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Pasture Leasing

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Pasture Leasing

Bruce Johnson

for

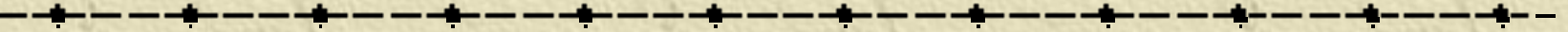
Educator In-Service

April 5, 2006

Grand Island, NE

Department of Agricultural Economics
University of Nebraska-Lincoln

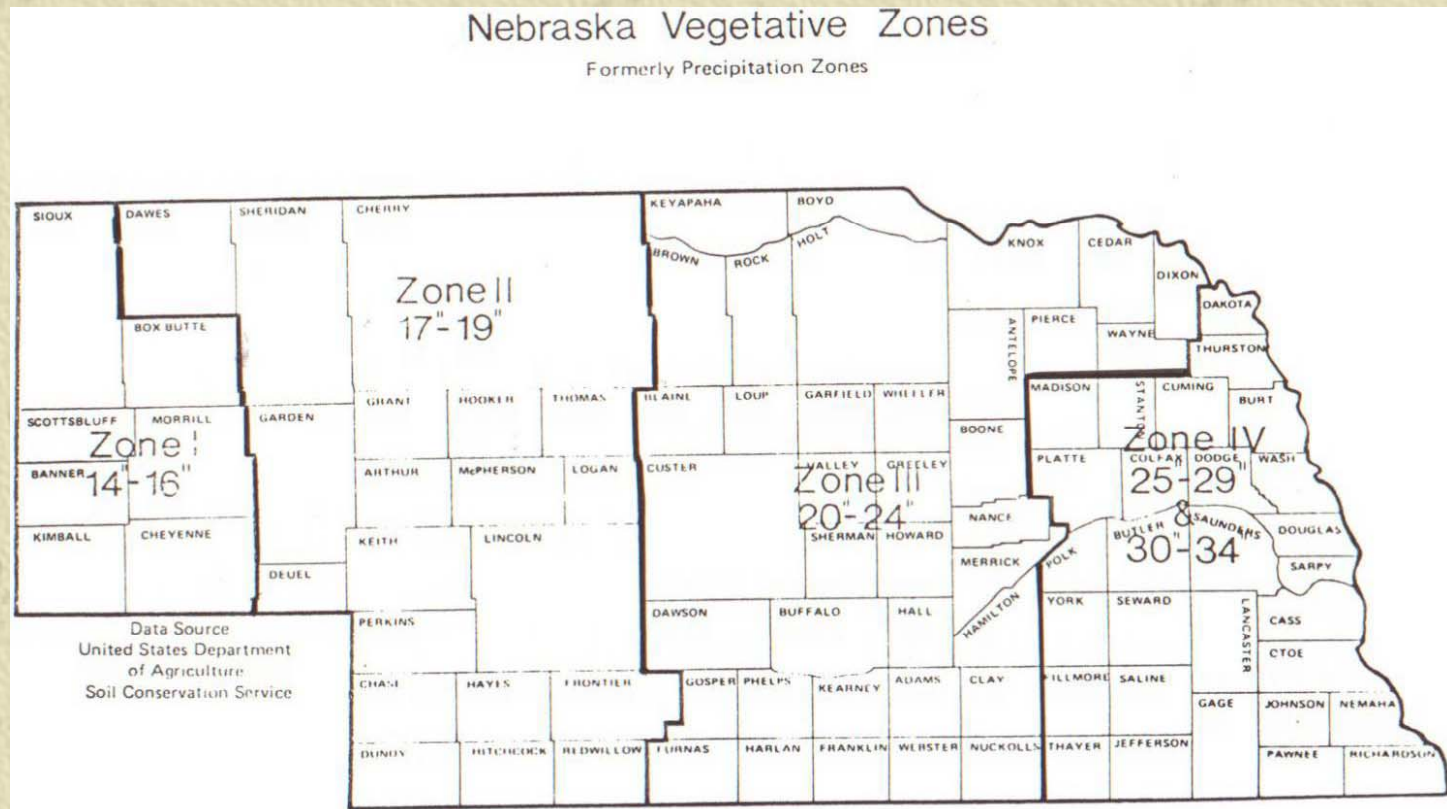
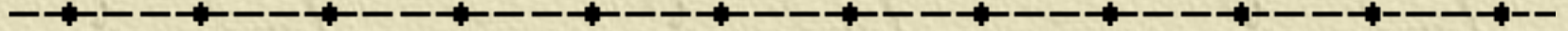
Introduction



Grazing land a major land asset in Nebraska

- ✦ 25 million acres of privately – owned range land and pasture
- ✦ Highly – variable in forage capacity

Nebraska Vegetative Zones



Grassland Table I

Nebraska Department of Revenue

Grassland Table 1

Nebraska Statewide Grassland Valuation Groups, Range Sites, Soil Productivity Forage Ratings, and the Approximate Animal Unit Months of Grazing Available Per Acre¹ by Nebraska Vegetative Zones

| Range Site Name | Range Site Abbrevlation | AUM's Available by Nebraska Vegetative Zones ² | | | | | | | | | | | |
|---------------------|-------------------------|---|-----------------|------------------|------------------------------|-----------------|------------------|-------------------------------|-----------------|-----------------|------------------------------|-----------------|------------------|
| | | Zone I 14-16" Precipitation | | | Zone II 17-19" Precipitation | | | Zone III 20-24" Precipitation | | | Zone IV 25-34" Precipitation | | |
| | | Forage | AUM's | LVG | Forage | AUM's | LVG | Forage | AUM's | LVG | Forage | AUM's | LVG |
| Wet Subirrigated | WS | 4500 | 1.0-1.7 | 2G1 | 5000 | 1.1-1.8 | 2G1 | 5500 | 1.2-1.9 | 1G | 6000 | 1.3-2.0 | 1G1 |
| Subirrigated | Sb | 4200 | .95-1.5 | 2G1 | 4800 | 1.0-1.6 | 2G1 | 5300 | 1.05-1.7 | 1G | 5900 | 1.1-1.8 | 1G1 |
| Wet Land | WL | 4800 | 1.1-1.8 | 3G1 ⁴ | 5300 | 1.25-2.0 | 3G1 ⁴ | 5800 | 1.3-2.1 | 2G ⁴ | 6300 | 1.4-2.2 | 2G1 ⁴ |
| Silty Overflow | SiO | 2300 | .5-.8 | 3G | 2800 | .55-.9 | 3G1 | 3300 | .6-1.0 | 3G1 | 3800 | .75-1.2 | 2G |
| Clayey Overflow | CyO | 1400 | .5-.8 | 4G1 | 2000 | .55-.9 | 3G | 3100 | .6-1.0 | 3G1 | 3600 | .75-1.2 | 2G |
| Silty Lowland | SiL | 2400 | .5-.8 | 3G | 3300 | .55-.9 | 3G1 | 4200 | .6-1.0 | 2G1 | 4900 | .75-1.2 | 1G |
| Sandy Lowland | SyL | 2600 | .5-.8 | 3G | 2800 | .55-.9 | 3G1 | 3200 | .6-1.0 | 3G1 | 4000 | .75-1.2 | 2G |
| Saline Subirrigated | SS | 2900 | .5-.8 | 3G1 | 3400 | .55-.9 | 2G | 3800 | .6-1.0 | 2G | 4300 | .75-1.2 | 2G1 |
| Saline Lowland | SL | 2000 | .5-.8 | 3G | 2300 | .55-.9 | 3G | 2700 | .6-1.0 | 3G1 | 3200 | .75-1.2 | 3G1 |
| Silty | Si | 2000 | .3-.5 | 3G | 2900 | .45-.7 | 3G1 | 3600 | .55-.9 | 2G | 4400 | .6-1.0 | 2G1 |
| Sandy | Sy | 1900 | .3-.5 | 4G1 | 2600 | .45-.7 | 3G | 3300 | .55-.9 | 3G1 | 3700 | .6-1.0 | 2G |
| Sands | Sa | 1900 | .3-.5 | 4G1 | 2600 | .45-.7 | 3G | 3200 | .55-.9 | 3G1 | 3600 | .6-1.0 | 2G |
| Clayey | Cy | 1600 | .3-.5 | 4G1 | 2500 | .45-.7 | 3G | 3400 | .55-.9 | 2G | 4100 | .6-1.0 | 2G |
| Limy Upland | LiU | 1600 | .25-.4 | 4G1 | 2400 | .35-.6 | 3G | 3000 | .45-.7 | 3G1 | 3600 | .55-.9 | 2G |
| Savannah | Sv | 1800 | .25-.4 | 4G | 2200 | .35-.6 | 4G1 | 3000 | .45-.7 | 3G | NA ³ | NA ³ | — |
| Choppy Sands | CS | 1900 | .2-.3 | 4G1 | 2600 | .25-.4 | 3G | 3000 | .45-.7 | 3G1 | NA ³ | NA ³ | — |
| Shallow Clay | SwC | 900 | .2-.3 | 4G | 1600 | .25-.4 | 4G1 | 2300 | .45-.7 | 3G | NA ³ | NA ³ | — |
| Shallow Limy | SwL | 900 | .2-.3 | 4G | 1300 | .25-.4 | 4G1 | 2000 | .45-.7 | 3G | 2700 | .5-.8 | 3G |
| Shallow Sandy | SwS | NA ³ | NA ³ | — | NA ³ | NA ³ | — | NA ³ | NA ³ | — | 2300 | .5-.8 | 3G |
| Shallow to Gravel | SwG | 800 | .2-.3 | 4G | 1200 | .25-.4 | 4G | 1600 | .35-.6 | 4G1 | 2000 | .5-.8 | 3G |
| Thin Loess | TL | NA ³ | NA ³ | — | 2100 | .25-.4 | 3G | 2500 | .35-.6 | 3G | 3300 | .5-.8 | 3G1 |
| Dense Clay | DC | NA ³ | NA ³ | — | NA ³ | NA ³ | — | NA ³ | NA ³ | — | 2000 | .5-.8 | 3G |
| Saline Uplands | SU ⁵ | 700 | .1-.2 | 4G | 900 | .15-.3 | 4G | NA ³ | NA ³ | — | NA ³ | NA ³ | — |
| Panspots | Ps ⁵ | 500 | .1-.2 | 4G | 600 | .15-.3 | 4G | NA ³ | NA ³ | — | NA ³ | NA ³ | — |

¹AUM's per acre are based on site being in good condition producing 51-75% of its potential in kinds, percents, and amounts of natural vegetation.

²See Nebraska Vegetative Zones map in this section for reference to areas in each zone.

³NA indicates not applicable in this zone.

⁴Assignment of land valuation groups for the Wet Land Range Sites adjusted for quality of forage.

⁵These two range sites need to be classified locally into subgroups of 4G since they produce very low amounts of useable forage.

⁶Forage production columns expressed in pounds per acre, air dried.

Grassland Table II

Nebraska Department of Revenue

Grassland Table 2

Acres Needed for Grazing per Animal Unit Month
When Site is in Good Condition¹

| AUM per Acre | Acres Needed For 1 Month Per AU | Acres Needed For 5 Months ² | Acres Needed For 6 Months |
|-----------------|------------------------------------|---|------------------------------|
| .2 | 5 acres | 25 acres | 30 acres |
| .3 | 3.3 | 16.5 | 20.0 |
| .4 | 2.5 | 12.5 | 15.0 |
| .45 | 2.2 | 11.0 | 13.0 |
| .5 | 2.0 | 10.0 | 12.0 |
| .55 | 1.8 | 9.0 | 11.0 |
| .6 | 1.7 | 8.5 | 10.0 |
| .65 | 1.5 | 7.5 | 9.0 |
| .7 | 1.4 | 7.0 | 8.5 |
| .75 | 1.3 | 6.5 | 8.0 |
| .8 | 1.25 | 6.3 | 7.5 |
| .85 | 1.2 | 6.0 | 7.0 |
| .9 | 1.1 | 5.5 | 6.5 |
| .95 | 1.05 | 5.3 | 6.3 |
| 1.0 | 1.0 | 5.0 | 6.0 |
| 1.1 | .9 | 4.5 | 5.5 |
| 1.2 | .8 | 4.0 | 5.0 |
| 1.3 | .75 | 3.7 | 4.5 |
| 1.4 | .7 | 3.5 | 4.3 |
| 1.5 | .65 | 3.3 | 4.0 |
| 1.6 | .6 | 3.0 | 3.5 |
| 2.0 | .5 | 2.5 | 3.0 |
| 2.4 | .4 | 2.0 | 2.5 |
| 3.0 | .3 | 1.5 | 1.8 |
| 4.0 | .25 | 1.2 | 1.5 |
| 5.0 | .2 | 1.0 | 1.2 |
| 10.0 | .1 | .5 | .6 |

¹ An Animal Unit is a full grown cow weighing 1,000 pounds or a two year old steer or their equivalent. An Animal Unit Month is the forage or feed necessary to carry an Animal Unit for one month (Normally estimated at 25 pounds of dry material a day or 750 pounds per month)

² The total acres needed are approximate and will vary with site condition and management practices.

Grazing Land Leasing

- ✦ From 1/3 to 1/2 of all grazing land leased in most counties
- ✦ Animal-Unit-Month (AUM) rate almost universal in major range areas
 - ◆ Adjusts for carrying capacity variation
 - ◆ Accounts for length of grazing season

Example:

Cherry County

Zone II

Choppy Sands

(3G)

AUM Rate

.24 to .4

| AUM /acre | Acres Needed for | |
|-----------|------------------|------------|
| | 1 month | 5 months |
| .25 | 4 acres | 20 acres |
| .40 | 2.5 acres | 12.5 acres |

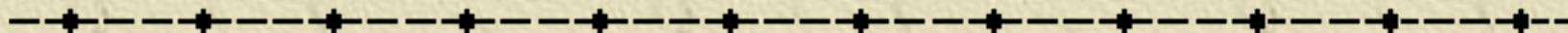
Historical Cash Rental Rates For Cow-Calf Pairs for Major Grazing land Areas

| Year | Northwest | North | Central | Southwest | South |
|--------|--|-------|---------|-----------|-------|
| | -----Dollars per Cow/calf pair per month ----- | | | | |
| 1981 | 13.00 | 13.30 | 15.80 | 14.40 | 13.75 |
| 1986 | 10.70 | 10.50 | 10.60 | 10.40 | 10.70 |
| 1991 | 14.855 | 20.00 | 20.30 | 18.25 | 17.50 |
| 1996 | 16.40 | 23.00 | 21.80 | 20.35 | 21.15 |
| 2001 | 19.65 | 25.10 | 24.45 | 25.00 | 22.20 |
| 2006 P | 23.00 | 29.40 | 28.70 | 26.70 | 26.00 |

Source: Nebraska Farm Real Estate Market Development Survey Series.

Source: Nebraska Farm Real Estate Market Development Survey Series

Preliminary 2006 Cash Rental Rates For Major Grazing land Areas



| | Northeast | Northwest | North | Central | Southwest | South |
|-----------------------------------|-------------------------------|-----------|-------|---------|-----------|-------|
| | ----- Dollars per Month ----- | | | | | |
| Cow-Calf pair Rates | | | | | | |
| Average | 29.70 | 23.00 | 29.40 | 28.70 | 26.70 | 26.00 |
| Range: High | 36.40 | 27.25 | 33.75 | 32.75 | 31.65 | 30.00 |
| Low | 22.00 | 18.50 | 23.75 | 22.90 | 21.70 | 17.50 |
| Stocker (500-600 lb) Rates | | | | | | |
| Average | 16.70 | 15.75 | 17.65 | 17.55 | 16.00 | --- |
| Range: High | 20.65 | 18.50 | 21.0 | 20.80 | 19.00 | |
| Low | 14.00 | 12.25 | 15.00 | 15.20 | 13.00 | |

Why variation in rates?

- ✦ Market demand variation
- ✦ Variation in Negotiated contributions

Typical Land Owners Responsibilities:

- ◆ Perimeter fencing
- ◆ Materials for maintaining perimeter fencing
- ◆ Watering facilities and maintenance

Low End of AUM Rate:

- ◆ Tenant responsible for perimeter fencing
- ◆ Tenant providing water

High end of AUM Rate

- ◆ Fencing and its maintenance
- ◆ Good Water
- ◆ Salt and minerals
- ◆ Daily observing/tending the livestock

2006 County Rental Surveys

Dawson County:

| | Average | Range |
|----------------------------|--------------------------------------|----------------|
| Cow-calf/mo. | \$27.46 | \$24.00-32.50 |
| Cow-calf/ac. | \$26.29 | \$20.00-30.00 |
| Yearling Steer/mo. | \$20.00 | \$15.50-25.00 |
| Yearling steer/ac. | \$24.56 | \$15.00-30.00 |
| Stocking rate | 6.35 ac/cow-calf 3.97 ac/yearling | |
| Corn Stocks | | |
| Per acre: Landowner fences | \$8.77 | \$7.00 – 10.00 |
| Per acre: Renter fences | \$6.53 | \$5.00 – 8.00 |

2006 County Rental Surveys

Custer County:

| | Average | Range |
|--|---------|---------------|
| Cow-calf/mo. | \$28.75 | \$20.00-35.00 |
| Yearling Steer/mo. | \$18.24 | \$12.00-27.00 |
| \$/acre | \$22.79 | \$10.00-35.00 |
| Corn Stocks | | |
| Per acre: Renter fences (76% of time) | \$9.83 | \$6.00-15.00 |

2006 County Rental Surveys

Saline County:

| | Average | Range |
|--------------|---------|---------------|
| Cow-calf/mo. | \$29.43 | \$23.35-31.65 |
| Cow-calf/ac | \$24.05 | \$23.00-29.00 |
| Corn Stocks | | |
| Per acre: | \$3.00 | ---- |

2006 County Rental Surveys

Nemaha County:

| | Average | Range |
|--------------------|---------|---------------|
| Cow-calf/mo. | \$23.50 | \$19.00-28.00 |
| Yearling Steer/mo. | \$15.00 | \$8.00-19.00 |
| \$/acre | \$38.20 | \$28.60-53.20 |

Where are pasture rates headed?

Near Term: Steady to Upward

- ◆ Strength of cattle economy through 2006
- ◆ Herd, expansion into 2007

Longer Term: Rates will move with:

- ◆ The cattle economy
- ◆ Weather variation and forage production across the U.S.

New factors to watch on the horizon.

✦ Hunting clubs and game preserves

✦ Consumer demand for:

- ✦ Grass-fed beef

- ✦ Region – specific beef

***Capitalizing on Niche
Agriculture:***

Nebraska Sandhills
All-Natural Beef



Jessica McCall

AECN 376

Websites

✦ <http://agecon.unl.edu>

◆ Cornhusker Economics 3-22-06

/cornhusker/3-22-06.pdf

◆ Nebraska Farm Real Estate Market
Developments: 2004-05

/realestate/re2005.pdf