

There will be a Quiz!

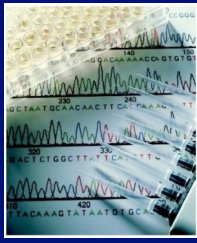
UK
UNIVERSITY OF KENTUCKY
College of Agriculture

ANR
ANIMAL BIOTECHNOLOGY AND GENOMICS RESEARCH CENTER


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University of Kentucky

National Beef Cattle Evaluation Consortium



Welcome to sunny California!!



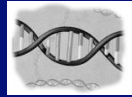
Who would you prefer to give this talk?

1. Alison
2. Darrh

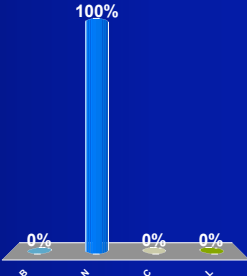


Person	Percentage
Alison	100%
Darrh	0%

This is a picture of D _ A.



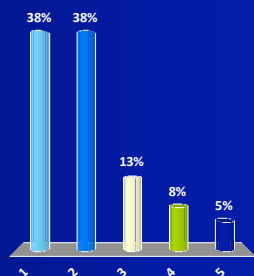
1. B
2. N
3. C
4. L



Option	Percentage
B	0%
N	100%
C	0%
L	0%

How many times did Chip Ramsey swear?

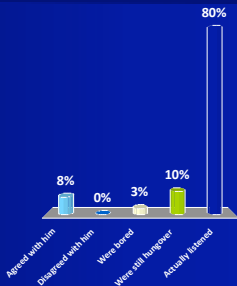
1
2
3
4
5



Number of Swears	Percentage
1	38%
2	38%
3	13%
4	8%
5	5%

Who did not listen to Dave Daley because:

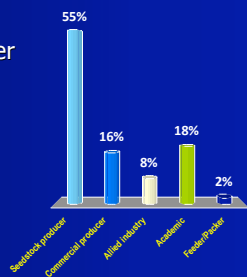
1. Agreed with him
2. Disagreed with him
3. Were bored
4. Were still hungover
5. Actually listened



Reason	Percentage
Agreed with him	8%
Disagreed with him	0%
Were bored	3%
Were still hungover	10%
Actually listened	80%

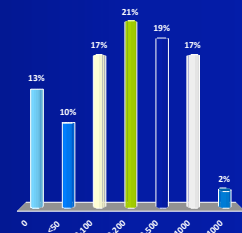
Who are you?

- Seedstock producer
- Commercial producer
- Allied industry
- Academic
- Feeder/Packer



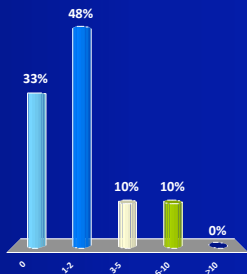
How many cows do you run?

- 0
- <50
- 50-100
- 100-200
- 200-500
- 500-1000
- >1000



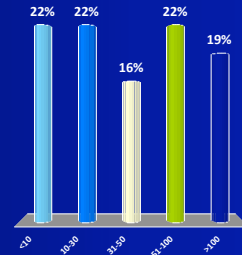
How many bulls do you plan to purchase this year?

- 0
- 1-2
- 3-5
- 6-10
- >10



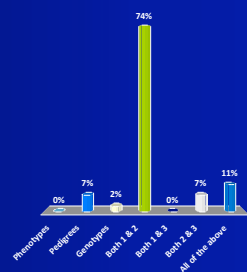
How many bulls do you plan to sell this year?

- <10
- 10-30
- 31-50
- 51-100
- >100



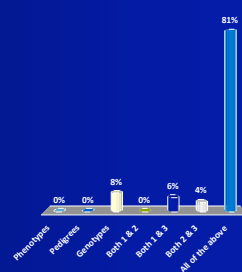
What is currently used to determine EPDs?

- Phenotypes
- Pedigrees
- Genotypes
- Both 1 & 2
- Both 1 & 3
- Both 2 & 3
- All of the above



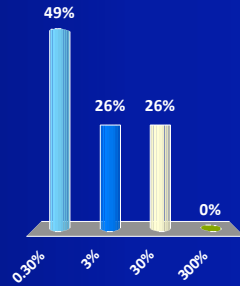
What is being proposed to determine EPDs?

- Phenotypes
- Pedigrees
- Genotypes
- Both 1 & 2
- Both 1 & 3
- Both 2 & 3
- All of the above



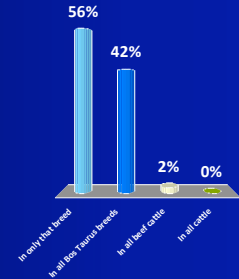
What percent of phenotypic variation do the major genes account for?

- 0.3%
- 3%
- 30%
- 300%



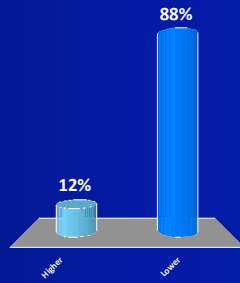
If a panel is developed using a Bos Taurus breed it usually works:

- In only that breed
- In all Bos Taurus breeds
- In all beef cattle
- In all cattle



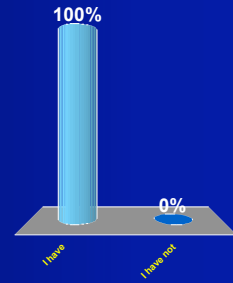
Which is a better RFI value?

- Higher
- Lower



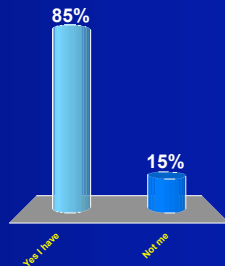
Who has heard about DNA testing for beef cattle?

- I have
- I have not



Who has collected samples from their cattle for DNA testing?

- Yes I have
- Not me

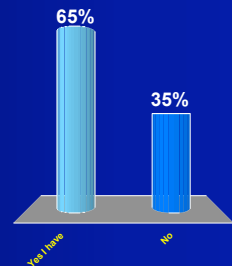


Who has tested their cattle for simple traits?

- Yes I have
- No

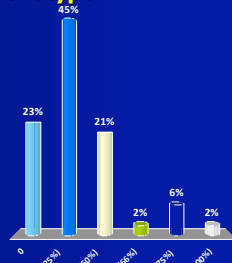


- Examples
- Horned/Polled
 - Coat color
 - Genetic defects



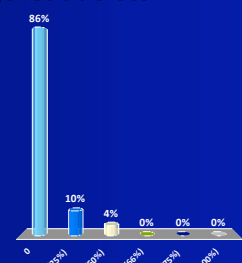
If you breed a simply inherited carrier cow (Pp) to a non-carrier bull (PP), what is the chance that the offspring will have the recessive phenotype?

- 0
- 1/4 (25%)
- 1/2 (50%)
- 2/3 (66%)
- 3/4 (75%)
- 1 (100%)



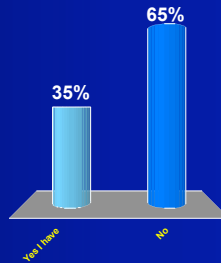
If you breed a simply inherited genetic defect carrier cow (Dd) to a defect-free bull (DD), what is the chance that the offspring will result in the genetic defect?

- 0
- 1/4 (25%)
- 1/2 (50%)
- 2/3 (66%)
- 3/4 (75%)
- 1 (100%)



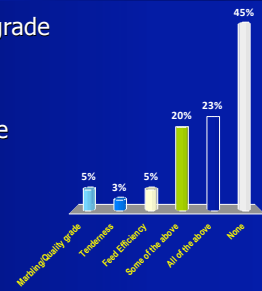
Who has tested their cattle for complex (multigenic) traits?

- Yes I have
- No



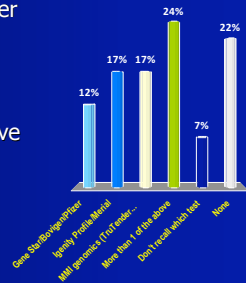
Which quantitative trait tests have you done?

- Marbling/Quality grade
- Tenderness
- Feed Efficiency
- Some of the above
- All of the above
- None



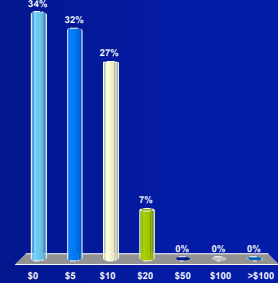
What test did you use?

- Gene Star/Bovigen/Pfizer
- Igenity Profile/Merial
- MMI genomics (TruTenderness/TruMarbling)
- More than 1 of the above
- Don't recall which test
- None



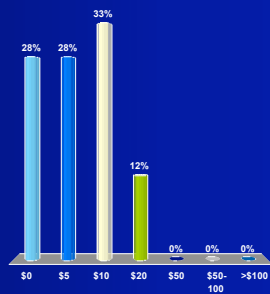
How much would you be willing to pay for a marbling test...

- \$0
- \$5
- \$10
- \$20
- \$50
- \$100
- >\$100



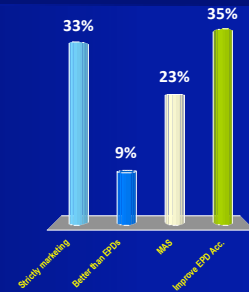
How much would you be willing to pay for a tenderness test?

- \$0
- \$5
- \$10
- \$20
- \$50
- \$50-100
- >\$100



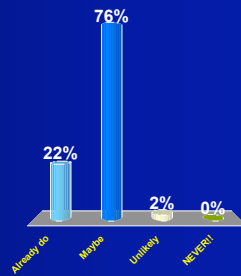
Why do you use DNA tests?

- Strictly marketing
- Better than EPDs
- MAS
- Improve EPD Acc.



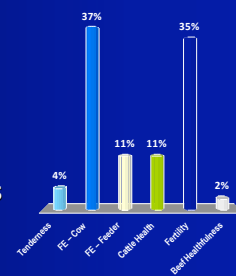
Who thinks they might use DNA testing for quantitative traits one day?

- Already do
- Maybe
- Unlikely
- NEVER!!



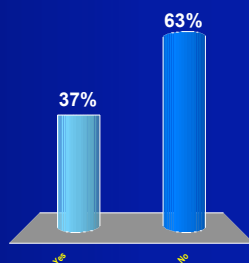
For which trait would most like to see an EPD?

- Tenderness
- FE – Cow
- FE – Feeder
- Cattle Health
- Fertility
- Beef Healthfulness



If there was a DNA test for weaning weight –would you use it?

- Yes
- No

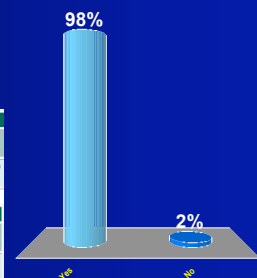


Is there a value to increasing the accuracy of EPDs?

- Yes
- No


Production					
CED Acc	BW Acc	WW Acc	YW Acc	YH Acc	SC Acc
1 + 6 05	1 + 3 3 05	1 + 45 05	1 + 83 05	1 + 1 05	1 + 19 05

Carcass					
Cwt Acc	Mt Acc	RE Acc	Fat Acc	C Grp C Prog	U Grp U Prog
1 + 15 05	1 + 45 05	1 + 44 05	1 + 015 05		



What is the value of accuracy?

Twin Valley Precision E161



Reg. No.: 12345200
Calfed: 5/16/1995
Semen: \$260
Certificate: \$35

Click photo to enlarge

Production

CED	BW	WW	YW	SC	CEM	Milk	MMI	MW	MH	SEI
+1.1	42	+52	+3	19.07	43	+10	1379	104	+8	
92	57	96	90	94	94	90	94	4501	89	-71

Material

CED	BW	WW	YW	SC	CEM	Milk	MMI	MW	MH	SEI
+1.1	42	+52	+3	19.07	43	+10	1379	104	+8	
92	57	96	90	94	94	90	94	4501	89	-71

Circus

CEM	RE	Fat	C Proj	U Proj	Wheat	Feedlot	Grid	LOS	YS	Best
+22	+48	+206	16	3465	14.59	34.28	21.71	14.59	7.12	50.7
61	67	82	96	9164						

Wolfram

CEM	RE	Fat	C Proj	U Proj	Wheat	Feedlot	Grid	LOS	YS	Best
+22	+48	+206	16	3465	14.59	34.28	21.71	14.59	7.12	50.7
61	67	82	96	9164						

Fall 2008 EPD

Tahama Brando 105
D A R Precision 1880
M1102308


S&S D A R 808
S&S D A R 808

D A S Tracker 23.4
S S Tracker 678
W C C Brando 02
A11011705.0

Band 234 of head 2165
Tahama Brando 3075
Reg 5/9 28/10/1728
Brando D A R 833

D A S Tracker 23.4
S S Tracker 678
W C C Brando 02
A11011705.0

Prime Maker Plus



Reg. No.: 10120163
Calfed: 12/15/2006
Semen: \$20
Certificate: \$35

Click photo to enlarge

Production

CED	BW	WW	YW	SC	CEM	Milk	MMI	MW	MH	SEI
+3	+4	+52	+6	20	+4	+7				
27	33	94	22	30	13	41				-7.35

Material

CED	BW	WW	YW	SC	CEM	Milk	MMI	MW	MH	SEI
+3	+4	+52	+6	20	+4	+7				
27	33	94	22	30	13	41				-7.35

Circus

CEM	RE	Fat	C Proj	U Proj	Wheat	Feedlot	Grid	LOS	YS	Best
+11	91.07	14.46	+ 010		24.96	34.41	24.07	20.26	7.23	50.25
-12	88.17	14.14	94							

Wolfram

CEM	RE	Fat	C Proj	U Proj	Wheat	Feedlot	Grid	LOS	YS	Best
+11	91.07	14.46	+ 010		24.96	34.41	24.07	20.26	7.23	50.25
-12	88.17	14.14	94							

Spring 2008 EPD

D A R Precision 1880
D A R Precision 1880

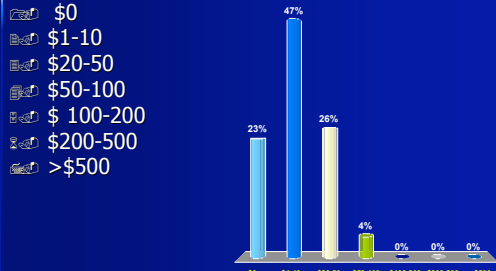
D C C Mile Drive 023
D C C Mile Drive 023

D C C Mile 078 of 102 008
D C C Mile 078 of 102 008

D A R Integrity
D A R Integrity

Band 102 of head 1407
D A R Precision 1880
Reg 10/2 28/08 Reg 560

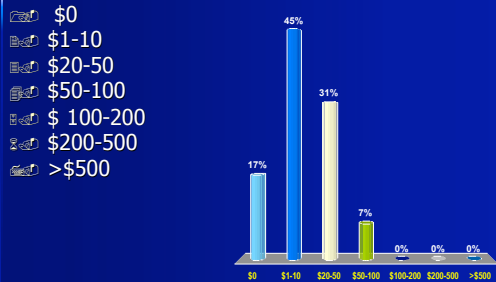
How much would you pay for a DNA test that increases the accuracy of a yearling bull WW EPD from 0.05 (i.e. parent average) to 0.4?



That is equivalent to having 22 progeny records at birth

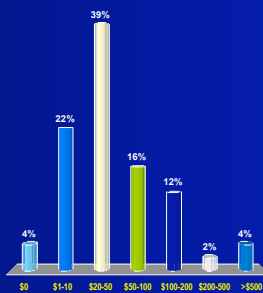
BIF accuracy	Number of progeny records required	
	Low heritability (0.1)	Moderate heritability (0.3)
01	1	1
02	2	1
05	4	2
08	8	3
13	13	5
20	22	7
29	38	12
40	70	22
56	167	53
93	1921	608
99	3800	1225

How much would you pay for a DNA test that increases the accuracy of a yearling bull WW EPD from 0.05 (i.e. parent average) to 0.4?



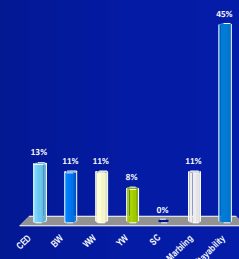
How much would you pay for a DNA test that increases the accuracy of a yearling bull WW EPD from 0.05 (i.e. parent average) to 0.9?

- \$0
- \$1-10
- \$20-50
- \$50-100
- \$ 100-200
- \$200-500
- >\$500



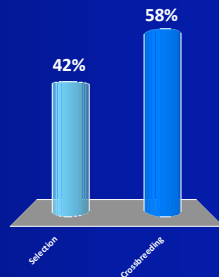
For which trait would an increase in accuracy have the greatest value?

- CED
- BW
- WW
- YW
- SC
- Marbling
- Stayability



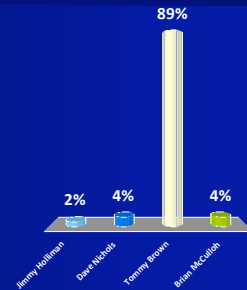
Which breeding practice is more valuable to commercial producers?

- Selection
- Crossbreeding



Which current/past BIF president was observed to be in standing heat at this conference?

- Jimmy Holliman
- Dave Nichols
- Tommy Brown
- Brian McCulloh



National Beef Cattle Evaluation Consortium


Colorado State University, Cornell University, University of Georgia

Genetic Test Validation Results

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Featured Producer



Jack Cowley, Commercial Producer, Montague, CA

"The NBCEC is critically important to the future of the beef industry during this time of economic uncertainty, reduced land availability and increasing demands from the public. The NBCEC is striving to genetically improve beef cattle to be more efficient, while producing a product that is nutritious, healthy and tastes good."

Genetic Test Validation – NBCEC provides independent, unbiased, third-party validation of genetic tests for the beef cattle industry. See a variety of test results and the validity of the claims.

Current Projects – NBCEC conducts comprehensive, innovative and science-based beef cattle genetic research. Learn about the variety of their current projects.

Site Selection Manual – This comprehensive manual features a variety of NBCEC research and genetic technology that producers can apply to their farms and ranches.

BIF Annual Meeting – Attend the Beef Improvement Federation's Annual Research Symposium and Annual Meeting, April 30 – May 3 in Sacramento, CA.

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