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Economic Analysis of Beef Cow-calf Operations: The Role of the Veterinarian

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September 29, 2013
2013 Southwest Veterinary Symposium
San Antonio, Texas

Cow-calf Producers are a Unique Bunch

- Not all are profit-motivated
  - Good Customers or Bad Customers?
- Those that are profit-motivated have slim margins
  - Good Customers or Bad Customers?
- As a Veterinarian, you must decide to work with one or all.
  - Not all will see your value as a team member!
  - Somehow you must convince them of your value.

A Cow-calf Consulting Team

- Operator: Day to day activities. Assimilates recommendations from other team members, formulates into a plan, and implements the plan.
- Banker: Who/what motivates the banker? Interest costs.
- Accountant: Who/what motivates the accountant. Paid about as much as a vet.
- Nutritionist: "Cows are too thin." Feed costs never come up.
- Veterinarian: On call
- Attorney: On call

Market for Your Services

- Compliance to animal health regulations
  - Trich regulations
- Herd Health
  - Preventing Disease and Death
- Resurrection of the Dead
- Companion Animal Services
- Beyond death and disease
  - Nutrition
  - Genetics
  - Information/Analysis

Some Remarks

- Veterinarians often miss opportunities to communicate because they don't use economics to show producers practices are profitable…before it is too late.
- It's about the Risk versus Reward
- If I want to mitigate the risk, how much will it cost me?

Definitions of Risk

- A possibility of loss or injury
- The chance that an investment's actual return will be different than expected.
- The chance that something bad is going to happen.

How Do I Mitigate Risk?

- Good Management
- Have really deep pockets
- Insurance

Finding the Balance Between Acceptable Risk and Perceived Costly Insurance

- How much risk can your operation absorb without disturbing normal operations?
- How much insurance can your operation purchase without disturbing normal operations?

Risk Analysis for House Insurance

	Unit	Value
Cost of House Insurance	Annually	$2,000
Cost of Time/Fuel	Annually	$500
Total Costs to Insure your House	Annually	$2,500
Current Value of Your House		$150,000
Cost-Benefit Ratio	Ratio ($150,000 / 2,500)	60.0

"ASIDE FROM A CRAZED SHEEP NOW AND THEN, THIS IS A VERY RISK-FREE PROFESSION."

What I do know

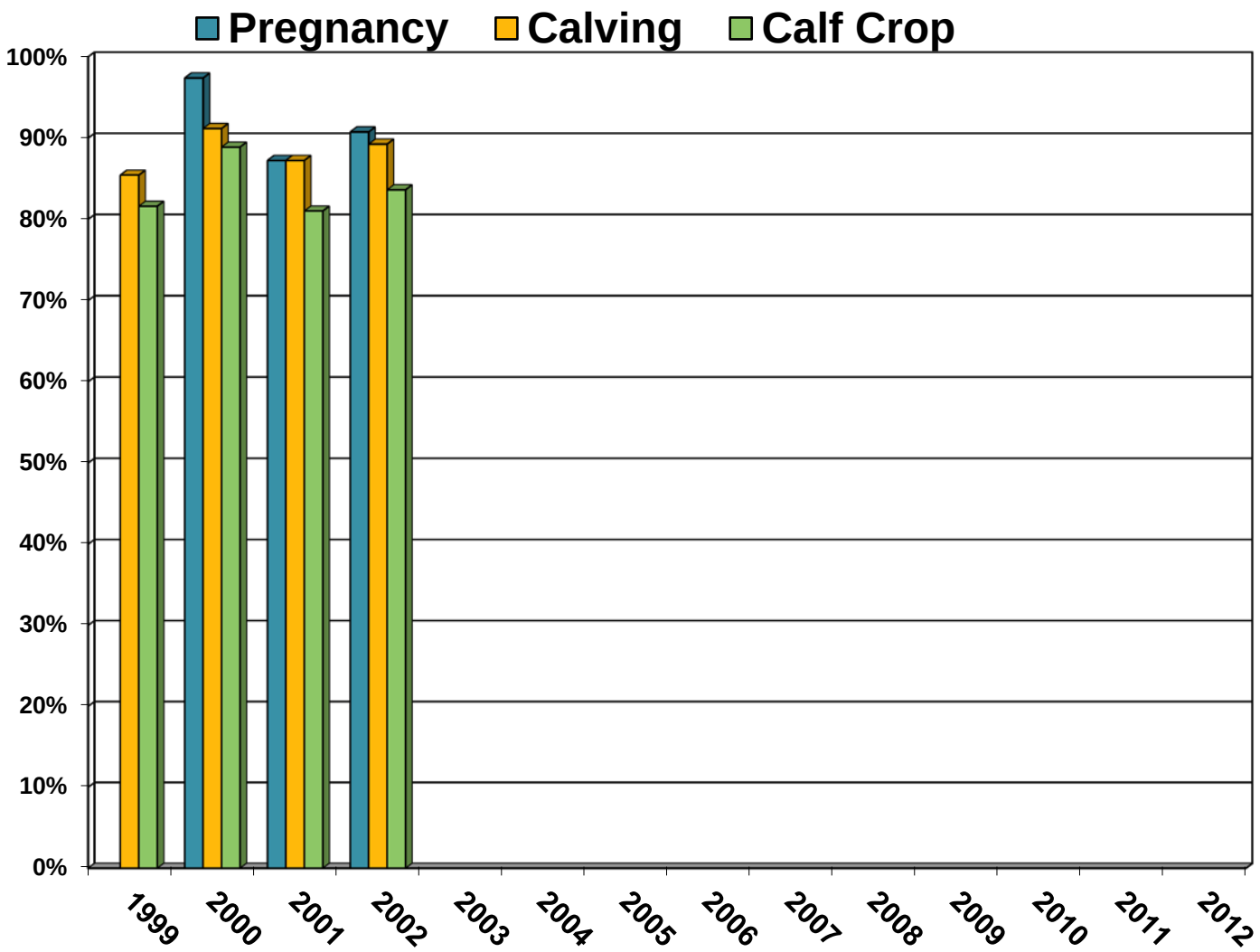
- SPA Data
  - Specific data for 118 Texas herds.
    - Veterinary & Breeding Costs per herd was 3.9 percent of their total expense, or $21.59 per breeding female.
    - Far less than a calf dying, a cow not getting bred, or a bull not working.
    - What don't cow/calf operators see?

Risk Analysis for Breeding Soundness Exams

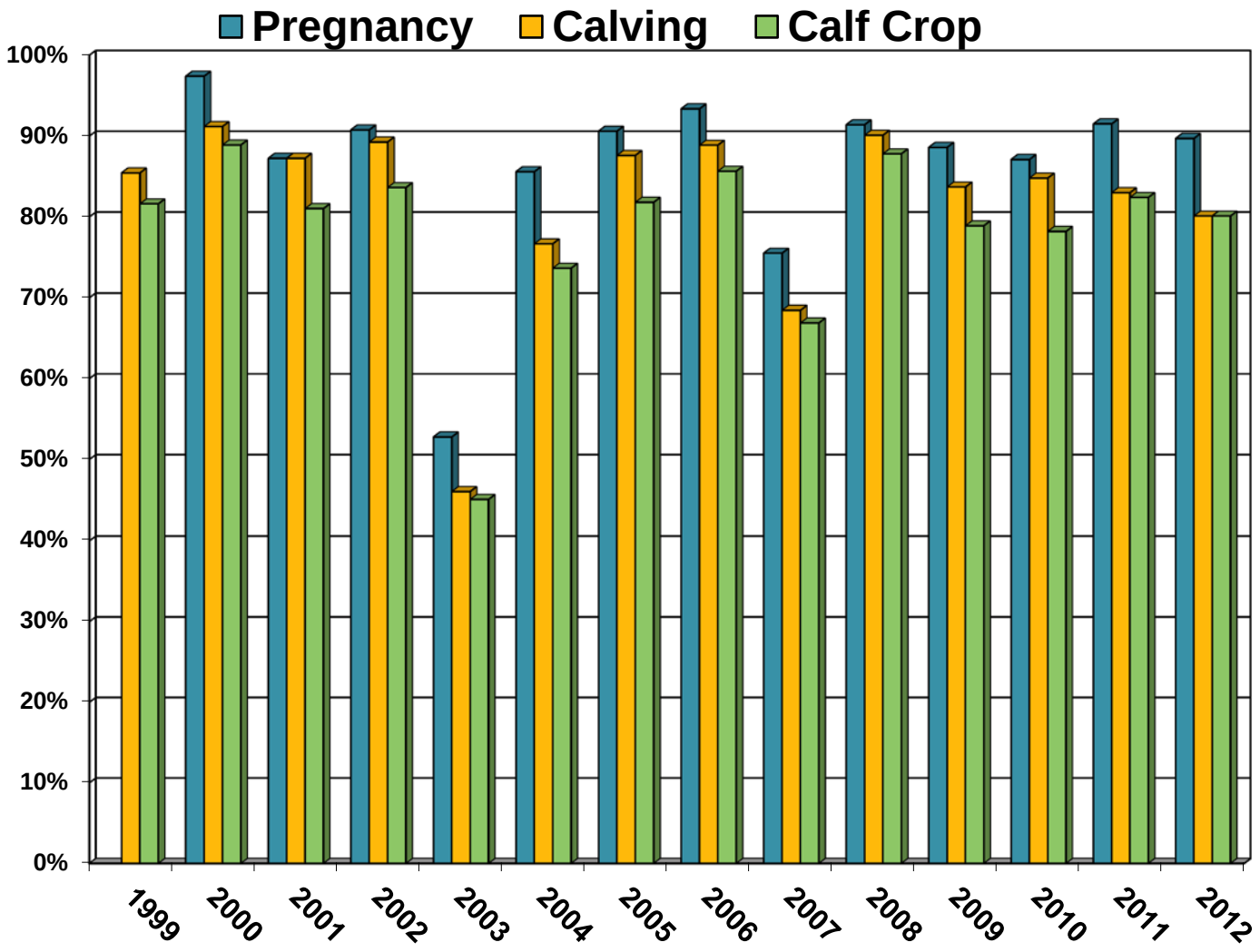
	Unit	Value
Cost of Breeding Soundness Exam	Per Head	$50.00
Cost of Gathering/Time/etc.	Per Head	$10.00
Cost per Female	20 Females per Bull (50 + 10) / 20	$3.00
Today's Weaned Calf Value	Per Head (500 lbs. * $1.50)	$750.00
Cost-Benefit Ratio	Ratio ($750 / 3)	250.0


TAKING RISK
There's a fine line between taking a calculated risk and doing something dumb.

Reproduction Performance Measures



Reproduction Performance Measures



BSE Results

- Initial Loss in Revenue: $61,677
- Breakeven price per Cwt. Of Weaned Calf rose from $1.19/cwt to $1.75/cwt.

- The worst part was it occurred on a ranch that was expanding.
  - Loss of retained heifers not produced set the ranch expansion back a year.
  - Had been retaining all heifers (approximately 150 head), only produced 104 that year.

BSE Example

- This example is extreme, but it is real.
- Not sure what caused it, but six bulls out of a total battery of 26 went sterile sometime prior to breeding season.
- Cost versus Risk = $1,560 expense versus $61,677?
- $39.54 cost/benefit ratio.

#2

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Society for Theriogenology

BULL CERTIFICATE OF EVALUATION

(Herd Form)

Telephone: 615/244-3060
Facsimile: 615/254-7047

Owner [redacted]

Phone

Addre

Date 6-10-03

Method of Collection _____

Ident.	Breed	Age	Scrotal Circ. (cm)	Semen: Motility	Semen: Morphology (% Normal)	Other	History/Physical Examination (Use Separate Sheet and Attach if Needed)	Classification*: Satisfactory Prognosis	Unsatisfactory Prognosis	Deferred Prognosis
11				Good	42				X	
12				Excellent	90+			X		
13				OK	86			X		
14				OK	85			X		
15				Poor	60				X	
16				OK	90+			X		
17				Excellent	85			X		
18				Poor	55				X	
19				Excellent	83			X		
20				Excellent	78			X		

*Recommended acceptable minimums:
Sperm Motility - 30% or Fair *(F)*
Sperm Morphology - 70% Normal
Scrotal Circumference - 30 cm
(age adjusted)

Signature: _____
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Some Remarks

- Veterinarians often miss opportunities to communicate because they don't use economics to show producers practices are profitable…before it is too late.
- Communications: $60 cost for BSE for 1 bull. One bull/20 cows = $3.00/cow. $3.00 insurance to protect $500 of revenue/cow. (House insurance versus a house fire).

IT'S ADDED REVENUE VERSUS ADDED COSTS

Pregnancy Testing

	Unit	Value
Cost of Pregnancy Exam	$/Head	$5.00
Added Cost of Gathering	$/Head	$2.00
Total Cost of Exam	$/Head	$7.00
Reduced Feeding Costs of an Open Cow	$/Head	$90.00
Net Change in Income over Cost	$/Head	$83.00
Benefit/Cost Ratio		$11.86

1. **There is a $11.86 advantage to pregnancy checking females when the ranch's feed cost is $90.00 per female.**

2. **It all begins with reproduction. If she doesn't get bred, nothing else matters.**

3. **Practices can be profitable even if the operation is not profitable.**

Beef PEP Effort

- One herd in Southeast Texas
- Pregnancy testing for eleven year beginning in 2002-03.
- From 2002 through 2010, pregnancy percentage was 69.9 percent.
- Testing of bulls began in 2010 and continued for three years.
- From 2011-2013, pregnancy percentage rose to 79.2 percent.

Economic Benefit of Testing Breeding Bulls

	Prior to Testing	Post Testing
Pregnancy Rate	69.9%	79.2%
Average Pregnancy Loss (East TX SPA data)	3.8%	3.8%
Calving Percentage	66.1%	75.4%
Calving Loss (East TX SPA data)	3.2%	3.2%
Weaning Percentage	62.9%	72.2%
Average Weaning Weights (East TX SPA data)	508	508
Pounds Weaned	319.5	367.2
Difference in Pounds Produced		47.6

Economic Benefit of Testing Breeding Bulls

	Prior to Testing	Post Testing
Difference in Pounds Produced		47.6
Market Price of Weaned Calves		$1.65
Total Value of Increased Pregnancy Percentage		$78.61
Costs Associated with Testing		
Bull BSE		$60.00
Cow-Bull Ratio		25
Gathering Costs		$2.00
Net Revenue Increase:		$74.21 per female

In Summary,

- **It all begins with reproduction. If she doesn't get bred, nothing else matters.**
- **How much risk are you willing to assume; how much insurance can you afford to purchase?**
- **Practices can be profitable even if the operation is not profitable.**

Thanks

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