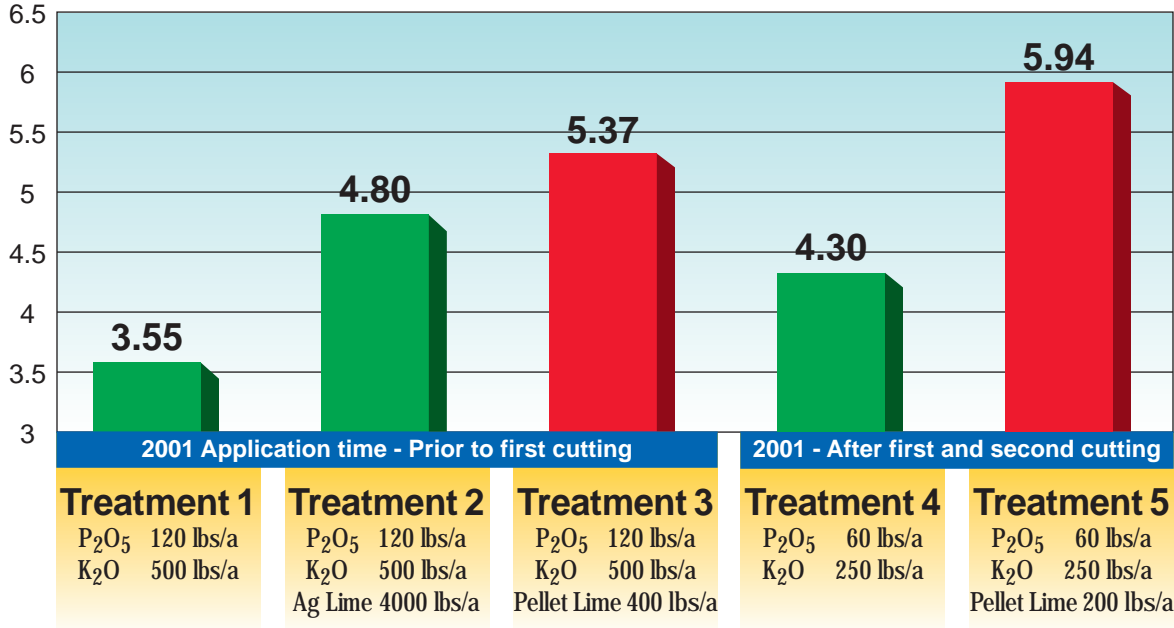




Alfalfa

Pelletized Lime Technology **2001**
Field Research Data and Analysis

Tons/Acre **Research Study Results / 2001** - Arise Research / Martinsville, Illinois



This trial studies the application timing using two rates of Pellet Lime. This is the second year for this study with the current stand of alfalfa and the sixth year overall.

Five out of the six years have resulted in statistically different alfalfa yields in favor of the Pellet Lime applications.

Yield LSD (P=0.05) .52; A common Midwest variety was used, randomized complete block design; 4 replications; fertility levels high, soil water pH was not a limiting factor at the onset of this experiment. Moderate heaving damage to all plots was noted. Pesticide applications were made to control leafhoppers and aphids during the growing season. There was no 4th cutting due to lack of regrowth.

Comments

Alfalfa yields for the 2001 growing season were lower than in years past due to slower recovery time of the plots. As a result, there were only three harvests instead of four. Significant yield differences occurred in each of the treatments. The addition of calcium clearly generated more tonnage over the straight P & K treatments. Comparing the calcium sources in this test shows that Pellet Lime produced greater tonnage and as a result greater feed value than the agricultural lime. The micro-ground particles in Pellet Lime are the key to this difference.

Alfalfa Seedling Establishment

The following is a review of the establishment of the current alfalfa fertility trial - established Summer 1999.

In the summer of 1999, a new stand of alfalfa was established with three of the five treatments applied at planting time. The plots were studied prior to winter dormancy to determine if any of the pre-plant treatments affected seedling establishment and plant health. Plots were seeded June 18th with a Brillion roller seeder. A 10 lb/acre seeding rate was achieved. Irrigation was applied at 1/2 inch per week to sustain the stand during the dry period of August and September. Ratings for both are seen in the following table. Plant health and established stand count is better in the Pellet Lime treatments.

Treatments	Dec. 6, 1999 Ratings	Plant Health Rating (1-10)	Plants per ft ²
No Lime, 120 lbs P205, 500 lbs K20		10	20.50
2 ton ag lime, 120 lbs P205, 500 lbs K20		9	24.00
400 lbs Pellet Lime, 120 lbs P205, 500 lbs K20		10	25.50

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