

A Year on the Ranch: A Monthly Calendar for a Spring Calving Herd

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Objectives

- Wean as many calves as possible each year (a 100% weaning rate may not be possible).
- Calve all cows within a 365 day period (gestation length is 281 days).
- Improve profitability by balancing cost of production with return on a unit basis.
- Maintain an income and/or a lifestyle.

Assumptions

- Either a Spring (March – May) or a Fall (September – November) commercial cow herd.
- Wean and sell calves at 7 months of age (October and April) to local auction, you might keep a few heifers for replacements.
- Graze mostly Bermuda grass pastures with some native grasses, are not overstocked, fertilize and soil and hay test, and control weeds.
- Make or buy own hay, purchase feed and mineral.
- Have a veterinarian to assist in herd health.

Valid Client Patient Relationship

- A veterinarian is an extra pair of eyes and hands.
- Usually they have seen a lot of different operations and problems.
- Best source of information of what to vaccinate and treat for and with.
- Develop a herd health management plan and treatment protocol.



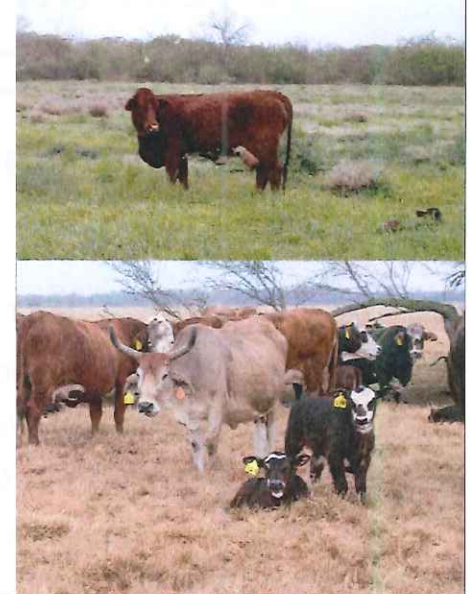
Choice of a Calving Season

- Many don't a season.
- Spring calving is usual, cheaper, more economical, fits Mother Nature.
- Fall calving less common, more expensive, better calf prices in Spring.
- Calving seasons concentrate expenses and labor, easier to plan work, forecast expenses and income.
- Year round calving requires less management but can be more expensive and less profitable.



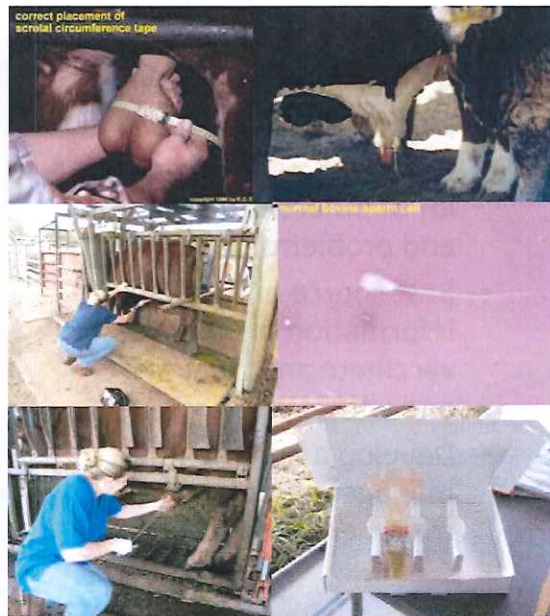
March

- Begin Spring calving (heifers first then cows).
- Watch for signs of calving and be prepared to assist cows having difficulty or weak calves.
- Tag or identify calves at birth.
- Breeding soundness examination on all bulls March 15th. Replace bulls as needed.
- Graze winter pastures.



Breeding Soundness Exam

- Evaluates physical soundness of bull, internal and external reproductive organs, and semen quality
- All new breeding bulls should be test for trichomoniasis before purchase
- Test bulls exposed to foreign cows or cows exposed to foreign bulls



Libido and Mating Ability

- Not evaluated in BSE
 - Should be evaluated separately in pasture
 - Bulls can have low libido
 - Nutrition and climate can affect libido
 - Bulls repeatedly breeding may indicate disease problems in cowherd



Bull Management

- Maintain BCS pass BSE
- Sexual peak 4-7 years
- Breeding ratio
 - Reflect pasture conditions and age: 1:10 to 1:35
 - Young bulls (< 2 years)
 - No. cows = months of age
- Equal numbers of old and new bulls
- Observe activities



Managing Beef Bulls

- Purchase early and acclimate
- Buy BSE and trichomoniasis free tested bulls
- Watch to make sure they are checking heat and breeding cows
- Supplement them if they are losing condition
- Watch for lameness or crippling



Young Bulls

- Develop them slowly
- Some concern over feeding cottonseed
- Acclimate them to other bulls
- Never turn out with older bulls
- Will breed fewer cows
- Have poorer records but not necessarily poorer genetics
- COST LESS



April

- Continue calving management practices.
- Finish grazing winter pastures.
- Begin grazing summer pastures.
- Soil test for fertilizer recommendations for pasture and hay fields.
- Consider spraying for weeds.



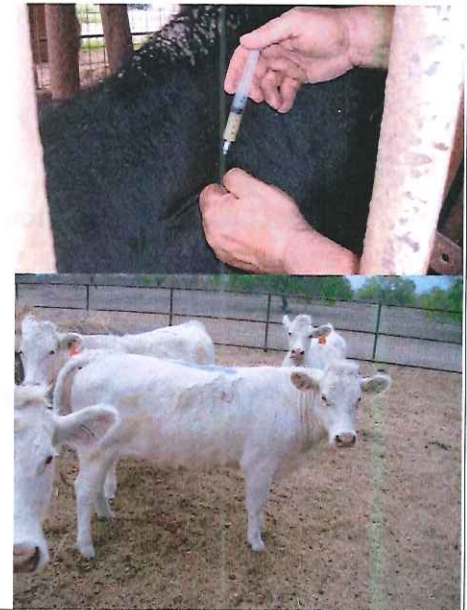
May

- Finish calving.
- Turn out bulls on May 15th. Watch them check heat.
- Consider turning out bulls on heifers 30 days earlier than cows. Add cows for a 60 day breeding season.
- Treat for horn flies when populations are the size of two hands.
- Make or purchase hay if needed.



June

- Monitor breeding season.
 - Watch to make sure the bull is checking heat and breeding cows.
- Work calves -
 - Identify and brand
 - Vaccinate
 - 7/8 way Clostridial (Blackleg)
 - 4 way Respiratory
 - Dehorn
 - Castrate bulls
 - Implant steers
 - External/internal parasites



July

- Monitor breeding season.
- Bulls should be actively checking heat.
- Few cows should be in heat (late in the season).
- Monitor bull condition.
- Continue to make or purchase hay if needed.



August

- Pick up bulls on the 15th.
- Continue to make hay as needed.
- Plan for winter pasture.
- Attend the TAMU Beef Cattle Short Course (first week of August).

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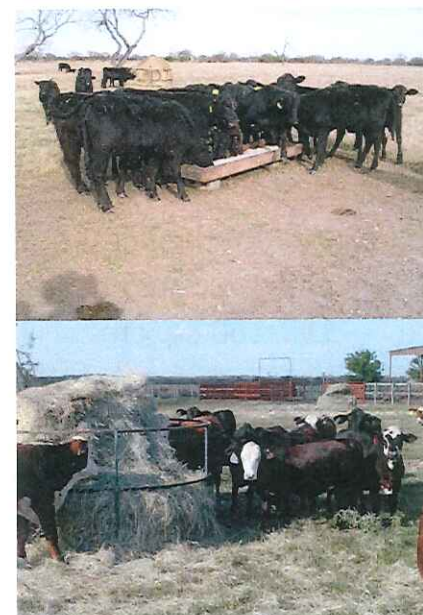
September

- Pregnancy test cows – it can be done earlier or later to fit weather and weaning.
- Consider selling open cows.
- Revaccinate cows
 - Clostridial or Blackleg (7 or 8 way)
 - Vibrio/Leptospirosis (5 way)
 - Respiratory (4 way)
- Treat for internal (worms) and external parasites as needed.
- Check pastures for army worms.
- Prepare for winter pasture and supplementation.



October

- Wean and sell calves by this month.
- Begin supplementation according to weather, pasture and body conditions.
- Begin preparing replacement heifers
 - Must be at 65% of their mature body wt. in March
 - In heat before March
 - Reproductive tract score
 - Body condition score



Timeline of Heifer Development

Time Period	Days
Sixty day breeding season	60
Gestation period for brood cow	285
Birth to weaning	210
Weaning to breeding	240
Gestation period for heifer	280
Calving until re-breeding	80
Rebreeding until pregnancy exam	45
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Total time in days	1200 Days
Total time in months	40 Months
	(3+ Years)

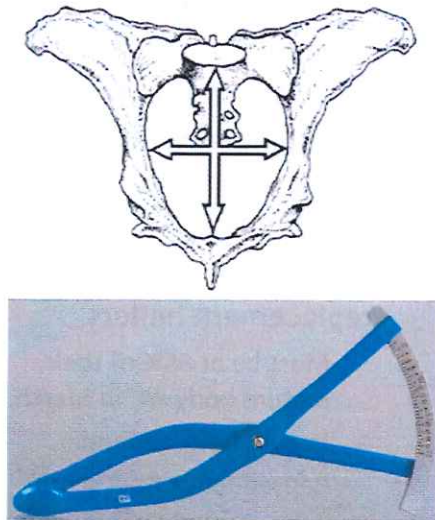
Reproductive Tract Scoring

- 1 No uterine tone (< 20 mm diameter), small ovaries; no palpable follicles
- 2 No uterine tone (20-25 mm diameter), 8 mm follicles
- 3 Slight uterine tone (20-25 mm), 8-10 mm follicles
- 4 Good uterine tone (30 mm diameter), 10 mm follicles; CL possible
- 5 Uterus > 30 mm diameter, CL present
- Heifers with an RTS of 4 or 5 had average pregnancy rates of 50% in the first 5 days of the breeding season and 3, 4 and 5 RTS conceived an average of 20 days earlier.
- Cost similar to pregnancy testing.
- 20-25% of heifers are 1 or 2



Pelvic Area Measurement

- Pelvic area measures width of pelvic opening
- Height x Width
- Prebreeding (14 month) heifers should have 140-160 sq. cm.
- Don't select for larger and larger pelvic sizes, cow size will increase



Target Weight Example

Heifer birth date	February 1 (current year)
Weaning date	October 1 (current year)
Weaning weight	500 pounds
Expected mature weight	1200 pounds
Desired breeding date	April 25 (next year)

Calculations

67% of mature weight = $.67 \times 1200$	800 pounds
Weight gain needed = $800 - 500$	300 pounds
Days from weaning to breeding	177 days
Average daily gain needed to reach target weight = $300 \div 177$	1.69 pounds per day

How much does a replacement cost?

	Retained	Purchased
Deferred Revenue*	\$1,050	-----
Development†	\$450	-----
Opportunity Cost‡	\$270	-----
Purchase PriceΔ	-----	\$1,800
Total	\$1,770	\$1,800

* 700 pound heifer at \$150/cwt.

† Includes nutrition, breeding, labor and death loss.

‡ Revenue lost from running three fewer cows with the resources that used to develop five heifers.

Δ Estimated average purchase price for heavy-breed, superior genetic replacements

Cow Bid Price Calculator



Cow Bid Price Estimate Calculator

Texas AgriLife Extension and Oklahoma State University



Developed by:
Lawrence Falconer, Professor, Texas AgriLife Extension Service and James McGrann, Professor Emeritus, Texas A&M University
Update by:
Lawrence Falconer, Texas AgriLife Extension Service and Damona Doyle and Roger Sahs, Agricultural Economics, Oklahoma State University

Steer Weight (Pounds/Head)	650	Cull Cow Sale Weight (Pounds/Head)	1,200	Lb				
Heifer Weight (Pounds/Head)	550	Number of Calving Opportunities (Years)	5					
Cow Price (\$/Head)	\$1,450	Discount Rate (%)	3.00	%				
				Net Present Value (NPV)				
				\$1,242.71				
Year	2012	2013	2014	2015	2016			
	Year 1	Year 2	Year 3	Year 4	Year 5			
Calf Crop or Weaning %	90	90	90	90	90			
Steers Price (\$/Cwt)	\$160	\$160	\$160	\$160	\$160			
Heifer Price (\$/Cwt)	\$170	\$170	\$170	\$170	\$170			
Cull Cow Price (\$/Cwt)	\$0	\$0	\$0	\$0	\$70			
Gross Receipts (Calf Sales)	\$947	\$947	\$947	\$947	\$947	\$0	\$0	\$0
Cow Operating Cost/Year	\$500	\$500	\$500	\$500	\$500			
Net Above Operating Cost	\$447	\$447	\$447	\$447	\$447	\$0	\$0	\$0

November

- Monitor condition of bred, dry cows
- Supplement according to weather, pasture and body conditions.
- Fertilize winter pastures planted in September.
- After first frost, graze stockpiled pastures.
- Supplement protein when needed.



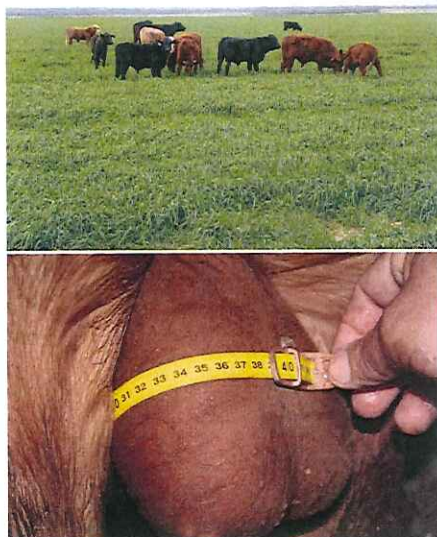
December

- Monitor condition of bred, dry cows.
- Supplement according to weather, pasture and body conditions.
- Supplement protein when needed.



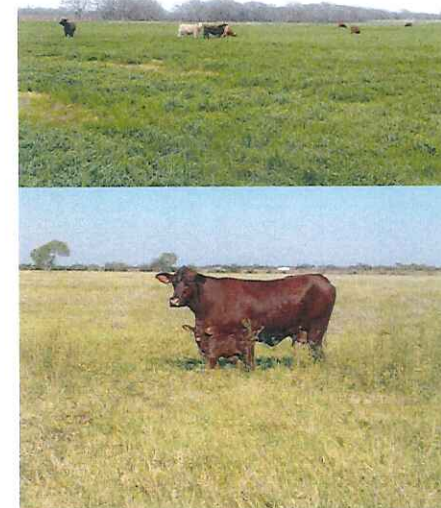
January

- Monitor condition of bred, dry cows.
- Begin to graze winter pasture.
- Supplement according to weather, pasture and body conditions.
- Purchase new bulls if needed.



February

- Prepare for calving next month.
- Move up heifers for close observation.
- Inspect and clean calving assistance equipment.
- Continue to graze winter pastures.



Recommended Practices

- Select bulls for easy calving and growth (EPD)
- Select cows for adaptability
- Produce calves that fit market
- Defined calving season
- Fertility test bulls
- Pregnancy test cows
- Vaccinate
- Deworm (if needed)
- Fly control (if needed)
- Provide a good mineral
- Practice rotational grazing
- Match stocking rate (acres per cow) with forage and rainfall
- Minimize supplementation
- Destock (move) or early wean in a drought
- Involve your veterinarian
- Know your county Extension agent
- Learn all you can
- Don't stress about the market

Questions?

