"Genetic Improvement in Beef Cattle — Where is it Headed?"

Alison Van Eenennaam, Ph.D.

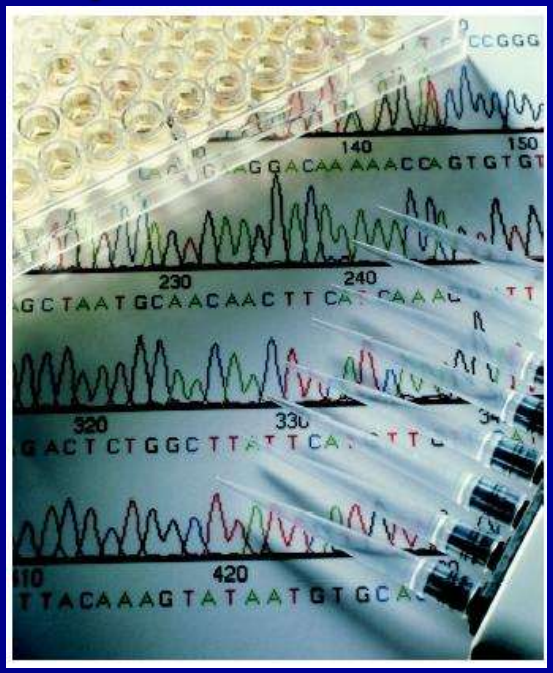
Cooperative Extension Specialist

Animal Biotechnology and Genomics

UC Davis

530-752-7942

alvaneenennaam@ucdavis.edu



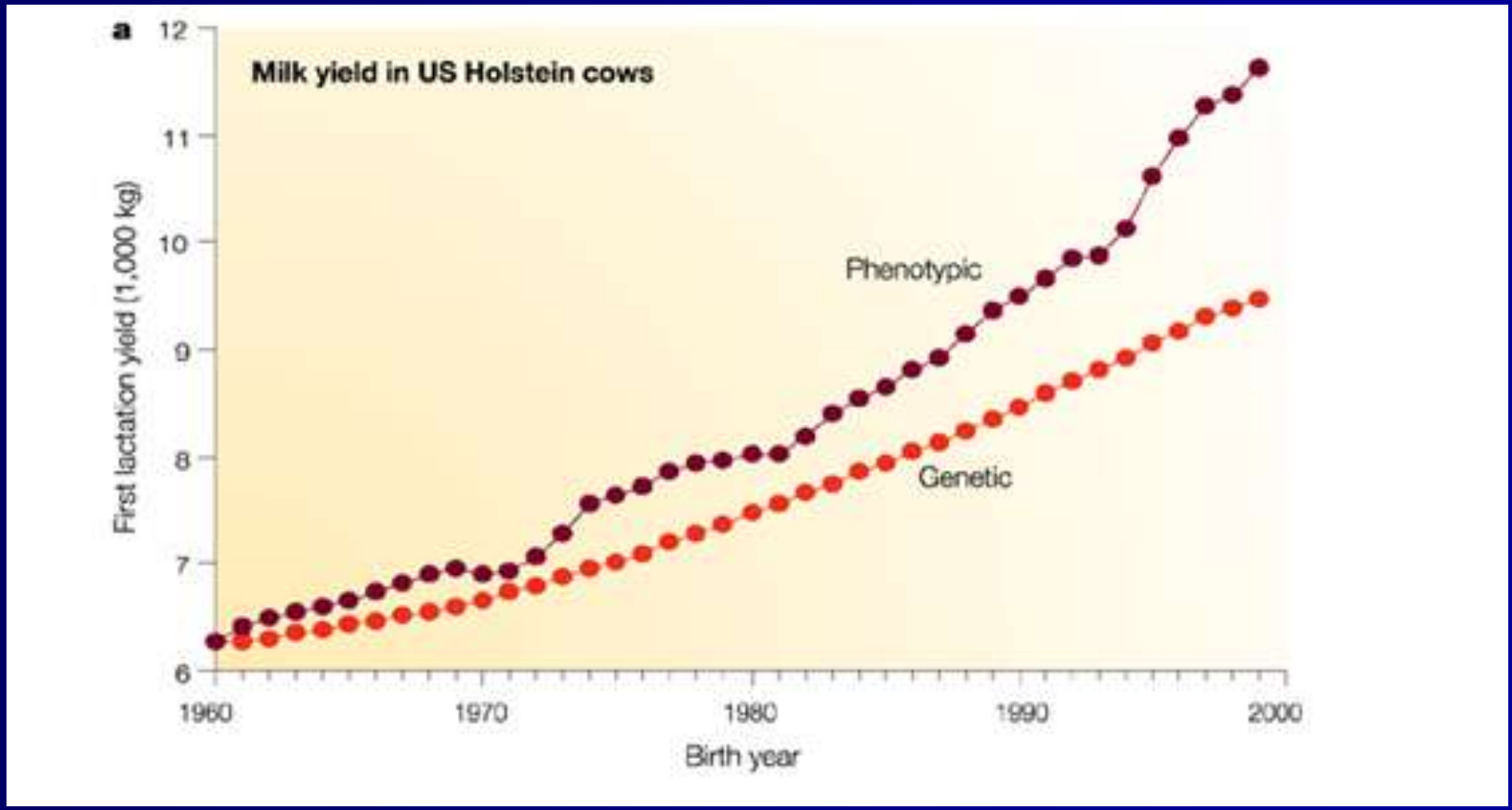
http://animalscience.ucdavis.edu/animalbiotech/

FARM CLUB BEEF NIGHT 4/1/09

Where do producers get their breeding information from?

Extension, University, Vo-Ag	55.3%
Veterinarian	77.5%
Beef Magazines	69.8%
Producer/Breed Association	44.5%
Other Producers	66.6%
Salespersons or Company Rep	41.0%
Consultants	16.7%
Electronic Media	29.7%
Internet	25.7%

Genetic improvement has improved animal productivity

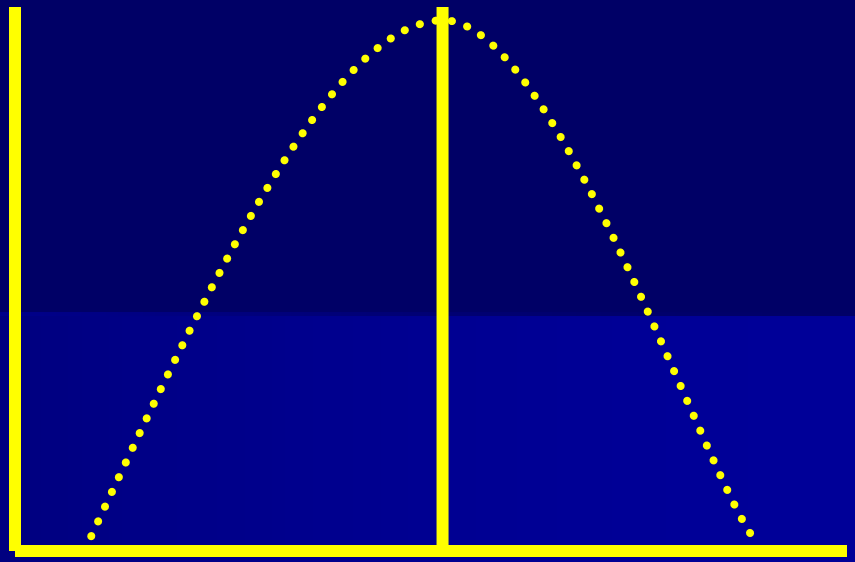


The basis of selection is the resemblance between relatives






Genotype



Environment

Phenotype

ABS Global : Beef

Pasture to Plate™ Genetics

Main | Beef | Dairy | Technical Services | Company Info | News

DREAM ON 29SM0373

CNS DREAM ON L186 ASA 2144976

View Support Photos

NICHOLS LEGACY G151
NICHOLS BLK DESTINY D12
NICHOLS DEBRA D81
CNS SHEEZA DREAM K107W
SRS FRANCHISE F601
NICHOLS JOLIETTE 107W

2007 GENETIC TYPE SUMMARY

	STA	#HEAD	-2 -1 0 1 2
Stature	-0.4	PE	
Capacity	0.2	PE	
Body Length	0.4	PE	
Muscling	0.6	PE	
Rear Legs	-0.8	PE	
Feet & Pasterns	0.1	PE	
Femininity	0	PE	
Udder Attachment		PE	
Udder Depth		PE	
Teat Size		PE	

Comments: Pedigree Estimate

Profitable and Marketable

- Heterozygous black, DNA tested homozygous polled
- A leader for API (top 2%) combining outstanding calving ease, maternal calving ease, sensible growth and strong carcass traits
- The overall look and kind of his progeny make them extremely popular and easy to sell
- The best return on investment for your semen dollar

AMERICAN SIMMENTAL SIRE SUMMARY FALL 2007

TRAIT	CED	BW	WW	YW	MCE	MILK	MWW	STAY
EPD	+15.7	-0.9	+35.3	+58.6	+13.3	+6.9	+24.5	+16.3
ACC	.88	.95	.92	.90	.77	.80	.81	.15

TRAIT	CW	YG	MARB	BF	REA	SHR
EPD	-10.5	-.01	+.30	+.03	+.11	-.01
ACC	.66	.66	.66	.71	.64	.08

Individual Performance		
BW	78	
205	886	N/A
365	1,435	N/A
SC	40	12 Mo.
YFS/FS	6	
Weight	2,300	Mat.
Height	58	Mat.
Born: 11/21/01		

service science success

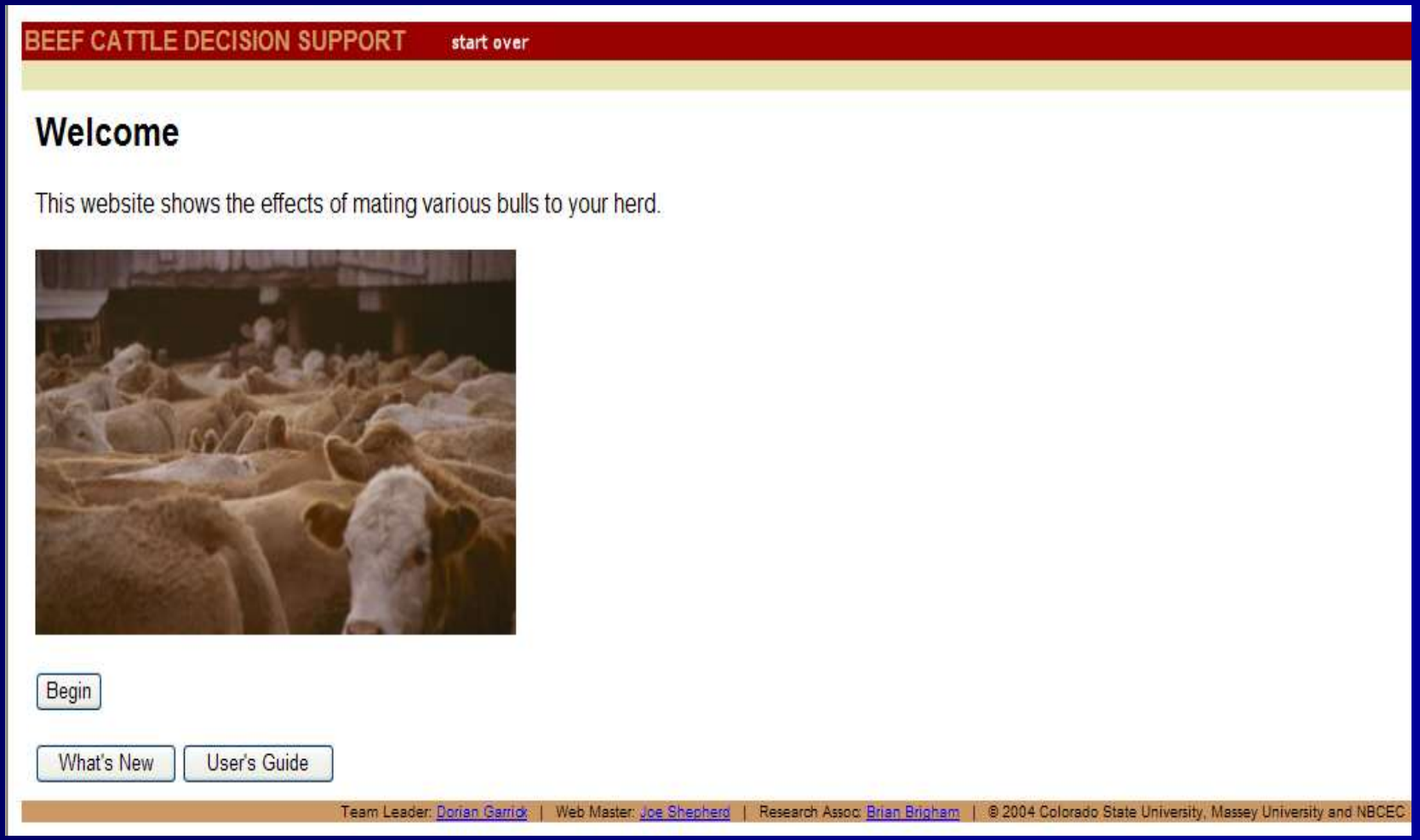
Interpreting an EPD

Sire X has a weaning weight EPD of +20.

Relative to the average animal born in a designated year , sire X is superior to that average animal by 20 pounds.

What is the value of that?

http://dss.ansci.iastate.edu



BEEF CATTLE DECISION SUPPORT

start over

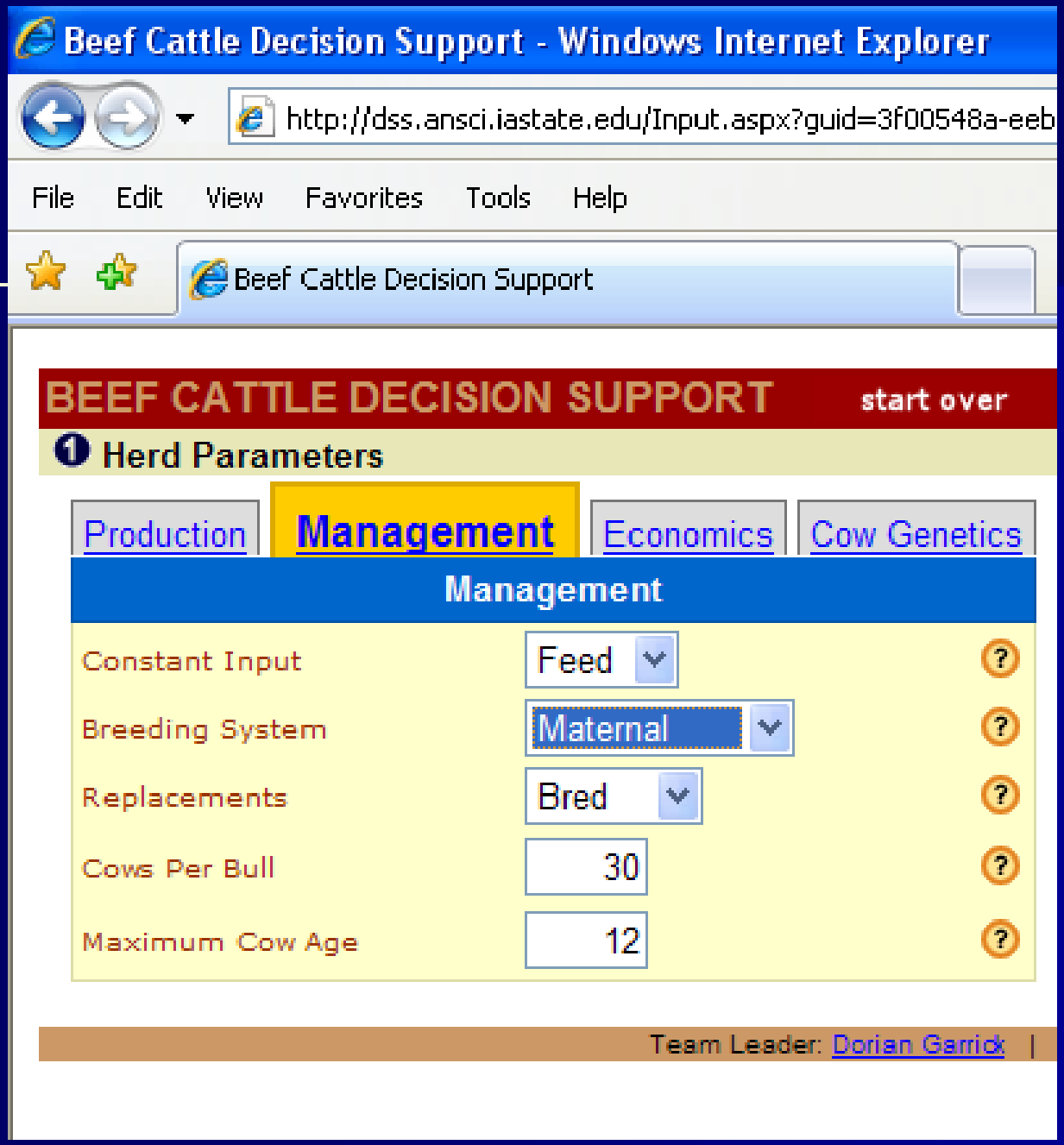
1 Herd Parameters

Production | Management | Economics | Cow Genetics

Production

Herd Size	1000	
Heifer Calving Rate	95	%
Mixed Age Calving Rate	90	%
Mature Weight	1200	
Calf Survival Rate	95	
Yearling Weight	775	
Weaning Weight	500	
Birth Weight	85	
Heifer Calving Difficulty	22	%

Team Leader: Dorian Garrick | We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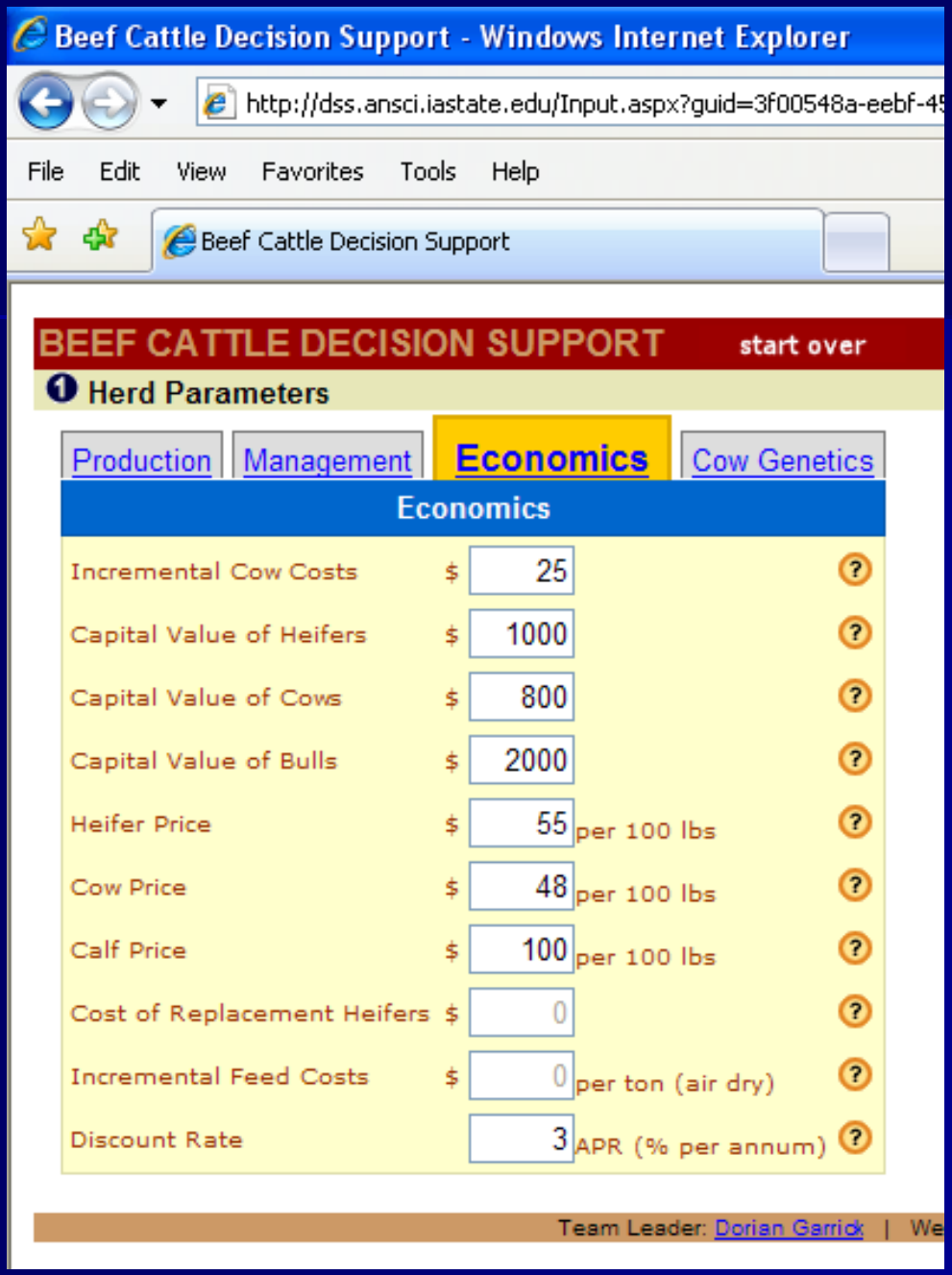
BEEF CATTLE DECISION SUPPORT
start over
1 Herd Parameters
Production
Management
Economics
Cow Genetics
Management
Constant Input
Feed
Breeding System
Maternal
Replacements
Bred
Cows Per Bull
30
Maximum Cow Age
12
Team Leader: Dorian Garrick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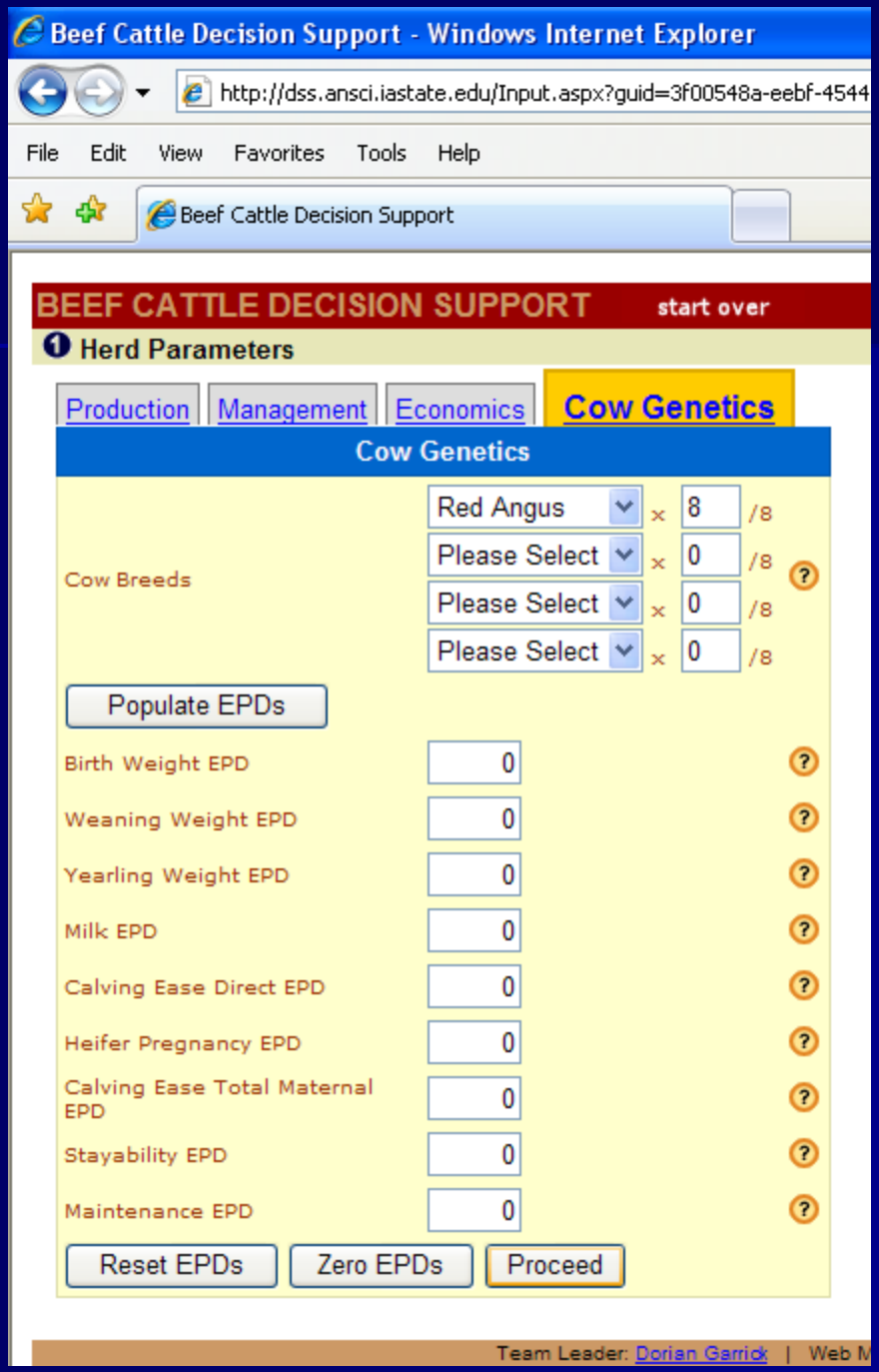
Beef Cattle Decision Support
BEEF CATTLE DECISION SUPPORT
start over
1 Herd Parameters
Production
Management
Economics
Cow Genetics
Economics
Incremental Cow Costs $ 25
Capital Value of Heifers $ 1000
Capital Value of Cows $ 800
Capital Value of Bulls $ 2000
Heifer Price $ 55 per 100 lbs
Cow Price $ 48 per 100 lbs
Calf Price $ 100 per 100 lbs
Cost of Replacement Heifers $ 0
Incremental Feed Costs $ 0 per ton (air dry)
Discount Rate 3 APR (% per annum)
Team Leader: Dorian Garrick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Beef Cattle Decision Support
BEEF CATTLE DECISION SUPPORT
start over
Herd Parameters
Production
Management
Economics
Cow Genetics
Cow Genetics
Cow Breeds
Red Angus x 8 /8
Please Select x 0 /8
Please Select x 0 /8
Please Select x 0 /8
Populate EPDs
Birth Weight EPD 0
Weaning Weight EPD 0
Yearling Weight EPD 0
Milk EPD 0
Calving Ease Direct EPD 0
Heifer Pregnancy EPD 0
Calving Ease Total Maternal EPD 0
Stayability EPD 0
Maintenance EPD 0
Reset EPDs
Zero EPDs
Proceed
Team Leader: Dorian Garrick | Web M

BEEF CATTLE DECISION SUPPORT start over

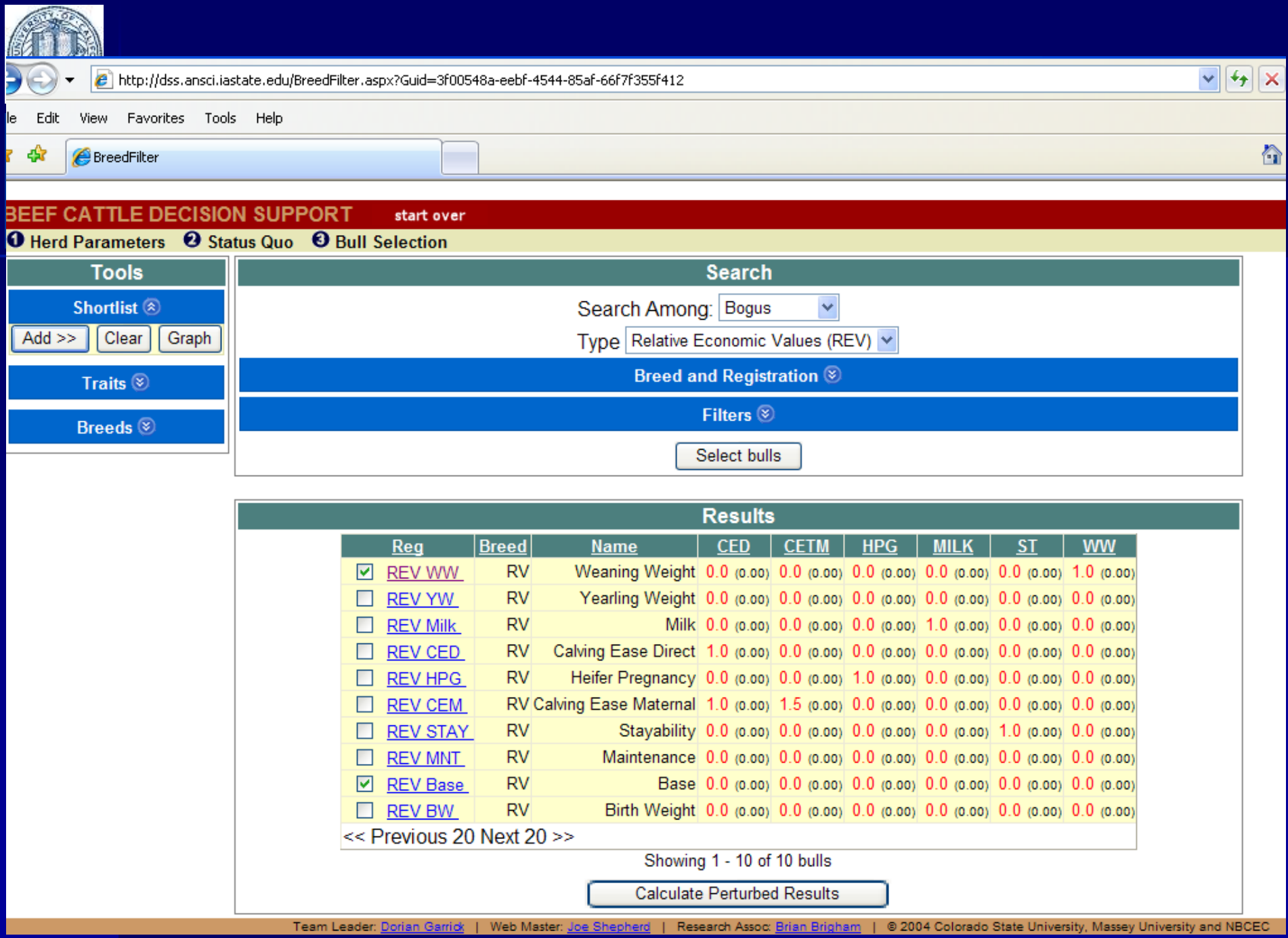
1 Herd Parameters 2 Status Quo

Herd Results

	Number	Capital Value	Income	Costs
Calves	945	$88,694	$370,311	$5,999
Yearlings	182	$182,321	$0	$0
2 year olds	173	$138,564	$4,516	$5,698
3 year olds	156	$124,708		
4 year olds	140	$112,237		
5 year olds	126	$101,013		
6 year olds	114	$90,912		
7 year olds	102	$81,821		
8 year olds	92	$73,639	$19,717	$20,670
9 year olds	62	$49,706		
10 year olds	28	$22,368		
11 year olds	6	$5,033		
12 year olds	0	$0		
13 year olds	0	$0		
14 year olds	0	$0		
15 year olds	0	$0		
Total	1000	$1,071,016	$394,545	$32,367

Proceed >

Team Leader: Dorian Garrick | We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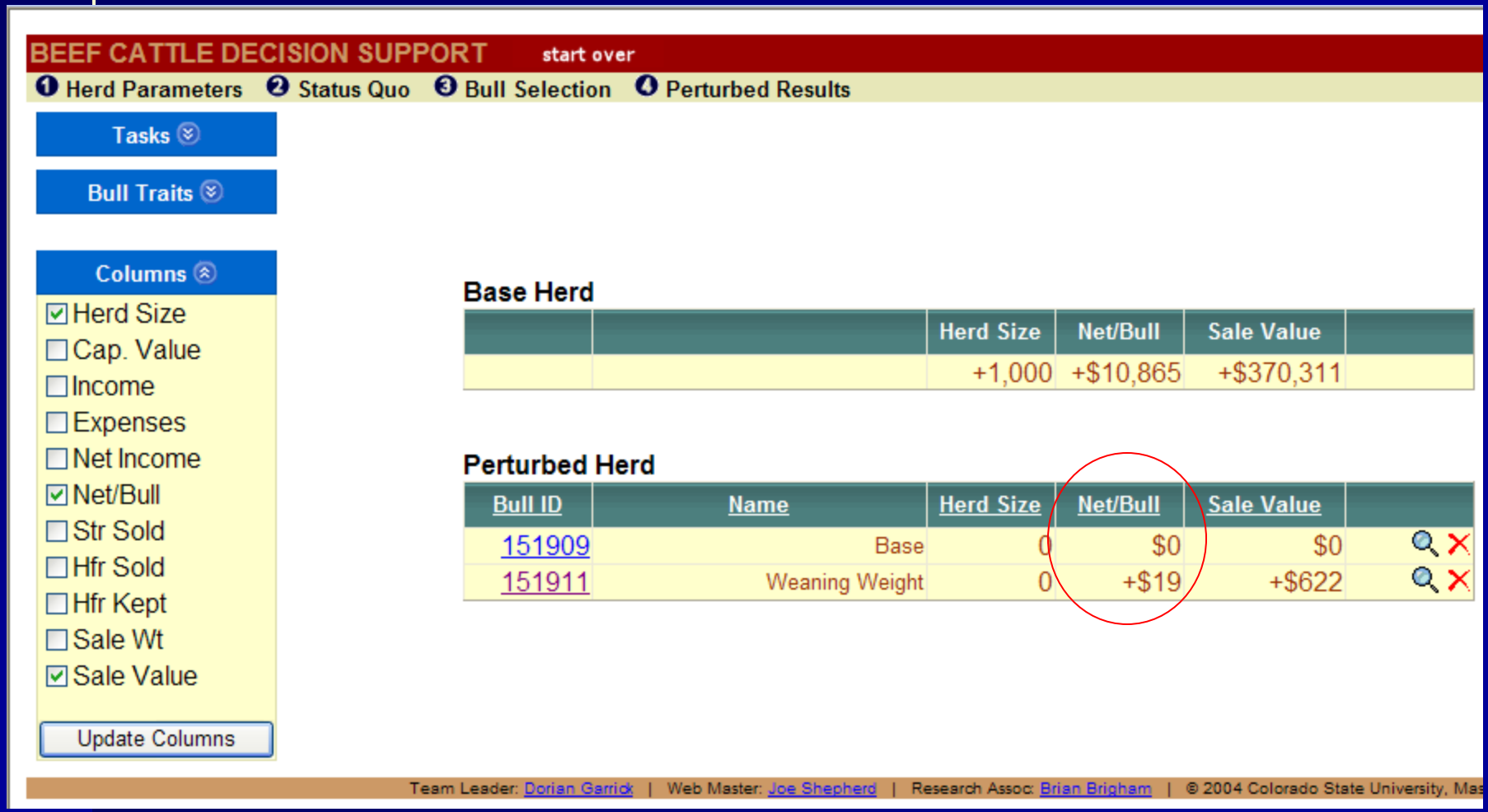
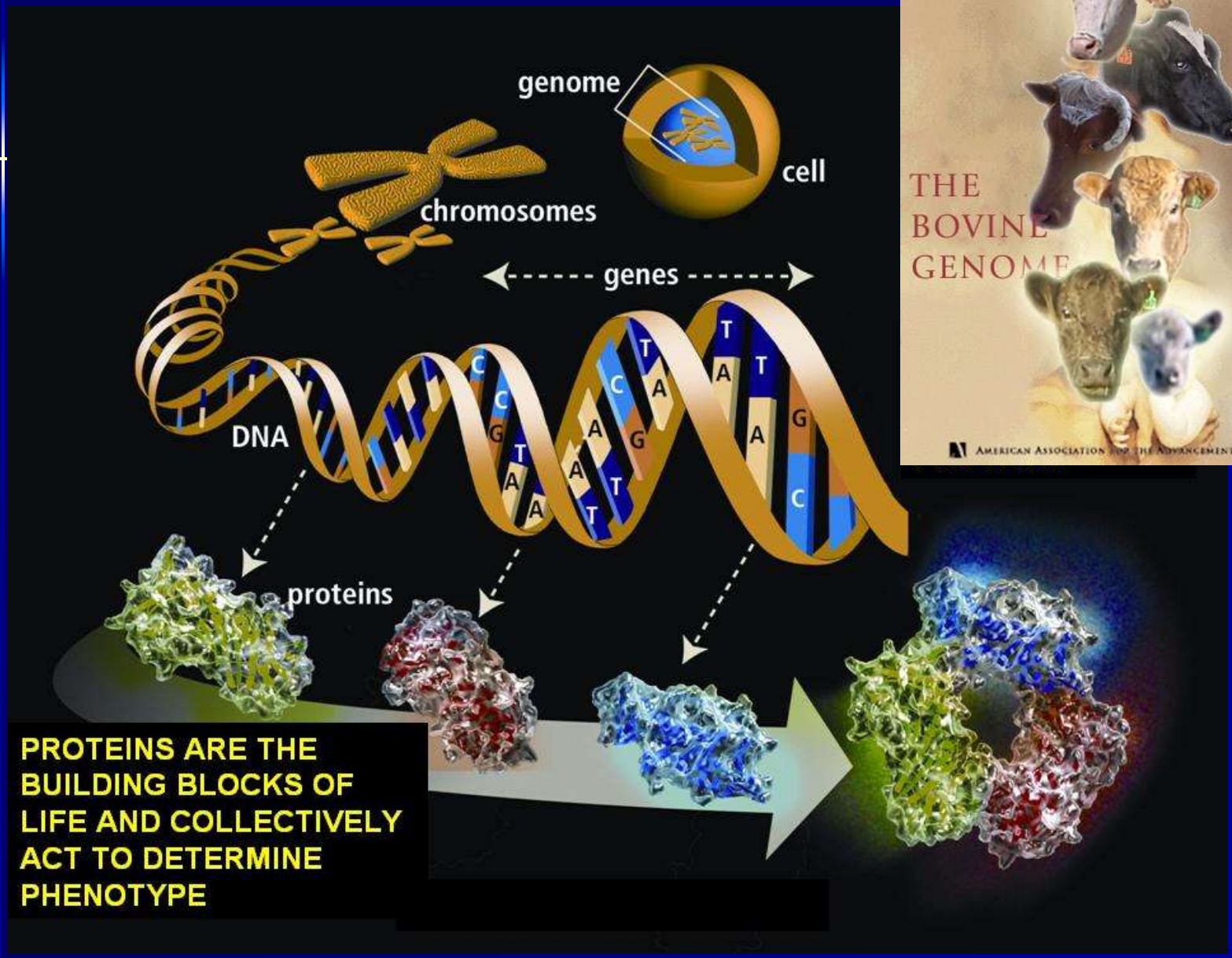
BEEF CATTLE DECISION SUPPORT start over
1 Herd Parameters 2 Status Quo 3 Bull Selection
Tools
Shortlist
Add >> Clear Graph
Traits
Breeds
Search
Search Among: Bogus
Type Relative Economic Values (REV)
Breed and Registration
Filters
Select bulls
Results
Reg Breed Name CED CETM HPG MILK ST WW
REV WW RV Weaning Weight 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 1.0 (0.00)
REV YW RV Yearling Weight 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00)
REV Milk RV Milk 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 1.0 (0.00) 0.0 (0.00) 0.0 (0.00)
REV CED RV Calving Ease Direct 1.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00)
REV HPG RV Heifer Pregnancy 0.0 (0.00) 0.0 (0.00) 1.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00)
REV CEM RV Calving Ease Maternal 1.0 (0.00) 1.5 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00)
REV STAY RV Stayability 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 1.0 (0.00) 0.0 (0.00)
REV MNT RV Maintenance 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00)
REV Base RV Base 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00)
REV BW RV Birth Weight 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00) 0.0 (0.00)
<< Previous 20 Next 20 >>
Showing 1 - 10 of 10 bulls
Calculate Perturbed Results
Team Leader: Dorian Garrick | Web Master: Joe Shepherd | Research Assoc: Brian Brigham | © 2004 Colorado State University, Massey University and NBCEC

So a +20 WW EPD worth ~ $19 x 20 = $380/year




genome
cell
chromosomes
genes
DNA
proteins
PROTEINS ARE THE BUILDING BLOCKS OF LIFE AND COLLECTIVELY ACT TO DETERMINE PHENOTYPE

Science
THE BOVINE GENOME
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
Faked by Ricardo Verdugo

DNA-based biotechnologies have a range of potential applications in cattle production systems

- Animal Identification and parentage identification
- DNA testing for genetic defects
- Marker-assisted selection
- Whole genome-enabled selection – increase the accuracies of EPDS at birth ???????

California to host BIF 2009! Mark your calendars!

http://www.calcattlemen.org/bif2009.html

2009 Beef Improvement Federation Annual Research Symposium and Annual Meeting

Sacramento, California

April 30 – May 3, 2009

CALIFORNIA BEEF RUSH '09

Wednesday April 29th Early Registration
Thursday April 30th Registration and Evening Reception
Eastern Tour "**Foothill Bovines, Equines and Fine Wines**"
Friday May 1st Convention, Family/Spouse Tour, Evening Dinner
Saturday May 2nd Convention and Evening on your Own in Sacramento
Sunday May 3rd Western Tour "**Ocean Wines and Bovines**"