SOUTH DAKOTA– SDSU Forage Research Snapshot

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Harvesting alfalfa variety trial plots at the Southeast Research Farm.

Many forage research projects and demonstrations are being conducted this year. A ryelage packing and chop length demonstration is underway, and a corn silage packing and chop length demonstration is planned at the Southeast Research Farm near Beresford. Additionally, two alfalfa demonstration plots were planted in cooperation with Nebraska Extension, with a second site at the Haskell Ag Lab near Concord, NE. These sites will continue for 3 years and focus on potential advantages of inoculated vs. non-inoculated alfalfa seed as well as planting density. These local projects have been established as research/demonstration plots to assist farmers. Seeding rates of 5, 7.5, 10, 12.5, 15, and 20 lbs of alfalfa seed/ac were planted for both trials and replicated four times. The inoculant trial was set up with seeding rates in a split strip plot design; Vernal seed was seeded. The seeding rate trial was planted with inoculated DB AquaMax in an RCBD design. Misunderstanding of inoculant/inoculated seed and a general misinterpretation of alfalfa planting density requirements and planting density calculations when using coated alfalfa seed seem to be common issues among local farmers.

In addition, a commercial alfalfa variety trial is underway (year 2). Another variety trial was planted this spring to meet the objectives of a multi-state (ND-SD) grant focusing on alfalfa management practices and their effect on arbuscular mycorrhizal fungi (AMF) populations - towards improving health, productivity, and sustainability. A small-plot variety trial was planted at the Southeast Research Farm focusing on determining the impact of mycorrhizal soil additives on alfalfa yield and quality. In addition, a spring, state-wide alfalfa sampling took place (across 36 counties in SD and ND) to assist in determining if AM fungal communities differ among alfalfa varieties in SD and ND.

Drought conditions may put project results in jeopardy. However, research continues with the caveat that Mother Nature is in charge.