

## FORAGE RESEARCH UPDATES

### NORTH DAKOTA

#### HAY QUALITY OF OATS: ALL VARIETIES ARE NOT EQUAL

*Dwain Meyer, North Dakota State University*

Preliminary data indicate that significant genetic differences in oat hay quality exist that should be considered when selecting an oat variety for forage (see Table 2). Eleven oat genotypes were planted at 1,000,000 live seeds/acre and harvested at initiation of soft dough to evaluate forage quality of oat hays during 2002-2003 at Fargo, ND. Some findings to date:

- Paul, a naked variety, and ND000461, a low lignin genotype, both late maturing, were the highest yielding genotypes.
- Ensiler, a forage type from Wisconsin, and ND001304 were the lowest yielding genotypes.
- Paul had the highest RFV but lowest crude protein (CP) of the genotypes tested.
- AC Assiniboia, a Canadian variety selected for low lignin in the hull, had the second highest RFV and CP content, and significantly less lignin than other named varieties except Paul.
- AC Ronald, included one year, had the second highest forage yield and quality.

A similar experiment will be conducted in 2004 at four North Dakota locations and in a regional project in western North and South Dakota and eastern Montana and Wyoming.

**Table 2: Forage yield and quality of 11 oat genotypes harvested at initiation of soft dough, Fargo, 2002-03.**

Genotype	Harvest Date	Forage Yield	Crude Protein	RFV
	2003	Tons/acre	%	Index
Paul	7-14	4.45	13.2	120
ND000461	7-14	4.18	14.1	104
Morton	7-3	3.99	13.7	91
HiFi	7-3	3.98	13.7	92
Ebeltoff	7-8	3.98	13.5	97
AC Assiniboia	7-3	3.83	14.9	106
ForagePlus	7-8	3.77	13.4	90
Jerry	7-1	3.69	14.4	92
Killdeer	7-1	3.62	14.6	89
Ensiler	7-3	3.54	13.4	92
ND001304	7-3	3.15	15.4	104
LSD 0.05		0.34	1.0	5.6