

Pre-graze mowing: a cost-benefit analysis

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Pre-graze mowing of summer pasture is used to remove reproductive vegetation; however, the benefit for improved pasture utilization is uncertain. The objective of this study is to investigate the effect of mowing pasture prior to grazing on total forage utilization in mature tall fescue (*Festuca arundinacea*) pasture. Pre- and post-graze samples were taken from the “above-mower-height” and the “below-mower-height” and then separated into four fractions (green or dead, leaf or stem) to determine sward composition and fraction consumed by livestock. Livestock species include sheep (*Ovis aries*), cattle (*Bos taurus*), and goats (*Capra aegagrus*). Pastures were divided into 0.25 acre paddocks, which were grazed two days each, with the mowing treatment randomly assigned in a randomized complete block design. There was a general trend for total forage utilization to be greater in the mowed treatment; however there was some variation among livestock species. Cattle consumed 50% of the dry matter in the mowed treatment and only 25% in the un-mowed treatment. The sheep and goats consumed 27% of the dry matter in the mowed and 20% in the un-mowed treatments. A cost-benefit analysis showed that pre-graze mowing for cattle would be feasible, but for sheep or goats, mowing would not yield enough benefit to cover additional mowing expenses. However, if post-graze mowing is already a part of the management scheme, there would be little additional expense for adopting pre-graze mowing, and then the increased dry matter intake becomes more valuable.