

Fort Chaffee Maneuver Training Center Native Grasses Restoration

Conclusion Report
6 January 2006

Objective: The USDA-NRCS Booneville Plant Materials Center (PMC) will provide a complete study and plan for native grasses restoration on Fort Chaffee Maneuver Training Center.

The two sites, planted in March, 2004 have been evaluated (see attached spreadsheet) on 3 dates during the first growing season. All treatments have performed well during the first year. The percent stand ranged from 60-90%, and the percent cover ranged from 50-90%. Each species performed at good to excellent rating across treatments.

Fertility will be adjusted in the spring (2006) to maximize forage production during the second growing season. A harvest is expected during the second growing season unless drought occurs.

A third site has been selected to be planted this spring (2006). This new site represents shallow Mountainburg soil that is representative of large tracts of potential hay lease on Fort Chaffee. Data will be collected on drought tolerance of the warm season native grasses. Those that will not persist under this condition will be deleted from planting specifications on such tracts.

Recommendations: Site characterization and any necessary pH adjustments should be completed at least 6 mos. prior to planting. If significant residue is present, the site should be burned. Seedbed preparation should begin as soon after the burn as possible. It is very important to have a firm, clean (free of plant residue) seedbed. A water or concrete filled roller should be used before AND after planting to insure a firm seedbed and good seed to soil contact. Drill native grasses at recommended rates to a depth of not over ½ inch, by May 15. On sites that have shallow soils (4 inches to bedrock or less), or 2% slopes or steeper, apply native grass hay, or small grain straw mulch at a rate of 1.5 to 2 tons per acre. Look for germinating seedlings in 10 to 14 days. Do not fertilize or apply herbicides during the establishment year. As a management tool, burn fields of native grasses annually as close to March 15 as possible. Fertilizer such as 13-13-13 or 17-17-17, should be applied annually at spring green-up at a rate of 150-250 lbs/ac. Animal waste, such as broiler litter may be used as fertilizer at a rate of 4 tons (dry) per acre/year. Pull soil samples every 3 years for analysis, and fertilize accordingly.

Native grasses may be used for grazing or hay production. It is VERY important to maintain stubble height of 4 -6 inches. This is especially critical after July 15. Prior to that date, stubble height does not affect the population.

Attachment

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