Grazing Strategies for Horse Pastures

Warm weather and green grass gets us itching to turn-out! However, improper grazing can turn your knee high grass lot into a dust bowl overrun with weeds. Take the time to plan a grazing system for your property. Maintaining the grass population will not only be aesthetically pleasing, it will be a sustainable pasture that can provide nutrition and exercise areas for your horse and will ensure the value of your property remains high.

A horse will utilize about 3% of its body weight per day of pasture forage by eating, trampling or otherwise damaging. An average horse of 1,000 lbs will utilize 30 lbs of pasture forage per day. Can your pasture grow enough mass to support your horse or horses? How long can you graze your pasture? These questions can be answered with a few calculations.

Available Forage
Determine how much forage your pasture produces by performing clippings. Choose a location in your pasture that would represent the average production of the entire pasture. Clip an area about 30 inches in diameter to ground level. Keep only the actual forage; discard litter, roots, weeds and soil. Place the sample into a brown paper bag and let air dry for 2-4 days. Once dry (forage should look like hay), weigh the sample (be sure to subtract the weight of the bag). You can repeat the sampling over several locations in the pasture and calculate an average weight. Multiply the average sample weight by 20. This measurement is the total pounds of forage per one acre pasture. Next, multiply the total pound of forage per acre by the total number of acres in your pasture. Keep in mind that not all of the forage is available for grazing. Horses will otherwise damage forage by trampling, defecating, etc. If you have dryland pasture, multiply the total amount of forage by 0.25, irrigated multiply by 0.35.

Take into consideration the productivity of your pasture will change over the course of the season. Your samples may not be representative of the pasture in late summer if they were taken in early spring. Adjust your grazing strategies accordingly.

Number of Horses OR Duration of Grazing
Knowing the available forage and using the “rule of thumb” that horses will utilize about 30 lbs/d can help you determine the carrying capacity (number of horses your pasture can support) and also the number of days (or hours) your horse will be able to graze. Thus, grazing systems can be tailored to your available resources.

Number of Horses Pasture can Support

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\text{Number of Horses Pasture can Support} = \frac{\text{Amount of forage (lbs/d) available for grazing} \times \text{Length of time (days) horses will graze}}{30 \text{ lbs forage per horse}}
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Length of time horse can graze (days)

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\text{Amount of forage (lbs/d) available for grazing} = \frac{30 \text{ lbs/horse} \times \text{Number of horses}}{\text{Length of time (days) horses will graze}}
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To calculate the number of hours a horse can graze, convert your days to hours and replace this figure for amount of forage (lbs/d). Horses will graze for 9-14 hours a day. Therefore, an average 1000 lb horse will eat roughly 2.5 to 3.5 lbs of forage per hour. (30lbs / 9hrs=3.5 lbs/hr and 30lbs / 14hrs=2.5 lbs/hr).

Grazing Systems for Horses
Grazing systems or strategies are very important tools that will ensure the health of your grass. The smallest of acreages can benefit from implementing a system and managing grazing frequency, duration and intensity. There is a tendency for horse pastures to become overgrazed. Horses have the ability to be very selective in the plants they choose to eat. As a result, horses often eat the same plant population over and over again, weakening the plant root structure and severely limiting its ability to recover or cause death of the plant. This often opens the pasture up of weed invasion and erosion. Grazing should occur when plants have reached a height of 6-8 inches and should cease when plants have been grazed to 3-4 inches in height.

Continuous Grazing
Horses have unlimited access to pasture of the course of the grazing season. This strategy is not recommended for horses in small pastures. Again, this goes back the horse’s ability to selectively graze their favorite plant population.

Partial-season Grazing
Horses graze a pasture for a limited time during a certain period of the grazing season. Spring grazing takes advantage of new growth. Fall grazing will take advantage of stockpiled forages (forages that have grown tall and not been
previously grazed). This strategy reduces the risk of overgrazing. The time of season the pasture is grazed will affect its carrying capacity and nutritional value.

**Limited Turnout Time**

Horses graze the pasture for short periods of time (1/2 hr to 12 hrs) each day. Dry lot or stalls are utilized when grazing is not allowed. This strategy can greatly increase how long forage is available over the course of the grazing season and decrease the amount of hay that would need to be fed if horses were continuously in drylot. For example, if a horse grazes spring pasture for 1 hour, the amount of grass hay provided could be decreased by 2.75 lbs. Likewise, if a horse grazes summer pasture for 1 hour, the amount of grass hay provided could be decreased by 1.75 lbs. This system is very flexible and is highly recommended for properties owners with limited amount of pasture.

**Rotational Grazing**

Horses are moved or rotated from one pasture to another over the course of the grazing season. It is often beneficial to divide large pastures into smaller pastures to maximize grazing efficiency. For example, a 9 acre pasture is divided into 3, 3 acre pastures often referred to as cells. Horses are turned out into the first cell, allowed to graze until forage is 3-4 inches tall and then rotated to the next cell. Rotation into the third pasture will occur when growth in the 2nd cell is 3-4 inches in height. Horses can be returned to any one of the cells if re-growth is sufficient for grazing (6-8 inches in height). This grazing system can be used in conjunction with limited turnout time.

Proper grazing can benefit your horse and your pasture. Graze plants to the proper height and allow the plant time to recover and re-grow before grazing again. Limit selective grazing of the horse by confining horses to small pastures or cells. The most important thing to remember is not to graze by the calendar, graze according to your plant health. Finally, if your pasture can not support the number of horses you already have, make arrangements to dry lot the horses, don’t sacrifice your pasture, your horse health and the value of your property.

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