

# Central Texas Cow/Calf Clinic

## Market Update/Beef Cattle Economics

August 18, 2011



Bill Thompson  
AgriLife Extension Economist  
San Angelo, TX



[http://sanangelo.tamu.edu/programs/ag\\_economics/index.php](http://sanangelo.tamu.edu/programs/ag_economics/index.php)

Recent Programs, Handouts & Other Materials

Crop & Livestock Budgets

Marketing Your Commodities

Analytical Tools

Internet Resources

Small Acreage Resources

Risk Management

Master Marketer Website

Department of Agricultural Economics, Texas A&M University  
Texas AgriLife Extension

Management  
Sheep & Goat  
Wildlife Management & TEXNAT  
Agronomy

People

Satellite Stations

Publications

Performance Tests

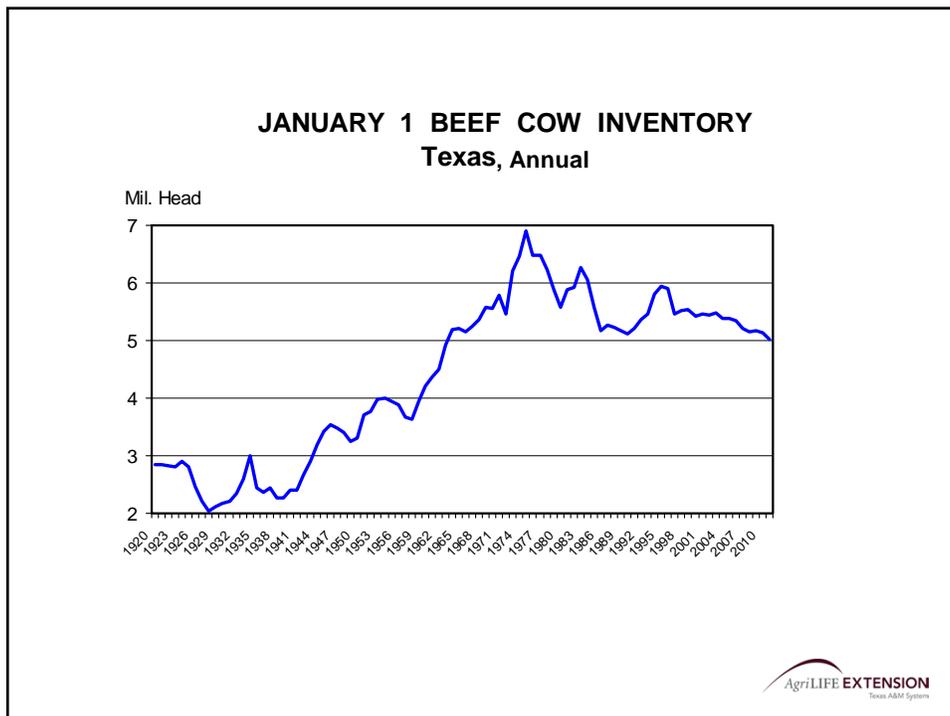
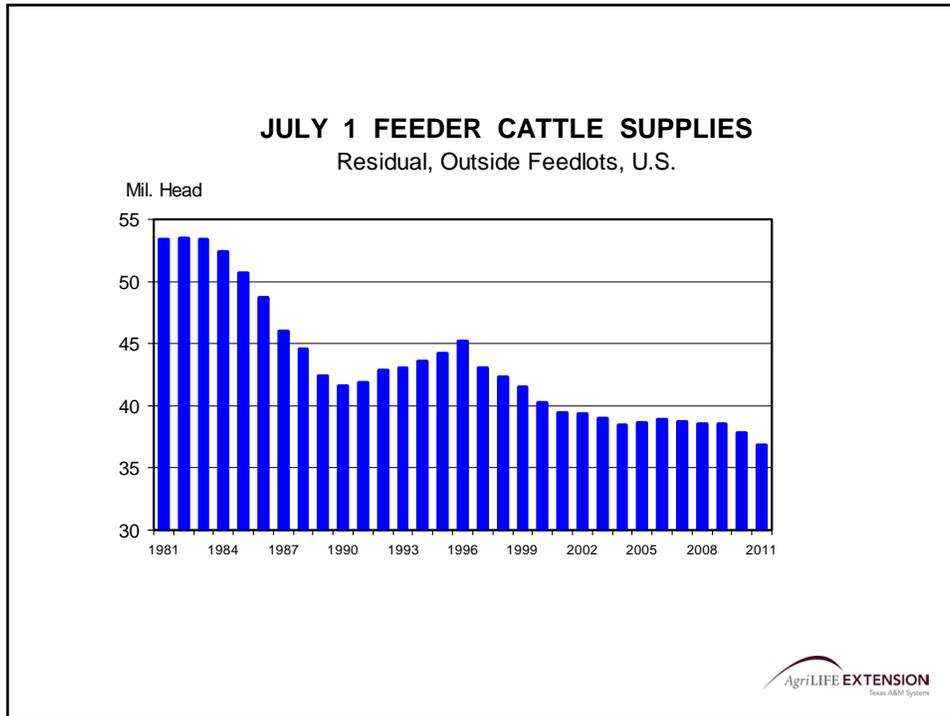
Texas A&M University System Links & Resources

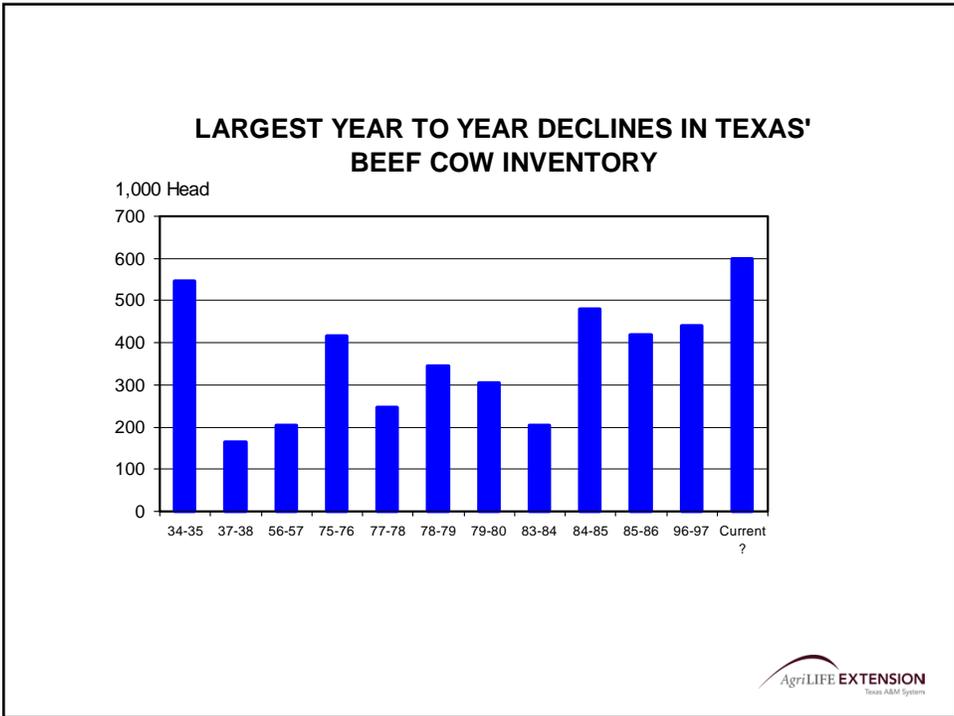
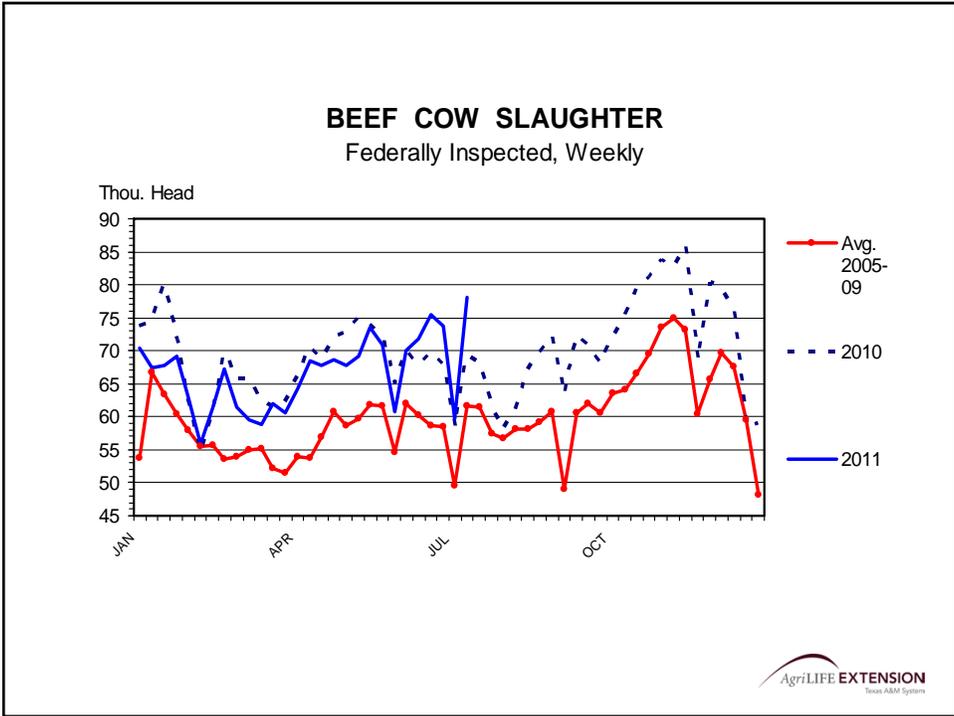
Employment

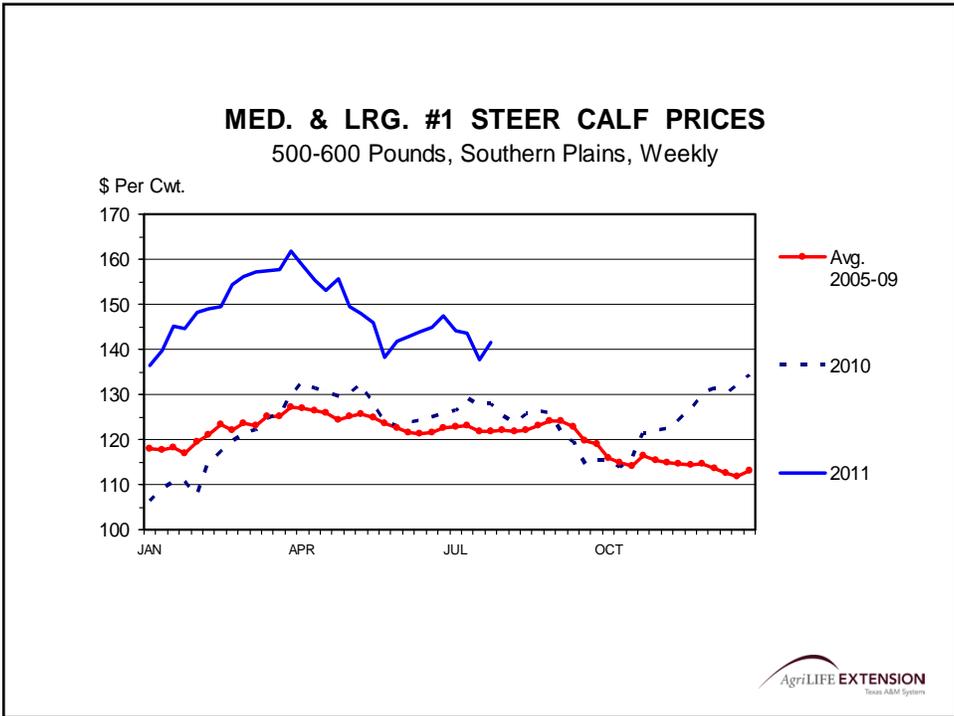
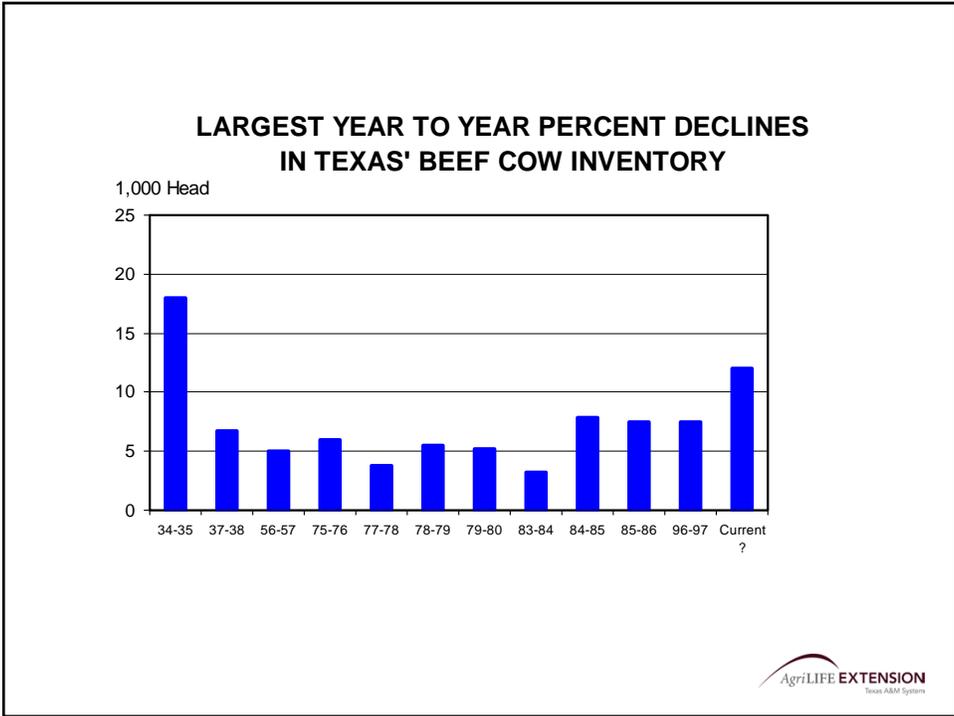
Houston Livestock Show Penning Form

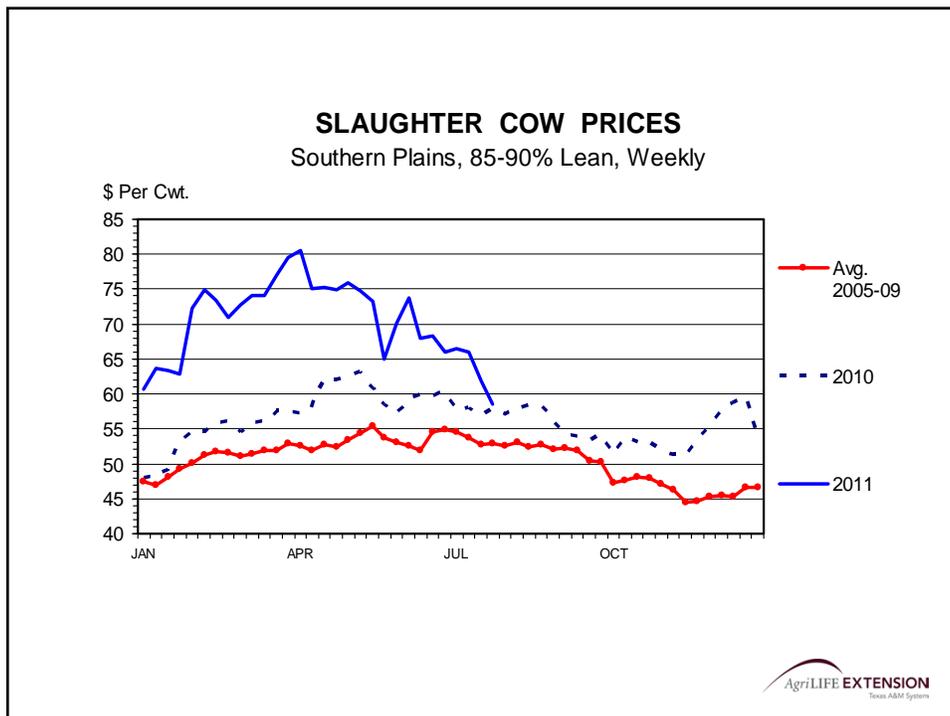
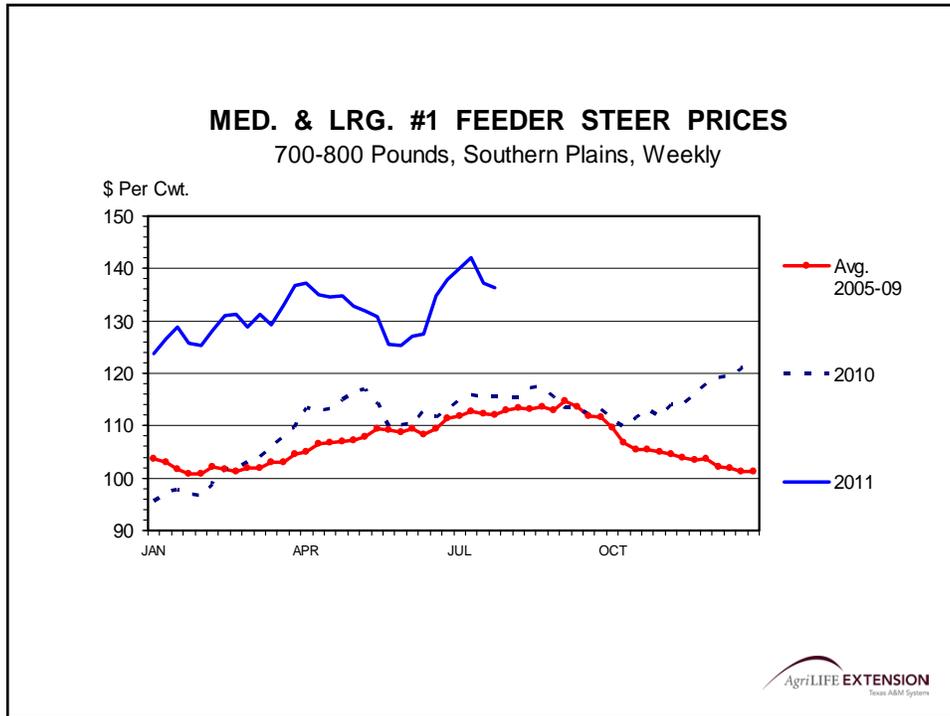
Texas AgriLife Research & Extension Center

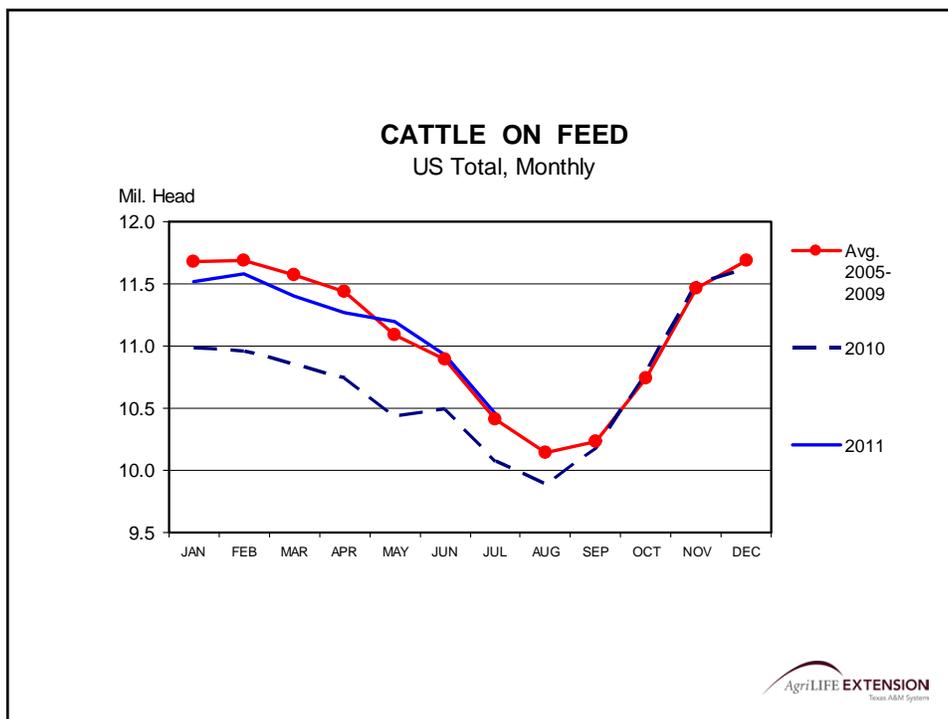
7887 U.S. Highway 87 North • San Angelo, TX 76901 | Map  
Phone: 325-653-4576 • Extension Fax: 325-655-7791 • Research Fax: 325-658-4364  
Email: sanangeloctr@ag.tamu.edu  
Web Site Maintenance: jlhuybers@ag.tamu.edu











### Prices for 2008-2012

	11-1300	7-800	5-600
<b>2008</b>	92.78	101.00	106.87
<b>2009</b>	83.25	94.38	101.56
<b>2010 I</b>	89.44	98.50	110.52
<b>II</b>	96.33	108.89	118.17
<b>III</b>	95.47	109.57	115.59
<b>IV</b>	100.28	108.52	115.03
<b>2011 I</b>	110.12	126.29	140.29
<b>II</b>	112.79	128.69	137.92
<b>III</b>	107-109	129-135	133-139
<b>IV</b>	112-116	127-132	128-134
<b>2012 I</b>	113-119	123-129	131-138
<b>II</b>	116-121	127-133	135-144
<b>III</b>	112-119	130-137	137-147
<b>IV</b>	115-121	124-133	132-141

Texas Combined Auction for 5-600 and 7-800  
AgriLIFE EXTENSION  
Texas A&M System

## Drought Mitigation

- . . . less than an hour to discuss what many of you have been working at your whole lives. I hope to maybe readjust your focus a little.
  - Cow/Calf Budget – Starting Point
  - PRF Insurance
  - Supplemental feed
    - Pasture, range cubes, hay
  - Reducing numbers
  - Contingency planning



[http://sanangelo.tamu.edu/programs/ag\\_economics/index.php](http://sanangelo.tamu.edu/programs/ag_economics/index.php)

The screenshot displays the website interface with the following content:

- Recent Programs, Handouts & Other Materials** (highlighted with a red arrow)
- Crop & Livestock Budgets
- Marketing Your Commodities
- Analytical Tools
- Internet Resources
- Small Acreage Resources
- Risk Management
- Master Marketer Website
- Department of Agricultural Economics, Texas A&M University  
Texas AgriLife Extension

On the right side, there is a sidebar menu with the following items:

- management
- Sheep & Goat
- Wildlife Management & TEXNAT
- Agronomy
- People
- Satellite Stations
- Publications
- Performance Tests
- Texas A&M University System Links & Resources
- Employment
- Houston Livestock Show Penning Form

At the bottom of the page, the footer contains:

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 Email: [sanangelocr@ag.tamu.edu](mailto:sanangelocr@ag.tamu.edu)  
 Web Site Maintenance: [jlhuybers@ag.tamu.edu](mailto:jlhuybers@ag.tamu.edu)



## Budgets

- You can't invite an economist and not expect to talk about a budget.
  - But, it is the logical starting point.
  - My numbers are estimates that may mean nothing to you, but if you repeat this exercise with your own numbers, the value of the process will become evident.

## Partial Budget

- Partial budget
  - Only looking at the cows.
    - Not looking at goats, sheep, hay production, etc.
- Variable cost Vs. Fixed costs
- Cash Expense Vs. Non-Cash Exp.
  - Minor adjustments will need to be made with either preference



## Basic Review of Key Issues

- Calf Weaning Percentage
  - 85% (At least for this year)
  - Sell: .425 Steer calves  
.275 Heifer calves  
.150 cull cows (retained heifers)  
.85 weaned calves
  - Something to consider later; Do we have the resources this year to develop heifers



## Basic Review of Key Issues

- Cull Bull – a bull is kept for 5 years, and services 25 cows/yr.
  - 1 bull/5 years/25 cows.
  - = .008 bulls



## Basic Review of Key Issues

- Pasture rent:
  - Assuming all owned pasture. You can adjust allocated expense at bottom of budget.
  - Feed Costs:
    - \$28 of fixed costs = Taxes and Ins. (Ranch Overhead)
    - \$90 grass (allocated expense)
    - \$70 purchased feed
    - \$188 or \$15.66/month (keep this figure in mind for later)



## Basic Review of Key Issues

- Labor
  - Only showing some day labor
    - 4 man days/yr @ \$150/day
      - $(\$150 \times 4) / 100 \text{ cows} = \$6.00/\text{hd.}$
  - No hired (W-2) labor
  
  - Assessing a Management Charge of \$25/hd (Family Living)



## Basic Review of Key Issues

- M & E
  - Diesel Fuel
    - 11.5 gal X
    - 14 mpg
    - 161 miles per cow X
    - 100 cows
    - 16,100 miles per year
      - Above that... another enterprise or F.L.



## Basic Review of Key Issues

- M & E
  - Repairs and depreciation are pulled from SPA Data Base.



## Basic Review of Key Issues

- Marketing Exp
  - Only sale barn type expenses are reflected. ± video/private treaty sale
  - Assuming trucking is in cost of fuel and repairs, but can add some if necessary.



## Basic Review of Key Issues

- Interest
  - Only assessed on the value of operating capital.
- Other principle and interest payments will need to be covered through \$100.64 of F.C.



## Basic Review of Key Issues

- Risk Management
  - PRF insurance – More to come in a few minutes.
  - Price insurance – None in this budget. (Options, futures contracts, LRP contracts)



## Basic Review of Key Issues

- Total Direct or Variable Cost:  
\$343.12 (remember my disclaimers)
- Total Fixed Costs:  
\$120.88 + \$115.00 (allocated exp)  
= \$235.88
- Total cost per Cow = \$579.00



## Sensitivity Analysis

Weaning %	Gross Sales per Cow	Lbs of Beef Produced per Cow	Breakeven Calf Pay Weight to Cover Total Cost	Average Breakeven Calf Price to Cover Total Cost
91%	\$651.37	489	469	\$116.59
88%	\$629.83	473	488	\$121.63
85%	\$608.29	457	509	\$126.82
82%	\$586.74	441	532	\$133.47
79%	\$565.20	425	557	\$138.64



## Sensitivity Analysis

- Implications of deteriorating body conditions scores.
  - Less (or slower) breed back
  - Higher incidence of aborted or sloughed calves
  - Lower birth weights
  - Reduced calf vigor (losses after calving)
  - Lower Weaning weights



## Drought Mitigation

- . . . less than an hour to discuss what many of you have been working at your whole lives. I hope to maybe readjust your focus a little.
  - Cow/Calf Budget – Starting Point
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## Pasture Rainfall, Forage (PRF) Insurance

- [Agforceusa.com/RMA/ri/prf/maps](http://Agforceusa.com/RMA/ri/prf/maps)
  - Grid locator and links to decision support tool



## PRF Usage: Lampasas Co., TX

- 2010
  - 22 contracts covering 38,007 acres
    - >1,727 ac per contract (average)
    - \$523,049 insured value
    - Producer premium = \$47,245
    - Indemnity paid = \$104,751 or \$2.22/\$1 pd.
- 2011
  - 25 contracts covering 37,494 acres
    - > 1,500 ac per contract (average)
    - \$559,008 insured value



## PRF Insurance – Lampasas Co.

- County Base per Acre:
  - Grazing Land = \$8.25
  - Hayland= \$243.43
- Coverage Level
  - 70% to 90% of indexed rainfall
- Protection Factor
  - 60% to 150% (of County Base)



Decision Support Tool
Pasture, Rangeland, Forage

This tool is for illustration purposes only. Your actual information may differ. For additional information, please [click here](#).

Please Select a Location: State: Texas County: Lampasas Grid: 13328

Grid Locator Print

**Protection Information**

Insured Crop Type: Grazingland

Coverage Level (%): 85

Protection Factor (%): 100

Share (%): 100

Insurable Acres: 6

Sample Year: 2010

Table Graph

Index Interval	Insured Acres per Index Interval	Policy Protection per Unit	Premium Rate per \$100	Total Premium (\$/acre)	Premium Subsidy (\$/acre)	Producer Premium (\$/acre)	Actual Index Value	Indemnity (\$/acre)
Jan-Feb	1	\$7	22.08	\$1.55	\$0.85	\$0.70	171.5	\$0.00
Feb-Mar	N/A 2	\$0	18.34	\$0.00	\$0.00	\$0.00	121.9	\$0.00
Mar-Apr	1	\$7	17.16	\$1.20	\$0.66	\$0.54	105.5	\$0.00
Apr-May	N/A 2	\$0	13.08	\$0.00	\$0.00	\$0.00	48.9	\$0.00
May-Jun	1	\$7	12.32	\$0.86	\$0.47	\$0.39	51.9	\$2.73
Jun-Jul	N/A 2	\$0	20.08	\$0.00	\$0.00	\$0.00	133.3	\$0.00
Jul-Aug	1	\$7	25.17	\$1.76	\$0.97	\$0.79	126.3	\$0.00
Aug-Sep	N/A 2	\$0	17.30	\$0.00	\$0.00	\$0.00	152.2	\$0.00
Sep-Oct	1	\$7	17.23	\$1.21	\$0.66	\$0.54	121.1	\$0.00
Oct-Nov	N/A 2	\$0	20.57	\$0.00	\$0.00	\$0.00	26.4	\$0.00
Nov-Dec	1	\$7	22.40	\$1.57	\$0.86	\$0.71	53.8	\$2.57
<b>Per Acre</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>\$1.33</b>	<b>\$0.67</b>	<b>\$0.67</b>	<b>N/A</b>	<b>\$0.88</b>
<b>Policy Total</b>	<b>6</b>	<b>\$42</b>	<b>N/A</b>	<b>\$8</b>	<b>\$4</b>	<b>\$4</b>	<b>N/A</b>	<b>\$5</b>

County Base Value per Acre: \$8.25

Dollar Amount of Protection per Acre: \$7.01

Total Insured Acres: 6

Total Policy Protection: \$42

Subsidy Level: 55%

Maximum % of Insured Acres per Index Interval: 50.0%

**Graph**

Type:  Index Values  Estimated Indemnities

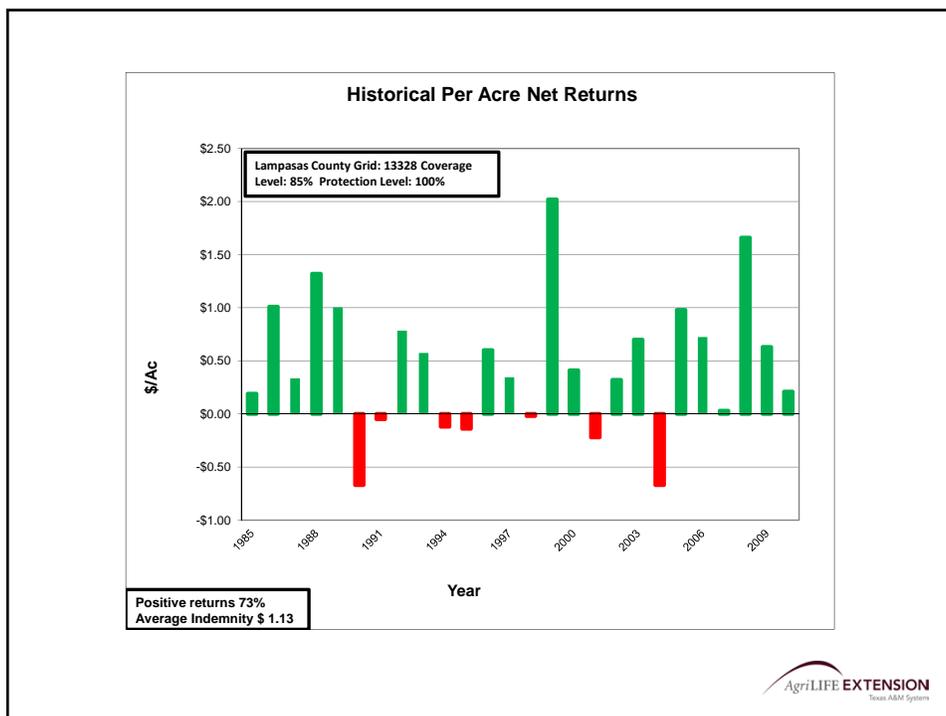
Range: Start 2007 End 2011

Intervals:

Jan-Feb  Feb-Mar  Mar-Apr  
 Apr-May  May-Jun  Jun-Jul  
 Jul-Aug  Aug-Sep  Sep-Oct  
 Oct-Nov  Nov-Dec

Calculate

Product of RMA, AgForce, and GMS | [Terms of Use](#)



## PRF Insurance – Lampasas Co.

- At 85% coverage and 100% protection
  - For every \$1 of premium paid, a \$1.68 was returned over a 26 year period (1985-2010).

## PRF Insurance – Lampasas Co.

- The second two month interval (Mar-Apr) of 2011 has generated a \$5.88/ac indemnity (85%/100%)
- $\$5.88/\text{ac} * 30\text{ac}/\text{AU} = \$176.40$  available for supplemental feed purchases.



## How much are we willing to spend on supplemental feed?

- Cow herds have historically produced a very small rate of return. There is not a lot of excess cash in most operations.
- $\$29.28$  net return +  $\$25.00$  Management Charge =  $\$54.28$



## How long are we willing to supplement the herd?

- When will it rain again? (It will, but when?)
- What will be produced when it does rain? Grass, weeds, etc
  - The drought effects on pasture can persist for longer than thought.



## How long are we willing to supplement the herd?

- The drought effects on pasture can persist for longer than thought.
- In the mean time the cows BCS likely to decline, along with

- Conception rates
- Weaning percentages
- Weaning weights

This is what affects our bottom line; Lbs of beef produced per exposed female



## Supplemental Feed Purchases

- Additional Pasture
  - Where available?
  - What cost? Grass and Transportation (to and from).
  
  - \$15/hd/mo for range requiring 30 Ac per AU is equivalent to a \$6 per acre season long lease.



## Supplemental Feed Purchases

- Range Cubes
  - I already have 120 lbs per cow in the budget.
  - \$17/cwt for a 20% cube.



## Supplemental Feed Purchases

- Released CRP
  - Cost of access to grass
  - Trucking to grass
  - Electric fence may be necessary
  - Water
  - Quality of forage



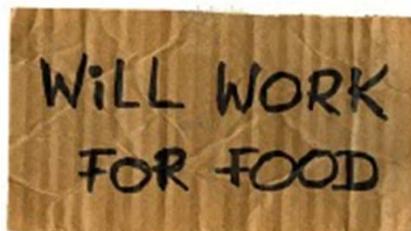
## Supplemental Feed Purchases

- Limit Feeding
  - Current grain prices most likely preclude this option.
  - Issues transitioning the rumen bacteria from a forage based diet to a grain based diet.



## Reducing Numbers

- Where to start?
- What is the cost of keeping an open cow?



## Keeping an open cow

- Lets reduce Vet bill by \$5.00
- Will not be implanting a calf -\$1.36
- No Marketing expense associated with selling calf -\$17.50
  
- \$579.00 total cost-\$23.86=\$555.14
- She has to go to town! Especially this year.

## Other suggestions

- If we wean calves early, lets preg check and mouth cows a little earlier as well.
- Identify next cows to sell
  - Open cows
  - Late bred cows
  - Broken mouth/aged cows



## Other Suggestions

- If the cow is bred, but you have not been happy with her calves, sell her!



## Pregnancy Checking

- Unless you are (very) skilled at it, hire this done.
  - The cost of being wrong is too great (\$500+) relative to \$2.50 - \$5.00 cost.



## Sell Now Vs Sell Later Decision Aid

- Useful tool to help in making the timing decision if partial or complete liquidation is necessary
- Two Locations
  - <http://www.beefextension.com>
  - [http://sanangelo.tamu.edu/programs/ag\\_economics/index.php/](http://sanangelo.tamu.edu/programs/ag_economics/index.php/)





### Sell Cows - Now or Later

Texas AgriLife Extension and Oklahoma State University

Developed by  
James McGrann, Professor Emeritus, Texas A&M University

Update by  
Darmona Doye and Roger Sahas, Agricultural Economics, Oklahoma State University & Lawrence Falconer, Texas AgriLife Extension



	Alternatives: Sell Cows plus weaned calves now vs November	Two More Alternatives ?
<b>Net Revenue from Immediate Sale</b>		
<b>A. Cow and Calf Sales - Early Date</b>	8/17/2011	
1. Number of Pairs to Sell (Head)	0	0
2. Number of Cows to Sell (Head)	10	0
3. Number of Calves to Sell (Head)	8	0
<b>B. Net Sales Value Per Head - Early Date</b>		
1. Net Sales Value for Pairs (\$ per Head)	\$ -	\$ -
2. Net Sales Value for Cows (\$ per Head)	\$ 625	\$ -
3. Net Sales Value for Calves (\$ per Head)	\$ 734	\$ -
<b>C. Total Net Cow Sales Revenue - Early Date (\$) = A x B</b>	\$ 12,122	\$ -
1. Tax Basis In Cows Sold (\$)	\$ -	\$ -
<b>D. Net Sales Value of Other Livestock Sold with Cows (\$)</b>	\$ 1,120	\$ -
1. Tax Basis of Other Livestock Sold (\$)	\$ 600	\$ -
<b>E. Net Sales Value of Other Assets That Can Be Sold (\$)</b>	\$ -	\$ -
1. Tax Basis of Other Assets Sold (\$)	\$ -	\$ -
<b>F. Total Net Revenue From Early Sales (\$) = C + D + E</b>	\$ 13,242	\$ -
<b>G. Tax Basis In All Sales (\$) = C.1 + D.1 + E.1</b>	\$ 600	\$ -
<b>H. Taxable Gain = F - G</b>	\$ 12,642	\$ -
<b>I. Capital Gains Tax Rate (%)</b>	15%	15%
<b>J. Capital Gains Taxes (\$) = H * I</b>	\$ 1,896	\$ -
<b>K. Net Sales Revenue After Capital Gains Taxes, Total (\$) = F - J</b>	\$ 11,346	\$ -
<b>L. Net Sales Revenue After Capital Gains Taxes, Total per Cow (\$)</b>	\$ 1,135	#DIV/0!

<b>Income and Expenses Associated with Later Sale</b>		
<b>M. Later Sale Date</b>	11/16/2011	
Days Between Sales Dates: Days	91	0
Days Between Sales Dates: Years	0.25	0.00
<b>N. Cow and Calf Sales - Later Date</b>		
1. Number of Pairs to Sell (Head)	0	0
2. Number of Cows to Sell (Head)	10	0
3. Number of Calves to Sell (Head)	8	0
<b>O. Net Sales Value Per Head - Later Date</b>		
1. Net Sales Value for Pairs (\$ per Head)	\$ -	\$ -
2. Net Sales Value for Cows (\$ per Head)	\$ 700	\$ -
3. Net Sales Value for Calves (\$ per Head)	\$ 763	\$ -
<b>P. Financial Losses for Enterprise Between Earliest Sales Date and Alternative Date</b>		
1. Number of Cows	10	0
2. Feed Cost per Day (\$/Cow)	\$ 1.60	\$ -
3. Other Cost per Day (\$/Cow)	\$ 0.40	\$ -
<b>Q. Total Financial Losses (\$) Between Dates</b>	\$ 1,820.00	\$ -
<b>R. Opportunity Cost Of Capital Invested: Annual Interest Rate (%)</b>	2.0%	2.0%
<b>S. Earnings on Net Sales Revenue (\$) = L x R x (O/365)</b>	\$ 56.57	\$ -
<b>T. Other Net Earnings If Cows Are Sold (rent out land, etc.) (\$)</b>	\$ -	\$ -
<b>U. Sales Value Required to Generate The Same Revenue (\$)</b> = K + Q + S + T	\$ 13,222.27	\$ -
<b>V. Value Per Cow to Generate The Same Revenue</b> As a Sale at the Earliest Date = U/P (\$/Cow)	\$ 1,322.23	\$ -
<b>W. Required Increase In Value to Justify Waiting to Sell (\$/Cow) = V - N</b>	\$ 187.66	#DIV/0!
<b>X. Expected Increase In Value at Later Date (\$/Cow)</b>	\$ 98.20	#DIV/0!

## Questions or Comments?

Give me a call!

Bill Thompson

653-4576

w-thompson@tamu.edu

