

Strategies to improve corn residue utilization

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Two experiments investigated methods to increase corn residue utilization by forage processing, water and supplement addition, and harvest method. In the first experiment, feeding high-moisture, lower fiber corn stover (CS) both increased DMI and reduced waste. Further processing and bunk feeding dry stover decreased waste but showed no effect on DMI. No harvest method effect was observed within dry stover feeding strategies. Processing and feeding CS in bunks was not effective at increasing DMI, however waste was reduced. Waste was increased in ring feeders compared to bunks due to feeder design and increased sorting ability. In Experiment 2, mixing CS with water and protein supplement was not effective at increasing CS DMI compared to CS fed protein supplement separately. No difference was observed in CS waste between treatments. Mixing liquid protein supplement with CS increased protein supplement waste and ability to sort CS for higher quality fractions. Mixing water or water and supplement with CS resulted in greater NDF and lesser CP in ORTs compared to offered indicating sorting. Increased sorting in moisture-added treatments was due to increased sorption rate of husk and leaf fractions compared to stalk portions resulting in increased husk and leaf palatability without improving stalk palatability.