

COUNTRY'S NAME	SLOVENIA
Production traits	Milk, fat and protein
Breed	Black and White, Brown and Simmental
Trait definition and unit of measurement	Direct: Milk, Fat and Protein yield (kg), Fat and Protein content (%)
Criteria for inclusion & extension of records	Identified sire ($\cong 95\%$). All actual lactation yields and contents 200-305 days are included. No adjustment or extension
Time period for data inclusion	Milk and fat: Production data, calving since 1985; pedigree data, 2 more generations Protein: Production data, calving since 1989; Pedigree data, 2 more generations
Sire categories	AI sires
Number of lactations included in the evaluation	Up to 5 lactations, no weightings (see the model).
Environmental effects:	
Pre-adjustment	None
Base for age pre-adjustment	
Method (model) of genetic evaluation	ST – R – BLUP – AM
Environmental effects in the genetic evaluation model	Fixed: Calving season, birth season, class for days in milk * lactation; Random: Herd, animal
Use of genetic groups	None
Genetic parameters in the evaluation	$h^2=0.25$; $t=0.35$, herd random $\sigma^2=0.1$ (All traits, all breeds) New estimation in progress.
System validation	Logical control
Expression of genetic evaluations	EBV (kg, %), RBV (mean=100, SD=12)
Genetic (reference) base	Fixed base, average of cows born 1995
Next base change	
Criteria for official publication of evaluations	10 daughters
Number of evaluations / publications per year	4 evaluations (January, April, July and October), 2 publications (January and July)
Use in production / total merit index	Index Milk ($0.55 \times \text{IPF} + 0.45 \times \text{secondary traits}$) Index Milk-Meat ($0.45 \times \text{IPF} + 0.10 \times \text{Meat production} + 0.45 \times \text{secondary traits}$) $\text{IPF} = 2 \times \text{EBV for Protein yield} + \text{EBV for Fat yield}$
Anticipated changes in the near future	Test-day model and multiple trait evaluation are under study.
Key reference on methodology applied	Pogačar, J. 1992. Sire evaluation in Slovenia and organisation and some results of dairy recording in Slovenia, Bulletin No. 1.
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COUNTRY: Slovenia												
Number of AI bulls (NB) tested, means (X), and standard deviations (SD) of proofs (kg, %) from most recent run, by bulls' year of birth (BY) and breed.												
YB	NB	Milk		Fat		Protein		Fat %		Protein %		
		X	SD	X	SD	X	SD	X	SD	X	SD	
Black and White												
Breed												
1976	2	-457	176	-9.7	5.4			0.12	0.05			
1977	10	-86	398	1.6	13.3	-0.1	14.4	0.08	0.14	0.00	0.06	
1978	8	8	290	0.9	11.5	1.4	6.2	0.01	0.09	0.01	0.06	
1979	7	134	192	9.4	18.8	6.1	6.0	0.05	0.17	0.02	0.04	
1980	6	74	354	5.7	19.2	5.8	14.2	0.02	0.18	0.01	0.10	
1981	11	12	312	6.2	22.4	2.4	10.5	0.06	0.25	0.00	0.07	
1982	15	103	350	3.3	15.8	1.7	10.5	-0.02	0.13	-0.03	0.07	
1983	12	205	393	4.1	12.2	3.7	13.1	-0.07	0.19	-0.05	0.09	
1984	9	-27	240	-1.7	4.8	-2.1	4.7	0.00	0.16	-0.03	0.07	
1985	7	15	342	3.4	20.8	0.6	15.6	0.02	0.28	-0.05	0.13	
1986	12	178	407	7.5	19.3	5.5	13.0	0.01	0.21	0.00	0.10	
1987	10	-14	321	5.3	12.3	5.2	8.4	0.09	0.22	0.08	0.09	
1988	15	69	263	10.4	19.0	3.3	7.6	0.12	0.34	0.01	0.12	
1989	9	96	231	-9.2	12.8	1.5	6.8	-0.24	0.20	-0.04	0.12	
1990	13	98	266	10.8	23.2	2.5	9.7	0.10	0.43	-0.01	0.20	
1991	5	172	497	4.6	13.6	6.5	13.1	-0.05	0.18	0.01	0.09	
1992	12	-56	304	0.0	14.9	-1.5	10.3	0.00	0.20	0.01	0.08	
1993	2	325	403	0.2	11.6	10.0	8.7	-0.24	0.05	0.01	0.07	
Brown Breed												
Breed												
1976	11	18	211	-1.1	8.4	1.3	5.6	-0.04	0.09	-0.01	0.08	
1977	9	53	265	1.7	7.3	5.0	6.1	-0.01	0.15	0.01	0.08	
1978	11	-69	145	-3.9	6.5	-2.0	7.7	-0.04	0.07	-0.04	0.05	
1979	11	-94	110	-2.9	5.0	-3.3	5.4	0.02	0.11	0.01	0.10	
1980	14	101	174	5.0	8.2	4.7	6.5	0.02	0.11	0.03	0.09	
1981	17	50	193	2.8	12.0	3.2	10.8	-0.01	0.14	0.00	0.07	
1982	13	57	223	3.0	11.1	1.2	9.7	0.01	0.09	-0.03	0.09	
1983	14	18	185	4.6	10.4	3.6	8.7	0.07	0.09	0.04	0.08	
1984	14	209	306	9.8	16.4	7.0	14.3	0.02	0.17	-0.01	0.07	
1985	12	149	331	7.0	13.9	5.4	9.3	0.01	0.08	0.00	0.06	
1986	15	47	243	2.4	9.4	0.4	6.9	0.01	0.11	-0.03	0.11	
1987	8	51	283	5.5	11.9	1.3	7.5	0.07	0.10	0.00	0.10	
1988	13	9	214	4.6	7.8	0.4	5.2	0.10	0.17	-0.01	0.07	
1989	10	43	241	5.3	13.5	1.8	8.1	0.08	0.17	0.01	0.07	
1990	21	157	216	11.4	10.8	6.5	6.8	0.10	0.16	0.02	0.08	
1991	10	126	165	9.1	8.5	2.5	5.9	0.09	0.11	-0.03	0.10	
1992	7	188	240	10.0	11.8	7.3	5.2	0.02	0.16	0.01	0.09	
1993	1	292		18.8		12.6		0.12		-0.01		
Simmental												
Breed												
1976	14	94	229	4.9	8.6	6.7	9.9	0.03	0.08	0.03	0.11	
1977	27	23	186	2.7	9.8	3.4	7.3	0.03	0.09	0.00	0.07	
1978	13	67	232	4.4	12.9	4.8	8.5	0.03	0.13	-0.01	0.04	
1979	15	66	279	4.1	12.0	4.3	10.5	0.02	0.07	0.01	0.08	
1980	16	26	210	2.1	6.9	1.6	9.3	0.03	0.10	0.03	0.09	
1981	27	132	343	5.5	12.3	4.3	11.1	0.00	0.10	0.00	0.08	
1982	19	56	213	3.7	9.8	2.3	5.7	0.03	0.12	0.02	0.05	
1983	19	75	242	4.9	9.5	3.5	7.9	0.05	0.12	0.04	0.08	
1984	19	52	177	4.2	8.8	2.5	4.7	0.03	0.12	0.00	0.06	
1985	25	84	204	4.0	9.1	2.7	5.3	0.00	0.10	-0.02	0.06	
1986	23	-29	184	-0.9	7.3	-0.4	5.4	0.00	0.13	0.01	0.09	
1987	11	-20	130	1.0	7.5	0.2	4.6	0.04	0.14	0.02	0.10	
1988	11	-109	281	-2.9	13.6	-2.7	9.0	0.03	0.10	0.00	0.05	
1989	29	48	241	7.0	9.7	2.9	7.1	0.12	0.15	0.03	0.09	
1990	11	181	209	5.0	9.8	4.3	6.3	-0.06	0.13	-0.06	0.09	
1991	12	65	263	2.6	9.2	1.6	7.4	0.01	0.19	-0.03	0.09	
1992	11	213	228	14.7	8.5	8.4	6.9	0.14	0.12	0.03	0.05	

COUNTRY: Slovenia											
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 %		
	X	SD	X	SD	X	SD	X	SD	X	SD	
Breed Black and White											
1985	5066		188					3.72			
1986	5362		198					3.70			
1987	5224		191					3.67			
1988	5404		199					3.69			
1989	5418		199		177			3.69			
1990	5510		204		172			3.72		3.21	
1991	5507		206		165			3.76		3.11	
1992	5584		213		169			3.83		3.03	
1993	5717		219		177			3.85		3.09	
1994	5933		234		187			3.97		3.11	
1995	6070		246		192			4.07		3.15	
1996	6023		245		194			4.08		3.16	
1997	6125		248		199			4.08		3.22	
1998	6027		238		196			3.97		3.25	
Breed Brown Breed											
1985	3577		135					3.77			
1986	3773		145					3.83			
1987	3754		143					3.81			
1988	3852		147					3.82			
1989	3869		148		133			3.81		3.33	
1990	3984		152		128			3.81		3.14	
1991	4013		155		126			3.86		3.06	
1992	3988		156		125			3.91		3.13	
1993	4123		163		131			3.95		3.17	
1994	4298		173		138			4.02		3.20	
1995	4426		180		142			4.07		3.21	
1996	4452		184		146			4.13		3.28	
1997	4565		191		151			4.17		3.29	
1998	4447		184		149			4.12		3.33	
Breed Simmental											
1985	3175		121					3.81			
1986	3359		128					3.81			
1987	3442		130					3.77			
1988	3536		133					3.74			
1989	3494		131		116			3.75		3.34	
1990	3554		136		113			3.82		3.22	
1991	3603		139		114			3.85		3.16	
1992	3492		135		112			3.87		3.20	
1993	3664		144		119			3.93		3.25	
1994	3868		153		125			3.95		3.24	
1995	3930		159		127			4.04		3.23	
1996	3921		160		129			4.09		3.28	
1997	4105		171		136			4.16		3.32	
1998	4185		173		139			4.13		3.33	