Grazing Contracts for Livestock

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Grazing livestock for other farmers is a way to make a land investment return additional dollars to the land owner. It requires knowledge of livestock, but more importantly, knowledge of how to make money from grass. This publication discusses some of the issues involved with contract grazing, including various classes of livestock, equipment, sample contracts, some of the economics to consider and other resources available on the subject.

Contents

Introduction 1
Forage and pasture resources 3
Classes of livestock to graze 4
Equipment 6
Contracts 8
Economic projections and budgets 9
References 10
Further resources 10

Introduction

Owning and working the land is one of the great dreams for many Americans. To know that the ground under your feet belongs to you and your family — to walk on it, play on it, plant grass on it, raise kids and cows on it — is one of life's joys. Land ownership gives a sense of stability and permanence rarely found with anything else in life. What to do with the land once you own it is where things begin to get complicated.

Photo courtesy of NRCS.

In many cases, owners want to find an opportunity that will generate the greatest return on their investment. But what opportunities are these owners willing to capitalize on, and what expertise do they possess that could provide that critical input to make the project a success? What opportunities are there that are sustainable — opportunities to improve and coexist with the land? In some cases, owners just want to make enough to pay the overhead associated with ownership. Others want to actually make a living and support a family from their investment. Whatever the goal, one must always evaluate any potential opportunity thoroughly and make sure that the desired outcome is sustainable and realistic.

An executive in the cattle industry once said that cattle ownership is a by-product of land ownership. That is to say that cows are there because folks don't know what else to do with their land, so they think they want to be cattle producers. This publication describes how to minimize the capital investment required to generate an economic return from land ownership by grazing cattle on contract. For some landowners, a return large enough to pay the property taxes is often sufficient, offering a cattle grazier the opportunity to rent very affordable pasture during the growing season.

Could you possibly contract graze either rented or leased pasture to generate a return with very little or no capital investment? In his book *No Risk Ranching: Custom Grazing on Leased Land,* Greg Judy describes his method of utilizing rented, leased or bartered land to make money raising cattle on contract. See the **Further resources** section for information on ordering this book.

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Solar-powered Livestock Watering Systems

Organic Livestock Feed Suppliers

Agricultural Business Planning Templates and Resources

The Economics of Grass-based Dairying

While this publication focuses primarily on the contract grazier, many of the ideas discussed are equally useful to the livestock owner, especially regarding what he or she should look for in a grazing operation to meet the needs of the livestock.

Contract grazing is not a casual enterprise. It requires a thorough knowledge of both pasture and animal husbandry. For instance, continuous mob grazing of an extra parcel of land may not result in the weight gains expected on stocker cattle or dairy heifers, and continuous grazing often results in problems with persistence of forage and erosion in environmentally sensitive areas. Contract grazing requires some management skills on the grazier's part to get the results that livestock owners will expect. Typically, the custom grazier is expected to achieve what the livestock owner can't achieve at home due to resource or management limitations. Anyone considering contract grazing should have several years of grazing experience and good stockmanship skills prior to engaging in any legally binding arrangement.

Most custom grazing is done with stocker cattle, taking weaned calves at about 500 pounds and grazing them up to 800 pounds, when they would typically be placed in a feedlot. For example, the wheat fields in Kansas, Oklahoma and Texas support large numbers of contracted stockers for seasonal grazing. The value of annual wheat grain production in Oklahoma is estimated at $318 million, second in value of all commodities produced in the state. The value of wheat pasture for cattle production is estimated at $1.2 billion, almost four times more than the value of the grain alone (Doye and Krenzer, 1989). In many instances, land that is unsuitable for row-crop production is capable of producing quality forage that can be used to graze cattle and generate a return to the owner. Grazing may also improve the quality of the land by maintaining a permanent vegetative cover to recycle nutrients and improve soil quality over time.

If you are interested in contracting with a livestock owner to graze animals on your land, the most difficult part of the process may be convincing the livestock owner that you can properly manage both the land and the animals, especially if you have no experience in contract grazing. The first few years may be the most difficult, until you have demonstrated some success. One suggestion is to start small and ensure success with fewer animals and more acres than you think you need. It is better to get a smaller return with limited grazing than to overgraze and have to purchase additional feed. Building a history of the land's actual production capabilities, along with some personal experience, will allow you to fine tune the system as you gain the knowledge necessary for successful grazing.

Ideas for developing a stocker or grazing business:

The success of your business depends on identifying and developing these resources: relatively inexpensive feed resources, cattle stockmanship, financial and grazing expertise and personal relationships.

Conduct honest business. Build partnerships with honest individuals.

Partnerships allow you to run more livestock for longer portions of the year, thereby spreading input costs over more pounds of grass or feed gain and allowing you to sell and buy closer to the same market.

Grazing or feeding partnerships must be developed and nurtured so that all parties involved benefit.

We are not talking about a get-rich-quick scheme or a series of business deals. We are talking about a solid, enjoyable approach to making a living on a farm or ranch in the livestock business.

Source: Cates, 2000

The following are key points to consider before entering into a contract-grazing arrangement:

- Forage and pasture resources: *What is the quality of the forage base? What kind of grazing system will you use?*
- Class of livestock: *Will you graze stocker steers, replacement females or cow-calf pairs?*

- Equipment and facilities: *What is available and what will you need to purchase or barter?*
- Contracts for grazing: *What is the basis of your contract? Dollars for pound of gain? Dollars for animal unit month (AUM)?*
- Economics of contracting: *Use of budgets to plan and evaluate new enterprises.*
- Resources and information: *ATTRA publications available at* www.attra.ncat.org/livestock.

Forage and pasture resources

Having a continuous supply of quality forage is crucial to success in contract grazing. In many cases, to optimize the available resources, some type of managed grazing system — managed intensive grazing (MIG) or controlled grazing, depending on the terminology you want to use — will be needed to ensure that forage quality and quantity can be maintained throughout the growing season. Regional differences will dictate what forages are appropriate for the different seasons and environments. In many cases, local assistance with forage selection and pasture improvement is available from the Cooperative Extension System or the Natural Resources Conservation Service (NRCS).

NRCS and **Cooperative Extension** phone numbers can be obtained in the federal and county government sections, respectively, of your local telephone directory. Also, you can access local NRCS and Extension directories on the following Web sites:

Natural Resources Conservation Service – *http://offices.sc.egov.usda.gov/locator/app?agency=nrcs*

Cooperative Extension System – *www.csrees.usda.gov/Extension/index.html*

You should diversify your forage base, realizing that different forage varieties fill a wide range of environmental niches or microclimates on the farm. A diverse forage base will also help ensure that seasonal impacts on the pastures are minimal and that forage will be available during different times of the year. Some producers also interseed annual grasses at the proper time of year to supply additional high-quality feed. In many cases, a few paddocks planted with annual grasses and legumes can make the difference between simply surviving the summer slump and maintaining weight gain at the desired rate.

Pastures should also be rested to maintain forage quantity and quality. Most pasture forages do not persist or perform well under continuous grazing. In some situations, the rest period may be only a few weeks in an intensively grazed, multi-paddock system where animals are moved regularly. Other situations may involve resting pastures for a year or more, where native rangeland is grazed and moisture is limited. Maintaining the appropriate forage cover will reduce weed pressure, lessen erosion and improve drought resistance.

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Some producers are reluctant to adopt new systems or make changes to their current continuous grazing practices. They cite inadequate returns, increased risk and the difficulty of assessing the efficiency of improved pasture management as deterrents to the adoption of more intensively-managed systems. A Canadian study, however, found that when grazing systems were evaluated for total efficiency and net returns, a six-day, high-stocking-rate system was the best of those studied (Phillip et al., 2001).

The researchers evaluated beef cow-calf pairs grazed under three different rotational frequencies: two-day, six-day or continuous; and three different stocking rates: 1.23, 1.77 and 2.22 acres for a cow-calf pair. While animal performance showed little benefit from intensive grazing, the efficiency of land use and total economic performance was significantly improved. On a 100-acre farm, even considering the additional labor and fencing, the six-day, high-stocking-rate grazing system returned $10,000 more than a continuous system.

Perhaps the most interesting finding of the report was that the use of a managed, intensively grazed system reduced overall variability of net returns by 51 percent. In

addition, the managed systems showed a higher likelihood of generating a positive return when compared to the continuous grazing system in this particular study. Teegerstrom et al. (1997) reported that when measures of economic optimization are applied, contract grazing is more likely to generate positive returns than owning stockers, which in turn generated better returns than cow-calf operations. This was because there was less variation in profitability from year to year. Contract grazing in this study had the most stable profits over time, while cow-calf operations had wide swings from year to year.

Classes of livestock to graze

Once you decide that you want to graze animals for someone else, one of the biggest questions is: What types of animals are you interested in working with? There are many options that depend on your facilities, your expertise and your willingness to work.

Stocker or background calves

Probably the easiest grazers in terms of workload are stocker or background calves. In many cases a load of calves will be delivered for a set period of grazing, after which they are picked up and continue on to a feedlot. Grazing this class of cattle can be a challenge at times due to their inexperience with certain feedstuffs and lack of previous exposure to humans. Every group has to be trained to respect fences and not all cattle have had contact with electric fences. To help reduce the training problems, some producers have found it useful to keep a few cull cows around to serve as trainer animals for the new calves. Most producers have found that small corrals close to the barn, with solid fences and several offset hot wires, work well in training cattle to electric fences without the risk of escape. See the Fencing segment under the **Equipment** section below for more discussion on training pens.

Photo courtesy of USDA-ARS.

An important consideration for younger animals is the quality of their forage. Typically, contracts for this class of animal are based on the weight they gain during the grazing period, and higher-quality forage should make for better weight gain. Improving pastures and seeding annuals are important for ensuring that the nutritional needs of young, growing animals are met. In some instances, depending on your location and situation, supplemental energy may also be included to enhance conversion and utilization of high-quality pasture, since in good pastures, adequate protein is rarely lacking. Especially in cool-season pastures, the energy-protein balance for efficient conversion is often tilted too far toward the protein side of the equation, and supplemental energy can often improve overall gains and profitability. Be sure to assess your situation accurately so that you can supplement correctly.

As a grazier, you want to make sure that you receive healthy animals that have good growth potential and will make you money with fast weight gains. Work with the livestock owner to ensure that the animals are vaccinated, healthy and have already been weaned. This will reduce stress on the animals and make the first few weeks of adaptation much smoother. Be cautious about groups of calves recently purchased from sale barns. Since calves may have been exposed to additional stress and pathogens, they may not perform as well as animals coming from a single source. Consult with your local veterinarian for proper health procedures and vaccinations that will make your job easier and result in healthier, faster-gaining animals.

Beef heifers

Beef heifers can require more management, facilities and labor than are required with

beef stockers, depending on the arrangement between the owner and grazier. The key difference is that the heifers would be bred while on the farm and would be expected to calve at approximately 24 months of age. Therefore, the heifers may be grazed for a longer period, perhaps left with the grazier from weaning until close to calving time 16 months later. Managing heifers can be labor-intensive when synchronizing the mating of sizeable groups of females. This may require more facilities and equipment, and probably some training, since the human factor in these types of heifer development operations is critical for success.

Well-managed heifer development operations allow heifers to receive the attention that they need to be bred within a short time so that calving can be more easily handled by the owner. For the additional work, there is additional return, but the expectations are also higher. In many instances, it is expected that a high percentage of the heifers will be bred to specially selected bulls via artificial insemination. If this is the case, additional arrangements need to be made for semen, supplies and breeding expertise. If bulls are going to be used for breeding, it is necessary to have enough of them to ensure that all heifers are bred within an acceptable time. Young bulls can be expected to cover only 20 to 25 females, whereas a mature bull, about 2-3 years old, can cover up to 40 females if he is in excellent physical shape. If bulls are going to be used, be sure to get their fertility tested before each breeding season. Just because a bull settled cows last year doesn't mean he is still able to settle cows this year. Many cattle owners have suffered major setbacks due to the incorrect assumption that a bull was still functioning properly. Life is hard on the range; any number of things could be responsible for suboptimal performance and result in failed matings.

Any feeding program — either supplementation during grazing or full feed during the non-grazing period — will need to be closely monitored to ensure adequate growth of the heifers. Heifers should be on a high plain of nutrition but avoid allowing heifers to get too fat, as this can cause problems during calving (dystocia). Contract graziers may want to consider establishing a set fee for each animal that is grazed under this system, with incentives for making breeding targets and weights during development. Calving out heifers should not be the first contracting choice for people with limited cattle experience.

Photo courtesy of USDA-ARS.

Dairy heifers

Much of the information about beef heifers also applies here. With dairy heifers, the cliché that heifers are the most overlooked enterprise on the farm is too often true (Cady and Smith, 1996). Therefore, the opportunity to contract graze dairy heifers is sizeable and getting larger all the time. Replacement rates on most dairies are 25 to 30 percent; therefore, on most dairies a large number of heifers are needed to fill the vacancies along the way. Another consideration is the cost of replacement animals, which accounts for 15 to 20 percent of the total cost of milk production on farms, second only to feed costs (Heinrichs, 1996). Therefore, the expense of raising replacements gets a lot of attention on most dairy farms. Since between 50 and 60 percent of heifer costs are associated with feed, contracting heifer grazing to another party presents a great opportunity for dairies to reduce costs and improve profitability.

The period that a dairy heifer may be on the contract grazier's farm can be longer than with beef heifers, and different age groups

may be handled simultaneously. In some cases, the dairy heifer owner may deliver a group of young heifers every month and pick up the pregnant heifers at the same time. Dairy heifers may be smaller to start with — perhaps a day-old calf that needs milk or a two-month-old weaned calf. The nutritional requirements for these younger animals are much different from those of a 500-pound beef heifer that is seven months old. Dairy heifers can usually be handled in four distinct age or size groups: liquid feeding (birth to weaning), weaning to 400 pounds, 400 pounds to breeding and breeding to calving (Fiez, 1993). There are targets for weight gain for each group so that heifers do not become too large or too fat. It is critical for productive dairy heifers to reach a critical body weight at a young calving age. Some dairy experts stress the importance of age at first calving (AFC) as the most important economic trait associated with heifer programs. Increased AFC raises herd costs in three ways: (1) increased days of rearing, (2) increased number of heifers on the farm, and (3) lost production potential (Cady and Smith, 1996).

Contract grazing requires facilities suitable for handling large animals, minimizing stress on animals and ensuring worker safety.

If breeding the heifers is part of the contract arrangement, make sure this point is written in the contract. In most cases, the owner will supply the semen and breeding supplies. Who will supply the labor for breeding? Are you qualified to artificially inseminate the cattle?

Since this type of arrangement is the most complicated, and demands higher levels of management, graziers should consult with experts in dairy heifer development to fully understand the requirements and expectations.

Other classes of livestock

There may be possibilities to contract for other classes of cattle. Many dairy farms do not allot enough room for dry cow management, and some farms may want to move the dry cows to better facilities to reduce management problems.

Another less common type of contract involves grazing beef cow–calf pairs over the summer, or even year-round for the cows. Typically, there is a monthly fee for the pair, perhaps with an incentive for improved weaning weight of the calf.

The examples used in this publication focus on cattle, but sheep, goats and even horses can be contract grazed if you have pasture that needs to be used and a livestock owner who needs pasture. In many cases, multispecies grazing to take advantage of diversity within your pastures may be possible, making additional economic opportunities available. For more information on grazing multiple species, request the ATTRA publication *Multispecies Grazing.*

Other considerations

Younger animals, such as stocker calves and heifers, may graze unevenly and be unwilling to graze the pasture down to the desired residual height before moving on to the next pasture or paddock. In some cases, you will have to clip or mow pastures to keep some of the forages from getting too mature before the cattle return to them. Another way to manage this situation is to allow mature cows, with generally lower nutritional requirements, to follow the younger animals in what is often called a leader–follower grazing arrangement. The younger animals, the leaders in this situation, get turned in first and are allowed to remove the higher-quality forage from the pasture. After the calves are finished, depending on your rotation length, the cows are allowed to follow and eat the remaining forage down to the residual height you want. This method requires less mechanical input to manage the pasture and will reduce the problems of some forages becoming overmature and less desirable to the cattle.

Equipment

Handling facilities

Contract grazing requires facilities suitable for handling large animals, minimizing stress on animals and ensuring worker safety. Good facilities allow single individuals to perform multiple tasks without risking injury to themselves or the cattle. Handling sick cattle in a timely fashion will be easier if proper facilities are in place. Depending

on the size of the farm and how far the cattle are from a working facility, graziers may want to consider temporary facilities in addition to a central location for receiving and treating sick cattle. Cattle-working facilities do not have to be fancy, expensive or brand new. What is important is that they are well designed, can withstand repeated use by large animals and provide protection for both animals and workers. Effective cattle handling facilities have been constructed from materials such as used well pipe (drill stem), timbers, recycled steel silos, guardrail and railroad ties. It is more important that the facility be built to deal with animal flow patterns and handling requirements than that it be shiny, new and expensive. Three good resources for corral and working facilities include *Humane Livestock Handling* by Temple Grandin (2008), *Modern Corral Design* by Apple et al. (1995), and *Corrals for Handling Beef Cattle* by Robert Borg (1993). Complete information about these and other facility references can be found in the **Resources** section. The best advice regarding any livestock facility is to plan for future expansion and leave plenty of space for ventilation, equipment, trailers, penning, manure storage, drainage and more. Do not shoehorn a new investment into a space too small for it.

Grazing contracts typically include performance standards for the grazier to meet. Therefore, a quality scale that can be certified for commerce is usually a wise investment. In some cases, a truck scale in a nearby community may be sufficient, but few producers who have purchased animal scales have regretted the decision. Once a scale is available, monitoring animal performance is much easier. You do not have to wonder whether the animals are gaining weight and at what rate, or whether they will reach the targets specified in the contract. A scale can be used not only to routinely weigh a group of cattle but also to compare different groups of cattle on different forages in order to monitor what forages yield better gains at different times of the year. A livestock scale will allow you to be a better manager of both forages and livestock.

A scale can be incorporated into a working facility to weigh individual animals or groups. Position the scale where it can be the most useful to your overall system. Some scales are placed in a working alley to weigh groups of animals; others are placed in line with the working chute to weigh individuals. In most cases, unless individual weights are the only ones of interest, positioning the scale in a working alley to weigh larger groups as well as individuals will probably give the most flexibility to your system.

Fencing

Fences are a major investment that can make or break an operation. Time spent designing efficient fencing on the farm will eliminate problems in the future and facilitate easy movement of animals.

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The most important fence is the perimeter fence. Additional cost and effort should go into building a quality perimeter fence to ensure livestock will remain on the farm, out of roadways and clear of neighbors' crop fields. In most states, a legal fence is defined under state statutes. Talk with your local Cooperative Extension or NRCS office to make sure your perimeter fences are adequate.

Once the perimeter fence is in place, simple interior fences can be built by using a single or double strand of electrified high-tensile wire. Some farms make extensive use of poly-wire and poly-tapes to subdivide larger pastures. This makes it easier to control pasture use and stocking rates and get the most from your forage. Younger animals will typically respect a single wire if they are properly trained to respect an electric fence, but a double wire may be required to ensure that a few animals don't graze ahead of the others. With mature cows and dairy heifers, a single wire can work well. If the cows have calves on the side, the single wire can be raised to allow calves to pass under and creep graze ahead and return to the herd without getting shocked.

If you are going to use electric fences, and the animals you are grazing have not experienced them before, a training pen might

be necessary. A training pen, adequately sized for the animals to roam and rest, can have multiple strands of electrified fence — typically made very hot (highly charged) because of the proximity to the barn where the fence energizer is housed. Animals stay in the training pen for as long as needed to become accustomed to the folks working on the farm, to receive daily inspections for health and condition and to learn to respect the fences.

For more information on fencing, see the ATTRA publication *Paddock Design, Fencing and Water Systems for Controlled Grazing.*

Water

Water is one of the most cost-effective nutritional ingredients and must be in ample supply at all times. Behavioral studies show that when cows travel more than ¼ mile to water, pasture utilization and time spent grazing decreases. Utilization will suffer because cattle will graze the part of the pasture closest to the water supply or transit lane, while other portions of the pasture go untouched. Overall grazing time will decline if animals have to spend too much of their time walking to and from water points. If water is readily accessible, animals will travel individually to it as needed. If water is not readily accessible, the entire herd will travel together seeking water. This behavior has an impact on how well pastures are used and how much time cattle spend harvesting that pasture. Make sure that your pastures have plenty of water sources available. Also, have a backup plan, just in case you lose electricity for extended periods or suffer a pump failure.

Photo courtesy of USDA-ARS.

Other equipment

Depending on your geographic location and local weather patterns, some shelter may be required to protect animals during bad weather, minimize stress and ensure that proper care can be given to animals entrusted to you. In most cases, a simple pole barn is adequate. Proper ventilation is important, and avoid overcrowding. For grazing animals, a crowded barn can be worse than no barn at all. Protection from the sun and heat stress can also be important in some places. Remember that if your goal is to maximize gains and you have no trees or other form of shade, your returns will probably begin to suffer when temperatures go above 70 degrees Fahrenheit and stay there for 24 hours or more. Some heat is fine, as long as the cattle can recover during some part of the day or night. With no recovery period, heat stress will accumulate and gains will suffer. Some farms with few shade trees have made portable shades consisting of a durable, lightweight frame covered with shade cloth. Moving the shades also helps spread out the impact that large groups of cattle can have on a pasture. For wind protection you can use windbreaks, both natural and man-made, to provide shelter.

Contracts

A grazing contract is an agreement between two parties to perform certain functions over a certain time period. The contract can be as complex or as simple as both parties agree to. What is important about a contract is that it gives both parties a record of what they have agreed to. There are three main points to remember about contracts:

1. The agreement must be equitable to both the livestock owner and the grazier.
2. The contract should provide protection to both parties.

3. The contract should acknowledge the actual cost of production to provide an accurate and fair fee arrangement (Fischer, 1996).

Key points to consider in a grazing contract

Identify the responsibilities of both named parties — who will provide what and when?

Define labor, equipment and management of livestock, including animal health.

Specify targets appropriate for the type of animals, including weight gains, body condition scores and more.

Define who will pay for various types of services, such as additional feed, vet bills, medications, trucking and more.

Specify the dates that the contract will be in force and the types, sizes and sexes of animals to be grazed under the contract.

Specify how and where the animals will be weighed; specify any appropriate shrink.

Specify under what conditions the contract can be terminated – by either party – and the notice required to terminate a contract.

Specify how the grazier will be paid after animals are removed and on what basis, such as rate of gain, number of days or other options.

Source: Kidwell, 2000.

Prices for grazing

There are several means that owners and graziers can use to calculate payments. Most contracts are based either on time or animal weight gain.

One time-related payment method is the per-acre fee for the entire grazing season. With this arrangement, there is not any incentive for the grazier, and the owner suffers if growing conditions – due to lack of rain and forage growth – are poor.

A similar pricing structure is the per-head per-month fee, calculated on the incoming weight of the animals. For example, at $4 a month for a hundredweight, a steer weighing 500 pounds would cost $20 a month.

A flat-fee structure can also be used; however, this kind of contract should only be entered into after considerable experience with a particular owner's cattle to ensure that it provides adequate returns.

Contracts based on weight gain rely on the grazier's forage management and the owner's supply of healthy, fast-growing animals. The grazier has an incentive to keep rotating the animals so that adequate forage is available and the owner has an incentive to supply healthy animals that will grow well and be profitable.

In almost all cases, the owner is responsible for supplying mineral supplements and covering other costs associated with animal care. However, make sure that the details are spelled out in the contract, where everything is subject to negotiation. If supplemental feed is required, delineate in the contract who will be responsible. In some cases, supplemental feed costs could be subtracted from the grazier's fee at the end of the contract. Other items can also be negotiated. For example, if the grazier is located at some distance from the owner, and supplemental feed is required, the grazier could be responsible for purchasing acceptable feed locally and billing the owner.

Contracts based on weight gain rely on the grazier's forage management and the owner's supply of healthy, fast-growing animals.

Other considerations

Since you as a custom grazier are ultimately responsible for someone else's property, you should have a discussion with your insurance agent to determine your possible liability in a contract grazing arrangement. Mortality is a common point to include in a contract, but what about theft? Weigh your risks carefully; it may help you sleep better at night knowing that some of those risks are covered.

Economic projections and budgets

The following projections and budgets are only starting points for your own economic evaluations, since the numbers used are simply averages. Based on your geographic location, forage production and competition, the numbers used may not represent your farm. The budgets have pricing matrices at

the bottom to help estimate the break-even points for cost of production. It is important to realize that you need to ensure long-term returns above total costs, since this is where true profitability begins. In the short run, returns above variable costs are important. If an activity has no returns to variable costs, then you should not engage in it, even for a short time. Any return above variable costs could be used to pay for fixed costs, and in some cases, some return to fixed costs is preferred over no return at all.

Budgets

Beef Stocker Calves

Spreadsheet: *www.attra.org/attra-pub/grazingContracts/beef_stocker.xls*

PDF: *www.attra.org/attra-pub/grazingContracts/beefStocker.pdf*

Dry Cows

Spreadsheet: *www.attra.org/attra-pub/grazingContracts/dry_cows.xls*

PDF: *www.attra.org/attra-pub/grazingContracts/drycows.pdf*

Dairy Heifers

Spreadsheet: *www.attra.org/attra-pub/grazingContracts/dairy_heifers.xls*

PDF: *www.attra.org/attra-pub/grazingContracts/dairyheifers.pdf*

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Further resources

Contracts

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Force. Office of the Attorney General, Iowa Department of Justice. Accessed 2009. *www.extension.iastate.edu/Grain/Topics/LivestockProductionContractChecklist.htm*

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This form was prepared to assist in reaching and recording a lease agreement.

Grazing

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Judy, Greg. 2002. No Risk Ranching: Custom Grazing on Leased Land. Green Park Press. ISBN 0963246089. 236 p. *www.stockmangrassfarmer.net/cgi-bin/page.cgi?id=360*

Based on his personal experience, Greg Judy shows how to make a living from the land without owning it. He describes his successes, as well as his mistakes, to help others on the road to profit. By leasing land and cattle, he went from 40 stockers to more than 1,100 head and was able to pay off his farm and home loan within three years. Today he has 12 farms totaling more than 1,560 acres. Easy-to-follow chapters explain how to:

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Gerrish, Jim. 2004. Management-intensive Grazing: The Grassroots of Grass Farming. 314 p. Order from:
The Stockman Grass Farmer
PO Box 2300
Ridgeland, MS 39158-9911
(601) 853-1861
1-800-748-9808 • (601) 853-8087 FAX
sgf@stockmangrassfarmer.com
www.stockmangrassfarmer.net/index.html

Morrow, Ron, Jim Gerrish, and Paul Peterson. Practical Use Leader-Follower Grazing Systems. The Missouri Agriculture Experiment Station. University of Missouri. Accessed June 2009. *http://aes.missouri.edu/fsrc/news/archives/nl94v3n1.stm.*

Rayburn, Ed (ed.). 2007. Forage Utilization for Pasture-Based Livestock Production. Natural Resource, Agriculture, and Engineering Service. 185 p. Order from:
NRAES
Cooperative Extension
PO Box 4557
Ithaca, NY 14852-4557
or
For UPS, FedEx or pick up
NRAES, Cooperative Extension
B-16 Morrison Hall
Ithaca, NY 14853-4801
(607) 255-7654 • (607) 254-8770 FAX
nraes@cornell.edu • www.nraes.org

Contract dairy heifers

Fiez, Edward A. 1993. Contract Considerations for Dairy Replacements. Western Large Herd Management Conference Proceedings. Department of Animal and Veterinary Science, University of Idaho, Las Vegas, NV. *www.wdmc.org/1993/93WDMC092-99.pdf.*

Professional Dairy Heifers Growers Association
801 Shakespeare, PO Box 497
Stratford, IA 50249
1-877-434-3377 • (515) 838-2788 FAX
pdhga@pdhga.org • www.pdhga.org

Beiler, Joseph. 2000. Dairy Heifer Contracting: Motives, Forms, and Arrangements. The Ohio State University Extension Fact Sheet. AS-0005-00. *http://ohioline.osu.edu/as-fact/0005.html*

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State University Extension Fact Sheet. AS-0006-00. *http://ohioline.osu.edu/as-fact/0006.html*

Dairy Heifer Housing. 1997. Penn State Dairy Housing Plans. NRAES-85. 106 p.

This publication (a revision of Penn State Freestall and Heifer Housing Plans, 1994) is a collection of 29 plans developed by faculty and staff of the Department of Agricultural Biological Engineering at the Pennsylvania State University and the Penn State Cooperative Extension. Included are 12 freestall housing plans, six heifer housing plans, four dry cow and maternity housing plans and seven plans for details and components. Plans have been revised to incorporate the latest recommendations for freestall design, ventilation and cow movement. The freestall section contains plans for various two-row, three-row, four-row and six-row freestall barns. Included in the heifer section are plans for bedded pack housing, counter-slope housing, single-slope housing and three types of heifer freestall barns. The section on dry cow and maternity housing contains ideas for housing dry cows in bedded pack groups, multiple pen barns with drive-through feeding, pre-fresh and maternity pen areas, convalescence areas and post-fresh housing facilities. Included in the detail and components section are sidewall curtains and drainage, watering locations, floor surfaces, feed barriers, freestalls and ventilation openings. Also new to this edition are introductory discussions with each section and a list of suggested readings.

Order from:
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New York residents add 8 percent sales tax (calculated on both the cost of publications and the shipping and handling charges).

Roth, Sarah, Jud Heinrichs, and Coleen Jones. Dairy Heifer Contracting Fundamentals. Department of Dairy and Animal Science. The Pennsylvania State University. *www.das.psu.edu/dairy/nutrition/pdf/heifercontract.pdf*

Corral design and handling facilities

Grandin Livestock Handling System, Inc.
Temple Grandin, Ph.D.
2918 Silver Plume Drive, Unit C3
Fort Collins, CO 80526 USA
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www.grandin.com

Grandin's book Humane Livestock Handling *explains animal behavior principles to reduce stress on your animals and contains layouts of corrals for ranches, feedlots and meat plants; designs for large and small beef cattle operations; and complete instructions and illustrations to show you how to build chutes, loading ramps, fences, gates, latches, crowd pens and sliding gates. It also contains sheep and bison layouts.*

Apple, Ken, Raymond L. Huhnke, and Sam L. Harp. 1995. Modern Corral Design. Oklahoma State University Extension Circular E-938. Stillwater, OK. Order from: PBIS
Biosystems and Agricultural Engineering Department
214 Agriculture Hall
Oklahoma State University
Stillwater, OK 74078-6021

Borg, Robert. 1993. Corrals for Handling Beef Cattle. Alberta Agriculture, Food and Rural Development. Agdex 420/723-1. Edmonton, Alberta, Canada. 91 p. *www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex27?opendocument*

This best-selling book features information on cattle behavior, handling techniques, corral design, corral geometry and corral components. It has more than 60 designs and corral plans. It has been reviewed by industry experts including Temple Grandin, the internationally recognized expert on cattle behavior from Colorado State University.

To order: 1-800-292-5697 or (780) 427-0391

Beef Housing and Equipment Handbook. 1987. MWPS-6. 136 pages. 4th edition. ISBN 0-89373-068-8

Current agricultural engineering recommendations are summarized in this complete housing guide. Essential components for an efficient operation such as building design, operation size and equipment are discussed. Figures, tables and discussions to help improve, expand and modernize an operation are included. Topics cover cow-calf, cattle handling and cattle feeding facilities; feed storage, processing and handling; water and waterers; manure management; farmstead planning; building construction and materials; ventilation and insulation; fences; gates; and utilities.

Order from:
MidWest Plan Service
122 Davidson Hall
Iowa State University
Ames, IA 50011
1-800-562-3618
www.mwps.org

Burns, Robert T., and Michael J. Buschermohle. Selection of Alternative Livestock Watering Systems. Agricultural Extension Service. University of Tennessee. *www.utextension.utk.edu/publications/pbfiles/PB1641.pdf*

Gerrish, James R. Fence Systems for Grazing Management 1: Electric Fence Energizers. Extension Beef Cattle Resource Committee. Beef Cattle Handbook. University of Wisconsin-Extension, Cooperative Extension. *www.iowabeefcenter.org/pdfs/bch/06201.pdf*

Grandin, Temple. Cattle Behavior During Handling and Corral Design for Ranches. Beef Cattle Handbook. Extension Beef Cattle Resource Committee. University of Wisconsin-Extension, Cooperative Extension. *www.iowabeefcenter.org/pdfs/bch/09003.pdf*

Kammel, David W. Heifer Housing Considerations: Designing Facilities to Enhance Heifer Performance. Center for Dairy Profitability. Biological Systems Engineering. *www.uwex.edu/ces/dairymod/housing/documents/HeiferHousingConsiderations-NRAES2005.pdf*

Quam, Vernon, and LaDon Johnson. Windbreaks for Livestock Operations. University of Nebraska Cooperative Extension. *www.unl.edu/nac/morepublications/ec1766.pdf*

TAMU. 2005. Value Added Calf (VAC) - Management Program. Texas Cooperative Extension. *http://coastalbend.tamu.edu/Extension/animal%20science/VAC_Management.pdf*

This document covers pre-weaning and backgrounding program including health management and vaccinations.

Turner, Larry W. Shade Options for Grazing Cattle. University of Kentucky Cooperative Extension Service. *www.bae.uky.edu/Publications/AEUs/aeu-91.pdf*

Grazing budgets and economic information

NOTE: Most state universities and Cooperative Extension have budgets for agricultural products in their states. Below is a sample of some of the budget and economic information that is available in electronic format. For an electronic copy of these resources, please e-mail Lee Rinehart, NCAT livestock specialist, at leer@ncat.org.

Eldridge, R.W., Kenneth H. Burdine, and Richard Trimble. 2005. The Economics of Rotational Grazing. University of Kentucky Cooperative Extension Service. *www.uky.edu/Ag/AgriculturalEconomics/pubs/ext_aec/ext2005-02.pdf.*

Estimated Costs and Returns for Commercial Beef Cattle and Forage Systems – Intensive Production, East Texas. Dr. Greg Clary, extension economist
Texas Agricultural Research and Extension Center
PO Box 38
Overton, TX 75684
(903) 834-6191 • (903) 834-7140 FAX
g-clary@ag.tamu.edu

Clary also provides budgets online that do not require downloads at http://ruralbusiness.tamu.edu.

University of Tennessee Livestock Budgets. Budgets for row crops, forage and livestock production. *http://economics.ag.utk.edu/budgets.html*

Texas Center for Rural Entrepreneurship. *www.tcre.org*

Beef Budgets

Compilation of 15 different budgets for cattle production and several pasture and forage budgets. *http://economics.ag.utk.edu/budgets/BeefBudgets2007.pdf*

Gadberry, Shane. Cow-calf Enterprise Budget. University of Arkansas Cooperative Extension Service. *www.uaex.edu/Other_Areas/publications/PDF/MP-413.pdf*

Gadberry, Shane, Tom Troxel, and John Jennings. Practices to Improve Beef Cattle Efficiency. University of Arkansas Cooperative Extension. *www.uaex.edu/Other_Areas/publications/PDF/fsa-3060.pdf*

Livestock Enterprise Budgets—Iowa 2003. Drs. Gary May, William Edwards, and John Lawrence. Iowa State University Extension, Ames, IA. Publication #FM-1815 *www.extension.iastate.edu/Publications/FM1815.pdf*

Additional livestock economic information can be found on Dr. Lawrence's Web page at www.econ.iastate.edu/faculty/lawrence

University of Missouri Farm Budgets. *http://agebb.missouri.edu/mgt/budget*

Source of forage, livestock and crop budgets.

Virginia Cooperative Extension. 2001-2002. Virginia Farm Business Management Crop and Livestock Budgets. Publication Number 446-047.

Spreadsheets and PDF files with various budgets for agricultural products are available from Virginia Cooperative Extension at www.ext.vt.edu/pubs/agecon/446-047/446-047.html

Notes

Notes

Grazing Contracts for Livestock

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