# COST COMPARISON OF METHODS OF HEIFER REPLACEMENT



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## INTRODUCTION

- Why?
- I. Observing growing up
- **II.** Profitability for Producers
- III. Producers Have Enough to Worry About

## **INTRODUCTION - DECISIONS**

#### Decisions

- I. Producers Make them Everyday
- 1. When to Sell?
- 2. When to Buy?
- 3. Feed Programs?
- 4. Vaccines?
- 5. Genetics?
- 6. Cull and Replacement?

## **INTRODUCTION – TWO METHODS**

 Raise Replacements from Existing Calf Crop



#### **INTRODUCTION – TWO METHODS**

 Buying Bred Heifers Just Prior to Calving



#### **INTRODUCTION - THESIS**

Each method of replacement could be right, depending upon the producers goals and needs in terms of their cow herds, and what resources they have available for their cow herd.

#### **OVERVIEW OF COW – CALF HERD**

- Wyoming and Rocky Mountain Region
- I. Feed Pregnant Cattle Winter Rations
- II. Calve The Cows in Early or Late Spring
- III. Summer Pasture Cows and Calves on Grass
- IV. Breeding Occurs During Summer as Well
- v. Sell Weaned Calves in Fall and Select Possible Replacements if Method is Chosen
- vi. Cull of Older or "Bad" Cows

## **OVERVIEW OF REPLACEMENT**

- Producers Replace with Heifers to Replace the Cull Population and Future Death Loss.
  - Producers Replace 15-25% of total herd with incoming Heifers. (Fuez)
- Heifer Cow that has not yet calved
- Replacement Heifer Heifer of Breeding Quality

#### METHODS

**Similar Studies** 

- Dillon M. Feuz, University of Wyoming Alum.
   Date Unknown
- Harlan Hughes, for Beef Magazine. 2007

#### **METHODS ASSUMPTIONS**

- Just a Cost Analysis Per Head Basis
- Current Market Prices: Feed, Cattle, Pasture
- Replacements Placed in Feedlot for Winter Feeding to get targeted Avg. Daily Gain
- \$3000 Bulls Breeding for 4 years

## **METHODS STEP BY STEP**

#### Raising Replacements

- Weaning Wean Calves in Fall and Select Best Heifer Calves for Breeding the Next Summer. Opportunity Cost of Not Selling Heifers.
- Weaning to Breeding In Winter Time Calves Placed in Feedlot and Fed Rations for Accelerated Weight Gain.
- 3. Breeding to Pregnancy Check In summer and early fall, heifers are turned out on grass with bulls for breeding.
- 4. = Total Cost \$ of Raising Heifer

## **METHODS STEP BY STEP**

- Buying Bred Heifers
- 1. Buy Bred Heifers from Auction Prior to Calving
- 2. = Total Cost \$ of Heifer



| Phase 1 Weaning                                       |  |          |
|---|--|----------|
| Opportunity Cost of Not selling the Heifer            |  |          |
|   |  |          |
| Weaning Weight  |  | 500 lbs  |
| Market Price Oct. 25th 2009 For Feeder Heifers \$/cwt |  | \$96.41  |
| Opportunity cost of not selling the Heifer            |  | \$482.05 |

| Phase 2 Weaning to Breeding           |                           |                                |          |
|---------------------------------------|---------------------------|--------------------------------|----------|
| Target ADG on Feedlot of 1.45-1.50 lb | os/day @ 180 days= 265lbs |                                |          |
| Feed                                  | Lbs/Day                   | Feed Price                     |          |
| Corn                                  | 9                         | \$3.43/bu 56 lbs/bu @ 180 days | \$100    |
| Minerals                              |                           | .025 tons total @ \$150/ton    | \$3.75   |
| Alfalfa                               | 6                         | \$100.00/ton @ 180 days        | \$54     |
| Total Feed Cost                       |                           |                                | \$157.75 |
| Total Weight                          |                           | 765                            |          |
| Feed                                  |                           |                                | \$157.75 |
| Lot Rent for 180 days                 |                           |                                | \$20     |
| Vet and Medicine                      |                           |                                | \$20     |
| Death Loss                            |                           |                                | \$15     |
| Total                                 |                           |                                | \$212.75 |
|                                       |                           |                                |          |

| Phase 3 Breeding to Pregnancy Check 137 Days                  |          |
|---|----------|
|   |          |
| ADG on grass = 1.5 lbs/day*137 days= 205.5                    |          |
|   |          |
| Price per pound of gain \$.32/lb of gain*205.5                | \$65.76  |
|   |          |
| Breeding Costs =1 bull @ \$3000 breeding 20 cows for 4 years, | \$37.50  |
|   |          |
| Costing ≈ \$350/year feed costs                               | \$4.38   |
|   |          |
| Total   | \$107.64 |
|   |          |

| Time Spent on Heifers Overall                                   |                  |
|---|------------------|
| 317 days spent with heifers avg of 1 hour/20 head of cattle/day |                  |
| 1 hr/ 20 is 3 min individually/day 3 min * 317 days=951 min     |                  |
|   |                  |
| 951/60min/hr= 15.85 hrs spent on each individual heifer         |                  |
| 15.85 hrs * \$7.00/hr   | \$110.95         |
|   |                  |
|   |                  |
| Total Costs for Heifer up to Pregnancy Check                    | \$ <b>913.39</b> |

#### **RESULTS BUYING REPLACEMENT HEIFERS**

| Purchasing Bred Heifers |  |  |
|-------------------------|--|--|
|                         |  |  |
|                         |  |  |
|                         |  |  |
|                         |  |  |

Market Price for Bred Heifers on 10/25 weighing 975lbs = \$855.00

\$855.00

## **RESULTS PRICE COMPARISON**

 Raising Your Own Heifers  Buying Replacement Heifers

Price = \$913.39

- Price = \$855.00
- Cheaper by \$58.39

#### **RESULTS FROM DILLON M. FEUZ**

Cost of Raising Replacement Heifers
\$690 - \$717

Cost of Buying a Bred Heifer
930 lbs @ \$68.00/cwt = \$632.4

Difference of \$84.60

http://agecon.uwyo.edu/Marketing/mngtcmkt/RplcHeifr.pdf

### **RESULTS FROM HARLAN HUGHES STUDY**

- Cost of Raising a Replacement Heifer
  \$1,146
- Cost of Buying a Replacement Heifer
   Projected = \$ 1,147.47
- Difference of \$1.47

http://beefmagazine.com/hughes/beef\_heifer\_economics\_part/

#### **ALTERNATIVES**

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- Feed Hay and Mineral Rations to Wintering Calves
- Project Profitability for 7 Years
- Buy Bred 3 Year Old Cows
- Buy Premium Heifers
- Better or Worse Bulls

# **RECOMMENDATIONS – ADV. DISADVANTAGE**

#### **RAISING YOUR OWN CATTLE**

- Advantages
- 1. Raising Cattle Your Way
- 2. Chosen Genetics
- Disadvantages
- 1. Cost
- 2. Time Spent

#### **BUYING BRED HEIFERS**

- Advantages
- 1. Cost
- 2. Time Saved
- Disadvantages
- 1. Unknown Handler
- 2. Unknown Genteics

### RECOMMENDATIONS

#### For Each Individual Producer

- 1. Sit Down and Figure Out What is More Important to You, Genetics or Cost?
- Look at Market Outlooks and Trends Certain Years it will be better to Retain Heifers and Others it Will Be Better to Buy Them.
- Look at resources available. Pasture, Feed, and Bulls

#### CONCLUSION

- Producers are Faced With Many Difficult Decisions Every Year Especially With Heifer Replacement
- Typical Rocky Mountain Cattle Producer
- Trends of Late Cheaper to Buy Bred Heifers but Each has Individual Advantages, Disadvantages
- Depends Upon The Producer for Which Method is Best

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## THE END

#### Any Questions ?

