HILL FARM RESEARCH STATION
OCTOBER 14, 2004
FIELD DAY SUMMARY REPORT

COMMODITY: Beef Cattle & Forages Crops

TITLE: Prepared Seedbed vs. Sodseeding for Cool-season Forages

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TAKE HOME MESSAGE:

Forage production from annual ryegrass differs depending on land preparation prior to planting. When annual ryegrass is planted into a prepared seedbed there should be enough growth to begin grazing in late fall or early winter. When annual ryegrass is seeded into an existing perennial grass sod grazing initiation will probably be delayed until mid to late winter. Sodseeded ryegrass may be most beneficial when used with a late winter or spring calving herd to provide high quality forage immediately prior and during the early breeding season. It would probably be necessary to till and prepare land before planting if using ryegrass for grazing stockers or fall-calving cows.

PROBLEM / TOPIC:

Annual ryegrass can provide high quality grazing during a period of the year when animal production programs are often relying on stored forages for feed. Annual ryegrass can be successfully established in environments ranging from minimal sod disturbance to full land preparation. Understanding the impact of planting method on forage production would be helpful when deciding how annual ryegrass can be used successfully in a cattle operation.

ACTION:

Studies evaluating tillage and sodseeding methods were conducted over several years to determine the effects of various agronomic factors on forage productivity of annual ryegrass. Phosphorous and potassium fertilization followed soil test recommendations. Nitrogen was applied in split applications in fall after ryegrass emergence and again in mid or late winter. Ammonium nitrate (34-0-0) was used as the N fertilizer source and applied at approximately 200 lb/acre in fall and 150-200 lb/acre on the second application date. Forage was initially harvested from each study when growth in at least one treatment reached 8-10 inches tall and continued approximately monthly afterward. Samples were collected from each plot at each harvest and dried to a consistent weight. Yields are reported on a dry matter/acre basis.

IMPACT:

Annual ryegrass produced an average of approximately 3 tons dry forage per acre per year when planted in a prepared seedbed (Figure 1). This was about 1 ton/acre/year more dry forage than when sodseeded into a perennial warm-season grass sod. About three-fourths of the forage production difference between the two planting methods occurred prior to March. Forage production from ryegrass was less when planted in mid-September than when planted anytime from early October through early December (Figure 2). It is difficult to establish a good stand in a rather actively growing warm-season grass sod. When sodseeding, results indicate a need to delay planting until soil moisture is adequate for germination and night temperatures are routinely below 60 ^{o}F to minimize the effect of the warm-season grass.

Figure 1. Effect of planting method on productivity of annual ryegrass, 4-year means, Winnsboro, LA.

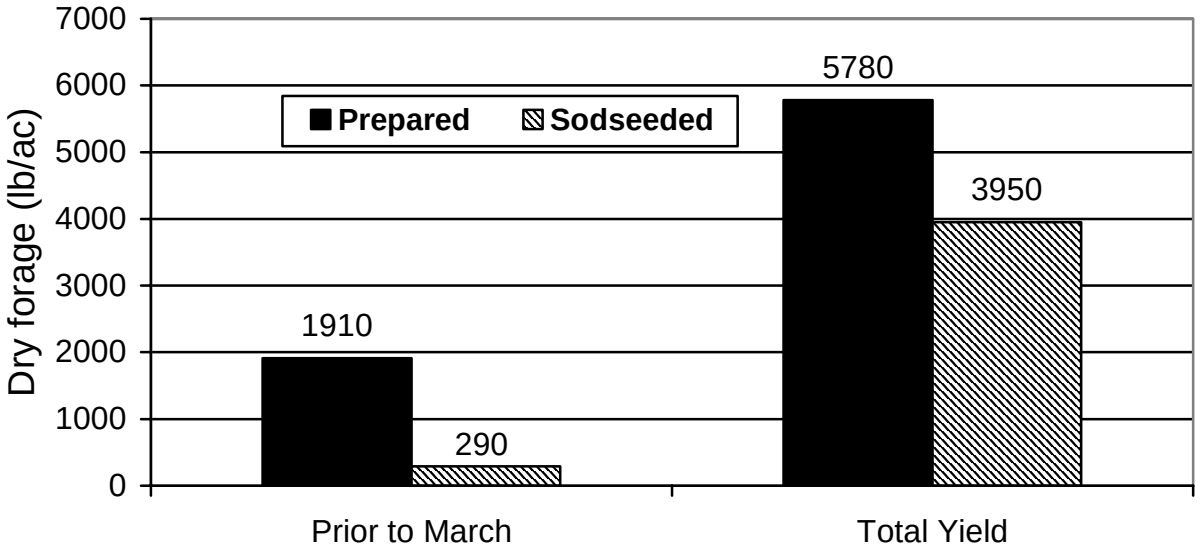

Figure 2. Effect of planting date and light tillage on forage production from sodseeded annual ryegrass, 3-year means, Winnsboro, LA.