



Texas Agricultural Extension Service

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A Management Calendar For Spring Calving

This management calendar was developed as a production practice and management guide for Texas cattlemen who practice spring calving. The time of application of the procedure may vary depending upon the location of the herd and operator's management practices. Local adjustments and adaptations in some areas may be necessary due to differences in type of grass and cattle, amount of rainfall, length of grazing season and/or other factors. Therefore, the suggested dates may not always be appropriate and producers are encouraged to use the management procedures and guidelines that fit their operations. Assistance in making these adjustments for local ranches is immediately available to cattlemen from their county Extension agent. In addition, it is not this publication's intention to endorse any brand name products for use in management. Rather, those decisions should be left up to the individual rancher.



This publication was prepared for The Cattleman magazine by Larry Boleman, Texas Agricultural Extension Service beef specialist. Appreciation and recognition is given to the Extension specialists who studied the calendar and made many constructive suggestions:

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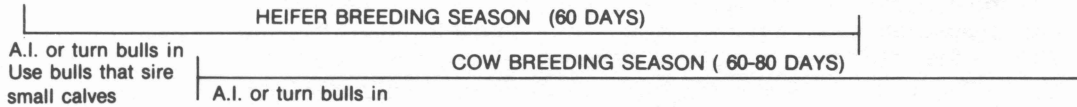
A Management Calendar for Spring Calving

JANUARY	FEBRUARY	MARCH
HEIFERS CALVE (60 DAYS)		
COWS CALVE (60-80 DAYS)		
Calf Management Procedures at Birth		
<p>Provide shelters for newborn during extreme cold First calf heifers should be separated from herd for closer management and observation Check for dystocia (aid cow if have abnormal position of calf or hard labor for 1 hour without progress) Apply a 2% or 7% iodine solution to naval immediately after birth Give calves colostrum if they do not nurse within 6 hours Identify calves (ear tag and/or tattoo) for record system Record birth weight Record sex Check calves for pneumonia and scours (vaccinate if necessary) Castrate, dehorn, and implant (do not implant replacement bulls or heifers) Record treatments given Separate cows that have calved from rest of the herd</p>	<p style="text-align: center;">Cow Herd Management and Health Procedures</p> <p>Vaccinate open replacement heifers (30-60 days before breeding) - Leptospirosis (3-way - G.H.P.) - Campylobacter (vibriosis) External and internal parasites - deworm - pour-on for lice Select breeding dates if synchronizing estrus - Plan ahead Herd should be on an increased plane of nutrition, gaining 3/4 lb./day, to ensure adequate conception - gain needed depends on body condition. If cows score 6, 7, or 8, feed maintenance ration only. If score 3 or 4, then would definitely need 3/4 to 1 1/2 lb./day gain beginning 80-120 days before start of calving - feed 12-14% phosphorus supplement and salt year-round</p>	
Potential Problems		
<p>Grass Tetany (feed ample amounts of magnesium oxide) Bloat (feed poloxalene or other anti-bloat agent) Nitrate poisoning</p>	<p style="text-align: center;">Prepare Bulls for Breeding</p> <p>Vaccinations - Leptospirosis (3 way - G.H.P.) External and internal parasites - deworm - pour on for lice Determine number of bulls needed: - yearling bull: 10 to 20 cows - 2-year old bull: 20 to 30 cows - mature bull: 30 to 40 cows Select sires Perform breeding soundness evaluation Have sires in good condition/provide exercise If A.I. have ample semen on hand, replenish supplies, plan breeding program, heat detection system, schedule, etc.</p>	
Selection of sires		
<p>Select bulls on basis of: - quality - conformation: muscling, skeletal soundness - weight: birth, weaning, and yearling - temperament - dam's record (if plan to keep replacement heifers) - calf's weaning weight ratio within the herd - calving interval of dam - udder and skeletal soundness of dam - daughter's performance - scrotal circumference measurement</p>	<p style="text-align: center;">Plan Improved Spring/Summer Forage Program</p> <p>- test soil - contract for fertilizer needed - plan rotational grazing program - plan hay production needs and program - consider using pre-emergence herbicides - consider prescribed burning (Feb.-Mar.)</p>	
Winter Pasture Management		
<p>Move cows and calves onto winter pasture after they calve if economically practical Utilize limit grazing when quantity is low or when dictated by economics Topdress with nitrogen as needed If winter pasture absent, supplement with hay/silage and/or concentrates after killing frost or when standing forage quantity is low</p>		
Rangeland Management Practices		
<p>Use mechanical brush control practices - chaining, root plowing and grubbing Install prescribed burns Prepare seedbed for rangeland seeding Inspect rangeland for weed infestation Apply pelleted herbicides for brush control</p>	<p style="text-align: center;">Rangeland Management Practices</p> <p>Record date of mesquite bud break Seed rangeland Initiate planning for prescribed burns Apply herbicides for broadleaf weed control Apply soil active herbicides for individual plant treatment</p>	

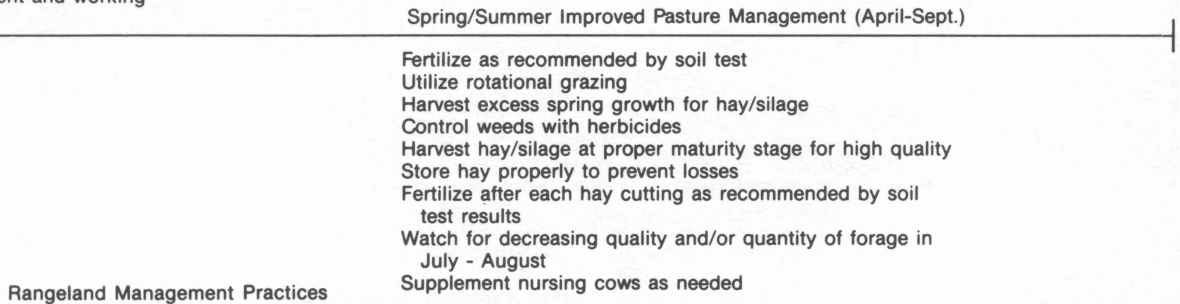
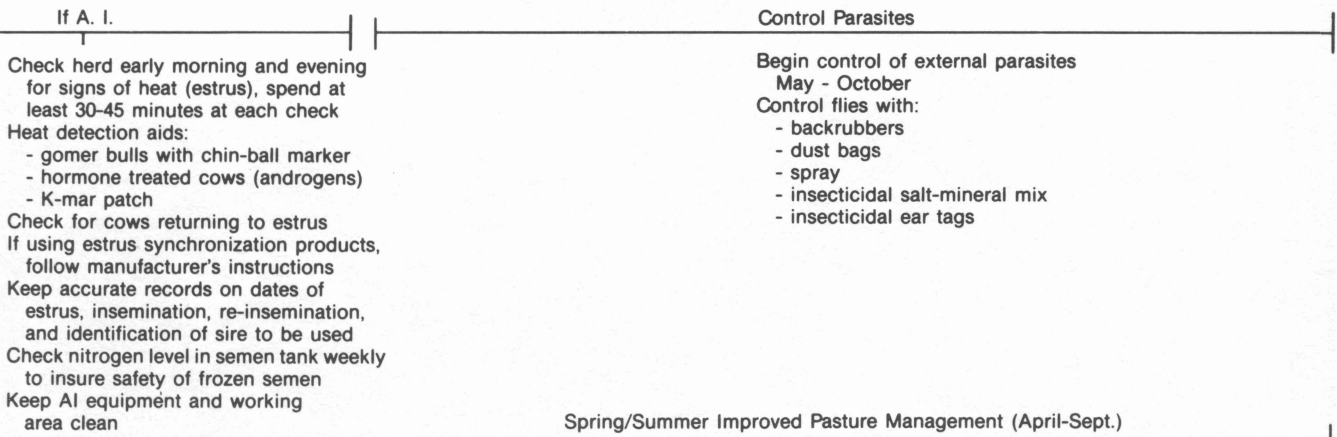
Table 1. Daily Nutrient Requirements for breeding heifers and lactating cows.
(Adapted from 1984 Nutrient Requirements of Beef Cattle)

Status	Weight	Gain	Dry Matter	Crude Protein	TDN	Ca	Phos.	Vit. A
	lbs.							
Breeding Heifer	700	1.5	17	1.49	10.6	.048	.032	20,500
Lactating Cow	1100	0	22	2.3	13.3	.072	.054	39,000

APRIL | **MAY** | **JUNE**



- Calf Management Procedures**
- Brand (may be done at weaning)
 - Dehorn
 - Castrate (if not already completed at birth)
 - Implant
 - Calves should be at least 8 weeks of age before vaccinating
 - Vaccinations (consult local veterinarian)
 - Clostridial bacterin (4 way)
 - Blackleg
 - Malignant edema
 - Sordellii
 - Black disease
 - Leptospirosis (3 way - G.H.P.)
 - IBR (red nose)
 - P13
 - Consider economics of creep feeding particularly if cows or calves are stressed



Check standing crop of forage and level of forage greenup to adjust or determine stocking rate in each range pasture and estimate termination of supplementation period
Use foliar applied herbicides for brush control (May - June)

Table 2. Daily Nutrient Requirements for pregnant heifers and dry pregnant cows. (Adapted from 1984 Nutrient Requirements of Beef Cattle)

Status	Weight	Gain	Dry Matter	Crude Protein	TDN	Ca	Phos.	Vit. A
	lbs.							
Pregnant Heifer	900	1.0	18	1.5	9.9	.048	.037	24,000
Dry Pregnant Cow	1100	0.5	20	1.5	10.4	.046	.041	26,000

JULY	AUGUST	SEPTEMBER
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Update Beef Production Knowledge

Attend Extension service meetings and cattle field days
 Read university publications
 Read beef production magazines and newspapers

Cow Management Procedures

Pregnancy test cows (45 days after bulls are removed) or at weaning
 Lice control
 Deworm - pregnant cows & bulls
 Cull open cows

Plan Marketing Program for Calves

Marketing alternatives:
 - special feeder sales
 - weekly auction markets
 - private contract sale to cattle feeder
 - private contract sale to feeder cattle dealer
 Keep current with present and future cattle markets.

Bull Management Procedure

Feed bulls to proper flesh (don't get overfat)
 - provide feedstuffs that promote growth rather than fattening
 Exercise is important
 - provide ample sized lots
 - run two or more bulls together or with a few pregnant cows

Calf Management Procedures

Calf boosters (at least 30 days prior to weaning)
 - Clostridial bacterin (4 way)
 Blackleg
 Malignant edema
 Sordellii
 Black disease
 - Red water
 - IBR
 - PI3
 - Lepto (3 way-GHP)
 Implant (steers and non-replacement heifers)
 Deworm if necessary
 Brucellosis vaccination for all female offspring/or at weaning

Early Weaning

Early weaning of calves may be considered because of unfavorable pasture conditions or favorable marketing conditions.

Continue External Parasite Control Through October

Control pink eye
 - reduce flies
 - clip tall mature grasses
 - inject antibiotics and steroids in each eyelid (if no ulcers present)
 - glue a patch over animal's infected eye
 - preventative vaccine available

Control grubs - July

Winter Pasture Management

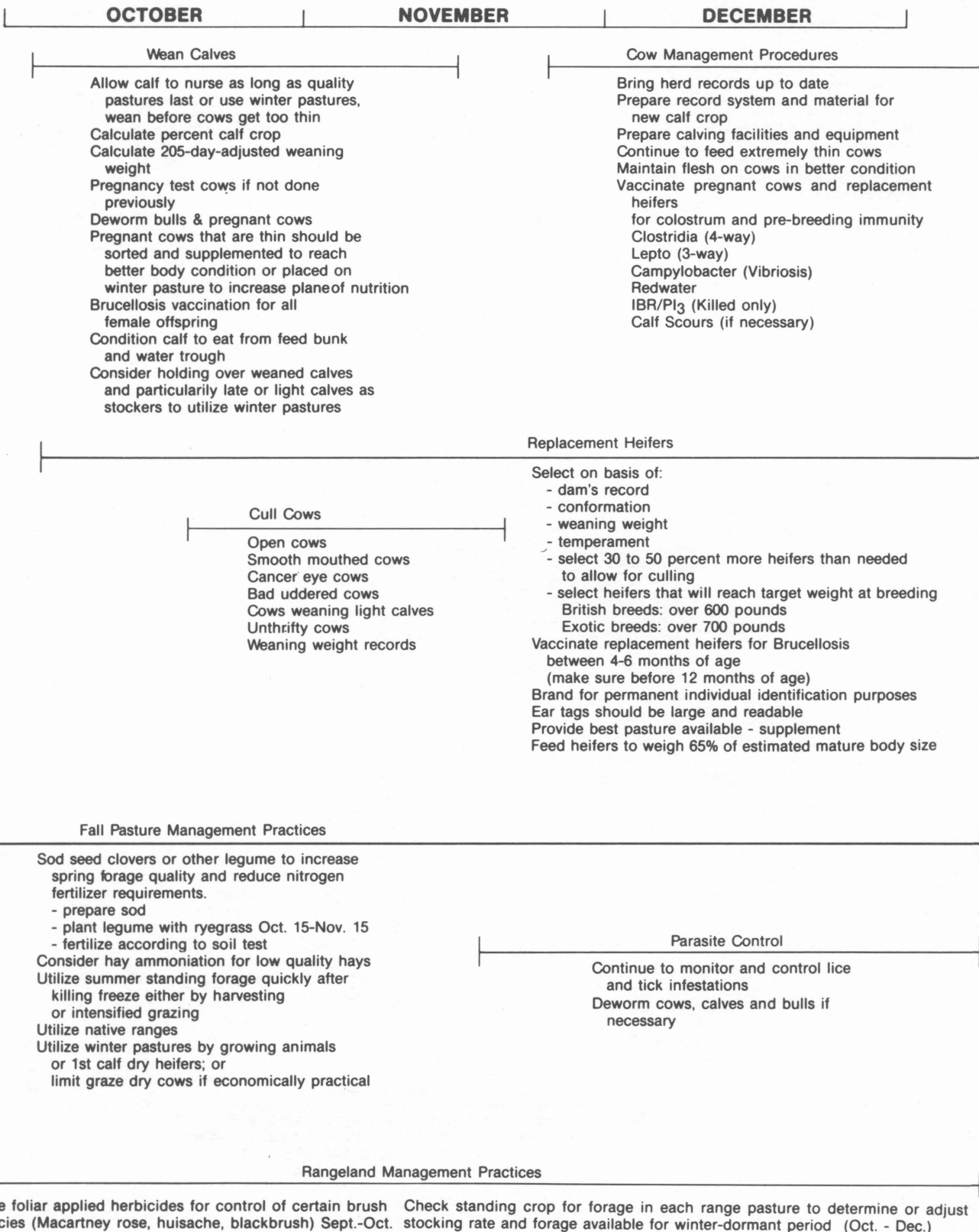
Plan winter pastures if planning to hold weaned calves as stockers
 - soil test
 - prepare seed bed or sod
 - plant Sept. 15-Oct. 15 - prepared seedbed
 Oct. 1 - Nov. 7 sod seeded
 - fertilize according to soil test
 - analyze stored hay/silage for feeding value
 Sept. 1 - Topdress warm-season pastures with 50 lbs. N to encourage growth and quality until frost.

Rangeland Management Practices

Check standing crop of forage in each range pasture to determine or adjust stocking rate for dry summer as potentially 70% of yearly production has occurred from May rains
 Use basal treatment for brush control (July - August)

Table 3. Daily Nutrient Requirements of Bulls
(Adapted from 1984 Nutrient Requirements of Beef Cattle)

Weight	Gain	Dry Matter	Crude Protein	TDN	Ca	Phos.	Vit. A
lbs.	lbs./day						I.U./day
800	2.0	19	1.85	11.8	.066	.039	28,500
1200	1.5	26	2.00	15.6	.064	.051	46,000
1600	1.0	30	2.20	16.6	.080	.057	53,000
2000	0.0	32	2.10	15.2	.082	.066	55,000



Records of Performance For Beef Cattle Production and Management Systems

Production is becoming more important every day in the cattle business and with increased productivity it is imperative to place emphasis on the different kinds of production. The following information is about performance records, figuring performance data and applying it to beef cattle management which are valuable tools in managing beef herds. These guidelines are intended to help you select superior calves, identify cows with better mothering ability and superior genetics as measured by weaning weight, rank bulls for growth traits and feed efficiency, and measure the efficiency and progress of your beef cattle production unit.

I. Reproductive Efficiency

1. Conception Rate: the percent of breeding age exposed females that conceive (become pregnant) compared to the total number of breeding age exposed females in the herd. May be expressed for one estrus (heat) period following parturition (calving), for a combination of heat periods, or for the entire breeding season.

Example: $\frac{95 \text{ cows conceived (pregnant) at the end of breeding season}}{100 \text{ cows exposed during breeding season}} \times 100 = 95 \text{ percent conception rate}$

2. Calf Crop Percent (born): number of calves born as a percent of the number of cows which were exposed during breeding season.

Example: $\frac{93 \text{ calves born}}{100 \text{ cows exposed}} \times 100 = 93 \text{ percent calf crop born}$

3. Calf Crop Percent (weaned): the total number of calves weaned as a percentage of the total number of cows exposed during the breeding season.

Example: $\frac{90 \text{ calves weaned}}{100 \text{ cows exposed}} \times 100 = 90 \text{ percent of calf crop weaned}$

4. Calving Interval: the average length of time in days between successive parturitions (calvings).

Example: Calving dates = 4/1/86 and 4/1/87 then calving interval = 365 days
Calving dates = 1/1/84, 2/1/85, 4/1/86 and 8/1/87 then calving interval = 435 days
May be calculated for each cow and for entire herd as a measure of fertility.

5. Additional Information that will assist in reproductive management efficiency:

- age at first calving
- birth weights
- calving difficulty (dystocia) - codes: 1-calved-no assistance, 2-easy pull, 3-hard pull, 4-Caesarean section
- calf survival
- temperament (disposition)
- breeding soundness evaluation

II. Growth and Gain Measurements

1. Weaning Weights: $\frac{\text{actual weight} - \text{birth weight}}{\text{age in days between 160 \& 250}} \times 205 + \text{birth weight} = \text{computed 205 day weight}$

Weaning weight should be adjusted for age of dam, sex of calf and management systems. These will allow for accurate comparisons between calves of different backgrounds.

Suggested Age of Dam Adjustments*
(add to the computed 205 day weights)

Age of Dam	Additive Factors (pounds)	
	Male	Female
2 years (21-33 months)	60	54
3 years (34-46 months)	40	36
4 years (47-59 months)	20	18
5-10 years	0	0
11 years and older	20	18

*These factors are not appropriate for all breeds.

Consult your breed association for their recommended guidelines.

2. Weaning Weight Ratio: Refers to the performance of an individual relative to the average of all animals in the same group.

Example: $\frac{500\text{-pound individual adjusted weaning weight of bull number two}}{400\text{-pound individual adjusted weaning weight of group of all bulls weaned with number two}} \times 100 = 125 \text{ percent weaning weight ratio}$
To be meaningful it should be calculated within sex basis on herd mates similar in age and from similar environmental influences.

3. Yearling (365 day) and Long Yearling (452 or 550 day) Weights: should be computed for each sex and use actual weaning weight as initial test weight.

adjusted 365 day weight = $\frac{\text{actual final test weight} - \text{actual weaning weight}}{\text{number of days between weights (on test)}} \times 160 + 205 \text{ day weaning weight adjusted for age of dam}$

To compute 452 day and 550 day adjusted weights, 247 and 345 should be substituted respectively for 160 in the above formula.

Example: 500 pounds actual weaning weight at 205 days of age
540 pounds adjusted 250 day weight (3 year dam, bull calf)
1000 pounds weight off test at 370 days of age
Adjusted 365 day weight = $\frac{1000-500}{165 (370-205)} \times 160 + 540 = 1020$

4. Yearling Weight Ratios: should be computed separately for each sex-management group.

Example: yearling weight ratio = $\frac{1020 \text{ pound (adjusted 365 day weight of bull number three)}}{900 \text{ pound (adjusted 365 day weight of all bulls tested with number three)}} \times 100 = 113 \text{ percent yearling weight ratio of bull number three}$

Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin.

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