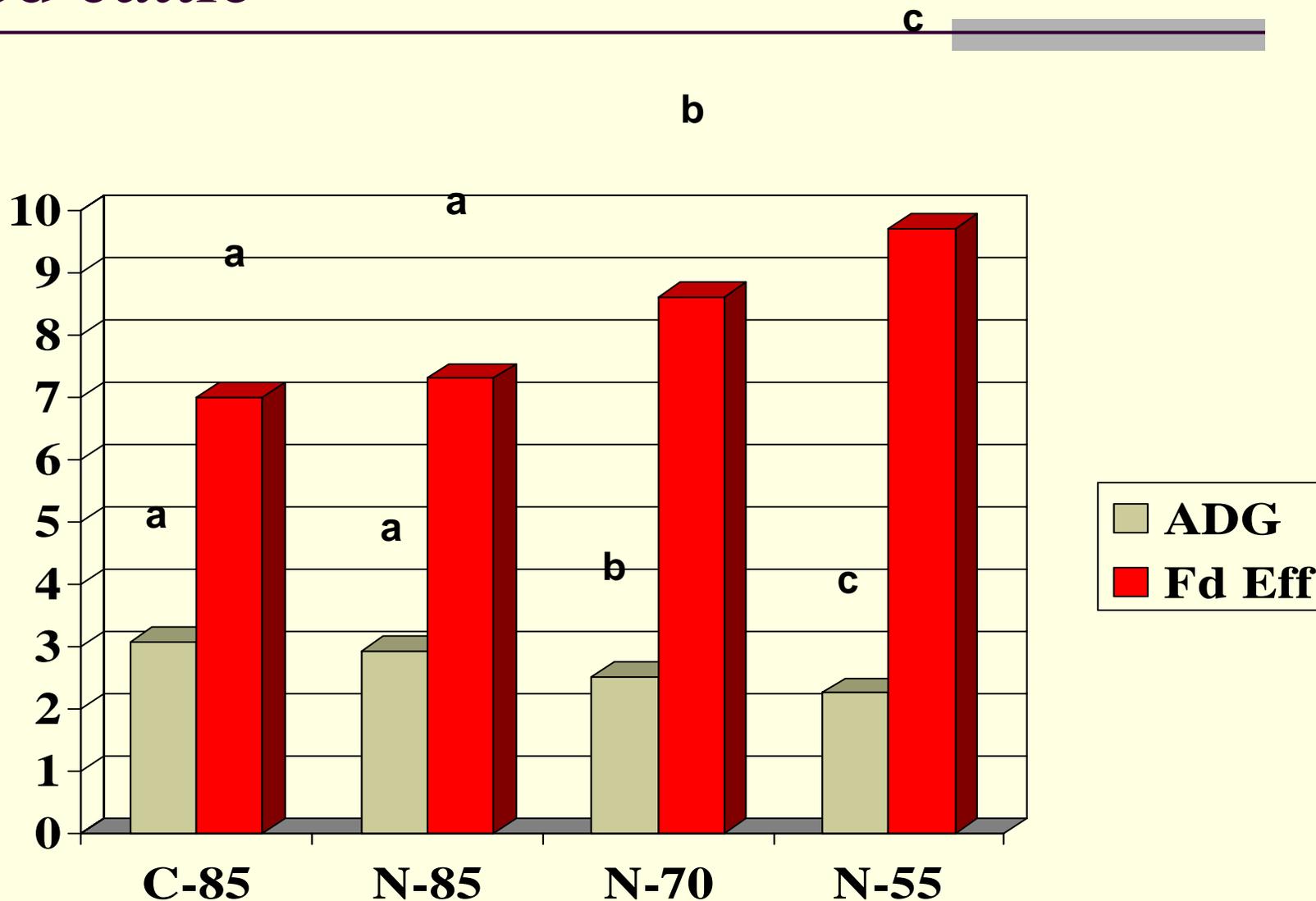
 - 6.3 to 9.7% treated



Performance of natural fed steers

	C-85	N-85	N-70	N-55	P Value
Initial wt	725	716	718	715	.99
Final wt	1199	1167	1171	1190	.78
DMI, lb/d	21.7	21.4	21.7	22.0	.80

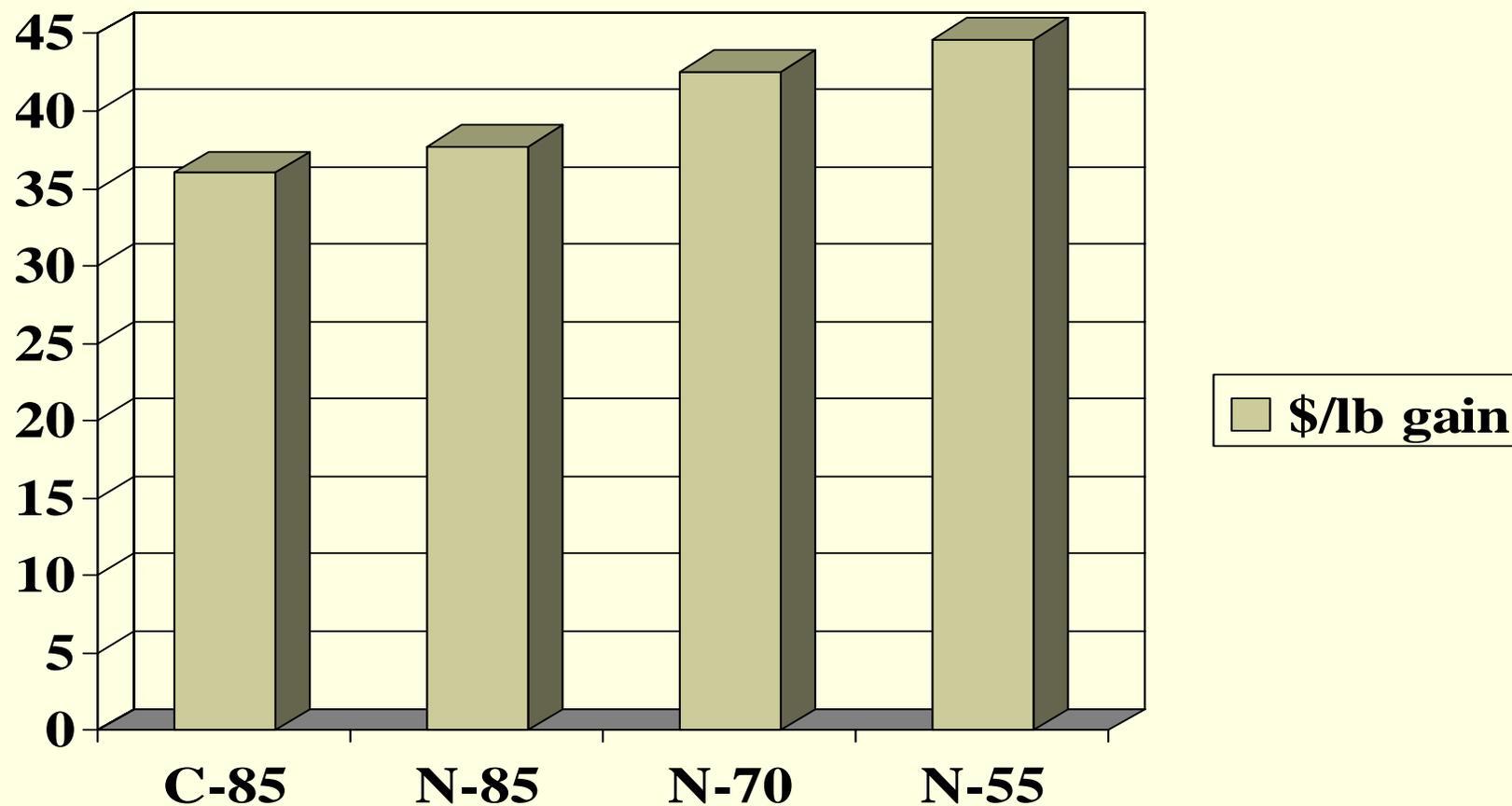
ADG and feed efficiency for naturally fed cattle



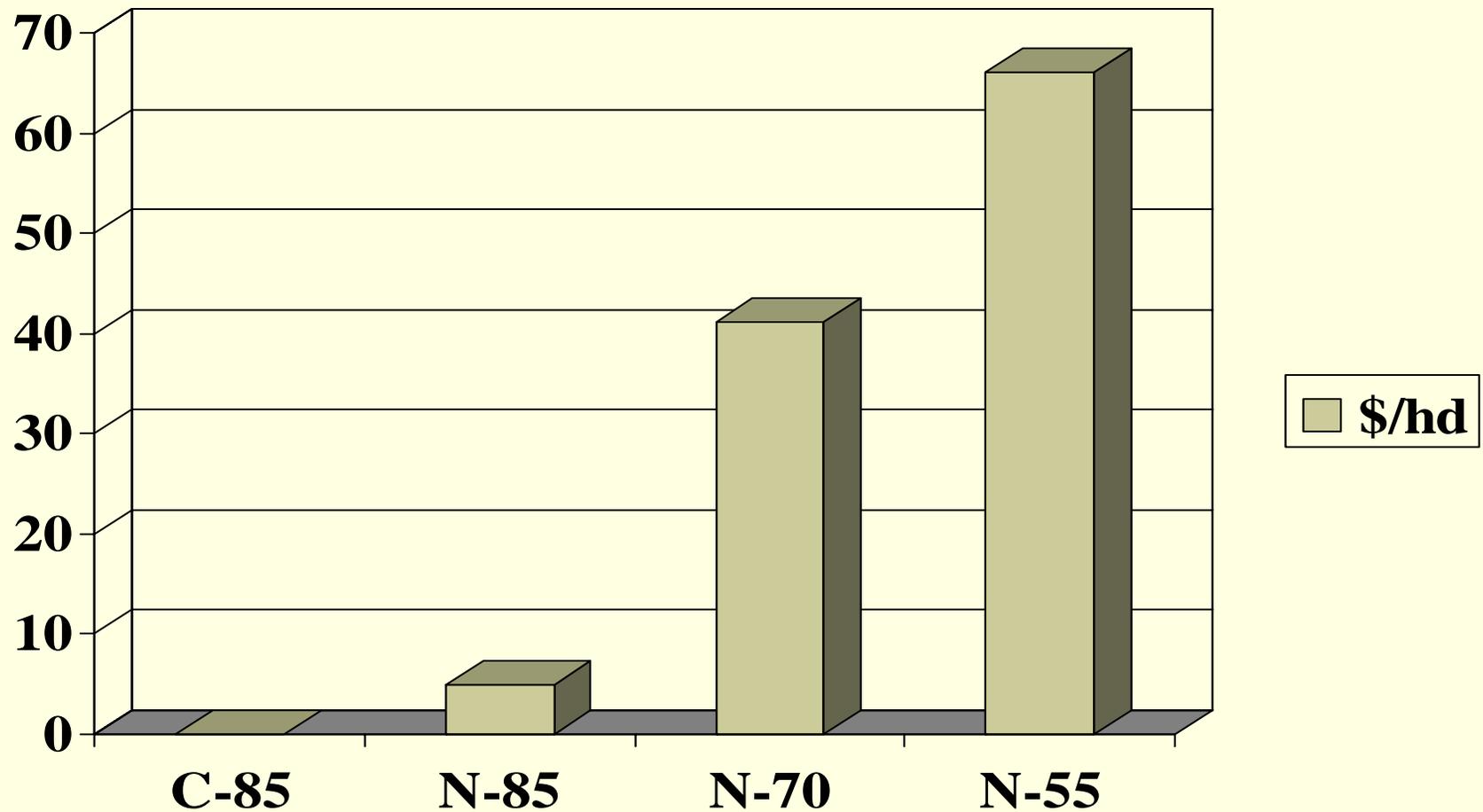
Carcass traits of natural fed steers

	C-85	N-85	N-70	N-55	P Value
Hot Carc,	707.4	690.0	687.3	678.0	.62
Marb Sc	454	481	421	421	.16
Fat Th, in	.46 ^a	.43 ^a	.36 ^b	.32 ^b	.02
REA, sq in	11.9	12.1	11.8	11.4	.08
KPH, %	2.3 ^a	2.2 ^a	1.8 ^b	2.3 ^b	.01
Yld Grade	2.97	2.77	2.58	2.70	.27
% Choice	75.0	69.8	59.3	62.8	.67

Feed costs for naturally fed cattle



Cost increase for natural feeding over conventional feeding



Conclusions – Dr Vern Anderson

- Natural fed steers can be competitive in performance and cost at the same energy levels
 - Implant vs. no implant may alter results
 - Preconditioning period critical
- Increasing forage decreases rate of gain and increases cost



Implants - OSU

■ Feedlot

- Increase gain 15-20%
- Improve efficiency 8-20%
- Estimated returns \$30-60/hd

■ Calfhood

- Increase gain +20lbs
- Estimated returns \$11/hd

■ Lifetime

- Estimated returns \$55/hd

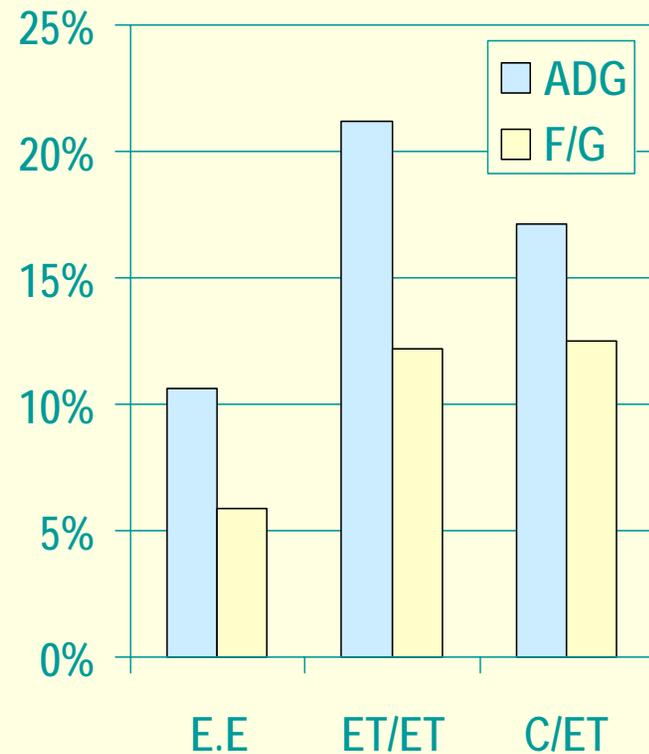
Univ of WY Implant study

- 80 Angus x Gelbvieh steers
- CON – no implant
- IMP – 1 TBA+E implant
- \$12 CH-SE spread
- \$30 implant response

	CON	IMP	
ADG	3.08	3.74	
DMI	21	23	
F/G	6.8	6.1	
Weight	1229	1323	
Carcass	729	782	
Price	132	127	
Value	\$965	\$995	

Response to Implants - ISU

- Comparison of Estrogen reimplant (E/E), Combination reimplant (ET/ET) and delayed implant (C/ET) vs Controls - Treatments increased returns \$20.64, \$61.11 and \$61.51 per head
- Equally treated comparisons as part of a 7-trial ISU summary



Backgrounding

550-750 \$80/ton

	Nat	Con
Price	112.5	110.0
Gain	2.5	2.8
Days	80	71
Death	2%	1%
COG	.733	.648
BE	1.02	\$.97

+\$37

Finishing

750-1250 \$100/ton

	Nat	Con
Price	1.05	1.00
Gain	3.2	3.7
Days	156	135
Death	2%	1%
COG	.66	.57
BE	\$.83	\$.89

+\$75

Summary

- Growing market
- Biggest premium for “best” natural cattle
 - Health
 - Carcass
 - performance
- Understand requirements of the market
 - Communication with marketers and programs
- Be a good record keeper
- Coordinate placement and slots for fed cattle

Questions?

