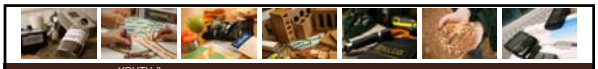


Grow your own . . . BEEF

Tip Hudson, Extension rangeland & livestock management educator

What will you learn?

- Beef production cycle
- Reproduction options and considerations
- Breeding stock selection
- Calf care and equipment needs
- Preventative medicine and management
- Cow nutrition and finishing methods
- Economics of cow-calf enterprises
- Processing options

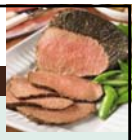
What will you learn?

Recommended text:

- **Cow-Calf Management Guide and Cattle Producer's Library**
- Annually updated by the Western Beef Resource Committee (western land grant university livestock specialists)
- Available through University of Idaho
- Individual fact sheets available for free at Colorado State University's Beef Science page

Goals

Goals



- Why are you considering raising cows?
  - Meat for personal use
  - Use property productively
  - Personal satisfaction / quality of life
  - Profit center
  - Meat for others
  - Already have them, need to keep everything alive

Goals

- Options for growing beef
  - Small-scale cow/calf operation, grow and finish your own calves
    - Requires year-round feeding, care and management of mother cows
    - Higher risk, more opportunities for something to go wrong
  - Purchase yearlings (700-900 lbs) from local growers in the spring, raise and finish on grass and/or grain

Beef production cycle

Hypothetical

Day 1 June 1 — bred and conceived

Day 94 Sept. 3 — end of first trimester

Day 188 Dec. 6 — end of second trimester

Day 282 March 10 — end of third trimester (birth of calf), gestation is 9 months

Day 365 May 31 — end of postpartum period and beginning of next gestation

Day 488* Oct. 1 — calves weaned**

Beef production cycle

Conventional production timeline

- October 10 – Weaned calf is 7 months old, 500-600 lbs.
- Grow at 1.5-2.5 lbs/day on grass or other harvested forage until 7-800 lbs.
- Grow on grain at 3-4 lbs/day to slaughter weight of 1200-1400 lbs.
- Average slaughter age is 14-16 months.

Beef production cycle

Grass-finished production timeline

- October 10 – weaned calf is 7 months old, 400-600 lbs.
- Grow at 1.5-2.5 lbs/day until ~1200 lbs.
  - Ideal carcass is 700-750 lbs.
  - Average slaughter age is 18-30 months old.

Animal management timeline

- Breeding stock options
  - Keep the heifers to build the herd and change bulls every year to avoid inbreeding; purchase replacements
    - Heterosis
    - Common to use crossbred for terminal cross
  - Grow and finish all calves, maintain cowherd and bull(s)

Artificial insemination v. natural breeding

- Advantages
  - Faster genetic improvement by using proven sires
  - Easier to control venereal disease
  - Known breeding date = known calving season
  - Still requires cleanup bull
  - Facilitates cross-breeding
  - Easier ID of fertility problems

Artificial insemination v. natural breeding

- Disadvantages
  - Requires better management
    - Nutrition
    - Heat detection
    - Sire selection
    - Semen storage and handling
  - Requires trained individuals
  - Requires special facilities
  - Requires extra time and commitment for estrous detection

Breeding stock selection

- Many genetic lines have been developed to respond well to high-concentrate diets
- British breeds do well on grass
  - Calving ease
  - Maternal function
  - Good “fleshing” ability, i.e., marble easily
  - Moderate frame – fit the environment
- Angus-Hereford cross is hard to improve upon

Breeding stock selection

- Must find blood lines within these breeds that do well on grass (more next session)
- Producing a calf every year is more important than producing heavy weaning weights
- Bigger is not better. Large cows are harder to breed back.
- Feed-efficient cows that produce healthy calves without difficulty is ideal.
- Disposition is important

Breeding stock selection

- Ask for performance records and health history on animals you are considering buying.
- Heifers should be at 65% of expected mature weight by the start of the breeding season. (Produce first calf at 2 y.o., bred at 15 months)

Breeding

- “Estrus is a 2-16 hour period of sexual receptivity of a cow that occurs every 17-24 days until conception.”
- How do you know? The cow that permits other animals to mount her is in heat. She will also mount other animals not in heat.
- Cow:bull ratio should be 20:1.

Breeding stock selection

- Culling strategies – get rid of:
  - Fence jumpers
  - Open cows
  - Cows that don’t milk
  - Cows that ignore their calves

Calving timing

- A tight calving period
  - Makes feeding properly easier, increasing conception rates
  - Reduces time period of heavy workload for you in observing and assisting
  - Makes rebreeding much easier
  - Avoids having bulls with cow herd all year long.

Calving timing

- Late winter calving maximizes weaning weights
- Producers often focused on revenue side rather than costs
- Calving closer to forage nutrient availability peak matches cow needs with feed value.
- Calving in the winter is hard on calves
  - Cold stress, immune system challenges
- Later-born calves often compensate for weight disadvantage.

Breeding again

- Once you have decided when to calve . . .
  - Put bull(s) in 83 days after calving starts.
  - April 1 calving → bull goes in June 22.
  - February 1 calving → bull goes in April 25.

Costs of production

Feed is typically ~50% of costs.

Most operators don't figure in their own labor.

RROI for cow-calf enterprises is consistently 2-4%.

Costs of production

- Trim costs by
  - lengthening grazing season (less feed purchased)
  - maintaining healthy animals
  - Providing low-stress environment and handling
  - Selecting for breeding stock with good disposition

Forage v. cow needs

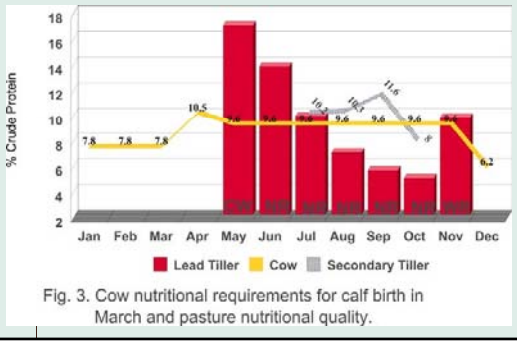


Fig. 3. Cow nutritional requirements for calf birth in March and pasture nutritional quality.