

**FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR
PRODUCTION TRAITS**

COUNTRY: NORWAY	
Breed(s)	Norwegian Red Cattle
Trait(s) evaluated and unit(s) of measurement	Protein (kg)
Number of lactations	1
Genetic parameters assumed	$h^2 = 0.2$
Criteria for inclusion and extension of records	Records < 120 days not included Records \geq 120 days included after extension Terminated lactations included without extension Records in progress and records from culled cows are used in the same way
Sire categories evaluated	Only AI sires
Environmental effects considered by pre-adjustment	Age, season and DO
by evaluation model	Herd*year
Base for age adjustment (months)	ME
Use of genetic groups and/or relationships	Relationship matrix used for sire and MGS, no grouping
Method of evaluation	ST BLUP MGS model
Expression of proof	RBV
Genetic (reference) base	Rolling, average of the three last batches (years) of young bulls
Criteria for official publication of sire proofs	100 daughters
Number of evaluations/publications per year	1/1
Use of production index	Total merit index used
Name, address and faxnumber of organization responsible for sire evaluation and publication	Norwegian Red Cattle Association Utstillingsplassen N-2300 Hamar, Norway Fax: 09 94 79 60
Key references on methodology applied	Fimland, E. 1984. Progeny testing procedures in Norway. IDF/EAAP Symp. on progeny testing methods in dairy cattle. Prague, sept. 14-16 IDF Doc. 183, 117-132.

COUNTRY: NORWAY**Average of adjusted production records (kg) included in the most recent evaluation run, by daughters' year of calving (YC) and breed**

YC	Milk	Fat	Protein	Fat %	Protein %
Breed:	Norwegian Red Cattle				
1980	5750			4.02	3.30
1981	5706			4.04	3.29
1982	5809			4.02	3.25
1983	5782			4.06	3.25
1984	5734			4.04	3.22
1985	5716			4.03	3.22
1986	5895			3.98	3.23
1987	6212			3.95	3.27
1988	6219			3.95	3.25
1989	6261			3.95	3.26
1990	6363			3.98	3.25
1991	6264			3.99	3.20