

Illinois Grazing Manual Fact Sheet ESTABLISHMENT/RENOVATION

Frost Seeding



What

Frost seeding (sometimes called overseeding or surface seeding) is the broadcast, surface placement of seed in late winter, early spring. Ideally, the soil should still be frozen. This method is dependent upon the freezing and thawing cycles of soil, plus late snowfall or early spring rain, and perhaps livestock traffic to provide seed-to-soil contact/coverage. One should avoid frost seeding on heavy snow. Probability of success will be lessened in years with dry springs and on sandy soils.

Why

Interest in this old technique has increased with efforts to improve pasture productivity and quality. Frost seeding is one of the most cost effective and energy efficient seeding methods. Since it works well on slopes, frost seeding reduces soil erosion that could occur if the soil was tilled.

How

Cyclone-type spreaders that mount onto ATV's or tractor 3-point hitches are commonly used in frost seeding. One must determine the effective seeding width for each type of seed or mixture.

Better stands are obtained when frost seeding into a bunch grass or into thin sods of a sod forming grass. Pastures to be frost seeded need to be grazed heavily or closely clipped in the fall to reduce plant competition.

Frost seeded pastures need to be grazed regularly in the spring and summer to allow sunlight to penetrate the plant canopy. But, livestock should not be allowed to closely graze the new seedlings until they are established.

Since there may not be uniform seed germination and emergence, frost seeding is designed for pastures and not for establishing hay fields.

Species to Seed

Species that germinate rapidly are best for frost seeding. Medium red clover is the easiest legume to frost seed due to its good seedling vigor, shade and cold tolerance. A second option would be ladino clover. Even though slower to establish, lespedeza may be considered in southern Illinois. Frost seeded legumes need to be properly inoculated, the soil pH must be in the proper range, and soil drainage must fit the species.

Most cool-season grasses do not establish from frost seeding as well as legumes. However, farmer experience and university data indicate that ryegrass (forage type) and orchardgrass can be successfully frost seeded.



Seed Rates

Red clover can be seeded at 4 to 6 pounds per acre and ladino clover at 2 to 3 pounds per acre. If mixed, seed 3 to 4 pounds of red clover plus 1 to 2 pounds of ladino clover per acre. Lespedeza can be seeded at 8 to 10 pounds per acre.

Ryegrass (forage type) can be seeded at 8 to 10 pounds per acre and orchardgrass at 3 to 4 pounds per acre.

Summary

With proper management and cooperation from Mother Nature, frost seeding is an economical, effective way to improve the quality and quantity of pastures.

Where to Get Help

For more information about forage testing contact your local office of the USDA Natural Resources Conservation Service, listed in the telephone Directory under "U.S. Government," or the University of Illinois Extension.



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