Hay Stack Forage Quality Losses in Six Months

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The effects of several months storage of hay was studied to quantify changes in forage quality parameters. The acid detergent fiber (ADF) increased from 2.7 to 5.3% from initial to final points across all hays. The change in neutral detergent fiber (aNDF) was inconsistent for the 4 hays. The RFV index did not change in the alfalfa/grass mix hay, but declined by 14, 21, and 11 units in the other 3 alfalfa hays. The NDF digestibility in 48 hours (NDFD48, as % of NDF) declined an average of 2.9% across the 4 hays. The net energy for lactation (NE/Lact), digestible dry matter, relative feed value (RFV), and relative forage quality (RFQ) declined about the same magnitude across the 4 hays. Lignin, an indigestible fiber fraction, increased an average of 4.3% across the 4 hays. This paper documents the changes of hay quality in storage.