Cow/calf Management Winter and Spring

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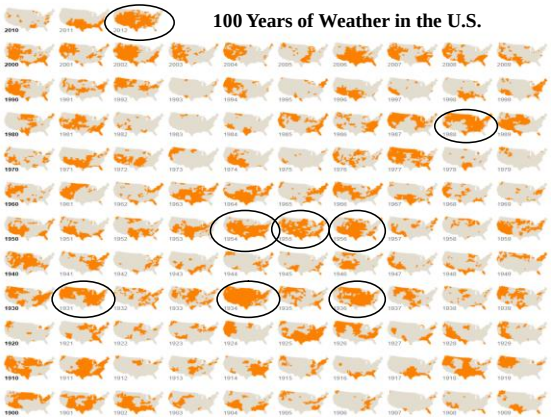

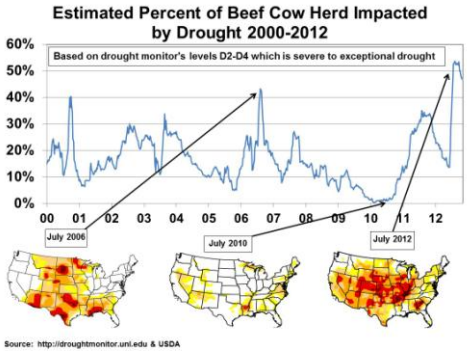

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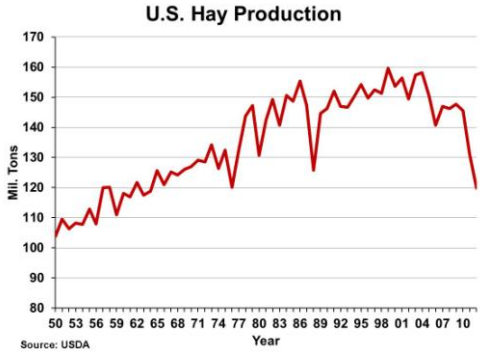

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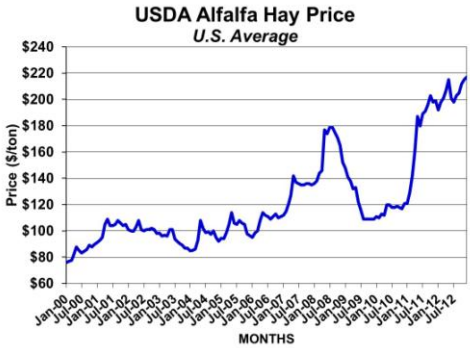

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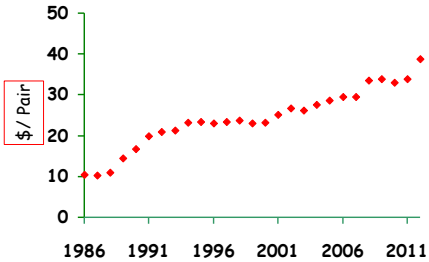
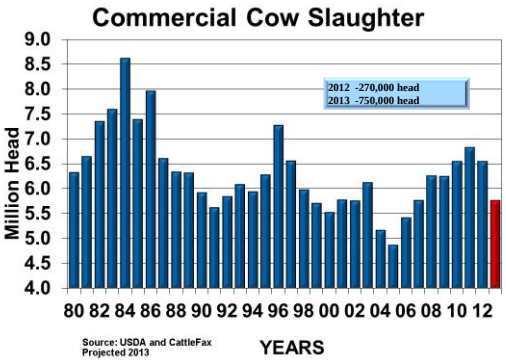
Northern Nebraska Rates for Pasture ($/Cow-Calf pair per Month, 1986-2012)





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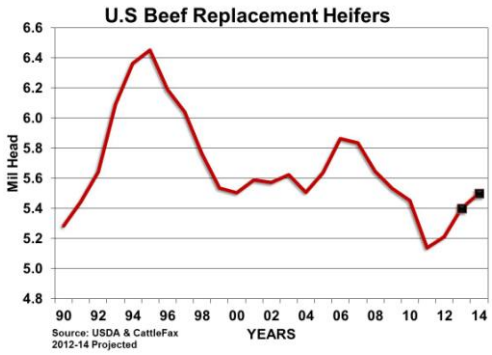

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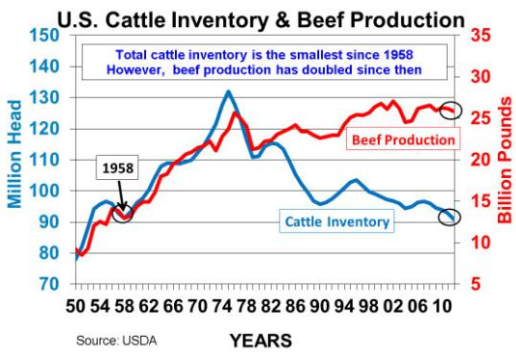

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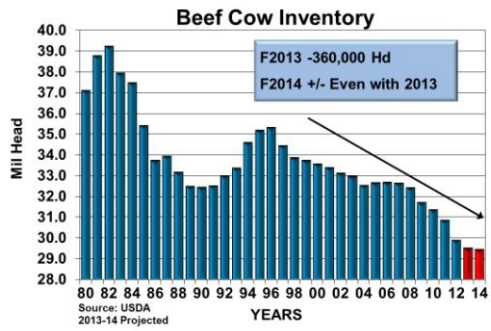

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Top 10 Beef Cow States – January 2013 Numbers

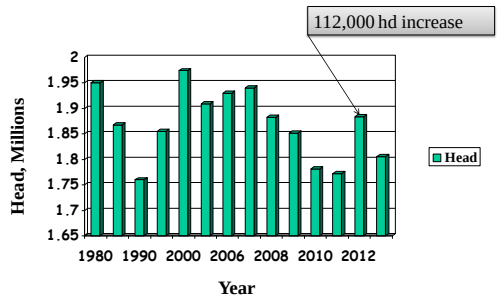
(+) = increase from January 2012

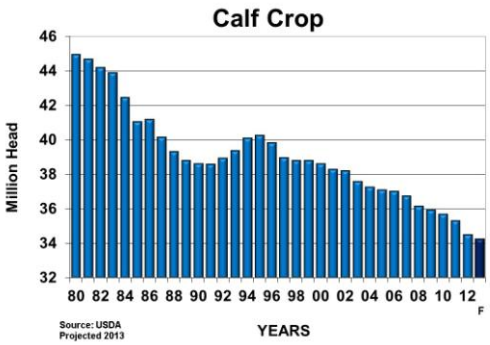
Tennessee and Arkansas dropped of "Top" 10

1. Texas – 4.015 Million
2. Nebraska – 1.805 M
3. Missouri – 1.757 M
4. Oklahoma – 1.745 M
5. S. Dakota – 1.688 M (+)
6. Montana – 1.506 M (+)
7. Kansas – 1.328 M
8. Kentucky – 1.028 M (+)
9. Iowa – 0.925 M
10. N. Dakota – 0.922 M (+)

Top 10 = 17.232 M
US = 29.229 million
Down 3% from 2012

Beef Cow Numbers in Nebraska





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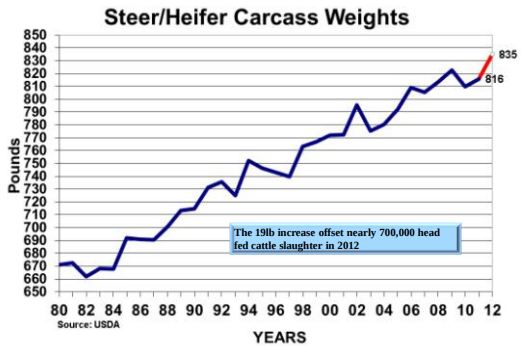

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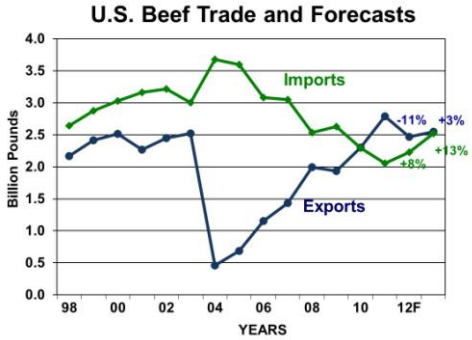
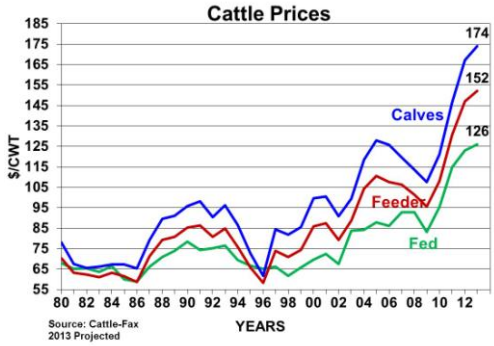


Source: USDA/ERS, CF Forecasts



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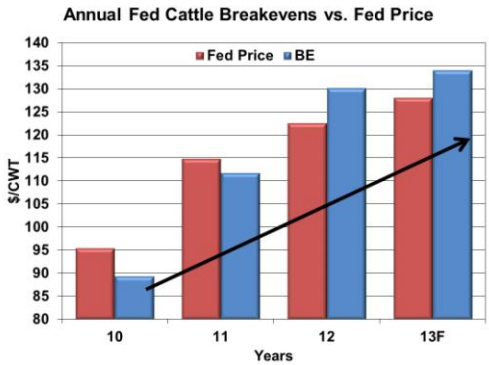

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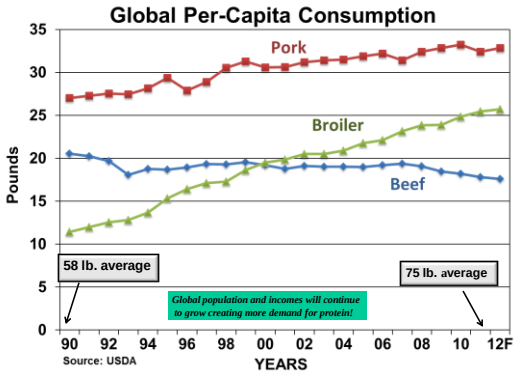

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Low Beef Cow Numbers:

Low beef cow numbers:

- Not good for Nebraska:
  - Beef is a primary economic driver.
    - Cow/calf, Feedlot, Corn, Processing
- Not good Nationally
  - Increased beef prices for consumer
    - At what price will they stop buying our protein?
- Drought
  - Will not build cow herd until it ends
    - Even if it ends this year – long process

Hay Wastage When Fed with and Without Racks

Feeder Type	Percent Wasted
Round bale w/o rack[1]	45
Round bale with rack[1]	9
Ring feeder with skirt[2]	5.9
Cone feeder[2]	3.3
Cradle feeder[2]	14.2
Trailer feeder[2]	11.1

[1]Anderson University of Nebraska
[2]Buskerk, Michigan State University

Hay Wasted by Cows When Amount Fed Was Controlled

Feeding system	Hay per cow per feeding , lb	Hay refused or wasted, %	Hay required over rack feeding, %
Rack feeding on pasture	----	5	----
No rack feeding on pasture			
1 day supply	20	11	12
2 day supply	40	25	33
4 day supply	80	31	45

Forage Feeding Systems




Forage Feeding Systems



Value of Feeding Losses in a Season per 20 Cow Feeder

Hay Value, $/ton

Feeding Waste, %	$70	$80	$90	$100	$110
0%	$0	$0	$0	$0	$0
5%	$200	$229	$257	$286	$314
10%	$400	$457	$515	$572	$629
15%	$600	$686	$772	$858	$943
20%	$800	$915	$1,029	$1,144	$1,258
25%	$1,001	$1,144	$1,286	$1,429	$1,572

Drought Management Plan:

Goals for the cow/calf enterprise:

- Minimize negative impact on the grazed forage resource
- Keep productive cows in the herd
- Secure feeds
- Stay profitable

Sequential Step-wise Management Approach to Drought

Decrease the need for pasture:

1. Destock/Depopulate
   a. Early weaning (all/part of the calves)
   b. Cow/calf:Yearling Operations
   c. Cow Culling – all (liquidate) or part
2. Relocate all or part of the herd:
   a. Pasture off-location: not happening
   b. Drylot – off or on location
   c. Supplement on pasture

Early Weaning the Calf:

1. Forage available for grazing
   - Non-lactating cow: 4.6 - 5.9 lb decrease (1996 NRC Model)
   - Forage intake by the calf: 5.3 lb
2. Each 2.5 days the calf is weaned supplies forage for 1 day of grazing.
3. Consider retaining calves – efficient
4. Consider creep feeding before weaning
   - Teaches the calves to eat out of a bunk

Decrease the need for pasture:

Depopulate/Destock:

- √ Sell cows that were ID'ed as culls
- √ Yearlings moved to feedlot/or sold
- √ Keep only pregnant cows and pair
- √ ID'ed "productive" cow cull groups
  - Using 2 to 4 years of individual cow records
    1. Group A
    2. Group B
    3. Group C
- ❑ Sell before everyone else does

Confinement Feeding Beef Cows:

Objectives:

1. Feed cows to a target body condition
2. Keep cows and calves healthy
3. Contain costs
4. Alternative to selling cows

Ration Considerations:

1. Feeds:
   - Crop residues
   - Grains
   - Byproducts
2. Consider ionophore
   - Example: Rumensin 200 mg/hd/da
3. Can be limit-fed
4. Feed to BCS 5

Limit-feeding Cow in Confinement:

- Hard to balance with grains and low quality forage - needs a supplement
- Easy to balance with by-products and low quality forages.
- Cows will act hungry.
- In lactation ration: calf will eat 1.5% - 2.5% of their body weight dry matter.

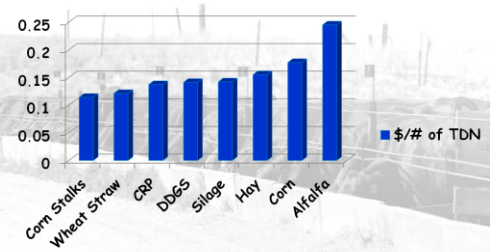
Limit-feeding Cow in Confinement:

- 24 to 36 inches per head – bunk space
- 500 to 800 ft^2 per cow
- Sort young cows from old cows
- Do not finely grind
  - Forages: 5 to 7 inch screen
  - Grains – feed whole

Limit-feeding Cow in Confinement

- Equipment to deliver diet
  - Weigh ingredients
- Once a day feeding
  - May feed twice daily for the first week
- Be Consistent
  - Time of feed delivery
  - Amount fed

Cost of Energy (TDN)



Corn Stalk Bales : 5.0% CP, 50% TDN, 88% DM, $100/T; Wheat Straw: 4.0% CP, 40% TDN, 88% DM, $85/T
CRP: 5.2% CP, 52% TDN, 88% DM, $125/T; DDGS: 30% CP, 112% TDN, 88% DM, $280/T
Corn Silage: 9.0% CP, 68% TDN, 35% DM, $67.50/T; Grass Hay: 6.0% CP, 55% TDN, 88% DM, $150/T
Corn: 9.0% CP, 90% TDN, 88% DM, $280/T; Alfalfa: 17% CP, 58% TDN, 88% DM, $250/T

Comparing feeds on a cost per Nutrient basis:

- Allows feed comparisons based on the nutrient needed.
- Goes further than just comparing price of feeds on a units basis (tons, pounds, etc).
- Compares feeds at the same moisture content.

What's needed to compare feeds cost per nutrient basis?

1. Nutrient analysis of feeds in the ration.
2. Know the nutrient needs of the livestock being fed.
3. Determine the nutrient needed to fill the deficiency in the diet.
4. Locate feeds that fit your feeding system and:
   - Price
   - Get nutrient analysis/feed tags of all feeds
     - Including moisture content

If the feeds are the same feed at different moisture contents:

Feed	Cost per ton $/ton	Cost feed at same moisture content, $/T
Dried Distillers grains (90% DM)	$280/ton	$280/0.90 = $311.11/ton
Modified Distillers grains (50% DM)	$155/ton	$155/0.50 = $310.00/ton
Wet Distillers grains (35% DM)	$109/ton	$109/0.35 = $311.42/ton

It was determined that protein is deficient in the ration being fed. Following are feeds that are possible:

- 32% Crude Protein Supplement @ $310/ton
  - 91% dry matter
- 18% Crude Protein Alfalfa @ $265/ton
  - 84% dry matter
- 30% Crude Protein WDGS @ $110/ton
  - 35% dry matter

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Pricing the feeds at the moisture content.

Feed	Cost per ton $/ton	Price per ton at moisture content, $/T
32% CP Supplement (91% DM)	$310/ton	$340/T @ 100% DM
18% CP Alfalfa Hay (84% DM)	$265/ton	$315/T @ 100% DM
30% Wet Distillers grains (35% DM)	$110/ton	$314/T @ 100% DM

Pricing the feeds based on the amount of CP in the feed.

Feed	Cost per ton $/ton	Price per lb of protein at same DM, $/T
32% CP Supplement (91% DM)	$310/ton	$0.532/lb of CP @ 100% DM
18% CP Alfalfa Hay (84% DM)	$265/ton	$0.876/lb of CP 100% DM
30% Wet Distillers grains (35% DM)	$110/ton	$0.523/lb of CP @ 100% DM

Calculating the value of a nutrient in a feed if moisture contents are different:

Calculation:

$$\text{Cost per unit of nutrient} = \frac{\text{\$/ton or \$/cwt of feed}}{\text{amount of nutrient on a dry matter basis (lb)}}$$

Compares feeds:

- Price per unit of nutrient on a dry matter basis
- Doesn't consider labor to deliver the feed
- Assumes all feeds have similar utilization

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Calculating the value of a nutrient in a feed if moisture contents are different:

Feeds:

- Silage @ $75/ton, 70% TDN, 35% DM
- Corn @ $267/ton ($7.50/bu), 90% TDN, 90% DM
- Calculations to determine cost per lb of energy (TDN)
  - Silage
  - $75/ton ÷ ((2000 lb x .35) x .70) =$.153/lb of TDN
  - Corn
  - $267/ton ÷ ((2000 lb x .90) x .90) = $.165/lb of TDN

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Nutrient Quality of Baled Crop Residues

	% Dry Matter	Energy (%TDN)	% Crude Protein
Corn Field Baled in July	82-85	50-53	7.0-8.0
3 Rows Stalks +Tailings	82-85	48-53	4.5-5.5
Husk and Leaf	82-85	52-55	5.0-6.5
Stalk, Husk, Leaf	88-90	45-52	4.5-5.2
Soybean Stubble	82-88	37-40	3.8-4.0

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Pricing feeds on a price/nutrient basis

- Tool on the web:
  - Ag Manager's Toolbox
    - Livestock Production Decision aids
      - Feed Cost Cow-Q-Lator
      - http://westcentral.unl.edu/web/westcentral/agecon3

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Beef Extension Page
http://beef.unl.edu