Southern Grassfed

Growing a Grass Finished Beef Business

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Deep Grass Graziers

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Introduction

“Find your place on the planet. Dig in, and take responsibility from there.”
-Gary Snyder

If you would have told me at any time in my life prior to 2009 I would raise cattle for a living, I would have said you were crazy.

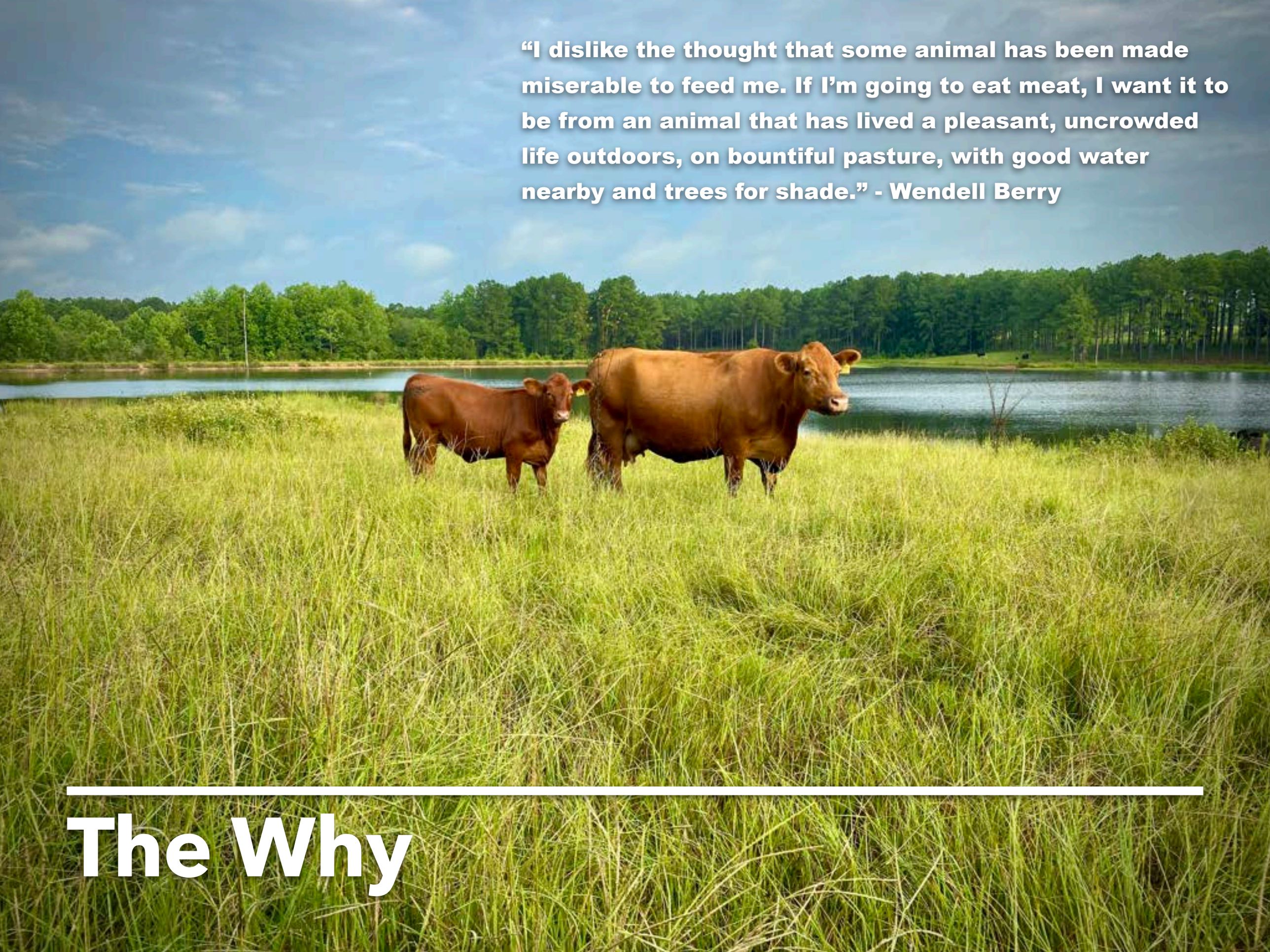
Even though my grandfather had owned cows for five decades, I had no personal attraction to ranching. However, after a few months stewarding the family herd, I felt the intense attraction my grandfather probably felt half a century earlier, and possibly what has sustained the human relationship with cattle for centuries. Cattle turn sunshine, rain, and grass into a nutrient dense food, without magic. If only modern life were so simple.

My previous life studying literature and journalism, washing dishes, bartending, managing a catering business, long distance hiking, and helping build and found a school of sustainable agriculture all prepared me for my new life ranching. While at the start I knew nothing about sewing up prolapses, building and repairing fences, or planting annual mixes, I spent enough time sitting in the front row with my hand in the air asking questions at field days, conferences, and pasture walks, to get both the basics and some of the not-so-basics. I visited dozens of ranches that were successful doing what I wanted to do, and gleaned kernels I could take home to my farm, aware of their context and environment. I met mentors who cultivated my interests in cattle and grazing, and eventually mentored others along the way. Extension taught me that the answer to most questions

Grandpa's first cattle, registered black Angus, back in the 1960s.

is "it depends." With over a decade of on-the-job training, I understand "it depends" so much better now.

My business has centered on grass-finishing and breeding stock, but this book should provide some guidance on increasing profits by working with nature, not against her. To be successful in the grassfed industry, you must first be a good rancher, and then employ the extra skills required to do it strictly on forages. I hope to share some of the successes and challenges of setting up a profitable cattle operation in the Southeast, perhaps planting a few seeds that will lower your costs, grow your profits, and improve your quality of life.



“I dislike the thought that some animal has been made miserable to feed me. If I’m going to eat meat, I want it to be from an animal that has lived a pleasant, uncrowded life outdoors, on bountiful pasture, with good water nearby and trees for shade.” - Wendell Berry

The Why

Mission Statement

When folks come visit my farm to purchase seedstock, the most important question I always ask is: “How do you intend to make money in the cattle business?”.

Usually, the discussion is centered around marketing. Do you retain or sell replacement heifers? Do you sell load lots or retain ownership of your calves? Do you direct market freezer beef or sell stockers into a grass finishing supply chain? The answer to these questions allows me to direct them to certain bloodlines in my herd, or as the bad salesman I sometimes am, to animals at other farms that might better fit their business plan. I’ve never wanted to sell an animal just to sell an animal. I hope that my product will make your product more successful. Understanding customers’ environments, management, and marketing plans helps me identify who I can help and who I can point in the right direction.

Knowing ‘The Why’ one chooses to follow a path is critical to its successful traverse. Having an end goal in mind and a fair understanding of the tools needed and challenges along the way will give one a leg up on the journey. Make sure to do your homework, gather the tools necessary, and execute your plan on a consistent basis; these are the keys to a successful operation.

In Holistic Resource Management (HRM) principles, ‘The Why’ helps build a Mission Statement, or Statement of Purpose. Building a business around a Statement of Purpose will help make daily decisions more straightforward. While it might seem like an academic or unnecessary task, clarifying your ranch goals and motivations in a simple, easy to remember statement can help keep you on a consistent path. If your mission is centered around “regenerating soils”, then you probably don’t need to reach for herbicides as a first resort to a weed problem.

While ‘The Why’ won’t directly answer my original question, “How do you intend to make money in the cattle business?”, it does inform the steps necessary to get there. Your motivations and passions should align with your end goal, and a clear statement of purpose will help keep you on the path toward your goals.

Deep Grass Graziers' Mission Statement

To always do our best, and enjoy the daily process of creating efficient, resilient, and nourishing soils, forages, and cattle, for the health of the land and its people.

The How

“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.” - Aldo Leopold

Resources

Another important principle of Holistic Management is taking inventory of an operation's resources.

These resources include the land and its attributes (water, shade, topography, infrastructure) as well as labor, intellectual property, and capital.

A good exercise prior to starting the business is to list the resources one has at their disposal, or the resources necessary to execute the plan. This will provide valuable detail to the business plan to get a good estimate of costs, and possibly alternative business opportunities that may co-exist, such as agritourism, forestry, hunting and fishing, recreation, or value-added production.

If you are a beginning rancher interested in direct marketing beef, have just a few acres of land, and plan on not hiring outside labor, you might consider buying heavy stockers from your region from a herd of cattle that might do well in a forage development program. It takes many more resources to go from birth to finish than from 800 lbs to the processor. Scale is an important consideration for profit. Your labor is a cost whether you choose to pencil it or not. Be sure to include it in your profit assessments.

Unfortunately, grass developed heavy stockers from your region could be a unicorn difficult to find. You might also find yourself in a bidding war for them. Developing long-term relationships in your region that are built upon win-win pricing relationships can pay dividends. Grass developed stockers often enjoy a $.10-$.25/lb premium to their conventional counterparts. Volatility in the current trading environment can make buying and selling cattle a gambling game. Cultivating local or regional relationships that have transparency, communication, and fairness built into the model can allow for profits for all parties. Healthy stockers with the right genetics are worth that premium. Death loss, sickness, poor gains, and inconsistent carcass attributes are profit drains. To receive a premium for a direct market product, or a wholesale load of premium grass fats, you need a quality product. There's considerably less risk sourcing known, healthy calves or yearlings from a production partner than buying sale barn stock or sight unseen calves from a broker or the internet. Brokers are not all bad. Some are well worth their commission. However, these relationships should be carefully vetted and cultivated.

If you have the land base, taking calves from birth to finish minimizes the risk of sourcing outside cattle. You have direct control over the genetics, health program, weaning protocols, and development program. Also, the price swings of sourcing those heavy stockers are leveled as you are now "buying" those cattle from your own cow-calf operation. Talk about

transparency! This birth to finish approach requires a wider skill set and more resources, but spreads the risk of your operation into different sectors of the production chain. Some years, your cow-calf program might be more profitable "selling" those calves to your stocker/finisher program. Other years it will be the reverse, based on calf market prices. It's important to consider these enterprises separately so you can measure yearly profit and loss statements for each. Having separate enterprise budgets could inform your decision to expand, contract, or end one of those sectors.

Business Plan

For someone considering a new endeavor such as grass finishing, it's important to have a clear idea of not only 'The Why' and 'The How', but also a roadmap for execution.

A business plan is a great step prior to launch that will help illuminate the proposed path with projected costs and profit opportunities. If you are borrowing money to start this business, it will be essential to convince your loan officer that you have done your due diligence. A basic business plan will consider capital expenditures, operating expenses, and revenue projections. Many land-grant universities will have enterprise budgets that you can download as Excel spreadsheets or as PDFs. I would recommend looking at those closest to you first, as they are most likely to have equivalent values to your operation, considering how variable costs can be from region to region. Be sure to input your projected costs and returns to get an accurate projection. If you are already in business and are taking cattle from birth to finish, it's also a good idea to look at the profitability of each sector of your operation. Separate the enterprises into cow-calf, stocker, and finishing operations. This will require, at least on paper, the stocker operation "buying" the calves from the cow-calf program at fair market value, and the finishing operation "buying" the calves from the stocker program. This will inform your business which sector has the most profit potential.

Just because the finishing operation might show the greatest profit opportunity, doesn't mean you should give up your cow-calf or stocker program. However, if you can find a consistent supply of genetics that work for your program off-farm, you might consider focusing on one enterprise than all three. A consideration of resources is important here. If your farm is 90% unimproved bahiagrass pastures and 10% high quality annuals, then your cow-calf operation will be better fit for this resource basis than switching the entire production to finishing. The last stages of fattening cattle on grass requires high energy forages. (We will discuss fattening cattle on forages in subsequent chapters.) Be sure to know your resources and requirements before jumping into a new endeavor, or placing all your eggs in one basket.

The First Law of Thermodynamics

Let’s start with the basics. Energy can never be created or destroyed.

Therefore, our job as graziers is to capture and monetize as much ‘free energy’ as possible. We do that through managing our cattle to efficiently harvest water and sunlight. This principle applies not only to grass finishing, but to all stages of ruminant husbandry. Managing the grazing behavior of our herds, whatever you call it (adaptive, rotational, management intensive, etc.), can allow for our pastures to capture more sunlight, while building organic matter and increasing water infiltration. To be successful grass finishers, we must first be competent forage farmers. But to be good forage farmers, we must understand soil health.

Capturing maximum sunlight involves having a dense canopy of green growing leaves as many days of the year as possible. If we have a continuous monoculture, overgraze on a regular basis, rely heavily on herbicides, or don’t allow proper rest and recovery, we are not maximizing this year-long canopy. If our soils are compacted, devoid of organic matter, or parched from a sparse sward, it is likely we are not maximizing our ability to utilize and retain precipitation. These are all potential problems we should recognize so our management can work towards capturing the free energy we get every day the sun comes up.

Let’s start our assessment from the first thing we should always do on a new property.

A dense summer annual sward bathing in sunlight.

“The health of soil, animal, plant, and man is one and indivisible.” - Sir Albert Howard

Start with Soil Health

Soil Testing

Understanding the basic characteristics of your soil will be extremely useful in identifying the critical areas that will need addressing.

pH is one of the most important measurements. Most high-quality forage species in the Southeast prefer a neutral pH of between 6.0-6.5. If your soils are below 5.5, I would recommend investing in lime to create a jumpstart for their production. It is possible to raise pH with concentrated hay feeding and manure and urine deposits, but it might be more expedient to add lime. Your mission statement might help you make this decision, based on the importance of optimizing progress versus a potential goal of minimizing off farm inputs and expenses. However, a low pH can make your soils inefficient at utilizing added fertilizers, amendments, or introduced improved species, so be sure to correct pH prior to these expenditures. Low pH soils will also narrow the range of species that will thrive from the native seed bank that lives on your farm.

While a basic university soil test will give you an understanding of the major and minor elements in your soils, pH, and soil organic matter levels, there are several soil health tests options available today that might give you a better baseline assessment of pasture health. The Haney test, the Phospholipid Fatty Acid Test (PLFA), the Soil Foodweb Biology test, and the Cornell Comprehensive Soil Health test, are just a few of them. Understanding how and when to take the tests, and how to interpret the data is critical to gaining benefit from these tools. Educate yourself on what they can tell you and how you might use them to benefit your management. Tracking your soil health can be an important tool in understanding if your management is benefiting your ability to balance and optimize profit, resilience, and sustainability.

Careful attention must be paid to proper soil sampling techniques to get accurate results (Shutterstock).

Soil Health

"When a decision is made to cope with the symptoms of a problem, it is generally assumed the corrective measures will solve the problem itself. They seldom do."

- Masanobu Fukuoka

Disturbance is the management tool we often use to combat Mother Nature, when we find her work counter to ours. Countless dollars have been spent on pesticides to rid ourselves of "weeds" and insect pests. This battle against nature is costly. Even if we win a battle, we will never win the war. I use quotations around "weeds" because the best definition of this term is a plant out of place. (A sheep or goat might disagree with the cattleman's definition.)

Minimizing disturbance, both chemical and physical, is one of the 5 principles of soil health. To overcome our pest and weed challenges, we must stop focusing on the symptoms and address the underlying problem. Understanding and utilizing these principles will expedite the progress your soils make towards resilience and health.

These principles are guideposts to help improve your soil food web, and ultimately your forage production with fewer off-farm inputs. Progress isn't as immediate as 100 units of ammonium nitrate, but long-term and short -term goals should both be considered when managing for both resilience and profit. Input costs can vary greatly, and while you can't starve yourself into a profit, spend wisely. Thoughtful management is an affordable deposit in your soils' bank account.

5 Principles of Soil Health

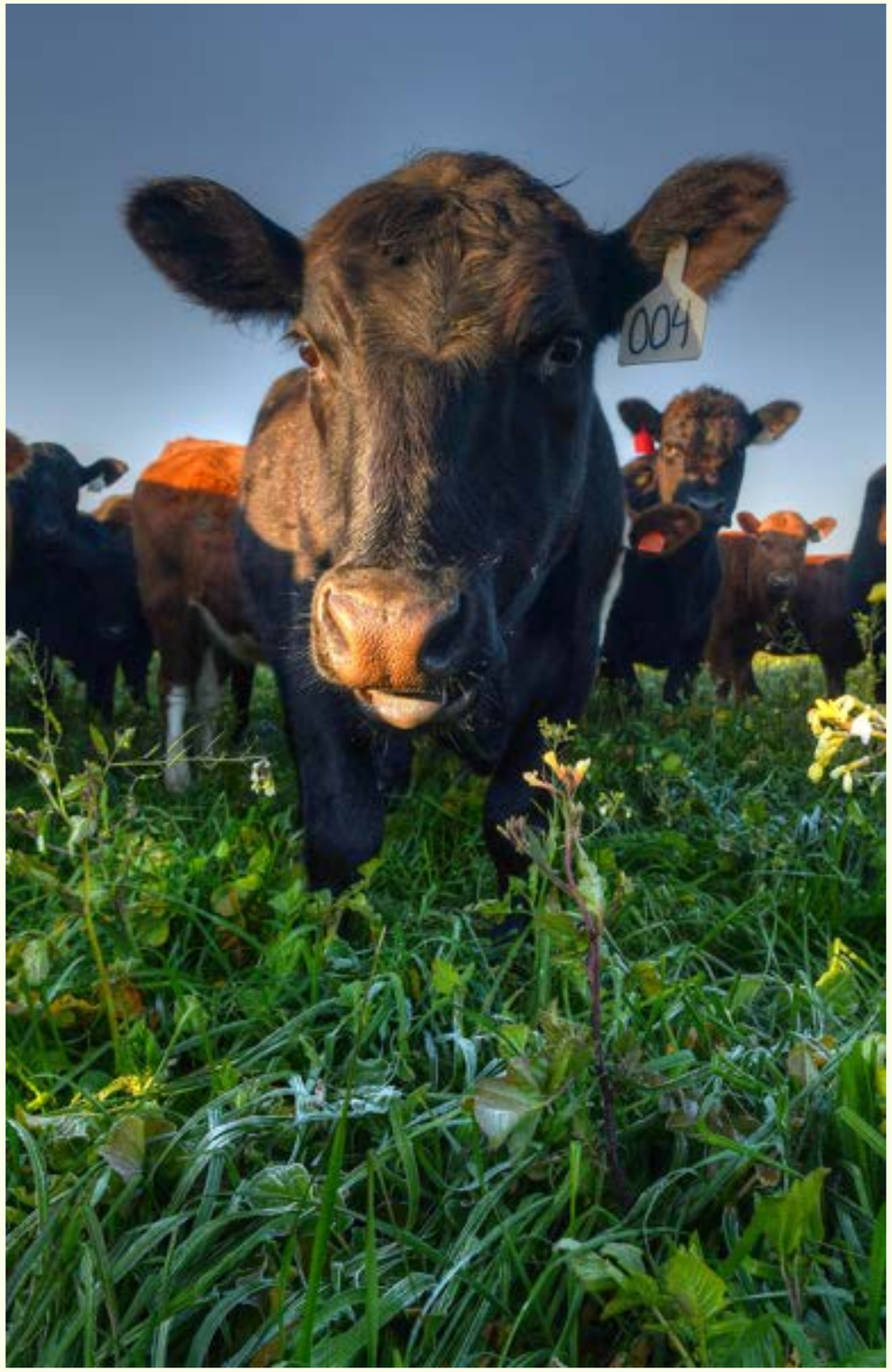
1. Keep soils covered by maintaining growing plants as many days of the year as your climate will allow. This usually involves a mixture of both perennial and annual species in your forage chain.
2. Utilize multiple species in your sward. Nature abhors a monoculture. Try managing for a mixture of grasses, legumes, and forbs when possible. Also consider vines, shrubs, and small trees that are beneficial to grazing on your field edges.
3. Minimize disturbance. Both chemical (pesticides) and physical (tillage) disturbance should be minimized.
4. Allow for proper rest and recovery Read your pastures well to know how long to graze them, at what animal density, and when to return.
5. Use animals to cycle nutrients. If your farm plan involves multiple species of animals, even better. But recognize the management complexities that this will entail.

Forage Chains

To profit in any ranching enterprise, it's important to let the animals do the work.

As a manager, anytime I get between a cow and her ability to feed herself, I'm probably spending more money and effort than I should. There are exceptions of course, like supplemental feeding during weaning, drought, or season transitions. However, managing seasonal transitions with a good forage plan can be the difference between red or black ink in your account ledger. This could involve planting annuals to stockpile for the fall slump (Sorghum-sudan, cowpea, crabgrass, etc.) or investing in legumes and forbs (chicory, plantain, white clover, red clover, etc.) to have high quality grazing when your workhorse forage base is in decline or dormant. Stockpiling bermudagrass or fescue is also a great technique for low cost feed during fall and winter.

As managers, we should consider which forage species or mixed swards we want to establish and nurture. Before making these selections, we should consult our mission statement, understand what species can thrive in our environment, and understand what forages the program will require to reach its marketing goals. We will next talk about perennial and annual species and how they can become links in our forage chain to allow the cows to do the heavy lifting.



Ranching is simple. We just try and make it complicated. Photo credit: Chris Hunt for the AJC

Perennials

The backbone of most profitable cow-calf programs should be a healthy perennial forages base.

Bahia and bermudagrass dominate the South a little below US interstate 20, or about 33 degrees N. North of this region, bermudagrass and fescue pastures are common. Cow-calf operations will lean heavily on these perennial species because they can be low-cost systems with a long season of production. A healthy population of clovers, perennial or re-seeding annuals, mixed with these species will contribute to more production at lower costs, and with fescue, help mitigate the toxicosis found in the seeds of endophyte infected varieties.

Unfortunately, apart from fescue during a short winter period, and a few legume species, perennials in the South typically lack the energy requirements to put finishing gains on young animals. Alfalfa, white clover, and perennial peanut are a few legumes that have both the energy and protein content necessary for gains over two pounds per day. Management of alfalfa in the South is challenging, pure stands of white clover can be tricky due to bloat concerns, and perennial peanut is both difficult and expensive to establish and lacks the production tonnage necessary to justify the expense for most producers. However, a collaboration of land-grant

Indy enjoys bahiagrass even more than the cows.

universities in the South have put together a great document that covers establishment and management of alfalfa seeded into bermudagrass pastures. With the proper planning and execution, this combination can be a great perennial system for growing cattle from spring to fall.

A few years back I worked with Dr. Jennifer Tucker of UGA and established thirty acres of alfalfa overseeded in the fall into Tifton 85 hybrid bermudagrass on my farm. All winter I searched for the alfalfa seedlings in the cropped thatch of the bermudagrass, but in March the alfalfa exploded, getting a head start on the grass. In April I made my first baleage crop of the mixture, which was mostly alfalfa, and as the summer progressed the bermudagrass came on strong, without any nitrogen fertilizer. While I was impressed with the amount of forage produced over the season with only a little applied potassium, I was disheartened by a new pest: three-cornered alfalfa hoppers. I am loath to use insecticides, but after reaching the threshold of damage to the alfalfa stand, reluctantly pulled the trigger. A management mistake I made in that first year was not resetting the bermuda after a mid-summer graze. I used the take half, leave half principle and the heavy bermudagrass thatch was too much competition for the first-year alfalfa stand. Year two I had about half the original stand, and year three the alfalfa was only found in places.

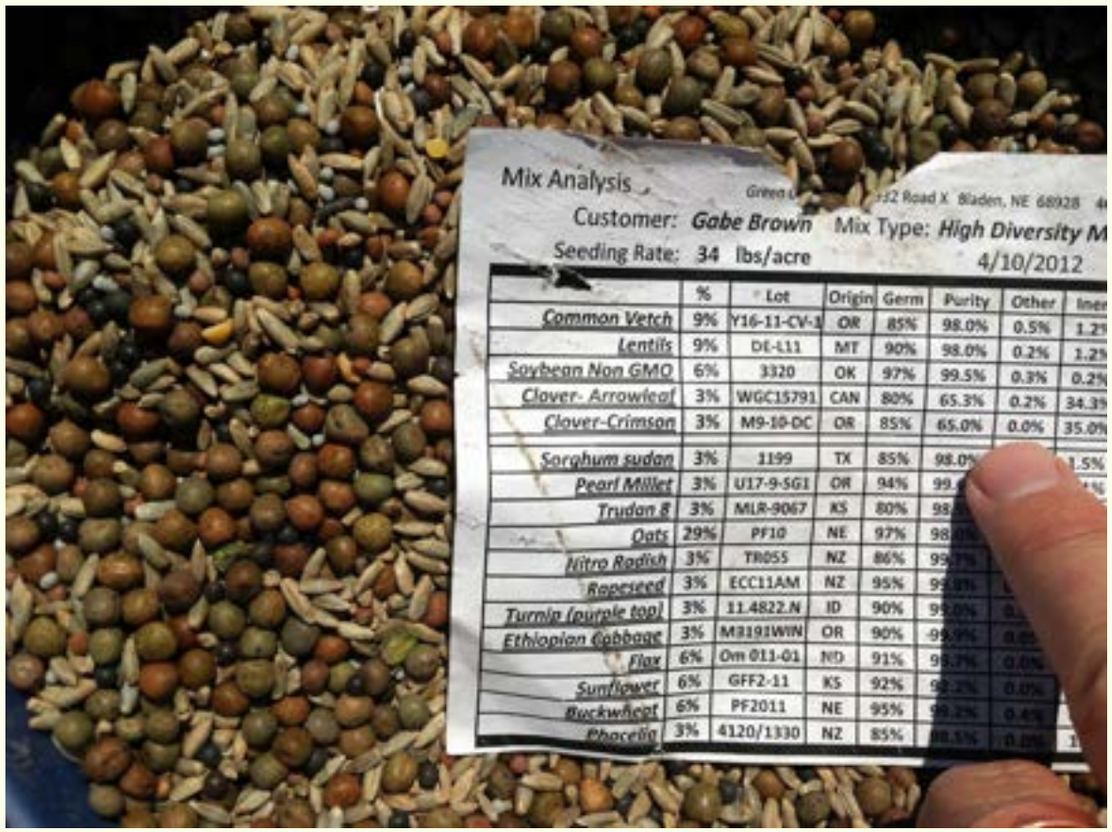
Chicory, vetch, ryegrass, plantain, and brassicas.

I would like to try the alfalfa-bermudagrass overseed again, but this time use it as a mixed species planting with red clover, crimson clover, chicory, white clover, and arrowleaf clover. While this will certainly complicate the ideal grazing and hay periods, I hope the diversity will help mitigate the pest pressure and create more resilience in the grass-legume partnership. While nature abhors monocultures, it typically holds some resentment towards simple combinations. Nature loves diversity!

While I don't have the perfect recipe for perennial finishing systems in the South, I believe that the right combination of grasses, legumes and forbs should provide a backbone of production to contribute cost effective gains. In my experience, diverse swards will be less prone to pest and disease pressure, and allow for a more nutritive grazing opportunity, mining different minerals from the soil and subsoil and providing a varied diet for the grazer.

Annuals

Years ago, having heard Gabe Brown speak about polyculture annuals at his home ranch in South Dakota, I raced home and started building annual mixes.



Gabe Brown custom seed mix.


Too much time for too many cows.

My first fall/winter mix was over twelve species. I planted it, most everything came up, and I promptly overgrazed it with too many cows on too few days. Teaching yourself to read animal grazing days can be as complicated as using a rising plate meter or more advanced radio telemetry equipment, or as rudimentary as using your experience of successes and failures to train your eye. The important thing is to learn from your mistakes and err on the side of undergrazing. That first overgrazing cost me a complete grazing cycle in that field.

As I became more experienced with mixes, I started minimizing the species that didn't contribute to animal performance. While soil health was still a priority, I wanted to concentrate my dollars on pounds of beef per acre, while still contributing to a robust soil building sward. I briefly cut back to around five species, but after hearing Dr. Christine Jones reflect on the importance of at least six species to provide the entourage effect found in nature, I added some selections back that were not as important to my gains but would hopefully add to the success of my soil building work. Today my mixes typically feature grasses, legumes, and forbs. I lean heavily on the tried-and-true varieties that work here, and sprinkle in selections that will complement the species mix, grazing windows, and secondary goals to grazing. A few of these secondary goals are nutrient cycling, increasing mycorrhizal populations, decreasing soil compaction, and improving soil organic matter.

Green Cover Seed, a specialty seed company located in Nebraska, has an ingenious online tool for building soil mixes that makes recommendations based on your location, number of growing days, expected precipitation, and your primary and secondary goals. It will allow you to fully customize your mix or make recommendations generated by its algorithm. The folks there at Green Cover Seed are great to work with as well.

I've also enjoyed working with Southeast AgriSeeds located in Georgia. Shipping is more affordable for our region, they carry species and varieties tailored for the South, and they are extremely knowledgeable regarding mixes, planting windows, and fertilization. While I usually have a budget range for seed mixtures, I remind myself that a few more dollars per acre in the right mix could add hundreds if not thousands of dollars in profit, not to mention the long-term ecological benefits of healthy soil. Don't be afraid to invest.

Sometimes our greatest discoveries are from accidents. One winter while planting annuals I moved to a new field where I was going to plant cereal rye to save seed for the following year. Instead of cleaning out the drill, I emptied the drill by planting a few rows of the grazing cocktail I'd used in the previous field. It had cereal rye, vetch, oats, and a little crimson clover in the mix. A few weeks later riding by the field I saw something that made me grab my camera. The polyculture streak was twice as tall and thick as the monoculture rye. I literally couldn't believe my eyes. While this was far from a scientific study, it was a strong vote for mixed species plantings.

Polyculture plantings can make grazing decisions more difficult, as different species are ready to graze at different times. However, this challenge is also an opportunity. One can defer grazing in the winter to allow the spring flush to give legumes and forbs a chance to flourish, or lightly graze in the fall or winter to fill your forage chain. One can also graze heavier early if the animals require better average daily gains and a supplement isn't available or is cost

Hairy vetch, rye, crimson clover, and oats blew away the rye monoculture.

prohibitive. In my summer mix, I add 1-2 pounds of crabgrass to create late season grazing once my pearl millet, sunn hemp and sorghum-sudan are declining. If my movements are timely, I can add a third or fourth high quality grazing pass to my summer annual plantings. One can also create a reseeding annual out of crabgrass if seedhead production is allowed at the end of the grazing period. One of my paddocks reseeded itself so aggressively in the early summer with crabgrass and in the late fall with crimson clover that I stopped needing to buy seed for a few years.

When setting up subdivides for grazing summer annuals, don’t be fooled by what appears to be more days of grazing than it is. Tall, leafy species like pearl millet, sorghum-sudan and sunn hemp often require larger subdivides than perennial pastures, as the cows will step on and knock over a large percentage of those plants, and on the first day just bite out the tops. If you dial in your stocking rate, move them daily, and allow for proper rest and recovery, your stand will produce many more pounds of gain than if you park them for too long or stomp too much of the stand. Brown mid-ribbed (BMR) varieties of millet and sorghum-sudan typically have less lignin and more sugar than their conventional counterparts, but the lack of lignin weakens their stalks and make them more prone to damage from overgrazing. While BMR varieties can increase average daily gains (ADG), they can also reduce pounds of gain per acre if not managed correctly. It’s a good practice to start grazing millet and sorghum-sudan dominant annuals when about knee to thigh

high and stop at the top of your boot to lower shin. I try and move cattle at least every two days if not every day on these mixes to graze them as even as possible. Remember, the sorghum family of forages can produce prussic acid after a frost and concentrate nitrates during drought stress. Be sure to understand the potential hazards of using these valuable forages in your mix.

The annual mixes below I've adjusted over almost a decade of experimentation. These are specific to my farm in Zone 8b in South Georgia, but could be a starting place to help custom design what works for you. The first four rates are for drilling into prepared soil or double crop annuals that are suppressed with aggressive grazing or clipping. The pasture overseed is for drilling into dormant perennial pastures and is used to establish both perennial legumes, forbs and reseeding annuals, not necessarily a yearly recipe.

Spring oats, crimson clover, and hairy vetch having fun in March.

Summer Mix

- 12 lbs pearl millet (Tif leaf 3 or a BMR)
- 6 lbs sorghum-sudan
- 6 lbs sunn hemp
- 6 lbs cowpea (Iron and Clay or Red Ripper)
- 2 lbs crabgrass (Mojo or Red River)
- 1 lb okra (Clemson Spineless)
- 1 lb sunflower

Perennial Pasture Mix

- 5 lbs crimson clover (Dixie or Au robin)
- 5 lbs hairy vetch
- 1 lb wooly pod vetch
- 2 lbs arrowleaf clover
- 1 lb Ball clover
- 1 lb white clover (Durana)
- 2 lbs red clover (Barduro or Southern Belle)
- 1 lb chicory
- 1 lb plantain
- 2 lbs balansa clover (FIXantioN)

Winter/Spring Mix

- 20 lbs spring oat (Everleaf)
- 20 lbs winter oat
- 25 lbs cereal rye (Wren's Abruzzi)
- *15-20 lbs ryegrass (Big Boss, Credence or TAMTBO)
- *5-10 lbs crimson clover (Dixie or Au Robin)
- *5-10 lbs hairy vetch (Au Merit)
- 5 lbs spring pea (4010)

*If I can graze into May I will up the Ryegrass and legumes to a full rate, if not, I will lessen.

Fall Mix

- 35 lbs cereal rye (Wren's Abruzzi)
- 35 lbs spring oat (Everleaf)
- 15 lbs spring pea (4010)
- 5 lbs ryegrass (Big Boss)
- 1 lb hybrid brassica (Winfred or T-Raptor)
- 1 lb kale (Bayou)
- 2 lbs grazing radish

Transition

One of the most difficult times to manage consistent gains is between shifting annual seasons.

Going from late season summer annuals and declining quality perennials directly to lush fall annuals can be hard on the digestive system of cattle. The same can be said transitioning in the spring from ryegrass to bahiagrass. One way to ease this transition is to use overlapping forage rations. This allows the rumen biology to shift from digesting one feed source to one quite different. Timed grazing, allowing a few hours each day of the annual forage, or feeding hay or baleage as part of the daily ration, can both ease the transitional challenges.

Here in South Georgia, fall is one of the most difficult times to supply the necessary nutrition for lactating cattle or calves. October is often one of the driest months, and our perennial grasses have slowed or stopped growing. One technique to counter this difficulty is stockpiling summer annuals or hybrid bermudagrass. While these might not provide the full energy or protein requirements needed for stockers, that will provide a grazing system that will limit the number of hay feeding days, and can provide a good alternative to a difficult time of year. The University of Georgia has a great fact sheet on stockpiling bermudagrass.

Another potential opportunity for stockpile is late season summer annuals. Sorghum-sudan and cowpea are two varieties that can stockpile well, holding nutritional values better than some of the other species. Be sure to allow ample time to accumulate enough biomass to make the work worth your time.

Stockpiling cowpeas, millet, and sorghum-sudan for the September slump

Genetics

When I moved home to the family farm I started with my grandfather's herd.

His program weaned calves in the fall after the crops were done and fed them in a lot through the winter on a corn silage ration. He typically sold them in the spring when the market strengthened. His genetics were focused on the feedlot and were a mix of mostly Angus and Simmental. They were growthy, muscled, and had good average daily gains on a high energy ration. My first foray into grass finishing these cattle was challenging. Large-framed cattle get even taller when they stay on grass longer. My steers from mostly 6 frame cows grew into 7-8 frame monsters on grass as they continued to grow frame without the high energy ration while loafing in the lot. (Frame scores are typically measured from 1-10, with average cow size running from 4-6). My first finished steers averaged 1450 lbs at around 26 months old. They were tall and huge. While they had some back fat, the intramuscular fat and marbling was not so good. It was difficult to get enough energy into them to complete the finishing stage. I kept watching their briskets and tail rumps for fat deposits and it was a long stare.

Conventional genetics get TALL on grass and are hard to finish with proper fat cover.

My first correction to the problem involved making a new friend in West Point, Georgia. Ed Oliver was a high school baseball and softball coach, writer, and long-time cattle breeder. He had been passionate about breeding cattle for about as long as I had been alive, and after a day riding pastures with him, I knew I had found my direction. Ed sold me a herd sire he was retiring, and I still remember driving bull 83 home with me that day thinking I'd better be careful because Ed would never talk to me again if anything happened to one of his best friends (83, not me). O Playful Aggrivation 31-83 was his Angus Association name, but we dropped the formalities rather quickly.

83 was a friendly bull who added volume, docility, and carcass traits to his offspring. Udder and coat quality was also improved. Don't let the fisheye lens fool you!

83 softened the features on his sons and daughters of grandpa's cows, taking off a little frame, added a little middle, and improving docility noticeably. 83 was one of those bulls who carried such a soft demeanor you would forget he weighed almost a ton. He never seemed to get too excited about anything.

After a season of calves, I went back to Ed's and bought two more young bulls, and after another year, bought his entire bull calf crop to develop and market. We had become such good friends Ed agreed to sell me a group of heifer calves, the first he had sold in years. I could tell Ed considered his herd part of his family, and selling me the female calves was an honor, as he wanted to share part of his life's work with me. Ed's breeding was centered around a handful of great cows and his inbreeding coefficient was higher than most would stomach.

However, many of those cows did not show obvious signs of inbreeding depression, and his bulls were excellent at stamping their offspring with good udders, carcass merit, docility, and a slick hide to protect against the heat. Ed's primary goal was making better female cows, or maternal breeding. Maternal breeding doesn't always involve linebreeding, but it does involve focusing on improving the productive traits of your female cattle, which in turn should produce bulls that pass on these same traits.

Ed wasn't your average breeder looking outside the herd for the next great thing, he was focused on his cow herd, saving sons and daughters from the most productive bloodlines. Linebreeding is a tool used to accomplish a goal: concentrating genetic merit to produce predictable offspring that carry selected traits. It involves mating cattle from similar genetic families. While it will increase uniformity, it can depress growth, fertility, longevity, and concentrate undesirable traits. I would only recommend linebreeding if

103F is one of those cows I'd never sell. She raises a top calf every year.

you plan on selling or keeping replacement heifers. Otherwise, heterosis is too valuable.

Heterosis is the improved function of offspring by breeding two unlike parents. In cattle, this could be crossbreeding different breeds (Angus x Hereford) or different species (Bos Taurus x Bos Indicus). The latter will produce even more hybrid vigor as the genetic variance is greater. Breeders sometime joke that heterosis is the only "free lunch" in the cattle business because the offspring should always exhibit some increased function compared to their parents.

For grass genetics, crossing different British breed cattle can really be a home run. However, recognize that there can be as much genetic variation inside a breed as between breeds. Some modern Angus cattle are extremely large, with mature females pushing 2000 lbs. I would not recommend attempting to grass finish their offspring. Look for genetic lineages that are moderate, flesh easily, and have been successfully grass finished by other producers.

When choosing genetics for a grass finishing operating in the South, one must first start with the end goal in mind. Our operation was interested in a highly marbled product with plenty of intramuscular fat. I wanted my customers to think, "This is the best steak I've ever had." This requires breeds and bloodlines that deposit fat early and easily. Most producers look to the British or British cross bloodlines for easy fleshing. (Black or Red Angus, Hereford, Devon, Shorthorn, Murray Grey, etc.). Others might want to produce a very young animal that grows extremely fast, even if the product is leaner. This would produce a tender, but probably less flavorful product. A Continental breed crossed with a British breed might fit this niche. (Sim-Angus, Charolais-Angus, Limousin-Angus, etc.). It's important to have a product in mind, and a consumer willing to pay the premium

to produce it. If you don't have both, you don't have a profit.

Some of the best steaks I ever raised came from old-line Aberdeen Angus genetics. Even the sirloins had intense marbling. However, the heifer sisters to those steers struggled to breed in the heat of South Georgia. They were adapted to a more temperate, cooler environment. It's challenging to move cattle from distant environments. Cattle in the U.S. typically move better East to West than the opposite. Also, moving cattle into colder climates should ideally be done in summer, so they have chance to grow their winter coat in time for its arrival. Bos Taurus cattle prefer a cool 39F degree day to a 95F scorcher, but many will adapt to their environment if not moved from a radically different forage base and climate.

Let's go back to resources. If you plan to go from birth to finish, your cow herd must be fertile and adapted. You can raise those replacements yourself or buy them from someone in your region whose program's goals match yours. This brings us to an important distinction: Terminal versus Maternal breeding.

Old-line Aberdeen Angus genetics. Incredible carcass on grass.

Terminal vs. Maternal

Terminal breeding involves using a sire that is designed to produce calves we will eat.

In a conventional program, that would be a calf that weans heavy, puts on weight aggressively through the stocker and feedlot phases of production, and produces a yield and carcass that will bring a premium in the marketplace. Terminal breeding for a grass finishing operation is a little different. We still want that animal to grow, but we typically don't want too large a frame, as I learned with my grandfather's genetics. They can be difficult to finish in a timely manner. A terminal grass bull should produce offspring that grow reasonably well without a lot of frame and deposit fat early. This will lead to an animal that can grade choice or better in under two years of age on high quality forages. This logic assumes one is marketing a fully finished animal with enough fat cover to age.

For years the Continental cross breeds were the standard for terminal production in mainstream beef. Charolais quickly became the standard for growth, muscle, and carcass weight. In the 1980s when lean beef became popular, Limousin cattle were the terminal breed du jour. As the industry found some middle ground, Simmental and Simmental-Angus crossed sires became extremely popular, as they balanced growth, yield grade, and desirable carcass traits like intramuscular fat and marbling. With the success of the Certified Angus Beef program (CAB), Angus now competes for the top terminal spot, with ranchers able to earn a premium for calves with at least 50% Angus blood. This is primarily due to the Angus breed pushing growth and carcass traits, which greatly benefit the feeder and packer, but can be counter to reproductive longevity for the rancher.

Charolais bull (Shutterstock)

Terminal bulls for the grassfed sector are a little more difficult to discern. Expected Progeny Differences (EPDs) for marbling and intramuscular fat don't always correlate according to their values. Fattening on grass is different than on grains, as it typically takes a cow with a large middle or capacity to efficiently process forages for growth and fattening. Bulls that have a good score for Residual Feed Intake (RFI) are typically leaner, as the scores are directly tied to weight gain on feed. Since muscle weighs more than fat, young cattle that grow larger and muscle heavily, instead of the ones that mature early and deposit fat, are credited with a better RFI. For grass finishing, we want cattle that gain but mature early, depositing fat instead of continuing to grow frame as a long yearling.

The grass finishing sector needs carcass data from individual sires to identify the top terminal bloodlines. I have spoken to a few mid-scale supply chain managers regarding this need and hope to put into place tracing technology through EID tags to link carcasses back to their parents. This will provide valuable data for this sector to become more efficient and could pass value up and down the supply chain.

If you don't plan to save or sell heifers, identify the best terminal bull for your production goals and use him. I would recommend reaching out to other grass finishers and find out what has worked for them. Remember to ask why they are using a particular sire. Their goals might be different than yours. When using a terminal bull, don't fall into the big pretty heifer trap. Keeping those heifers might cost you money down the road with fertility, feet, udder, hair coat or disposition issues.

Maternal breeding involves using bulls from cows with reproductive longevity. Fertility, good structure, problem-free feet and udders, mothering ability, longevity, adaptability and efficiency are positive maternal traits. Having a live, healthy, heavy calf at weaning is important to a cow-calf operation. However, heavy can be expensive. Weaning weight is less important than pounds weaned per acre, and more precisely, dollars made per dollars invested, i.e., Return on Investment (ROI). Weaning percentage of individuals in the herd will give us a good metric, but a cow getting bred on time every year for over a decade, while weaning an adequate healthy calf, will drive profit. Consistency is key.

If you have over 100 head of breeding cows, you probably have enough scale to save your own bulls. The quickest way to improve a cow herd is to save a sire from your oldest and most productive cow. Mother nature can choose cattle better than our eye and ego. While physical traits are important, the environment does not lie. Using a maternal

bull is typically done to save heifers to put back into your herd or to sell into the regional marketplace.

If you don’t have a large herd, or the interest in developing and calving heifers, consider finding a breeder in your area who raises cattle like you, matching both your supplementation and forage program. If you raise grass finished beef, look for a regional neighbor who raises replacements for this sector. If available, I would recommend buying older, proven cattle. This negates the risks involved with calving heifers and the fallout of getting them re-bred. Some prefer buying open heifers at a lower price point. It can be advantageous to allow the young heifers a chance to acclimatize to their new environment, but be sure to have a market for the opens, and don’t forget you will need a heifer safe bull to breed to them or clean up after an artificial insemination program.

Your best proven cows will raise bulls that will move your program forward.

Environmental Adaptibility

A cow that gets bred on time for many years and raises a good calf is either environmentally adapted or well supplemented. If we are in the cow business to make a profit, we are selecting for environmental adaptability.

I mentioned earlier it can be difficult to move cattle from the western states back to the East. One reason is many cattle ranches west of the Mississippi River have lower annual rainfall and “harder” grasses. These are mineral dense, higher energy forages that don’t require as many pounds of forage to provide the daily nutritional requirements of cattle. In these environments, cattle need good feet and legs to cover more terrain, as the stocking rates are usually lower than back in the East, but don’t need to eat as much to meet their daily requirements.

Some ranchers outside the South think because the temperatures can swing above 100f, their cattle are heat adapted. However, the sweltering nighttime temperatures of the South combined with the humidity make the heat problem more critical. Also, the summers can last from May to October, and really depress performance for cattle that have not adapted to it for generations. This is not to say cattle cannot move south and east and thrive, but many will not. A slick hide combined with light colorations can help temper the transition.

The fescue belt has its own challenges, as the toxicosis created by infected fescue seeds can spike the temperatures of cattle and cause several secondary effects. Abortion, weight loss, and even death can occur within a few weeks grazing infected pastures. Ranchers who rely heavily on fescue in particularly “hot” areas (those with greater levels of toxicosis) are wise to select replacements from herds that have selected for this adaptation. If replacements can’t be sourced from fescue infected areas, look to the heat adapted cattle of the Southeast before looking elsewhere.

After almost a decade of linebreeding and crossbreeding British breed cattle, I went in search of an outcross bloodline that would provide greater heat adaptation without giving up much in terms of fertility, early maturity, and ability to finish

on grass. After some diligence, I chose the Senepol breed to focus my outcrossing efforts. Coat quality was dramatically improved after one generation of breeding, but fertility, early maturity, and carcass traits are still to be tested. My belief is that ¾ British breeding, and ¼ Senepol could maintain all the positive traits of my breeding program while providing the slick coat and heterosis of the outcross line. Romosinuano, Mashona, and Tuli are three other sub-tropical Bos Taurus breeds being used for crossbreeding efforts, like Senepol.

When selecting cattle for environmental adaptability, one must consider the end goal in mind. If you want to sell high-value, grass finished steak cuts, Piney Woods/Longhorn/Criolla cattle, while potentially highly adapted to your region, might not be the right fit for your end goal. Be sure to build your program to work with nature while keeping your customer satisfied.

60d, a Senepol step in the right direction.

Management

“Manage for what you want, not for what you don’t want.” - Gabe Brown

Photo Credit: Chris Hunt, AJC

When I asked Gabe Brown about a weed species I was fighting, hoping for a cure I hadn't considered, he answered with the previous quote.

He probably isn't the first cattlemen to say this, but he's the one who told it to me, and it was a paradigm shifting perspective. For too long, ranchers have been chasing monoculture, highly-productive species. While super forages can produce prodigious amounts of dry matter and carbohydrates, those impressive numbers come at a cost. Some of those costs are easy to see in your checkbook ledger, and some of those costs are hidden in the health of your soil and livestock. While nature seems chaotic in its response to our management, my belief is that nature is very prescriptive. If our animals deposit most of their urine and feces in a certain spot on my farm, pigweed is inevitable. If I stop fertilizing my highly productive introduced hybrid bermudagrasses, then bahiagrass, smutgrass, horsenettle, crabgrass, and thistle migrate in. If I disturb fields with tillage and don't dose it with herbicides, all manner of nature sprouts. While the chaotic seed explosion from tillage seems random, science is approaching some answers as we understand more about quorum sensing, mycorrhizal associations, and other cellular level communications that occur among the complex web of soil life.

Nicole Masters, in her book "For the Love of Soil", discusses the six main reasons she believes why weeds germinate. Ultimately, they are nature's response to our management, and we must be aware that our actions, or inactions, have consequences. Recognizing that "weeds" are a natural response to their environment will help us understand that we must address the underlying problem, and not the symptom. This get's back to managing for what we want, and not for what we don't want.

Why Weeds Germinate

1. To colonise bare soil.
2. In response to low organic matter.
3. To open up compacted soils.
4. In response to mineral availability.
5. Microbial stimulation.
6. As a safety valve for toxins.

What we should understand is that every action has a consequence, and the more we disturb biology, the more biology will employ “fixes” to our “mistakes”. Understanding these complexities and minimizing our disturbances, working with polyculture systems, and utilizing the lowest cost models to achieve our production goals is critical to overcoming the Gross Production Model (GPM) mentality.

Why should I overcome the GPM mentality you might ask? For one thing, you don’t control the price of inputs, and unless you direct market to customers, don’t control the sale price either. Fertilizer, fuel, fixed assets, labor, land rent, and interest rates all can rise or explode, while the costs of your goods stagnate. In these times, producing a quality product at least cost will keep you in business when others fail.

Optimizing, rather than maximizing production should be our goal. Intensive planning, on time execution and the efficient use of resources will help optimize our outcomes.

Planning annual plantings well in advanced, timely soil sampling, sourcing seed, and planting in ideal seasonal windows are all critical to success. Weaning calves during the right window, pregnancy checking cows and fertility testing bulls are also important management items. For grassfed programs, having a high-quality forage or stored forage ready post-weaning is paramount for those calves to finish on time. Managers need to be thinking a few months ahead to stay on track.

Let’s now breakdown the management considerations for different ranch enterprises in the grassfed and finished sector: Cow-Calf and Stocker/Finisher operations. Even though many operations will combine the two, let’s look at them separately.

Mothering ability is as important as any other trait.

Cow-Calf Operations

Cow-calf operations typically require large acreages to feed breeding stock for 365 days a year.

Cattle typically consume around 2.5% of their bodyweight in dry matter (DM) daily. Depending on your environment, this could be 1 cow to 2 acres in South Georgia, or 1 cow to 300 acres in central New Mexico. Rainfall usually plays a large role in stocking rates. By implementing managed grazing, we can often carry 30-70% higher stocking rates, depending on our frequency of moves, amount of residual material, and days of rest before returning to the pasture.

To create a grass finished steak that will be acceptably tender and have good fat cover and flavor, your job starts before birth. We've previously discussed genetics and its role in this process. From a management perspective, we must ensure good nutrition prior to birth, especially the last trimester of pregnancy. The dam's nutritional needs will peak around two months after calving, and then slowly taper down until weaning. For the calf to grow aggressively, the pair need to eat well every day. We often consider our forage program as it relates to feeding the nutritional needs of the dams, but often forget that the calf, after a few months, will be grazing alongside her. Our calves require more energy and protein than their mothers, some of which they will be getting from her milk, but if we have high-quality forages we can offer, it will get us closer to our forage finished goal.

Focus on weaning percentage, not weaning weight.

Many ranchers in the Southeast calve in the fall (September-November). I would only recommend this calving cycle for those who can stockpile fescue, or those who plant winter annuals, as the nutritional need of the dams would be peaking during winter, normally a time

where hay makes up much of their diet. However, an October born calf would be 5-6 months old in spring when ryegrass growth would be peaking. A calf this age would gain aggressively grazing ryegrass while still supplemented with mother's milk. Creep grazing is one technique that could be employed to allow the calves to graze the ryegrass while excluding the cow. This technique works great if your annual acreage is limited. I place my mineral trough next to the creep gate so the calves can find it more easily.

A simple, home-built creep gate that allows calf access to our improved pastures.

Spring calving is also a common time in the Southeast to calve, which typically ranges from January-April. This season works better for ranchers who don't plant annuals and rely on the spring grasses to fill the nutritional needs of the heavy lactating cow. It can also work well with annuals, as the spring species (ryegrass, oats, crimson clover, vetch, etc.) really flourish during the increased nutritional needs of the dam. However, getting creep grazing pounds on the calves can be more difficult, as summer annuals are declining as the calves hit their growing stride in late summer/early fall, and fall perennial grasses are losing quality rapidly as the fall equinox approaches.

The calving season is more complex that just those considerations. For new ranchers or those interested in moving their calving season, I would recommend creating a Grazing Calendar. This tool can be populated with perennial and annual forage production, marketing considerations, and off-ranch time commitments. If we need to finish cattle on winter annuals between March and May, then we need to know how long it will take us to finish them, to know when to breed. If we sell bulls or replacement heifers as an income stream, when do customers typically make these purchases, and will my animals be at a marketable age? The grazing calendar is a great visual tool to see these considerations together, so that your breeding and calving seasons can be created or fine-tuned from a holistic perspective, and not simply decided by history or tradition.

ANNUAL SCHEDULE												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
PERENNIAL FORAGE BASE				BAHIA								
					HYBRID BERMUDA							
ANNUAL FORAGE BASE		NO-TILLED WINTER ANNUALS										
	TILLED WINTER ANNUALS											TILLED...
						SUMMER ANNUALS						
SPRING CALVING		SPRING BIRTHING			SPRING BREEDING				PREG CHECK		SPRING WEANING	
	GRASS FINISH 21-24 MONTH				WORK HERD						GRASS FINISH 21-24 MONTH	
FALL CALVING		FALL BREEDING				PREG CHECK		FALL WEANING			FALL CALVING	
			WORK HERD					GRASS FINISH 21-24 MONTHS				
MARKETING	BULL SALES									BULL SALES		
ADDITIONAL WORK			CROP PLANTING SEASON					CORN HARVEST		FORAGE PLANTING		
						IRRIGATION SEASON				PEANUT HARVEST		
					FORAGE PLANTING							

A Grazing Calendar can help inform your ideal calving season based on multiple considerations. The chart above I used based on my business.

At weaning, we must be sure to minimize the stress of separation, of newly introduced feeds or forages, and processing for vaccines. There are many ways to manage this process, from fence line weaning to two-stage weaning using nose-flaps, to temporary removal and re-introduction. If possible, weaning at a later age will also minimize the stress of the event. I often wean at 9-10 months of age. However, it is important to remember that some calves might still be nursing at that age and could be negatively affecting second or third trimester in utero development of the dam. Adequate nutrition will be necessary for both late weaned calf and developing fetus.

One potential tool to ease the transition of weaning is to utilize annual plantings or high-quality stored forages such as ryegrass baleage as a feedstuff. The key to this process is for the calf to be exposed to this diet prior to weaning, so that the rumen biology has a chance to adjust while still with

We read nutrition in poop. If it looks like pancake batter, we are dialed in.
Photo credit: Chris Hunt, AJC

the dam. At weaning, the same high-quality forage or feedstuff is offered. This supplies adequate nutrition necessary for maintenance and growth of the calf while minimizing unnecessary changes in diet. Conventional programs might use creep feeders and a starter ration to accomplish this task. Grassfed programs can introduce the regimen to the entire herd or use creep gates to only allow the young stock access.

Vaccination programs should be tailored to the potential exposures and risks that your calves will experience over their lifetime. If you will sell them at or post-weaning, utilize the vaccination protocols of your prospective buyer. If they will live out their lives on your farm, you can remove or tailor that protocol based on the risks they will face there. It is best to work with your veterinarian to custom tailor the appropriate vaccinations protocol for your program's needs.

Post-weaning management will be akin to the stocker phase, so let's discuss those techniques next.

Stocker/Finisher Operations

Stocker/Finisher operations require higher energy and protein forages and feedstuffs than cow-calf programs.

In the Southeast we typically fulfill these requirements with annual production. Alfalfa and perennial peanut could be two exceptions to this prescription but can be expensive to establish and challenging to maintain. However, establishing and managing alfalfa in hybrid bermuda stands can be one way to mitigate the challenges. Adequate pH and fertilization, especially potassium, will be necessary for its success. Timely grazing or haying, while maintaining the proper residual height, as well as adequate integrated pest management will be necessary for stand longevity. If you choose to establish, be sure to properly research the process and follow the protocols closely.

The Southeast mild winter temperatures offer an excellent opportunity for high quality annual grazing from November-May. Ryegrass, oats, cereal rye, wheat, triticale, annual clovers, brassicas, vetch and chicory are just a few options that are often employed in grazing programs. Timely planting with adequate fertility and soil moisture are critical for success. Also, careful consideration must be made for when to start grazing, when to remove cattle, and when to return to the regrowth. Understanding each forage's ideal grazing height and rest period will help, but in mixed species plantings, a bit of the grazier's eye must be employed to make these decisions. This often requires the manager to assess the dominant species in the stand, the context of timing within the season, and the grazing animals'

Spring oats and hybrid turnip: a fall one-two punch!

requirements to make an educated guess. After a bit of practice, you will be surprised how sharp your eye becomes.

Because we plant hundreds of acres for multiple herds, my polyculture plantings consist of season specific mixes. If you'll remember from the earlier chapter on annuals, my fall and winter planted mixes will change as the planting season progresses. Here in South Georgia, brassicas typically do better planted in mid-September through early October, while ryegrass, vetch, and clover can be planted later, as their production window is typically after the new year.

While tillage can be destructive to building soil health, we do utilize "sacrifice" paddocks that receive tillage and are planted twice per year in annuals. We call them sacrifice because we always till the same fields and are giving up long-term soil improvements for short term gains. The ability to be grazing a high quality annual in late November can only happen for us using this tool. Overseeded pastures, even if scalped with heavy grazing, mowed, or chemically suppressed, won't yield the early grazing window and tonnage that tillage provides.

We also overseed pastures with a no-till drill. Typically, we wait until the perennial grass is almost dormant (November) and either graze or clip the pasture extremely low and plant

Hairy vetch, crimson clover, and rye overseeded in bahiagrass pastures. The key is giving it enough time to grow in the early spring.

into the stand. This technique might yield cereal rye grazing in January, but typically other forages aren't ready until February or later.

To forage finish cattle in a timely manner, consistent average daily gains above 1.75 lbs are critical. Here in our region, it is more difficult to accomplish this in the hot summer than the mild winters. Even high sugar forages such as sorghum-sudan and crabgrass struggle to produce consistent gains above this mark. Cattle will shift their

grazing times based on heat, grazing more in the cooler hours of the evening and at dawn, but the heat still takes its toll. Access to deep shade can help temper the negative effects and increase performance. As managers we must balance individual and group performance and its short and long-term effects upon our land, cognizant of animal impact.

For the humid south, I recommend setting up your breeding and calving season so that your 20-24 month old animals are finished during the optimal spring growth period. One caveat might be those who can achieve over 2 lbs per day of growth from stockpiled fescue. The length of time will depend on your cattle's performance and your management. All the details, from birthweight to weaning to paddock moves to season shifts are critical to properly finish cattle with good fat cover and marbling in under 24 months. In South Georgia on bahia and bermuda pastures, I calve in March and April. This provides moderate weather for calving, a good spring flush for their dams, a winter annual for the late weaned calves to graze, and a finishing ration of our highest quality annuals. Every region will have its own ideal window. Utilizing the grazing calendar is a great tool to discover yours.

Energy is often the missing requirement in forage finishing in the South. Many perennial grasses and forbs supply the protein needs but lack the energy to push gains over 2 lbs per day. Ryegrass, oats, triticale, chicory, and crimson and arrowleaf clovers are good high-energy selections for winter and spring grazing. While alfalfa, sorghum-sudan, forage sorghum, crabgrass, and white and red clover work well for summer.

Another tool that can be used to finish cattle is leader-follower grazing regimen. This typically involves allowing the finishing group an opportunity to take the best bites of a new paddock, and then move them to the next field, repeating the process. They are followed by a second group whose gains aren't prioritized, often mature cows not under heavy lactation. This strategy requires managing at least two groups, but will reward the extra work with excellent gains on the finishing group. Let's now get further in the weeds regarding managed grazing.

Adaptive Grazing

Jim Gerrish popularized the concept of Management Intensive Grazing (MIG) with a career of academic work at the University of Missouri a few decades back.

Since then, MIG has been called many things (rotational grazing, adaptive grazing, managed grazing), but most of those terms focus on the same concept: herd managers controlling the timing and intensity of grazing. The timing involves both the grazing event and the interim between grazings.

New Zealand has been at the vanguard of managed grazing, growing an industry of fencing, irrigation, and watering supplies for beef and dairy operators throughout the world. Gerrish embraced these tools early and today has both a livestock consulting business and supply company that curates products for graziers from industry leading businesses. Today Adaptive Grazing has grown in popularity, as has the science supporting its ability to increase stocking rates, improve soil health, and increase long-term profit. I like the term, Adaptive Grazing, because it reminds us that there isn't a prescription that we can always follow. We must be observant, flexible, and use different tools and techniques at different times.

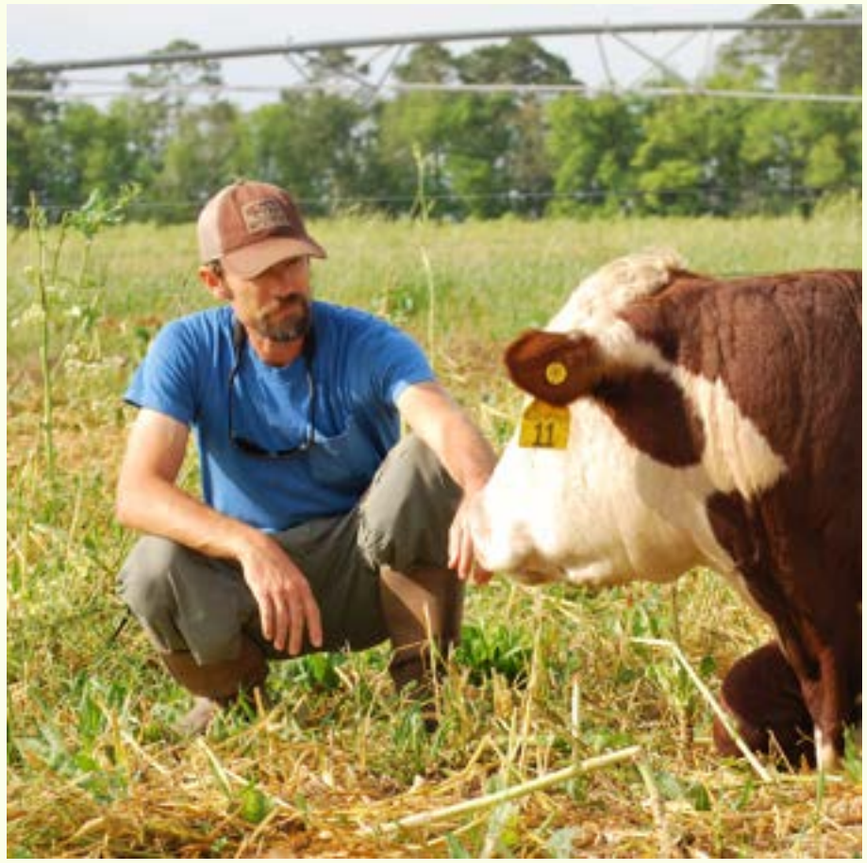
The art of Adaptive Grazing pays close attention to the science of animal health and nutrition. Finishing cattle in a timely manner requires consistency, minimizing stress, and a complete diet fulfilling the energy, protein, and mineral requirements for aggressive gains. Minimizing stress is part animal handling and part genetics. Let's discuss how docility affects our ranch management.

A heavy stocking rate of dry cows to clean up a fall stockpile.

Docility

When I moved home to the family farm and started managing my grandfather's herd, one thing I quickly discovered was that I had too many troublemakers.

A troublemaker is a cow that will turn the rest of the herd around and run for the proverbial hills (we really don't have hills here) when you've almost got them in the catch pens. A troublemaker will vault a six-foot-high corral panel because it wasn't seven. A troublemaker will hold her head high in the air and run straight at you with bad intentions when she is in a space she deems too small.



Ranch life is more enjoyable with docile cattle.

As ranchers, we should choose not to put up with this behavior. Our lives will be easier, and possibly last longer. Culling these troublemakers and moving cattle on a regular basis greatly improved the docility of my herd. Today we don't need six-foot panels or wear running shoes in the working pens.

Docility is both a genetic inherited and learned behavior. Besides culling female cattle that can teach bad behavior to their offspring, also be cautious of using bulls with unruly behavior or poor Expected Progeny Differences (EPDs) for Docility. While these numbers don't always translate to troublemaker offspring, they sometimes do. This can be problematic when you have an entire calf crop running in circles at weaning.

Under Adaptive Grazing, moving cattle on a regular basis should promote docility as a learned behavior. However, if you have "students" who don't get the lesson, then transferring them to a different "school" might be the best course of action. Cattle that jump or knock down single wire electric fences don't get to matriculate here.

Minerals

The less we know about science the easier it is to question the need for minerals.

Did anyone give minerals to the bison roaming North America? The wildebeests or water buffalo of Africa? Well, mankind wasn't directly making the breeding decisions at the time, pushing EPDs, marbling traits, or selecting udders for vanity. Those animals found a way to get what they needed out of their environments, and the environment set limits on their production.

Today, we have built fences, pushed production, introduced non-native species, and taken over the breeding decisions for Mother Nature. Today we need minerals to optimize profit. From major calcium-phosphorus ratios to minor trace minerals such as iodine or selenium, minerals are critical to fertility, performance, and general health. The more we push our animals, the more we need to dial in our supplementation program.

One effective way to dial in a mineral program is to know your deficiencies. Testing your seasonal swards, stored forages, and water sources are a great way to know what your cattle might lack. Regionally, the mineral profiles of soils and forages will vary greatly. Finding or custom creating a mineral that best supplies the missing minerals from your feed program will keep you from throwing darts in the dark.

You don't have to spend any more money than you need to on a mineral, but understand that ingredients and formulations matter. This article is a great primer for how to read a mineral tag and important considerations regarding salt content, bioavailability, and consumption. If you have the opportunity to work with a nutritionist to customize your mineral program it will pay dividends. Our farm has a customized mineral for different feed regimens: winter annuals, hay feeding, and summer grazing.

Water

An often-overlooked element of management is the quality and availability of water.

In the South, many producers rely on surface water as their drinking source for cattle. Ponds and streams can be contaminated with urine, feces, infectious diseases from wild animals, and other environmental toxins. The unknown costs of lost pregnancies, reduced performance, and disease transmission is difficult to tally. While a pond can be an effective cooling apparatus for a cow herd, it is not an ideal source for drinking water.

Clean, cool, uncontaminated drinking water will increase animal performance, reduce health issues, and more than likely pencil its investment over time. This doesn't mean you need a permanent concrete water tank in all your fifty paddocks, but might mean you place them at strategic locations, or utilize moveable water tanks that are easy to transport. If your system relies solely on ponds or streams, be sure to control access to them with exclusion fencing and ideally a pump and trough system to minimize contamination. The University of Georgia has an informative publication to dig a little deeper.

Permanent water stations can be great long-term investments, especially if labor is limited. Be thoughtful with placement to get maximum flexibility with Adaptive Grazing.

Retail vs. Wholesale

Photo credit: Tara Cramer
"The Farm at Watermelon Road"

When I first started grass finishing, I was focused on production.

My goal was to produce a quality product at scale as efficiently as possible. I sought relationships with wholesale buyers who could pay more for a premium product. At the time there were very few national or regional brands paying what I thought was the necessary premium. I did manage to find a few branded programs to work with, and it worked for a few seasons. However, the volatility of beef prices over this period strained these relationships, and the lack of transparency and price commitments urged me into direct marketing. Today there are more branded programs competing for your weaned calves, heavy stockers, and finished animals. When you separate your enterprises in your budget, make sure that selling those backgrounded steers isn't the most profitable path before you retain ownership and take them to finish on farm. Early on, I turned down selling weaned steers at a record price, as the sale price for grass finished steers allowed for my stocker and finishing enterprise to profit. However, when the conventional price collapsed, my buyer's price did the same, even though their price in the grocery store stayed the same. I said no to the lowball offer and launched my direct market business, Deep Grass Graziers. While this is not necessarily a good reason to start a new business, I learned a valuable lesson, and eventually sold the stockpile. That experience focused my attention on the importance of contracts, transparency, and building mutual partnerships. Mutual means that both parties should profit, even if neither achieves the momentary maximum price discovery. Transparency, communication, and fair pricing are key to make these relationships long-term.

Genetics x Management= Delicious.

After that episode, I found a wholesale buyer who paid a premium for my weaned and backgrounded steers. My steers were age and source verified, had no hormones or antibiotics, and no grain. But I was still in the grass finishing business because those steers had sisters.

Steers vs. Heifers

When the wholesale price for grass finished steers went from $3.10/lb HCW to $2.65/lb overnight, I understood the problem of price taking.

A 1200 pound grass finished steer has a very limited number of premium buyers, and my wholesaler knew they had leverage. This lesson taught me the difference between owning heavy steers versus heifers. The former has fewer potential buyers than the latter because the heifers could be used as breeders and marketed to multiple buying outlets. Once a steer weighs more than 1000 pounds, his value begins to decline while your expenses continue.

While heifers do not gain or yield as efficiently as steers, they do typically fatten easier and finish early. Because steers are more efficient, they typically sell for a $0.10-$0.20/lb premium over their heifer mates. (Lately I've seen premiums as high as $0.30/lb !) This provides an opportunity to cash flow your steer crop post-weaning and provides a value-add for your discounted heifers.

Because of my interest in genetics, I shifted my business from grass finishing steers to developing heifer replacement stock. I would challenge my heifer calves to develop only on forages, expose them to a bull for two to three cycles, and pregnancy check to date the age of the calf. I then retain the heifers who become pregnant in the first cycle, market the other confirmed breds as replacement stock, and grass finish the opens. This allows me to add value to my entire crop of heifers while pressuring fertility. I could adjust the length of bull exposure based on the profitability of the two enterprises. If grass finishing was more profitable and buyers were plentiful, I could shorten the exposure time. If replacement heifers were, I could lengthen it. However, your product is your reputation. Selling replacement heifers bred after 90 days of exposure is a different product than those calving in the first or second cycle.

Replacement heifers developed on forages. Photo credit: Chris Hunt for the AJC.

Processing

One of the most critical parts of raising grassfed beef is the part you probably don't control.

All the hard work involved in the process, from selecting the right genetics, choosing a breeding/calving window, planning and executing pasture moves, weaning, farming annuals, stored forages, and executing all these consistently and timely, all this work can be butchered on the last day.

I know several successful grass finishers who started their own processing enterprises because of the difficulty in finding or managing the right relationship. While I would not recommend this course unless one has a passion and pocketbook for the endeavor, understand that a good processor is necessary to get your high-quality product from the pasture to the plate.

My first word of advice is do your research. Speak to other grass finishers in your region and find out who they do and do not recommend. While price is a consideration, if you aim to provide a quality product don't be afraid to pay for it. As with many services, you often get what you pay for. The extra cost can often be built into your spreadsheet.

Pay attention to their receiving protocols. Do they manage the animals with low stress? Is their staff well trained? Cut sheets are also important to manage. Some butchers don't offer some cuts you might request. Be flexible with a good butcher and be sure to know what cuts you can sell and when. For instance, in the summer season you might sell more ground beef and steaks, whereas in the fall and winter your roast sales might increase. Roasts typically are more valuable per pound that ground beef. However, they are just costing money sitting in your freezer. If you produce a quality carcass, steaks are typically the easiest to sell.

A good butcher will also know how long to hang a carcass based on the humidity of their cold room and fat cover of the animal. Don't tell them how long to hang based on your research on the internet. It is okay to have a conversation with your processor about these items, just recognize they are the professional.

Be timely with your animal drop-offs and your packaged meat pick-ups. The success of their business is partially based on the logistics you provide. Some butchers have extremely limited freezer storage, often seasonally. Picking up your product two weeks after they call you could sour the relationship. Communication is again the key.

Many butchers offer either paper wrapped or cryovac sealed packaging. Properly wrapped cryovac sealed meat can retain its freshness for years with careful handling and stored at the correct temperature. However, if mishandled, tears in the plastic can ruin a product with freezer burn or contamination. Paper wrapped product typically endures mishandling better, but in my experience should be eaten within one year. Your customers preference might also inform your decision to choose one over the other. Cryovac typically costs a little more but could be worth the investment.

Making appointments can be tricky. Good processors are often busy! Communicate early with them about your projected finishing time and work together to create a plan that will secure your animals a spot in their work schedule.

Finally, your perfect processor might not be out there in your region. Don’t let perfect get in the way of good. Find a production partner you can work with who produces a quality product and can add value to your business.

Good Cryovac wrapping showcases the product and protects it in storage.

Storage & Transportation

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Unless your customers pick up their product directly from the processor, your business will need the ability to safely store and transport frozen product.

Each state will have rules and regulations that govern these requirements. Be sure to know and follow these guidelines.

Typically, some type of freezing unit will be required, either on a truck or trailer. This investment can often be used as on-site storage as well, or supplemented with small chest type freezers or large walk-in models. Be sure to consider the scale your business will require and project the growth of your business when making these capital investments. Reliability of your unit is paramount, as is your ability to monitor temperature. I would recommend either placing your freezer where it is seen daily or consider a remote monitor that will alert you when temperatures approach an unsafe range.

A simple way to move meat is on a trailer with a generator and some type of freezer. Depending on type, this could be the most affordable way to legally move your product. I have used a permanent enclosed 5’x9’ trailer for years, doubling as on-site storage, so I don’t have to re-handle the meat when I arrive home, or when I deliver. Labor handling cuts is often underestimated while budgeting and minimizing this work can save considerable time and effort.

If you have frequent delivers in an urban area, consider a small or mid-sized freezer truck. The maneuverability of a truck makes these routes much less stressful, and selling retail by the cut or bundle at volume should help justify the capital expense. Insurance and registration must be added to the purchase price in budgeting considerations, and these costs must be justified by the volume and pricing of your sales. Whether you pay an employee or drive yourself, the labor costs of deliver, from order management to your return drive, must be considered in your budget.

If separate on-site storage is needed, large walk-in units can be convenient for inventory management if shelving and compartments are properly organized. They also can be necessary as your business grows. However, the initial purchase price and ongoing power costs can be a barrier. Large chest type freezers are more affordable to buy and operate and can be added as your business grows. However, inventory management and handling procedures can be more onerous. If your business plans are to store less than ten animals per year, the chest freezers might be a great option.

Marketing

“People don’t buy what you do, they buy why you do it.” - Simon Sinek

Telling Your Story

Your product is paramount, but your story will bring them to your door.

Many consumers want to support families and businesses that have positive effects on the land and its people. If you can effectively explain how you do this, you can differentiate yourself from those who can't or don't.

Face to face interactions, websites, social media posts, and advertising are all great ways to tell your story. Being succinct, transparent, positive and confident in your story will help make your case.

It's okay if everything isn't perfect. Just be honest and be sure to focus on the principles that leave you fulfilled and are valued by your customers.

For my farm, we strive to minimize harm to the land and its flora and fauna, limit off-farm inputs, and optimize efficiency within a natural order. We follow the 5 Principles of Soil Health, and select for cattle that will thrive under these management guidelines. Basically, we try and keep it simple.

Hop clover is a wild legume that cattle enjoy a few weeks every spring.

Pricing

Remember that spreadsheet we talked about earlier.

If you've completed your diligence, you already have an idea how much you need to bring in to make a profit. The more services you offer (selling by the cut, delivery, value-added products), the more your costs, and thus prices, must rise. While your prices must be in line with an acceptable market range, it's difficult to compete with the prices of commodity beef in the grocery store. Focus on differentiating your product to justify the premium price, and never apologize for higher prices. Instead, focus on customers who value the product you are offering and want to support your business.

Pricing can be fluid over time, and may change with dynamics, inflation, and external market pressures. However, be sure to develop a relationship with your buyers so that any pricing moves can be justified. I would suggest as part of your planning to research price points offered by other grass finishers in your region. Also be sure to check the price of grass finished beef in the grocery store. These numbers won't necessarily set your pricing but should give you a good range to consider.

Quarters, Halves, and Wholes vs. By the Cut

If you want to direct market but limit your customer workload, focus on just selling quarters, halves, and wholes.

This makes inventory management much simpler, and relies on fewer customers and less transactions. Typically, customers receive a discount for their "wholesale" purchase. Price discovery is not maximized but it keeps the marketing enterprise streamlined and simple.

Selling in this manner can be complicated by how the carcass is cut and sold. A customer might choose to get all bone-in cuts, soup and marrow bones, oxtail, beef cheeks, short ribs, and organ meats and take home 15-20% more "meat weight" ("meat weight" defined here as the actual weight the customer takes home with them) than a customer who gets boneless steak cuts and everything else turned into ground beef. For this reason, most businesses selling carcasses will price them by the Hot Carcass Weight

(HCW), an industry term by which most processors charge their customers. This is the immediate weight once the hide, head, blood, and most of the inedible parts of the animal are removed. In a grass finished animal it can vary from roughly 48%-58% of Live Weight. Explaining this pricing mechanism to customers can be confusing, complicated by the fact the HCW isn't the actual "meat weight" that customers will take home. The "meat weight" can vary from roughly 50-65% of HCW. Are you confused yet? If you have the patience to explain HCW pricing to customers it makes inventory management easier. It is a challenge to concisely explain this pricing procedure on a website.

One way to circumvent this challenge is to sell your quarters, halves, and wholes at set pricing and weights. Typically, these weights are set under or at your average actual weight and will require you to build each package to the advertised description. It also will be necessary to pull or push inventory to make the exact weight of each exchange. This will negate some of the inventory management advantages of selling at this scale, but will simplify pricing. Your customers know the price and weight and it can be easily advertised.

If you want to take this method a step farther and simplify inventory management, you could break the carcasses into equal 1/16 carcass bundles. This requires more work upfront to divide the whole animal, but creates a straightforward product offering. If you buy multiple bundles, you get discounted according to the size of your order. This method creates odds and ends that you can inventory and sell separately, such as brisket, oxtail, hanger steaks, and other high value steaks if you so choose. 1/16 bundles are the middle ground between selling by the cut, and selling quarters, halves, and wholes.

Other businesses might find it necessary to sell by the cut, as many customers won't have the ability to keep a few hundred pounds of beef frozen, or are only interested in a particular product. Selling by the cut, or packaging in bundles, can gross more dollars per beef animal, but will require more work in handling, inventory management, delivery, and marketing. These two models are not necessarily independent and can be combined to show customers the discount of buying in volume.

Location, Location, Location

The rule of real estate also applies to finding and keeping customers.

Although I wouldn't recommend a brick-and-mortar storefront for a new direct market beef business, creating a convenient location for new and returning customers is paramount.

Many direct marketers will seek out customers at their local farmers' markets. These outlets can be great, as they provide a customer base that values local, fresh food, and will usually pay a premium for it. They also can provide many customers in a short amount of time. One disadvantage of farmers' markets is that you aren't guaranteed to sell all the inventory you take, and you might be moving and handling product more times than necessary. They also could be time intensive: loading, traveling to and from, setting up, taking down, and unloading all for a few hours of customers.

Most customers crave convenience. Shopping in grocery stores our entire lives we have taken for granted the ability to get whatever we want when we want. Reaching a broader customer base than those that shop at farmers' markets can be accomplished a few ways.

One way to make life easy for the home cook is to deliver to their doorstep. This can be accomplished using a mail carrier service such as UPS, FedEx or USPS. This requires good inventory management, appropriate packaging, and timely response and drop offs. This allows your business to reach a broad customer base across multiple states. You are only limited by how long your packaging and shipping service safely keeps your product frozen. Mailing product is expensive, however, and will have to be built into your budget to maintain your necessary profit margins. This type of service works best for businesses that don't have large metropolitan areas nearby and sell mostly small bundles and packages by the cut.

Driving product to the door is another method of creating convenience for your customer. While home delivery can be time consuming and labor intensive, you can either build a delivery surcharge into the service or create neighborhood drop-offs to lessen the number of stops. One recommendation is to build a buying club around a repeat, satisfied customer. Offer them a discount on their orders if

they will host your drop-off and help attract business in the area. You might even offer an incentive for each dollar sold at their “hub”. This could be considered part of your advertising budget and could go a long way towards building a customer base. Now that we have a price and know how we want to sell our product, let’s talk about websites.

Websites

In today’s online world, I would not recommend starting a business without a website.

Your home base on the internet is a place where your customers can easily find you, learn about your business, process a transaction, and keep up with the news and events of your operation. A website is also where you can attract new customers, tell the story of your farm and values, and differentiate yourself from other operations. Your color scheme, pictures, font, and text will all relay the message of who you are why your customers should support you. My friends at White Oak Pastures and Home Place Pastures both have invested time and energy into promoting their brands with good websites. Check out their use of great photos and video, clean layout, and easy to navigate design.

In building a website you can go one of a couple routes. If you are tech savvy and have both the time and interest, you can build your own through simple web build/host sites like Weebly, Wix, Squarespace or GoDaddy. Forbes magazine recently did a nice breakdown of the competition and their offerings. This will require a bit of time to learn the tools necessary to design and build, but will give you full control over the process, and in learning the language, allow you to update and change the site at your pace and timing.

Alternatively, you could hire a website designer to custom build a site that you or they manage. The second route will be more expensive but should provide you with a quick site that is clean, functional, and professional. If you go this second route, I recommend working with a full-service marketing partner like Barn2Door or GrazeCart. While their products differ slightly, they both are specialist in the freezer beef, direct-to-consumer sector and offer a group of services that will aid in marketing, payment services, and customer communications. This article is a great breakdown of their services and a few other options for an eCommerce online store.

Social Media

A website is an invaluable tool for building your business, but I would also recommend utilizing social media sites to promote your business and brand.

Facebook, Instagram, and YouTube can be strong platforms to share the story of your farm, find new customers, and keep existing ones engaged. Knowing your customers will help decide upon which platforms you should focus. If your target audience is over forty, consider Facebook. If you are targeting an audience under thirty, consider Instagram. YouTube spans the age range a little more evenly. If you have the time and interest, embracing multiple platforms will help expand your business.

Social media platforms can also be a good place for pay for advertising. For instance, Facebook can be used to buy targeted ads, selecting for age, location, demographics, and interests. These are low-cost tools that allow you to spendless money at the exact time and frequency of your choosing.

Advertising

Print media is another avenue to getting the word out about your ranch products.

If want to drive traffic to your farmer's market stand, consider the local paper. If you are trying to drive internet sales, consider a magazine whose audience might support local foods or a Paleo diet. You also might consider a local billboard or radio advertisement. If you are trying to grow your business, create an advertising budget and keep track of which expenditures pay dividends. Don't be afraid to ask your customers, "How did you hear about us?".

“Doveryai no proveryai. (Trust but verify)”

- Russian proverb

Certifications

One question you need to answer when planning a direct market business is, “Do I want or need third party certifications?”

How do your customers know you practice what you preach? Some customers will want certainty regarding the product they are purchasing. This certainty could be informed by a personal relationship that develops trust, or a third party audit.

Label claims can be helpful. Your customers might recognize “Animal Welfare Approved” or “American Grassfed Association”. These third-party certifications provide confidence to the consumer that they are paying a premium for a vetted product that conforms to a set of national guidelines. Some consumers are also willing to pay a higher premium for Certified Organic. Be sure to research the standards you will need to meet, and the extra time and costs associated with the program to decide if the label is important to your brand and a good return on investment.

For those selling your cattle wholesale to branded programs, a third-party certification might be necessary. At one time, we sold to a branded program that had a retail partnership with Whole Foods and were required to participate in third party auditing and certifications. We paid a hefty fee for an audit every 18 months to keep this relationship open. If you don’t have the scale to justify the expense of the audit, then consider alternative marketing programs that will work for your ranch’s size.

If you have a compelling website and a personal relationship with your customers, you might find you can tell your story and offer enough transparency to not need outside certification. If most of your business is online with anonymous customers, certifications might be critical to establishing trust.

Besides your website, social media posts are a great way to tell the story of your ranch’s values. You don’t have to hit your customers over the head with maxims and beliefs. Telling stories and sharing photos of your day can win them over more subtly and create a shared value system that will create solidarity and a willingness to try your product.

Insurance

Insurance is another topic to consider when selling your product direct to the consumer, or hosting customers on-site.

Protecting your assets from any unforeseen problem is extremely important, and sometimes overlooked when building a brand. It is critical to speak with an insurance agent and discuss in detail your risk exposure, whether that's selling frozen beef or hosting hayrides on your farm or ranch.

Glenn Nader, of the University of California Cooperative Extension, has created an informative fact sheet titled, "Liability issues for direct marketing grassfed beef". It is a great resource for understanding the risks and how to best mitigate them. Whatever route you take, don't neglect to protect your business and assets from unforeseen legal issues.

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Economics/Finance

Ranching For Profit

If you remember back in the introduction, I studied English and Journalism.

Don’t hold that against me since you’re still reading. While this education did provide a good communication and marketing toolbox, it did not prepare me to come home and run a capital-intensive farm and ranch. For these tools I had to search elsewhere.

After some diligence, I decided to invest in the Ranching For Profit (RFP) school. RFP is a week-long intensive program, operated by Ranch Management Consultants. I say invest because it was quite expensive. However, I can say without a doubt it was the most thorough and expansive education experience I’ve ever had. The program runs over 50 hours and covers both the broad and specific topics necessary to successfully run a ranch. Our class had around 2 dozen attendees, and the program interwove group and individual exercises to keep everyone sparked and fully engaged.

While I thought some of the lessons might be redundant, having invested countless hours reading, visiting ranches, and attending day courses and conferences, not to mention a decade of on-the-job training, I knew my business training was lackluster. RFP provided 2 full days of course work on Economics and Finance. There I learned a new language for deciphering profit: Gross margin per unit, overheads, and turnover. These were critical concepts that could be used to measure and affect my business’s bottom line. While a standard Pro Forma financial statement is an important tool for projecting and measuring net profit, don’t overlook the importance of understanding how to think about building or repairing your business by considering these three concepts.

Courtesy Ranching for Profit

Whether it's traveling for pleasure, attending workshops or trainings, or social events, we often use the excuse, “I don’t have time.” If you don’t think you have time to attend an RFP school, then you aren’t running your business, it’s running you. I lived this paradigm for nearly a decade before I stopped to take the time, and today recognize the value in my investment.

Triple Bottom Line

“It isn’t sustainable if it isn’t profitable.” - Dave Pratt

The triple bottom line is a yardstick that measures a business’s success with three metrics: profit, people, and the planet. Considering Mr. Pratt’s wise quote above, if a business isn’t economically sound, it’s difficult to fulfill the social and environmental goals of achieving a healthy triple bottom line. While our business plan must be sound, building in beneficial social and ecological outcomes is worth the effort.

Triple bottom line questions to ask of your business: Do my employees earn a living wage and enjoy a good quality of life? Is my community better off because of my business? Is my family and the families of my employees positively affected by the business? Is the land I steward better today than when I started? Do my ranching or farming practices improve soil health, water quality and infiltration, and help control erosion? Does my management increase the diversity of life found on the ranch? Answers to these questions will inform your progress towards a reputable triple bottom line.

Happiness is often underrated. Don’t be afraid to invest in it.

Resilience

The ability to adapt to disturbances, disasters, or detrimental circumstances is how I define resilience as a metric for fortifying a ranch business.

When thinking about designing our operations, we should consider how our businesses will hold up to natural disasters, soaring input costs, supply chain issues, inflation, and unforeseen events. While we can't plan for every problem, we can build resilience into our plans.

Designing our grazing systems to lean heavy on perennials is one step to promote resilience. Following the 5 Rules of Soil Health will also contribute, as healthy soils will produce more forage with less inputs. If your system requires a heavy stocking rate and lots of inputs, you are more at risk for price fluctuations. A flexible stocking rate can be a useful management tool, which allows us to de-stock in times of drought, soaring input costs, or extenuating market pressures. The opposite can be true as well.

Dr. Greg Halich, livestock economist from the University of Kentucky, has a great presentation on hay feeding and stocking rate, based on both the costs of hay, fertilizer and the price of calves. The presentation is a useful tool to set the most profitable stocking rate based on market prices. Flexibility built into our management plans will promote resilience and protect us from emotional decisions in response to circumstances outside of our control.

A drought plan is an easy first step towards building resilience. The less annual precipitation your ranch receives in an average year, the more important a drought plan becomes. However, most places can experience drought and should be prepared. Making decisions in stages, instead of when you are out of options, will allow you to manage your forage appropriately, purchase hay or supplements timely, or de-stock before regional cattle prices plummet.

The University of Nebraska at Lincoln, collaborating with other partners, has put together a very good overview for managing the risk of drought.

Achieving resilience does not mean to never plant annuals, use fertilizer, or optimize production, but it should be a management guideline to protect our businesses from external factors outside of our control. The Boy Scouts said it best: "Be prepared."

Assessment

When learning a new skill, we rarely master it on the first try.

Doing anything well usually requires focus, practice, and a commitment to improvement. The same can be said for running a ranch business. Learning from our mistakes, assessing the major challenges to our profit margins, and building upon our successful endeavors is critical to both survive and thrive in what can be a capital-intensive, low-margin industry. Assessment can be scheduled for monthly, quarterly, or yearly meetings, and could be comprised of just yourself or a small management team. Each ranch should create its own assessment protocols and team to answer the same question: How can we improve? If your business isn't trying to improve, then entropy has begun.

(Shutterstock)

Photo credit: Chris Hunt, AJC

Ikigai

We've spent a lot of our time discussing the nuts and bolts of ranch production.

Understanding and honing the critical concepts of profitability are keys to success. But if we zoom out to think about the big picture, it become evident that the single most important trait for long-term success is inspiration. I'm not talking about a fleeting moment, but an ongoing engagement with our ranching life. The concept of Ikigai can be roughly defined as a reason or purpose to live. Motivation is what gets us out of bed early. It keeps our attention focused, our curiosity engaged, and our businesses dynamic and primed for growth. Inspiration, girded with a dedication to the daily details, will overcome many obstacles.

It's okay to have bad days. Things won't always go the way you planned. But make sure that your ranch business is fulfilling, because if it's not, you are in the wrong career.

In their book, Ikigai: The Japanese Secret to a Long and Happy Life, Hector Garcia and Francesco Miralles describe one key to longevity: a purpose to live. The chart attached is a visual tool we can use to think about our place in the world and how are talents can contribute to our happiness.

While it isn't required to be in love with what you do, you are likely to find purpose and fulfillment as these circles overlap. Being engaged and inspired in your work will soften the blow of failure and provide the push to get up and over any hill on your path. While we must be rooted in observation and record keeping, we should use the light of motivation to stretch, grow, and flower.

Image credit: Francesco Miralles "Ikagi: The Japanese Secret to a Long and Happy Life."

Final Thoughts

When I started this book, I intended to focus on my experiences as a grass finished beef producer in the South.

As I got into the process, I realized that there are many concepts and attributes we need to grasp to be successful ranchers, beyond those solely aimed at grass finishing. Having a good cover crop cocktail for the summer slump is helpful, but understanding budgeting, soil health, marketing, and logistics is critical. Running a successful ranch is about understanding these concepts, drafting a plan, and executing the details daily. It is about finding your customers, periodic assessment, and about persistence in the face of adversity. Finding ways to keep is simple and let nature do the heavy lifting will build resilience into your business.

Grass finishing is not easy work. However, using the right genetics to harvest high energy forages, grown in healthy soils, makes it a lot easier. If this is your calling, your Ikigai, use the tools we discussed to build and grow your business. There is not substitute for loving what you do. For me, there's nothing quite like the sound and sight of cows grazing at first light, and later that day contently chewing their cud.

Another great day on the ranch. Photo credit: Chris Hunt, AJC