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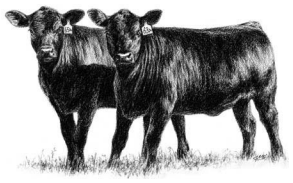

Beef Cattle Production Tips for New Landowners

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Beef cattle production can be a challenging undertaking for new landowners due to the large amount of knowledge needed to for the management decisions that can be critical for success. The purpose of this guide is to give a broad overview of important considerations for new landowners considering a beef cattle enterprise. The information here is a starting point and much more information is available. General rules of thumb and ideas are presented here but more specific information may be needed to make a decision related to your specific operation.

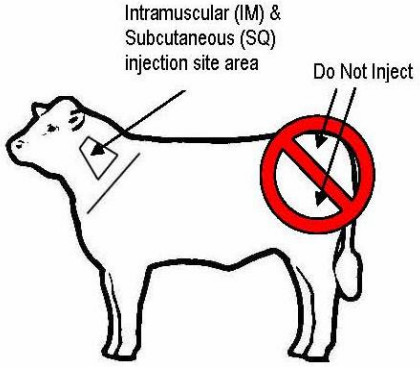
Type of Operation – There are generally two types of beef operations run by new landowners: Cow/calf operations and stocker operations. Cow/calf operations require managing breeding cows and bulls (unless one uses artificial insemination) and the sale of calves annually. Stocker operations require the purchase of weaned calves that are managed for weight gain and then sold as feeder cattle or replacement heifers.

Breed Selection – Important considerations regarding beef breeds includes: ease of calving, heat tolerance, humidity tolerance, market acceptance, growth rate, carcass quality and weaning weights. Expected Progeny Differences (EPD's) is data that is available to producers that quantifies heritable traits from specific cattle (includes birth weight, weaning weight, etc). Producers will need to decide between purebred and crossbred cattle; it is important to note that crossbred cattle have "hybrid vigor" and may be more hardy than purebred. Common breeds in Navarro County include: Hereford, Charolais, Black and Red Angus, Brangus, Simmental, Limousin and various cross breeds. It is generally understood that Brahman influence can lend to hardiness and easier calving and thus Brangus (Angus x Brahman) or F1 Tigerstripe (Hereford x Brahman), etc. cattle are common. (http://www.ansi.okstate.edu/breeds/cattle/)

Stocking Rate – A lactating, thousand pound cow will consume 2.5% to 3% of her body weight or roughly 25 to 30 pounds of air dry forage daily. 1 cow/calf pair is an animal unit (AU). A good rule of thumb is to "take half and leave half" but we have to account for another quarter of the forage that will get trampled, wasted, decompose, etc. So estimate based on 25% of forage production for a conservative stocking rate in an average rainfall year. Improved pasture differs greatly than native rangeland in terms of stocking rate. General stocking rates for Navarro County are 1 AU per 3-5 acres of fertilized improved pasture and 1 AU per 10-12 acres of rangeland BUT depend on location and management. (http://animalscience.tamu.edu/main/academics/beef/pub/range/B5036-stockingrate.pdf)

Reproduction – A bull can service up to 40 or 50 cows; remember this number should be lower for younger bulls. It is important to consider how to manage your breeding and calving season based on when you expose cows to bulls and for how long. Generally a 60 to 90 day (or relatively short) breeding and calving season is ideal because you will have a more uniform calf crop, labor is used more efficiently, and herd health and nutritional management can be managed more effectively. Remember, cows cycle every 21 days and have a 285 day gestation period. Also, don't breed first calf heifers until they have reached 65% of mature size (typically 600 – 800 lbs and 13-15 months of age depending on the breed). (http://animalscience.tamu.edu/main/academics/beef/pub/repro/L5381timeofyear.pdf) (http://animalscience.tamu.edu/images/pdf/beef/beef-reproductive-performance.pdf)

Health – Develop a working relationship with a veterinarian in your area to develop a herd health management program. Manage internal parasites with a properly timed and rotated (using different modes of action) wormers or anthelmintics. External parasites will also need to be considered, including flies (ear tags, sprays, pour-ons, rubs), ticks, fleas, etc. Vaccinate heifers for brucellosis (preferably between 4 and 6 months of age). Vaccinations against blackleg, leptospirosis, red water, enterotoximia, etc can be accomplished by using a 7 way or 8 way vaccine (again consult with your veterinarian). Use proper vaccination management: refrigerate vaccines and shield from sunlight; use clean and sharp syringes, administer in the



proper injection site and apply in the recommended manner (subcutaneous versus intramuscular). Make routine observations of cattle, and be proactive. (http://animalscience.tamu.edu/main/academics/beef/pub/health/L5289-vaccines.pdf) Check out the Beef Quality Assurance program (http://www.texasbeefquality.com/)

Handling and Working – It will be imperative that at some point you are able to constrain and work cattle. This may include vaccinating, worming, castrating, tagging, shipping, dehorning, etc. Sturdy pens and alleys coupled with a head gate and squeeze chute will ensure the safety of the livestock and the handlers. A loading ramp may also be of use when shipping cattle. Fencing is also critical and a 5 strand barbed wire fence is suitable for cattle.

Calf Management – It is important to manage calves properly. This includes: identifying them with tags or other means, timely vaccinations and worming, proper management of vaccines and syringes (as a minimum change needles every 10 head), castrate bull calves (it is ideal to band or cut bull calves before 200 pounds) and consider your weaning options (fence line weaning versus pen or truck weaning). With the high prices of feed and the situation with the feedlot industry it may be profitable to wean calves (weaning at 205 days or roughly 7 months is common) and then retain them for a longer period of time. Consider a Value Added Calf (VAC) program. (http://animalscience.tamu.edu/main/academics/beef/pub/health/vac_vaccine.pdf)

Marketing and Economics – It is important to consider what and where your market is (calves at the sale barn, replacement heifers sold on site, etc.). You will need to know the livestock auction facilities in your area. You may be able to derive a greater profit by having large groups of calves to sell that are identical in size, color and composition. Prices will differ by weight of calves so you will need to become familiar with what price can be expected for certain weight ranges. Prices may fluctuate throughout the year so you will need to consider the seasonality of prices when making the decision on when to haul calves to the auction barn. (http://animalscience.tamu.edu/main/academics/beef/pub/7567545-2317.pdf)

Nutrition – Meeting the nutritional needs of cattle can be a challenge, especially during winter. Testing hay will let you know the quality of your hay by giving the percent crude protein (CP) and percent total digestible nutrient (TDN). Adequate CP is roughly 10% for lactating and yearling cattle. Adequate TDN is roughly 56% or higher for lactating cattle and 63% or higher for heifers or calves. Mineral blocks can provide trace minerals and assist in maintenance, growth and development. It is important to feed based on BCS or Body Condition Scoring. (http://animalscience.tamu.edu/main/academics/beef/pub/nutrition/B1526-bcsnutrition.pdf)

Water – Cattle need adequate fresh water to maintain body function and assist with feed consumption and digesting. They will need anywhere from 5 to 20 gallons per day depending on size and class (less for calves and more for lactating cows). Water intake may decrease during periods of prolonged cold weather and salt based feeds may need to be removed. (http://animalscience.tamu.edu/main/academics/beef/pub/health/bcm16a-waterrequirements.pdf)

Grazing Management – Rotational grazing is important to optimize forage production, range and pasture condition and can aid in breaking internal parasite cycles. It is important to use fencing, water and mineral supplementation to optimize pasture utilization. One way this can be accomplished is by placing salt blocks or mineral tubs away from water so cattle have to travel between the two. This can help distribute grazing away from loafing areas to areas where they may have spent less time in the past and improve forage utilization.

Rotational Grazing Schedule Example

Pasture	Months											
	J	F	M	A	M	J	J	A	S	O	N	D
1	Graze			Rest						Graze		
2	Rest			Graze			Rest					
3	Rest						Graze			Rest		

Adapted from the TSSRM Land Management Tips for Small Ranches in TX

Other Recommended References

- Texas A&M University & Texas AgriLife Extension Service → http://beef.tamu.edu/ → Publications
- Texas Beef Quality Producer Program → http://www.texasbeefquality.com/
- Texas and Southwestern Cattle Raisers Association → http://www.thecattlemanmagazine.com/