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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David H. Bade, forage specialist
Randall D. Grooms, livestock specialist
Charles L. Cole, entomologist
# Texas Agricultural Extension Service
## A Management Calendar for Spring Calving

<table>
<thead>
<tr>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEIFERS CALVE (60 DAYS)</strong></td>
<td><strong>COWS CALVE (60-80 DAYS)</strong></td>
<td><strong>Potential Problems</strong></td>
</tr>
</tbody>
</table>

### Calf Management Procedures at Birth
- 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

### Cow Herd Management and Health Procedures
- 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, depending on 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 lb/day gain beginning 80-120 days before start of calving
- feed 12-14% phosphorus supplement and salt year-round

### Plan Improved Spring/Summer Forage Program
- Plan rotational grazing program
- 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.)

### Potential Problems
- Grass Tetany (feed ample amounts of magnesium oxide)
- Bloat (feed poloxalene or other anti-bloat agent)
- Nitrates poisoning

### Winter Pasture Management
- 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

### Rangeland Management Practices
- 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

### Prepare Bulls for Breeding
- Vaccinations
  - Leptospirosis (3 way - G.H.P.)
- 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.

### Plan Rangeland Management Practices
- 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
Table 1. Daily Nutrient Requirements for breeding heifers and lactating cows.
(Adapted from 1984 Nutrient Requirements of Beef Cattle)

<table>
<thead>
<tr>
<th>Status</th>
<th>Weight (lbs.)</th>
<th>Daily Gain (lbs.)</th>
<th>Dry Matter (Ton)</th>
<th>Crude Protein (Ibs/day)</th>
<th>TDN (Ibs/day)</th>
<th>Ca (I.U./day)</th>
<th>Phos. (I.U./day)</th>
<th>Vit. A (20,500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breeding Heifer</td>
<td>700</td>
<td>1.5</td>
<td>17</td>
<td>1.49</td>
<td>10.6</td>
<td>.048</td>
<td>.032</td>
<td>20,500</td>
</tr>
<tr>
<td>Lactating Cow</td>
<td>1100</td>
<td>0</td>
<td>22</td>
<td>2.3</td>
<td>13.3</td>
<td>.072</td>
<td>.054</td>
<td>39,000</td>
</tr>
</tbody>
</table>

**APRIL**

**MAY**

**JUNE**

HEIFER BREEDING SEASON (60 DAYS)

- A.I. or turn bulls in
- Use bulls that sire small calves

COW BREEDING SEASON (60-80 DAYS)

- A.I. or turn bulls in

**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)
  - Pig

Consider economics of creep feeding particularly if cows or calves are stressed

If A.I.

- Check herd early morning and evening for signs of heat (estrus), spend at least 30-45 minutes at each check
- Heat detection aids:
  - Gomer bulls with chin-ball marker
  - Hormone treated cows (androgens)
  - K-mar patch
- Check for cows returning to estrus
- If using estrus synchronization products, follow manufacturer’s instructions
- Keep accurate records on dates of estrus, insemination, re-insemination, and identification of sire to be used
- Check nitrogen level in semen tank weekly to insure safety of frozen semen
- Keep AI equipment and working area clean

Control Parasites

- Begin control of external parasites
  - May - October
- Control flies with:
  - Backrubbers
  - Dust bags
  - Spray
  - Insecticidal salt-mineral mix
  - Insecticidal ear tags

Spring/Summer Improved Pasture Management (April-Sept.)

- Fertilize as recommended by soil test
- Utilize rotational grazing
- Harvest excess spring growth for hay/silage
- Control weeds with herbicides
- Harvest hay/silage at proper maturity stage for high quality
- Store hay properly to prevent losses
- Fertilize after each hay cutting as recommended by soil test results
- Watch for decreasing quality and/or quantity of forage in July - August
- Supplement nursing cows as needed

Rangeland Management Practices

- 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)

<table>
<thead>
<tr>
<th>Status</th>
<th>Weight lbs.</th>
<th>Gain Ibs./day</th>
<th>Dry Matter</th>
<th>Crude Protein</th>
<th>TDN</th>
<th>Ca I.U./day</th>
<th>Phos.</th>
<th>Vit. A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant Heifer</td>
<td>900</td>
<td>1.0</td>
<td>18</td>
<td>1.5</td>
<td>9.9</td>
<td>.048</td>
<td>.037</td>
<td>24,000</td>
</tr>
<tr>
<td>Dry Pregnant Cow</td>
<td>1100</td>
<td>0.5</td>
<td>20</td>
<td>1.5</td>
<td>10.4</td>
<td>.046</td>
<td>.041</td>
<td>26,000</td>
</tr>
</tbody>
</table>

JULY

Update Beef Production Knowledge

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

AUGUST

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 overtat)
- 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.

SEPTEMBER

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.

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)

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

OCTOBER

- Wean Calves
  - Allow calf to nurse as long as quality pastures last or use winter pastures, wean before cows get too thin
  - Calculate percent calf crop
  - Calculate 205-day-adjusted weaning weight
  - Pregnancy test cows if not done previously
  - Deworm bulls & pregnant cows
  - Pregnant cows that are thin should be sorted and supplemented to reach better body condition or placed on winter pasture to increase plane of nutrition
  - Brucellosis vaccination for all female offspring
  - Condition calf to eat from feed bunk and water trough
  - Consider holding over weaned calves and particularly late or light calves as stockers to utilize winter pastures

NOVEMBER

- Cow Management Procedures
  - Bring herd records up to date
  - Prepare record system and material for new calf crop
  - Prepare calving facilities and equipment
  - Continue to feed extremely thin cows
  - Maintain flesh on cows in better condition
  - Vaccinate pregnant cows and replacement heifers for colostrum and pre-breeding immunity
  - Clostridia (4-way)
  - Lepto (3-way)
  - Campylobacter (Vibriosis)
  - Redwater
  - IBR/PI3 (Killed only)
  - Calf Scours (if necessary)

- Cull Cows
  - Open cows
  - Smooth mouthed cows
  - Cancer eye cows
  - Bad uddered cows
  - Cows weaning light calves
  - Unthrifty cows
  - Weaning weight records

DECEMBER

- Replacement Heifers
  - Select on basis of:
    - dam's record
    - conformation
    - weaning weight
    - temperament
    - select 30 to 50 percent more heifers than needed to allow for culling
    - select heifers that will reach target weight at breeding
    - British breeds: over 600 pounds
    - Exotic breeds: over 700 pounds
  - Vaccinate replacement heifers for Brucellosis between 4-6 months of age
    (make sure before 12 months of age)
  - Brand for permanent individual identification purposes
  - Ear tags should be large and readable
  - Provide best pasture available - supplement
  - Feed heifers to weigh 65% of estimated mature body size

Fall Pasture Management Practices

- Sod seed clovers or other legume to increase spring forage quality and reduce nitrogen fertilizer requirements.
  - prepare sod
  - plant legume with ryegrass Oct. 15-Nov. 15
  - fertilize according to soil test
- Consider hay ammoniation for low quality hays
- Utilize summer standing forage quickly after killing freeze either by harvesting or intensified grazing
- Utilize native ranges
- Utilize winter pastures by growing animals or limit graze dry cows if economically practical

Parasite Control

- Continue to monitor and control lice and tick infestations
- Deworm cows, calves and bulls if necessary

Rangeland Management Practices

- Use foliar applied herbicides for control of certain brush species (Macartney rose, huisache, blackbrush) Sept.-Oct.
  - stocking rate and forage available for winter-dormant period (Oct. - Dec.)
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: 95 cows conceived (pregnant) at the end of breeding season \( \times 100 = 95 \) percent conception rate

1 00 cows exposed

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

Example: 93 calves born \( \times 100 = 93 \) percent calf crop born

1 00 cows exposed

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: 90 calves weaned \( \times 100 = 90 \) percent of calf crop weaned

1 00 cows exposed

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

II. Growth and Gain Measurements

1. Weaning Weights: actual weight - birth weight \( \times 205 + \) birth weight = computed 205 day weight
age in days between 160 & 250

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)

<table>
<thead>
<tr>
<th>Age of Dam</th>
<th>Additive Factors (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>2 years (21-33 months)</td>
<td>60</td>
</tr>
<tr>
<td>3 years (34-46 months)</td>
<td>40</td>
</tr>
<tr>
<td>4 years (47-59 months)</td>
<td>20</td>
</tr>
<tr>
<td>5-10 years</td>
<td>0</td>
</tr>
<tr>
<td>11 years and older</td>
<td>20</td>
</tr>
</tbody>
</table>

*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: 500-pound individual adjusted weaning weight of bull number two \( \times 100 = 125 \) percent weaning weight ratio

400-pound individual adjusted weaning weight of group of all bulls weaned with number two

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

To compute 452 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 = \( \times 160 + 540 = 1020 \)
165 (370-205)

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

Example: yearling weight ratio = 1020 pound (adjusted 365 day weight of bull number three) \( \times 100 = 113 \) percent yearling weight ratio of bull number three

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