

Temporary Fencing for Horse Pastures

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Rotational grazing has long been used by livestock producers as a way to use pasture more efficiently. By dividing large pastures into smaller paddocks, animals make better use of available forage. Horses especially tend to be selective grazers, and the use of smaller paddocks encourages them to eat more of what is available.

Improved pasture utilization means greater carrying capacity, or stocking rate, for the horse owner. This is important for limited acreage pastures as well as for boarding operations where stocking rates may exceed more than one horse per acre. Rotational grazing also stretches the length of the grazing season, resulting in decreased winter feeding costs.

Temporary electric fencing is often used to divide pastures for rotational grazing. Temporary fencing is also helpful in keeping horses off overgrazed or recently renovated areas until new forages are established. Another advantage of temporary fencing is that it is easy to install and move as needed.

This publication examines the use and safety of temporary fencing, as well as the costs and potential savings of rotational grazing using temporary fencing.

Safety

Existing perimeter fence should be strong enough to contain horses sufficiently. Horses should be trained to electric fencing by first putting them in a small fenced area. Using smaller areas decreases the risk of horses running through the fence. However, the area should not be so small that

horses cannot get away from the fence if shocked. Keep in mind that electric fencing works as a psychological barrier, not a physical one. Fences must remain charged at all times in order for the psychology to work.

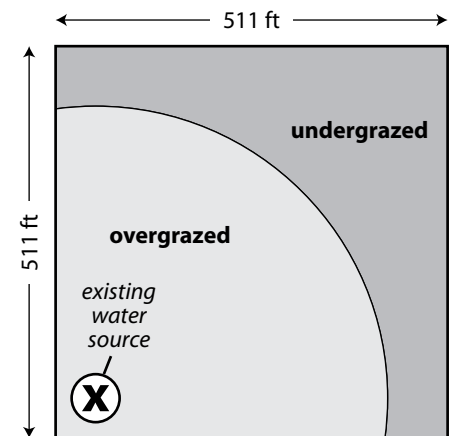
White polytape is the most visible fencing and therefore the best choice for horses. Choose a polytape that is at least 3/4-inch wide that contains at least five steel strands. Heavyweight plastic step-in posts are sturdy and usually the easiest to use. Metal fence posts are not recommended.

Paddock Layout

Figure 1 illustrates a sample pasture for this exercise. This pasture is six acres, roughly square, and three horses are permitted to continuously graze here. A water hydrant and tank are located in one corner of the pasture as shown in Figure 1. In this situation, horses are permitted to make their own grazing decisions and will tend to overgraze some areas and undergraze others.

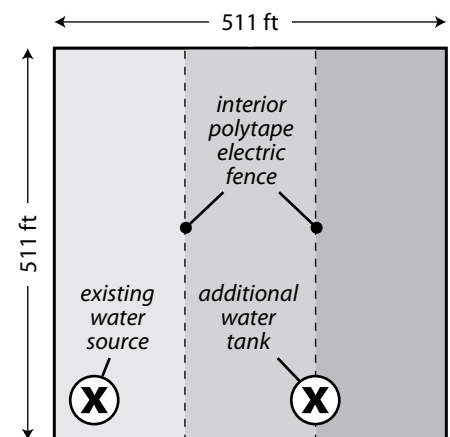
To convert this continuously grazed pasture to intensively grazed paddocks, the horse owner would need to determine how to lay out paddocks and invest in internal fencing and a portable watering system. There are many ways to lay out new paddocks. Figure 2 illustrates a possible grazing system using three paddocks. Location of the water source usually dictates the most logical design. For a newly designed system where no water yet exists, a simple solution would be to lay out all three paddocks to intersect somewhere near the center of the field. This would allow use of just one water source.

Figure 1. Continuous grazing pasture layout.



- 6-acre field (511 ft x 511 ft)
- No internal fencing
- Horses make grazing decisions

Figure 2. Rotational grazing pasture layout.



- 6-acre field (511 ft x 511 ft)
- Pasture fenced into three equal-sized paddocks
- Additional water tank positioned between second and third paddock

In situations where existing water systems are present, they are typically located along a perimeter fence, as in the sample layout in Figure 1. If this water source cannot be accessed from other paddocks, then water sources must be added. This is most easily done by purchasing a portable watering tank and some heavy-duty water hose. The tank should be positioned so that it can be shared between the other two paddocks.

Dotted lines drawn in Figure 2 show the placement of temporary electric fence. Two to three strands of tape would likely be sufficient. Use of three strands would require roughly 3,066 feet of tape. If a step-in post is placed every 15 feet, the horse owner will also need to purchase about 69 step-in posts. Finally, a portable salt/mineral feeder that can be moved from paddock to paddock with the horses may also be needed.

Managing Paddocks

The growth rate of forages and stocking rate per paddock will determine when horses should be moved to the next paddock. A good rule of thumb is to make sure that horses do not graze the forage below 3 inches. Paddocks should be monitored closely so that overgrazing does not occur.

During periods of fast forage growth, it may be necessary to mow one or more paddocks. If horses are not grazing forage, it should be mowed before the grass is allowed to produce seed heads. This helps keep forages actively growing and results in better quality.

Temporary fencing can also be used to keep horses off newly seeded paddocks. Allow new seedlings to get about 3 inches tall before letting horses on this pasture. Horses can graze very closely, so care must be taken that they do not overgraze or pull up new seedlings. It may be necessary to move horses after only a short time to prevent new seedling damage.

Initial Costs

Estimating the cost of this system depends on individual needs and the cost of supplies in different areas. Table 1 outlines cost estimates for this six-acre pasture example at the time of publication. Total cost of converting this pasture to a three-paddock rotation is estimated to be \$1,067.30. If these costs are spread out over five years, the annual cost for this improvement is \$213.46 (see Table 1).

Savings and Return on Investment

Horse owners would recoup these costs by feeding less hay during the winter. Assuming the horses are fed 25 pounds of good-quality (mixed alfalfa/grass) hay per head per day during the winter at a cost of \$175/ton, the cost per day of feeding these three horses is \$6.56. Based on the estimated annualized cost of \$213.46 per year, this horse owner would need to get an additional

33 grazing days per year to recoup this investment. This amounts to an attainable goal of only one month of additional grazing per year.

Another way to recover investment costs is through boarding capabilities. Pasture leasing and boarding costs vary throughout the state. If one additional horse was boarded on pasture at \$20 per month, this would easily offset the annualized investment of \$213.46.

Needs of individual horse owners will vary, but the concept of rotational grazing will always be the same. By dividing large pastures into smaller paddocks and moving horses from paddock to paddock throughout the grazing season, better pasture utilization is possible. Utilizing a larger percentage of available forage means greater carrying capacity and less potential for overgrazing. Greater carrying capacity means that more horses can be grazed per acre, or, as in the preceding scenario, the grazing season can be extended in order to decrease winter hay needs.

Table 1. Estimated additional cost of setting up a rotational grazing system.

Item Purchased	Quantity Purchased	Cost per Unit	Total Expenses
Electric fence charger (low impedance charger)	1 charger	\$150	\$150.00
Ground rods for charger	3 rods	\$12	\$36
Lightning arrestor	1 arrestor	\$10	\$10
Ground rods for arrestor	3 rods	\$12	\$36
Interior electric polytape (3/4" minimum, white)	3,066	\$0.05 per foot	\$153.30
Step-in posts (heavyweight plastic)	69 posts	\$3.00 per post	\$207.00
60-gallon portable watering tank	1 tank	\$150 each	\$150.00
Heavy-duty water hose	350 feet	\$0.50 per foot	\$175.00
Portable mineral feeder	1 feeder	\$150	\$150.00
Total cost			\$1,067.30
Annualized cost over 5 years			\$213.46