Forage Research Update *Compiled and edited by Paul Peterson, University of Minnesota*

North Dakota - Fall Harvesting Three Consecutive Years Yields a 3.6 Tons Per Acre Bonus

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In May 2004, two alfalfa varieties with different winter survival index (WSI) ratings ('Ameristand 201+Z' and an unnamed WSI 3.0 variety) were seeded in replicated plots on clay soil in Fargo, ND. Two cutting management treatments were imposed: 3 or 4 annual harvests with the fourth harvest taken in fall when plants attained either 40-50% bloom or 2-3 inches of regrowth from the crown. Fall cutting dates for the 4-cut treatment were October 7, September 28, and September 13 in 2004, 2005, and 2006, respectively. Yield data are shown in the accompanying table.

- Seeding-year (2004) yield doubled by fall harvesting; there was no indication of winter injury the following spring.
- Second-year (2005) yields were increased 1.5 tons/ac with fall harvesting; there was some evidence of winter injury to the less winter hardy variety the following spring.
- Third-year (2006) yields were increased 0.5 tons/ac with fall harvesting.
- Fall harvesting for 3 consecutive years resulted in an additional 3.6 tons/ac.
- Spring 2007 stand observations indicate little if any winter injury occurred during winter 2006-2007.
- A replicated on-farm research project is being initiated on 6-8 North Dakota farms in 2007.