



Clover adds nutritional value to forages while cutting the need for nitrogen fertilizers.
U of Arkansas System Division of Agriculture file photo courtesy John Jennings

Now Is The Time For Planting Legumes In Grass Pastures And Hay Fields

LITTLE ROCK, ARK.

Late winter, with its wild temperature swings, is the time ranchers should begin planting legumes such as clover in to grass pastures and hay fields, said John Jennings, professor-forage specialist for the University of Arkansas System Division of Agriculture.

“Adding legumes brings many benefits to forage system sustainability,” he said. “Legumes in grass pastures improve animal performance, increase nutritional quality of hay and pasture, extend grazing seasons, and reduce the need for nitrogen fertilizer.”

In a 2011 survey, more than 40 percent of Arkansas producers reported having added clover to pastures within the past five years and more than 25 percent grow clover to help dilute fescue endophyte toxicity.

“Site selection is important for maintaining good legume stands,” Jennings said. “Avoid shallow, droughty soils and sites with very low soil fertility or heavy weed infestation.”

Frost-seeding

Legumes can be planted into fescue and cool-season grass sods during fall or in late winter.

“Planting in late winter – February to early March – is sometimes called ‘frost-seeding’ because freezing and thawing of soil helps work the legume seed into the soil surface,” he said.

Good clover stands can be established with a no-till drill or by broadcast seeding. No-till drills should be calibrated and set to plant the seed no more than a half-inch deep. Fields should be clipped or grazed as closely as possible to remove the grass canopy and excess thatch before planting.

In heavy grass residue, no-till drills perform poorly and broadcast seed will not reach the soil surface. Closely grazed grass stubble of 2 inches or less is ideal. Roughing up the short sod by pulling a harrow, tire drag, or even a cedar tree across the field exposes soil and improves legume establishment.

Seeds that drop onto a slightly loosened soil surface will become anchored in place by action of frost or rain. White clover is the most popu-

lar clover in Arkansas. Seeding rate is 2-3 pounds per acre. Red clover is a better option for hay production. Seeding rate is 8-10 pounds per acre.

Soil fertility

Adequate soil fertility is necessary for good root growth and stand persistence. Nitrogen fertilizer isn’t needed for establishing legumes in grass sods. To obtain fertilizer and lime recommendations for overseeding legumes, ask for soil test code No. 116, “Legumes Over-seeded into Grass Sod,” when submitting soil samples to the county extension office.

Grazing for weed control

Weed control in mixed grass and legume pastures is a common concern.

“Reducing the reservoir of weed seeds in the soil before planting legumes should be of primary focus, since few options are available for controlling weeds once legumes are established in pastures,” Jennings said. “Several good herbicides and management practices can be used to reduce weed populations in grass pastures prior to planting legumes. Heavy grazing pressure may control certain weeds.”

After legumes have been planted, pastures should be grazed early in spring to reduce grass competition while the clover seedlings are emerging. It is recommended to continue grazing the grass canopy until the legume plants begin to emerge to control competition from the grass and allow more sunlight to reach the new seedlings.

As new seedlings emerge, remove livestock until the legumes reach sufficient size for grazing or hay harvest. “Sufficient size” of the legume will vary with species and intended use of the legume.

If the legume is being used for grazing, turn-in livestock when the legume is about 6-10 inches in height and remove the livestock when it has been grazed down to 3 inches. Rotational grazing will allow for more total yield produced over the growing season and will aid in maintaining the stand. Δ

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