Enhancing Hay Value in Indiana by Improving Hay Drying Rates with an Alternative Means of Mechanical Conditioning. (C06-sweeten101631-Poster)

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Abstract:

Baling hay in the Midwest USA is challenging due to risk of rainfall. Rain damage has been documented to reduce dry matter yield 37% and protein 46% of the initial available protein. In Indiana, millions of dollars are lost annually due to yield reduction and reduced feed value from rain damage. Research evaluated the effectiveness of alternative non-intermeshing rubber conditioning rolls and a hay tedder in an effort to reduce drying times to 820 g/kg dry matter. The alternative conditioning rolls are being compared to traditional intermeshing rubber conditioning rolls. Five experiments were completed in 2001 in Indiana with the following crops; alfalfa (Medicago sativa L.), orchardgrass (Dactylis glomerata L.), and alfalfa/orchardgrass mix. The alternative conditioning rolls significantly (P< .05) reduced drying time in alfalfa and the mix up to 2.1 h, and orchardgrass up to 3.3 h. The tedder reduced drying time by 1.7 h in alfalfa and the mix, but did not significantly decrease drying time for second-harvest orchardgrass. There was no interaction between roll type and tedder. Alternative conditioning provides more benefit to producers who cover large hectareage.

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