GRAZING MANAGEMENT STRATEGIES FOR RECYCLING NUTRIENTS

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During drought conditions, many cattle producers are faced with soil fertility decisions. Some opt to not fertilize; however, fertilizing during a drought may be the most important time to do so. A well fertilized soil will utilize limited rainfall more efficiently than a poorly fertilized soil.

In addition to fertilizing pastures, producers can reduce nutrient losses by practicing certain grazing management strategies. Although grazing management does not add new nutrients to the soil, it can, however, recycle forage nutrients removed by cattle back into the pasture.

According to the NRCS Agricultural Waste Management Field Handbook, a 1000 lb live weight grazing beef cow can excrete 0.33, 0.28 and 0.31 lbs/day of N, P_2O_5 and K_2O, respectively. Over a one year period, this translates to 120, 102, and 113 lbs of N, P_2O_5 and K_2O, respectively. If assigning a stocking rate of 1 cow per 3 acres, this further translates to recycling 40 lbs N, 34 lbs P_2O_5 and 38 lbs K_2O/acre/year.

By using cross-fencing and intensive grazing systems, a producer can recycle these valuable nutrients back onto the pasture rather than concentrating them into heavy-use areas where animals feed and water. Nutrients lost to waterways are not only an example of poor nutrient management but are also a source of pollution. Cattle with full access to ponds and streams can erode the banks while excreting excess organic matter and nutrients into the water. This can result in algal blooms, depletion of O_2 and fish kills. Limiting or restricting livestock access to waterways by fencing and providing water or mineral supplements away from waterways can also improve nutrient management. A producer that continually practices proper nutrient and grazing management strategies can improve soil fertility, water quality and reduce nutrient inputs over time.