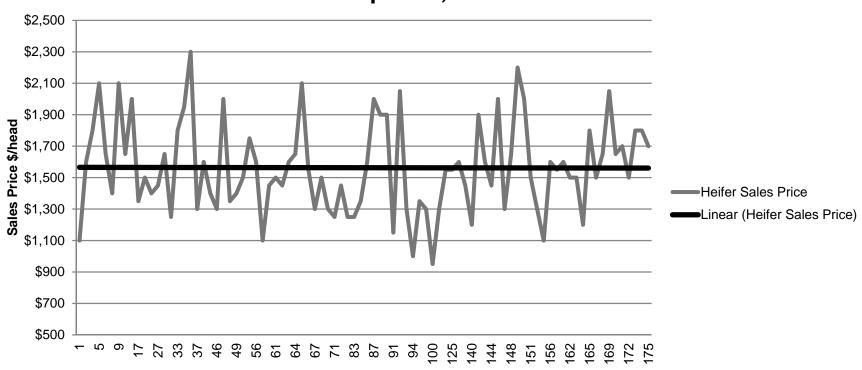
COST OF DEVELOPING BRED HEIFERS

DR. CURT LACY

EXTENSION ECONOMIST-LIVESTOCK

HOW MUCH IS TOO MUCH FOR A HEIFER?

UGA Tifton HERD Sale Results, April 19, 2011



Lot Number





WO MAJOR DUESTIONS

- 1. How much does it cost?
- 2. How can I lower my cost?







ASIC HEIFER (OR ANY) THER ASSET) EPLACEMENT MATH

$$PV = -Inv + \frac{NCF_0}{1} + \frac{NCF_1}{(1+i)1} + \frac{NCF_2}{(1+i)^2} + \cdots + \frac{NCF_n}{(1+i)^n}$$

/here:

PV = Net Present Value

CF = Net Cash Flow

IV = Investment value

interest rate

=Number of Periods





MAJOR ITEMS TO CONSIDER

$$PV = -Inv + \frac{NCF_0}{1} + \frac{NCF_1}{(1+i)1} + \frac{NCF_2}{(1+i)^2} + \cdots + \frac{NCF_n}{(1+i)^n}$$

urrent replacement cost/Purchase price of heifers



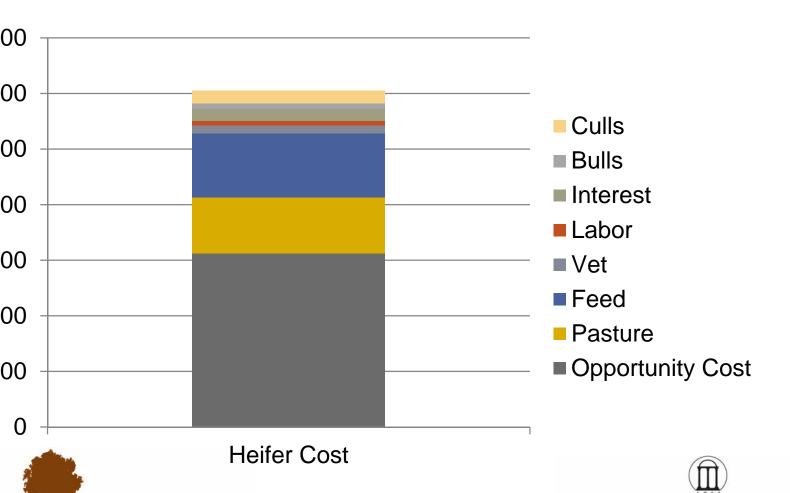


Heifer Development Budget									
Unit	Cost/unit	Quantity	Item cost						
cwt.	\$ 125.00	5	\$ 625.00						
ac	\$ 150.00	0.67	\$ 100.00						
ac	\$ 150.00	0.67	\$ 100.50						
ac	\$ -	0.67	\$ -						
ton	\$ 75.00	1.65	\$ 123.75						
lbs	\$ 0.13	540	\$ 67.50						
	Unit cwt. ac ac ac ton	Unit Cost/unit cwt. \$ 125.00 ac \$ 150.00 ac \$ 150.00 ac \$ 75.00	Unit Cost/unit Quantity cwt. \$ 125.00 5 ac \$ 150.00 0.67 ac \$ 150.00 0.67 ac \$ - 0.67 ton \$ 75.00 1.65						

Doesn't include land or management!!

Vet & Med - Preg check	hd	\$ 3.00		1	\$ 3.00
Labor	hrs	\$ 10.00		1.5	\$ 15.00
Total Variable Costs	hd				\$ 1,100.87
Interest	hd	8.00%	\$ 55	50.44	\$ 44.03
Bull Costs	hd	\$ 19.20	\$	1.00	\$ 19.20
Non-breeders	percent	15.00%	\$1,14	14.90	\$ 171.74
Total Costs of Retaining Heifers	hd				\$ 1,335.84
Adjustment for cull heifer sales	hd	\$ 105.00		800	\$ 126.00

TATED ANOTHER VAY



HOW DO I REDUCE MY COSTS?



MODEL FOR REDUCING COSTS

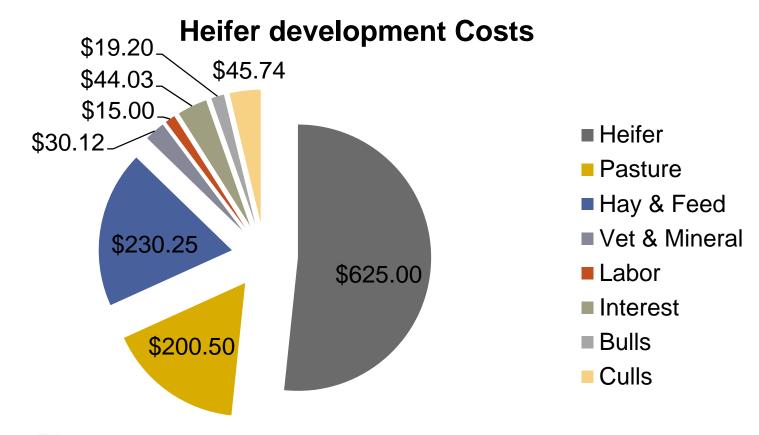
- Determine the total cost
- 2. Arrange individual costs from largest to smallest
- Begin by finding ways to reduce the largest costs first → Saving 10% on \$500 = 50% of \$100
- Work your way through the list focusing on ways to reduce all items







HEIFER DEVELOPMENT COST







VHAT ARE THE IAJOR COSTS?

Opportunity cost of the heifer - \$625

Pasture + Feed = \$431

Cull costs = \$46

Interest = \$44

Vet + Mineral = \$30

Bulls = \$19

Labor = \$15







HAT IS THE NUMBER 1 OBJECTIVE IN RAISING EPLACEMENT HEIFERS?

PRODUCE A HEALTHY CALF OMARKET!!





Opportunity cost on the heifer - \$625

- 1. Use call options or feeder cattle futures to minimize "purchase price"
- 2. Retain fewer heifers when prices are high

$$Interest = $44$$

$$Vet + Mineral = $30$$





Opportunity cost of the heifer - \$625

Pasture + Feed = \$431

- 1. Match female needs to resources →do you need to adjust your calving season?
- Get more from your pastures → high quality forages, rotational grazing, legumes, etc.
- 3. Reduce purchased forage needs → conserve hay, stockpiling, baleage, etc.
- 4. Manage the feed bill --> supply only their needs, use seasonalities to make feed purchases, consider buying in bulk, learn about feeding by-products
- 5. Consider getting someone else to grow them for you



Opportunity cost of the heifer - \$625 Pasture + Feed = \$431

Cull costs = \$46

- Don't have many culls → BSE for bulls, evaluate synchronizing and AI
- 2. Don't skimp on the groceries → there is a difference in minimizing feed costs and skimping on nutrition
- 3. Consider alternative markets for cull heifers → freezer beef, retained ownership, somebody just looking for a cow, etc.

```
Interest = $44
```

$$Vet + Mineral = $30$$

Labor =
$$$15$$





Opportunity cost of the heifer - \$625

Pasture + Feed = \$431

Cull costs = \$46

Interest = \$44

- 1. Reducing other costs will reduce interest costs
- 2. Reducing development time will also reduce interest costs

$$Vet + Mineral = $30$$





Opportunity cost of the heifer - \$625

Pasture + Feed = \$431

Cull costs = \$46

Interest = \$44

Vet + Mineral = \$30

- Consider alternative sources of supplies
- 2. Consider purchasing in bulk or with other producers
- 3. Maintain adequate nutrition of heifers
- 4. Evaluate purchasing mineral in bulk
- 5. Others???

Bulls = \$19 Labor = \$15





Opportunity cost of the heifer - \$625

Pasture + Feed = \$431

Cull costs = \$46

Interest = \$44

Vet + Mineral = \$30

Bulls = \$19

- 1. Can you use the same bull for cows and heifers?
- 2. Can you lease a bull?
- Can you and a neighbor share a bull?

Labor =
$$$15$$





Opportunity cost of the heifer - \$625

Pasture + Feed = \$431

Cull costs = \$46

Interest = \$44

Vet + Mineral = \$30

Bulls = \$19

Labor = \$15

- Locate heifers closer to the labor
- 2. Schedule intensive feeding and management activities around existing labor slack times.
- 3. Is day labor cheaper than year-round labor?



AN YOU BUY THEM HEAPER THAN YOU AN RAISE THEM?

AISE HEIFERS

Siosecurity

Snown genetics

Itilize excess labor rother resources

PURCHASE HEIFERS

Genetic progress

Lack of land, labor, management.

Quicker herd expansion





OW CAN I DETERMINE WHAT IS BEST FOR ME?

JGA REPLACEMENT FEMALE CALCULATOR





SUMMARY AND MPLICATIONS

It costs more to raise a heifer than many people think!

Consider all of the costs.

Cost of the heifer, feed and pasture are the largest expenses.

To effectively manage costs rank them from largest to smallest and focus on the largest ones first.

Utilize the Replacement Female Calculator to determine your costs.





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