Abstract:

New Alfalfa and Small Grains Varieties for New York

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A new high-quality alfalfa variety, N-R-GEE, was selected by Cornell’s forage breeding project for increased neutral detergent soluble fiber (NDSF) concentration in order to improve forage quality. NDSF consists mostly of pectin, a cell wall polysaccharide that serves as “cellular glue”. Pectin has the same rapid and extensive degradation characteristics of nonstructural carbohydrates, thus providing a rapid energy source for animals, but without the propensity to lower rumen pH or cause lactic acidosis. N-R-GEE has proven to be agronomically competitive and has shown good yields. During spring 2011, N-R-GEE was compared to a standard industry check (not high forage quality), Vernal, in a lamb feeding trial. Hay samples were analyzed and found to differ, as expected, in ADF and NDF (N-R-GEE lower), non-fiber carbohydrates, which includes pectin and other energy sources for the animal (N-R-GEE higher), and relative feed value (N-R-GEE higher). Lambs fed on N-R-GEE either ate more hay and gained more weight, or had similar weight gain while eating less hay when fed on N-R-GEE as compared to those fed on Vernal. More detailed results from the feeding study will be presented. Another new alfalfa variety, Ezra, is a fall dormancy 3 type alfalfa with good yield potential in NY and PA. Ezra traces part of its pedigree back to Seedway 9558.

Several new soft white winter wheat and oat varieties have been bred or selected by Cornell’s small grains breeding project. These include new soft white winter wheats Medina, Saranac, and Hopkins. All three show good yield potential and test weight, good lodging resistance, and resistance to both wheat spindle streak and wheat soilborne mosaic viruses. Medina has very good pre-harvest sprouting resistance. A new oat variety, Corral, was selected based on evaluations conducted in New York. It was bred in Illinois, but shows excellent yield and test weight, along with very good lodging resistance in our environments. Additional details of the performance of these new small grains varieties will be presented.