

EXTENSION EDUCATION – ABSTRACT #288

PREMIUM BEEF SEMEN ON DAIRY CALCULATOR

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OUTLINE

- ▶ Introduction
- ▶ Quick prospective of the beef industry
 - ▶ And how the dairy industry got involved
- ▶ Objective
- ▶ Decision analysis tool
 - ▶ By Genetic Merit
 - ▶ By Service Number
- ▶ Conclusion

INTRODUCTION

- ▶ Dairy producers are searching for alternatives to increase net income of their operations.
- ▶ Genetic companies are partnering with livestock sales companies and offering premium prices for crossbred calves to dairies that are using beef semen.

QUICK PROSPECTIVE OF THE BEEF INDUSTRY

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Mexico Removes Import Restrictions on U.S. Beef

Mexican government making plans to lift ban on cattle older than 30 months

Published on: **May 6, 2014**



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Published May 06, 2014, 04:14 PM



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Brazil reports second case of mad cow disease

On Monday, the World Organization for Animal Health (OIE) provided notice that Brazil confirmed its second case of bovine spongiform encephalopathy (BSE), commonly known as mad cow disease, this time in a 12-year-old Brazilian cow.



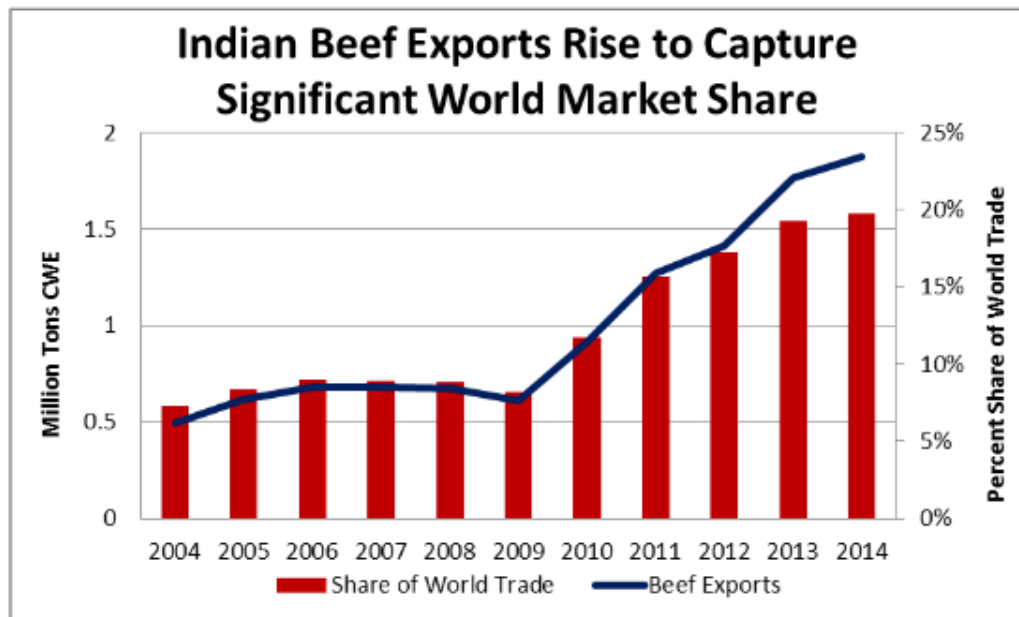
United States
Department of
Agriculture

Foreign
Agricultural
Service

April 2014

Livestock and Poultry: World Markets and Trade

India and Turkey: Competitive Advantages Impact Global Trade



India:

Beef shipments have nearly tripled between 2008 and 2013 and are forecast at a record of nearly 1.9 million tons in 2014. India has become the world's second largest exporter with a 20 percent market share.

TOTAL BEEF CATTLE (1,000) IN THE US

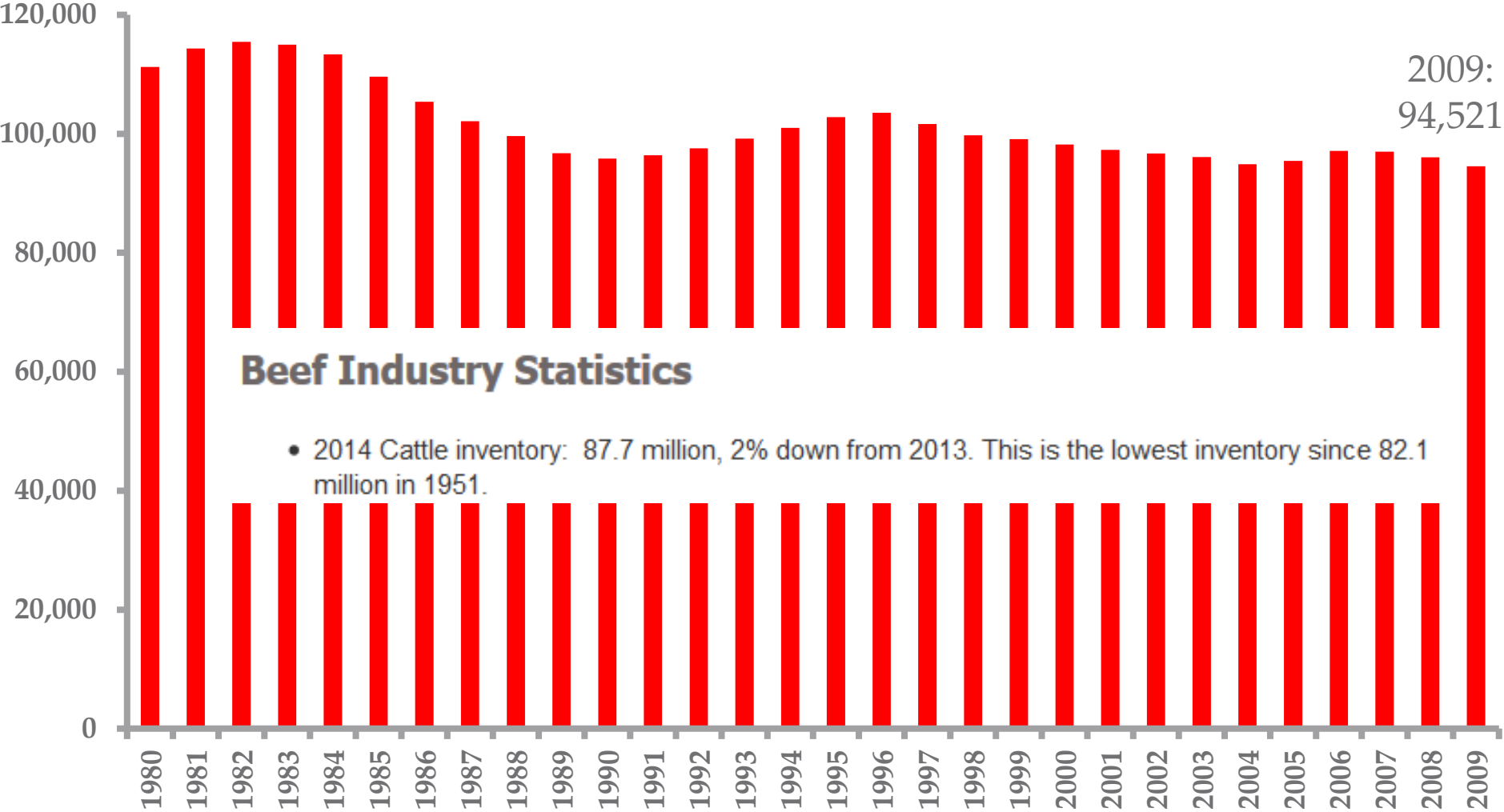
Source: USDA

2009:
94,521

1982: 115,444

Beef Industry Statistics

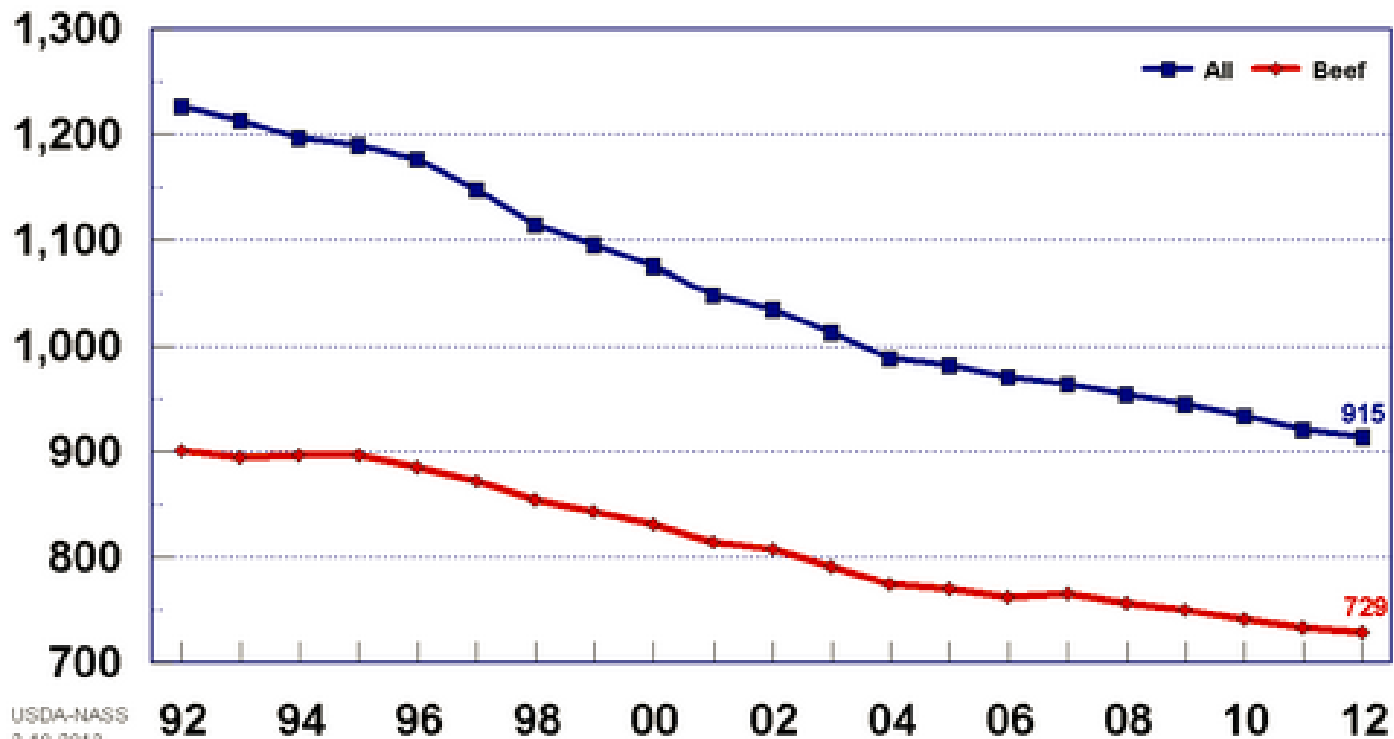
- 2014 Cattle inventory: 87.7 million, 2% down from 2013. This is the lowest inventory since 82.1 million in 1951.



ALL CATTLE AND BEEF AND COW OPERATIONS

Number of All Cattle and Beef Cow Operations, United States, 1992-2012

Thousand operations



USDA-NASS
2-19-2013

TO SUPPLY THIS DEMAND

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Crossbreeding dairy with beef genetics?

Riverview L.L.P., with its 30,000 dairy cows, is trying a new twist in its breeding program: Beef genetics.

By: [Mikkel Pates](#), Agweek

DAIRY INFOCUS

ABS

ABS Dairy InFocus (Beef x Dairy)

ABS Dairy InFocus involves the strategic use of proven beef sires on dairy cows within a comprehensive breeding plan. InFocus enables dairies to increase cash flow and improve future herd genetics. Lower performing cows are bred to beef and calves are sold at a premium. Top performing cows are used for heifer replacements.

DAIRY
INFOCUS
GENETIC MANAGEMENT SYSTEM

BREEDING TO FEEDINGSM

WULF x GENEX CONNECTING SUPPLY AND DEMAND

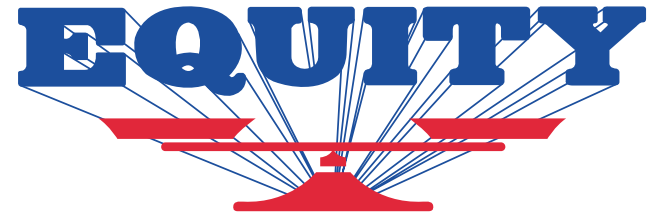
SELECT S SIRES

BREEDING to FEEDING

TO SUPPLY THIS DEMAND

PREMIUM BEEF ON DAIRY PROGRAM

A program designed for you that will bring premium dollars and generate superior animals.



on the farm ~ in the market ~ working together

Equity Cooperative Livestock Sales

- ▶ Retain 100% ownership from birth to harvest
- ▶ Retain partial ownership from birth to harvest
- ▶ Market calves with less than 2-wk of age

OBJECTIVE

- ▶ Our objective was to develop a decision support tool to analyze the net income of switching inseminations from conventional or sexed sorted dairy semen to beef semen.
- ▶ The calculation is performed considering the genetic value of animals to be inseminated and the expected premium to be received for crossbred offspring.

ON-LINE ECONOMIC DECISION TOOL

WorldClient - Glauco Lope... x jam_web_7-15.pdf x Dairy Management x Dairy Management x Dairy Management - Premi... x +

dairymgt.info Google

Reproduction

- > [Wisconsin-Cornell Dairy Repro: A Reproductive Programs Economics Analysis Tool.](#)
Replaces previous tools UW-DairyRepro\$ and UW-DairyRepro\$Plus.
- > [The Economic Value of a Dairy Cow](#)
- > [Economic Value of Sexed Semen Programs for Dairy Heifers](#)
- > [Exploring Timing of Pregnancy Impact on Income Over Feed Cost](#)
- > [Dairy Reproductive Economic Analysis](#)
- > [Heifer Pregnancy Rate](#)
- > [Retention Pay-Off \(RPO\) Calculator](#)
- > [Premium Beef on Dairy Program](#)

HTML Online Tool ([Open](#))

Excel Spreadsheet ([Download](#))

		# Animals Eligible for Service	
	Service	Projected	Adjusted
Heifers	1st	470	<input type="text" value="500"/>
	2nd	470	<input type="text" value="500"/>
	3rd	470	<input type="text" value="500"/>
	>3rd	470	<input type="text" value="500"/>
Lactation 1	1st	470	<input type="text" value="500"/>
	2nd	470	<input type="text" value="500"/>
	3rd	470	<input type="text" value="500"/>

1ST STEP: DAIRY INPUTS



Premium Beef on Dairy Program

V.E. Cabrera, UW-Madison Dairy Science and G. Lopes, Accelerated Genetics



Overview

Analysis

Number of adult cows

1000

Current heifer conception rate at 1st service, %

60

Current herd turnover ratio, %

30

Current heifer services with sexed semen

0

Current adult herd 21-d pregnancy rate, %

20

Stillbirth + calf mortality, %

5

Female calvings required 9 months from now

277

2ND STEP: CRITERIA TO IMPLEMENT THE PROGRAM – GENETIC MERIT

							Selection and Semen Type		
		# Animals Eligible for Service		Conception Rate by Semen Type			Top	Bottom	
Collapse		Service	Projected	Adjusted	C, % ⓘ	S, % ⓘ	B, % ⓘ	80	20
Heifers	1st	538		60	48	50	S	B	
	2nd	215		45	36	45	C	B	
	3rd	86		40	32	40	S	B	
	>3rd	34		35	28	35	B	B	
Lactation 1	1st	25		40	32	35	S	B	
	2nd	18		35	28	33	C	B	
	3rd	13		30	24	31	C	B	
	>3rd	64		25	20	30	C	B	
Lactation 2	1st	18		35	28	30	C	B	
	2nd	13		33	26	28	C	B	
	3rd	9		30	24	27	C	B	
	>3rd	35		25	20	26	C	B	
Lactation >2	1st	26		33	26	27	C	B	
	2nd	18		30	24	26	C	B	
	3rd	12		27	22	25	C	B	
	>3rd	44		25	20	24	C	B	
Females, % by semen					47	90	0		
Semen Cost, \$/unit					10	25	15		
Eartag cost, \$/unit					0.5	0.5	3		

2ND STEP: CRITERIA TO IMPLEMENT THE PROGRAM – SERVICE NUMBER

							Selection and Semen Type		
		# Animals Eligible for Service		Conception Rate by Semen Type			Top	Bottom	
- Collapse		Service	Projected	Adjusted	C, % ⓘ	S, % ⓘ	B, % ⓘ	100	0
Heifers	1st	538			60	48	50	S ▾	B ▾
	2nd	215			45	36	45	S ▾	B ▾
	3rd	86			40	32	40	C ▾	B ▾
	>3rd	34			35	28	35	C ▾	B ▾
Lactation 1	1st	25			40	32	35	C ▾	B ▾
	2nd	18			35	28	33	C ▾	B ▾
	3rd	13			30	24	31	B ▾	B ▾
	>3rd	64			25	20	30	B ▾	B ▾
Lactation 2	1st	18			35	28	30	C ▾	B ▾
	2nd	13			33	26	28	C ▾	B ▾
	3rd	9			30	24	27	B ▾	B ▾
	>3rd	35			25	20	26	B ▾	B ▾
Lactation >2	1st	26			33	26	27	C ▾	B ▾
	2nd	18			30	24	26	C ▾	B ▾
	3rd	12			27	22	25	B ▾	B ▾
	>3rd	44			25	20	24	B ▾	B ▾
Females, % by semen					47	90	0		
Semen Cost, \$/unit					10	25	15		
Eartag cost, \$/unit					0.5	0.5	3		

3RD STEP: ANALYSIS OF BEEF AND NET RETURN

Male and Female Calves by Semen Type

	C i	C i	S i	S i	B i	B i	
	Male	Female	Male	Female	Male	Female	
Calf value, \$	325	290	325	290	400	400	
Calves, #	34	30	28	255	94	0	284
Return, \$	10,957	8,670	9,193	73,830	37,448	0	140,099
Semen cost, \$	2,288		17,440		3,474		23,202
Eartag cost, \$	17	15	14	127	281	0	454
	NET RETURN, \$						116,443

ATTENTION TO THE MINIMUM NUMBER OF FEMALE CALVES REQUIRED

Male and Female Calves by Semen Type

	C i	C i	S i	S i	B i	B i	
	Male	Female	Male	Female	Male	Female	
Calf value, \$	325	290	325	290	400	400	
Calves, #	254	225	0	0	45	0	225
Return, \$	82,549	65,320	0	0	17,936	0	165,805
Semen cost, \$	9,850		0		2,595		12,445
Eartag cost, \$	127	113	0	0	135	0	374
	NET RETURN, \$						152,985

CONCLUSION

- ▶ The strategy of inseminating dairy cows with beef semen to receive premium payment for a crossbred calf is a reality among different dairy operations.
- ▶ The needs of the beef market attest that is still room for growth of this strategy.
- ▶ This tool does not take into consideration the accelerated rate of genetic improvement of the herd.

THANK YOU!



Visit:
dairymgt.info



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