

## Influence of the method of forage conservation on composition of silages and dairy cows performance

A Kujawa, A Potkanski, H Kruczynska, W Nowak, J Matyniak

Department of Animal Nutrition and Feed Management, Agriculture University Poznan, Poland

The silages were prepared on 2 June 1993 from the first cut of grass-clover mixture (15.1 % *Lolium perenne*, 15.2 % *Lolium multiflorum*, 10.0 % *Lolium multiflorum v. oldenburgicum*, 42.7 % *Trifolium pratense*, 10.2 % *Trifolium repens*, 6.8 % weeds). The sward was cut with forage harvester, wilted 24 h under good weather and conserved in big round bales (A) without additive, (B) with inoculant and (C) with formic acid (3 l/t, 85 %).

The experimental design was 3x3 Latin square, using 2 cows per treatment.

The cows were fed one of 3 silages *ad libitum* and supplemented with 6 kg of concentrate and 100 g of mineral mixture per day.

The use of inoculant increased significantly silage dry matter intake compared to the no additive or formic acid treatment but had no effect on cows performance and chemical composition of milk.

Items	Fresh forage	Silages			Concentrate
		A	B	C	
Dry matter (g/kg)	255	242	294	231	890
Crude ash (g/kg DM)	103	99	114	110	58
Crude protein (g/kg DM)	160	177	185	189	181
N-NH <sub>3</sub> (% /kg total N)	-	8	7	6	-
Crude fiber (g/kg DM)	334	307	271	308	96
ADF (g/kg DM)	364	340	297	341	123
NDF (g/kg DM)	438	454	394	427	267
Lactic acid (g/kg DM)	-	89	93	69	-
Acetic acid (g/kg DM)	-	9	9	7	-
Butyric acid (g/kg DM)	-	2.2	1.0	0.7	-
WSC (g/kg DM)	115.5	4.4	4.8	7.4	-
Buffering cap (mEq/kg DM)	492	-	-	-	-
pH	-	4.84	4.38	4.66	-
DM intake (kg/day)	-	10.3 <sup>A</sup>	12.5 <sup>B</sup>	9.95 <sup>A</sup>	5.3
Milk production (kg FCM/day)	-	23.2	23.3	23.5	-
Fat (g/kg)	-	43.1	41.9	41.7	-
Protein (g/kg)	-	30.5	30.4	30.7	-

P≤0.01