

Cow Calf Management Calendar for South Texas

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JANUARY

Move first-calf heifers that are close to calving into an easily accessible pasture. Check at least three times per day during calving season for heifers needing assistance. If a heifer is having a calf, watch her for a while or keep checking her to see if assistance is needed. Make sure that all calving assistance equipment (chains, snares, noose, pens, etc.) are clean and in good operating order. Contact your veterinarian to inform them they may be needed.

Once the calves are born (both assisted and non-assisted) make sure that they nurse their dams to ingest colostrum. Assisted calves should be dried off and left alone with their dams if possible. After calving, heifers should be moved to a separate pasture and increased supplementation continued. She needs to continue to regain body condition and maintain milk production.

Record the birth of all new calves (date, sex, weight, sire and dam) and ear tag. Castrate bull calves within a month or two of birth that are commercial calves or non-herd sire prospects.

Evaluate pregnant and lactating cows body condition. Cows that calve with a body condition score of 5 or less will be less likely to rebreed than those that are 6 or better. The same applies to heifers except that they need to be a 7 or better at calving.

When the mature cows begin calving, similar procedures should be followed although they will generally not require as much assistance. Don't underfeed heifers or cows to avoid increases in birth weight and calving difficulty. This can cause a lengthening of the post-partum interval (time between calving and breeding), a reduction in pregnancy rate, a reduction in calf survival, a lower level of milk production, poorer quality colostrum and lowered weaning weight.

Yearling replacement heifers should be approaching 65% of their mature weight and should meet or exceed that weight by the beginning of breeding season. If necessary, increase the feed levels to meet or exceed this goal. The objective is to have the heifers cycling before the bull is turned in with them. Monitor the body condition score of the heifers, they should be at least a 6.

Continue supplementation programs begun in November and December. Feed better quality hays (9-11% crude protein) to yearling heifers, to first calf heifers, and pairs, and lower quality hays (6-8% crude protein) to dry cows and herd bulls. These hays may be adequate in protein but lacking in energy so supplement additional energy, if needed, according to body condition score, especially poor cows. Mineral supplementation should continue (12%Ca:12nP). If winter pasture is used, additional magnesium (12-15%Mg) is also required to prevent grass tetany.

Herd bulls should be in good condition before being turned out with either the heifers or mature cows. Bulls should be a body condition score of 6 or 7 prior to turnout. Also, bulls should have a successful breeding soundness exam 30-45 days prior to turnout. Check with your local vet for details.

Winter pastures can be "limit grazed" on a daily or every other day basis. Limit grazing means that the cattle are removed after grazing for a few hours (or until right before they lay down). This saves the pasture from trampling losses. If grass tetany is a problem, provide a high (14%) magnesium mineral supplement.

All cows and heifers should be vaccinated for vibriosis within 60 days prior to breeding. Other immunizations at this time may include a viral bovine respiratory disease (BRD) vaccine, pasteurella, haemophilus, leptospirosis (5-way), 7- or 8-way blackleg, scours vaccine and trichomoniasis. Check with your local vet for specific recommendations in your area.

If cattle look "wormy" make sure that their nutritional program is adequate first then deworm them. Also, check cattle for lice and control them.

FEBRUARY

Continue to follow the management tips outlined in January for calving out first - calf heifers and mature cows. If possible, separate out pairs from bred heifers and cows. Since nutritional requirements increase significantly after calving (see Table 1) it is nearly impossible to properly feed cows with calves in the same pasture as cows that haven't calved yet.

Continue to watch for external parasites, primarily lice, during the cooler months. Apply treatments as needed.

Bulls that are to be bred to yearling heifers need to have a breeding soundness examination (BSE) conducted on them 45 days prior to turnout. Select "easy calving" bulls on the basis of their own and their close relatives (sires, half-brothers, and sons) birth weight and calving ease records. If possible, select those bulls with Expected Progeny Differences (EPD) for birth weight and calving ease that will keep minimize increases in birth weight (or even reduce birth weight) while increasing calving ease. Select bulls that will increase weaning weight (so-called "curve benders") and provide an adequate level of milk since some of his daughters could become replacements. Bulls used on mature cows can have slightly higher birth weight EPD and slightly lower calving ease EPD (since cows can have larger calves) and can also be selected for a larger increase in weight EPD (weaning and yearling). Remember to breed the heifer about 45 days in advance of the mature cowherd since they will require the most assistance at calving.

Continue to watch the body condition score of all the cattle. Current research has shown that pictures of body condition scores significantly assist ranchers in determining the accurate BCS of their cowherd. Contact your local county Extension agent for bulletin B-1526, Body Condition, Nutrition and Reproduction in Beef Cows or go the TAMU Animal Science Department website: <http://animalscience.tamu.edu> and down load the bulletin. Adjust the nutritional program of the cowherd as necessary. Usually a good quality hay is adequate for dry cows but wet cows may require a higher energy concentrate. Don't let a date on the calendar or the first hint of green determine when you stop your supplemental feeding program. Early grass is sparse, short, high in moisture and generally of less value to the cow than we assume.

Winter pasture (if getting short) can be limit grazed (2-4 hours per day) by pairs or some creep feeding can be begun. In some areas of the state a high magnesium (14%) supplement needs to be provided to prevent grass tetany.

Prepare your perennial pasture (both improved and native) for the spring growth phase. Complete soil tests on these and on selected hay fields will prepare you for correct fertilizer needs. In the southern part of the state where it has not frosted, the first application may need to be put out if there is sufficient moisture.

Look over your working pens and corrals and remodel or repair as necessary.

Table 1. An 1100 Pound Cow's Nutritional Requirements Production Period (20 lbs Feed/Day)

| | Period | | | |
|------------------------------|--------------------------------|--------------------------------|------------------------|-------------------------|
| | 1 | 2 | 3 | 4 |
| Length in Days | 85 d | 120 d | 90 d | 60 d |
| Activity | Calving, lactating, rebreeding | Early gestation, lactating cow | Mid gestation, dry cow | Late gestation, dry cow |
| Rank for nutrient needs | Highest | 2nd highest | Lowest | 3rd highest |
| <u>Nutrient Requirements</u> | | | | |
| TDN (lbs/d) | 13.2 | 11.5 | 9.5 | 11.2 |
| (% of diet) | 66 | 58 | 48 | 56 |
| Protein (lbs/d) | 2.3 | 1.9 | 1.4 | 1.6 |
| (%) | 12 | 10 | 7 | 8 |
| Calcium (grams/d) | 33 | 27 | 17 | 25 |
| (%) | .36 | .29 | .19 | .28 |
| Phosphorus (grams/d) | 25 | 22 | 17 | 20 |
| (%) | .28 | .24 | .19 | .22 |
| Vitamin A (IU/d) | 39,000 | 36,000 | 25,000 | 26,000 |

MARCH

Continue to follow the calving outlines for the mature cow herd and separate pairs from bred cows to ensure proper levels of nutrition for both groups.

Check cattle for lice and apply controls as needed.

Conduct breeding soundness exams on all herd bulls. Use mature bulls on 30-40 cows depending on openness of pasture or range. Use fewer cows with yearling bulls (10-20). Check cows to determine if they are cycling (in heat) and breeding before and during breeding season.

Spring time is a critical season. Continue to monitor the body condition scores of cows and adjust nutritional level as needed. Continue supplemental feed to bulls as well.

Vaccinate open replacement heifers for leptospirosis (5-way) and campylobacter (vibriosis). Herd bulls should be vaccinated for leptospirosis.

When working calves (castrating, dehorning, branding, implanting, and ear tagging, vaccinate for 7-way "Blackleg" as recommended by your local veterinarian. The "Blackleg" diseases are also known as the "sudden death" diseases as they tend to kill rapidly. These organisms are found in the soil almost everywhere so this practice is highly recommended for calves.

Have your veterinarian vaccinate all your replacement heifers between 2 and 10 months of age for Brucellosis (Bang's Disease).

Treat all cattle for internal parasites if necessary.

Now is the time to prepare ground and sprig Coastal Bermuda or other grasses. Fertilize warm season perennial pastures according to soil test recommendations. Prepare to plant warm season annual pastures (haygrazer, sudan, etc.). Spray permanent pastures and rangelands for weed control when the plants are 2" to 4" tall. Your local County Agent will have variety recommendations and herbicide rate and application recommendations as well as planting and fertilizing recommendations for the pastures. Seed rangelands during March.

APRIL

Evaluate cowherd to make sure cows are cycling. Cows in heat will stand to be ridden, have mucus discharge from the vulva, have roughed up tail head hair (from being mounted) and may have mud or dirt on the flanks (from the bull's hooves during mounting). Make sure that the bulls are actively checking for heat and breeding cows. The best times for checking the cowherd for reproductive activity is in the early morning, early evening and late at night. Cows should not show signs of estrus (once every 18-23 days) more than twice in a breeding season. The bulls will have an opportunity to breed them at least twice and if the cows continue to show heat, then either the bull is infertile or the cows are (possibly due to body condition, disease, etc). If all the cows in good body condition appear to still be in estrus mid-way through a 90 day breeding season, the bulls could be infertile. If only one or two cows continue to show heat then the problem is with the cows.

Consider creep feeding the calves during the breeding season to reduce the lactation stress on the cowherd. A rule of thumb would be about 1% of the calf's body weight per day. Select a good, high protein, consumable creep feed in a cow proof self feeding creep feeder.

Watch for horn flies and treat with ear tags, spray, dusts or pour-on as needed. The area covered by one hand is approximately 125 horn flies and 250 flies (2 hands) is considered to be the economic threshold for treatment. Some cattle never had less than this all winter long in the southern portion of the state (it never had a freeze). Entomologists have found that calves gain up to .25 pounds per day more if they don't have flies. They have also found that dust bags, oilers and back rubbers (if properly charged) are the lowest cost treatment devices. Tags, applied once or applied once and refilled, are the next best form of control. Sprays and pour-ons are generally one time treatments for 3 to 14 days and are the most expensive. They are still the best for initial knockdown of the population and should be followed up with one of the other forms of control. If pour on dewormers are used the cost is still high but it is for both internal and external parasite control.

Work calves as they are born or plan on working calves as a group around 2-3 months of age. Vaccinate for 7-way blackleg (on the advice of your veterinarian), dehorn, castrate bull calves, deworm cows and calves (as needed on all but remember to rotate pastures as you deworm), and implant all steers and heifers with either Ralgro® or Synovex-C®. Both Synovex-C® and Ralgro® are approved for use once on replacement heifers without any negative effects or subsequent reproduction (1st service conception rates, overall pregnancy rates, etc.). However, some producers still prefer not to implant heifers so you may want to implant only those born later in the calving season (last half) which are not candidates for replacement heifers. Do not reimplant breeding

heifers.

Plan to harvest or purchase and store covered or in a barn, 1 to 1.5 tons (2-3 heavy round bales or 40 to 50 square bales) of good quality hay this year. Sample each cutting of hay and test it for protein and energy content to more closely match supplementation with the cows nutritional requirements during the four production periods. Check with your local county Extension agent on how to get your hay sampled and tested.

Consider baling excess winter pasture this month. It will be high in protein and will make excellent hay if properly cured. Excessive winter pasture and clover growth will set Bermuda grass pastures back.

Complete the sprigging of any grass pastures and plant any warm season temporary (annual) pastures (sorghum-sudan, hay grazer, etc.).

Check pastures for weeds, arrange for spraying when they are 2 to 4 inches tall.

Work on fences, corrals, and farm equipment. Consider cross fencing larger pastures, improving wildlife habitat, and creating new watering sources.

MAY

Continue to check the breeding herd to make sure the bulls are actively checking for heat and breeding cows. Watch for repeat breeders or cows that get rebred several times during the season.

If you haven't done so, work all calves, especially vaccinating for 7-way blackleg, castrating bull calves and dehorning all calves. Arrange with your local veterinarian to brucellosis vaccinate replacement heifers before one year of age.

Assuming that you have had rain, begin haying. Remember that 1 to 1.5 tons per cow is recommended for stockpiling for winter and other feeding. The best quality hay is cut and baled before seed heads begin to appear if a bunch grass (like Klein grass, Bahia, the bluestems, buffel, etc.) or before the grass is 12-14 inches tall if a sodgrass (like the Bermudas - Coastal, Alicia, etc.).

Top dress warm season pastures with 50-60 pounds of nitrogen per acre after cutting for hay or grazing. To ensure the best results, follow your soil test recommendations for fertilizing.

Use spare time to check fences, rebuild or repair existing fences or consider building new cross fences.

Check pastures for weeds. Continue to treat with herbicide or shred, but no lower than 4 inches.

Watch the market situation, consider early weaning calves from cows that are losing body condition. These calves can either be fed separately or sold as management and market conditions warrant.

JUNE

Check cattle, water and mineral and creep feeders on a regular basis (weekly or more often

if necessary, especially water).

Continue hay making operation or if you are not or cannot make hay, plan and begin purchasing hay for storage. Remember that the higher the quality of the hay (crude protein and total digestible nutrients or TDN), the less supplemental feed you will need to buy this winter.

If you have a controlled breeding season, prepare to remove the bulls from the breeding herds this month. Deworm, use fly and grub control, and supplemental feed the bulls to help them regain weight and body condition.

Prepare to wean replacement heifers and vaccinate them for brucellosis (veterinarians only), leptospirosis (5-way), blackleg (7-way, should be a revaccination), and anything else your local veterinarian recommends. Consider deworming these at weaning and turn out on a fresh pasture.

Maintain horn fly and tick (ear and cattle tick) control.

Maintain weed control program in permanent pastures. Top dress pastures and hay field with 50-60 pounds of nitrogen after cutting for hay or grazing as needed.

Watch the cattle market, sell calves when they are ready unless you can hold them and keep the cost of additional weight gain well below the current or future projected market price.

JULY

Continue daily and weekly management practices such as checking the cows and calves, water, minerals, fences, etc. Now is also a good time to check over the pens and corrals, repair any broken boards, rehang gates, improve the overall arrangement, etc.

If pasture conditions are short, you might consider weaning the calves off first calf heifers early ("early weaning") so that they can catch up on growth and body condition. This practice can be done earlier if necessary whenever the rains don't come and grass gets short. These early weaned calves can either be sold directly off the cow or you can supplement them and grow them out if feed prices are cheap and cattle prices high (not this year). Usually those calves will perform nearly as well as those calves left on their dams if they are dried out and placed on grass with a high protein supplement or creep feed. It is cheaper to feed the calf directly rather than indirectly through the cow. These calves can be grown out on pastures planted with summer annuals such as sorghum sudan or on permanent pastures. If conditions are as dry, probably all the calves should have been early weaned in late April.

Continue hay making program. Once you have made your projected hay needs, you can sell the excess. Make sure to have each cutting of hay tested for nutritional content.

Purchase hay for winter use if you don't raise your own. Remember that the first cutting of hay is higher in nutritional value (crude protein and total digestible nutrients or energy) because it had the most fertilizer and rain during the growing season. However, it may contain more trash and weeds. The second and later cuttings will have slightly lower nutritive values (unless fertilized) and will be better cured and contain less weeds and trash. The total amount recommended per cow is 1 to 1.5 tons per cow but if winter pastures are available, .5 tons per cow (one round bale or twenty 50 pounds square bales) will allow for extra feeding if necessary.

Continue to mow weeds on spray them with herbicide (whichever is cheapest or most beneficial in your area).

Begin planning and preparing your winter pasture seed bed if one is desired. Usually .5 to 2 acres per cow-calf pair is sufficient depending on how it will be grazed. If you are limiting the amount of time the animals will graze each day or every other day ("limit" grazing) then .5 to 1 acre per pair is sufficient. If you plan on turning the pairs in for the day, you need to plan towards the 2 acre per pair since you will have losses due to trampling, fecal contamination, etc.

Permanent pastures can be over seeded with one of the several excellent varieties of ryegrass which will reduce the total acreage to be plowed. Usually the stand will not be as good as a finely prepared seed bed. Pastures to be over seeded should be grazed or mowed short and disced before seeding. This will assist in getting the ryegrass and any clovers to germinate and grow.

AUGUST

Continue checking the cattle, watering facilities, mineral feeders, fences, etc., daily or weekly.

If pasture is short or the weather has turned droughty, the cattle may need supplementation, primarily energy (hay) with some protein.

Keep pregnant long-yearling replacement heifers gaining 1 to 1.25 pounds per day to reach 90% of their mature body size by calving at 24 months of age. Supplemental feed if necessary (energy and protein).

Plan your steers and non-replacement heifer marketing program. A complete understanding of the current local market and national trends are important before a marketing method is chosen. Most areas of the state have a local auction barn with sale managers to assist in the sale of your cattle. They may recommend sorting your calves into uniform weight, sex or breed type groups in order to get a better price for you. They may also recommend other specific management practices that will increase the price your calves receive. If a commission company is not close to you they may have a set of shipping pens where cattle are collected and shipped to their sale. You may also want to consider other methods of marketing your calves such as videoing them, selling directly to an order buyer or direct marketing to a feedyard.

If you have the genetics for above average feedyard gain and feed efficiency and carcass quality and yield, and a good herd health program for weaned calves, you might consider retained ownership on some or all of your calves in the feedyard. Many feedyards offer assistance in financing all or part of the cattle and/or feed and some will even purchase part of your cattle and become partners with you (this lessens your risk and allows you pay on some of the bills). Remember that the more advanced methods of marketing, direct sales, retained ownership, partnering, etc., requires a higher level of marketing understanding and skill. In addition it pays to precondition your cattle if you plan on retaining ownership in the feedyard.

At 45 days after the end of the breeding season for your replacement heifers, pregnancy test them. The smallest embryo (45 days) will be about the size of a hen's egg while the largest (90-105 days) will be about the size of a large rat (5-6 inches in length). If you are uncomfortable with rectal palpation for pregnancy determination, ask your local vet to assist you. Consider selling the open

heifers if the market looks good, if not perhaps they could be bred to calve at a later date for someone else. Usually, even in a down market, bred heifers are worth more than open heifers.

If hay test results show low nutritional values for hay, consider early contracting of bulk feed, especially protein feeds such as cottonseed meal, whole cottonseed, etc., but also blended feeds both in bags and tubs.

If you haven't planned and prepared for winter pastures do so now. You will need .5 to 2.0 acres per cow depending on your specific conditions.

SEPTEMBER

Continue ranch management practices.

Consider using one of the better pastures to help dry out and get the bawl out of weaned calves. A well managed improved grass pasture (Coastal, Klein, Buffel, etc) that has good fences is ideal. Either three weeks before or three weeks after weaning is a good time to bolster their vaccinations, but not at weaning, the total immune system is being depressed by other factors (such as weaning stress). If you can, calves should be allowed to dry out for 30-45 days, regain some of the lost weight due to weaning (shrink) before marketing.

A good time to pregnancy check the cowherd is at weaning, 90-120 days after the bulls are picked up but the earlier this can be done, the better. Since the average cow cost per year is about \$350.00 per head, it costs just about \$1.00 per day to maintain a cow on the ranch. It makes more sense to maintain a pregnant one rather than an open (non-bred) one.

At weaning check the eyes and teeth of all cows. Cows with bad eyes, small, popcorn or several missing teeth should be culled with those that are open, have poor udders or big carrot sized teats or small calves (indicates a poor milker). Cull cows can either be sold at an auction barn or if there are several, you might consider selling directly to a processing plant that buys only live cows and bulls. Sometimes you can get slightly more using one method compared to another.

Watch the growth of bred yearling heifers, they need to get 90% of their estimated mature body size before they begin calving in December.

Plant winter grazing crops in early September. Fertilize according to test recommendations. Apply lime to soils if they are acidic. Check with your local county Extension agent for their recommendations for the crops best adapted to your area. When the plants begin to grow, watch for army worms and control immediately.

OCTOBER

Make final arrangements for winter supplementation programs. Purchase or book feed supplements according to hay tests and forage availability and deficiencies. Plan and build feed troughs, covered mineral and creep feeders and varmint proof storage areas. Feeding hay in round bale feeders or on upright portable hay stands and feed in troughs will pay for this equipment in one winter.

Continue to monitor the health and growth of your newly weaned calves.

Continue to check your winter pastures for army worms and control immediately.

NOVEMBER

Check your cowherd often. Watch for drops in body condition scores or increases in height of manure pads in pastures and bed grounds as these are good indicators of the nutritional status of your cows. Cows should calve in a body condition score (BCS) 5 (no ribs showing) or better, heifers should calve at BCS 6 (patches of fat over hooks and pins) or better. Cows need to calve in good condition to return to estrus (heat) within 45 days or less to stay on an annual (365 day) calving interval. These cows will require more feed than fleshy ones so consider feeding them separately. Don't feed on the ground! For more information see bulletin B-1526, Body Condition, Nutrition and Reproduction of Beef Cows.

Revaccinate retained steers and replacement heifers for blackleg, shipping fever, leptospirosis, etc., and make sure all replacement heifers have been vaccinated for Brucellosis (Bang's disease) before 10 months of age. Check with your local veterinarian for specific recommendations.

Watch bred heifers closely, they will require the most assistance at calving time. Move heavy springers to clean calving pastures close by facilities (barns, pens, etc) in case they need to be penned for assistance. Check and clean calving assistance equipment (chains, calf puller, etc). Be ready for any early calvers that may need assistance. Make sure that the calf can get up and nurse after calving to ensure the intake of colostrum which is necessary for healthy calf. Check calving heifers and cows 3-4 times daily. See bulletin B-1203, Recognizing and Handling Calving Problems.

Replacement heifers should be checked weighed to make sure that they are gaining enough weight per day to be at 65% of their mature weight before being turned out with the bulls. This ensures the highest percent of them reaching puberty and showing estrus.

Begin grazing winter pasture when forage is 6-8 inches high. If grass tetany is a problem, a high magnesium mineral (15%) may be needed. Provide a mineral supplementation that is balanced in calcium and phosphorus (10-12% each). Trace minerals such as copper (.2%) should be added if deficient. Consider adding nitrogen top dressing to improved and winter pastures.

If needed, begin shopping for next year's bulls. Remember that superior performance tested bulls are well worth their initial cost.

DECEMBER

Move first-calf heifers that are close to calving into an easily accessible pasture. Check at least three times per day during calving season for heifers needing assistance. If a heifer is having a calf, watch her for a while or keep checking her to see if assistance is needed. Make sure that all calving assistance equipment (chains, snares, noose, pens, etc.) are clean and in good operating order. Contact your veterinarian to inform him he may be needed. Once the calves are born (both assisted and non-assisted) make sure that they nurse their dams to ingest colostrum. Assisted calves should be dried off and left alone with their dams if possible. After calving, heifers should be moved to a separate pasture and increased supplementation continued. She needs to continue to regain body condition and maintain milk production. Record the birth of all new calves (date, sex, weight, sire and dam) and ear tag. Castrate bull calves within a month or two of birth that are commercial calves or non-herd sire prospects.

Evaluate pregnant and lactating cows body condition. Cows that calve with a body condition score of 5 or less will be less likely to rebreed than those that are 6 or better. The same applies to heifers except that they need to be a 7 or better at calving.

If not already begun, prepare for winter feeding. If cows are in good body condition, there is a lot of forage available and the weather is fairly normal, protein supplements will be satisfactory (cottonseed meal, protein blocks, syrup blocks, liquid supplements, etc.). If forage is in a limited amount, cows are in poor body condition, the weather is extra wet, cold and stressful, then a combination of protein and energy is required (whole cottonseed, range cubes, salt-meal, etc.). Mineral supplementation should continue (12%Ca:12%P). If winter pasture is used, additional magnesium (12-15%Mg) is also required to prevent grass tetany.

Bulls need to be fed up to be in condition for the start of breeding season. They should also have a breeding soundness examination 45 days prior to the start of breeding season (ask your vet).

Yearling heifers should be gaining enough to reach 65% of their mature weight prior to the beginning of their breeding season. Replacement heifers should be bred 30-45 days prior to the mature cow's breeding season. This allows you to concentrate on the heifers when they calve and gives them an extra 30-45 days to regain body condition prior to rebreeding.

Winter pasture should be topdressed with 50-60 pounds of actual nitrogen in December.

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