

Protecting Water Quality on your Horse Farm

Healthy Pastures

Healthy pastures provide horses with high quality forage, space to exercise, rest, and access sunlight and fresh air. This can save money in reduced hay and grain costs, and also protect water quality by reducing soil erosion and nutrients in run-off.

Follow these tips to achieve quality pasture for your horses:

▶ **Establish, renovate, and maintain pastures.**

Pasture establishment and renovation begins with planning. Test your soils to determine nutrient composition and pH. This will tell you how much lime and fertilizer may be needed and helps prevent over-fertilization. Consider a mixture of warm and cool season grasses and legumes to maintain forage throughout the growing season. Consult the planting guide for your seed to determine the best time of year to seed your pasture. Use high-quality seed mixes that are specifically designed for pastures (not lawns). For existing pastures, do not reseed the entire pasture at once, as horses will need to be removed until grasses have sufficiently established to withstand grazing. Maintain existing pastures by over-seeding and renovating bare spots to keep a healthy grass stand year to year.

▶ **Fertilize.**

Retest soils every 2-3 years to determine how much and what type of nutrients your soil may need. One great way to fertilize is with composted manure, as this will add both nitrogen and phosphorus back into the soil. Dragging pastures also distributes nutrients from manure more evenly, helping them get absorbed into the soil instead of running off into streams. Commercial fertilizers are also an option. Be careful not to over-apply (follow the recommendations based on your soil test results) as this will cause run-off of excess nutrients, both a waste of money and harmful to nearby water bodies.

▶ **Consider rotational grazing.**

Continuous grazing involves keeping horses on a single pasture, compared to rotational grazing which involves moving horses between multiple sub-pastures. Continuous grazing works if adequate pasture acreage and proper stocking density is maintained (generally one horse per two acres). Too many horses will overgraze pastures, while too few will selectively spot graze high quality forage, leaving less desirable grasses and weeds to mature and go to seed. Rotational grazing allows for periodic resting of pastures, thereby increasing grass growth. Rotational grazing is a good alternative for small acreage horse farms where pasture is limited. Horses should be rotated between sub-pastures once grasses have been grazed to 3-4 inches (generally every 2-3 weeks). Mow the high un-grazed areas as soon as horses are removed from a sub-pasture, or every few weeks during the growing season in continuously grazed pastures, to stimulate new plant growth and reduce spot grazing.

▶ **Manage weeds.**

Weeds can outcompete desirable pasture grasses and some can even be toxic to horses. Contact your agricultural extension agent for help identifying pasture weeds. Limit weeds by using high quality seed, maintaining good grass density, and mowing pastures before weeds go to seed. Use herbicides judiciously and only when needed, and follow all manufacturer's guidelines when applying.

▶ **Create and use a sacrifice area.**

To keep pastures from turning into mud lots establish and use a "sacrifice area," better known as a paddock, pen, run, or dry lot. This is an area where horses are kept during wet conditions to save the pasture from being torn up. No grass is expected to grow here: therefore, it is "sacrificed."

▶ **Establish a buffer.**

When planning fence lines for pastures, leave a buffer of at least 25-feet between pastures and all streams and wetlands. Maintaining an adequate buffer will help prevent run-off of nutrients and sediment from pastures to nearby water bodies.

▶ **Protect horse health.**

Laminitis (or founder) can result in chronic lameness or death. Many grass varieties commonly used for horse pastures can contain high levels of sugars and other non-structural carbohydrates, known to cause laminitis. When switching from low forage pastures or dry lots to lush pastures, gradually increase turnout time over a 10-day period to reduce laminitis risk. Be especially careful in spring and fall, when the combination of cool nights and warm days increases sugar content in grasses. In addition, fescue and perennial ryegrass can contain an endophyte known to cause health problems in pregnant mares. Fescue varieties marketed as endophyte-free or containing a safe form of endophyte are alternatives for breeding farms.



Contact your local Soil and Water Conservation District

www.ncagr.gov/SWC/findyourdistrict.html

or County Agricultural Extension

www.ces.ncsu.edu/local-county-center

for more information, recommendations and possible financial assistance.

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