Phosphorus Fertilization and Nutrient Mobilization in Stockpiled Tall Fescue. (C02-blevins132014-Poster)

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Abstract:

Little information is available on the effects of phosphorus and boron fertilization on nutrient quality of stockpiled tall fescue. In late August 2001 a tall fescue pasture was clipped and forage removed at the MU Southwest Center near Mt. Vernon MO. Soil tested low in P and low to moderate in B, and these values are common for unimproved pastures in SW Missouri. Treatments were: 0, 12.5 and 25 lbs P/acre, and 0, 0.5 and 1.0 lbs B/acre and each treatment was replicated six times. In October, November, early January, February, March and April, 20 of the most recently collared leaf blades were harvested and analyzed for Mg, Ca, K and P concentrations. Hay was harvested in late May. Leaf Mg, K and P at the October harvest were highest with the 25 lbs P/acre treatment. After October, leaf Mg, K and P declined through February. Leaf calcium remained constant for all treatments during winter. In November, leaf P was lowest in plants treated with the highest P rate, perhaps remobilization of the nutrient was accelerated with high P. Late May hay yield showed a strong response to P fertilization and the 0.5 lb B/acre treatment also produced a yield response. Stockpiling tall fescue during the winter may lead to deficiencies in Mg and P for grazing beef cattle.

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