Pasture and Grazing Arrangements for Beef Cattle

The lack of a futures market for forages can make it difficult for landowners and beef producers to establish a fair-market value, particularly for standing forages. Furthermore, the plethora of management and infrastructure considerations that go into establishing a value, while overwhelming at times, often can make the difference between profit and loss on a beef operation for a given year. This document provides guidance to both parties involved so successful, long term contracts can be developed for grazing purposes.

Types of agreements

Pasture rent only

This is the simplest and most conventional agreement. Typically, pasture rent agreements are designed to establish either a price per acre or a monthly or daily rate based on number of grazing units. Although simple in nature, there are specific items that should be part of this type of agreement: establishing which party is responsible for which inputs such as fertilizer and fence repair, and deciding who will determine when cattle need to be removed because grass has become too short. And don't forget to include often overlooked yet still important items such as water access, length of grazing season, etc. The more inputs and labor the grazier is willing to assume, the lower the rental rate should be, and vice versa.

Resource sharing

Because capital investment expenses are cost prohibitive for many young and up-start farmers, there is a renewed interest by many of these producers in trading "sweat equity" for capital access. Cow-calf share agreements offer incentives for both land and cattle owners to partner with young producers without assuming all the risk. An effective cow-calf share agreement identifies and itemizes what the cow owner, landowner, and operator (if different from landowner) are contributing. This requires implementing a detailed record keeping system and annually evaluating actual costs. Remember that effective agreements share risk and profit among all entities involved. The length of a cow-calf share agreement generally is based on marketing year as settlement typically occurs at weaning or feeder calf sale. This Iowa State University Ag Decision Maker Tool (https://www.extension.iastate.edu/agdm/wholefarm/html/c2-36.html) can help with the math. Every change in contribution by involved parties should change the profit split; there is no such thing as a "50/50" rule of thumb!

Contract grazing

This, too, could be as large as a three party agreement with a landowner, livestock owner, and a caretaker. It is a common arrangement in the Kansas Flint Hills range and on Great Plains wheat acres, with feedlot owners hiring operators to manage stockers on land owned by a third family. This also is a popular agreement in many parts of the Midwest where pasture is sparse and/or high priced. Diversified row-crop operations often send cow-calf pairs to summer pasture in areas like Missouri or Kentucky to be managed by a landowner or third-party caretaker. It should be noted that grazing land has been owned for generations by some families that have never owned cattle.

In a contract grazing arrangement, a rate is typically established per animal unit month (AUM) or per head per day which is paid by the cow owner to the landowner/operator. In this type of agreement, less risk is assumed by the operator, but there also is limited upside potential. Typical points of negotiation for a contract grazing agreement include who will do the work, who determines which inputs such as mineral, creep, and potentially supplement are added, and how those inputs impact total payment.

Animal performance-based

Some stocker owners pursue agreements that pay the grazier by pounds of gain added per day or per grazing season. This often transfers more risk to the operator with little reward above the standard rated noted in the pasture rent and contract grazing sections above. It is important to remember that forage type will dramatically influence potential gains. For example, Eastern Corn Belt grasslands typically do not achieve yearling gains above 2 pounds/day without added supplementation, whereas more traditional stocker areas such as the Great Plains may well exceed 2 pounds/day if the genetics and condition of the cattle will allow. On unimproved fescue, gain may be as low as 1 pound/day. It is critical that supplementation be allowed (if it fits the market outlet) and that the operator is guaranteed an adequate grazing period to capture adequate income. A better performance-based arrangement is a floor rate based on a per-day fee and gain incentives if cattle perform better. This type of arrangement also could fit grass-fed beef development.

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Establishing a pasture rental price

Based on midwestern reports, the following tables are some rules of thumb for establishing base pasture rent prices.

Land value-based pricing

Tables 1a and 1b assume a 180-day grazing season with a stocking rate of 2, 2.5, or 3 acres per cow-calf pair per year. All rates are for access to forage only. This should be viewed by the landowner solely in terms of the rental rate needed to satisfy a particular return on investment. Therefore, it should be noted that real estate is a long term investment that seldom can cash flow based solely on rental rates. From a potential renter's perspective, it makes little sense to pay more for pasture with reducing productivity.

More information on current land values can be found at
Iowa Farmland Rental Rates 1994-2016 (USDA) http://www.extension.iastate.edu/agdm/wholefarm/pdf/c2-09.pdf and
Cash Rental Rates for Iowa 2016 Survey http://www.extension.iastate.edu/agdm/wholefarm/pdf/c2-10.pdf.

Table 1a. Land value based pricing with 2.5% rate of return

Land value, $	Rent per acre, $	2 acres/pair, $/day	2.5 acres/pair, $/day	3 acres/ pair, $/day
2500	62.50	0.70	0.87	1.04
4000	100.00	1.11	1.39	1.66
6500	162.50	1.81	2.25	2.71

Table 1b. Land value based pricing with 3.5% rate of return

Land value, $	Rent per acre, $	2 acres/pair, $/day	2.5 acres/pair, $/day	3 acres/ pair, $/day
2500	87.50	0.97	1.22	1.45
4000	140.00	1.56	1.94	2.33
6500	227.50	2.52	3.16	3.79

Rental rate survey-based pricing

Not all states conduct an annual cash rental-rate survey; however, straw polls and "coffee-shop" discussions in your area may serve as a proxy. Again, Tables 2a and 2b assume a 180-day grazing season with a stocking rate of 2, 2.5, or 3 acres per cow-calf pair per year.

Table 2a. Rental rate survey-based pricing for unimproved pasture

Rent per acre, $	2 acres/pair, $/day	2.5 acres/pair, $/day	3 acres/pair, $/day
45.00	0.50	0.63	0.75
60.00	0.67	0.83	1.00
75.00	0.83	1.04	1.25

Table 2b. Rental rate survey-based pricing for improved pasture

Rent per acre, $	2 acres/pair, $/day	2.5 acres/pair, $/day	3 acres/pair, $/day
65.00	0.72	0.90	1.08
80.00	0.89	1.11	1.33
95.00	1.06	1.32	1.58

Added care rates

This is for use primarily with custom grazing, and perhaps share agreements outlined previously. On average, most landowners/ operators add $0.20-0.30 per animal unit per day for labor to the daily rates calculated for pasture access in Table 2b. Mineral, creep, and supplement costs per the above negotiations also should be included as appropriate. From 2014-2017, average custom grazing rates in the Midwest have been between $1.20 and $1.70, with many producers citing an average of $1.40 per grazing animal unit per day.

Cost of feeding compared to grazing

For comparison with grazing rates listed in Tables 2a and 2b, Table 3 identifies some typical midwestern rations and associated costs to feed spring-calving cows during the summer.

Table 3. Potential costs of feeding vs. grazing[1,2,3,4]

		Yardage, $/day		
Ration	**Feed cost, $/day**	0.30	0.75	1.50
High-quality hay	1.99	2.29	2.74	3.49
Low-quality hay and bio-fuel coproducts	1.69	1.99	2.44	3.19
Corn stover and bio-fuel coproducts	1.42	1.72	2.17	2.92

[1] Rations developed with the BRaNDS software (available at: http://www.iowabeefcenter.org/brands.html) for 1350 pound mature midwestern cows in mid-lactation. Reduce all these costs by 15%-25% per day for smaller cows, yearlings, bred heifers, and dry cows.

[2] Prices on as-fed basis: high quality hay - $70/1500 pound bale; low quality hay - $55/1500 pound bale; corn stover - $35/1300 pound bale; modified DGS - $80/ton; mineral - $18/bag.

[3] Ration prices include 15% waste of hay fed in feeder. Assumes corn stover diet is fed as total mixed ration on bunk line feeders with 3% waste.

[4] Yardage should include labor, fuel, maintenance, and depreciation of feeding equipment and facilities used to feed during summer months. Range of yardage designed to reflect diversity in operations from extensive to confined systems.

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