Managing New Pasture Plantings

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In preparation for successful new pasture establishment and to achieve good dry matter yields, the stand needs to maintain good health as it matures. Practices for a thriving stand include:

Pastures ~20 days after planting.

Minimize weed competition. In a new seeding, remove weeds early. They compete for nutrients, water, and space. Remember the farmer motto "small weeds – small problem, big weeds – big problem." Do not allow weeds to get ahead of the new seeding.

Control is weed-specific and may be harder when planting pasture mixes, as control methods and herbicides are limited. If a mix contains only grasses, control is easier – there are many broadleaf weed control products. It is more challenging, however, when clovers are present. Ideally, consider applying pre-emergent control prior to seeding. If weeds increase after seeding, mowing is also an alternative.

If planting summer annuals in cool-season pastures, chemical control or light tilling is needed to weaken existing grasses.

Two months after planting with fertilizer applied after weed control.

Adjust soil fertility. You likely took soil samples before seeding and followed the recommendations its results showed. Depending on your soils, you may have needed lime to correct soil acidity, especially if seeding clover. Adequate soil pH, usually 6.5-7.0, supports growth of desirable nitrogen-fixing bacteria in clovers and legumes in general, as well as other soil microorganisms.

Next, consider nitrogen (N). Soils are not tested for N – rather N is applied based on yield potential and soil type, and is best utilized in small, frequent applications. If pasture mix contains clovers, N application should not be >25 lbs/ac, as it will negatively affect N fixation by legumes. In a renovation seeding, you likely had existing vegetation and need to be careful when fertilizing; N will encourage growth of previous grasses, including weeds. Existing vegetation growth may choke new seedlings competing for water and nutrients.

Phosphorus (P) is a key element in new seedings; it stimulates root growth and plant vigor. Unlike N, P and potassium (K) fertilization should follow soil test recommendations. Young seedling K requirements are low but once the new stand is established or closing (60% cover), K is critical for persistence, winter hardiness, and yield.

During drought, consider avoiding applying fertilizer to stressed seedlings, as this will cause further strain.

Manage grazing/cutting (timing). First grazing promotes growth by removing the top 1½" of the canopy 6-8 weeks after planting perennials and 1-2 weeks earlier for annual grasses like teff, forage crabgrass, or annual/Italian ryegrass. This timing assumes conditions are ideal without drought or cold. At this time, plants should be ~8-12" tall. Before grazing, allow seedlings to develop roots. Test by pulling a plant by the leaves; it should not be uprooted. If easily uprooted, do not graze. Wait 1-2 weeks to allow root anchoring. Cattle graze by wrapping their tongues around plants and pulling. Limit livestock to a short period; do not graze too low or to a very short stubble height. If new seeding is a "spread-type" as opposed to bunch grass, an early clipping will break apical dominance and stimulate branching, allowing sideways growth. Wait for regrowth before grazing.

Another option, especially in the Upper Midwest, is to end grazing or clipping ahead of a killing frost to allow winter hardening, usually 4-6 weeks before a killing frost. Once plants are winterhardy, moderate grazing can take place until freeze-over.