

University of Minnesota Beef Team
The Cow/Calf Planner

February

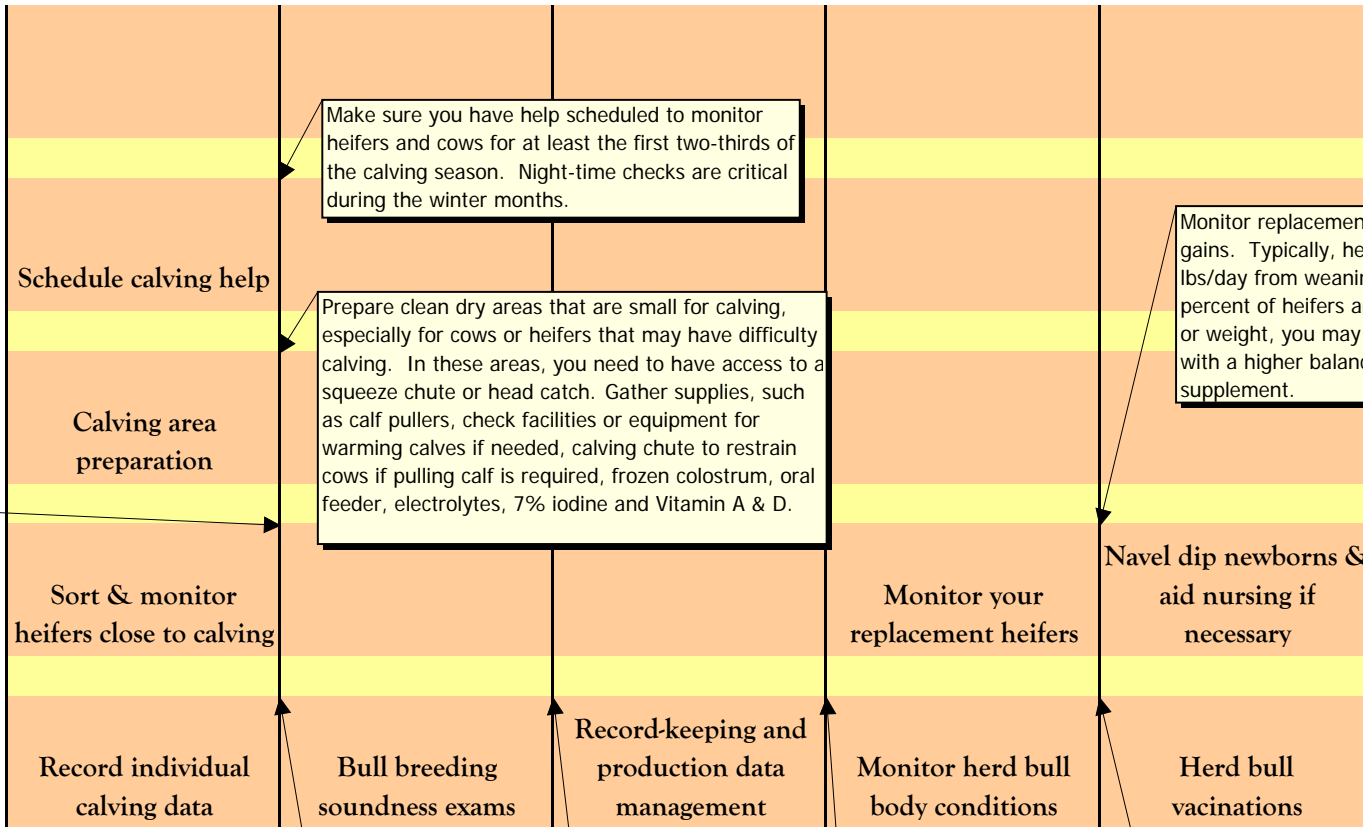
CALVING

BREEDING

MANAGEMENT

NUTRITION

HEALTH



Make sure you have help scheduled to monitor heifers and cows for at least the first two-thirds of the calving season. Night-time checks are critical during the winter months.

Prepare clean dry areas that are small for calving, especially for cows or heifers that may have difficulty calving. In these areas, you need to have access to a squeeze chute or head catch. Gather supplies, such as calf pullers, check facilities or equipment for warming calves if needed, calving chute to restrain cows if pulling calf is required, frozen colostrum, oral feeder, electrolytes, 7% iodine and Vitamin A & D.

Monitor replacement heifer body condition and gains. Typically, heifers need to gain 1 to 1.5 lbs/day from weaning to breeding. If a certain percent of heifers are behind on their condition or weight, you may need to feed them separately with a higher balanced energy/protein supplement.

Navel dip all newborns with 7% iodine, clostridial vaccine and assist all calves that do not nurse within the first 2-4 hours of life.

Calve your replacement heifers separate from the rest of your herd. Begin moving replacement heifers that are close to calving into calving areas. Keep in mind that heifers may calve earlier or later than their expected calving date, some up to 3 weeks early if twins are born.

Give annual vaccinations (vibrio, leptos, IBR, BVD, PI3, BRSV and any others that your local vet recommends) to your herd bulls at the time of breeding soundness exams, if you haven't done so at weaning.

Within 2 to 3 days after birth, management considerations to include are: recording calf's birthdate, birthweight, dam and sire ID, color, polled or horned, sex and calving difficulty score into your database and ear tag with the appropriate tag number. If you wait longer than 2 to 3 days, calves become more difficult to catch.

By recording individual calf data all the way to slaughter, this allows a producer to evaluate and manage herd genetics for potential value based markets based on production data.

Have your local vet conduct a breeding soundness exam (BSE) to evaluate the fertility of your herd bulls. This exam classifies a bull as either satisfactory or unsatisfactory for breeding. In case you have a sterile bull, this gives you time to search for a replacement herd bull before the breeding season begins.

Monitor the body conditions of your herd bulls monthly. If herd bulls are not in a body condition of 5 to 6.5, separate and supplement with a higher balanced energy/protein ration. Younger bulls may require additional supplement as they are in their developing phase of maturity.

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The remaining heifers left to calve, continue to keep careful watch in the pasture or move into calving area to monitor.

If you prefer to use natural service breeding, consider a bull to cow ratio of:
 One yearling bull / 10-15 cows One 2-year old bull/ 15-25 cows One mature bull / 25-45 cows
 If you prefer to use estrous synchronization and AI with natural service as clean up, consider a bull to cow ratio of:
 One yearling bull / 20-30 cows One 2-year old / 30-45 cows One mature bull / 45-70 cows
 These numbers are based on at least a 50% pregnancy rate off of AI. In breeding off of heat detection or timed AI, if estrous response is low, you may want to decrease the number of cows/bull. This will allow you to estimate the number of herd bulls needed for this year's breeding season.

Sort springing heifers to calving area

Estimate number of bulls needed for the breeding season

Begin monitoring cows close to calving

Bull breeding soundness exams

Rotate calvers

Replace in-fertile bulls

Continue recording individual calving data

Plan for the breeding season

Have your local vet conduct a breeding soundness exam (BSE) to evaluate the fertility of your herd bulls. This exam classify's a bull as either satisfactory or unsatisfactory for breeding. In case you have a sterile bull, this gives you time to search for a replacement herd bull before the breeding season begins.

Navel dip newborns & aid nursing if necessary

Navel dip all newborns with 7% iodine, clostridial vaccine and assist all calves that do not nurse within the first 2-4 hours of life.

If you have bulls that fail to pass a breeding soundness exam twice in a row or come up lame, this maybe a good opportunity to re-evaluate past herd production records, herd genetics and what the genetic needs for your herd should be, by utilizing EPD's and performance records. This will allow you to make accurate decisions on purchasing replacement herd bulls.

Grazing first-calf heifers

Monitor newborn calves for sickness

Heifers that have calved, ensure that they are in clean pastures or dry-lots and grazing the highest quality forage or being fed the highest quality hay and supplements to overcome her potential postpartum nutritional sink an guarantee a positive condition after calving to promote excellent rebreeding performance.

Re-manage poor conditioned cows & heifers after calving

Monitor cows for retained placentas

Cattle that do not drop their placenta within 3 to 4 hours after calving, monitor to ensure that those cattle expell their placenta within 24 hours. If not, have your local veterinarian evaluate her.

Individually sorting cows close to calving is not necessary, the majority should calve on their own, depending on your comfort level with the birthweight of the bull used. However, continue to carefully monitor cows calving. If you see the calf's feet protruding from the vulva for the first time, wait 30 to 45 minutes and if no change in calf position, then assist the heifer or cow in pulling the calf using stearylized equipment. If problems arise with assisting the calf, contact your local vet.

All cows and heifers that have calved, move them to a clean dry pasture or lot at least 3-4 days after calving. This will help in monitoring cattle left to calve.

Within 2 to 3 days after birth, management considerations to include are: recording calf's birthdate, birthweight, dam and sire ID, color, polled or horned, sex and calving difficulty score into your database and ear tag with the appropriate tag number. If you wait longer than 2 to 3 days, calves become more difficult to catch.

Begin thinking about what your breeding season will entail. What are your goals for the genetics of your herd. Do you want to only use natural service this year or synchronize all or most of your herd for AI. Do you want to incorporate new genetics into your herd, increase certain production traits or reproduce superior in-herd genetics?

After calving, re-evaluate body conditions of your cows and heifers and sort those in poor body condition to pastures with higher quality forages or supplement higher balanced energy/protein rations to increase body conditions.

Observe newborns at least once daily for sickness, nursing problems or lameness. Treat according to symptoms of illness.

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Have reproductive tract scores and pelvic measurements done on all replacement heifers 30 to 45 days prior to breeding. This can be done by your local veterinarian. Pelvic measurements allow you to estimate the size of that heifer's pelvic area to ensure that the birth canal is large enough to allow a calf to pass through when the heifer calves at two years of age. The cutoff range for heifers that need to be culled due to small pelvic areas vary upon breed of the animal. This will decrease the percent of calving difficulty during the calving season. Some breeds have larger pelvic areas than others. This cutoff can range from 125 to 150 square cm and is the value when you multiply the width x height of the pelvic area. Reproductive tract scoring is a scoring system (1 through 5), based on palpating the reproductive tract and tells you if that heifer is prepubertal (1) or cycling (5). These tools allow you to make concise decisions on replacement heifer selection to achieve maximum reproductive performance from those replacement heifers.

Cows should be recovering from calving and in good body condition. First calf heifers need to be in a body condition score of at least a 5. If not, separate and increase feed supplements to improve body conditions in those heifers for re-breeding.

If you have the time and labor, you can monitor for estrous activity on your yearling heifers, first-calf heifers and mature cows. For example: if 5% of your cows are cycling every day, it is estimated that 100% of your cows are cycling within a 20 day period. By detecting heat prior to the breeding season, you will have an estimate of the percentage of cattle in your herd that are cycling. If you have a low percentage of cattle cycling 30 days prior to breeding, cattle may be thinner than so desired or there are other factors affecting that animal's ability to resume estrous cyclicity 30-60 days after calving. If the later may be causing a low estrous response, consult with your local veterinarian for management considerations.

All cows and heifers left to calve should be sorted into a separate pasture or lot; you should be finished calving heifers; however, continue to record calving information.

Wrap up the calving season

Female tract scoring and pelvic measurements

Monitor your heifer and cow cyclicity status

Breeding season preparations

If you decide to use natural service, make sure you have the bull power to service all your cows. Determine the length of your breeding season and the number of breeding pastures you are using. Schedule a date when you will turn your bulls out. Make sure that the fences in your breeding pastures are in good condition to prevent neighboring bulls from getting in or your bulls from getting out.

Second culling on replacement heifers

Schedule breeding help

Based on how intensive your breeding season will be, schedule help based on your decision to use natural service or estrous synchronization and artificial insemination.

Monitor conditions of your cows and first-calf heifers

Herd bull nutrition

Summer grazing strategies

Herd bulls should be in good body condition (5 to 6.5). If not, separate and feed accordingly to increase conditioning.

Monitor calves daily for respiratory disease, scours, footrot, pink eye, etc.

Begin planning your grazing plans for your cattle during the breeding season and summer months. Prepare pastures to accommodate for the breeding season. Put a plan together on the number of acres to graze and number of acres to hay. Do you need to reseed any grasses, legumes or fertilize any pastures? Think about utilizing a rotational grazing system.

Weigh your replacement heifers to see if they are on tract for the breeding season. Remember, heifers need to weigh approximately 65% of their mature weight by the time the breeding season begins. You may want to cull your lighter heifers or poor performing heifers. These heifers will likely be more difficult to breed with any success.

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Typically most producers begin their heifer breeding season by the middle or towards the end of the month. Your replacement heifer breeding season needs to begin 15 to 20 days prior to your regular breeding season. Heifers that calve typically have a harder time consuming enough nutrients to accommodate for the nutrient intake needed due to maintenance, lactation, growth and full development. Breeding heifers earlier than the rest of the cow herd gives them more time to recover conditions that are lost due to calving, lactation, growth and maintenance.

Begin planning your summer cow/calf working schedule: branding, castrating, vaccinating, etc. Estimate the labor required based on the number of calves and cows you will be working and what is being done to both. If you work both cows and calves at the same time, make sure you have enough help to be at both stations at the same time.

Observe breeding performance of your herd bulls with your replacement heifers to ensure that the bulls are healthy, mounting, servicing and have an interest in the heifers.

Make sure all pens, alleys, calf chutes or calf tables, squeeze chutes, processing equipment and branding equipment are working properly. Inventory your vaccines and check expiration dates (check with local vet on diseases to vaccinate for), insecticides and dewormers, tagging, branding, dehorning and castrating equipment.

If you have cows that have not calved, sort them into a separate pasture and manage separately.

Plan help for summer cow/calf working

Wrap up the calving season

Begin breeding of your replacement heifers

Monitor bull breeding in heifer pasture

Inventory cow/calf working supplies

Check status of remaining cows left to calve

Natural service vs AI & estrous synchronization

Monitor for bull injuries

Summer Cow/Calf working

Any cows and heifers, if have any, should be pregnancy checked to determine if pregnant or open. Pregnant cattle can be sorted into a separate pasture and managed separately from the rest of the herd. Open cattle can be either sold or rebred during the summer breeding season and sold, unless you decide to give her another chance, but it is costly!! If you decide to give her another chance, this will extend your calving season again for the next year.

Are you using natural service or AI this year? If you chose to use natural service, you can turn the bulls out on your replacement heifers the day your breeding season begins. If you choose to use estrous synchronization and AI, turn out your herd bulls 10 to 15 days after the last day of AI. If you palpate later for pregnancy, this enables you to determine whether it is an AI calf or a natural service calf and the sire of that calf.

Multiple bulls in a breeding pasture (depending on age) tend to fight to achieve dominance of the herd. Make sure that the breeding pastures are big enough to accompany the number of bulls that you intend to use. Try to avoid using bulls of various ages within the same breeding pastures. Try to pair up bulls of similar ages.

Most producers will summer work their cows and calves. This includes: vaccinating deworming fly control branding dehorning castrating re-tagging Bangs vaccinating heifer calves for Brucellosis (calves 4-12 months of age).

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At this point, if you have cows that have not calved yet and you still want to calve them out and breed them as soon as possible, turn those pregnant cows out with the bulls, even before they calve. Once they calve, research has shown that cows, in the presence of bulls, will come into heat after calving quicker than cows not in the presence of bulls. This will jump start those late calving cows to rebreed earlier than normal and shorten your calving season for the next year, if you decide to keep those cows.

If you have any cows or first-calf heifers left to calve by this time, you may want to re-evaluate your management goals and adjust accordingly. If reducing your calving season is one of your management goals, consider selling your remaining pregnant cows at this point.

		The first of June is typically a good time to start the breeding season for the rest of your cow herd. However, it is up to you as to the start date and when you want to calve. Make sure that heifers and cows are in separate breeding pastures, the fences are in good shape or the pastures are far enough apart that the bulls won't try and mix with separate breeding pastures, or neighboring herds.		
	Optional breeding on pregnant cows.			
	Begin the regular breeding season	Monitor breeding performance of bulls with cows	Evaluate your breeding pastures	
Re-evaluate mgmt of leftover pregnant cows	Turning bulls out after AI	Monitor for bull injuries	Begin to plan help for the hay season	Summer cow/calf working

If using estrous synchronization and/or AI, delaying bull turn out 10 to 15 days after AI will allow you to trace the sires of those calves by palpating for pregnancy 45 to 60 days after AI.

Multiple bulls in a breeding pasture (depending on age) tend to fight to achieve dominance of the herd. Make sure that the breeding pastures are big enough to accompany the number of bulls that you intend to use. Try to avoid using bulls of various ages within the same breeding pastures.

Most producers will summer work their cows and calves. This includes:
vaccinating
deworming
fly control
branding
dehorning
castrating
re-tagging
Bangs vaccinating heifer calves for Brucellosis (calves 4-12 months of age).

Observe breeding activity of bulls. Make sure they are healthy, mounting, servicing and have an interest in the cows.

Evaluate your breeding pastures. If forage quantity is starting to decrease, plan to graze an alternate pasture to prevent over grazing. Consider using grazing management strategies such as rotational grazing.

If haying is a big part of your operation, evaluate potential labor needed and adjust if more feeding resources are needed for the following year. Make sure that the pastures you use for silage or hay do not conflict with what is needed for grazing.

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Whether you wean in September, October or the first part of November, make sure you have adequate help to do the following:
 Second round of vaccines
 Left over branding
 Left over dehorning
 Left over castrating
 Left over or re-tagging
 Calf weaning weights

Weaning time

Determine if you are going to raise your own replacements, develop replacements to sell as bred heifers, background heifers with your steer calves, retain ownership through the feedlot or sell them after weaning. If you plan to raise your own replacements, typically you want to replace 10% of your herd with first-calf heifers. Keep about 25 - 40% of your heifers to develop for replacements. This allows you to retain 10% for replacement into your herd after some fail to conceive or become pregnant later in the breeding season. Remember, older heifers reach puberty earlier. If you plan to develop heifers to sell as breds and keep replacements for your herd, you will need to retain more heifers for development. Based on your decision, plan accordingly for marketing, feeding, facilities and labor.

Manage your heifer calves

When selecting the heifers you want to grow for replacements, consider the following traits for selection:
 Individual performance
 Functional traits (soundness, disposition)
 Age
 Genetics
 Phenotypical preference

Selection criteria/heifers

Pre-weaning creep feeding

Prior to weaning, if you have the equipment, labor, feed resources and are interested in creep feeding, start 15 to 45 days prior to weaning. This introduces the calves to eating concentrate feeds instead of an all forage diet and reduces stress that may lead to sickness and decreased post-weaning performance.

This is a good time to evaluate the number of cows that were bred late in the breeding season or palpated as open. If the number of late breds is low, you may opt to sell them as pregnant dry cows, unless you need those to keep your herd numbers up, thus you can re-manage them next spring for breeding. However, if you have open cows, they will be open in the spring as well, so you have a couple of choices: sell as open cows or breed them in the fall (November & December) and sell as fall calving bred cows. However, do not feed open cows throughout the winter!

Manage your late bred and open cows

Body condition cows and first-calf heifers

Fall pregnancy determination

Manage cull cows

Plan your replacement heifer winter feeding

Condition score cows and first-calf heifers at fall preg check; this can help you manage your cows to prepare for winter. This allows you to sort cows and first-calf heifers, if need be, based on their plane of nutrition prior to winter. Poor conditioned cattle, prior to weaning, should be supplemented with additional energy/protein. Well-conditioned cows should be limited to maintain their current body condition during the winter.

Again, this is a good time to determine your breeding season success and have an idea of when your cows and heifers will be calving in the spring. This again allows you to prevent feeding open cows and heifers. The best time to fall preg check is during weaning.

If you have latitude to cull your poor producing cows, this is a good time to start, just after pregnancy determination. Develop your own cull list that prioritizes problem areas in your cattle, such as:

Disposition	Soundness
Fertility	Udder problems
Eye problems	Calf performance
Yearly weaning percent	Weaning weight ratios

Plan your feeding program for your replacement heifers and begin purchasing supplements as needed. Your winter feeding program should be monitored by average daily gains based on body weights. It is good to weigh your heifers at least every two to three months in order to adjust your feeding program so that the majority of your heifers are targeted to weigh 65% of their mature weight at breeding. Typically, heifers need to gain 1 to 1.5 lbs/day from weaning to breeding.

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November

		Prepare for winter feeding needs		
		Manage cull cows		
		Re-locate cows for winter		
		Compare calf markets and market your calves		

By this time, you know your cow inventory (after preg checking) and if you are going to raise your own replacement heifers or not. Begin planning your winter feeding program and this will allow you to determine if purchasing additional supplements or hay is needed.

If you have latitude to cull your poor producing cows, this is a good time to start, just after pregnancy determination. Develop your own cull list that prioritizes problem areas in your cattle, such as:

- Disposition
- Soundness
- Fertility
- Udder problems
- Eye problems
- Calf performance
- Yearly weaning percent
- Weaning weight ratios

If snow has not set in, you can graze until early December if you have the forage available; however, re-locate your cows when forage is not adequate to a lot or pasture to begin feeding for the winter.

Compare all possibilities to market your steer, bull or heifer calves based on current or future market prices. Bull calves can be grown and performance tested for marketing as herd bulls. Steer calves can either be sold after weaning, backgrounded for 30-60 days based on forage availability, or retain ownership within a feedlot. Heifer calves can be marketed the same as steer calves, retain all or a percent of your heifer crop for replacement heifers, or breed and sale as bred heifers.

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December

	<u>CALVING</u>	<u>BREEDING</u>	<u>MANAGEMENT</u>	<u>NUTRITION</u>	<u>HEALTH</u>
					Evaluate growth and gains of replacement heifer calves and adjust your winter feeding program to reach your target heifer weights at breeding.
		Take vacation needed and be thinking about any repairs that require attention on the ranch. Begin entering and evaluating herd data records for future management decisions.			
				Monitor replacement heifer performance	Observe conditions of your herd bulls. If bulls begin to lose condition, increase energy/protein in winter feed supplements or sort those bulls and feed higher energy/protein supplements separately.
			Vacation time and repair time	Monitor herd bull conditioning	