

ENHANCED EFFICIENCY N FORMULATION EFFECT ON STOCKPILED TALL FESCUE

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Late summer application of nitrogen (N) fertilizer on stockpiled tall fescue has shown to improve forage yields. The use of enhanced efficiency (EE) N fertilizers may be of benefit by reducing ammonia volatilization losses and promoting forage growth later in the growing season. This study evaluated the effect of different EE N formulations (Agrotain treated urea, SuperU, and Environmentally Smart Nitrogen) and untreated urea on the yield and nutritive value of stockpiled 'KY 31' tall fescue over two stockpiling periods (2015-2016 and 2016-2017). Nitrogen was applied at four rates (0, 40, 80, and 120 lb N/acre) in one application in late August to begin the stockpiling period in Lexington, KY. During the 2015-2016 stockpiling period, forage yields increased with increasing N rates; forage yields ranged from 2,600 lb DM/acre when no N was applied and up to 3,689 lb DM/acre when 120 lb N/acre was applied. There was a lower response during the second year, but forage yields increased 75% with the application of N. Forage nutritive value was improved with increasing N rates. There were no differences among EE N sources and standard urea. In summary, N applied in August improved stockpiled forage yield and nutritive value regardless of N source.

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