

### Using the Animal Unit Month (AUM) Effectively for Managing Pastures

The summer grazing season has started. For many producers this means managing both cool season and warm season grass pastures. The concept of the “Animal Unit Month” can be a useful tool for helping pasture managers work out suitable stocking rates for pastures under a wide variety of conditions.

Understanding the definition of an animal unit month can help in determining stocking rates to produce maximum returns without causing damage to the available grassland resources. By definition, the AUM is the amount of forage needed by an “animal unit” (AU) grazing for one month. The quantity of forage needed is based on the cow’s metabolic weight, and the animal unit is defined as one mature 1,000 pound cow and her suckling calf. It is assumed that such a cow nursing her calf will consume 26 pounds of dry matter (DM) of forage per day (20 pounds for the cow and 6 pounds for the calf).

To establish accurate stocking rates, adjustments must be made to this basic definition of an AUM to arrive at reasonable forage disappearance rates, which include consumption levels, trampling and wastage by the cattle. These aspects must then be considered along with the forage production and desired residue levels on the land.

The Animal Unit does not accommodate the change in frame size of cattle where most cows today weigh from 1200 to 1400 plus pounds. Cows in this weight range need from 23 to 25.6 pounds of DM, or 14 to 27 percent more than the 1,000 pound cow. The larger calves consume proportionately more as well. Therefore, cows in the 1200 to 1400 pound weight range would be equivalent to 1.1 to 1.21 of the basic Animal Unit. A mature bull is the equivalent of 1.3 AU. Heavier milking cows would also have a greater metabolic requirement. This is why it is very important to have an accurate estimate of the weight of your cows and their milk production.

In pasture environments forage consumption rates can vary from as low as 1.5 percent of body weight to as high as 3.5 percent of body weight. One of the main factors that affects consumption is forage quality. As forage plants mature, digestibility decreases. As a result, anticipate a higher level of forage intake in pastures composed of primarily vegetative growth versus more mature growth. Intake rates would be higher in the early grazing months compared to late summer or early fall. Other factors, such as animal age, physiological stage (dry, lactating) or supplementation level will also affect the level of pasture consumption.

To get a more accurate stocking rate, adjustments should be made to both forage consumption and other losses that occur within a grazing system. Losses will include trampling, spoiled feed, weathering and aging or maturing of the plants. As a result, the total forage disappearance on pastures will exceed the daily forage intake.

Using rotational grazing versus season long grazing, pasture water systems or higher stocking densities (mob grazing) can help to increase forage consumption and minimize forage losses.

Using AUMs can be starting point to determine stocking rates or make adjustment in stocking rates as the grazing season progresses. But remember to make the necessary adjustments for animal size, consumption rates, and forage losses. Combining these aspects with reasonable estimates on forage production, both as initial growth and re-growth, it is possible to establish stocking rates for any given pasture and under a variety of conditions.

Management questions to consider:

What is a realistic average weight of my cows?

What is the average milk production of my cows?

What is the forage production of my pastures?

What is the best grazing system for my pastures to optimize utilization and still maintain quality pastures?

How well do I monitor pasture conditions during the grazing season?

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June 2015

Nebraska Extension beef web site [beef.unl.edu](http://beef.unl.edu)