

Determining Fair Pasture Rental Rates

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Determining Rental Rates

One of the most frequent questions producers ask is, “What is a fair rental rate for pasture?” In the absence of a commercial market for pasture, producers often end up bargaining for a rental price. For instance, if there is a large amount of pasture acres in a given area, the rent may be lower than in an area with a low amount of pasture acres.

Pasture rental rates can also be influenced by alternative land uses. If there were the possibility for that acreage to be planted with corn, soybeans, or even a non-row crop like hay, the rental price for that pasture would have to be competitive with rental rates for land in commodity crops.

Livestock facilities, their condition, the quality of the pasture, and availability of water all have an effect on pasture rental rate.

Division of responsibilities also must be considered when determining a rental rate for pasture. Typically production activities like checking livestock, providing fly control, and checking water supply, fall under the renter’s responsibilities. Land-related activities, such as repairing fences, weed and bush control, and fertilizing and reseeding pastures, are typically negotiable. However, in most cases, it is the responsibility of the renter to repair fences with the landowner providing the necessary materials.

Landowner Considerations

Typically the landowner should cover the real estate taxes, cost of fence repairs, insurance, and interest on his/her investment. However, since pastureland typically sells for a higher price than its earnings can support, the landowner may be only able to cover his out-of-pocket expenses.

Current Market Rates

One way to establish the rent for pasture per acre is by looking at the current market rates for similar pasture land. While few studies look exclusively at pasture rental rates, Dane County UW-Extension conducted a county-wide survey. Some pastureland was reported, and the results can be found in the handout, *Dane County Farmland Rental Rates*, online at the website: <http://fyi.uwex.edu/danecountyag/>.

Forage Value

To determine the rental rate based off of forage value, you can estimate the expected pasture or hay production per acre. See Table 1 below for average production based on the type and mix of pasture species. Then multiply by either 25% of the price of grass hay during the grazing season for pasture, or 35% of the price of hay for an established hay. To see current hay prices, please visit the UW-Extension Team Forage page at: <http://fyi.uwex.edu/forage/h-m-r/>.

Table 1. Forage Production (tons per acre) and animal unit months per acre for various types of grasses*

	Tons/acre	AUM/ acre
Bluegrass, unimproved	1.0 – 1.5	3.0
Bluegrass, improved with legume or nitrogen	1.5 – 2.5	4.0
Birdsfoot trefoil and grass	3.0 – 4.0	5.0
Orchard or brome grass, alone	3.0 - 4.0	4.0
Orchard or brome grass, with legume or nitrogen	4.0 – 5.0	6.5
Warm season grasses	4.0 – 5.0	4.0
Alfalfa, plus grass	4.0 – 6.0	6.0
Cornstalks	0.5 – 1.0	0.7

*Rotational grazing can increase production about 25%

For example, if you have a pasture of 100% orchard grass, and the market price was \$100 per ton, and had an expected yield of between three to four tons per acre, the rental rate per acre would be \$25.

$$[\$100 \text{ per ton} \times .25 \text{ (percent)} \times 3.5 \text{ ton per acre}] = \$25$$

Rent Per Head Per Month

By using this method, the owner of the livestock pays rent for the number of animals and time spent grazing. This can be determined by calculating (AUMs) or animal unit months. AUM refers to the amount of forage it takes to support a 1,000 pound cow with calf up to 4 months of age for 1 month. Table 2 below can be used to determine your herd's AUM.

Type of Animal	AUM
Mature cow	1.0 – 1.4
Bull	1.5
Yearling steer/heifer	0.7 - 0.9
Two-year-old heifer	1.0 – 1.2
Calf	0.4
Ewe	0.20 – 0.28
Replacement ewe lamb	0.13 – 0.17
Horse	0.9 – 1.2

*Forage consumption typically parallels animal size/ weight

The formula for calculating the AUM for a pasture is:

$$[\# \text{ of animals} \times \text{AUM for table} \times \# \text{ of months grazing}]$$

For example, if there were 20 two-year-old heifers grazing a pasture for three months the formula would be (20 x 1.2 x 3) which equals 72 AUMs.

The rent is determined by multiplying a rental rate per AUM by the number of AUMs. Rent per AUM can be calculated by looking at the current hay price and the quality rating for that pasture. Factors for forage quality can be seen in Table 3.

Table 3. Pasture Quality Factors

Lush, green high-protein pasture	.22
Good tallgrass pasture	.20
Fair to good native pasture mostly shortgrass	.15
Poor or weedy shortgrass pasture	.12
Cornstalks	.10

The formula to use to calculate the rental rate per AUM is:

$$[\text{price of hay per ton} \times \text{pasture quality rating}]$$

For example, the pasture in question is a brome (tallgrass) pasture. Also, the current hay price for that quality of pasture is \$100 per ton. The rental rate per AUM is \$20 (\$100 x .20). If 20 two-year-old heifers graze the pasture for 3 months, 75 AUMs of pasture are used during the course of the summer.

Carrying Capacity

This method of determining rent is based on the carrying capacity of a pasture.

The rental rate per pasture in AUMs is multiplied by the carrying capacity of the pasture in AUMs per acre to estimate a pasture rental rate per acre for the whole grazing season. The rental rate per AUM is determined by multiplying the hay price during the grazing season by the pasture quality factor.

The formula for determining the rental rate based on carry capacity of a field is:

$$[\text{rate per AUM} \times \text{AUMs per acre}] = \text{rental rate per acre}$$

For example, a \$100 grass hay price and a tallgrass pasture rating of .20 results in a rental rate per AUM of \$20 (\$100 x .20). A brome grass pasture may produce four AUMs per acre during the grazing season (Table 1). Multiplying the rate per AUM by the AUMs per acre results in a rent of \$80 per acre (\$20 per AUM x 4 AUMs)

Adapted from publications from the North Central Farm Management Extension, The Ohio State University, and Ag Decision Maker of Iowa State Extension.

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