



Heifer Selection & Management

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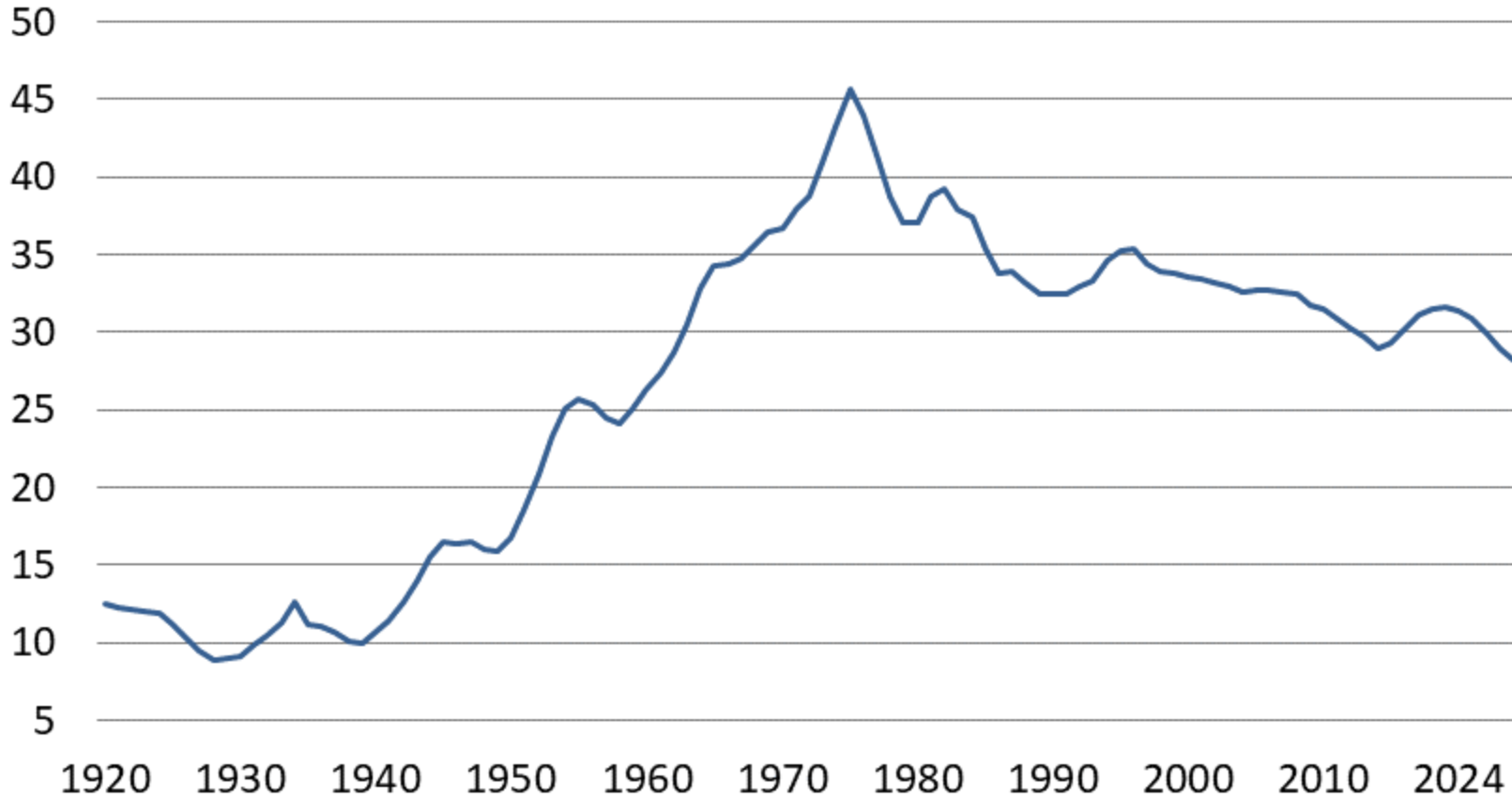


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Beef Cow Inventory – United States: January 1

2024 Inventory: 28,223,000 head

Million head



Goals of Developing Heifers

1. Reach puberty prior to breeding
2. Conceive early in first breeding season
3. Calve unassisted
4. Breed back early in 2nd breeding season
5. Have longevity
6. Accomplish at low costs



Things to Consider When Selecting a Heifer

- Early Puberty/Fertility
- Milking Ability and Mammary System
- Disposition
- Phenotype
 - Body type and fleshing ability
 - Muscle
 - Structural Soundness
- Growth Rate
- Calving Ease



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Selection Timeline

■ Birth

- DOB
- EPDs

■ Weaning

■ Yearling-Breeding

- 50-65% MW

■ Pregnancy Check

Igenity Genetic Effects Table							
Maternal Traits							
Igenity Scores	Birth Weight (lbs.)	Calving Ease Direct (%)	Calving Ease Maternal (%)	Docility (%)	Heifer Pregnancy Rate (%)	Milk (lbs.)	Stayability (%)
10	9	17.8	16.1	16.8	12.3	42.8	53.6
9	8	15.8	14.3	15	10.9	38	47.6
8	7	13.9	12.5	13.1	9.5	33.3	41.7
7	6	11.9	10.7	11.2	8.2	28.5	35.7
6	5	9.9	9	9.4	6.8	23.8	29.8
5	4	7.9	7.2	7.5	5.4	19	23.8
4	3	5.9	5.4	5.6	4.1	14.3	17.9
3	2	4	3.6	3.7	2.7	9.5	11.9
2	1	2	1.8	1.9	1.4	4.8	6
1	0	0	0	0	0	0	0



Fertility

- Heterosis (Hybrid Vigor)
 - Breed Complementarity
- Reproductive tract scoring
- 60-70% first service preg Rate
- 90-95% preg rate for season
- Cull Opens



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Milking Ability

- Expected Progeny Differences
 - Milk EPD of Sire
 - Low or High Better?
- Do not select overly fat heifers
- Assess the mammary system
 - Even square teats
- Consider the Udder of the Dam

$$P = G + E$$



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Disposition

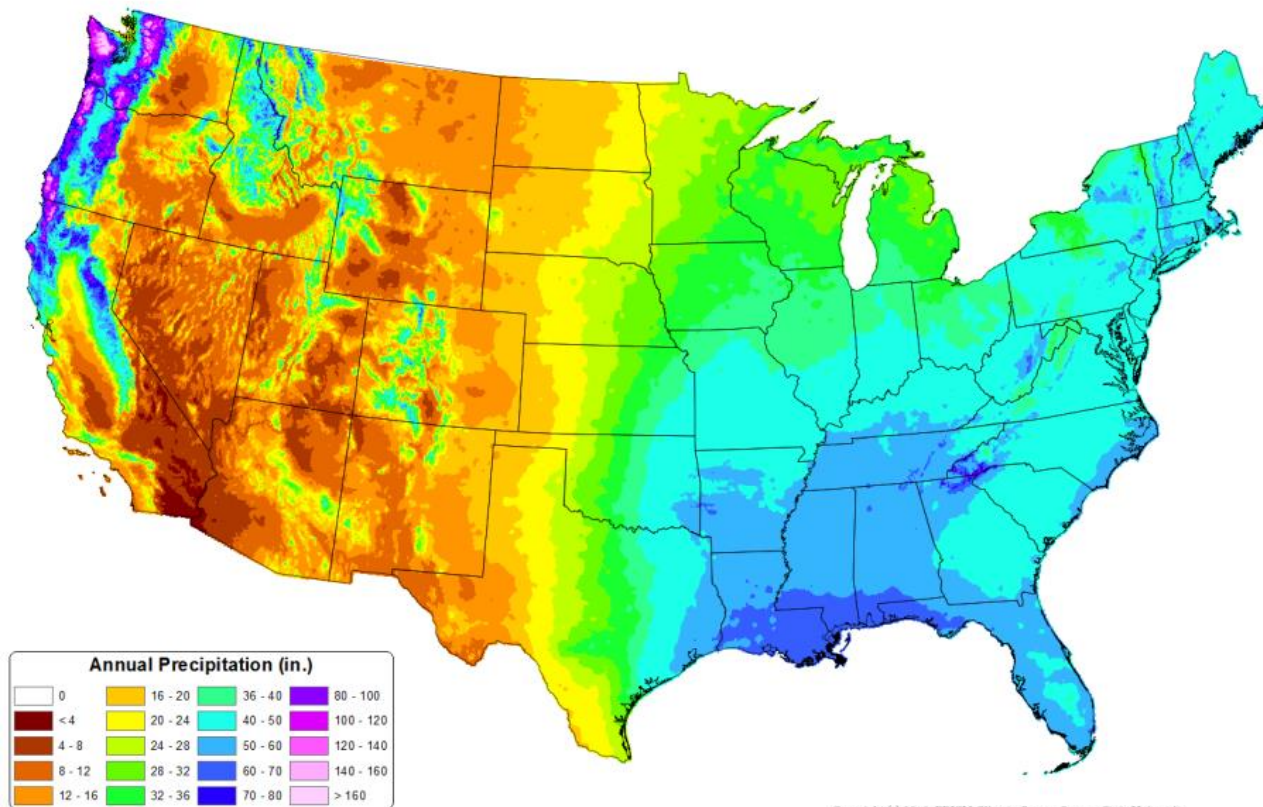
- Moderate to highly heritable.
- Culling heifers with bad dispositions will improve the ease of herd management, producer safety and conception rates.



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Phenotype

30-yr Normal Precipitation: Annual
Period: 1981-2010



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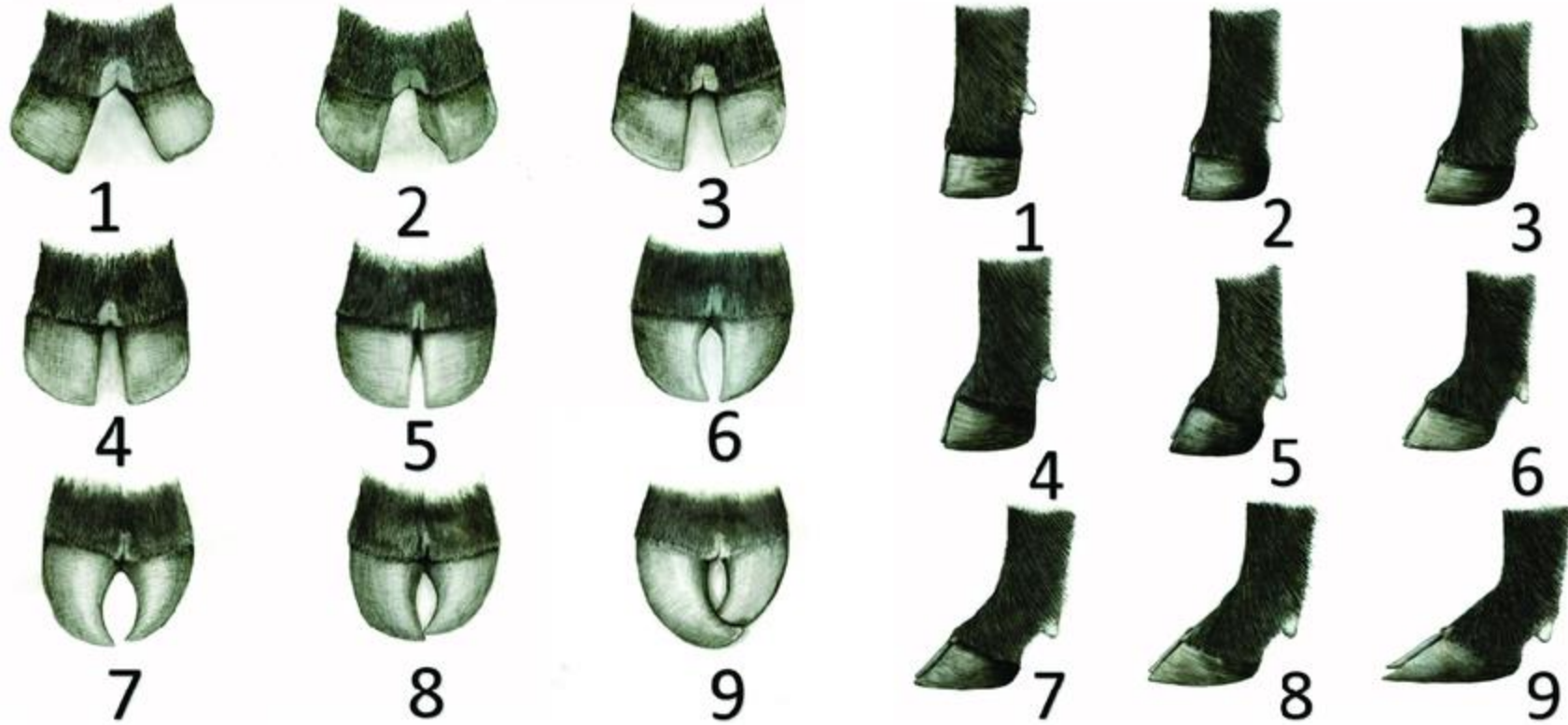
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Phenotype



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Phenotype



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Growth Rate Target Weights



⑩ Target breeding

- 14-15 months of age
- 55-65% of mature weight

⑩ Example

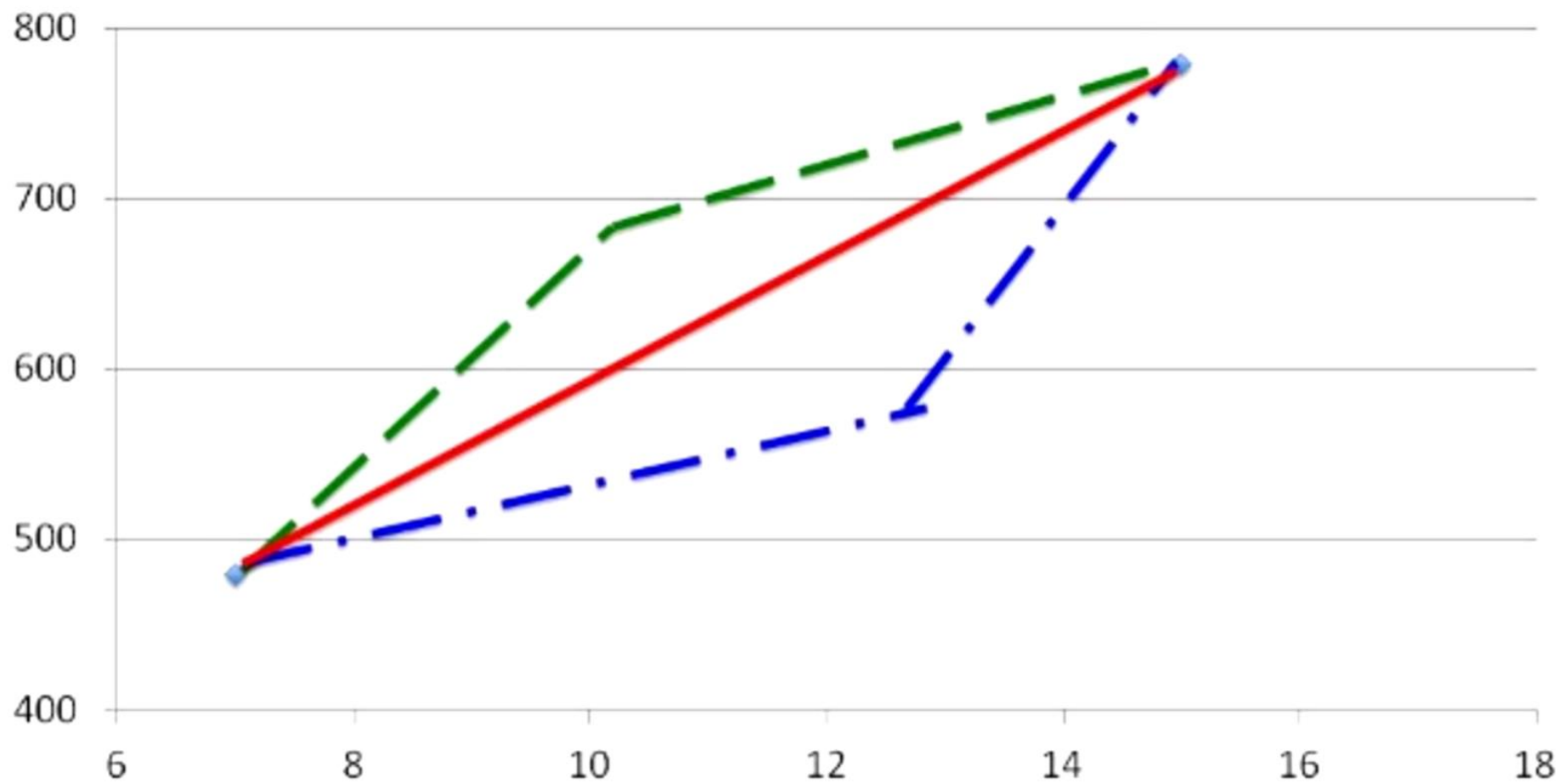
- 1400 lb mature weight
- 840 lb = 1400 x .60
- ADG 1.50

⑩ Target Calving

- 23-24 months of age
- 80% of mature weight

Heifer Development Strategies

Reaching Target Breeding Weight



udder sensitive to excess condition: 4 to 10 m of age

Calving Ease

- Measuring the Pelvic Area (PA)
- As general rule of thumb, dividing the yearling PA by 2.1 indicates the size of calf (in pounds) she should be able to deliver unassisted.
 - PA of $175/2.1 = 83\text{lb}$ calf



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Final Thoughts

- Selecting the oldest heifers has long been considered an effective method of identifying replacements
- Heifers must reach 65% of their mature weight by the start of the breeding season
- Cull **all** open heifers after the first breeding season
- Grow bred heifers adequately so that they are in the body condition score 6 at calving time



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Questions?



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