

## Equine Pasture Management "A Year-Round Approach"

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### Introduction

Pasture management is an evolving dynamic system requiring care and supervision year-round. Equine practitioners often expect their pastures to provide areas for exercise, training, and forage production, without providing adequate levels of plant management to obtain these goals and expectations. Pasture management is not a "one-shot deal," but should be regarded as a system in constant fluctuation. Equine practitioners need to assess pasture management much as they do horse management, relationship to nutrition, grooming, eventing, breed selection, health care, rest/recuperation, and overall general equine common sense.

### Nutrition

Pastures, much like horses, need a balanced diet if they are to attain optimal growth and performance. Unfortunately though, pastures quite often are left to fend for themselves until such time as they either become an eyesore or have little or no stand utility.

When meeting their horses' nutritional demands, producers go all out in balancing horses' diets by using prescribed rations and feeds. Reaching the same level of management for the pasture should be a goal of equine practitioners. To achieve the same level for their pastures, growers need to begin by taking a soil test at least every other year, if not every year, to monitor nutritional needs. Nutrition requirements for pH and plant growth are essential if optimal growth and performance are desired. Much like the ration for a horse, a balanced diet for pastures goes very far in assisting in overall performance and forage production. Pastures with an average pH of 6.5 (or a range of 6.0-7.0) will allow for maximum nutrient utilization for optimal pasture growth and production. Fertilize pastures according to the seasons and expected performance demands. Apply fertilizer based upon soil test results to maximize pasture potentials. Applications split through-

out the pasture season encourage initial spring growth, regenerative summer growth, and, most important, fall root strengthening and subsequent winter protection.

### Grooming

Grooming pastures is another essential criterion of successful pasture management and subsequent plant and forage growth. Once pastures are grazed to adequate levels (3-4 inches), remove horses and then clip or mow, simultaneously drag, and fertilize. The mowing will cut off uneaten vegetation (forages and weeds) and will be extremely beneficial for regenerating new plant growth. This new growth will be more palatable and nutritious for successive pasturing in an applied rotation practice. Dragging pastures with commercial tine or chain drags or even with home-made drag designs, will help break up manure deposits and aerate the sod or thatch cover. Depending on each grower's situation, the rotation of use should be done on a four- to five-week schedule. The size of the pasture and the related stocking needs will determine the rotational schedule in conjunction with weather conditions, nutrient practices, and the pasture quality.

Stocking rates will have a tremendous impact on pastures, as will the "eventing" use of that pasture. One horse per acre should be a common goal for pasturing success in much of New Jersey. When combined with larger equine numbers, intensive grazing of one or more horses per acre can be achieved in an integrated pasture-rotation system. If the pasture is used for other reasons, i.e., turnout, exercise, and for various eventing/training, the relative success of the pasture will be impeded accordingly.

### Seed Variety

Pasture forage species and blend selections should be analyzed, much like matching equine breeds to the task or specific job you want the horse to do. You wouldn't generally pick a standardbred for dressage, so in parallel



you would not plant alfalfa in high-traffic exercise paddocks. For general purposes it is best to select a mix of grasses and legumes that provide pasturing needs throughout the growing season.

Cool-season species, such as timothy, perennial ryegrass, brome grass, bluegrass, reed canary grass, and orchard grass provide early grazing in spring and early summer. They will also provide grazing when cooler temperatures arrive in fall. These grasses perform adequately when managed properly and provide partial pasture during the summer months. Cool-season grasses in our area generally flower or bloom by mid-May and continue into early June. At this time they tend to mature and go to seed, producing coarse stalky forage that horses generally will not eat. Mowing at this time is critical, but generally should be done before the plants reach this stage of maturity.

Warm-season species will continue to grow and bloom during the hotter, drier summer months if properly grazed, fertilized, and clipped. Within this grouping are legumes (clovers, trefoils, and vetches) that mature with the cool-season varieties, but offer continued regrowth during summer and into early fall under proper management (see figure).

## Rest-Rotation-Recuperation

Pastures, not unlike horses, need rest and recuperation if they are to maximize production goals. Rest for a pasture will reduce the stress from equine traffic and allow the forages to recuperate and establish new growth. Rotational goals should allow plants to reestablish new leaf growth for photosynthesis. Without rest the pasture's regenerative process will not respond well to fertilization and water efficiently.

Proper pasture health care, not unlike equine health care, is essential for maximum production. Pastures may also need insect, disease, and/or weed controls based on diagnosis by a specialist. If left untreated, infested pastures will be less productive and possibly may even die out. The higher the stress factor placed upon the pasture, the greater the chance for poor performance and production.

## Conclusion

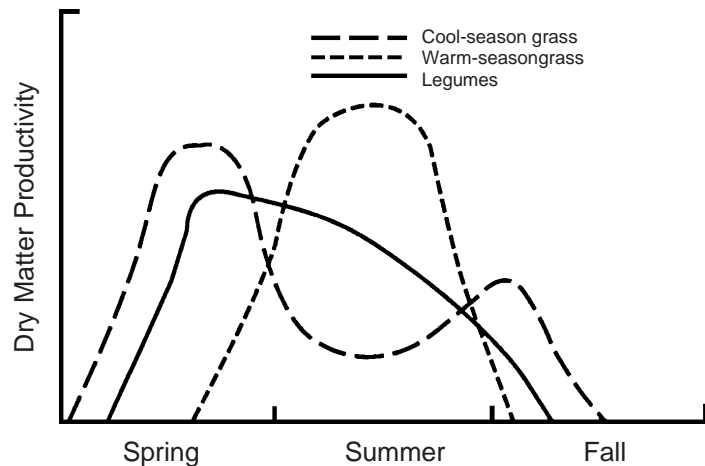
The higher the level of management, the more successful the pasture will be both in quality and quantity, creating the proper pasture atmosphere. Management, combined with rainfall and a good pasture stand, should create an atmosphere for a proper pasture. Remember the following points, which greatly assist successful management of your equine pasture:

1. Graze often, but do not over-graze.
2. Graze half and leave half.
3. Vary reentry times based upon seasons and regrowth potentials.
4. Avoid grazing certain species during stem elongation growth periods to limit plant injury. Timothy and brome grass are subject to this injury.
5. Clip, drag, fertilize, reseed, and evaluate pastures.
6. Rest, rotate, and recuperate.

## References

Justin, James R., "Establishing and Managing Horse Pastures." Rutgers Cooperative Extension Fact Sheet: FS368.

Fick, Gary W., and Seaney, Robert R., 1988. "Species Selection as Applied to Pastures." Northeast Regional Agricultural Extension Service Workshop-36.



Seasonal growth rate pattern demonstrates that no one grass can satisfy pasture need for entire season. (Chart from NERAS - 36 workshop proceeding)

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