Forage Production and Animal Performance on Non-toxic Endophyte Tall Fescue. (C06-macoon125942-Oral)

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Abstract:

Animals grazing non-toxic endophyte-infected tall fescue (Festuca arundinacea) pastures do not display the characteristic poor animal performance associated with the alkaloid-producing fungal endophyte Neotyphodium coenophialum. These non-toxic varieties may be adaptable to areas south of the traditional tall fescue zone in the USA, thus providing a perennial cool season forage in areas where annual ryegrass (Lolium multiflorum) is the dominant cool season forage, but is costly to establish every year. A grazing trial was conducted near Raymond, MS to assess pasture and animal performance when steers (240 kg initial weight) grazed two non-toxic endophyte-infected ('GA5' and 'Jesup') or endophyte-free ('Kentucky-31') tall fescue compared to 'Marshall' ryegrass pastures. First-year results (174 d grazing) indicate that average daily gain (ADG) was similar among the tall fescue cultivars, averaging 0.83 kg, but ADG was greater on ryegrass pastures (1.02 kg). Average herbage mass (HM) was similar among tall fescue pastures, averaging 2.3 Mg ha-1, but ryegrass pastures had less HM (1.6 Mg ha-1). These results suggest that tall fescue pastures may produce acceptable ADG, but their use in production systems will depend on long-term pasture persistence.

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Presentation Information:

Presentation Date: Tuesday, November 12, 2002 Presentation Time: 1:45 pm

Keywords:

average daily gain, herbage mass, herbage accumulation, non-toxic endophyte tall fescue