AGRICULTURAL LEASING 2003

# Grazing Leases

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**Background**

The need to establish equitable grazing rates for cattle grazing programs is a common issue for crop and livestock producers in Kansas. Whether it is a cow/calf operation on grass pasture or stocker cattle on crop residue, equitable rental rates are determined by the same general economic principles as other types of leasing/rental arrangements.

**Competitive Markets**

The first method to establish a grazing rate for a specific grazing system is the current market rate. For example, if a cow/calf operator in the Flint Hills wanted to rent a pasture for a season, he/she could consult the *Bluestem Pasture* report from Kansas Agricultural Statistics. This report provides cash rental rates for pastures in the Flint Hills region that would likely be similar to the pasture the cow/calf operator was seeking to rent. The *KSU-Graze* spreadsheet contains a page that allows users to access historical grazing rates reported in the *Bluestem Pasture* report. In addition, users can adjust these reported grazing rates based on stocking capacity and grass quality. This process likely will be instructive for grass pasture, but may not be so in regards to other cattle grazing systems (i.e. crop residue, wheat pasture) in which market rates are often not known.

Another competitive market approach is to use an alternative grazing system as a proxy to estimate grazing rates for systems such as crop residue or wheat pasture. A drylot feeding program is the standard of comparison for cattle. The performance of cattle and thus the cost of a drylot program will likely be higher than that of grazing systems. Consequently, the cost of a drylot feeding program can be used as an "upper bound" in determining grazing rates for other systems. Since cattle will likely not perform as well in other systems, grazing costs should also be expected to be lower. If current cost of gain information is not available for competitive market comparisons, other methods such as those explained below, can be employed to determine equitable grazing rates.

**Cost Equals Revenue**

The North Central Region (NCR-149) publication *Pasture Rental Arrangements for your Farm*, provides two commonly used methods for establishing grazing rates. Each of these methods calculates a grazing rate based on the principle that costs equal revenue. The *KSU-Graze* spreadsheet uses the two methods outlined in NCR-149 to determine equitable grazing rates. These methods can be used as a starting point for grazing rate negotiations.

The first method is the Landlord's Cost Basis. With this method, grazing rates are calculated based on the landlord's cost of owning the land being grazed. Thus, the revenue generated from renting the pasture would equal the cost of owning the pasture. The *Landlord's Cost* sheet can be used for either a cow-calf or a stocker operation on grass pasture. For other grazing situations, the *Livestock Owner's Return* sheet should be used. In order to estimate a grazing rate on a $/head or $/acre basis, the landowner's investment in terms of land and equipment must be estimated. In addition, any other inputs provided by the landowner, including labor and management, must be entered in the spreadsheet. Effectively, the Landlord's Cost Basis treats the tenant's return as a residual, with all returns above costs associated with the cattle and grass program accruing to the tenant.

The second method is the Livestock Owner's Returns Basis. With this method, grazing rates are estimated based on the return the livestock owner earns from grazing the cattle.
In this case, the livestock owner's cost to graze will equal the revenue he/she receives from grazing. The *Livestock Owner's Return* sheet can be used for stocker operations in many grazing scenarios. In this sheet, a livestock owner would enter the beginning weight and price of the stockers, the non-grazing costs of growing the stockers, the ending weight and price, and other grazing inputs. The return that is realized based on these inputs would equal the grazing rate paid to the landowner. The grazing rate is calculated on a $/acre, $/head/day, and $/lb of gain basis. Effectively, the Livestock Owner's Basis treats the landlord's return as a residual in the cattle and grass program; all returns above costs fall to the landlord.

Because the calculated grazing rates are based on current production, cost, and price information, it is important that these factors be projected as accurately as possible. Underestimating costs or overestimating selling price and/or animal performance could cause a cattle owner to pay rent that is higher than he or she could afford given a particular profit target. Conversely, overestimating costs or underestimating selling price and/or animal performance could reduce the rent owed to the landowner. Either case could result in an inequitable lease.

**Other Considerations**

There are several grazing rate pricing methods available to land and cattle owners. The risk involved with each of these methods will vary for each party. Cattle owners, or tenants, will incur more risk if they pay a flat rate on a per head or per acre, basis. Under these types of pricing methods, cattle owners face all the production and price risk inherent in cattle production. Essentially, the only risks landowners face is that tenants will default on payment and that tenants will overgraze or damage the land. If grazing rates are priced on a gain basis, the landowner incurs part of the production risk along with the tenant. The "best fitting" pricing method will depend on the risk aversion and amount of service provided by each party. No single pricing method is best for everyone.

**Additional Resources**

*Agricultural Land Values*; Kansas Agricultural Statistics Service, annual
*Bluestem Pasture*; Kansas Agricultural Statistics Service, annual
*Kansas Land Prices and Cash Rental Rates*, MF-1100, 2003
*Pasture Rental Arrangements for your Farm*, NCR No. 149, 1997
*Pasture Lease*, NCR No. 109, 1997