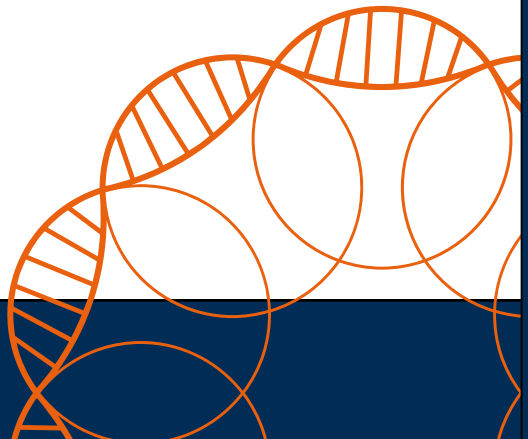
THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Network. Guidelines. Certification.

Yearly survey on the situation of MILK RECORDING SYSTEMS (Years 2016, 2017 and 2018) in ICAR member countries for cow, sheep and goats

THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Data presented in this booklet are based on the data available in the ICAR on-line database accessible at: www.icar.org



Network. Guidelines. Certification.

TABLE OF CONTENT

COW SURVEY

SHEEP SURVEY

GOAT SURVEY

Preface

Billions of people consume milk and dairy products worldwide. Milk is no longer viewed solely as a source of nutrients for new-born children and, alongside dairy products, is now viewed as a fundamental source of protein and energy for all consumers. Milk and dairy products also offer significant opportunities for farmers, processors, retailers and other stakeholders within the dairy value chain.

At the primary level of the sector is raw production, which requires consumers, industry and governments to understand the complex relations between its various components. In order to facilitate this understanding, up-to-date information on the contribution to the economy of milk and dairy products must be provided, including how best to develop the dairy industry to effectively increase food security and generate maximum income for the entire value chain.

ICAR has been collecting data since 1996 on national milk production, milk recording and the cost of the whole milk production chain, together with information about the source of its funding. Particularly relevant in this publication are the sections in which the productivity of each of the many breeds that comprise the national sector is assessed, so that even minor breeds can be described and their contributions to the national statistics can be evaluated at the correct scale. This data was initially collected only for the cow milking sector but since 2008 the sheep and goat milking sectors have been included in the survey.

This publication incorporates dairy sector primary production information from a wide range of sources in a unique manner that examines the existing relationships between farmers, dairying and dairy-industry development. This collaboration by ICAR's many national Members, including leading and coordinating the planning, preparation and publication process, has made this booklet possible.

In producing this booklet, ICAR aims to provide:

- an in-depth look at the most sensitive step in the dairy chain and nutrition within the national primary production dairy sector, going from milk production to consumption
- a realistic picture of the various national distinctions and the differences in scale of the dairy sector in the analysed countries
- insights into dairy's potential by presenting specific stakeholder actions to improve future production and planning

The technical editorial team wishes to thank all who gave so generously of their expertise, time and energy, particularly the following ICAR Members who supported the production of this booklet::

- Argentina, Asociación Cridadores de Holando Argentino, ACHA
- Australia, DataGene Limited
- Austria, Zentrale Arbeitsgemeinschaft Österreichischer Rinderzüchter (ZAR)
- Belgium (Flemish Region by CRV), Coöperative CRV u.a.
- Belgium (Wallonia Region), Service Public de Wallonie (SPW)
- Canada, Lactanet Canada
- Chile, COOPRINSEM
- China, Shanghai Dairy Cattle Breeding Center Co., Ltd
- Croatia, Hrvatska agencija za poljoprivredu i hranu (Croatian Agency for Agriculture and Food)
- Czech Republic, Czech Moravian Breeder's Corporation Inc. (Českomoravská společnost chovatelů, a.s.)
- Denmark, RYK, Danish Cattle Federation
- Estonia, Põllumajandusloomade Jõudluskontrolli AS
- Finland, ProAgria Group
- France, France Genétique Elevage
- Germany, German Livestock Association (Bundesverband Rind und Schwein e. V. – BRS)
- Hungary, Livestock Performance Testing Ltd.
- India, National Dairy Development Board
- Ireland, Irish Cattle Breeding Federation Society Limited
- Israel, Israel Cattle Breeders' Association (ICBA)
- Italy, Associazione Italiana Allevatori
- Japan, Livestock Improvement Association of Japan Inc.
- Latvia, State Agency Agricultural Data Centre (LDC)
- Lithuania, State Food and Veterinary Service of the Republic of Lithuania (SFVS)

- New Zealand, DairyNZ
- New Zealand, Livestock Improvement Corporation
- Norway, TINE SA
- Poland, Polish Federation of Cattle Breeders and Dairy Farmers
- Portugal, ANABLE (Associação Nacional para o Melhoramento dos Bovinos Leiteiros)
- Portugal, Direcção Geral de Veterinária, Gabinete de Recursos Genéticos Animais, Direção Geral de Alimentação Veterinária
- Romania, Asociatia Crescatorilor de Vaci Baltata Romaneasca tip Simmental
- Serbia, University of Novi Sad, Agricultural Faculty, Dept. of Animal Scince
- Slovak Republic, The Breeding Services of the Slovak Republic (Plemenárske služby SR, š.p.,)
- Slovenia, University of Ljubljana, Biotechnical Faculty
- South Africa, ARC (Agricultural Research Council), Centre for Animal Breeding and Genetics, Animal Improvement Institute
- South Africa, SA Stud Book and Animal Improvement Association
- South Korea, Korean Animal Improvement Association
- South Korea, Dairy Cattle Improvement Centre, NongHyup Agribusiness Group Inc.
- Spain, FEAGAS (Federación Española de Asociaciones de Ganado Selecto)
- Sweden, Växa Sverige
- Switzerland, ASR Arbeitsgemeinschaft Schweizerischer Rinderzüchter
- The Netherlands, Coöperative CRV u.a.
- Tunisia, Ministère de l'Agriculture, Office de l'Elevage et des Pâturages (OEP)
- Turkey, Cattle breeders' association of Turkey
- UK, Cattle Information Service
- UK, National Milk Records plc
- UK, Royal Jersey Agricultural & Horticultural Society-Royal Jersey Showground Milk Records
- Uruguay, Instituto Nacional para el Mejoramiento Lechero
- USA, AgSource

ICAR Member Organisations are encouraged to submit and complete the missing data by 30 June 2019, i.e. before the finalisation of the present booklet and its distribution to the competent authorities

NOTE:

This publication is based on the data submitted by each ICAR Member Organisation and that are available on the on-line ICAR database at: www.icar.org > Publications > On-line databases ...

The database is available at*: www.icar.org/survey/pages/tables.php*

ICAR also advices that data hereby collected were downloaded for each species on:

- 10 May for the Cow survey
- 15 May for the Sheep survey
- 15 May for the Goat survey

Cow Survey (Years 2016, 2017 and 2018)

Table 1 - National milk production

COW SURVEY

Country	Year	Total number of dairy cows	Total number of dairy herds	Average of cows per herd	Average milk production per cow per year (kg)	Percent of fat production per cow per year (%)	Percent of protein production per cow per year (%)
Australia (DataGene Limited)	2017	1.520.000	5.771	261	5.812	4,10	3,39
Australia (DataGene Limited)	2016	1.562.000	6.079	273	5.841	4,08	3,38
Austria	2017	540.800	28.939	19,0	6.865	4,12	3,42
Austria	2016	536.700	29.886	18	6.759	4,14	3,41
Belgium (Flemish Region by CRV)[1]	2018	331.021	4.100	81	9.148	4,17	3,49
Belgium (Flemish Region by CRV)	2017	322.978	4.354	74	8.864	4,17	3,50
Belgium (Flemish Region by CRV)[2]	2016	326.882	4.750	69	8.838	4,15	3,47
Belgium (Wallonia Region)	2018		2.879				
Belgium (Wallonia Region)	2017	186.903	2.937	64			
Belgium (Wallonia Region)[3]	2016	195.517	3.087	64	6.521	4,02	3,33
Canada	2018	969.700	10.532	90	9.676	4,07	3,33
Canada	2017	956.700	10.951	89	9.586	4,06	3,31
Canada	2016	944.700	11.262	83	9.397	4,01	3,30
Chile	2018	380.000	5.100	75	5..721	4,07	3,63
Chile	2017	390.000	5.500	71	5.128	3,79	3,45
Chile	2016	420.000	6.200	67	4.761	3,93	3,52
China (by Shanghai Dairy Breeding Center Co)	2018	86.859	89	976	9.845	4,02	3,45
China (by Shanghai Dairy Breeding Center Co)	2017	77.560	100	776	11.563	4,05	3,49
China (by Shanghai Dairy Breeding Center Co)	2016	70.465	118	597	14.219	3,95	3,47
Croatia	2018	136.547	19.292	7	4.394	4,10	3,40
Croatia	2017	143.221	20.597	7	4.399	4,10	3,40
Croatia	2016	151.274	22.431	7	4.304	4,10	3,40

[1] 700 kgs fat + prot
[2] 680 kgs fat + prot
[3] 674 kgs fat + prot

Table 1 - National milk production

Country	Year	Total number of dairy cows	Total number of dairy herds	Average of cows per herd	Average milk production per cow per year (kg)	Percent of fat production per cow per year (%)	Percent of protein production per cow per year (%)
Czech Republic	2018	361.073			8.756	3,86	3,44
Czech Republic	2017	364.642			8.445	3,89	3,46
Czech Republic	2016	371.197			8.279	3,91	3,43
Denmark	2018	574.000	2.850	201	10.000	4,24	3,53
Denmark	2017	572.804	3.015	190	9.800	4,28	3,53
Denmark	2016	575.000	3.300	174	9.750	4,30	3,51
Estonia	2018	86.421	1.600	54	9.326	3,90	3,50
Estonia	2017	86.132	1.795	48	9.159	3,90	3,40
Estonia	2016	90.583	2.053	44	8.878	4,00	3,40
Finland	2018	266.890	6.532	41	9.201	4,34	3,50
Finland	2017	269.200	7.032	38	9.172	4,35	3,49
Finland	2016	282.100	7.574	37	8.852	4,33	3,47
France	2017	3.781.000	64.000	59	7.026		
France	2016	3.802.000	67.000	57	7.154	3,87	3,37
Germany	2018	4.100.863	62.813	65	7.980	4,06	3,44
Germany	2017	4.199.010	65.800	64	7.780	4,09	3,44
Germany	2016	4.217.700	69.174	61	7.746	4,12	3,43
Hungary	2017	244.200			7.845	3,71	3,37
Hungary	2016	244.300			9.538	3,68	3,29
India[4]	2016	48.610.350			1.592		
Ireland	2018	1.369.100	17.800	76	5.349	4,14	3,48
Ireland	2017	1.343.300	17.500	76	5.300	4,09	3,48
Ireland	2016	1.295.200	17.500	79	5.211	4,10	3,45

[4] Buffaloes not included

Table 1 - National milk production

Country	Year	Total number of dairy cows	Total number of dairy herds	Average of cows per herd	Average milk production per cow per year (kg)	Percent of fat production per cow per year (%)	Percent of protein production per cow per year (%)
Israel[5]	2018	118.821	517	230	12.010	3,77	3,33
Israel[6]	2017	116.788	529	221	12.025	3,81	3,34
Israel[7]	2016	111.819	532	210	11.970	3,75	3,34
Italy	2017						
Japan[8]	2016	852.100	15.700	54	8.582		
Latvia	2018	147.600	14.963	10	6.614		
Latvia	2017	153.696	16.692	9	6.525		
Latvia	2016	163.042	20.136	8	6.182		
Lithuania	2018	264.682	37.835				
Lithuania	2017	144.505	3.537	41	7.507	4,34	3,39
Lithuania	2016	147.560	3.723	39	7.277	4,35	3,36
New Zealand (by DairyNZ)	2018	4.992.914	11.590	431	4.151	4,98	3,87
New Zealand (by DairyNZ)	2017	4.861.324	11.748	414	4.259	5,02	3,92
New Zealand (by DairyNZ)	2016	4.997.811	11.918	419	4.185	5,02	3,87
New Zealand (by LIC)	2018	4.992.914	11.590	431	4.151	4,99	3,88
Norway	2018	219.360	7.918	28	7.987	4,29	3,45
Norway	2017	207.012	7.837	27	7.797	4,27	3,44
Norway	2016	212.045	8.173	26	7.804	4,33	3,47
Poland	2018	2.214.092	243.500	9	6.536	3,63	2,99
Poland	2017	2.152.834	243.559	9	6.335	4,05	3,30
Poland	2016	2.160.524	233.531	9	6.231	4,04	3,27

[5] Cows in herd book
[6] Cows in herd book
[7] Cows in herd book
[8] Total number of cows and herds, on the 1st Feb 2017

Table 1 - National milk production

Country	Year	Total number of dairy cows	Total number of dairy herds	Average of cows per herd	Average milk production per cow per year (kg)	Percent of fat production per cow per year (%)	Percent of protein production per cow per year (%)
Portugal (by ANABLE)	2017	272.193			6.842		
Portugal (by ANABLE)	2016	273.850			6.753	3,80	3,23
Serbia[9]	2017	99.000			4.384		
Serbia[10]	2016	98.000			4.684		
Slovak Republic	2017	129.863			7.145		
Slovak Republic	2016	132.100			6.876	3,83	3,35
Slovenia	2018	98.000	5.760	17	6.100	4,15	3,37
Slovenia	2017	99.361	5.880	17	6.050	4,14	3,36
Slovenia	2016	101.111	5.981	17	5.890	4,12	3,38
South Africa (by ARC)	2018	605.000	1.253	783	5.466		
South Africa (by ARC)	2017	615.000	1.364	451	5.106		
South Africa (by ARC)	2016	483.890	1.597	303	4.076		
South Africa (by StudBook)	2018	532.000	1.503	354	5.947		
South Korea (by DCIC Centre)	2018	241.698	6.451	38	9.267	3,91	3,21
South Korea (by DCIC Centre)	2017	241.668	6.596	37	9.299	3,84	3,19
South Korea (by DCIC Centre)	2016	244.334	6.822	36	9.144	3,77	3,21
Spain[11]	2016	818.671	15.368	53	8.405	3,68	3,24
Sweden	2018	313.048	3.350	92	8.900		
Sweden	2016	326.122	3.739	87	8.884	4,24	3,50
Switzerland	2018				.	4,12	3,34
Switzerland	2017	569.185	26.535	22	6.936	4,09	3,34
Switzerland	2016	575.766	27.339	21	7.010	4,11	3,31

[9] Data relating to the region AP Vojvodina in Serbia
[10] Data relating to the region AP Vojvodina in Serbia
[11] Please, notice that there is a change in the total number of dairy herds figures, due to the end of the milk quota, and the change of the parameter used to fill this tables. This change could influence in the whole survey.

Table 1 - National milk production

Country	Year	Total number of dairy cows	Total number of dairy herds	Average of cows per herd	Average milk production per cow per year (kg)	Percent of fat production per cow per year (%)	Percent of protein production per cow per year (%)
The Netherlands[12]	2018	1.471.431	14.784	100	9.123	4,35	3,57
The Netherlands[13]	2017	1.528.453	15.257	102	8.706	4,36	3,57
The Netherlands[14]	2016	1.608.984	15.802	101	8.663	4,38	3,55
Tunisia	2018	217.510	10.875	20	6.378	3,58	3,18
Tunisia	2017	228.240	12.012	19	6.217	3,67	3,22
Tunisia	2016	239.615	12.611	19	5.664	3,70	3,21
Turkey	2018	6.337.907	1.401.342	5	3.162		
Turkey	2017	5.969.046	1.444.000	4	3.143		
Turkey	2016	5.431.714	1.469.323	4	3.090		
UK - (by Untd. Dairy Farm.)	2018	81.464	541	150	7.610	4,10	3,35
UK - (by Untd. Dairy Farm.)	2017	81.908	549	149	7.399	4,07	3,31
UK - (by Untd. Dairy Farm.)	2016	83.450	578	144	7.117	4,06	3,28
UK - England (by CIS)	2018	244.540	1.171	208	8.487	4,21	3,30
UK - England (by CIS)	2017	240.564	1.185	203	8.398	4,17	3,31
UK - England (by CIS)	2016	236.865	1.211	195	8.190	4,18	3,30
UK - England+Wales (by NMR)	2017	672.085	3.581	188	8.390	4,09	3,31
UK - England+Wales (by NMR)	2016	643.261	3.522	183	8.430	4,08	3,31
UK - Jersey Island	2018	2.860	21	136	5.034	5,24	3,82
UK - Jersey Island	2017	2.850	21	135	5.061	5,25	3,85
UK - Jersey Island	2016	2.841	21	135	4.806	5,29	3,83
UK - N. Ireland (by CIS)	2018	81.464	541	150	7.610	4,10	3,35
UK - N. Ireland (by CIS)	2017	81.908	549	149	7.399	4,07	3,31
UK - N. Ireland (by CIS)	2016	83.450	578	144	7.117	4,06	3,28

[12] 723 kgs fat + protein
[13] 691 kgs fat + protein
[14] 687 kgs f+p

Table 1 - National milk production

Country	Year	Total number of dairy cows	Total number of dairy herds	Average of cows per herd	Average milk production per cow per year (kg)	Percent of fat production per cow per year (%)	Percent of protein production per cow per year (%)
UK - N. Ireland (by NMR)	2017	55.934	367	152	7.940	4,06	3,26
UK - N. Ireland (by NMR)	2016	47.630	322	148	7.990	4,06	3,26
UK - Scotland (by CIS)	2018	117.900	577	204	8.175	4,09	3,26
UK - Scotland (by CIS)	2017	102.532	503	203	8.228	4,05	3,26
UK - Scotland (by CIS)	2016	102.202	511	200	8.088	4,05	3,26
UK - Scotland (by NMR)	2017	24.100	97	248	9.240	4,04	3,33
UK - Scotland (by NMR)	2016	15.500	56	277	9.030	3,94	3,31
UK - Wales	2018	37.798	210	179	7.903	4,15	3,29
UK - Wales	2017	34.105	185	184	8.092	4,16	3,29
UK - Wales	2016	32.919	183	179	7.901	4,20	3,29
Uruguay[15]	2017	437.000	3.718	118	4.676	3,70	3,27
Uruguay[16]	2016	444.860	3.900	114	4.768	3,71	3,27

[15] Source: MGAP/DIEA 2018
[16] Source: MGAP/DIEA 2017

Table 2 - Position of milk recording: Methods and Organisations

Country	Year	Number of recorded cows	Percent of recorded cows	Number of recorded herds	Percent of recorded herds	Average number of cows per recorded herd	Percent of recorded herds per method A3	Percent of recorded herds per method A4	Percent of recorded herds per method A6	Percent of recorded herds per method AT	Percent of recorded herds per method B	Others
Argentina	2018	358.400		1.215		295		84	14			C:2
Argentina	2017	382.241		1.311		292		84	14			C4:2
Argentina	2016	430.306		1.481		290		78	19			C4:3
Australia (DataGene Limited)	2017	598.090		2.532		236						
Australia (DataGene Limited)	2016	666.685		2.764		241						
Austria	2018	428.307	81	19.704		22				100		
Austria	2017	432.565	81	20.096		22				100		
Austria	2016	427.291	80	20.586		21				100		
Belgium (Flemish Region by CRV)	2018	194.591	59	2.129	52	91		8	58			A5 = 34,4%
Belgium (Flemish Region by CRV)	2017	188.591	58	2.175	50	87		9	56			A5 = 34,8%
Belgium (Flemish Region by CRV)	2016	183.013	56	2.261	48	81		51	49			
Belgium (Wallonia Region)	2018	66.584		793	28	84	0	34	37	21	1	8%
Belgium (Wallonia Region)	2017	68.012	36	822	28	83	0	35	38	19	1	7.4%
Belgium (Wallonia Region)	2016	68.802	33	849	28	81	0	37	37	18	1	7.1%
Canada	2018	674.450	70	7.410	70	90						
Canada	2017	708.990	74	7.937	73	89						
Canada	2016	691.713	73	8.298	74	83						
Chile	2018	155.000	41	550	11	295		51		48	1	
Chile	2017	153.724	39	541	6	226		31		68	1	
Chile	2016	153.115	37	559	9	251	0	31	0	68	1	

Table 2 - Position of milk recording: Methods and Organisations

Country	Year	Number of recorded cows	Percent of recorded cows	Number of recorded herds	Percent of recorded herds	Average number of cows per recorded herd	Percent of recorded herds per method A3	Percent of recorded herds per method A4	Percent of recorded herds per method A6	Percent of recorded herds per method AT	Percent of recorded herds per method B	Others
China (by Shanghai Dairy Breeding Center Co)	2018	86.859						100				
China (by Shanghai Dairy Breeding Center Co)	2017	77.560						100				
China (by Shanghai Dairy Breeding Center Co)	2016	70.465						100				
Croatia	2018	84.382	62	4.434	23	19				57	43	
Croatia	2017	87.825	62	4.636	23	19				56	44	
Croatia	2016	93.080	62	4.950	19	19				52	48	
Czech Republic	2018	347.950	96	1.301		267		45		0		AZ: 54.3%
Czech Republic	2017	349.978	96	1.328		264		49		0		AZ: 50.1%
Czech Republic	2016	352.832	95	1.385		255		59		0		40.5%
Denmark	2018	518.682	91	2.850	91	208	0	10	0	0	90	
Denmark	2017	572.804	89	3.015	89	197	0	10	0	0	90	
Denmark	2016	509.295	89	2.712	90	188	0	10	0	0	90	
Estonia	2018	82.929	96	549	34	151					100	
Estonia	2017	82.279	96	578	32	142					100	
Estonia	2016	86.349	95	648	32	133					100	
Finland	2018	213.931	80	4.670	72	46		0			95	C: 4.5%
Finland	2017	218.498	81	5.028	72	44		0			95	C: 4.5%
Finland	2016	224.218	80	5.410	71	42		0			95	C: 4.3%
France	2018	2.383.539	66	38.876	62	61		28	6	23	8	34.9%
France	2017	2.393.784	63	40.998	64	58		29	7	23	8	33%
France	2016	2.488.150	65	43.040	64	58		31	6	22	14	27.2%

Table 2 - Position of milk recording: Methods and Organisations

Country	Year	Number of recorded cows	Percent of recorded cows	Number of recorded herds	Percent of recorded herds	Average number of cows per recorded herd	Percent of recorded herds per method A3	Percent of recorded herds per method A4	Percent of recorded herds per method A6	Percent of recorded herds per method AT	Percent of recorded herds per method B	Others
Germany	2018	3.591.223	88	42.396	67	85						
Germany	2017	3.655.659	87	44.212	67	83						
Germany	2016	3.670.021	87	46.735	68	79						
Hungary	2017	184.175	75	529		348		86			16	
Hungary	2016	186.799	77	552		338		84			16	
India	2017	55.885						100				Buffaloes not included
India	2016	43.817						100				Includes buffaloes
Ireland	2018	699.520	51	6.191	35	113	0	10	26	0	38	A5=5% A7=8% A8=14%
Ireland	2017	690.245	51	6.385	36	108	0	10	27	0	37	A5=5% A7=10% A8=11%
Ireland	2016	642.038	50	6.291	36	102	0	11	25	0	37	A5: 4%; A7: 9%; A8-14%
Israel	2016	118.325	94	720	74	218		65			35	
Italy	2018	1.351.614		15.495		87	0	0	0	97	0	2.6%
Italy	2017	1.364.606		16.625		82	0	0	0	97	0	3%
Italy	2016	1.386.275		17.402		80		0	0	98	0	1.5% (Automatic Milking)
Japan	2016	530.074	62	8.121	52	65		53		46	1	B: B4
Latvia	2018	123.518	84	4.290	29	29						
Latvia	2017	124.587	81	4.613	28	27						
Latvia	2016	130.028	80	5.068	25	26						
Lithuania	2018	142.385	54	3.343	88	43		0		87	4	8.5%
Lithuania	2017	144.610	52	3.537	8	41		0		87	5	7.7%
Lithuania	2016	145.796	50	3.723	8	39		0		86	5	8.5%

Table 2 - Position of milk recording: Methods and Organisations

Country	Year	Number of recorded cows	Percent of recorded cows	Number of recorded herds	Percent of recorded herds	Average number of cows per recorded herd	Percent of recorded herds per method A3	Percent of recorded herds per method A4	Percent of recorded herds per method A6	Percent of recorded herds per method AT	Percent of recorded herds per method B	Others
New Zealand (by DairyNZ)	2018	3.615.000	72	8.242	71	431						
New Zealand (by DairyNZ)	2017	3.206.000	66	7.557	64	414						
New Zealand (by DairyNZ)	2016	3.030.000	60	7.316	61	419						
Norway	2018	219.360	94	7.918	98	28					100	
Norway	2017	222.441	93	8.331	94	27					100	
Norway	2016	221.540	96	8.270	98	26					100	
Poland (by PFHB)	2018	813.901	37	20.896	9	39		11		85		% of recorded herds per method A8: 3.3%; AR: 0.9%
Poland (by PFHB)	2017	790.261	37	20.784	9	38		11		84		% of recorded herds per method A8: 3.9%
Poland (by PFHB)	2016	768.749	36	20.893	9	37		12		83		% of recorded herds per method A8: 4.6%
Portugal (by ANABLE)	2018	90.069		1.585		57		47		53		
Portugal (by ANABLE)	2017	86.247	32	1.631		53		51		49		
Portugal (by ANABLE)	2016	89.322	39	1.676		53		57		43		
Romania (Simmental Assoc.)	2017											
Serbia[1]	2017	70.652	71	3.462	17	20				100		
Serbia[2]	2016	67.517	69	3.534	17	19				100		

[1] Data relating to the region AP Vojvodina in Serbia

[2] Data relating to the region AP Vojvodina in Serbia

Table 2 - Position of milk recording: Methods and Organisations

Country	Year	Number of recorded cows	Percent of recorded cows	Number of recorded herds	Percent of recorded herds	Average number of cows per recorded herd	Percent of recorded herds per method A3	Percent of recorded herds per method A4	Percent of recorded herds per method A6	Percent of recorded herds per method AT	Percent of recorded herds per method B	Others
Slovak Republic	2017	111.226	85	588		189		0		100		
Slovak Republic	2016	111.815		572		196		0		100		
Slovenia	2018	79.156	81	3.369	59	24				100		AT4 method
Slovenia	2017	80.305	80	3.516	61	23				100		AT4 method
Slovenia	2016	81.772	81	3.655	61	22				100		AT4 method
South Africa (by ARC)	2018	23.868	4	147	12	162						
South Africa (by ARC)	2017	26.253	4	179	13	147						
South Africa (by ARC)	2016	31.134	6	185	12	168						
South Africa (by StudBook)	2018	47.446	9	289	19	103					100	
South Korea	2018	149.755	67	3.039	47	49		100				
South Korea	2017	148.274	61	3.099	47	48		100				
South Korea	2016	147.455	60	3.170	47	47		100				
Spain	2016	545.269	67	6.066	39	90		10		87		3.73%
Sweden[3]	2018	233.297	78	2.427	76	92					100	
Sweden[4]	2017	240.683	78	2.557	73	89					100	B4: 100%
Sweden[5]	2016	255.757	79	2.783	73	87					100	B4: 100%
Switzerland	2018	432.837		21.517		20		44		56		
Switzerland	2017	436.359	77	21.795	82	22	0	29	0	71	0	
Switzerland	2016	451.566	78	22.492	82	20	0	29	0	71	0	

[3] Milk recording year 1/9 - 31/8
[4] Milk recording year 1/9-30/8
[5] Milk recording year 1/9 - 31/8

Table 2 - Position of milk recording: Methods and Organisations

Country	Year	Number of recorded cows	Percent of recorded cows	Number of recorded herds	Percent of recorded herds	Average number of cows per recorded herd	Percent of recorded herds per method A3	Percent of recorded herds per method A4	Percent of recorded herds per method A6	Percent of recorded herds per method AT	Percent of recorded herds per method B	Others
The Netherlands	2018	1.471.431	90	14.784	86	100	0	28	65			A5: 7.2%
The Netherlands	2017	1.528.453	90	15.167	84	102	0	29	64			A5: 7,1
The Netherlands	2016	1.608.984	92	15.802	88	102		43	57			A5: 7.2%
Tunisia	2018	16.171	7	803	7	20	0	0	1	25	73	
Tunisia	2017	17.689	8	947	8	19	0	0	3	28	69	
Tunisia	2016	19.469	5	1.026	5	19			1	21	78	
Turkey	2018	1.789.667	28	139.384	10	13	0	0	0	0	100	
Turkey	2017	2.099.911	36	156.277	10	13	0	0	0	0	100	
Turkey	2016	2.133.368	39	159.854	11	13	0	0	0	0	100	
UK - England (by CIS)	2018	244.540		1.171		208		23	6	30	40	2%
UK - England (by CIS)	2017	240.564		1.185		203		25	6	27	40	2%
UK - England (by CIS)	2016	236.865		1.211		195		25	5	26	42	2%
UK - England+Wales (by NMR)	2017	470.989	70	3.424		188	0	68	4	47	25	2.8%
UK - England+Wales (by NMR)	2016	479.550	75	3.641		183	0	70	3	43	24	2.5%
UK - Jersey Island	2018	2.860		21		136		57	0	24	19	0
UK - Jersey Island	2017	2.850		21		135		52	0	29	19	0
UK - Jersey Island	2016	2.841		21		135		52	0	33	14	0
UK - N. Ireland (by CIS)	2018	81.464		541		150		34	6	40	14	5%
UK - N. Ireland (by CIS)	2017	81.908		549		149		36	7	37	14	5%
UK - N. Ireland (by CIS)	2016	83.450		578		144		37	7	36	15	6%
UK - N. Ireland (by NMR)	2017	27.965	50	315		152	0	47	11	58	15	27.2%
UK - N. Ireland (by NMR)	2016	28.322	60	311	148		0	46	11	52	14	28.5%

Table 2 - Position of milk recording: Methods and Organisations

Country	Year	Number of recorded cows	Percent of recorded cows	Number of recorded herds	Percent of recorded herds	Average number of cows per recorded herd	Percent of recorded herds per method A3	Percent of recorded herds per method A4	Percent of recorded herds per method A6	Percent of recorded herds per method AT	Percent of recorded herds per method B	Others
UK - Scotland (by CIS)	2018	117.900		577		204		47	2	18	18	15%
UK - Scotland (by CIS)	2017	102.532		503		203		56	3	18	17	6%
UK - Scotland (by CIS)	2016	102.202		511		200		59	3	17	17	5%
UK - Scotland (by NMR)	2017	8.520	35	55		248	0	66	2	19	17	15.5%
UK - Scotland (by NMR)	2016	7.766	50	51		277	0	67	5	12	21	6.6%
UK - Wales	2018	37.798		210		179		14	4	44	36	2%
UK - Wales	2017	34.105		185		184		16	4	44	35	2%
UK - Wales	2016	32.919		183		179		17	4	41	36	2%
Uruguay	2018	108.922	25	316	9	252						

Table 3 - Costs and financing

Country	Year	Cost price of milk recording per cow and per year - A4	Cost price of milk recording per cow and per year - A6	Cost price of milk recording per cow and per year - AT	Cost price of milk recording per cow and per year - B	Part of the cost price paid by the producer % - A4	Part of the cost price paid by the producer % - A6	Part of the cost price paid by the producer % - AT	Part of the cost price paid by the producer % - B	Others
Argentina	2018					100	100			C: 100
Argentina	2017					100	100			C: 100
Argentina	2016					100	100			C: 100
Belgium (Wallonia Region)[1]	2018									
Chile	2018	21,4		16,9	16,0	100		100	100	
Chile	2017	20,9		17,7	14,0	100		100	100	
Chile	2016	20,3		15,8	14,4	100		100	100	
China (by Shanghai Dairy Breeding Center Co)	2018	10,5								Costs expressed in US$
China (by Shanghai Dairy Breeding Center Co)	2017	10,5								Costs expressed in US$
China (by Shanghai Dairy Breeding Center Co)	2016	10,5								Cost expressed in US$
Croatia	2018			35	30,0			50	50	
Croatia	2017			35	30,0			50	50	
Croatia	2016			35	30,0			50	50	
Czech Republic	2016									
Denmark	2018	65,0			45,0	100			100	Costs expressed as kg milk per cow (4.2 fat and 3.4 protein)
Denmark	2017	65,0			45,0					Costs expressed as kg milk per cow (4.2 fat and 3.4 protein)
Denmark	2016	80,0			50,0	100			100	Cost expressed in value of kg milk per cow
Estonia	2018				21,9				91	
Estonia	2017				19,6				89	
Estonia	2016				27,0				88	
France	2018	54,0	49	46	43,0	100	100	100	100	
France	2017	53,0		45	42,0	100		100	100	
France	2016	53,0		45	42,0	100		100	100	

[1] Since 2004, the farmer pays depending on many factors (time spended by DHI staff, own milk meters or not, herd-book cows or not, etc.)

Table 3 - Costs and financing

Country	Year	Cost price of milk recording per cow and per year - A4	Cost price of milk recording per cow and per year - A6	Cost price of milk recording per cow and per year - AT	Cost price of milk recording per cow and per year - B	Part of the cost price paid by the producer % - A4	Part of the cost price paid by the producer % - A6	Part of the cost price paid by the producer % - AT	Part of the cost price paid by the producer % - B	Others
Hungary	2017	35,0			35,7	99			1,2	Cost_cowA4= 10.4 EUR/cow/year --> 35.0 kg milk, cost_cowB=10.4 EUR/cow/year-->35.7 kg milk
Hungary	2016	43,4			43,4	99			1,4	Cost_cowA4= 10.4 EUR/cow/year --> 43.4 kg milk, cost_cowB=10.4 EUR/cow/year--> 43.4 kg milk
India	2018	75,0				0				Cost in US$ per lactation
India	2017	75,0				0				Cost in US$ per lactation
India	2016	75,0				0				Cost in US$ per lactation
Ireland	2018	19,0	13,5		8,8	100	100		100	A5=€16, A7=€13.50, A8=€11.50
Ireland	2017				8,8	100	100		100	
Ireland	2016	22,4	14,3		9,1	100	100		100	
Italy	2018									
Italy	2017									
Latvia	2018	9,7			9,7					
Latvia	2017	9,7			9,7					
Latvia	2016	9,7			9,7					
Serbia[2]	2017			40						
Serbia[3]	2016			40				100		
Slovak Republic	2017	93,8		60,93		53,7		53,7		
Slovak Republic	2016	72,5		56,49		71		72		
Slovenia	2019			110				15		AT4 method
Slovenia	2017			105				20		AT4 method
Slovenia	2016			110				20		AT4 method
Spain	2016	150,0				75		75		150 is the cost price of milk recording, in kg, per cow and per year-A4+AT
Sweden	2018				60,0				100	Cost expressed as kg milk
Sweden	2017				55,0				100	Cost expressed as kg of milk per cow and year.
Sweden	2016				54,0				100	

[2] Data relating to the region AP Vojvodina in Serbia

[3] Data relating to the region AP Vojvodina in Serbia

Table 3 - Costs and financing

Country	Year	Cost price of milk recording per cow and per year - A4	Cost price of milk recording per cow and per year - A6	Cost price of milk recording per cow and per year - AT	Cost price of milk recording per cow and per year - B	Part of the cost price paid by the producer % - A4	Part of the cost price paid by the producer % - A6	Part of the cost price paid by the producer % - AT	Part of the cost price paid by the producer % - B	Others
Switzerland	2018	57,0		43		30		32		
Switzerland	2017	57,0		43		30		32		
Switzerland	2016	57,0		43		30		32		
The Netherlands (by CRV)	2018					100	100	100	100	100
Tunisia	2018		108	108	108,0	0	0	0	0	
Tunisia	2017		108	108	108,0	0	0	0	0	
Tunisia	2016		108	108	108,0		0	0	0	
Turkey[4]	2019	0,0	0	0	7,8	0	0	0	100	
Turkey[5]	2018	0,0	0	0	7,9	0	0	0	100	
Turkey	2017	0,0	0	0	13,19	0	0	0	100	
Turkey	2016	0,0	0	0	17,96	0	0	0	100	
USA - (by AgSource)	2016					100	100	100	100	

4 Annual fee decreased due to the change in regulations of CBAT

5 Annual fee decreased due to the change in regulations of CBAT

Table 4.1 - All breeds together - All recorded cows

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Others
Argentina	2017	187.971	344	8.219	7.822	3,41	3,34	433	
Argentina	2016	228.386	342	8.443	8.182	3,33	3,26	438	
Australia (DataGene Limited)	2017	598.090	324	6.861	6.861	4	3,3		
Australia (DataGene Limited)	2016	666.685	320	6.983	6.983	4	3,3		
Austria	2018	364.616	299		7.724	4,12	3,42	393	
Austria	2017	363.062	298		7.434	4,14	3,41	393	
Austria	2016	360.089	298		7.425	4,14	3,4	396	
Belgium (Flemish Region by CRV)	2018	94.394	350	9.941		4,15	3,57	408	760 kgs fat + prot
Belgium (Flemish Region by CRV)	2017	91.648	348	9.728		4,13	3,47	410	740 kgs fat + prot
Belgium (Flemish Region by CRV)	2016	92.779	350	9.613		4,12	3,45	414	728 kgs f+p
Belgium (Wallonia Region)	2018	46.755	354	8.797	7.784	4,01	3,4	413	
Belgium (Wallonia Region)	2017	46.500	353	8.537	7.587	3,99	3,38	415	
Belgium (Wallonia Region)	2016	48.961	352	8.670	7.729	3,98	3,38	413	
Canada	2018	325.524	305		10.519	4,02	3,27	419	
Canada	2017	322.398	305		10.528	3,98	3,25	419	
Canada	2016	319.257	305		10.292	3,95	3,25	421	
Chile	2018	146.725	355	7.899	7.998	3,79	3,31	401	
Chile	2017	153.724	318	7.692	8.507	3,74	3,42	402	
Chile	2016	153.115	334	7.281	7.869	3,93	3,52	412	
Croatia	2018	63.230	375	7.572	6.311	4	3,4	435	
Croatia	2017	66.644	369	7.337	6.194	4	3,5	437	
Croatia	2016	70.632	366	7.174	6.060	4	3,3	440	
Czech Republic	2018	292.062	296	9.047		3,9	3,46	397	
Czech Republic	2017	292.347	296	8.734		3,93	3,43	401	
Czech Republic	2016	296.266	296	8.725		3,88	3,39	401	
Denmark[1]	2018	518.682	365	10.263		4,24	3,53		
Denmark[1]	2017	508.364	365	10.106		4,28	3,53		
Denmark[1]	2016	509.295	365	10.008		4,3	3,51		

[1] All data cover rolling average 365 days

Table 4.1 - All breeds together - All recorded cows

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Others
Estonia	2018	82.513	333	9.785	9.731	3,86	3,34	406	
Estonia	2017	82.244	339	9.619	9.469	3,91	3,34	409	
Estonia	2016	82.543	340	9.294	9.212	3,93	3,32	410	
Finland	2018	185.328	305	9.795	9.850	4,3	3,52	407	Cells 176
Finland	2017	193.207	305	9.675	9.772	4,3	3,5	411	Cells 174
Finland	2016	201.135	305	9.542	9.556	4,27	3,49	410	
France	2018	2.383.539	334	8.466	8.370	3,92	3,36	416	
France	2017	2.393.784	336	8.406	8.316	3,92	3,35	417	
France	2016	2.488.150	332	8.520	8.432	3,9	3,33	419	
Germany	2018	3.606.629	322	8.843	8.646	4,04	3,44	405	
Germany	2017	3.627.291	321	8.541	8.395	4,09	3,45	404	
Germany	2016	3.697.870	322	8.599	8.467	4,1	3,43	405	
Hungary	2016	141.789	298		9.538	3,68	3,29	431	
India	2018	52.650	305	2.669	2.669	4,2	3,19	427	Recorded cows - Cal. Interval from 46.445 reproduction records
India	2018	29.336	305	2.590	2.590	7,4	3,76	457	Recorded buffaloes - Cal. Interval from 24.957 reproduction records
India	2017	51.300	305	2.805	2.805	4,3	3,18	427	Intercalving interval from 48.058 recorded cows
India	2017	35.159	305	2.544	2.544	7,4	3,8	446	Recorded buffaloes - Cal. Interval from 22.881 reproduction records
India	2016	10.656	305		2.274	6,9	3,4	432	Recorded buffaloes - Cal. Interval from 53.078 reproduction records
India	2016	33.161	305		2.713	4,6	3,2	427	Recorded cows - Cal. Interval from 96.228 reproduction records
Ireland	2018	631.944	292	6.226	6.622	4,1	3,52	383	SCC 170
Ireland	2017	633.563	288	6.232	6.494	4,08	3,54	385	SCC 163
Ireland	2016	604.748	289	6.187	6.371	4,11	3,46	384	SCC 175
Israel	2018	79.456	358	13.407	11.856	3,76	3,31	417	Cows in herd book
Israel	2017	80.800	356	13.207	11.730	3,71	3,32	415	Cows in herd book
Israel	2016	75.921	358	13.088	11.573	3,69	3,3	417	Cows in herd book

Table 4.1 - All breeds together - All recorded cows

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Others
Italy	2018	848.429	305	9.218	9.218	3,78	3,35		
Italy	2017	839.290	305	9.032	9.032	3,78	3,33		
Italy	2016	864.246	305	8.844	8.844	3,74	3,3		
Japan	2016	360.565	366	10.761	9.599	3,92	3,33	432	
Latvia	2018	92.518	381	7.628	7.580	4,07	3,32		
Latvia	2017	95.559	379	7.520	7.447	4,1	3,3		
Latvia	2016	95.584	376	7.296	7.254	4,12	3,29		
Lithuania	2016		305	7.277		4,35	3,36		
Luxembourg	2018	44.854	319	8.469		4,08	3,44	417	
Luxembourg	2017	43.621	315	8.016		4,1	3,41	419	
Luxembourg	2016	42.125	317	8.248		4,1	3,41	419	
New Zealand (by DairyNZ)	2018	3.614.507	219	4.217		4,75	3,82	371	
New Zealand (by DairyNZ)	2017	3.205.795	229	4.323		4,77	3,87	370	
New Zealand (by DairyNZ)	2016	3.030.157	225	4.311		4,73	3,84	368	
New Zealand (by LIC)	2017	3.615.000	270	4.217		4,75	3,82	371	
Norway	2018	151.941	305	7.968	7.501	4,26	3,42		
Norway	2017	156.265	305	7.820	7.483	4,28	3,44		
Norway	2016	164.517	305	7.800	7.430	4,3	3,46		
Poland	2018	813.901	305	8.298	8.298	4,03	3,39	431	
Poland	2017	790.261	305	8.150	8.150	4,08	3,38	430	
Poland	2016	768.749	305	7.865	7.865	4,11	3,37	431	
Portugal	2018	90.069	352	10.812	9.702	3,67	3,28		
Portugal	2017	86.247	355	10.654	9.483	3,68	3,24		
Portugal	2016	89.322	350	10.483	9.466	3,63	3,24		
Serbia[2]	2017	40.672	361	7.570	6.761	3,84	3,28	436	
Serbia[3]	2016	39.368	371	7.306	6.690	3,83	3,24	445	
Slovak Republic	2017	84.408	297	8.091	8.254	3,84	3,3	413	
Slovak Republic	2016	76.019	297	7.824	7.982	3,88	3,31	416	
Slovenia	2018	78.748	368	8.120	7.052	4	3,32	420	
Slovenia	2017	79.888	366	7.851	6.858	4,01	3,32	422	
Slovenia	2016	80.626	369	7.680	6.690	4,01	3,32	421	

[2] Data relating to the region AP Vojvodina in Serbia
[3] Data relating to the region AP Vojvodina in Serbia

Table 4.1 - All breeds together - All recorded cows

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Others
South Africa (by ARC)	2018	43.723	201	5.021	7.727	4,27	3,43	450	
South Africa (by ARC)	2017	45.416	286	6.734	7.615	4,3	3,5	437	
South Africa (by ARC)	2016	48.550	284	6.551	7.584	4,3	3,47	436	
South Africa (by StudBook)	2018	36.219	322	7.596	7.238	4,16	3,37	410	
South Korea (by DCIC Centre)	2018	149.755	305		10.303	3,91	3,19	460	
South Korea (by DCIC Centre)	2017	148.274	305		10.395	3,84	3,19	459	
South Korea (by DCIC Centre)	2016	147.455			10.334	3,77	3,21	454	
Spain	2016	334.827	368	11.756	10.043	3,62	3,2	428	
Sweden[4]	2018	233.297	365	9.827		4,19	3,52	398	
Sweden[4]	2017	240.683	365	9.801		4,22	3,54	401	
Sweden[4]	2016	254.212	365	9.759		4,24	3,5	398	
Switzerland	2018	384.559	301	7.647	7.730	4,02	3,32	403	
Switzerland	2017	335.725	301	7.626	7.707	4,03	3,32	407	
Switzerland	2016	343.285	301	7.561	7.629	4,02	3,31	403	
The Netherlands	2018	989.552	351	9.853		4,34	3,57	408	780 kgs fat + prot.
The Netherlands	2017	1.040.072	351	9.539		4,36	3,55	410	755 kgs fat + prot.
The Netherlands	2016	1.045.941	351	9.442		4,35	3,55	413	746 kgs f+p
Tunisia	2018	8.548	373	6.378	5.622	3,58	3,18	454	
Tunisia	2017	8.940	379	6.217	5.555	3,67	3,22	457	
Tunisia	2016	9.654	379	6.312	5.664	3,7	3,21	457	
UK - (by Untd. Dairy Farm.)	2018	84.208	322	8.726	7.776	4,03	3,25	404	
UK - (by Untd. Dairy Farm.)	2017	87.153	322	8.473	7.601	3,96	3,22	412	
UK - (by Untd. Dairy Farm.)	2016	87.153	321	8.473	7.601	3,96	3,22	412	
UK - England (by CIS)	2018	272.534	325	9.344	8.299	4,07	3,23	406	
UK - England (by CIS)	2017	261.891	327	9.244	8.209	4,06	3,23	407	
UK - England (by CIS)	2016	262.111	325	9.306	8.280	4,03	3,22	411	

[4] All data cover rolling average 365 days

Table 4.1 - All breeds together - All recorded cows

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Others
UK - England+Wales (by NMR)	2017	480.197	350	9.380	8.390	4,09	3,31	403	
UK - England+Wales (by NMR)	2016	487.944	350	9.440	8.430	4,08	3,31	408	
UK - Jersey Island	2018	3.164	321	5.724	5.166	5,3	3,74	415	
UK - Jersey Island	2017	2.927	332	5.859	5.268	5,3	3,72	409	
UK - Jersey Island	2016	3.111	319	5.541	5.080	5,31	3,7	403	
UK - N. Ireland (by CIS)	2018	84.208	322	8.726	7.776	4,03	3,25	404	
UK - N. Ireland (by CIS)	2017	84.411	332	8.505	7.609	3,98	3,22	407	
UK - N. Ireland (by CIS)	2016	87.153	321	8.473	7.601	3,96	3,22	412	
UK - N. Ireland (by NMR)	2017	28.540	346	9.040	7.980	4,09	3,28	399	
UK - N. Ireland (by NMR)	2016	28.835	341	8.860	7.940	4,06	3,26	401	
UK - Scotland (by CIS)	2018	129.679	321	9.107	8.132	3,91	3,14	408	
UK - Scotland (by CIS)	2017	111.764	323	9.150	8.164	3,91	3,16	409	
UK - Scotland (by CIS)	2016	115.556	319	9.051	8.106	3,89	3,15	411	
UK - Scotland (by NMR)	2017	8.700	355	10.660	9.290	4,09	3,32	403	
UK - Scotland (by NMR)	2016	7.929	357	10.460	9.240	4,04	3,33	408	
UK - Wales	2018	41.330	329	8.898	7.920	4,07	3,22	408	
UK - Wales	2017	37.454	330	9.016	8.014	4,04	3,19	410	
UK - Wales	2016	37.032	329	9.169	8.160	4,07	3,21	416	

Table 4.2 - All breeds together - Cows in herdbook

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Argentina	2017	5.054	350	8.876	8.266	3,56	3,41	451	
Argentina	2016	5.446	344	8.944	8.542	3,53	3,37	455	
Australia (DataGene Limited)	2017	59.820	340	7.545	7.545	4	3,29		
Australia (DataGene Limited)	2016	70.277	339	7.743	7.743	3,96	3,31		
Austria	2018	347.055	299		7.765	4,12	3,42	393	
Austria	2017	344.781	298		7.474	4,14	3,41		
Austria	2016	342.161	298		7.465	4,15	3,41		
Belgium (Flemish Region by CRV)	2018	66.585	349	10.087		4,15	3,49	408	771 kgs fat + prot
Belgium (Flemish Region by CRV)	2017	64.662	348	9.871		4,13	3,47	410	751 kgs fat + prot
Belgium (Flemish Region by CRV)	2016	65.890	351	9.790		4,12	3,45	414	741 kgs f+p
Belgium (Wallonia Region)	Every year	All cows in milk recording = All cows in herdbook (main + supplementary sections)							
Czech Republic[1]	2018	288.780	296	9.128		3,9	3,46	397	
Czech Republic[1]	2017	282.559	296	8.808		3,93	3,43	400	
Czech Republic[1]	2016	287.711	296	8.806		3,89	3,41	400	
Denmark	2018	518.682	365	10.263		4,24	3,53		All data cover rolling average 365 days
Denmark	2017	508.364	365	10.106		4,28	3,53		All data cover rolling average 365 days
Denmark	2016	509.295	365	10.008		4,3	3,51		All data cover rolling average 365 days
Estonia	2018	75.251	337	9.938	9.863	3,85	3,34	406	
Estonia	2017	74.556	343	9.781	9.604	3,9	3,34	409	
Estonia	2016	74.191	344	9.470	9.371	3,92	3,32	410	

[1] Holstein, Fleckvieh

Table 4.2 - All breeds together - Cows in herdbook

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Finland	2018	61.777	305		10.327	4,24	3,48		
Finland	2017	58.406	305		10.303	4,21	3,45		
Finland	2016	53.097	305		10.129	4,17	3,44		
France	2018	.383.539	334	8.466	8.370	3,92	3,36	416	
France	2017	.393.784	336	8.406	8.316	3,92	3,35	417	
France	2016	.488.150	332	8.520	8.432	3,9	3,33	419	
Germany	2018	.774.470	322	9.059	8.834	4,03	3,45	404	
Germany	2017	.786.044	321	8.759	8.586	4,08	3,46	404	
Germany	2016	.822.113	322	8.818	8.659	4,1	3,44	405	
Hungary	2016	134.806	298		9.607	3,68	3,29	431	
Italy	2018	848.429	305	9.218	9.218	3,78	3,35		
Italy	2017	839.290	305	9.032	9.032	3,78	3,33		
Italy	2016	864.246	305	8.844	8.844	3,74	3,3		
Japan	2016	326.046	365	10.766	9.702	3,93	3,33	431	
Latvia	2018	43.366	366		8.540	4,08	3,31		
Latvia	2017	42.451	375		8.492	4,06	3,32		
Latvia	2016	41.272	370		8.279	4,15	3,32		
Poland (by PFHB)	2018	613.449	305	8.225	8.225	3,97	3,31		
Poland (by PFHB)	2017	599.525	305	7.999	7.999	4,02	3,32		
Poland (by PFHB)	2016	584.258	305	7.842	7.842	4,03	3,3		
Serbia[2]	2017	32.184	361	7.820	6.894	3,79	3,24	433	
Serbia[2]	2016	29.431	361	7.755	6.865	3,78	3,24	434	
Slovak Republic	2017	69.455	297	8.418	8.588	3,82	3,29	412	
Slovak Republic	2016	64.847	297	8.046	8.208	3,91	3,32	413	

[2] Data relating to the region AP Vojvodina in Serbia

Table 4.2 - All breeds together - Cows in herdbook

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Slovenia	2018	78.748	368	8.120	7.052	4	3,32	420	
Slovenia	2017	79.888	366	7.851	6.858	4,01	3,32	422	
Slovenia	2016	80.626	369	7.680	6.690	4,01	3,32	421	
South Africa (by ARC)	2018	31.270	198	5.589	8.752	4,24	3,41	442	
South Africa (by ARC)	2017	31.649	280	7.645	8.731	4,28	3,47	431	
South Africa (by ARC)	2016	32.926	282	7.301	8.578	4,3	3,47	435	
South Africa (by StudBook)	2018	22.717	327	8.315	7.799	4,1	3,33	413	
Spain	2016	334.827	368	11.756	10.043	3,62	3,2	428	
Switzerland	2018	384.559	301	7.647	7.730	4,02	3,32	403	
Switzerland	2017	335.725	301	7.626	7.707	4,03	3,32	407	
Switzerland	2016	343.285	301	7.561	7.629	4,02	3,31	403	
The Netherlands	2018	865.001	351	9.939		4,35	3,57	410	787 kgs fat + prot.
The Netherlands	2017	904.754	351	9.629		4,36	3,55	410	762 kgs fat + prot.
The Netherlands	2016	908.914	351	9.540		4,35	3,55	413	754 kgs f+p
Tunisia	2018	8.548	373	6.378	5.622	3,58	3,18	454	
Tunisia	2017	8.940	379	6.217	5.555	3,67	3,22	457	
Tunisia	2016	9.654	379	6.312	5.664	3,7	3,21	457	
Turkey	2017	362.437	360	7.490	6.392	3,76	3,45	412	
Turkey	2016	203.316	349	7.561	6.464	3,66	3,33	432	
UK - (by Untd. Dairy Farm.)	2018	44.700	324	9.408	8.384	4,02	3,23	408	
UK - (by Untd. Dairy Farm.)	2016	44.972	325	9.127	8.173	3,94	3,19	418	
UK - England (by CIS)	2018	188.229	327	9.812	8.691	4,04	3,21	408	
UK - England (by CIS)	2017	187.171	329	9.662	8.558	4,04	3,2	409	
UK - England (by CIS)	2016	189.651	327	9.703	8.618	4,03	3,2	413	
UK - England+Wales (by NMR)	2017	219.525	353	9.930	8.820	4,08	3,29	406	
UK - England+Wales (by NMR)	2016	226.075	352	9.960	8.860	4,07	3,29	410	

Table 4.2 - All breeds together - Cows in herdbook

Country	Year	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - Jersey Island	2018	3.164	321	5.724	5.166	5,3	3,74	321	
UK - Jersey Island	2017	2.927	332	5.859	5.268	5,3	3,72	409	
UK - Jersey Island	2016	3.111	319	5.541	5.080	5,31	3,7	403	
UK - N. Ireland (by CIS)	2018	44.700	324	9.408	8.384	4,02	3,23	408	
UK - N. Ireland (by CIS)	2017	44.379	324	9.163	8.196	3,97	3,2	410	
UK - N. Ireland (by CIS)	2016	44.972	325	9.127	8.173	3,94	3,19	418	
UK - N. Ireland (by NMR)	2017	9.230	352	9.920	8.620	4,14	3,27	405	
UK - N. Ireland (by NMR)	2016	9.633	347	9.720	8.580	4,09	3,24	411	
UK - Scotland (by CIS)	2018	67.620	326	9.759	8.671	3,97	3,19	411	
UK - Scotland (by CIS)	2017	64.149	326	9.641	8.570	3,94	3,2	412	
UK - Scotland (by CIS)	2016	65.290	326	9.614	8.565	3,93	3,19	415	
UK - Scotland (by NMR)	2017	3.184	353	11.400	9.920	4,15	3,37	405	
UK - Scotland (by NMR)	2016	3.100	354	11.190	9.790	4,08	3,34	415	
UK - Wales	2018	33.593	332	9.345	8.307	4,03	3,19	409	
UK - Wales	2017	31.983	331	9.278	8.252	4,04	3,19	411	
UK - Wales	2016	31.713	330	9.424	8.382	4,06	3,2	417	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Argentina	2017	Holstein	177.319	345	8.297	7.867	3,37	3,32	435	
Argentina	2016	Holstein	216.874	344	8.526	8.222	3,31	3,25	439	
Argentina	2017	Jersey	1.295	322	5.673	5.694	4,50	3,78	412	
Argentina	2016	Jersey	1.397	317	5.825	5.927	4,50	3,74	412	
Australia (DataGene Limited)	2017	Australian Red Breed	13.041	312	6.266		4,20	3,44		
Australia (DataGene Limited)	2016	Australian Red Breed	14.509	308	6.347	6.347	4,16	3,45		
Australia (DataGene Limited)	2017	Ayrshire	2.299	319	5.459		4,20	3,35		
Australia (DataGene Limited)	2016	Ayrshire	2.672	313	5.610	5.610	4,16	3,35		
Australia (DataGene Limited)	2017	Brown Swiss	2.760	333	6.215		3,97	3,39		
Australia (DataGene Limited)	2016	Brown Swiss	3.306	323	6.229	6.229	4,04	3,42		
Australia (DataGene Limited)	2017	Guernsey	1.228	341	5.637		4,33	3,38		
Australia (DataGene Limited)	2016	Guernsey	1.216	336	5.659	5.659	4,38	3,42		
Australia (DataGene Limited)	2017	Holstein	240.801	330	7.421		3,84	3,24		
Australia (DataGene Limited)	2016	Holstein	291.259	327	7.544	7.544	3,85	3,27		
Australia (DataGene Limited)	2017	Illawarra	4.314	329	6.677		3,91	3,27		
Australia (DataGene Limited)	2016	Illawarra	4.839	324	6.677	6.677	3,93	3,28		
Australia (DataGene Limited)	2017	Jersey	44.127	315	5.349		4,79	3,66		
Australia (DataGene Limited)	2016	Jersey	53.088	310	5.428	5.428	4,79	3,68		
Austria	2018	Braunvieh	37.768	301		7.461	4,13	3,5		
Austria	2017	Braunvieh	39.210	301		7.279	4,16	3,49		
Austria	2016	Braunvieh	40.240	301		7.360	4,16	3,48		
Austria	2018	Fleckvieh	273.375	298		7.661	4,13	3,43		
Austria	2017	Fleckvieh	271.158	298		7.345	4,16	3,42		
Austria	2016	Fleckvieh	268.156	298		7.322	4,16	3,41		
Austria	2018	Grauvieh	2.974	294		5.031	3,88	3,33		
Austria	2017	Grauvieh	3.039	294		4.992	3,91	3,33		
Austria	2016	Grauvieh	2.971	294		5.063	3,92	3,31		

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Austria	2018	Holstein	41.973	301		8.945	4,03	3,31		
Austria	2017	Holstein	41.207	300		8.706	4,07	3,31		
Austria	2016	Holstein	40.542	300		8.701	4,07	3,30		
Austria	2018	Pinzgauer	6.030	297		5.863	3,86	3,28		
Austria	2017	Pinzgauer	6.064	297		5.736	3,87	3,27		
Austria	2016	Pinzgauer	6.190	297		5.780	3,88	3,28		
Belgium (Flemish Region by CRV)	2018	Holstein B&W	50.436	350	10.445	9.481	4,12	3,48	408	793 kgs fat + prot
Belgium (Flemish Region by CRV)	2017	Holstein B&W	47.277	351	10.288	9.314	4,09	3,45	410	771 kgs fat + prot
Belgium (Flemish Region by CRV)	2016	Holstein B&W	47.568	354	10.214	9.206	4,07	3,44	414	767 kgs f+p
Belgium (Flemish Region by CRV)	2018	Holstein R&W	14.356	351	9.241	8.410	4,33	3,56	408	729 kgs fat + prot
Belgium (Flemish Region by CRV)	2017	Holstein R&W	12.771	351	9.323	8.491	4,32	3,55	410	734 kgs fat + prot
Belgium (Flemish Region by CRV)	2016	Holstein R&W	13.541	354	9.275	8.400	4,29	3,53	414	725 kgs f+p
Belgium (Wallonia Region)	2018	Blanc-Bleu Belge (Belgian Blue)	2.204	305	4.443	4.236	3,69	3,33	384	
Belgium (Wallonia Region)	2017	Blanc-Bleu Belge (Belgian Blue)	2.114	301	4.096	3.976	3,66	3,27	390	
Belgium (Wallonia Region)	2016	Blanc-Bleu Belge (Belgian Blue)	2.243	297	4.344	4.178	3,68	3,26	382	
Belgium (Wallonia Region)	2018	Holstein	37.196	358	9.246	8.142	4,00	3,39	416	
Belgium (Wallonia Region)	2017	Holstein	37.002	358	8.986	7.942	3,98	3,38	419	
Belgium (Wallonia Region)	2016	Holstein	38.816	356	9.098	8.071	3,96	3,37	415	
Belgium (Wallonia Region)	2018	Montbeliarde	905	345	7.889	7.110	3,94	3,49	406	
Belgium (Wallonia Region)	2017	Montbeliarde	872	336	7.369	6.722	3,90	3,47	403	
Belgium (Wallonia Region)	2016	Montbeliarde	982	339	7.416	6.756	3,89	3,47	402	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Belgium (Wallonia Region)	2018	Normande	248	332	6.864	6.295	4,16	3,58	396	
Belgium (Wallonia Region)	2017	Normande	261	332	6.553	6.020	4,12	3,57	400	
Belgium (Wallonia Region)	2016	Normande	262	333	6.723	6.203	4,12	3,55	395	
Belgium (Wallonia Region)	2018	Red Holstein	5.583	351	8.181	7.321	4,11	3,44	409	
Belgium (Wallonia Region)	2017	Red Holstein	5.659	349	7.938	7.157	4,11	3,42	411	
Belgium (Wallonia Region)	2016	Red Holstein	6.107	349	8.153	7.351	4,14	3,43	409	
Belgium (Wallonia Region)	2018	Rouge-Pie Est de la Belgique (East Belg. Red Pied	619	309	4.961	4.671	4,13	3,44	388	
Belgium (Wallonia Region)	2017	Rouge-Pie Est de la Belgique (East Belg. Red Pied	592	310	4.676	4.399	4,13	3,44	389	
Belgium (Wallonia Region)	2016	Rouge-Pie Est de la Belgique (East Belg. Red Pied	551	360	5.038	4.766	4,20	3,46	383	
Canada (Canadian DHI)	2018	Ayrshire	7.912	305		8.079	4,15	3,39		
Canada (Canadian DHI)	2017	Ayrshire	7.991	305		8.077	4,14	3,37		
Canada (Canadian DHI)	2016	Ayrshire	8.178	305		7.987	4,13	3,37		
Canada (Canadian DHI)	2018	Brown Swiss	1.643	305		8.777	4,23	3,53		
Canada (Canadian DHI)	2017	Brown Swiss	1.815	305		8.794	4,20	3,49		
Canada (Canadian DHI)	2016	Brown Swiss	1.798	305		8.742	4,16	3,50		
Canada (Canadian DHI)	2018	Canadienne	314	305		6.102	4,26	3,58		

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Canada (Canadian DHI)	2017	Canadienne	290	305		6.176	4,26	3,57		
Canada (Canadian DHI)	2016	Canadienne	252	305		6.198	4,24	3,56		
Canada (Canadian DHI)	2018	Guernsey	295	305		7.273	4,71	3,47		
Canada (Canadian DHI)	2017	Guernsey	317	305		7.389	4,77	3,46		
Canada (Canadian DHI)	2016	Guernsey	214	305		7.033	4,72	3,36		
Canada (Canadian DHI)	2018	Holstein	302.093	305		10.753	3,96	3,24		
Canada (Canadian DHI)	2017	Holstein	299.507	305		10.756	3,93	3,22		
Canada (Canadian DHI)	2016	Holstein	296.496	305		10.512	3,90	3,22		
Canada (Canadian DHI)	2018	Jersey	12.934	305		7.035	5,10	3,85		
Canada (Canadian DHI)	2017	Jersey	12.135	305		7.073	5,07	3,82		
Canada (Canadian DHI)	2016	Jersey	11.830	305		6.883	5,01	3,81		
Canada (Canadian DHI)	2018	Milking Shorthorn	333	305		7.234	3,98	3,29		
Canada (Canadian DHI)	2017	Milking Shorthorn	343	305		7.008	3,91	3,30		
Canada (Canadian DHI)	2016	Milking Shorthorn	352	305		6.950	3,91	3,32		
China (by Shanghai Dairy Breeding Center Co)	2018	Holstein	113.834	220	10.141	10.183	4,05	3,47	423	
China (by Shanghai Dairy Breeding Center Co)	2017	Holstein	96.327	290	12.237	10.402	4,06	3,50	427	
China (by Shanghai Dairy Breeding Center Co)	2016	Holstein	85.124	248	14.133	5.334	3,98	3,48	457	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Croatia	2018	Brown	1.363	371	6.975	5.782	4,10	3,40	440	
Croatia	2017	Brown	1.354	365	6.631	5.569	4,10	3,50	442	
Croatia	2016	Brown	1.313	365	6.519	5.447	4,10	3,50	456	
Croatia	2018	Holstein	24.789	387	9.625	8.001	4,00	3,30	445	
Croatia	2017	Holstein	26.069	382	9.404	7.889	4,00	3,30	448	
Croatia	2016	Holstein	29.032	381	9.102	7.633	4,00	3,30	452	
Croatia	2018	Simmental	36.356	367	6.133	5.210	4,10	3,40	431	
Croatia	2017	Simmental	38.570	361	5.978	5.080	4,10	3,30	433	
Croatia	2016	Simmental	39.735	355	5.791	4.971	4,00	3,30	436	
Czech Rep. (by CMSCH)	2018	Fleckvieh	102.209	294	7.591		4,02	3,58	390	
Czech Rep. (by CMSCH)	2017	Fleckvieh	103.268	294	7.297		4,05	3,55	392	
Czech Rep. (by CMSCH)	2016	Fleckvieh	107.202	294	7.334		4,02	3,52	391	
Czech Rep. (by CMSCH)	2018	Holstein	167.874	298	10.059		3,83	3,39	402	
Czech Rep. (by CMSCH)	2017	Holstein	166.911	298	9.740		3,85	3,36	407	
Czech Rep. (by CMSCH)	2016	Holstein	166.433	298	9.744		3,80	3,33	409	
Czech Rep. (by CMSCH)	2018	Montbeliarde	2.364	296	8.243		4,07	3,57	384	
Czech Rep. (by CMSCH)	2017	Montbeliarde	2.065	296	7.968		4,14	3,56	384	
Czech Rep. (by CMSCH)	2016	Montbeliarde	1.706	296	7.959		4,03	3,52	384	
Denmark[1]	2018	Cross	59.024	365	9.815		4,23	3,53		
Denmark[1]	2017	Cross	55.067	365	9.769		4,28	3,53		
Denmark[1]	2016	Cross	54.469	365	9.657		4,29	3,50		
Denmark[1]	2018	Holstein	365.120	365	10.897		4,02	3,45		
Denmark[1]	2017	Holstein	358.661	365	10.707	10.939	4,06	3,44	407	
Denmark[1]	2016	Holstein	353.034	365	10.612		4,09	3,42		
Denmark[1]	2018	Jersey	65.562	365	7.444		5,92	4,20		
Denmark[1]	2017	Jersey	64.917	365	7.339		5,97	4,20	394	
Denmark[1]	2016	Jersey	65.915	365	7.300		5,96	4,16		

[1] All data cover rolling average 365 days

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Denmark[1]	2018	Red Danish	28.976	365	9.621		4,34	3,62		
Denmark[1]	2017	Red Danish	29.718	365	9.581		4,37	3,61	399	
Denmark[1]	2016	Red Danish	31.096	365	9.544		4,35	3,57		
Denmark[1]	2016	Red Holstein	4.475	365	9.774		4,25	3,44		
Estonia	2018	Estonian Holstein	68.044	334	10.059	9.971	3,83	3,33	406	
Estonia	2017	Estonian Holstein	66.713	340	9.905	9.703	3,88	3,32	410	
Estonia	2016	Estonian Holstein	65.895	341	9.561	9.450	3,90	3,31	412	
Estonia	2018	Estonian Red	13.682	329	8.703	8.776	4,01	3,41	405	
Estonia	2017	Estonian Red	14.742	335	8.591	8.606	4,04	3,41	407	
Estonia	2016	Estonian Red	15.900	334	8.391	8.428	4,07	3,40	402	
Finland	2018	Finnish Ayrshire	90.048	305	9.310	9.382	4,46	3,58	405	Cells 168
Finland	2017	Finnish Ayrshire	98.049	305	9.228	9.342	4,45	3,56	409	Cells 164
Finland	2016	Finnish Ayrshire	106.475	305	9.126	9.156	4,41	3,54	408	
Finland	2018	Finnish Cattle	1.876	305	6.347	6.594	4,43	3,43	403	Cells 184
Finland	2017	Finnish Cattle	2.035	305	6.262	6.495	4,48	3,46	398	Cells 191
Finland	2016	Finnish Cattle	2.280	305	6.203	6.459	4,41	3,45	402	
Finland	2018	Holstein	92.171	305	10.360	10.393	4,16	3,47	408	Cells 182
Finland	2017	Holstein	92.033	305	10.243	10.319	4,14	3,45	413	Cells 183
Finland	2016	Holstein	91.415	305	10.123	10.114	4,11	3,43	412	
Finland	2018	Jersey	874	305	7.912	7.942	5,21	3,85	399	Cells 177
Finland	2017	Jersey	823	305	8.045	8.076	5,24	3,84	405	Cells 177
Finland	2016	Jersey	734	305	8.072	7.945	5,15	3,78	400	
France	2018	Abondance	24.412	295	5.451	5.655	3,63	3,46	406	
France	2017	Abondance	23.863	297	5.346	5.550	3,63	3,47	405	
France	2016	Abondance	23.877	296	5.461	5.660	3,66	3,48	405	
France	2018	Brune	16.371	339	7.420	7.174	4,14	3,56	429	
France	2017	Brune	16.306	342	7.407	7.164	4,14	3,56	426	
France	2016	Brune	16.804	338	7.485	7.280	4,14	3,55	428	
France	2018	Montbeliarde	427.748	311	7.172	7.302	3,86	3,45	400	
France	2017	Montbeliarde	430.186	311	6.933	7.090	3,86	3,45	399	
France	2016	Montbeliarde	436.107	308	7.127	7.304	3,87	3,44	399	
France	2018	Normande	189.039	327	6.609	6.664	4,17	3,59	407	
France	2017	Normande	194.524	327	6.590	6.668	4,19	3,60	406	
France	2016	Normande	205.600	321	6.588	6.695	4,18	3,58	406	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
France	2018	Pie rouge des plaines	9.473	335	7.980	7.949	4,21	3,45	414	
France	2017	Pie Rouge des plaines	9.765	333	7.849	7.828	4,22	3,44	414	
France	2016	Pie Rouge des Plaines	9.882	328	7.859	7.883	4,20	3,43	412	
France	2018	Prim Holstein	1.565.497	344	9.252	9.055	3,91	3,31	423	
France	2017	Prim Holstein	1.572.614	346	9.241	9.042	3,91	3,30	425	
France	2016	Prim Holstein	1.647.706	343	9.336	9.129	3,87	3,28	428	
France	2018	Simmental Francaise	15.818	307	6.351	6.576	3,98	3,52	396	
France	2017	Simmental Francaise	15.734	306	6.072	6.294	3,98	3,53	394	
France	2016	Simmental Francaise	16.356	302	6.224	6.463	3,98	3,51	394	
Germany	2016	Braunvieh	161.075	326	7.531	7.367	4,26	3,60	413	
Germany	2018	Brown Swiss	152.375	325	7.665	7.535	4,22	3,61	413	
Germany	2017	Brown Swiss	157.149	325	7.457	7.358	4,23	3,60	413	
Germany	2018	Fleckvieh	879.896	318	7.872	7.616	4,15	3,53	392	
Germany	2017	Fleckvieh	885.591	317	7.532	7.348	4,16	3,52	393	
Germany	2016	Fleckvieh	895.421	318	7.568	7.513	4,19	3,52	390	
Germany	2018	Holstein B&W	2.122.079	324	9.458	9.268	3,97	3,41	410	
Germany	2017	Holstein B&W	2.128.093	323	9.167	9.028	4,04	3,42	409	
Germany	2016	Holstein B&W	2.171.481	323	9.224	9.127	4,04	3,39	411	
Germany	2018	Red Holstein	226.526	322	8.525	8.414	4,12	3,46	410	
Germany	2017	Red Holstein	231.950	320	8.208	8.158	4,18	3,46	408	
Germany	2016	Red Holstein	240.691	321	8.271	8.236	4,20	3,44	408	
Hungary	2016	Hungarian Holstein Friesian	131.599	298		9.685	3,67	3,29	432	
Hungary	2016	Hungarian Red Spotted	3.207	293		6.401	3,97	3,50	408	
India	2018	Gir	5.328	305	1.932	1.932	4,80	3,12	451	Cal. Interval from 1.189 reproduction records

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
India	2017	Gir	2.530	305	2.177	2.177	4,84		447	Cal. Interval from 849 reproduction records
India	2016	Gir	680	305		2.323	5,20		465	Recorded cows - Cal. Interval from 2.836 reproduction records
India	2018	Hariana	749	305	2.318	2.318	4,75		385	Cal. Interval from 377 reproduction records
India	2017	Hariana	1.254	305	2.184	2.184	4,80		386	Cal. Interval from 380 reproduction records
India	2016	Hariana	781	305		2.078	4,80		376	Calving Interval from 991 reproduction records
India	2018	Holstein Crossbred	16.247	305	2.981	2.981	3,80	3,11	428	Cal. Interval from 18694 reproduction records
India	2017	Holstein Crossbred	15.863	305	3.067	3.067	3,91	3,26	426	Cal. Interval from 19.484 reproduction records
India	2016	Holstein Crossbred	12.331	305		2.612	4,70	3,30	434	Recorded cows - Cal. Interval from 34.309 reproduction records
India	2018	Holstein Friesian	5.523	305	3.809	3.809	4,02	3,37	431	Cal. Interval from 6.366 reproduction records
India	2017	Holstein Friesian	5.952	305	3.926	3.926	4,10	3,30	431	Cal. Interval from 6.107 reproduction records
India	2016	Holstein Friesian	2.707	305		3.929	4,20	3,20	430	Recorded cows - Cal. Interval from 13.619 reproduction records

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
India	2018	Jaffarabadi Buffaloes	463	305	2.455	2.455	7,64		505	Cal. Interval from 708 reproduction records
India	2017	Jaffarabadi Buffaloes	447	305	2.379	2.379	6,92		493	Cal. Interval from 409 reproduction records
India	2016	Jaffarabadi Buffaloes	254	305		2.887	7,80		475	Recorded buffaloes - Cal. Interval from 1.875 reproduction records
India	2018	Jersey Crossbred	21.755	305	2.354	2.354	4,54	3,21	425	Cal. Interval from 17.137 reproduction records
India	2017	Jersey Crossbred	21.610	305	2.473	2.473	4,55	3,10	427	Cal. Interval from 19.666 reproduction records
India	2016	Jersey Crossbred	10.917	305		2.538	4,60	3,20	420	Recorded cows - Cal. Interval from 38.765 reproduction records
India	2018	Kankrej	493	305	2.384	2.384	4,41		407	Cal. Interval from 1.215 reproduction records
India	2017	Kankrej	587	305	2.451	2.451	4,37		413	Cal. Interval from 897 reproduction records
India	2018	Mehsana Buffaloes	3.763	305	2.125	2.125	6,98	3,77	453	Cal. Interval from 5.583 reproduction records
India	2017	Mehsana Buffaloes	4.584	305	2.033	2.033	7,19	3,87	439	Cal. Interval from 5.352 reproduction records

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
India	2016	Mehsana Buffaloes	2.735	305		2.175	7,20	3,90	431	Recorded buffaloes - Cal. Interval from 8.671 reproduction records
India	2018	Murrah Buffaloes	23.341	305	2.710	2.710	7,45	3,76	458	Cal. Interval from 18.000 reproduction records
India	2017	Murrah Buffaloes	26.519	305	2.725	2.725	7,49	3,76	448	Cal. Interval from 16.458 reproduction records
India	2016	Murrah Buffaloes	6.600	305		2.573	7,60	3,80	430	Recorded buffaloes - Cal. Interval from 40.534 reproduction records
India	2018	Nili Ravi Buffaloes	984	305	2.416	2.416	6,51			
India	2017	Nili Ravi Buffaloes	1.535	305	2.389	2.389	6,47			
India	2016	Nili Ravi Buffaloes	520	305		2.488	6,40		446	Recorded buffaloes - Cal. Interval from 1.065 reproduction records
India	2018	Pandharpuri Buffaloes	785	305	1.535	1.535	7,19			
India	2017	Pandharpuri Buffaloes	2.073	305	1.514	1.514	7,11			
India	2016	Pandharpuri Buffaloes	547			1.679	7,30		430	Recorded buffaloes - Cal. Interval from 932 reproduction records
India	2018	Rathi	668	305	2.570	2.570	3,96		420	Cal. Interval from 444 reproduction records

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
India	2017	Rathi	1.101	305	2.519	2.519	3,94		413	Cal. Interval from 332 reproduction records
India	2016	Rathi	582	305		2.645	3,90		434	Calving Interval based on 1.981 reproduction records
India	2018	Sahiwal	1.479	305	2.703	2.703	4,30		412	Cal. Interval from 691 reproduction records
India	2017	Sahiwal	1.797	305	2.609	2.609	4,25		395	Cal. Interval from 285 reproduction records
India	2016	Sahiwal	1.153	305		2.351	4,30		390	Recorded cows - Cal. Interval from 1.531 reproduction records
India	2018	Tharparkar	408	305	2.208	2.208				
India	2017	Tharparkar	606	305	2.126	2.126				
Italy	2018	Bruna Italiana (Italian Brown)	43.235	305	7.579	7.579	4,04	3,61		
Italy	2017	Bruna Italiana (Italian Brown)	44.346	305	7.425	7.425	4,05	3,59		
Italy	2016	Bruna Italiana (Italian Brown)	47.284	305	7.304	7.304	4,01	3,55		
Italy	2018	Frisona Italiana (Italian Friesian)	643.244	305	9.916	9.916	3,74	3,61		
Italy	2017	Frisona Italiana (Italian Friesian)	637.182	305	9.729	9.729	3,74	3,30		

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Italy	2016	Frisona Italiana (Italian Friesian)	654.190	305	9.536	9.536	3,69	3,26		
Italy	2018	Grigio Alpina (Grey of Alps)	6.551	305	5.290	5.290	3,74	3,39		
Italy	2017	Grigio Alpina (Grey of Alps)	6.491	305	5.170	5.170	3,74	3,39		
Italy	2016	Grigio alpina (Grey of Alps)	6.436	305	5.101	5.101	3,73	3,35		
Italy	2016	Italian Red Spotted (Pezzata Rossa Italiana)	40.119	305	6.811	6.811	3,89	3,40		
Italy	2018	Pezzata Rossa Italiana (Italian Red Spotted)	38.819	305	7.115	7.115	3,92	3,44		
Italy	2017	Pezzata Rossa Italiana (Italian Red Spotted)	38.292	305	6.937	6.937	3,92	3,43		
Italy	2018	Valdostana Red Spotted (Valdostana Pezzata Rossa)	10.018	305	3.801	3.801	3,48	3,28		
Italy	2017	Valdostana Red Spotted (Valdostana Pezzata Rossa)	9.785	305	3.687	3.687	3,50	3,28		

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Italy	2016	Valdostana Red Spotted (Valdostana Pezzata Rossa)	9.432	305	3.686	3.686	3,49	3,27		
Japan	2016	Holstein	356.916	366	10.797	9.624	3,92	3,33	432	
Japan	2016	Jersey	2.557	343	6.876	6.499	4,96	3,95	417	
Latvia	2018	Holstein B&W	44.962	359		8.540	3,94	3,24		
Latvia	2017	Holstein B&W	46.379	379		8.312	3,92	3,25		
Latvia	2016	Holstein B&W	45.603	377		8.087	3,98	3,24		
Latvia	2018	Latvian Blue	292	339		5.202	4,26	3,35		
Latvia	2017	Latvian Blue	335	360		5.341	4,24	3,35		
Latvia	2016	Latvian Blue	372	354		5.199	4,24	3,34		
Latvia	2018	Latvian Brown	22.948	360		6.609	4,34	3,36		
Latvia	2017	Latvian Brown	27.223	367		6.572	4,34	3,37		
Latvia	2016	Latvian Brown	30.750	360		6.494	4,36	3,35		
Luxembourg	2017	Holstein - SBT	34.845	316	8.235		4,07	3,39	422	
Luxembourg	2018	Holstein-RBT	5.019	315	7.820		4,23	3,49	413	
Luxembourg	2017	Holstein-RBT	4.865	311	7.392		4,26	3,46	412	
Luxembourg	2016	Holstein-RBT	4.970	312	7.551		4,26	3,46	414	
Luxembourg	2018	Holstein-SBT	35.677	320	8.688		4,05	3,42	420	
Luxembourg	2016	Holstein-SBT	33.657	319	8.248		4,10	3,41	419	
New Zealand (by DairyNZ)	2018	Ayrshire	14.108	226	3.970		4,40	3,58		
New Zealand (by DairyNZ)	2017	Ayrshire	14.226	226	3.980		4,44	3,64		
New Zealand (by DairyNZ)	2016	Ayrshire	14.139	224	4.100		4,41	3,64		
New Zealand (by DairyNZ)	2016	Friesian x Jersey	1.080.836	211	3.988		4,94	3,96		
New Zealand (by DairyNZ)	2018	Friesian x Jersey	1.478.001	221	4.102		4,97	3,91		
New Zealand (by DairyNZ)	2017	Friesian x Jersey	1.260.364	218	4.002		5,00	3,99		

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
New Zealand (by DairyNZ)	2018	Holstein	905.550	220	4.470		4,48	3,73		
New Zealand (by DairyNZ)	2017	Holstein	768.015	217	4.407		4,48	3,76		
New Zealand (by DairyNZ)	2016	Holstein	689.351	212	4.448		4,42	3,72		
New Zealand (by DairyNZ)	2018	Jersey	258.852	221	3.208		5,65	4,14		
New Zealand (by DairyNZ)	2017	Jersey	248.152	219	3.169		5,70	4,21		
New Zealand (by DairyNZ)	2016	Jersey	263.571	214	3.181		5,65	4,18		
Norway	2018	Holstein	2.311	305	9.663	9.051	4,09	3,34	394	
Norway	2017	Holstein	2.303	305	9.443	9.099	4,09	3,34	397	
Norway	2016	Holstein	2.169	305	9.604	9.222	4,13	3,36	392	
Norway	2018	Jersey	1.121	305	6.177	5.937	5,89	3,97	387	
Norway	2017	Jersey	1.084	305	6.139	6.018	5,99	4,02	394	
Norway	2016	Jersey	1.141	305	6.234	6.067	5,94	4,01	396	
Norway	2018	Norwegian Red (NRF)	140.350	305	7.948	7.486	4,25	3,42	378	
Norway	2017	Norwegian Red (NRF)	144.676	305	7.811	7.472	4,28	3,44	380	
Norway	2016	Norwegian Red (NRF)	153.133	305	7.785	7.417	4,30	3,46	380	
Poland (by PFHB)	2018	Jersey (JE)	1.012	305	6.519	6.519	5,06	3,83	417	
Poland (by PFHB)	2017	Jersey (JE)	1.019	305	6.465	6.465	5,04	3,82	415	
Poland (by PFHB)	2016	Jersey (JE)	981	305	6.432	6.432	5,03	3,84	418	
Poland (by PFHB)	2018	Montbeliarde (MO)	3.407	305	7.948	7.948	4,04	3,53	411	
Poland (by PFHB)	2017	Montbeliarde (MO)	3.118	305	7.758	7.758	4,04	3,52	415	
Poland (by PFHB)	2016	Montbeliarde (MO)	2.959	305	7.438	7.438	4,03	3,51	419	
Poland (by PFHB)	2018	Polish Black-White (ZB)	2.061	305	4.651	4.651	4,16	3,32	425	
Poland (by PFHB)	2017	Polish Black-White (ZB)	2.001	305	4.668	4.668	4,16	3,30	424	
Poland (by PFHB)	2016	Polish Black-White (ZB)	1.995	305	4.711	4.711	4,15	3,29	415	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Poland (by PFHB)	2018	Polish Holstein Friesian (HO)	691.836	305	8.519	8.519	4,01	3,37	433	
Poland (by PFHB)	2018	Polish Holstein Friesian (RW)	30.960	305	7.679	7.679	4,15	3,43	424	
Poland (by PFHB)	2017	Polish Holstein Frisian (HO)	672.550	305	8.360	8.360	4,05	3,37	433	
Poland (by PFHB)	2016	Polish Holstein Frisian (HO)	657.730	305	8.055	8.055	4,09	3,36	434	
Poland (by PFHB)	2017	Polish Holstein Frisian (RW)	28.834	305	7.601	7.601	4,17	3,42	422	
Poland (by PFHB)	2016	Polish Holstein Frisian (RW)	26903	305	7.332	7332	4,19	3.40	424	
Poland (by PFHB)	2018	Polish Red-White (ZR)	3.939	305	4.454	4.454	4,19	3,28	414	
Poland (by PFHB)	2017	Polish Red-White (ZR)	3.981	305	4.509	4.509	4,16	3,25	413	
Poland (by PFHB)	2016	Polish Red-White (ZR)	3.803	305	4.535	4.535	4,15	3,26	410	
Poland (by PFHB)	2018	Red Polish (RP)	2.838	305	3.658	3.658	4,30	3,39	422	
Poland (by PFHB)	2017	Red Polish (RP)	2.773	305	3.646	3.646	4,27	3,37	416	
Poland (by PFHB)	2016	Red Polish (RP)	2.976	305	3.523	3.523	4,29	3,39	417	
Poland (by PFHB)	2018	Simental (SM)	10.466	305	6.260	6.260	4,18	3,47	412	
Poland (by PFHB)	2017	Simental (SM)	10.454	305	6.252	6.252	4,17	3,45	408	
Poland (by PFHB)	2016	Simental (SM)	10.377	305	6.146	6.146	4,20	3,46	409	
Romania (Simmental Assoc.)	2016	Baltata Romaneasca (Simmental)	38.496	343	5.008	5.460	3,92	3,40	404	Age of first calving - 30 months

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Romania (Simmental Assoc.)	2018	Baltata Romaneasca (Simmental)	98.428	354	5.025	4.889	3,96	3,41	399	Age of first calving - 29 months
Romania (Simmental Assoc.)	2017	Baltata Romaneasca (Simmental)	55.790	348	5.243	5.139	3,99	3,41	396	Age of first calving - 30 months
Romania (Simmental Assoc.)	2018	Montbeliard	2.037	398	7.365	6.773	3,88	3,52	416	Age of first calving - 29 months
Romania (Simmental Assoc.)	2017	Montbeliard	1.834	408	7.835	7.039	3,90	3,51	408	Age of first calving - 30 months
Romania (Simmental Assoc.)	2016	Montbeliard	1.618	363	6.574	7.051	3,87	3,49	419	Age of first calving - 30 months
Serbia[2]	2017	Brown Swiss	86	382	8.324	7.015	3,83	3,35	445	
Serbia[3]	2016	Brown Swiss	92	369	8.561	7.212	3,90	3,52	485	
Serbia[3]	2017	Holstein-Friesian	30.650	360	7.722	6.984	3,78	3,21	438	
Serbia[3]	2016	Holstein-Friesian	30.658	366	7.597	6.886	3,77	3,21	452	
Serbia[3]	2017	Simmental	9.936	342	6.664	6.285	3,92	3,27	427	
Serbia[3]	2016	Simmental	8.618	377	6.255	5.987	3,91	3,26	426	
Slovak Republic	2017	Holstein	35.073	299	9.314	9.454	3,75	3,24	419	
Slovak Republic	2016	Holstein	30.546	298	9.047	9.206	3,80	3,24	422	
Slovak Republic	2017	Slovak Pizgauer	543	294	4.745	4.877	3,87	3,43	414	
Slovak Republic	2016	Slovak Pizgauer	455	293	4.567	4.706	3,94	3,45	418	
Slovak Republic	2017	Slovak Simmental	14.062	295	6.689	6.858	3,94	3,40	402	
Slovak Republic	2016	Slovak Simmental	12.526	295	6.510	6.675	3,97	3,42	403	
Slovenia	2018	Brown	8.422	376	7.134	6.099	4,11	3,40	426	
Slovenia	2017	Brown	9.072	372	6.924	5.966	4,09	3,39	420	
Slovenia	2016	Brown	9.454	372	6.810	5.870	4,07	3,41	426	
Slovenia	2018	Holstein	33.934	379	9.687	8.256	3,93	3,27	426	
Slovenia	2017	Holstein	33.956	376	9.374	8.042	3,96	3,27	425	
Slovenia	2016	Holstein	34.094	381	9.176	7.839	3,97	3,28	430	

[2] Data relating to the region AP Vojvodina in Serbia

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Slovenia	2018	Simmental	29.048	355	6.790	6.039	4,08	3,37	411	
Slovenia	2017	Simmental	29.752	355	6.586	5.873	4,07	3,36	415	
Slovenia	2016	Simmental	30.355	356	6.443	5.737	4,06	3,36	416	
South Africa (by ARC)	2018	Ayrshire	3.885	213	5.513	8.269	4,12	3,38	493	
South Africa (by ARC)	2017	Ayrshire	1.188	291	6.643	7.584	4,06	3,36	453	
South Africa (by ARC)	2016	Ayrshire	1.077	292	6.666	7.537	4,06	3,34	442	
South Africa (by ARC)	2016	Geurnsey	398	279	6.450	7.571	4,32	3,46	426	
South Africa (by ARC)	2018	Gurnsey	323	184	4.355	7.398	4,15	3,41	431	
South Africa (by ARC)	2017	Gurnsey	383	288	6.769	7.747	4,29	3,53	427	
South Africa (by ARC)	2018	Holstein	17.580	202	6.260	9.424	3,89	3,20	443	
South Africa (by ARC)	2017	Holstein	19.380	306	8.761	9.360	3,90	3,25	441	
South Africa (by ARC)	2016	Holstein	21.599	277	8.086	9.623	3,96	3,33	444	
South Africa (by ARC)	2018	Jersey	21.935	204	3.956	5.816	4,92	3,74	434	
South Africa (by ARC)	2017	Jersey	24.465	259	4.763	5.769	4,70	3,84	427	
South Africa (by ARC)	2016	Jersey	25.476	287	5.002	5.605	4,86	3,76	431	
South Africa (by StudBook)	2018	AYR	828	302	5.999	6.006	4,14	3,35	401	
South Africa (by StudBook)	2018	Holstein	11.802	344	10.555	9.664	3,81	3,18	426	
South Africa (by StudBook)	2018	Jersey	23.589	319	6.234	6.045	4,75	3,71	403	
South Korea (by DCIC Centre)	2018	Holstein	149.755	305		10.303	3,91	3,21	460	
South Korea (by DCIC Centre)	2017	Holstein	148.274	305		10.395	3,84	3,19	459	
South Korea (by DCIC Centre)	2016	Holstein	147.455			10.334	3,77	3,21	454	
Spain	2016	Frisona	333.703	368	11.739	10.049	3,62	3,20	429	
Spain	2016	Parda Alpina	1.124	356	8.587	7.250	3,80	3,48	380	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Sweden	2018	Swedish Holstein	125.080	365	10.351		4,08	3,46	404	365 d rolling average
Sweden	2017	Swedish Holstein	125.684	365	10.325		4,11	3,48	404	365 days rolling average
Sweden	2016	Swedish Holstein	132.414	365	10.274		4,12	3,44	404	365 days rolling average
Sweden	2018	Swedish Jersey	2.003	365	7.068		5,83	4,11	404	365 d rolling average
Sweden	2017	Swedish Jersey	1.942	365	6.984		5,94	4,15	395	365 days rolling average
Sweden	2016	Swedish jersey	1.997	365	6.965		5,93	4,11	395	365 days rolling average
Sweden	2018	Swedish Polled	632	365	5.546		4,37	3,56	407	365 d rolling average
Sweden	2017	Swedish Polled	735	365	5.509		4,34	3,56	407	365 days rolling average
Sweden	2016	Swedish polled	897	365	5.371		4,42	3,58	407	265 days rolling average
Sweden	2018	Swedish Red	76.628	365	9.153		4,36	3,62	392	365 d rolling average
Sweden	2017	Swedish Red	81.602	365	9.161		4,39	3,64	395	365 days rolling average
Sweden	2016	Swedish Red	88.478	365	9.156		4,40	3,60	392	365 days rolling average
Switzerland	2018	Black Holstein	86.478	302	8.792	8.866	3,97	3,24	412	
Switzerland	2017	Black Holstein	77.355	302	8.706	8.779	3,98	3,23	411	
Switzerland	2016	Black Holstein	74.912	302	8.703	8.768	3,96	3,21	408	
Switzerland	2018	Braunvieh	116.285	301	7.184	7.256	4,02	3,41	407	
Switzerland	2017	Braunvieh	117.755	301	7.171	7.243	4,04	3,39	417	
Switzerland	2016	Braunvieh	121.684	301	7.078	7.149	4,02	3,39	416	
Switzerland	2018	Eringer	392	281	3.499	3.719	3,70	3,37	410	
Switzerland	2017	Eringer	392	281	3.499	3.719	3,70	3,37	410	
Switzerland	2016	Eringer	472	281	3.352	3.563	3,62	3,39	410	
Switzerland	2018	Evolèner	55	294	3.616	3.717	3,68	3,39	372	
Switzerland	2017	Evolèner	24	294	3.616	3.717	3,68	3,39	394	
Switzerland	2016	Evolèner	28	299	4.065	4.126	3,78	3,41		
Switzerland	2018	Grauvieh	399	297	4.468	4.558	3,77	3,24	382	
Switzerland	2017	Grauvieh	353	296	4.536	4.639	3,73	3,19	393	
Switzerland	2016	Grauvieh	341	296	4.450	4.551	3,70	3,21	395	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
Switzerland	2018	Hinterwälder	150	297	3.855	3.933	4,08	3,39	374	
Switzerland	2017	Hinterwälder	153	295	3.804	3.900	4,05	3,37	385	
Switzerland	2016	Hinterwälder	130	296	3.851	3.939	4,05	3,34	362	
Switzerland	2018	Jersey	3.203	300	5.765	5.837	5,24	3,86	394	
Switzerland	2017	Jersey	3.166	299	5.718	5.804	5,26	3,85	402	
Switzerland	2016	Jersey	3.080	299	5.624	5.709	5,23	3,84	403	
Switzerland	2018	Montbéliarde	8.592	300	7.472	7.565	3,76	3,36	392	
Switzerland	2017	Montbéliarde	6.636	300	7.472	7.565	3,76	3,36	392	
Switzerland	2016	Montbéliarde	6.312	302	7.553	7.609	3,74	3,33	393	
Switzerland	2018	Normande	1.060	300	6.859	6.945	4,02	3,41	391	
Switzerland	2017	Normande	769	300	6.859	6.945	4,02	3,41	392	
Switzerland	2016	Normande	733	301	6.886	6.955	4,04	3,41	390	
Switzerland	2018	Pinzgauer	89	299	5.899	5.988	3,85	3,34	395	
Switzerland	2017	Pinzgauer	64	299	5.899	5.988	3,85	3,34	382	
Switzerland	2016	Pinzgauer	78	304	5.882	5.897	3,90	3,32		
Switzerland	2018	Red Holstein	84.821	301	8.127	8.208	4,03	3,28	406	
Switzerland	2017	Red Holstein	66.536	301	8.127	8.208	4,03	3,28	405	
Switzerland	2016	Red Holstein	73.040	302	8.062	8.122	4,04	3,26	395	
Switzerland	2018	Simmental	21.318	298	5.879	5.982	3,96	3,34	383	
Switzerland	2017	Simmental	15.171	298	5.879	5.982	3,96	3,34	382	
Switzerland	2016	Simmental	15.109	300	5.767	5.839	3,93	3,32	383	
Switzerland	2018	Swiss Fleckvieh	61.222	299	7.100	7.207	4,06	3,29	390	
Switzerland	2017	Swiss Fleckvieh	47.144	299	7.100	7.207	4,06	3,29	389	
Switzerland	2016	Swiss Fleckvieh	47.230	301	7.028	7.098	4,05	3,27	385	
Switzerland	2018	Water buffalo	495	270	2.641	2.891	7,41	4,43	426	
Switzerland	2017	Water buffalo	207	270	2.641	2.891	7,41	4,43	424	
Switzerland	2016	Water Buffalo	136	300	2.864	2.900	7,49	4,44		
Tunisia	2018	Brown Swiss	583	360	6.091	5.483			441	
Tunisia	2017	Brown Swiss	475	358	5.570	5.028			447	
Tunisia	2016	Brown Swiss	573	362	5.703	5.197			447	
Tunisia	2018	Holstein	7.506	375	6.486	5.683			456	
Tunisia	2017	Holstein	7.993	382	6.324	5.632			460	
Tunisia	2016	Holstein	8.603	382	6.415	5.732			459	
Tunisia	2018	Tarentais	133	321	3.988	4.127			412	
Tunisia	2017	Tarentais	136	321	3.865	3.801			397	
Tunisia	2016	Tarentais	125	318	3.829	3.665			393	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - (by Untd. Dairy Farm.)	2018	Ayrshire	1.654	313	6.822	6.296	4,10	3,32	414	
UK - (by Untd. Dairy Farm.)	2016	Ayrshire	1.674	309	6.791	6.291	4,07	3,32	418	
UK - (by Untd. Dairy Farm.)	2017	Ayrshires	1.509	313	6.816	6.322	4,01	3,32	407	
UK - (by Untd. Dairy Farm.)	2018	Brown Swiss	32	313	7.248	6.571	4,29	3,42	400	
UK - (by Untd. Dairy Farm.)	2017	Brown Swiss	27	307	6.821	6.444	4,21	3,43	356	
UK - (by Untd. Dairy Farm.)	2016	Brown Swiss	29	311	6.428	6.073	3,98	3,51	338	
UK - (by Untd. Dairy Farm.)	2016	Dairy shorthorn	669	317	7.280	6.823	4,05	3,34	393	
UK - (by Untd. Dairy Farm.)	2018	Friesian	1.490	311	7.204	6.634	4,24	3,35	391	
UK - (by Untd. Dairy Farm.)	2017	Friesian	1.278	311	7.340	6.812	4,14	3,32	405	
UK - (by Untd. Dairy Farm.)	2016	Friesian	1.110	307	7.215	6.646	4,11	3,36	397	
UK - (by Untd. Dairy Farm.)	2018	Guernsey	1	250	8.163	7.856	5,12	3,41	345	
UK - (by Untd. Dairy Farm.)	2017	Guernsey	2	262	8.514	8.514	3,55	3,41	350	
UK - (by Untd. Dairy Farm.)	2016	Guernsey	1	291	7.647	7.647	3,53	3,24		
UK - (by Untd. Dairy Farm.)	2018	Holstein	78.955	323	8.830	7.856	4,02	3,25	404	
UK - (by Untd. Dairy Farm.)	2017	Holstein	79.232	323	8.599	7.677	3,97	3,20	408	
UK - (by Untd. Dairy Farm.)	2016	Holstein	81.782	322	8.573	7.678	3,95	3,22	412	
UK - (by Untd. Dairy Farm.)	2018	Jersey	405	309	6.528	5.824	5,08	3,78	406	
UK - (by Untd. Dairy Farm.)	2017	Jersey	478	324	6.505	5.824	5,03	3,78	409	
UK - (by Untd. Dairy Farm.)	2016	Jersey	549	325	6.577	5.827	5,05	3,79	416	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - (by Untd. Dairy Farm.)	2018	Montbeliarde	972	307	7.671	7.126	4,15	3,38	381	
UK - (by Untd. Dairy Farm.)	2016	Montbeliarde	1.129	301	7.015	6.588	4,17	3,38	392	
UK - (by Untd. Dairy Farm.)	2017	Montbeliarde	1.076	298	7.253	6.832	4,16	3,35	386	
UK - (by Untd. Dairy Farm.)	2018	Other breeds	220	309	7.080	6.138	4,15	3,38	381	
UK - (by Untd. Dairy Farm.)	2017	Other breeds	169	300	6.412	6.002	4,17	3,43	401	
UK - (by Untd. Dairy Farm.)	2016	Other breeds	210	305	6.426	5.882	4,06	3,43	387	
UK - (by Untd. Dairy Farm.)	2018	Shorthorn	479	321	7.684	7.129	4,07	3,38	390	
UK - (by Untd. Dairy Farm.)	2017	Shorthorn	640	318	7.399	6.923	4,00	3,32	389	
UK - England (by CIS)	2018	Ayrshire	3.492	318	7.238	6.656	4,22	3,31	405	
UK - England (by CIS)	2017	Ayrshire	3.349	313	7.068	6.486	4,19	3,30	408	
UK - England (by CIS)	2016	Ayrshire	2.953	316	7.198	6.604	4,16	3,30	414	
UK - England (by CIS)	2018	Brown Swiss	1.002	330	7.926	7.073	4,20	3,38	405	
UK - England (by CIS)	2017	Brown Swiss	1.062	331	7.558	6.753	4,22	3,36	404	
UK - England (by CIS)	2016	Brown Swiss	1.193	318	7.201	6.432	4,24	3,39	409	
UK - England (by CIS)	2018	Friesian	7.428	305	6.723	6.244	4,29	3,38	393	
UK - England (by CIS)	2017	Friesian	6.148	310	6.776	6.266	4,21	3,37	389	
UK - England (by CIS)	2016	Friesian	6.009	312	6.954	6.444	4,17	3,37	394	
UK - England (by CIS)	2018	Guernsey	335	323	5.862	5.270	4,69	3,53	394	
UK - England (by CIS)	2017	Guernsey	363	310	5.244	4.782	4,66	3,41	380	
UK - England (by CIS)	2016	Guernsey	432	295	5.473	5.032	4,79	3,44	419	
UK - England (by CIS)	2018	Holstein	239.898	327	9.705	8.595	4,03	3,20	407	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - England (by CIS)	2017	Holstein	232.713	329	9.581	8.486	4,01	3,19	408	
UK - England (by CIS)	2016	Holstein	233.741	327	9.637	8.550	3,99	3,20	413	
UK - England (by CIS)	2018	Jersey	12.151	306	5.920	5.411	5,36	3,88	395	
UK - England (by CIS)	2017	Jersey	11.409	307	5.850	5.346	5,37	3,83	395	
UK - England (by CIS)	2016	Jersey	11.354	305	5.822	5.347	5,39	3,82	399	
UK - England (by CIS)	2017	Montbeliarde	2.985	312	7.171	6.503	4,03	3,35	393	
UK - England (by CIS)	2016	Montbeliarde	2.686	319	7.517	6.866	4,09	3,35	395	
UK - England (by CIS)	2018	Montbeliarde	3.403	319	7.643	6.951	4,14	3,34	394	
UK - England (by CIS)	2018	Other breeds	476	324	6.696	5.990	4,22	3,37	404	
UK - England (by CIS)	2017	Other breeds	420	316	6.544	5.825	4,19	3,38	397	
UK - England (by CIS)	2016	Other breeds	465	300	6.518	5.967	4,17	3,39	409	
UK - England (by CIS)	2018	Shorthorn	4.349	309	7.350	6.740	4,18	3,34	395	
UK - England (by CIS)	2017	Shorthorn	3.442	308	7.277	6.725	4,10	3,35	393	
UK - England (by CIS)	2016	Shorthorn	3.278	303	7.146	6.642	4,05	3,34	397	
UK - England+Wales (by NMR)	2017	Ayrshire	8.864	334	7.406	6.872	4,18	3,38	404	
UK - England+Wales (by NMR)	2016	Ayrshire	9.247	334	7.427	6.869	4,15	3,38	406	
UK - England+Wales (by NMR)	2017	Friesian	6.098	332	7.060	6.538	4,19	3,37	395	
UK - England+Wales (by NMR)	2016	Friesian	5.534	335	7.242	6.673	4,13	3,39	395	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - England+Wales (by NMR)	2017	Holstein	420.974	352	9.702	8.657	4,04	3,28	404	
UK - England+Wales (by NMR)	2016	Holstein	428.778	351	9.752	8.687	4,03	3,28	409	
UK - England+Wales (by NMR)	2017	Jersey	13.621	343	6.508	5.896	5,30	3,86	399	
UK - England+Wales (by NMR)	2016	Jersey	13.938	343	6.589	5.928	5,33	3,86	400	
UK - England+Wales (by NMR)	2017	Montbeliarde	5.507	334	7.730	7.140	4,06	3,39	391	
UK - England+Wales (by NMR)	2016	Montbeliarde	5.390	329	7.768	7.200	4,04	3,39	389	
UK - England+Wales (by NMR)	2017	Shorthorn	12.603	329	7.456	6.942	4,10	3,38	388	
UK - England+Wales (by NMR)	2016	Shorthorn	12.342	328	7.470	6.934	4,13	3,40	391	
UK - Jersey Island	2018	Jersey	3.164	321	5.724	5.166	5,30	3,74	415	
UK - Jersey Island	2017	Jersey	2.927	332	5.859	5.268	5,30	3,72	409	
UK - Jersey Island	2016	Jersey	3.111	319	5.541	5.080	5,31	3,70	403	
UK - N. Ireland (by CIS)	2018	Ayrshire	1.654	313	6.822	6.296	4,10	3,32	414	
UK - N. Ireland (by CIS)	2017	Ayrshire	1.509	313	6.816	6.322	4,10	3,32	407	
UK - N. Ireland (by CIS)	2016	Ayrshire	1.674	309	6.791	6.291	4,07	3,32	418	
UK - N. Ireland (by CIS)	2018	Brown Swiss	32	303	7.248	6.571	4,29	3,42	400	
UK - N. Ireland (by CIS)	2017	Brown Swiss	27	307	6.821	6.444	4,21	3,43	356	
UK - N. Ireland (by CIS)	2016	Brown Swiss	29	311	6.428	6.073	3,98	3,51	338	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - N. Ireland (by CIS)	2018	Friesian	1.490	311	7.204	6.634	4,24	3,35	391	
UK - N. Ireland (by CIS)	2017	Friesian	1.278	311	7.340	6.812	4,14	3,32	405	
UK - N. Ireland (by CIS)	2016	Friesian	1.110	307	7.215	6.646	4,11	3,36	397	
UK - N. Ireland (by CIS)	2018	Guernsey	1	250	8.163	8.163	5,12	3,41	345	
UK - N. Ireland (by CIS)	2017	Guernsey	2	262	8.514	8.514	3,55	3,41	350	
UK - N. Ireland (by CIS)	2016	Guernsey	1	291	7.647	7.647	3,53	3,24		
UK - N. Ireland (by CIS)	2018	Holstein	78.955	323	8.830	7.856	4,02	3,25	404	
UK - N. Ireland (by CIS)	2017	Holstein	79.232	323	8.599	7.677	3,97	3,20	408	
UK - N. Ireland (by CIS)	2016	Holstein	81.782	322	8.573	7.678	3,95	3,22	412	
UK - N. Ireland (by CIS)	2018	Jersey	405	309	6.528	5.824	5,08	3,78	406	
UK - N. Ireland (by CIS)	2017	Jersey	478	324	6.505	5.824	5,03	3,78	409	
UK - N. Ireland (by CIS)	2016	Jersey	549	325	6.577	5.827	5,05	3,79	416	
UK - N. Ireland (by CIS)	2017	Montbeliarde	1.076	298	7.253	6.832	4,16	3,35	386	
UK - N. Ireland (by CIS)	2016	Montbeliarde	1.129	301	7.015	6.588	4,17	3,38	392	
UK - N. Ireland (by CIS)	2018	Montbeliarde	972	307	7.671	7.126	4,15	3,38	381	
UK - N. Ireland (by CIS)	2018	Other Breeds	220	309	7.080	6.138	4,15	3,39	390	
UK - N. Ireland (by CIS)	2017	Other Breeds	169	300	6.412	6.002	4,17	3,43	401	
UK - N. Ireland (by CIS)	2016	Other Breeds	210	305	6.426	5.882	4,06	3,43	387	
UK - N. Ireland (by CIS)	2018	Shorthorn	479	321	7.684	7.129	4,07	3,38	390	
UK - N. Ireland (by CIS)	2017	Shorthorn	640	318	7.399	6.923	4,00	3,32	389	
UK - N. Ireland (by CIS)	2016	Shorthorn	669	317	7.280	6.823	4,05	3,34	393	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - N. Ireland (by NMR)	2017	Ayrshire	360	319	7.046	6.676	4,13	3,37	394	
UK - N. Ireland (by NMR)	2016	Ayrshire	420	322	7.156	6.671	4,11	3,37	403	
UK - N. Ireland (by NMR)	2016	Brown Swiss	139	333	6.612	5.970	3,88	3,30	385	
UK - N. Ireland (by NMR)	2017	Friesian	237	316	6.631	6.159	3,97	3,32	391	
UK - N. Ireland (by NMR)	2017	Holstein	25.726	349	9.275	8.171	4,07	3,26	400	
UK - N. Ireland (by NMR)	2016	Holstein	26.123	342	9.061	8.098	4,04	3,24	403	
UK - N. Ireland (by NMR)	2017	Jersey	387	318	6.560	6.154	5,21	3,77	395	
UK - N. Ireland (by NMR)	2016	Jersey	396	324	6.327	5.872	5,26	3,76	389	
UK - N. Ireland (by NMR)	2017	Montbeliarde	778	330	7.166	6.674	4,17	3,38	381	
UK - N. Ireland (by NMR)	2016	Montbeliarde	788	328	7.251	6.572	4,11	3,38	385	
UK - N. Ireland (by NMR)	2017	Shorthorn	177	319	7.948	7.488	4,24	3,38	381	
UK - N. Ireland (by NMR)	2016	Shorthorn	231	327	7.866	7.101	4,22	3,36	384	
UK - Scotland (by CIS)	2018	Ayrshire	8.904	311	7.255	6.665	4,17	3,32	417	
UK - Scotland (by CIS)	2017	Ayrshire	8.486	316	7.237	6.636	4,13	3,33	416	
UK - Scotland (by CIS)	2016	Ayrshire	8.657	316	7.357	6.761	4,11	3,31	414	
UK - Scotland (by CIS)	2018	Brown Swiss	230	334	7.355	6.526	4,24	3,45	406	
UK - Scotland (by CIS)	2017	Brown Swiss	194	310	6.852	6.220	4,20	3,49	389	
UK - Scotland (by CIS)	2016	Brown Swiss	360	312	7.237	6.363	4,13	3,52	408	
UK - Scotland (by CIS)	2018	Friesian	4.927	318	6.911	6.308	4,23	3,30	403	
UK - Scotland (by CIS)	2017	Friesian	2.465	315	6.947	6.406	4,18	3,29	403	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - Scotland (by CIS)	2016	Friesian	2.235	320	7.203	6.638	4,26	3,33	404	
UK - Scotland (by CIS)	2018	Guernsey	4	318	7.379	6.908	4,40	3,29	347	
UK - Scotland (by CIS)	2017	Guernsey	4	268	5.671	5.671	4,67	3,17		
UK - Scotland (by CIS)	2016	Guernsey	1	326	8.473	7.998	3,88	3,05		
UK - Scotland (by CIS)	2018	Holstein	108.240	323	9.513	8.459	3,85	3,10	409	
UK - Scotland (by CIS)	2017	Holstein	94.638	326	9.534	8.473	3,87	3,13	410	
UK - Scotland (by CIS)	2016	Holstein	98.122	321	9.391	8.376	3,84	3,12	412	
UK - Scotland (by CIS)	2018	Jersey	3.315	300	5.597	5.159	5,47	3,95	396	
UK - Scotland (by CIS)	2017	Jersey	2.127	298	5.247	4.821	5,27	3,88	395	
UK - Scotland (by CIS)	2016	Jersey	2.148	290	5.342	4.985	5,28	3,85	399	
UK - Scotland (by CIS)	2017	Montbeliarde	2.694	309	7.960	7.340	4,07	3,34	392	
UK - Scotland (by CIS)	2016	Montbeliarde	2.913	300	7.724	7.215	4,01	3,34	386	
UK - Scotland (by CIS)	2018	Montbeliarde	3.057	309	8.234	7.609	4,14	3,34	387	
UK - Scotland (by CIS)	2018	Other Breeds	250	295	6.492	6.006	4,05	3,31	385	
UK - Scotland (by CIS)	2017	Other Breeds	254	294	6.854	6.419	4,11	3,40	394	
UK - Scotland (by CIS)	2016	Other Breeds	258	292	6.621	6.186	4,09	3,33	388	
UK - Scotland (by CIS)	2018	Shorthorn	752	296	7.404	6.901	4,25	3,35	399	
UK - Scotland (by CIS)	2017	Shorthorn	902	280	6.705	6.219	4,18	3,36	389	
UK - Scotland (by CIS)	2016	Shorthorn	862	294	7.294	6.809	4,14	3,35	390	
UK - Scotland (by NMR)	2017	Ayrshire	112	321	6.603	6.156	4,00	3,33	390	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - Scotland (by NMR)	2016	Ayrshire	76	309	6.322	5.820	4,09	3,31	429	
UK - Scotland (by NMR)	2017	Friesian	23	384	9.255	8.331	4,05	3,28	444	
UK - Scotland (by NMR)	2016	Friesian	23	358	9.492	7.928	4,07	3,25	377	
UK - Scotland (by NMR)	2017	Holstein	7.775	358	11.092	9.691	3,98	3,27	403	
UK - Scotland (by NMR)	2016	Holstein	7.135	359	10.834	9.567	3,92	3,28	407	
UK - Scotland (by NMR)	2017	Jersey	549	329	6.517	5.864	5,78	3,98	403	
UK - Scotland (by NMR)	2016	Jersey	432	344	6.425	5.709	5,93	3,98	417	
UK - Scotland (by NMR)	2017	Montbeliarde	44	322	8.963	8.213	3,95	3,31	415	
UK - Scotland (by NMR)	2016	Montbeliarde	45	328	9.292	8.341	4,21	3,33	385	
UK - Scotland (by NMR)	2017	Shorthorn	135	337	8.188	7.462	4,07	3,40	391	
UK - Scotland (by NMR)	2016	Shorthorn	144	331	7.961	7.279	4,08	3,45	402	
UK - Wales	2018	Ayrshire	522	311	6.659	6.146	4,30	3,32	420	
UK - Wales	2017	Ayrshire	290	315	6.971	6.431	4,26	3,30	405	
UK - Wales	2016	Ayrshire	336	300	7.031	6.530	4,10	3,31	415	
UK - Wales	2018	Brown Swiss	311	329	7.147	6.345	4,35	3,39	425	
UK - Wales	2017	Brown Swiss	375	312	7.448	6.643	4,25	3,42	428	
UK - Wales	2016	Brown Swiss	431	332	7.597	6.723	4,27	3,44	421	
UK - Wales	2018	Friesian	1.616	303	5.434	5.109	4,25	3,52	386	
UK - Wales	2017	Friesian	792	314	6.334	5.898	4,24	3,41	384	
UK - Wales	2016	Friesian	748	311	6.564	6.132	4,06	3,42	389	
UK - Wales	2018	Guernsey	147	367	5.375	4.646	4,67	3,55	424	
UK - Wales	2017	Guernsey	36	324	6.260	5.654	5,20	3,70	411	
UK - Wales	2016	Guernsey	45	293	5.949	5.602	5,05	3,59	392	
UK - Wales	2018	Holstein	37.508	331	9.212	8.180	4,03	3,19	409	
UK - Wales	2017	Holstein	35.001	332	9.199	8.162	4,03	3,19	411	
UK - Wales	2016	Holstein	34.276	331	9.383	8.335	4,04	3,19	417	
UK - Wales	2018	Jersey	882	305	5.454	5.016	5,34	3,71	404	
UK - Wales	2017	Jersey	651	308	5.925	5.431	5,34	3,63	403	
UK - Wales	2016	Jersey	894	294	5.809	5.353	5,16	3,68	399	
UK - Wales	2017	Montbeliarde	35	385	7.762	6.241	4,18	3,38	459	

Table 4.3 - Main breeds - All recorded cows

Country	Year	Breed	Number of lactations	Length of the lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)	Notes
UK - Wales	2016	Montbeliarde	37	256	5.105	4.216	4,06	3,49	388	
UK - Wales	2018	Montbeliarde	60	402	8.206	6.418	4,16	3,37	499	
UK - Wales	2018	Other Breeds	27	330	6.771	5.870	4,12	3,41	395	
UK - Wales	2017	Other Breeds	25	283	6.159	6.008	4,16	3,45	402	
UK - Wales	2016	Other Breeds	21	300	6.791	6.272	3,89	3,41	395	
UK - Wales	2018	Shorthorn	257	294	5.771	5.526	3,94	3,35	374	
UK - Wales	2017	Shorthorn	249	289	5.586	5.367	3,93	3,34	386	
UK - Wales	2016	Shorthorn	244	305	6.552	6.197	3,87	3,32	384	

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Argentina	2017	Holstein	4.543	354	9.220	8.468	3,46	3,37	454
Argentina	2016	Holstein	4.941	347	9.237	8.726	3,43	3,34	458
Argentina	2017	Jersey	497	317	5.799	5.936	4,46	3,75	423
Argentina	2016	Jersey	488	316	6.040	6.155	4,49	3,73	427
Australia (DataGene Limited)	2017	Australian Red Breed	1.419	326	6.824	6.824	4,03	3,37	
Australia (DataGene Limited)	2016	Australian Red Breed	1.297	326	7.229	7.229	3,81	3,36	
Australia (DataGene Limited)	2017	Ayrshire	582	328	5.373	5.373	4,18	3,32	
Australia (DataGene Limited)	2016	Ayrshire	663	329	5.702	5.702	4,14	3,33	
Australia (DataGene Limited)	2017	Brown Swiss	970	348	6.253	6.253	3,94	3,41	
Australia (DataGene Limited)	2016	Brown Swiss	1.118	335	6.227	6.227	4,01	3,48	
Australia (DataGene Limited)	2017	Guernsey	256	347	5.075	5.075	4,25	3,35	
Australia (DataGene Limited)	2016	Guernsey	261	358	4.978	4.978	4,3	3,38	
Australia (DataGene Limited)	2017	Holstein	44.258	344	8.127	8.127	3,78	3,19	
Australia (DataGene Limited)	2016	Holstein	52.252	343	8.337	8.337	3,74	3,20	
Australia (DataGene Limited)	2017	Illawarra	1.422	331	7.165	7.165	3,79	3,21	
Australia (DataGene Limited)	2016	Illawarra	1.708	331	6.990	6.990	3,82	3,23	
Australia (DataGene Limited)	2017	Jersey	10.913	328	5.618	5.618	4,89	3,69	
Australia (DataGene Limited)	2016	Jersey	12.978	324	5.793	5.793	4,90	3,72	
Austria	2018	Braunvieh	37.005	301		7.484	4,13	3,50	
Austria	2017	Braunvieh	38.186	301		7.307	4,16	3,49	
Austria	2016	Braunvieh	39.165	301		7.385	4,16	3,48	

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Austria	2018	Fleckvieh	261.369	298		7.713	4,13	3,43	
Austria	2017	Fleckvieh	259.151	298		7.393	4,16	3,42	
Austria	2016	Fleckvieh	256.392	298		7.370	4,16	3,41	
Austria	2018	Grauvieh	2.921	294		5.033	3,88	3,33	
Austria	2017	Grauvieh	2.954	294		4.997	3,91	3,33	
Austria	2016	Grauvieh	2.890	294		5.060	3,92	3,31	
Austria	2018	Holstein	37.627	301		9.037	4,04	3,31	
Austria	2017	Holstein	36.512	300		8.808	4,07	3,30	
Austria	2016	Holstein	35.944	300		8.809	4,07	3,29	
Austria	2018	Pinzgauer	5.766	297		5.866	3,85	3,28	
Austria	2017	Pinzgauer	5.833	297		5.738	3,87	3,27	
Austria	2016	Pinzgauer	5.929	297		5.783	3,88	3,28	
Czech Republic	2018	Fleckvieh	111.713	294	7.650		4,02	3,58	390
Czech Republic	2017	Fleckvieh	110.127	294	7.344		4,05	3,55	391
Czech Republic	2016	Fleckvieh	114.371	294	7.376		4,02	3,52	390
Czech Republic	2018	Holstein	177.067	297	10.061		3,83	3,39	401
Czech Republic	2017	Holstein	172.432	298	9.743		3,86	3,36	406
Czech Republic	2016	Holstein	173.340	298	9.749		3,80	3,33	407
Denmark [1]	2018	Holstein	365.120	365	10.897		4,02	3,45	
Denmark [1]	2017	Holstein	358.661	365	10.106	10.939	4,06	3,44	407
Denmark [1]	2016	Holstein	353.034	365	10.612		4,09	3,42	
Denmark [1]	2018	Jersey	65.562	365	7.444		5,92	4,20	
Denmark [1]	2017	Jersey	64.917	365	7.339		5,97	4,20	394
Denmark [1]	2016	Jersey	65.915	365	7.300		5,96	4,16	

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Denmark [2]	2018	Red Danish	28.976	365	9.621		4,34	3,62	
Denmark [2]	2017	Red Danish	29.718	365	9.581		4,37	3,61	399
Denmark [2]	2016	Red Danish	31.096	365	9.544		4,35	3,57	
Denmark [2]	2016	Red Holstein	4.475	365	9.774		4,25	3,44	
Estonia	2018	Estonian Holstein	62.718	338	10.199	10.093	3,82	3,33	406
Estonia	2017	Estonian Holstein	61.173	344	10.053	9.824	3,88	3,32	409
Estonia	2016	Estonian Holstein	59.808	346	9.722	9.594	3,89	3,31	412
Estonia	2018	Estonian Red	12.126	333	8.767	8.837	3,98	3,41	405
Estonia	2017	Estonian Red	12.972	337	8.672	8.694	4,01	3,41	407
Estonia	2016	Estonian Red	14.015	336	8.516	8.560	4,04	3,41	403
Finland	2018	Finnish Ayrshire	29.120	305		9.864	4,40	3,53	
Finland	2017	Finnish Ayrshire	28.339	305		9.883	4,37	3,51	
Finland	2016	Finnish Ayrshire	26.745	305		9.749	4,33	3,49	
Finland	2018	Finnish Cattle	1.144	305		6.391	4,38	3,38	
Finland	2017	Finnish Cattle	1.224	305		6.239	4,43	3,42	
Finland	2016	Finnish Cattle	1.340	305		6.224	4,36	3,41	
Finland	2018	Holstein	31.312	305		10.916	4,10	3,43	
Finland	2017	Holstein	28.677	305		10.905	4,06	3,41	
Finland	2016	Holstein	24.873	305		10.758	4,01	3,39	
Finland	2018	Jersey	178	305		8.019	5,28	3,88	
Finland	2017	Jersey	143	305		8.003	5,25	3,89	
Finland	2016	Jersey	120	305		7.994	5,08	3,78	
France	2018	Abondance	24.412	295	5.451	5.655	3,63	3,46	406
France	2017	Abondance	23.863	297	5.346	5.550	3,63	3,47	405
France	2016	Abondance	23.877	296	5.461	5.660	3,66	3,48	405

[2] All data cover rolling average 365 days

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
France	2018	Brune	16.371	339	7.420	7.174	4,14	3,56	429
France	2017	Brune	16.306	342	7.407	7.164	4,14	3,56	426
France	2016	Brune	16.804	338	7.485	7.280	4,14	3,55	428
France	2018	Montbeliarde	427.748	311	7.182	7.302	3,86	3,45	400
France	2017	Montbeliarde	430.186	311	6.933	7.090	3,86	3,45	399
France	2016	Montbeliarde	436.107	308	7.127	7.304	3,87	3,44	399
France	2018	Normande	189.039	327	6.609	6.664	4,17	3,59	407
France	2017	Normande	194.524	327	6.590	6.668	4,19	3,60	406
France	2016	Normande	205.600	321	6.588	6.695	4,18	3,58	406
France	2018	Pie rouge des plaines	9.473	335	7.980	7.949	4,21	3,45	414
France	2017	Pie rouge des plaines	9.765	333	7.849	7.828	4,22	3,44	414
France	2016	Pie Rouge des Plaines	9.882	328	7.859	7.883	4,20	3,43	412
France	2017	Prim Holstein	1.572.614	346	9.241	9.042	3,91	3,30	425
France	2016	Prim Holstein	1.647.706	343	9.336	9.129	3,87	3,28	428
France	2018	Simmental Francaise	15.734	306	6.072	6.294	3,98	3,53	394
France	2017	Simmental Francaise	15.734	306	6.072	6.294	3,98	3,53	394
France	2016	Simmental Francaise	16.356	302	6.224	6.463	3,98	3,51	394
Germany	2016	Braunvieh	137.520	319	7.595	7.501	4,26	3,60	412
Germany	2018	Brown Swiss	130.418	319	7.826	7.670	4,22	3,62	411
Germany	2017	Brown Swiss	134.307	319	7.622	7.493	4,23	3,61	412
Germany	2018	Fleckvieh	739.150	318	8.047	7.756	4,14	3,53	390
Germany	2017	Fleckvieh	740.412	317	7.708	7.492	4,16	3,53	391
Germany	2016	Fleckvieh	739.717	318	7.746	7.513	4,19	3,52	390

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Germany	2018	Holstein B&W	1.688.787	324	9.666	9.465	3,95	3,41	410
Germany	2017	Holstein B&W	1.693.265	323	9.376	9.219	4,03	3,42	
Germany	2016	Holstein B&W	1.724.112	324	9.433	9.311	4,03	3,39	411
Germany	2018	Red Holstein	157.639	323	8.909	8.750	4,09	3,46	409
Germany	2017	Red Holstein	159.170	321	8.610	8.506	4,15	3,47	408
Germany	2016	Red Holstein	161.655	323	8.668	8.583	4,17	3,44	409
Hungary	2016	Hungarian Holstein Friesian	131.599	298		9.685	3,67	3,29	432
Hungary	2016	Hungarian Red Spotted	3.207	293		6.401	3,97	3,50	408
Italy	2018	Bruna Italiana (Italian Brown)	43.235	305	7.579	7.579	4,04	3,61	
Italy	2017	Bruna Italiana (Italian Brown)	44.346	305	7.425	7.425	4,05	3,59	
Italy	2016	Bruna Italiana (Italian Brown)	47.824	305	7.304	7.304	4,01	3,55	
Italy	2018	Frisona Italiana (Italian Friesian)	643.244	305	9.916	9.916	3,74	3,32	
Italy	2018	Frisona Italiana (Italian Friesian)	643.244	305	9.916	9.916	3,74	3,32	
Italy	2017	Frisona Italiana (Italian Friesian)	637.182	305	9.729	9.729	3,74	3,30	
Italy	2016	Frisona Italiana (Italian Friesian)	654.190	305	9.536	9.536	3,69	3,26	
Italy	2018	Grigio Alpina (Grey of Alps)	6.551	305	5.290	5.290	3,74	3,39	
Italy	2018	Grigio Alpina (Grey of Alps)	6.551	305	5.290	5.290	3,74	3,39	
Italy	2017	Grigio Alpina (Grey of Alps)	6.491	305	5.170	5.170	3,74	3,39	
Italy	2016	Grigio Alpina (Grey of Alps)	6.436	305	5.101	5.101	3,73	3,35	

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Italy	2016	Pezzata Rossa Italiana (Italian Red Spotted)	40.119	305	6.811	6.811	3,89	3,40	
Italy	2018	Pezzata Rossa Italiana (Italian Red Spotted)	38.819	305	7.115	7.115	3,92	3,44	
Italy	2017	Pezzata Rossa Italiana (Italian Red Spotted)	38.292	305	6.937	6.937	3,92	3,43	
Italy	2018	Valdostana Pezzata Rossa (Valdostana Red Spotted)	10.018	305	3.801	3.801	3,48	3,28	
Italy	2017	Valdostana Pezzata Rossa (Valdostana Red Spotted)	9.785	305	3.687	3.687	3,50	3,28	
Italy	2016	Valdostana Pezzata Rossa (Valdostana Red Spotted)	9.432	305	3.686	3.686	3,49	3,27	
Japan	2016	Holstein	323.340	365	10.796	9.722	3,93	3,33	431
Japan	2016	Jersey	2.001	341	6.913	6.582	4,97	3,94	412
Latvia	2018	Holstein Black and White	28.797	359		9.240	3,91	3,26	
Latvia	2017	Holstein Black and White	23.399	380		9.314	3,88	3,27	
Latvia	2016	Holstein Black and White	20.533	379		9.175	3,96	3,26	
Latvia	2018	Latvian Blue	206	336		5.137	4,29	3,35	
Latvia	2018	Latvian Brown	11.147	359		7.238	4,35	3,39	
Latvia	2017	Latvian Brown	12.092	368		7.263	4,36	3,40	
Latvia	2016	Latvian Brown	12.320	360		7.229	4,39	3,39	
Poland (by PFHB)	2018	Montbeliarde	2.631	305	7.767	7.767	4,02	3,49	
Poland (by PFHB)	2017	Montbeliarde (MO)	2.400	305	7.575	7.575	3,99	3,49	
Poland (by PFHB)	2016	Montbeliarde (MO)	2.257	305	7.474	7.474	3,96	3,48	

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Poland (by PFHB)	2018	Polish Black-White (ZB)	1.655	305	4.791	4.791	4,10	3,25	
Poland (by PFHB)	2017	Polish Black-White (ZB)	1.591	305	4.646	4.646	4,13	3,26	
Poland (by PFHB)	2016	Polish Black-White (ZB)	1.640	305	4.668	4.668	4,11	3,25	
Poland (by PFHB)	2018	Polish Holstein Friesian (HO)	515.701	305	8.460	8.460	3,94	3,30	
Poland (by PFHB)	2018	Polish Holstein Friesian (RW)	22.750	305	7.658	7.658	4,08	3,36	
Poland (by PFHB)	2017	Polish Holstein Frisian (HO)	506.212	305	8.217	8.217	4,00	3,31	
Poland (by PFHB)	2016	Polish Holstein-Friesian (HO)	495.457	305	8.053	8.053	4,01	3,29	
Poland (by PFHB)	2017	Polish Holstein-Friesian (RW)	21.464	305	7.459	7.459	4,11	3,36	
Poland (by PFHB)	2016	Polish Holstein-Friesian (RW)	20.031	305	7.304	7.304	4,12	3,34	
Poland (by PFHB)	2018	Polish Red-White (ZR)	3.252	305	4.508	4.508	4,16	3,23	
Poland (by PFHB)	2017	Polish Red-White (ZR)	3.303	305	4.526	4.526	4,14	3,23	
Poland (by PFHB)	2016	Polish Red-White (ZR)	3.190	305	4.474	4.474	4,10	3,22	
Poland (by PFHB)	2018	Red Polish (RP)	2.274	305	3.784	3.784	4,25	3,36	
Poland (by PFHB)	2017	Red Polish (RP)	2.264	305	3.764	3.764	4,26	3,36	
Poland (by PFHB)	2016	Red Polish (RP)	2.427	305	3.588	3.588	4,26	3,35	
Poland (by PFHB)	2018	Simental (SM)	8.027	305	6.221	6.221	4,12	3,42	
Poland (by PFHB)	2017	Simmental (SM)	7.665	305	6.145	6.145	4,16	3,43	
Poland (by PFHB)	2016	Simmental (SM)	7.697	305	6.078	6.078	4,15	3,42	
Portugal	2018	Holstein-Friesian	87.590	353	10.859	9.736	3,66	3,27	
Portugal	2017	Holstein-Friesian	84.101	355	10.691	9.512	3,67	3,24	
Portugal	2016	Holstein-Friesian	87.377	350	10.521	9.497	3,63	3,22	

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Romania	2016	Baltata Romaneasca (Simmental)	38.496	343	5.008	5.460	3,92	3,40	404
Romania [3]	2017	Baltata Romaneasca (Simmental)	55.790	348	5.243	5.139	3,99	3,41	396
Romania [3]	2017	Montbeliard	1.834	408	7.835	7.039	3,90	3,51	408
Romania	2016	Montbeliard	1.618	363	6.574	7.051	3,87	3,49	419
Serbia [4]	2017	Brown Swiss	75	360	8.066	7.226	3,85	3,40	435
Serbia [4]	2016	Brown Swiss	73	380	7.529	6.704	4,03	3,45	380
Serbia [4]	2017	Holstein-Friesian	25.291	364	8.019	7.027	3,76	3,23	437
Serbia [4]	2016	Holstein-Friesian	23.498	366	8.129	7.125	3,74	3,19	444
Serbia [4]	2017	Simmental	6.893	343	6.584	6.061	3,94	3,29	427
Serbia [4]	2016	Simmental	5.860	339	6.258	5.824	3,86	3,26	445
Slovak Republic	2017	Holstein	51.251	297	9.020	9.201	3,78	3,26	418
Slovak Republic	2016	Holstein	45.344	298	8.722	8.875	3,86	3,29	418
Slovak Republic	2017	Slovak Pinzgauer	270	295	5.437	5.575	3,87	3,34	437
Slovak Republic	2016	Slovak Pinzgauer	431	294	5.247	5.393	3,91	3,37	426
Slovak Republic	2017	Slovak Simmental	17.934	295	6.745	6.916	3,96	3,39	404
Slovak Republic	2016	Slovak Simmental	19.072	295	6.500	6.664	4,01	3,41	402
Slovenia	2018	Brown	8.422	376	7.134	6.099	4,11	3,4	426
Slovenia	2017	Brown	9.072	372	6.924	5.966	4,09	3,39	420
Slovenia	2016	Brown	9.454	372	6.810	5.870	4,07	3,41	426
Slovenia	2018	Holstein	33.934	379	9.687	8.256	3,93	3,27	426
Slovenia	2017	Holstein	33.956	376	9.374	8.042	3,96	3,27	425
Slovenia	2016	Holstein	34.094	381	9.176	7.839	3,97	3,28	430

[3] Age of first calving - 30 months

[4] Data relating to the region AP Vojvodina in Serbia

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Slovenia	2018	Simmental	29.048	355	6.790	6.039	4,08	3,37	411
Slovenia	2017	Simmental	29.752	355	6.586	5.873	4,07	3,36	415
Slovenia	2016	Simmental	30.355	356	6.443	5.737	4,06	3,36	416
South Africa (by ARC)	2018	Ayrshire	3.847	187	5.754	9.509	4,04	3,31	442
South Africa (by ARC)	2017	Ayrshire	1.154	299	8.112	9.078	3,98	3,32	414
South Africa (by ARC)	2016	Ayrshire	1.037	285	7.101	8.231	4,00	3,30	423
South Africa (by ARC)	2016	Geurnsey	222	283	6.883	8.146	4,32	3,49	412
South Africa (by ARC)	2018	Gurnsey	164	188	4.593	7.726	4,14	3,39	423
South Africa (by ARC)	2017	Gurnsey	197	291	7.296	8.246	4,30	3,52	422
South Africa (by ARC)	2018	Holstein	12.659	205	7.822	11.847	3,85	3,20	440
South Africa (by ARC)	2017	Holstein	14.257	306	10.836	11.681	3,85	3,24	441
South Africa (by ARC)	2016	Holstein	15.436	274	10.051	12.156	4,01	3,39	454
South Africa (by ARC)	2018	Jersey	14.600	213	4.186	5.929	4,95	3,71	462
South Africa (by ARC)	2017	Jersey	16.041	224	4.334	5.920	4,99	3,81	449
South Africa (by ARC)	2016	Jersey	16.231	289	5.170	5.780	4,86	3,70	453
South Africa (by StudBook)	2018	Ayrshire	811	302	5.974	5.968	4,14	3,34	401
South Africa (by StudBook)	2018	Holstein	6.369	354	12.386	11.090	3,72	3,13	433
South Africa (by StudBook)	2018	Jersey	15.537	324	6.586	6.340	4,75	3,69	405
Spain	2016	Frisona	333.703	368	11.756	10.043	3,62	3,20	429
Spain	2016	Parda Alpina	1.124	356	8.587	7.250	3,80	3,48	380

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Switzerland	2018	Black Holstein	86.478	302	8.792	8.866	3,97	3,24	412
Switzerland	2017	Black Holstein	77.355	302	8.706	8.779	3,98	3,23	411
Switzerland	2016	Black Holstein	74.912	302	8.703	8.768	3,96	3,21	408
Switzerland	2018	Braunvieh	116.285	301	7.184	7.256	4,02	3,41	407
Switzerland	2017	Braunvieh	117.755	301	7.171	7.243	4,04	3,39	417
Switzerland	2016	Braunvieh	121.684	301	7.078	7.149	4,02	3,39	416
Switzerland	2018	Eringer	392	281	3.499	3.719	3,70	3,37	410
Switzerland	2017	Eringer	392	281	3.499	3.719	3,70	3,37	410
Switzerland	2016	Eringer	472	281	3.352	3.563	3,62	3,39	410
Switzerland	2018	Evolèner	55	294	3.616	3.717	3,68	3,39	372
Switzerland	2017	Evolèner	24	294	3.616	3.717	3,68	3,39	394
Switzerland	2016	Evolèner	28	299	4.065	4.126	3,78	3,41	
Switzerland	2018	Grauvieh	399	297	4.468	4.558	3,77	3,24	382
Switzerland	2017	Grauvieh	353	296	4.536	4.639	3,73	3,19	393
Switzerland	2016	Grauvieh	341	296	4.450	4.551	3,70	3,21	395
Switzerland	2018	Hinterwälder	150	297	3.855	3.933	4,08	3,39	374
Switzerland	2017	Hinterwälder	153	295	3.804	3.900	4,05	3,37	385
Switzerland	2016	Hinterwälder	130	296	3.851	3.939	4,05	3,34	362
Switzerland	2018	Jersey	3.203	300	5.765	5.837	5,24	3,86	394
Switzerland	2017	Jersey	3.166	299	5.718	5.804	5,26	3,85	402
Switzerland	2016	Jersey	3.080	299	5.624	5.709	5,23	3,84	403
Switzerland	2018	Montbéliarde	8.592	300	7.472	7.565	3,76	3,36	392
Switzerland	2017	Montbéliarde	6.636	300	7.472	7.565	3,76	3,36	392
Switzerland	2016	Montbéliarde	6.312	302	7.553	7.609	3,74	3,33	393
Switzerland	2018	Normande	1.060	300	6.859	6.945	4,02	3,41	391
Switzerland	2017	Normande	769	300	6.859	6.945	4,02	3,41	392
Switzerland	2016	Normande	733	301	6.886	6.955	4,04	3,41	390

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Switzerland	2018	Pinzgauer	89	299	5.899	5.988	3,85	3,34	395
Switzerland	2017	Pinzgauer	64	299	5.899	5.988	3,85	3,34	382
Switzerland	2016	Pinzgauer	78	304	5.882	5.897	3,90	3,32	
Switzerland	2018	Red Holstein	84.821	301	8.127	8.208	4,03	3,28	406
Switzerland	2017	Red Holstein	66.536	301	8.127	8.208	4,03	3,28	405
Switzerland	2016	Red Holstein	73.040	302	8.062	8.122	4,04	3,26	395
Switzerland	2018	Simmental	21.318	298	5.879	5.982	3,96	3,34	383
Switzerland	2017	Simmental	15.171	298	5.879	5.982	3,96	3,34	382
Switzerland	2016	Simmental	15.109	300	5.767	5.839	3,93	3,32	383
Switzerland	2018	Swiss Fleckvieh	61.222	299	7.100	7.207	4,06	3,29	390
Switzerland	2017	Swiss Fleckvieh	47.144	299	7.100	7.207	4,06	3,29	389
Switzerland	2016	Swiss Fleckvieh	47.230	301	7.028	7.098	4,05	3,27	385
Switzerland	2018	Water Buffalo	495	270	2.641	2.891	7,41	4,43	426
Switzerland	2017	Water Buffalo	207	270	2.641	2.891	7,41	4,43	424
Switzerland	2016	Water Buffalo	136	300	2.864	2.900	7,49	4,44	
The Netherlands	2018	Holstein B&W	596.695	353	10.258	9.289	4,30	3,55	408
The Netherlands	2017	Holstein B&W	623.031	354	9.958	9.029	4,32	3,52	410
The Netherlands	2016	Holstein B&W	637.033	354	9.859	8.938	4,31	3,53	413
The Netherlands	2018	Holstein R&W	126.163	350	9.503	8.696	4,50	3,65	408
The Netherlands	2017	Holstein R&W	133.162	350	9.233	8.469	4,53	3,63	410
The Netherlands	2016	Holstein R&W	135.657	349	9.106	8.362	4,52	3,62	413
The Netherlands	2018	MRY	6.571	336	7.225	6.792	4,47	3,74	408
The Netherlands	2017	MRY	7.107	334	7.037	6.654	4,49	3,71	410
The Netherlands	2016	MRY	7.527	332	6.923	6.560	4,49	3,71	413
Tunisia	2018	Brown Swiss	583	360	6.091	5.483			441
Tunisia	2017	Brown Swiss	475	358	5.570	5.028			447
Tunisia	2016	Brown Swiss	573	362	5.703	5.197			447

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
Tunisia	2018	Holstein	7.506	375	6.486	5.683			456
Tunisia	2017	Holstein	7.993	382	6.324	5.632			460
Tunisia	2016	Holstein	8.603	382	6.415	5.732			459
Tunisia	2018	Tarentais	133	321	3.988	4.127			412
Tunisia	2017	Tarentais	136	321	3.865	3.801			397
Tunisia	2016	Tarentais	125	318	3.829	3.665			393
Turkey	2017	Brown Swiss	15.169	358	5.425	4.572	3,86	3,62	397
Turkey	2016	Brown Swiss	6.764	338	5.371	4.669	3,71	3,63	427
Turkey	2017	Holstein Friesian (Black and White)	299.334	362	7.869	6.706	3,75	3,43	418
Turkey	2016	Holstein Friesian (Black and White)	175.903	352	7.861	6.695	3,68	3,3	434
Turkey	2017	Holstein Friesian (Red and White)	1.674	358	8.291	7.133	3,86	3,55	409
Turkey	2016	Holstein Friesian (Red and White)	686	354	8.132	6.886	3,67	3,42	422
Turkey	2017	Simmental	47.253	348	5.613	4.952	3,83	3,58	397
Turkey	2016	Simmental	19.963	332	5.640	5.023	3,75	3,59	420
UK - (by Untd. Dairy Farm.)	2018	Ayrshire	1.404	314	6.785	6.269	4,12	3,23	416
UK - (by Untd. Dairy Farm.)	2016	Ayrshire	1.404	308	6.689	6.224	4,08	3,31	418
UK - (by Untd. Dairy Farm.)	2018	Brown Swiss	10	344	8.232	7.097	4,21	3,44	384
UK - (by Untd. Dairy Farm.)	2016	Brown Swiss	6	343	7.557	6.673	3,94	3,52	418
UK - (by Untd. Dairy Farm.)	2018	Friesian	400	327	7.584	7.005	4,35	3,41	385
UK - (by Untd. Dairy Farm.)	2016	Friesian	342	319	7.533	7.050	4,26	3,38	389
UK - (by Untd. Dairy Farm.)	2018	Holstein	42.679	325	9.522	8.477	4,01	3,23	408
UK - (by Untd. Dairy Farm.)	2016	Holstein	42.878	325	9.238	8.264	3,92	3,19	418

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
UK - (by Untd. Dairy Farm.)	2018	Jersey	194	331	7.082	6.026	5,24	3,88	427
UK - (by Untd. Dairy Farm.)	2016	Jersey	310	348	6.781	5.776	5,28	3,90	430
UK - (by Untd. Dairy Farm.)	2018	Montbeliarde	13	321	7.824	7.454	3,98	3,3	378
UK - (by Untd. Dairy Farm.)	2016	Montbeliarde	32	330	8.115	7.394	3,98	3,27	389
UK - England (by CIS)	2018	Ayrshire	2.616	322	7.071	6.485	4,24	3,30	406
UK - England (by CIS)	2017	Ayrshire	2.553	311	6.883	6.329	4,20	3,30	409
UK - England (by CIS)	2016	Ayrshire	2.213	316	7.067	6.495	4,16	3,31	415
UK - England (by CIS)	2018	Brown Swiss	248	331	8.178	7.293	4,24	3,5	420
UK - England (by CIS)	2017	Brown Swiss	272	350	7.899	6.819	4,30	3,43	433
UK - England (by CIS)	2016	Brown Swiss	442	332	7.335	6.389	4,30	3,41	439
UK - England (by CIS)	2018	Friesian	2.976	308	7.075	6.546	4,23	3,33	399
UK - England (by CIS)	2017	Friesian	2.643	315	7.142	6.599	4,17	3,36	392
UK - England (by CIS)	2016	Friesian	2.517	316	7.275	6.764	4,15	3,37	398
UK - England (by CIS)	2018	Guernsey	240	325	5.875	5.236	4,76	3,53	403
UK - England (by CIS)	2017	Guernsey	280	315	5.248	4.742	4,72	3,40	397
UK - England (by CIS)	2016	Guernsey	332	306	5.738	5.289	4,80	3,42	410
UK - England (by CIS)	2018	Holstein	173.163	328	10.091	8.924	3,99	3,18	409
UK - England (by CIS)	2017	Holstein	172.538	330	9.940	8.791	3,99	3,17	410
UK - England (by CIS)	2016	Holstein	175.396	328	9.965	8.837	3,98	3,18	414

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
UK - England (by CIS)	2018	Jersey	8.118	314	6.237	5.638	5,53	3,90	399
UK - England (by CIS)	2017	Jersey	7.976	311	5.985	5.428	5,55	3,87	398
UK - England (by CIS)	2016	Jersey	7.855	312	5.975	5.445	5,56	3,84	402
UK - England (by CIS)	2018	Montbeliarde	868	323	6.842	6.097	4,12	3,33	408
UK - England (by CIS)	2017	Montbeliarde	903	308	6.183	5.511	4,03	3,36	401
UK - England (by CIS)	2016	Montbeliarde	893	330	7.104	6.420	3,97	3,35	404
UK - England (by CIS)	2017	Shorthorn	6	347	7.200	6.510	4,82	3,49	
UK - England (by CIS)	2016	Shorthorn	3	244	5.179	4.826	4,48	3,17	354
UK - England+Wales (by NMR)	2017	Ayrshire	5.608	332	7.438	6.952	4,17	3,37	405
UK - England+Wales (by NMR)	2016	Ayrshire	6.125	332	7.442	6.911	4,16	3,38	409
UK - England+Wales (by NMR)	2017	Friesian	4.089	330	7.115	6.614	4,18	3,35	395
UK - England+Wales (by NMR)	2016	Friesian	3.633	334	7.382	6.827	4,10	3,37	394
UK - England+Wales (by NMR)	2017	Guernsey	3.217	366	6.606	5.751	5,04	3,66	416
UK - England+Wales (by NMR)	2016	Guernsey	3.261	369	6.716	5.805	5,03	3,67	419
UK - England+Wales (by NMR)	2017	Holstein	192.458	355	10.351	9.184	4,00	3,25	407
UK - England+Wales (by NMR)	2016	Holstein	198.227	354	10.371	9.214	3,99	3,25	411

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
UK - England+Wales (by NMR)	2017	Jersey	8.551	348	6.613	5.932	5,50	3,93	402
UK - England+Wales (by NMR)	2016	Jersey	9.257	347	6.703	6.009	5,50	3,91	403
UK - England+Wales (by NMR)	2017	Shorthorn	2.501	325	6.532	6.086	3,95	3,34	392
UK - England+Wales (by NMR)	2016	Shorthorn	2.692	326	6.655	6.195	3,99	3,36	400
UK - Jersey Island	2018	Jersey	3.164	321	5.724	5.166	5,30	3,74	415
UK - Jersey Island	2017	Jersey	2.927	332	5.859	5.268	5,30	3,72	409
UK - Jersey Island	2016	Jersey	3.111	319	5.541	5.080	5,31	3,70	403
UK - N. Ireland (by CIS)	2018	Ayrshire	1.404	314	6.785	6.269	4,12	3,32	416
UK - N. Ireland (by CIS)	2017	Ayrshire	1.271	314	6.764	6.287	4,10	3,32	406
UK - N. Ireland (by CIS)	2016	Ayrshire	1.404	308	6.689	6.224	4,08	3,31	418
UK - N. Ireland (by CIS)	2018	Brown Swiss	10	344	8.232	7.097	4,21	3,44	384
UK - N. Ireland (by CIS)	2017	Brown Swiss	7	277	6.617	6.445	4,55	3,40	295
UK - N. Ireland (by CIS)	2016	Brown Swiss	6	343	7.557	6.673	3,94	3,52	418
UK - N. Ireland (by CIS)	2018	Friesian	400	327	7.584	7.005	4,35	3,41	385
UK - N. Ireland (by CIS)	2017	Friesian	361	323	7.662	7.145	4,23	3,37	390
UK - N. Ireland (by CIS)	2016	Friesian	342	319	7.533	7.050	4,26	3,38	389
UK - N. Ireland (by CIS)	2018	Holstein	42.679	325	9.522	8.477	4,01	3,23	408
UK - N. Ireland (by CIS)	2017	Holstein	42.460	324	9.263	8.277	3,96	3,19	411
UK - N. Ireland (by CIS)	2016	Holstein	42.878	325	9.238	8.264	3,92	3,19	418

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
UK - N. Ireland (by CIS)	2018	Jersey	194	331	7.082	6.026	5,24	3,88	427
UK - N. Ireland (by CIS)	2017	Jersey	255	336	6.747	5.822	5,17	3,83	425
UK - N. Ireland (by CIS)	2016	Jersey	310	348	6.781	5.776	5,28	3,90	430
UK - N. Ireland (by CIS)	2018	Montbeliarde	13	321	7.824	7.454	3,98	3,3	378
UK - N. Ireland (by CIS)	2017	Montbeliarde	25	310	7.547	7.190	3,85	3,25	387
UK - N. Ireland (by CIS)	2016	Montbeliarde	32	330	8.115	7.394	3,98	3,27	389
UK - N. Ireland (by NMR)	2017	Ayrshire	202	319	7.306	6.936	4,12	3,35	388
UK - N. Ireland (by NMR)	2016	Ayrshire	261	319	7.211	6.785	4,08	3,36	410
UK - N. Ireland (by NMR)	2017	Brown Swiss	72	325	5.819	5.491	3,73	3,33	421
UK - N. Ireland (by NMR)	2016	Brown Swiss	81	333	6.005	5.427	3,76	3,28	384
UK - N. Ireland (by NMR)	2017	Friesian	18	330	7.342	6.624	3,93	3,32	427
UK - N. Ireland (by NMR)	2016	Friesian	63	321	7.860	7.280	4,02	3,46	399
UK - N. Ireland (by NMR)	2017	Holstein	8.605	355	10.171	8.824	4,11	3,25	406
UK - N. Ireland (by NMR)	2016	Holstein	8.871	349	9.990	8.799	4,06	3,22	413
UK - N. Ireland (by NMR)	2017	Jersey	282	310	6.177	5.965	5,34	3,82	393
UK - N. Ireland (by NMR)	2016	Jersey	307	318	6.101	5.769	5,36	3,78	387
UK - N. Ireland (by NMR)	2017	Montbeliarde	14	330	7.571	7.138	3,91	3,35	371
UK - N. Ireland (by NMR)	2016	Montbeliarde	17	319	7.735	7.439	4,06	3,42	372
UK - Scotland (by CIS)	2018	Ayrshire	6.541	312	7.545	6.939	4,18	3,31	412
UK - Scotland (by CIS)	2017	Ayrshire	6.561	316	7.431	6.826	4,15	3,33	413
UK - Scotland (by CIS)	2016	Ayrshire	6.726	316	7.505	6.897	4,13	3,32	415

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
UK - Scotland (by CIS)	2018	Brown Swiss	133	339	7.372	6.500	4,32	3,51	410
UK - Scotland (by CIS)	2017	Brown Swiss	128	314	6.882	6.184	4,2	3,53	384
UK - Scotland (by CIS)	2016	Brown Swiss	295	311	7.251	6.325	4,14	3,57	406
UK - Scotland (by CIS)	2018	Friesian	504	313	7.323	6.897	4,28	3,33	386
UK - Scotland (by CIS)	2017	Friesian	427	311	7.551	7.086	4,29	3,39	388
UK - Scotland (by CIS)	2016	Friesian	454	313	7.797	7.326	4,25	3,39	394
UK - Scotland (by CIS)	2018	Holstein	58.762	327	10.123	8.963	3,92	3,17	410
UK - Scotland (by CIS)	2017	Holstein	55.990	328	9.983	8.844	3,91	3,17	412
UK - Scotland (by CIS)	2016	Holstein	56.869	327	9.941	8.828	3,91	3,16	415
UK - Scotland (by CIS)	2018	Jersey	1.626	323	6.571	5.896	5,55	3,93	419
UK - Scotland (by CIS)	2017	Jersey	1.014	327	6.377	5.676	5,44	3,86	410
UK - Scotland (by CIS)	2016	Jersey	917	322	6.565	5.914	5,48	3,8	429
UK - Scotland (by CIS)	2018	Montbeliarde	54	295	6.364	6.105	4,31	3,41	380
UK - Scotland (by CIS)	2017	Montbeliarde	29	306	7.038	6.534	4,06	3,38	387
UK - Scotland (by CIS)	2016	Montbeliarde	27	292	6.485	6.111	3,93	3,34	386
UK - Scotland (by CIS)	2016	Shorthorn	2	325	10.772	10.038	4,14	3,48	430
UK - Scotland (by NMR)	2017	Ayrshire	73	310	6.695	6.381	4,02	3,31	396
UK - Scotland (by NMR)	2016	Ayrshire	51	310	5.995	5.607	4,15	3,27	430
UK - Scotland (by NMR)	2017	Friesian	1	370	10.427	9.231	3,82	3,07	571
UK - Scotland (by NMR)	2016	Friesian	1	404	8.937	7.281	3,66	3,31	

Table 4.4 - Main breeds - Cows in herdbook

Country	Year	Breed	Number of lactations	Length of lactations (days)	Milk yield per recorded cow (kg)	Milk per cow in 305 days (kg)	Percent fat content (%)	Percent protein content (%)	Calving interval (days)
UK - Scotland (by NMR)	2017	Holstein	2.699	358	12.243	10.703	3,91	3,28	406
UK - Scotland (by NMR)	2016	Holstein	2.707	355	11.867	10.368	3,84	3,25	414
UK - Scotland (by NMR)	2017	Jersey	411	329	6.809	6.152	5,74	3,97	404
UK - Scotland (by NMR)	2016	Jersey	341	355	6.702	5.851	5,97	4,01	418
UK - Wales	2018	Ayrshire	407	313	6.943	6.381	4,36	3,32	423
UK - Wales	2017	Ayrshire	255	317	7.216	6.672	4,30	3,28	402
UK - Wales	2016	Ayrshire	306	297	7.040	6.574	4,12	3,30	415
UK - Wales	2018	Brown Swiss	236	328	6.883	6.090	4,25	3,38	419
UK - Wales	2017	Brown Swiss	299	309	7.526	6.712	4,19	3,41	435
UK - Wales	2016	Brown Swiss	311	337	7.824	6.835	4,21	3,42	429
UK - Wales	2018	Friesian	463	312	6.715	6.321	4,27	3,37	383
UK - Wales	2017	Friesian	441	319	7.044	6.517	4,25	3,39	386
UK - Wales	2016	Friesian	420	323	7.268	6.716	4,14	3,38	393
UK - Wales	2018	Guernsey	144	367	5.376	4.649	4,67	3,55	430
UK - Wales	2017	Guernsey	34	309	6.137	5.630	5,29	3,71	423
UK - Wales	2016	Guernsey	42	300	5.994	5.622	5,09	3,61	395
UK - Wales	2018	Holstein	31.923	332	9.505	8.443	4,02	3,17	409
UK - Wales	2017	Holstein	30.676	331	9.379	8.335	4,02	3,18	411
UK - Wales	2016	Holstein	30.210	331	9.553	8.491	4,05	3,18	417
UK - Wales	2018	Jersey	417	311	5.105	4.521	5,51	3,76	419
UK - Wales	2017	Jersey	276	308	5.829	5.203	5,42	3,71	430
UK - Wales	2016	Jersey	422	294	5.574	4.985	5,46	3,73	416
UK - Wales	2018	Montbeliarde	3	340	6.614	6.067	4,04	3,30	390
UK - Wales	2017	Montbeliarde	2	374	5.972	5.233	4,28	3,44	338
UK - Wales	2016	Montbeliarde	2	283	6.086	6.054	4,31	3,29	329

Sheep Survey (Years 2016, 2017 and 2018)

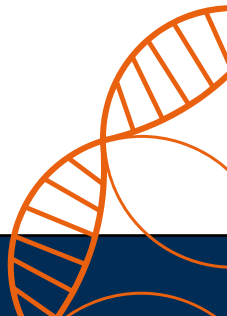


Table 1a - Milk recording and management of the lactation

SHEEP SURVEY

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes [i] in milk recording	Recorded flocks [ii] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes in D recording
Canada (Canadian DHI)	2016				6	695					
Croatia	2018	East Frisian	50	2.000	6	169	2	55			
Croatia	2017	East Frisian	50	2.000	6	166	2	37			
Croatia	2016	East Frisian	50	2.000	7	250	2	42			
Croatia	2018	Istrian Sheep	41	2.000	17	1.082	2	55			
Croatia	2017	Istrian Sheep	41	2.000	18	1.184	2	59			
Croatia	2016	Istrian Sheep	41	2.000	17	929	2	57			
Croatia	2018	Lacaune	6	900	3	683	2	58			
Croatia	2017	Lacaune	6	900	2	568	2	35			
Croatia	2016	Lacaune	6	900	1	401	2	24			
Croatia	2018	Paska Sheep	600	30.000	51	4.292	2	33			
Croatia	2017	Paska Sheep	600	30.000	52	4.774	2	33			
Croatia	2016	Paska Sheep	600	30.000	49	3.681	2	34			
Czech Republic	2018	All Breeds			31	1.410					
Czech Republic	2017	All Breeds			37	1.517					
Czech Republic	2016	All Breeds			49	1.597					
France	2018	Basco-Béarnaise	311	78	81	25.763	2	35	95%	31	8.061
France	2016	Basco-Béarnaise	313	79	85	25.524	2	35	90%	22	5.766
France	2018	Corse	350	83	57	19.012	2	35	95%	49	13.112
France	2016	Corse	350	85	57	17.013	2	35	95%	46	12.730
France	2018	Lacaune	2.500	890	375	187.660	2	25	100%	1064	489.576
France	2016	Lacaune	3	890	759	313.292	2	25	100%	1284	542.948
France	2018	Manech Tete Rousse	965	274	220	85.103	2	35	98%	69	22.097
France	2016	Manech Tete Rousse	1	289	218	83.113	2	35	95%	66	20.665
France	2018	Manech Tete Noire	271	72	35	10.854	2	35	95%	31	9.770
France	2016	Manech Tete Noire	284	75	33	10.074	2	35	95%	37	10.728

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes [i] in milk recording	Recorded flocks [ii] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes in D recording
Italy	2018	Altamurana			1	1	2	30			
Italy	2016	Altamurana			10	219	2	30			
Italy	2017	Appenninica			2	4	2	30			
Italy	2016	Appenninica			4	38	2	30			
Italy	2018	Assaf			15	941	2	30			
Italy	2017	Assaf			18	1.833	2	30			
Italy	2016	Assaf			16	1.298	2	30			
Italy	2017	Bagnolese			3	3	2	30			
Italy	2018	Barbaresca			2	20	2	30			
Italy	2016	Barbaresca			9	524	2	30			
Italy	2016	Brigasca			2	162	2	30			
Italy	2018	Comisana			33	2.703	2	30			
Italy	2017	Comisana			97	5.252	2	30			
Italy	2016	Comisana			229	13.299	2	30			
Italy	2018	Delle LAnghe			39	2.653	2	30			
Italy	2017	Delle Langhe			43	2.567	2	30			
Italy	2016	Delle Langhe			42	2.462	2	30			
Italy	2016	Di Teramo			36	2.709	2	40			
Italy	2016	Frisona			2	16	2	30			
Italy	2018	Frisona Italiana			2	15	2	30			
Italy	2017	Frisona Italiana			2	22	2	30			
Italy	2018	Garfagnina Bianca			1	1	2	30			
Italy	2017	Ile de France			6	6	2	30			
Italy	2016	Ile de France			15	16	2	30			
Italy	2018	Lacaune			38	5.261	2	30			
Italy	2017	Lacaune			34	4.016	2	30			
Italy	2016	Lacaune			29	3.044	2	30			
Italy	2018	Massese			93	7.804					
Italy	2017	Massese			95	7.423	2	30			
Italy	2016	Massese			99	8.059	2	30			

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes [i] in milk recording	Recorded flocks [ii] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes in D recording
Italy	2018	Moscia Leccese			1	27	2	30			
Italy	2017	Moscia Leccese			3	114	2	30			
Italy	2016	Moscia Leccese			16	741	2	30			
Italy	2016	Nera di Arbus			38	1.474	2	30			
Italy	2017	Pinzirita			30	2.390	2	30			
Italy	2016	Pinzirita			113	8.054	2	30			
Italy	2017	Romanov			7	7	2	30			
Italy	2016	Romanov			9	11	2	30			
Italy	2018	Sarda			744	141.953	2	30			
Italy	2017	Sarda			928	204.847	2	30	NA		
Italy	2016	Sarda			970	217.491	2	30			
Italy	2018	Suffolk			1	1	2	30			
Italy	2018	Valle del Belice			4	214	2	30			
Italy	2017	Valle del Belice			402	37.969	2				
Italy	2016	Valle del Belice			718	98.632	2	30			
Italy	2018	Zerasca			37	1.821	2	30			
Italy	2017	Zerasca			36	1.484	2	30			
Italy	2017		rigasca		1	101	30	2			
Portugal (Ministry Agriculture)	2018	Churra da Terra Quente	131	14.116	75	5.264	2	45	0	0	0
Portugal (Ministry Agriculture)	2017	Churra Terra Quente	140	14.730	78	5.267	2	45	0	0	0
Portugal (Ministry Agriculture)	2018	Merina da Beira Baixa	44	6.056	1	56	2	60	0	0	0
Portugal (Ministry Agriculture)	2017	Merina da Beira Baixa	46	6.197	1	14	2	60	0	0	0

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes [i] in milk recording	Recorded flocks [ii] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes in D recording
Portugal (Ministry Agriculture)	2018	Mondegueira	35	3.062	11	593	2	60	0	0	0
Portugal (Ministry Agriculture)	2017	Mondegueira	35	3.149	13	894	2	60	0	0	0
Portugal (Ministry Agriculture)	2018	Saloia	12	3.522	9	978	2		20%		
Portugal (Ministry Agriculture)	2017	Saloia	12	3.434	7	2.184	2		16%		
Portugal (Ministry Agriculture)	2018	Serra da Estrela	209	23.323	187	11.161	2	60	30%		
Portugal (Ministry Agriculture)	2017	Serra da Estrela	213	20.003	199	13.130	2	60	30%		
Slovak Republic	2017	Assaf			1	83	2	30			
Slovak Republic	2017	East Friesian			3	15	2	30			
Slovak Republic	2016	East Friesian			5	26	2	30			
Slovak Republic	2017	Improved Valachian			21	2.578	2	40			
Slovak Republic	2016	Improved Valachian			20	2.446	2	40			
Slovak Republic	2017	Lacaune			18	605	2	30			
Slovak Republic	2016	Lacaune			17	549	2	30			
Slovak Republic	2017	Slovak Dairy Sheep			15	1.167	2	30			
Slovak Republic	2016	Slovak Dairy Sheep			14	1.211	2	30			

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes [i] in milk recording	Recorded flocks [ii] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes in D recording
Slovak Republic	2017	Tsigai			20	1.685	2	40			
Slovak Republic	2016	Tsigai			21	1.760	2	40			
Slovak Republic	2017	Valachian			2	18	2	40			
Slovak Republic	2016	Valachian			3	19	2	40			
Slovenia	2018	Bovec sheep		1.505		1.505	2		100%		
Slovenia	2017	Bovec sheep			25	1.442	2	47	100%		
Slovenia	2016	Bovec sheep			27	1.359	2	43	100%		
Slovenia	2018	Improved Bovec sheep		615		615	1 and 2		100%		
Slovenia	2017	Improved Bovec sheep			13	552	1 and 2	33	100%		
Slovenia	2016	Improved Bovec sheep			14	618	1 and 2	35	100%		
Slovenia	2018	Istrian Pramenka		335		335	2		100%		
Slovenia	2017	Istrian Pramenka			3	332	2	68	100%		
Slovenia	2016	Istrian Pramenka			3	348	2	65	100%		
Spain	2016	Carranzana	735	8.577	6	837	2) Milking after a suckling period	30	0%		
Spain	2016	Castellana	19	17.000	6	7.600	2) Milking after a suckling period	30	100%		
Spain	2016	Churra	790	354.000	59	38.214	2) Milking after a suckling period	25	100%		
Spain	2016	Colmenareña			28	6.820	2) Milking after a suckling period	35	0%		

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes [i] in milk recording	Recorded flocks [ii] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes in D recording
Spain	2016	Latxa	8.439	338.321	170	65.967	1) Milking rm kidding (5%) lilking after a suckling riod (95%)	30	95%		
Spain	2016	Manchega	757	550.059	137	152.555	1) Milking rm kidding (10%) lilking after a suckling riod (90%)	30	100%		
Spain	2016	Merina de Grazalema	36	4.959	8	1.752	1) Milking rm kidding (5%) lilking after a suckling riod (95%)	55	0%		
Spain	2016	Rubia del Molar			9	1.451	2) Milking after a suckling period	35	0%		

[i] Inventory at lambing in case of one lambing per year or inventory at a fixed date in the other cases

[ii] Answer (1) or (2), if only one system is used (per breed or in the country) as regards lactation ; or percentage of ewes in system (1) and system (2), if used simultaneously

Table 1b - Methods of milk recording

Country	Year	Breed or population (Name)	Percentage of A4, A5, A6, B4, B5, B6, C4, C5, C6 (precise if necessary) [a]	Percentage of AT , BT, CT (precise if necessary) [a]	Percentage of AC, BC, CC (precise if necessary) [a]	Percentage of E4, E5, E6, ET, EC (precise if necessary) [a]
Croatia	2018	East Frisian	B4=32,20%	AT=67,80%		
Croatia	2017	East Frisian	B4=41,89%	AT=58,11%		
Croatia	2016	East Frisian	B4=68,42	AT=31,58		
Croatia	2018	Istrian Sheep	B4=13,51%	AT=86,49%		
Croatia	2017	Istrian Sheep	B4=3,86%	AT=96,14%		
Croatia	2016	Istrian Sheep	B4=16,94%	AT=83,06%		
Croatia	2018	Lacaune		AT=100%		
Croatia	2017	Lacaune		AT=100%		
Croatia	2016	Lacaune		AT=100%		
Croatia	2018	Paska Sheep		AT=100%		
Croatia	2017	Paska Sheep		AT=100%		
Croatia	2016	Paska Sheep		AT=100%		
Czech Republic	2018	All Breeds		AT=100%		
Czech Republic	2017	All Breeds		AT=100%		
Czech Republic	2016	All Breeds		AT=100%		
France	2016	all breeds			100% AC	
France	2018	Basco-Béarnaise			100% AC	
France	2018	Corse			100% AC	
France	2018	Lacaune			100% AC	
France	2018	Manech tetete noire			100% AC	
France	2018	Manech tetete rousse			100% AC	
Italy	2017	All breeds except Sarda		AT 100%		
Italy	2016	All breeds except Sarda[1]		AT		

[1] Size of population = herdbook flocks and ewes

Table 1b - Methods of milk recording

Country	Year	Breed or population (Name)	Percentage of A4, A5, A6, B4, B5, B6, C4, C5, C6 (precise if necessary) [a]	Percentage of AT , BT, CT (precise if necessary) [a]	Percentage of AC, BC, CC (precise if necessary) [a]	Percentage of E4, E5, E6, ET, EC (precise if necessary) [a]
Italy	2017	Sarda		AT	AC	
Italy[2]	2016	Sarda		AT	AC	
Portugal (Min. Agric.)	2018	Churra da Terra Quente	A4 100%			
Portugal (Min. Agric.)	2017	Churra da Terra Quente	A4 100%			
Portugal (Min. Agric.)	2018	Merina da Beira Baixa	A4 100%			
Portugal (Min. Agric.)	2017	Merina da Beira Baixa	AT 100%			
Portugal (Min. Agric.)	2018	Mondegueira	A4 68%	AT 32%		
Portugal (Min. Agric.)	2017	Mondegueira	A4 61%	AT 39%		
Portugal (Min. Agric.)	2018	Saloia	A4 100%			
Portugal (Min. Agric.)	2017	Saloia	A4 100 %			
Portugal (Min. Agric.)	2018	Serra da Estrela	A4 23%	AT 77%		
Portugal (Min. Agric.)	2017	Serra da Estrela	A4 27%	AT 73%		
Slovak Republic	2017	All Breeds			100% AC	
Slovak Republic	2016	East Friesian			100% AC	
Slovak Republic	2016	Imroved Valachian			100% AC	
Slovak Republic	2016	Lacaune			100% AC	
Slovak Republic	2016	Slovak Dairy Sheep			100% AC	
Slovak Republic	2016	Tsigai			100% AC	
Slovak Republic	2016	Valachian			100% AC	
Slovenia	2018	Bovec sheep	0	100% AT4	0	0
Slovenia	2017	Bovec Sheep	0	100% AT4	0	0

[2] Size of population=herdbook flocks and ewes

Table 1b - Methods of milk recording

Country	Year	Breed or population (Name)	Percentage of A4, A5, A6, B4, B5, B6, C4, C5, C6 (precise if necessary) [a]	Percentage of AT , BT, CT (precise if necessary) [a]	Percentage of AC, BC, CC (precise if necessary) [a]	Percentage of E4, E5, E6, ET, EC (precise if necessary) [a]
Slovenia	2016	Bovec sheep	0	100% AT4	0	0
Slovenia	2018	Improved Bovec sheep	0	100% AT4	0	0
Slovenia	2017	Improved Bovec Sheep	0	100% AT4	0	0
Slovenia	2016	Improved Bovec sheep	0	100% AT4	0	0
Slovenia	2018	Istrian Pramenka	0	100% AT4	0	0
Slovenia	2017	Istrian Pramenka	0	100% AT4	0	0
Slovenia	2016	Istrian Pramenka	0	100% AT4	0	0
Spain	2016	Carranzana		100% AT4		
Spain	2016	Castellana		100% AT4		
Spain	2016	Churra		100% AT4		
Spain	2016	Latxa		AT4:36%, AC4:64%		
Spain	2016	Manchega		100% AT4		
Spain	2016	Merina de Grazalema		100% AT4		

[a] See the definition of official milk recording method on the ICAR website (www.icar.org) in the part dedicated to the milk recording of sheep WG : “Recording guidelines”, section 2.2

Table 2a - Type of lactation calculation for milk yield

Country	Year	Breed or population (Name)	TSMM2 (Yes/No)	TMM3 (Yes/No)	TMY4 (Yes/No)	TSMM1 (Yes/No)	TMM2 If yes, standard length (days)	TMY3 If yes, standard length (days)
Croatia	2018	East Frisian	Yes	Yes	No	No	No	No
Croatia	2017	East Frisian	Yes	Yes	No	No	No	No
Croatia	2016	East Frisian	Yes	Yes	No	No	No	No
Croatia	2018	Istrian Sheep	Yes	Yes	No	No	No	No
Croatia	2017	Istrian Sheep	Yes	Yes	No	No	No	No
Croatia	2016	Istrian Sheep	Yes	Yes	No	No	No	No
Croatia	2018	Lacaune	Yes	Yes	No	No	No	No
Croatia	2017	Lacaune	Yes	Yes	No	No	No	No
Croatia	2016	Lacaune	Yes	Yes	No	No	No	No
Croatia	2018	Paska Sheep	Yes	Yes	No	No	No	No
Croatia	2017	Paska Sheep	Yes	Yes	No	No	No	No
Croatia	2016	Paska Sheep	Yes	Yes	No	No	No	No
France	2018	All breeds	No	Yes	No	No	No	No
France	2016	All breeds	No	Yes	No	No	No	No
Italy	2017	All breeds	Yes	Yes	No	No	From day 30 from lambing to reference lactation length	
Italy	2016	All breeds	Yes	Yes	No	No	From day 30 from lambing to reference length	No
Portugal (Min. Agric.)	2018	Churra da Terra Quente	No	Yes	No	No	Yes 105	Yes 150
Portugal (Min. Agric.)	2017	Churra da Terra Quente	No	Yes	No	No	Yes 105	Yes 150
Portugal (Min. Agric.)	2018	Merina da Beira Baixa	No	Yes	No	No	Yes 90	Yes 150
Portugal (Min. Agric.)	2017	Merina da Beira Baixa	No	Yes	No	No	Yes 90	Yes 150
Portugal (Min. Agric.)	2018	Mondegueira	No	Yes	No	No	90	150
Portugal (Min. Agric.)	2017	Mondegueira	No	Yes	No	No	90	150
Portugal (Min. Agric.)	2018	Saloia	No	Yes	No	No		150
Portugal (Min. Agric.)	2017	Saloia	No	Yes	No	No		150

Table 2a - Type of lactation calculation for milk yield

Country	Year	Breed or population (Name)	TSMM2 (Yes/No)	TMM3 (Yes/No)	TMY4 (Yes/No)	TSMM1 (Yes/No)	TMM2 If yes, standard length (days)	TMY3 If yes, standard length (days)
Portugal (Min. Agric.)	2018	Serra da Estrela	No	Yes	No	No		150
Portugal (Min. Agric.)	2017	Serra da Estrela	No	Yes	No	No	150	
Slovak Republic	2017	All Breeds	No	Yes	No	No	Yes. 150	No
Slovak Republic	2016	East Friesian	No	Yes	No	No	Yes. 150	No
Slovak Republic	2016	Improved Valachian	No	Yes	No	No	Yes. 150	No
Slovak Republic	2016	Lacaune	No	Yes	No	No	Yes. 150	No
Slovak Republic	2016	Slovak Dairy Sheep	No	Yes	No	No	Yes. 150	No
Slovak Republic	2016	Tsigai	No	Yes	No	No	Yes. 150	No
Slovak Republic	2016	Valachian	No	Yes	No	No	Yes. 150	No
Slovenia	2018	Bovec sheep	Yes	Yes	Yes	No	No	No
Slovenia	2017	Bovec sheep	Yes	Yes	Yes	No	No	No
Slovenia	2016	Bovec sheep	Yes	Yes	Yes	No	No	No
Slovenia	2018	Improved Bovec sheep	Yes	Yes	Yes	No	No	No
Slovenia	2017	Improved Bovec sheep	Yes	Yes	Yes	No	No	No
Slovenia	2016	Improved Bovec sheep	Yes	Yes	Yes	No	No	No
Slovenia	2018	Istrian Pramenka	Yes	Yes	Yes	No	No	No
Slovenia	2017	Istrian Pramenka	Yes	Yes	Yes	No	No	No
Slovenia	2016	Istrian Pramenka	Yes	Yes	Yes	No	No	No
Spain	2016	Carranzana	Yes	Yes	Yes	Yes	Yes, 120	Yes, 120
Spain	2016	Castellana	Yes	No	No		Yes, 120	
Spain	2016	Churra	Yes	Yes	No	No	Yes, 120	No
Spain	2016	Latxa	Yes	Yes	Yes	Yes	Yes, 120	Yes, 120
Spain	2016	Manchega	Yes	Yes	Yes		Yes, 120	
Spain	2016	Merina de Grazalema	Yes	No	No	Yes, 125	No	No

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Croatia	2018	East Frisian	186	247	237
Croatia	2017	East Frisian	279	340	308
Croatia	2016	East Frisian	136	200	179
Croatia	2018	Istrian Sheep	107	117	115
Croatia	2017	Istrian Sheep	111	132	128
Croatia	2016	Istrian Sheep	121	145	138
Croatia	2018	Lacaune	153	186	172
Croatia	2017	Lacaune	354	349	349
Croatia	2016	Lacaune	215	281	263
Croatia	2018	Paska Sheep	97	110	107
Croatia	2017	Paska Sheep	96	103	101
Croatia	2016	Paska Sheep	103	109	107
Czech Republic	2018	All Breeds			308
Czech Republic	2017	All Breeds			284
Czech Republic	2016	All Breeds			270
France[1]	2018	Basco-Béarnaise	155 (104 days)	221 (157 days)	209 (148 days)
France[1]	2016	Basco-Béarnaise	153 (106 days)	215 (159 days)	205 (150 days)
France[1]	2018	Corse	104 (131 days)	173 (201 days)	160 (188 days)
France[1]	2016	Corse	109 (131 days)	175 (197 days)	162 (185 days)
France[1]	2018	Lacaune	275 (154 days)	349 (177 days)	330 (171 days)
France[1]	2016	Lacaune	260 (151 days)	338 (176 days)	318 (170 days)
France[1]	2018	Manech Tete Noire	124 (111 days)	174 (151 days)	171 (149 days)
France[1]	2018	Manech Tete Rousse	208 (146 days)	243 (163 days)	239 (162 days)
France[1]	2016	Manech Tete Noire	133 (117 days)	170 (149 days)	168 (147 days)
France[1]	2016	Manech Tete Rousse	194 (141 days)	234 (162 days)	229 (160 days)

[1] Liters are used as unit

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Italy[2]	2018	Assaf		243	243
Italy[2]	2017	Assaf	207	268	251
Italy[2]	2016	Assaf	178	297	270
Italy[2]	2018	Barbaresca		91	91
Italy[2]	2017	Barbaresca	60	102	87
Italy[2]	2016	Barbaresca	30	140	140
Italy[2]	2018	Comisana	82	134	124
Italy[2]	2017	Comisana	75	126	120
Italy[2]	2018	Delle Langhe	111	193	183
Italy[2]	2017	Delle Langhe	106	183	175
Italy[2]	2016	Delle Langhe	95	166	155
Italy[2]	2016	Frisona	115	166	144
Italy[2]	2018	Frisona Italiana		309	309
Italy[2]	2017	Frisona Italiana	148	291	250
Italy[2]	2018	Lacaune	222	348	323
Italy[2]	2017	Lacaune	226	334	306
Italy[2]	2016	Lacaune	198	250	236
Italy[2]	2018	Massese	116	132	130
Italy[2]	2017	Massese	117	131	130
Italy[2]	2016	Massese	116	228	128
Italy[2]	2018	Moscia Leccese		74	74
Italy[2]	2017	Moscia Leccese	29	38	37
Italy	2016	Moscia Leccese	150	89	88
Italy[2]	2016	Nera di Arbus	120	206	190

[2] From day 30 from lambing to reference length

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Italy[3]	2017	Pinzirita		85	85
Italy[3]	2016	Pinzirita	92	148	147
Italy[3]	2018	Sarda	146	216	207
Italy[3]	2017	Sarda	146	219	209
Italy[3]	2016	Sarda	150	226	216
Italy[3]	2018	Suffolk		59	59
Italy[3]	2018	Valle del Belice	262	276	273
Italy[3]	2017	Valle del Belice	99	79	80
Italy[3]	2016	Valle del Belice	118	189	188
Italy[3]	2018	Zerasca	120	195	181
Italy[3]	2017	Zerasca	118	195	183
Portugal (Min. Agric.)	2018	Churra da Terra Quente	76	80	
Portugal (Min. Agric.)	2017	Churra da Terra Quente	75	81	
Portugal (Min. Agric.)	2018	Merina da Beira Baixa	0	48	
Portugal (Min. Agric.)	2017	Merina da Beira Baixa	15	58	
Portugal (Min. Agric.)	2018	Mondegueira	39	64	
Portugal (Min. Agric.)	2017	Mondegueira	49	61	
Portugal (Min. Agric.)	2018	Saloia	146	122	
Portugal (Min. Agric.)	2017	Saloia	114	126	
Portugal (Min. Agric.)	2018	Serra da Estrela	133	165	
Portugal (Min. Agric.)	2017	Serra da Estrela	133	175	

[3] From day 30 from lambing to reference length

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Slovak Republic	2017	Assaf			176
Slovak Republic	2017	East Friesian			235
Slovak Republic	2016	East Friesian			248
Slovak Republic	2017	Improved Valachian			117
Slovak Republic	2016	Improved Valachian			114
Slovak Republic	2017	Lacaune			265
Slovak Republic	2016	Lacaune			273
Slovak Republic	2017	Slovak Dairy Sheep			163
Slovak Republic	2016	Slovak Dairy Sheep			157
Slovak Republic	2017	Tsigai			125
Slovak Republic	2016	Tsigai			118
Slovak Republic	2017	Valachian			105
Slovak Republic	2016	Valachian			81
Slovenia	2018	Bovec sheep			TSMM=208 kg, TMM=159 kg, suckled=49, lactation length=219 days
Slovenia	2017	Bovec sheep			TSMM=196 kg, TMM=142 kg, suckled=54, lactation length=201 days
Slovenia	2016	Bovec sheep			TSMM=206 kg, TMM=153 kg, suckled=52 kg, lactation length=210 days
Slovenia	2018	Improved Bovec sheep			TSMM=283 kg, TMM=225 kg, suckled=58, lactation length=226 days
Slovenia	2017	Improved Bovec sheep			TSMM=277 kg, TMM=227 kg, suckled=50, lactation length=237 days
Slovenia	2016	Improved Bovec sheep			TSMM=291 kg, TMM=239 kg, suckled=52 kg, lactation length=233 days
Slovenia	2018	Istrian Pramenka			TSMM=162 kg, TMM=103 kg, suckled=59, lactation length=211 days
Slovenia	2017	Istrian Pramenka			TSMM=162 kg, TMM=103 kg, suckled=59, lactation length=211 days
Slovenia	2016	Istrian Pramenka			TSMM=163 kg, TMM=100 kg, suckled=63 kg, lactation length=203 days

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Spain[4]	2016	Carranzana	181	195	192
Spain[4]	2016	Castellana	67	99	97
Spain[4]	2016	Churra	122	137	135
Spain[4]	2016	Latxa	172	208	189
Spain[4]	2016	Manchega	203	230	225
Spain[4]	2016	Merina de Grazalema	100	125	122

[a] Yearling : 12-18 month-old
[b] Adults : >18 month-old

[4] This is are the used unit

Table 3 - Optional tests for milk composition

Country	Year	Breed or population (Name)	Categories or classes of age or parity concerned	Method used for recording milk composition[i]	Fat % (Yes/No)	Protein % (Yes/No)	SCC	Other Analysis
Croatia	2018	East Frisian	169	AT, B4	Yes, 6,31	Yes, 5,48	Yes	Lactose
Croatia	2017	East Frisian	166	AT, B4	Yes, 6,66	Yes, 5,70	Yes	Lactose
Croatia	2016	East Frisian	250	AT, B4	Yes, 6,58	Yes, 5,23	Yes	Lactose
Croatia	2018	Istrian Sheep	1.082	AT, B4	Yes, 6,77	Yes, 5,92	Yes	Lactose
Croatia	2017	Istrian Sheep	1.184	AT, B4	Yes, 7,25	Yes, 5,93	Yes	Lactose
Croatia	2016	Istrian Sheep	929	AT, B4	Yes, 7,35	Yes, 6,12	Yes	Lactose
Croatia	2018	Lacaune	683	AT	Yes, 6,19	Yes, 5,84	Yes	Lactose
Croatia	2017	Lacaune	568	AT	Yes, 7,30	Yes, 6,05	Yes	Lactose
Croatia	2016	Lacaune	401	AT	Yes, 7,40	Yes, 5,32	Yes	Lactose
Croatia	2018	Paska Sheep	4.292	AT	Yes, 7,14	Yes, 5,91	Yes	Lactose
Croatia	2017	Paska Sheep	4.774	AT	Yes, 7,09	Yes, 5,95	Yes	Lactose
Croatia	2016	Paska Sheep	3.681	AT	Yes, 6,98	Yes, 5,94	Yes	Lactose
Czech Republic	2017	All Breeds		AT	Yes	Yes	Yes	Lactose
Czech Republic	2016	All Breeds		AT	Yes	Yes	Yes	Lactose
France	2018	Basco-Bearnaise, Manech Tete Noire, Manech Tete Rousse	Parity 1 (21.376)	Part-lactation sampling	Yes	Yes	Yes	Urea
France	2016	Basco-Bearnaise, Manech Tete Noire, Manech Tete Rousse	Parity 1 (21.329 ewes)	Part-lactation sampling	Yes	Yes	Yes	
France	2018	Corse	Parity 1 (3469)	Part-lactation sampling	Yes	Yes	Yes	Urea
France	2018	Lacaune	Parities 1 (40786) and 2 (30208	Part-lactation sampling	Yes	Yes	Yes	Urea
France	2016	Lacaune	Parities 1 (40.167) & 2 (31,004	Part-lactation sampling	Yes	Yes	Yes	
Italy	2018	Comisana	Primiparous (325)	AT	6,57	5,49		
Italy	2017	Comisana	Primiparous (231)	AT	6,78	5,39		
Italy	2018	Sarda	Primiparous (10.570)	AT, AC	5,61	5,26		
Italy	2017	Sarda	Primiparous (23.696)	AC, AT	5,39	5,21		
Portugal (Min. Agric.)	2018	Churra da Terra Quente			No data available			
Portugal (Min. Agric.)	2017	Churra da Terra Quente			No data available			

Table 3 - Optional tests for milk composition

Country	Year	Breed or population (Name)	Categories or classes of age or parity concerned	Method used for recording milk composition[i]	Fat % (Yes/No)	Protein % (Yes/No)	SCC	Other Analysis
Portugal (Min. Agric.)	2018	Merina da Beira Baixa	None	A4	7,2	5,8		
Portugal (Min. Agric.)	2017	Merina da Beira Baixa	None	A4	7,2	5,7		
Portugal (Min. Agric.)	2018	Mondegueira			No data available			
Portugal (Min. Agric.)	2017	Mondegueira			No data available			
Portugal (Min. Agric.)	2018	Preta de Montesinho			No data available			
Portugal (Min. Agric.)	2018	Saloia			No data available			
Portugal (Min. Agric.)	2017	Saloia			No data available			
Portugal (Min. Agric.)	2018	Serra da Estrela			No data available			
Portugal (Min. Agric.)	2017	Serra da Estrela			No data available			
Slovak Republic	2017	Assaf	Parity 1 to 3 (83 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2017	East Friesian	Parity 1 t 3 (15 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2016	East Friesian	Parity 1 to 3 (26 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2017	Improved Valachian	Parity 1 to 3 (.2578 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Improved Valachian	Parity 1 to 3 (2.446 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2017	Lacaune	Parity 1 to 3 (605 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Lacaune	Parity 1 to 3 (549 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2017	Slovak Dairy Sheep	Parity 1 to 3 (1.167 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Slovak Dairy Sheep	Parity 1 to 3 (1.211 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2017	Tsigai	Parity 1 to 3 (1.686 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Tsigai	Parity 1 to 3 (1.760 ewes)	AC	Yes	Yes		Lactose

Table 3 - Optional tests for milk composition

Country	Year	Breed or population (Name)	Categories or classes of age or parity concerned	Method used for recording milk composition[i]	Fat % (Yes/No)	Protein % (Yes/No)	SCC	Other Analysis
Slovak Republic	2017	Valachian	Parity 1 to 3 (18 ewes)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Valachian	Parity 1 to 3 (19 ewes)	AC	Yes	Yes		Lactose
Slovenia	2018	Bovec sheep	All milk recorded ewes	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2017	Bovec sheep	All milk recorded ewes	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2016	Bovec sheep	All ewes: 1.243	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2018	Improved Bovec sheep	All milk recorded ewes	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2017	Improved Bovec sheep	All milk recorded ewes	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2016	Improved Bovec sheep	All ewes: 536	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2018	Istrian Pramenka	All milk recorded ewes	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2017	Istrian Pramenka	All milk recorded ewes	AT4	Yes	Yes	Partly	Lactose, urea
Slovenia	2016	Istrian Pramenka	All ewes: 308	AT4	Yes	Yes	Partly	Lactose, urea
Spain	2016	Carranzana		AT	No	No	No	Dry matter, lactose
Spain	2016	Castellana		AT4	Yes, 6,26	Yes, 5,35	Yes, 581	Dry matter, 17,20%
Spain	2016	Churra		IRM-MilkoScan, Fossomat	Yes	Yes	Yes	Dry matter, urea, ke
Spain	2016	Latxa		AC	Yes, 6,1%	Yes, 5,02%	Yes	Dry matter, lactose
Spain	2016	Manchega		AT	Yes, 7,50%	Yes, 5,70%	Yes	Dry matter, urea
Spain	2016	Merina de Grazalema		AT4	Yes, 7,67%	Yes, 5,86%	Yes, 377.660	Dry matter, lactose

[i] A4, A5, A6, AT, AC , E4, EC, ET (see appendix A of the ICAR regulations for milk recording in sheep). If other method used, please describe it.

Table 4 - Recording of non-milking traits

Country	Year	Breed or population	Traits	Reproductive traits, weights & growths, udder score, longevity	
				On-farm recording (Yes/No)	Breeding evaluation (Yes/No)
Croatia	2018	East Frisian	Reproductive traits and birth weight	Yes	No
Croatia	2017	East Frisian	Reproductive traits and birth weight	Yes	No
Croatia	2016	East Frisian	Reproductive traits and birth weight	Yes	No
Croatia	2018	Istrian Sheep	Reproductive traits and birth weight	Yes	No
Croatia	2017	Istrian Sheep	Reproductive traits and birth weight	Yes	No
Croatia	2016	Istrian Sheep	Reproductive traits and birth weight	Yes	No
Croatia	2018	Lacaune	Reproductive traits and birth weight	Yes	No
Croatia	2017	Lacaune	Reproductive traits and birth weight	Yes	No
Croatia	2016	Lacaune	Reproductive traits and birth weight	Yes	No
Croatia	2018	Paska Sheep	Reproductive traits and birth weight	Yes	No
Croatia	2017	Paska Sheep	Reproductive traits and birth weight	Yes	No
Croatia	2016	Paska Sheep	Reproductive traits and birth weight	Yes	No
Czech Rep. (by CMSCH)	2018	All Breeds	Weight, reproductive traits	Yes	Yes
Czech Rep. (by CMSCH)	2017	All Breeds	Weight, reproductive traits	Yes	Yes
Czech Rep. (by CMSCH)	2016	All Breeds	Weight, reproductive traits	Yes	Yes
France	2018	all breeds	Reproductive traits (all) | udder scoring (Lacaune: 42.536)		
France	2016	all breeds	Reproductive traits (all)		
Italy[1]	2018	All breeds	Udder score, morphological evaluations	Yes	No
Italy[1]	2017	All breeds	Udder score, morphological evaluations	Yes	No
Italy[1]	2016	All breeds	Udder score, morphological evaluation	Yes	No
Portugal (Min. Agric.)	2018	Churra da Terra Quente		No data available	
Portugal (Min. Agric.)	2017	Churra da Terra Quente		No data available	
Portugal (Min. Agric.)	2018	Merina da Beira Baixa	Udder score, prolificity	Yes	No
Portugal (Min. Agric.)	2017	Merina da Beira Baixa	Udder score, prolificity	Yes	No
Portugal (Min. Agric.)	2018	Mondegueira	Birth weight		
Portugal (Min. Agric.)	2017	Mondegueira	Birth weight		
Portugal (Min. Agric.)	2018	Saloia		No data available	
Portugal (Min. Agric.)	2017	Saloia		No data available	
Portugal (Min. Agric.)	2018	Serra da Estrela	Udder score		
Portugal (Min. Agric.)	2017	Serra da Estrela	Udder score		
Slovak Republic	2017	All Breeds	Reproductive traits, weight	Yes	No
Slovak Republic	2016	All Breeds	Reproductive traits, weight	Yes	No

[1] Performed to enroll animals in herdbook

Table 4 - Recording of non-milking traits

Country	Year	Breed or population	Traits	Reproductive traits, weights & growths, udder score, longevity	
				On-farm recording (Yes/No)	Breeding evaluation (Yes/No)
Slovenia	2018	Bovec sheep, Improved Bovec sheep, Istrian Pramenka	litter size, daily gain	Yes	No
Slovenia	2017	Bovec sheep, Improved Bovec sheep, Istrian Pramenka	Litter size, daily gain	Yes	No
Slovenia	2016	Bovec sheep, Improved Bovec sheep, Istrian Pramenka	Litter size, daily gain	Yes	No
Spain	2016	Carranzana	Longevity, prolificity, mortality	Yes	No
Spain	2016	Castellana	Milk production	Yes	Yes
Spain	2016	Churra	Udder score, weights and growths, longevity	Yes (Udder score and longevity)	Yes (Udder score)
Spain	2016	Latxa	Udder score, longevity, prolificity, mortality	Yes	Yes (Udder score)
Spain	2016	Manchega	Udder score, weights and growths, longevity	Yes (Udder score)	Yes (Udder score)
Spain	2016	Merina de Grazalema	Udder score, weights and growths, longevity, Scrapie resistance, morphology of sheep	Yes (Scrapie resistance and morphology)	No

Table 5 - Milk recording equipment used in case of machine milking

Country	Year	Breed or population (Name)	Indicate jars/meter	Name of the manufacturer	Measurement (weight/volume)	Approximate number in use	Notes
Croatia	2018	East Frisian	Jars	Cartel Germany	Volume, Sampler	6	
Croatia	2017	East Frisian	Jars	Cartel Germany	Volume, sampler	6	
Croatia	2016	East Frisian	Jars	Cartel Germany	Volume, sampler	6	
Croatia	2018	Istrian Sheep	Jars	Cartel Germany	Volume, Sampler	16	
Croatia	2017	Istrian Sheep	Jars	Cartel Germany	Volume, sampler	16	
Croatia	2016	Istrian Sheep	Jars	Cartel Germany	Volume, sampler	16	
Croatia	2018	Paska Sheep	Jars	Cartel Germany	Volume, Sampler	20	
Croatia	2017	Paska Sheep	Jars	Cartel Germany	Volume, sampler	20	
Croatia	2016	Paska Sheep	Jars	Cartel Germany	Volume, sampler	20	
Czech Rep. (by CMSCH)	2018	All Breeds		Tru-Test	TRU-TEST MINI		
Czech Rep. (by CMSCH)	2017	All Breeds		Tru-Test	TRU-TEST MINI		
Czech Republic	2016	All Breeds		Tru-Test	TRU-TEST MINI		
France	2018	All Breeds	Jars	Etablissement Gely	Volume / sampler	3.000	MM25SG: few farms equipped. LC-TT: first use in 2018 (10 milkings)
France	2016	All Breeds	Jars	Etablissements Gely	Volume, sampler	3	MM25SG : <3 farms equipped in milk recording
Italy	2018	All breeds	Mibo-Girotech				
Italy	2017	All breeds	Mibo-Girotech				
Italy	2016	All breeds	Mibo-Girotech				
Portugal (Min. Agric.)	2018	Churra da Terra Quente	Not applicable				
Portugal (Min. Agric.)	2017	Churra da Terra Quente	Not applicable				
Portugal (Min. Agric.)	2018	Merina da Beira Baixa	Not applicable				
Portugal (Min. Agric.)	2017	Merina da Beira Baixa	Not applicable				
Portugal (Min. Agric.)	2018	Mondegueira	Not applicable				
Portugal (Min. Agric.)	2017	Mondegueira	Not applicable				
Portugal (Min. Agric.)	2018	Saloia		Trutest	Kg	12	
Portugal (Min. Agric.)	2017	Saloia		Trutest	Kg	12	
Portugal (Min. Agric.)	2018	Serra da Estrela	Jar meter				
Portugal (Min. Agric.)	2017	Serra da Estrela	Jar meter				
Slovak Republic	2017	All Breeds	Fisher Slovakia - Volume	Berango, Milkovis	Volume, sampler no	Berango 170, Milkovis 229	
Slovak Republic	2016	All Breeds	Fisher Slovakia - Volume	Berango, Milkovis	Volume, sampler	Berango 166, Milkovis 141	
Slovenia	2018	Bovec sheep,Improved Bovec sheep,Istrian Pramenka		True test	Weight		

Table 5 - Milk recording equipment used in case of machine milking

Country	Year	Breed or population (Name)	Indicate jars/meter	Name of the manufacturer	Measurement (weight/volume)	Approximate number in use	Notes
Slovenia	2017	Bovec sheep,Improved Bovec sheep,Istrian Pramenka		True Test	Weight		
Slovenia	2016	Bovec sheep,Improved Bovec sheep,Istrian Pramenka		True Test	Weight		
Spain	2016	Carranzana	Meter	Westfalia	Volume, sampler	30	
Spain	2016	Castellana	Meter	Esneder	Volume, sampler	120	
Spain	2016	Churra	Meter	Berango	Volume, sampler	150	
Spain	2016	Latxa	Meter	Westfalia	Volume, sampler	220	
Spain	2016	Manchega	Meter	Delaval, Westfalia	Volume, sampler	1.000	
Spain	2016	Merina de Grazalema	Jar and meter	Tru-Test	Volume, sampler	8	

Table 6 - Breeding programme using artificial insemination

Country	Year	Breed or population	Artificial Insemination		Progeny test			Notes
			Fresh semen	Frozen semen	Selection criteria	AI progeny-tested rams per year	Number of AI per progeny-tested rams	
Croatia	2018		Croatia does not use AI					
Croatia	2017		Croatia does not use AI					
Croatia	2016		Croatia does not use AI					
France	2018	Basco-Béarnaise	16.372	0	0.5 FY + 0.925 PY + 1/14 FC + 1/7 PC (91%)			
France	2016	Basco-Béarnaise	15.201		Milk Yield, Fat and Protein contents (91%)			
France	2018	Corse	7.595	0	MY	19		GEBVs used to choose rams to be progeny-tested
France	2016	Corse	7.234		Milk Yield	24		GEBVs used to choose rams to be progeny-tested
France	2018	Lacaune	432.481	0	0.5 FY + 0.925 PY + 1/16 FC + 1/8 PC (50)			
France	2016	Lacaune	414.538		Milk Yield, Fat and Protein contents (50%)			
France	2018	Manech Tete Noire	6.305	0	0.5 FY + 0.925 PY + 1/16 FC + 1/8 PC (91)			
France	2016	Manech Tete Noire	6.042		Milk Yield, Fat and Protein contents (91%)			
France	2018	Manech Tete Rousse	61.041	0	0.5 FY + 0.925 PY + 1/10 FC + 1/5 PC (83%)			
France	2016	Manech Tete Rousse	61.307		Milk Yield, Fat and Protein contents (91%)			
Italy	2016	Sarda	6.000			15 at least		
Portugal (Min. Agric.)	2018	Churra da Terra Que	No	No				
Portugal (Min. Agric.)	2017	Churra da Terra Que	No	No				

Table 6 - Breeding programme using artificial insemination

Country	Year	Breed or population	Artificial Insemination		Progeny test			Notes
			Fresh semen	Frozen semen	Selection criteria	AI progeny-tested rams per year	Number of AI per progeny-tested rams	
Portugal (Min. Agric.)	2018	Merina da Beira Bai	No	No				
Portugal (Min. Agric.)	2017	Merina da Beira Bai	No	No				
Portugal (Min. Agric.)	2018	Mondegueira	No	No				
Portugal (Min. Agric.)	2017	Mondegueira	No	No				
Portugal (Min. Agric.)	2018	Saloia	No	No				
Portugal (Min. Agric.)	2017	Saloia	No	No				
Portugal (Min. Agric.)	2018	Serra da Estrela	Yes	No	Progeny-test	6		
Portugal (Min. Agric.)	2017	Serra da Estrela	Yes	No	Progeny-test	6		
Slovenia	2018	All recorded breeds	No	No				AI is Not in use.
Slovenia	2017	All recorded breeds	No	No				AI is Not in use.
Slovenia	2016	All recorded breeds	No	No				AI is Not in use.
Spain	2016	Carranzana	119	No	Milk production	1	120	
Spain	2016	Castellana	253	No	Milk production	1	125	
Spain	2016	Churra	5.199	119	Milk production and sheep morphology	25	170	
Spain	2016	Latxa	22.195	No	Milk production and composition, Udder score	82	120	
Spain	2016	Manchega	32.108	No	Test Day, TSE resistance, Udder score	399	200	
Spain	2016	Merina de Grazalema	70	No	Milk production and cheese yield	40	10	

Table 7 - Molecular information

Country	Year	Breed or population	Type of genotyping[a]	Number of analysis, Number of flocks involved	Use in experimental program	Effective use in selection program
Croatia	2018	Istrian Sheep	Samples have been collected but none was analyzed			
Croatia	2017	Istrian Sheep	Samples have been collected but none was analyzed			
Croatia	2016	Istrian Sheep	Samples have been collected but none was analyzed			
Croatia	2018	Paska Sheep	Samples have been collected but none was analyzed			
Croatia	2017	Paska Sheep	Samples have been collected but none was analyzed			
Croatia	2016	Paska Sheep	Samples have been collected but none was analyzed			
Czech Rep. (by CMSCH)	2018	All Breeds	PrP			Yes
Czech Rep. (by CMSCH)	2017	All Breeds	PrP			Yes
Czech Rep. (by CMSCH)	2016	All Breeds	PrP			Yes
France	2018	Basco-Béarnaise	OvineBeadChip 54k and 15k	220 rams		Yes
France	2018	Basco-Béarnaise	PrP	1.366 rasm and ewes		Yes
France	2016	Basco-Béarnaise	PrP	1.279 rams and ewes		Yes
France	2018	Corse	OvineBeadChip 54k	1.99 rams		Yes
France	2018	Corse	PrP	1.931 rams and ewes		Yes
France	2016	Corse	PrP	1.863 rams and ewes		Yes
France	2016	Corse	OvineBeadChip 54k Illumina	118		Yes
France	2018	Lacaune	OvineBeadChip 54k and 15k	2.736 rams		Yes
France	2018	Lacaune	PrP	6.624 rams		Yes
France	2016	Lacaune	PrP	6.169 rams		Yes
France	2016	Lacaune	OvineBeadChip 54k Illumina	2.376		Yes
France	2018	Manech Tete Noire	OvineBeadChip 54k and 15k	86 rams		Yes
France	2018	Manech Tete Noire	PrP	705 rams and ewes		Yes
France	2016	Manech Tete Noire	PrP	1,034 rams and ewes		Yes
France	2018	Manech Tete Rousse	PrP	2849 rams and ewes		Yes
France	2018	Manech Tete Rousse	OvineBeadChip 54k and 15k	577 rams		Yes
France	2016	Manech Tete Rousse	PrP	2,632 rams and ewes		Yes
Italy	2016	All	Scrapie			
Portugal (Min. Agric.)	2018	Churra da Terra Quente	Not applicable			
Portugal (Min. Agric.)	2017	Churra da Terra Quente	not applicable			
Portugal (Min. Agric.)	2018	Merina da Beira Baixa	Scrapie	477 analysis, 14 flocks	no	Yes
Portugal (Min. Agric.)	2017	Merina da Beira Baixa	not applicable			
Portugal (Min. Agric.)	2018	Mondegueira	Not applicable			
Portugal (Min. Agric.)	2017	Mondegueira	Not applicable			

Table 7 - Molecular information

Country	Year	Breed or population	Type of genotyping[a]	Number of analysis, Number of flocks involved	Use in experimental program	Effective use in selection program
Portugal (Min. Agric.)	2018	Saloia				Yes
Portugal (Min. Agric.)	2017	Saloia				Yes
Portugal (Min. Agric.)	2018	Serra da Estrela	Lactoglobolin			
Portugal (Min. Agric.)	2017	Serra da Estrela	No data available			
Slovak Republic	2017	All Breeds	PrP genotyping	1432 analysis		Yes
Slovak Republic	2016	All Breeds	PrP genotyping	3767 analysis		Yes
Slovenia	2018	All recorded breeds	PrP genotyping			Yes
Slovenia	2017	All recorded breeds	PRP genotyping			Yes
Slovenia	2016	All recorded breeds	PRP genotyping			Yes
Spain	2016	Carranzana	PNRP and Filiation test (20 markers)	PNRP: 18 analysis in 8 flocks		
Spain[1]	2016	Castellana	PNRP	36 analysis in 5 flocks	No	Yes
Spain	2016	Churra	PNRP and Filiation test	PNRP: 479 analysis in 46 flocks		
Spain	2016	ColmenareÃ±a	Filiation test	291 analysis in 28 flocks	No	Yes
Spain	2016	Latxa	PNRP and Filiation test (20 markers)	PNRP: 3240 analysis in 155 flocks		
Spain	2016	Manchega	PNRP and Filiation test (19-21 markers)	PNRP: 3056 analysis-100 flocks		
Spain	2016	Merina de Grazalema	PNRP and Filiation test (19 markers)	PNRP: 47analysis-22 flocks		
Spain	2016	Rubia del Molar	Filiation test	122 analysis in 9 flocks	No	Yes

[a] Every kind of genotyping:
Filiation tests (precise number of markers),
PrP genotyping,
Protein (precise : αs1casein, β lactoglobulin ...),
Markers for QTL detection program,
Markers for MAS,
Other (precise)

1 transitoire

Goat Survey (Years 2016, 2017 and 2018)

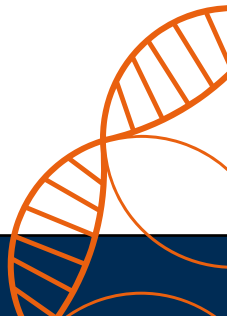


Table 1a - Milk recording and management of the lactation

GOAT SURVEY

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes in milk recording [a]	Recorded flocks [b] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes [a] in D recording [1]
Canada	2016	All breeds			32	6.098					
Croatia	2018	Alpine	300	15.000	50	3.295	2	28			
Croatia	2017	Alpine	300	15.000	49	3.063	2	28			
Croatia	2016	Alpine	300	15.000	56	3.302	2	28	95		
Croatia	2018	Saanen	50	3.000	20	673	2	30			
Croatia	2017	Saanen	50	3.000	16	659	2	45			
Croatia	2016	Saanen	50	3.000	14	476	2	54	100		
Czech Republic	2018	All Breeds				6.093					
Czech Republic	2017	All Breeds				6.104					
Czech Republic	2016	All Breeds				5.755					
France	2018	Alpine	1.188	164.749	1.154	151.439					
France	2017	Alpine	1.147	159.904	1.123	144.685					
France	2016	Alpine	1.165	169.685	1.134	151.566					
France	2018	Poitevine	30	614	29	588					
France	2017	Poitevine	30	572	27	473					
France	2016	Poitevine	32	595	28	503					
France	2018	Saanen	839	108.143	817	96.368					
France	2017	Saanen	840	111.184	815	97.792					
France	2016	Saanen	863	119.256	836	104.409					
Italy	2016	Argentata dell' Etna			30	873	2	40			
Italy	2016	Bianca Monticelliana			13	352	2	40			
Italy	2017	Bionda adamello			7	148	2	40			
Italy	2017	Camosciata delle Alpi			239	11.302	2	40			
Italy	2016	Camosciata delle Alpi			242	11.128	2	40			
Italy	2016	Ciciara grigia			11	108	2	40			
Italy	2016	Cilentana Fulva			31	2.141	2	40			
Italy	2016	Cilentana Grigia			85	8.615	2	40			

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes in milk recording [a]	Recorded flocks [b] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes [a] in D recording [1]
Italy	2017	Ciociara Grigia			9	110	2	40			
Italy	2016	Di Montecristo			43	1.518	2	40			
Italy	2017	Frisa Valtellinese			4	48	2	40			
Italy	2017	Garganica			7	32	2	40			
Italy	2017	Girgentana			16	382	2	40			
Italy	2016	Girgentana					2	40			
Italy	2017	Jonica			3	71		2	40		
Italy	2016	Jonica			5	186	2	40			
Italy	2017	Maltese			20	902	2	40			
Italy	2016	Maltese			29	1.097	2	40			
Italy	2016	Murciana			17	1.539	2	40			
Italy	2017	Orobica			7	79	2	40			
Italy	2016	Orobica			18	160	2	40			
Italy	2017	Roccaverano			8	168	2	40			
Italy	2016	Roccaverano			7	161	2	40			
Italy	2017	Rossa Mediterranea			4	79	2	40			
Italy	2017	Saanen			212	14.094	2	40			
Italy	2016	Saanen			229	13.749	2	40			
Italy	2017	Sarda			136	14.649	2	40			
Italy	2016	Sarda			146	16.188	2	40			
Italy	2016	Sarda Primitiva			13	309	2	40			
Italy	2017	Toggenburg			1	2	2	40			
Italy	2017	Verzaschese			3	61	2	40			
Italy	2016	Verzaschese			6	169	2	40			
Latvia	2018	All breeds	1.280	5.062	21	1.251					
Latvia	2017	All breeds	1.351	5.209	21	1.308					
Latvia	2016	All breeds	1.361	4.015	19	988					
Portugal (Min. Agric.)	2018	Algarvia	55	3.514	11	406	2	60	0		
Portugal (Min. Agric.)	2017	Algarvia	55	3.682	12	654	2	60	0		

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes in milk recording [a]	Recorded flocks [b] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes [a] in D recording [1]
Portugal (Min. Agric.)	2018	Charnequeira	44	3.568	4	156	2	60	0		
Portugal (Min. Agric.)	2017	Charnequeira	45	3.598	10	178	2	60	0		
Portugal (Min. Agric.)	2018	Preta de Montesinho	34	1.418	13	165	2	60	0		
Portugal (Min. Agric.)	2017	Preta de Montesinho	38	1.187	15	268	2	60	7		
Portugal (Min. Agric.)	2018	Serpentina	49	5.610	13	2.335	2	60	72		
Portugal (Min. Agric.)	2017	Serpentina	42	5.445	16	2.040	2	60	67		
Portugal (Min. Agric.)	2018	Serrana	205	16.774	135	4.709	2	60	28		
Portugal (Min. Agric.)	2017	Serrana	217	16.757	156	9.215	2	60	24		
Serbia [1]	2017	Alpine	4.648	7.923	4.050		Intensive	50	100		
Serbia [1]	2016	Alpine	117	3.585	39	1.987	Intensive	45	100	39	1987
Serbia [1]	2017	Saanen	367	1.025	254		Intensive	45	100		
Serbia	2016	Saanen	4	452	2	249	Intensive	45	100	2	249
Slovak Republic	2017	Alpine			1	7	2	40			
Slovak Republic	2016	Alpine			1	7	2	40			

[1] Data relating to the region AP Vojvodina in Serbia

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes in milk recording [a]	Recorded flocks [b] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes [a] in D recording [1]
Slovak Republic	2017	Anglo Nubian			4	9	2	40			
Slovak Republic	2016	Anglo Nubian			5	14	2	40			
Slovak Republic	2017	Brown Shorthaired Goat			4	34	2	40			
Slovak Republic	2016	Brown Shorthaired Goat			3	26	2	40			
Slovak Republic	2017	Saanen			1	2	2	40			
Slovak Republic	2016	Saanen			1	1	2	40			
Slovak Republic	2017	White Shorthaired Boat			4	188	2	40			
Slovak Republic	2016	White Shorthaired Goat			4	195	2	40			
Slovenia	2018	Drežnica goat		165		165	2		100		
Slovenia	2017	Drežnica goat			12	158	2	41	100		
Slovenia	2016	Drežnica goat			14	136	2	55	100		
Slovenia	2018	Slovenian Alpine goat		585		585	1 and 2		100		
Slovenia	2017	Slovenian Alpine goat			19	618	1 and 2	33	100		
Slovenia	2016	Slovenian Alpine goat			24	616	1 and 2	43	100		
Slovenia	2018	Slovenian Saanen goat		398		398	1 and 2		100		
Slovenia	2017	Slovenian Saanen goat			11	388	1 and 2	29	100		
Slovenia	2016	Slovenian Saanen goat			13	378	1 and 2	19	100		
Spain	2016	Florida			45	14.676	lking from kidding		100		

Table 1a - Milk recording and management of the lactation

Country	Year	Breed or population (Name)	Number of flocks in the population	Number of ewes in the population	Number of flocks in milk recording	Number of ewes in milk recording [a]	Recorded flocks [b] (1) milking after suckling period	If system (2). Average length of the suckling period (in days)	Percentage of official recorded flocks in machine milking	Number of flocks in D recording	Number of ewes [a] in D recording [1]
Spain	2016	Guadarrama			30	9.524	2) Milking after a suckling period	35	94		
Spain	2016	Majorera	62	9.664	15	800	1) Milking om kidding (54%) 2)Milking after a suckling eriod (46%)	40			
Spain	2016	Malagueña			48	17.934	1) Milking rm kidding		100		
Spain	2016	Palmera					2) Milking after a suckling period	30	100		
Spain	2016	Payoya	40	9.200	22	7.358	2) Milking after a suckling period	45	100		
Spain	2016	Tinerfeña	74	11.653	11	534	2) Milking after a suckling period	45	0		
Spain	2016	Verata	32	8.850	9	4.819	2) Milking after a suckling period	35	100		

[a] Inventory at lambing in case of one lambing per year or inventory at a fixed date in the other cases

[b] Answer (1) or (2), if only one system is used (per breed or in the country) as regards lactation ; or percentage of ewes in system (1) and system (2), if used simultaneously.

Table 1b - Methods of milk recording

Country	Year	Breed or population (Name)	Percentage of A4, A5, A6, B4, B5, B6, C4, C5, C6 (precise if necessary) [a]	Percentage of AT , BT, CT (precise if necessary) [a]	Percentage of AC, BC, CC (precise if necessary) [a]	Percentage of E4, E5, E6, ET, EC (precise if necessary) [a]
Croatia	2018	Alpine	B4: 19	AT: 82		
Croatia	2017	Alpine	B4: 18	AT: 82		
Croatia	2016	Alpine	B4: 18	AT: 82		
Croatia	2018	Saanen	B4: 32,51%	AT: 68		
Croatia	2017	Saanen	B4: 26	AT: 74		
Croatia	2016	Saanen	B4: 33	AT: 67		
Czech Republic	2018	All Breeds		AT		ET
Czech Republic	2017	All Breeds		AT		ET
Czech Republic	2016	All Breeds				
Italy	2016	All breeds		100		
Latvia	2018	All breeds	100			
Latvia	2017	All breeds	100			
Latvia	2016	All breeds	100			
Portugal (Min. Agric.)	2018	Algarvia	A4:71	AT: 29		
Portugal (Min. Agric.)	2017	Algarvia	A4: 64	AT: 36		
Portugal (Min. Agric.)	2018	Charnequeira	A4: 100			
Portugal (Min. Agric.)	2017	Charnequeira	A4: 100			
Portugal (Min. Agric.)	2018	Preta de Montesinho	A4: 99	AT: 1		
Portugal (Min. Agric.)	2017	Preta de Montesinho	A4: 97	AT: 3		
Portugal (Min. Agric.)	2018	Serpentina	A4: 17	AT: 83		
Portugal (Min. Agric.)	2017	Serpentina	A4: 18	AT: 82		
Portugal (Min. Agric.)	2018	Serrana	A4: 88	AT: 12		
Portugal (Min. Agric.)	2017	Serrana	A4: 95	AT: 6		
Serbia [1]	2017	Alpine		AT: 4		
Serbia [1]	2016	Alpine		AT: 4		
Serbia [1]	2017	Saanen		AT: 4		
Serbia [1]	2016	Saanen		AT: 4		

[1] Data relating to the region AP Vojvodina in Serbia

Table 1b - Methods of milk recording

Country	Year	Breed or population (Name)	Percentage of A4, A5, A6, B4, B5, B6, C4, C5, C6 (precise if necessary) [a]	Percentage of AT , BT, CT (precise if necessary) [a]	Percentage of AC, BC, CC (precise if necessary) [a]	Percentage of E4, E5, E6, ET, EC (precise if necessary) [a]
Slovak Republic	2017	All Breeds			AC: 100	
Slovak Republic	2016	Alpine			AC: 100	
Slovak Republic	2016	Anglo Nubian			AC: 100	
Slovak Republic	2016	Brown Shorthaired Goat			AC: 100	
Slovak Republic	2016	Saanen			AC: 100	
Slovak Republic	2016	White Shorthaired Goat			AC: 100	
Slovenia	2018	Drežnica goat		AT4: 100		
Slovenia	2017	Drežnica goat		AT4: 100		
Slovenia	2016	Drežnica goat		AT4: 100		
Slovenia	2018	Slovenian Alpine goat		AT4: 100		
Slovenia	2017	Slovenian Alpine goat		AT4: 100		
Slovenia	2016	Slovenian Alpine goat		AT4: 100		
Slovenia	2018	Slovenian Saanen goat		AT4: 100		
Slovenia	2017	Slovenian Saanen goat		AT4: 100		
Slovenia	2016	Slovenian Saanen goat		AT4: 100		
Spain	2016	Florida	A4: 6			
Spain	2016	Guadarrama	A6: 90	AT6: 10		
Spain [2]	2016	Majorera	A6: 100			
Spain	2016	Malagueña	A4: 60			
Spain	2016	Palmera	A6		100	
Spain	2016	Payoya	A4: 61			
Spain [2]	2016	Tinerfeña	A6: 100			
Spain	2016	Verata	20	80		

[a] See the definition of official milk recording method on the ICAR website (www.icar.org) in the part dedicated to the milk recording of sheep WG : “Recording guidelines”, Section 2.2

[2] One milking per day

Table 2a - Type of lactation calculation for milk yield

Country	Year	Breed or population (Name)	TSMM2 (Yes/No)	TMM3 (Yes/No)	TMY4 (Yes/No)	TSMM1(Yes/No)	TMM2 (Yes/No) If yes, standard length (days)	TMY3 (Yes/No) If yes, standard length (days)
Croatia	2018	Alpine	Yes	Yes	No	No	No	No
Croatia	2017	Alpine	Yes	Yes	No	No	No	No
Croatia	2016	Alpine	Yes	Yes	Yes	No	No	No
Croatia	2018	Saanen	Yes	Yes	No	No	No	No
Croatia	2017	Saanen	Yes	Yes	No	No	No	No
Croatia	2016	Saanen	Yes	Yes	Yes	No	No	No
Czech Republic	2018	All Breeds	No data available					
Czech Republic	2017	All Breeds	No data available					
Czech Republic	2016	All Breeds	No data available					
France	2018	Alpine	No	No	Yes	No		
France	2017	Alpine	No	No	Yes	No		
France	2016	Alpine	No	No	Yes	No		
France	2018	Poitevine	No	No	Yes	No		
France	2017	Poitevine	No	No	Yes	No		
France	2016	Poitevine	No	No	Yes	No		
France	2018	Saanen	No	No	Yes	No		
France	2017	Saanen	No	No	Yes	No		
France	2016	Saanen	No	No	Yes	No		
Italy	2016	All breeds	Yes	Yes	No	Yes	Yes	No
Latvia	2018	All breeds	No	No	Yes			Yes. 350
Latvia	2017	All breeds	No	No	Yes			Yes. 305
Latvia	2016	All breeds	No	No	Yes			Yes. 305
Portugal (Min. Agric.)	2018	Algarvia	No	Yes	No	No	90	
Portugal (Min. Agric.)	2017	Algarvia	No	Yes	No	No	90	
Portugal (Min. Agric.)	2018	Charnequeira	No	Yes	No	No	90	
Portugal (Min. Agric.)	2017	Charnequeira	No	Yes	No	No	90	
Portugal (Min. Agric.)	2018	Preta de Montesinho	No	Yes	No	No	90	
Portugal (Min. Agric.)	2017	Preta de Montesinho	No	Yes	No	No	90	
Portugal (Min. Agric.)	2018	Serpentina	No	Yes	No	No	120	
Portugal (Min. Agric.)	2017	Serpentina	No	Yes	No	No	120	
Portugal (Min. Agric.)	2018	Serrana	No	Yes	No	No	90	

Table 2a - Type of lactation calculation for milk yield

Country	Year	Breed or population (Name)	TSMM2 (Yes/No)	TMM3 (Yes/No)	TMY4 (Yes/No)	TSMM1(Yes/No)	TMM2 (Yes/No) If yes, standard length (days)	TMY3 (Yes/No) If yes, standard length (days)
Portugal (Min. Agric.)	2017	Serrana	No	Yes	No	No	90	
Serbia [1]	2017	Alpine	Yes	Yes	Yes	Yes	207.09	207.09
Serbia [1]	2016	Alpine	Yes	Yes	Yes	Yes	240	240
Serbia [1]	2017	Saanen	Yes	Yes	Yes	Yes	289.5	289.5
Serbia [1]	2016	Saanen	Yes	Yes	Yes	Yes	240	240
Slovak Republic	2017	All Breeds	No	Yes	No	No	Yes. 240	
Slovak Republic	2016	Alpine	No	Yes	No	No	Yes. 240	
Slovak Republic	2016	Anglo Nubian	No	Yes	No	No	Yes. 240	
Slovak Republic	2016	Brown Shorthaired Goat	No	Yes	No	No	Yes. 240	
Slovak Republic	2016	Saanen	No	Yes	No	No	Yes. 240	
Slovak Republic	2016	White Shorthaired Goat	No	Yes	No	No	Yes. 240	
Slovenia	2018	Drežnica goat	Yes	Yes	Yes	No	No	No
Slovenia	2017	Drežnica goat	Yes	Yes	Yes	No	No	No
Slovenia	2016	Drežnica goat	Yes	Yes	Yes	No	No	No
Slovenia	2018	Slovenian Alpine goat	Yes	Yes	Yes	No	No	No
Slovenia	2017	Slovenian Alpine goat	Yes	Yes	Yes	No	No	No
Slovenia	2016	Slovenian Alpine goat	Yes	Yes	Yes	No	No	No
Slovenia	2018	Slovenian Saanen goat	Yes	Yes	Yes	No	No	No
Slovenia	2017	Slovenian Saanen goat	Yes	Yes	Yes	No	No	No
Slovenia	2016	Slovenian Saanen goat	Yes	Yes	Yes	No	No	No
Spain	2016	Florida	No	No	Yes	No	No	Yes. 273,71
Spain	2016	Guadarrama	No	Yes	No	No	Yes	No
Spain [2]	2016	Majorera	Yes	No	Yes	Yes		Yes, 210
Spain	2016	Malagueña	No	Yes	Yes	No	Yes	Yes
Spain	2016	Palmera	No	Yes	No		Yes, 150 (Yearlings), 210 (Adults)	
Spain	2016	Payoya	No	Yes	No	No	Yes, 150 (Yearlings), 210 (Adults)	No
Spain [2]	2016	Tinerfeña	Yes	No	No	Yes		Yes, 210

[1] Data relating to the region AP Vojvodina in Serbia

[2] Standard milk yields used in genetic evaluation

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Croatia	2018	Alpine	590	779	722
Croatia	2017	Alpine	583	776	718
Croatia	2016	Alpine	539	731	678
Croatia	2018	Saanen	661	843	774
Croatia	2017	Saanen	643	668	651
Croatia	2016	Saanen	520	687	633
Czech Republic	2018	All Breeds			836
Czech Republic	2017	All Breeds			799
Czech Republic	2016	All Breeds			847
France [1]	2018	Alpine	866 (321 days)	979 (309 days)	942 (313 days)
France [1]	2017	Alpine	857 (316 days)	968 (303 days)	933 (307 days)
France [1]	2016	Alpine	856 (308 days)	964 (294 days)	929 (298 days)
France [1]	2018	Poitevine	332 (257 days)	573 (273 days)	534 (270 days)
France [1]	2017	Poitevine	392 (299 days)	563 (270 days)	539 (275 days)
France [1]	2016	Poitevine	406 (269 days)	569 (264 days)	530 (257 days)
France [1]	2018	Saanen	1029 (354 days)	1001 (317 days)	1010 (330 days)
France [1]	2017	Saanen	1011 (344 days)	985 (309 days)	994 (321 days)
France [1]	2016	Saanen	1000 (337 days)	977 (297 days)	985 (311 days)
Italy	2016	Argentata dell etna	113	133	131
Italy	2016	Bianca Monticelliana	158	172	171
Italy	2016	Camosciata delle Alpi	527	558	516
Italy	2016	Capestrina	174	168	168
Italy	2016	Cilentana Fulva	168	166	166
Italy	2016	Cilentana Grigia	319	303	292
Italy	2016	Ciociara Grigia	159	158	158
Italy	2016	Di Montecristo	136	141	140
Italy	2016	Di Teramo	203	144	143
Italy	2016	Girgentana	309	355	333
Italy	2016	Jonica	223	241	240
Italy	2016	Maltese	283	362	354
Italy	2016	Murciana	314	418	379
Italy	2016	Orobica	280	318	317
Italy	2016	Roccaverano	405	446	437
Italy	2016	Saanen	509	584	532
Italy	2016	Sarda	177	199	196
Italy	2016	Sarda Primitiva		190	178
Italy	2016	Verzaschese	163	240	222
Latvia [2]	2018	All breeds			506

[1] Units expressed in Kg

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Latvia [2]	2017	All breeds			481
Latvia [2]	2016	All Breeds			539
Portugal (Min. Agric.)	2018	Algarvia	182	203	
Portugal (Min. Agric.)	2017	Algarvia	114	181	
Portugal (Min. Agric.)	2018	Charnequeira	72	130	
Portugal (Min. Agric.)	2017	Charnequeira	124	138	
Portugal (Min. Agric.)	2018	Preta de Montesinho	49	93	
Portugal (Min. Agric.)	2017	Preta de Montesinho	66	100	
Portugal (Min. Agric.)	2018	Serpentina	90	137	
Portugal (Min. Agric.)	2017	Serpentina	106	151	
Portugal (Min. Agric.)	2018	Serrana	153	142	
Portugal (Min. Agric.)	2017	Serrana	153	209	
Serbia [3]	2017	Alpine	598	3.213	3.811
Serbia [3]	2016	Alpine	1.258	2.827	3.585
Serbia [3]	2017	Saanen	113	302	415
Serbia [3]	2016	Saanen	189	263	452
Slovak Republic	2017	Alpine			654
Slovak Republic	2016	Alpine			947
Slovak Republic	2017	Anglo Nubian			773
Slovak Republic	2016	Anglo Nubian			835
Slovak Republic	2017	Brown Shorthaired Goat			620
Slovak Republic	2016	Brown Shorthaired Goat			538
Slovak Republic	2017	Saanen			633
Slovak Republic	2016	Saanen			569
Slovak Republic	2017	White Shorthaired Goat			453
Slovak Republic	2016	White Shorthaired Goat			639
Slovenia	2018	Drežnica goat			TSMM 363 kg, TMM 252 kg, suckled 111 kg, lactation lenght 208 days
Slovenia	2017	Drežnica goat			TSMM 363 kg, TMM 252 kg, suckled 111 kg, lactation lenght 208 days
Slovenia	2016	Drežnica goat			TSMM 358 kg, TMM 255 kg, suckled 103 kg, lactation lenght 199 days
Slovenia	2018	Slovenian Alpine Goat			TSMM 461 kg, TMM 379 kg, suckled 81 kg, lactation lenght 244 days
Slovenia	2017	Slovenian Alpine Goat			TSMM 488 kg, TMM 409 kg, suckled 78 kg, lactation lenght 238 days
Slovenia	2016	Slovenian Alpine Goat			TSMM 444 kg, TMM 360 kg, suckled 84 kg, lactation lenght 243 days

[2] Units expressed in Kg

[3] Data relating to the region AP Vojvodina in Serbia

Table 2b - Milk yield results

Country	Year	Breed or population (Name)	Yearlings [a]	Adults [b]	All ewes
Slovenia	2018	Slovenian Alpine Goat			TSMM 513 kg, TMM 430 kg, suckled 83 kg, lactation lenght 225 days
Slovenia	2017	Slovenian Alpine Goat			TSMM 471 kg, TMM 415 kg, suckled 56 kg, lactation lenght 257 days
Slovenia	2016	Slovenian Alpine Goat			TSMM 498 kg, TMM 465 kg, suckled 33 kg, lactation lenght 242 days
Spain [4]	2016	Florida	495	707	635
Spain [4]	2016	Guadarrama	312	521	468
Spain [4]	2016	Majorera	479	640	559
Spain [4]	2016	Malagueña	404	609	521
Spain [4]	2016	Palmera	257	505	381
Spain [4]	2016	Payoya	255	406	331
Spain [4]	2016	Tinerfeña	483	570	540
Spain [4]	2016	Verata	196	258	227

[a] Yearling : 12-18 month-old
[b] Adults : >18 month-old

[4] Units expressed in Kg

Table 3 - Optional tests for milk composition

Country	Year	Breed or population (Name)	Categories or classes of age or parity concerned	Method used for recording milk composition [a]	Fat (Yes, % - No)	Protein (Yes, % - No)	SCC	Other analysis
Croatia	2018	Alpine	3.295	AT, B4	Yes, 3,36	Yes, 3,03	Yes	Lactose
Croatia	2017	Alpine	3.063	AT, B4	Yes, 3,37	Yes, 3,01	Yes	Lactose
Croatia	2016	Alpine	3.302	AT, B4	Yes, 3,33	Yes, 3,02	Yes	Lactose
Croatia	2018	Saanen	673	AT, B4	Yes, 3,62	Yes, 3,01	Yes	Lactose
Croatia	2017	Saanen	659	AT, B4	Yes, 3,80	Yes, 2,96	Yes	Lactose
Croatia	2016	Saanen	476	AT, B4	Yes, 3,78	Yes, 2,99	Yes	Lactose
Czech Republic	2018	All Breeds		AT, ET	Yes	Yes	Yes	
Czech Republic	2017	All Breeds		AT, ET	Yes	Yes	Yes	
Czech Republic	2016	All Breeds			Yes	Yes	Yes	
France	2018	All breeds	All	MIR	Yes	Yes	Yes	
France	2017	All breeds	All	MIR	Yes	Yes	Yes	
France	2016	All breeds	All	MIR	Yes	Yes	Yes	
Italy	2016	Bianca Monticelliana	All	AT	4.08	3,5		
Italy	2016	Camosciata delle Alpi	All	AT	3,52	3,38		
Italy	2016	Capestrina	All	AT	4,08	3,58		
Italy	2016	Cilentana Fulva	All	AT	4,52	3,68		
Italy	2016	Cilentana Grigia	All	AT	4,49	3,67		
Italy	2016	Di Montecristo	All	AT	4,37	3,64		
Italy	2016	Girgentana	All	AT	3,40	3,19		
Italy	2016	jonica	All	AT	3,44	3,41		
Italy	2016	Maltese	All	AT	3,47	3,49		
Italy	2016	Murciana	All	AT	4,65	3,84		
Italy	2016	Orobica	All	AT	3,10	3,09		
Italy	2016	Roccaverano	All	AT	3,58	3,45		
Italy	2016	Saanen	All	AT	3,36	3,29		
Italy	2016	Sarda	All	AT	4,67	4,27		
Italy	2016	Verzaschese	All	AT	3,43	3,07		
Latvia	2018	All breeds		A4	Yes	Yes	No	
Latvia	2017	All breeds		A4	Yes	Yes	No	
Latvia	2016	All breeds		A4	Yes	Yes		
Portugal (Min. Agric.)	2018	Algarvia	No data available		5,87	3,78		
Portugal (Min. Agric.)	2017	Algarvia	No data available					
Portugal (Min. Agric.)	2018	Charnequeira	No data available	A4	4,9	7,7		
Portugal (Min. Agric.)	2017	Charnequeira	No data available	A4	5,1	3,4		

Table 3 - Optional tests for milk composition

Country	Year	Breed or population (Name)	Categories or classes of age or parity concerned	Method used for recording milk composition [a]	Fat (Yes, % - No)	Protein (Yes, % - No)	SCC	Other analysis
Portugal (Min. Agric.)	2018	Preta de Montesinho	No data available					
Portugal (Min. Agric.)	2017	Preta de Montesinho	No data available					
Portugal (Min. Agric.)	2018	Serpentina	No data available					
Portugal (Min. Agric.)	2017	Serpentina	No data available					
Portugal (Min. Agric.)	2018	Serrana	No data available					
Portugal (Min. Agric.)	2017	Serrana	No data available					
Serbia [1]	2017	Alpine	3.811		3,49	3,03		
Serbia [1]	2016	Alpine	2.327	FTIR	FTIR	FTIR	Flow citometry	
Serbia [1]	2017	Saanen	415		3.44	2,85		
Serbia [1]	2016	Saanen	263	FTIR	FTIR	FTIR	Flow citometry	
Slovak Republic	2017	Alpine	Parity 1 to 3, (7 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Alpine	Parity 1 to 3, (7 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2017	Anglo Nubian	Parity 1 to 3, (9 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Anglo Nubian	Parity 1 to 3 (14 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2017	Brown Shorthaired Goat	Parity 1 to 3, (34 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Brown Shorthaired Goat	Parity 1 to 3 (26 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2017	Saanen	Parity 1 to 3, (2 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2016	Saanen	Parity 1 to 3, (4 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2017	White Shorthaired Goat	Parity 1 to 3, (188 goats)	AC	Yes	Yes		Lactose
Slovak Republic	2016	White Shorthaired Goat	Parity 1 to 3, (195 goats)	AC	Yes	Yes		Lactose

[1] Data relating to the region AP Vojvodina in Serbia

Table 3 - Optional tests for milk composition

Country	Year	Breed or population (Name)	Categories or classes of age or parity concerned	Method used for recording milk composition [a]	Fat (Yes, % - No)	Protein (Yes, % - No)	SCC	Other analysis
Slovenia	2018	DreÅ¾nica goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Slovenia	2017	DreÅ¾nica goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Slovenia	2016	DreÅ¾nica goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Slovenia	2018	Slovenian Alpine goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Slovenia	2017	Slovenian Alpine Goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Slovenia	2016	Slovenian Alpine goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Slovenia	2018	Slovenian Saanen goat	All milk recorded does	AT4	Yes	Yes	Partly	latose, urea
Slovenia	2017	Slovenian Saanen Goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Slovenia	2016	Slovenian Saanen Goat	All milk recorded does	AT4	Yes	Yes	Partly	lactose, urea
Spain	2016	Florida		A4, AT4, A6, AT6	Yes, 4,87	Yes, 3,46	Yes, 1.232 cells/ml	Dry matter
Spain	2016	Guadarrama		AT6	Yes, 4,89	Yes, 3,61	Yes, 173.550	
Spain	2016	Majorera		A6	Yes, 4,60	Yes, 3,98	No	Dry matter, lactose
Spain	2016	Malagueña		A4, A6, AT	Yes, 4,7	Yes, 3,7	Yes, 1.097.000	Dry matter, lactose
Spain	2016	Palmera		A6	Yes, 5,04	Yes, 4,44	No	
Spain	2016	Payoya		A4, A6	Yes, 4,5	Yes, 3,5	Yes, 1.313	Dry matter, lactose
Spain	2016	Tinerfeña		A6	Yes, 4,79	Yes, 3,98	No	Dry matter, lactose
Spain	2016	Verata		A4	Yes, 4,75	Yes, 3,63	Yes, 1.102 million	Dry matter, lactose

[a] A4, A5, A6, AT, AC , E4, EC, ET (see appendix A of the ICAR regulations for milk recording in sheep). If other method used, please describe it.

Table 4 - Recording of non-milking traits

Country	Year	Breed or population	Traits	Reproductive traits, weights & growths, udder score, longevity	
				On-farm recording (Yes/No)	Breeding evaluation (Yes/No)
Croatia	2018	Alpine	Reproductive traits and birth weight	Yes	No
Croatia	2017	Alpine	Reproductive traits and birth weight	Yes	No
Croatia	2016	Alpine	Reproductive traits and birth weight	Yes	No
Croatia	2018	Saanen	Reproductive traits and birth weight	Yes	No
Croatia	2017	Saanen	Reproductive traits and birth weight	Yes	No
Croatia	2016	Saanen	Reproductive traits and birth weight	Yes	No
Czech Republic	2018	All Breeds	Weight, reproductive traits	Yes	
Czech Republic	2017	All Breeds	Weight, reproductive traits	Yes	
Czech Republic	2016	All Breeds	Weight, reproductive traits	Yes	
Italy	2016	Camosciata delle Alpi, Saanen	Linear Evaluation	Yes	Yes
Latvia	2018	All breeds	Udder score	Yes	No
Latvia	2017	All breeds	Udder score	Yes	No
Latvia	2016	All breeds	Udder score	Yes	
Portugal (Min. Agric.)	2018	Algarvia	Growth rate		
Portugal (Min. Agric.)	2017	Algarvia	Growth rate		
Portugal (Min. Agric.)	2018	Charnequeira	Udder score		
Portugal (Min. Agric.)	2017	Charnequeira	Udder score		
Portugal (Min. Agric.)	2018	Serpentina	Growth rate		
Portugal (Min. Agric.)	2017	Serpentina	Growth rate		
Portugal (Min. Agric.)	2018	Serrana	Growth rate		
Portugal (Min. Agric.)	2017	Serrana	Growth rate		
Serbia [1]	2017	Alpine	Fertility, birth weight, body weight	Farm recording	Yes
Serbia [1]	2016	Alpine	Fertility, birth weight, body weight	Farm recording	Yes
Serbia [1]	2017	Saanen	Fertility, birth weight, body weight	Farm recording	Yes
Serbia [1]	2016	Saanen	Fertility, birth weight, body weight	Farm recording	Yes
Slovak Republic	2017	All Breeds	Reproductive traits, weight	Yes	No
Slovak Republic	2016	Alpine	Reproductive traits, weight	Yes	No
Slovak Republic	2016	Anglo Nubian	Reproductive traits, weight	Yes	No
Slovak Republic	2016	Brown Shorthaired Goat	Reproductive traits, weight	Yes	No
Slovak Republic	2016	Saanen	Reproductive traits, weight	Yes	No
Slovak Republic	2016	White Shorthaired Goat	Reproductive traits, weight	Yes	No
Slovenia	2018	Drežnica goat	litter size, daily gain	Yes	No
Slovenia	2017	Drežnica goat	Litter size, daily gain	Yes	No
Slovenia	2016	Drežnica goat	Litter size, daily gain	Yes	No

[1] Data relating to the region AP Vojvodina in Serbia

Table 4 - Recording of non-milking traits

Country	Year	Breed or population	Traits	Reproductive traits, weights & growths, udder score, longevity	
				On-farm recording (Yes/No)	Breeding evaluation (Yes/No)
Slovenia	2018	Slovenian Alpine Goat	litter size, daily gain	Yes	No
Slovenia	2017	Slovenian Alpine Goat	Litter size, daily gain	Yes	No
Slovenia	2016	Slovenian Alpine Goat	Litter size, daily gain	Yes	No
Slovenia	2018	Slovenian Saanen Goat	litter size, daily gain	Yes	No
Slovenia	2017	Slovenian Saanen Goat	Litter size, daily gain	Yes	No
Slovenia	2016	Slovenian Saanen Goat	Litter size, daily gain	Yes	No
Spain	2016	Florida	Reproductive traits, udder score, weights and growths, longevity	Yes (Udder score)	Yes (Udder score)
Spain	2016	Guadarrama	Udder score	Yes	No
Spain [2]	2016	Majorera	Udder score, weights and growths, longevity	Yes (Udder score)	No
Spain	2016	Malagueña	Weights and growths, udder score, mobility	Yes	Yes
Spain	2016	Palmera	Weights and growths, udder score	Yes	No
Spain	2016	Payoya	Udder score, weights and growths, longevity	Yes (longevity)	No
Spain [2]	2016	Tinerfeña	Udder score, weights and growths, longevity	Yes (Udder score)	

[2] Linear rating system under development

Table 5 - Milk recording equipment used in case of machine milking

Country	Year	Breed or population (Name)	Indicate jars/meter	Name of the manufacturer	Measurement (weight/volume)	Approximate number in use
Croatia	2018	Alpine	Jars	Cartel Germany	Volume, Sampler	45
Croatia	2017	Alpine	Jars	Cartel Germany	Volume, Sampler	45
Croatia	2016	Alpine	Jars	Cartel Germany	Volume, Sampler	45
Croatia	2018	Saanen	Jars	Cartel Germany	Volume, Sampler	11
Croatia	2017	Saanen	Jars	Cartel Germany	Volume, Sampler	11
Croatia	2016	Saanen	Jars	Cartel Germany	Volume, Sampler	11
Czech Republic	2017	All Breeds		Tru-Test	Tru-Test Mini	
Czech Republic	2016	All Breeds		Tru-Test	Tru-Test Mini	
Portugal (Min. Agric.)	2018	Algarvia	Data not available			
Portugal (Min. Agric.)	2017	Algarvia	Data not available			
Portugal (Min. Agric.)	2018	Charnequeira	Data not available			
Portugal (Min. Agric.)	2017	Charnequeira				
Portugal (Min. Agric.)	2018	Preta de Montesinho	Jar meter	Sneder Mayfra catalogue	Kg	4
Portugal (Min. Agric.)	2017	Preta de Montesinho	Jar meter	Sneder Mayfra catalogue	Kg	4
Portugal (Min. Agric.)	2018	Serpentina	Jar meter	Wesfalia	Volume	30
Portugal (Min. Agric.)	2017	Serpentina	Jar meter	Wesfalia	Volume	30
Portugal (Min. Agric.)	2018	Serrana	Jar meter	Sneder Mayfra catalogue	Kg	18
Portugal (Min. Agric.)	2017	Serrana	Jar meter	Sneder Mayfra catalogue	Kg	18
Serbia[1]	2017	Alpine		DeLaval, GEA, Milkline		
Serbia [1]	2016	Alpine	Manual and automatic	DeLaval, GEA	DeLaval, GEA	8
Serbia [1]	2017	Saanen		DeLaval, GEA, Milkline		
Serbia [1]	2016	Saanen	Automatic	DeLaval	DeLaval	1
Slovak Republic	2017	All Breeds	Fisher Slovakia - Volume	Trutest	Weight, Sampler no	36
Slovak Republic	2016	All Breeds	Fisher Slovakia - Volume	Trutest	Weight, Sampler no	20
Slovenia	2018	Drežnica goat		Waikato, Tru-test	weight	
Slovenia	2017	Drežnica goat		Waikato, Tru-test	weight	
Slovenia	2016	Drežnica goat		Waikato, Tru-test	weight	
Slovenia	2018	Slovenian Alpine Goat		Waikato, Tru-test	weight	
Slovenia	2017	Slovenian Alpine Goat		Waikato, Tru-test	weight	
Slovenia	2016	Slovenian Alpine Goat		Waikato, Tru-test	weight	
Slovenia	2018	Slovenian Saanen Goat		Waikato, Tru-test	weight	
Slovenia	2017	Slovenian Saanen Goat		Waikato, Tru-test	weight	
Slovenia	2016	Slovenian Saanen Goat		Waikato, Tru-test	weight	

[1] Data relating to the region AP Vojvodina in Serbia

Table 5 - Milk recording equipment used in case of machine milking

Country	Year	Breed or population (Name)	Indicate jars/meter	Name of the manufacturer	Measurement (weight/volume)	Approximate number in use
Spain	2016	Florida	Meter	Tru-Test	Weight/Sampler	18
Spain	2016	Guadarrama			Sampler	12
Spain	2016	Majorera	Meter	Tru-Test	Volume/Sampler	30
Spain	2016	Malagueña	Meter	Tru-Test	Weight/Sampler	30
Spain	2016	Palmera	Meter	Tru-Test	Weight/Sampler	12
Spain	2016	Payoya	Meter	Tru-Test	Weight/Sampler	20
Spain	2016	Tinerfeña	Meter	Tru-Test	Volume/Sampler	12
Spain	2016	Verata	Meter	Tru-Test		54

Table 6 - Breeding programme using artificial insemination

Country	Year	Breed or population	Artificial Insemination		Progeny test		
			Fresh semen	Frozen semen	Selection criteria	AI progeny-tested rams per year	Number of AI per progeny-tested rams
Croatia	2018	Alpine		Yes	Yes		
Croatia	2017	Alpine		Yes	Yes		
Croatia	2016	Alpine		Yes	Yes		
Croatia	2018	Saanen		Yes	Yes		
Croatia	2017	Saanen		Yes	Yes		
Croatia	2016	Saanen		Yes	Yes		
Portugal (Min. Agric.)	2018	Algarvia	No	No			Data not available
Portugal (Min. Agric.)	2017	Algarvia	No	No			
Portugal (Min. Agric.)	2018	Charnequeira	No	No			Data not available
Portugal (Min. Agric.)	2017	Charnequeira	No	No			Data not available
Portugal (Min. Agric.)	2018	Preta de Montesinho	Yes 60	No	Progeny-test	Data not available	
Portugal (Min. Agric.)	2017	Preta de Montesinho	Yes 10	No	Progeny-test	Data not available	
Portugal (Min. Agric.)	2018	Serpentina	Yes	No	Data not available		
Portugal (Min. Agric.)	2017	Serpentina	Yes	No	Data not available	Data not available	Data not available
Portugal (Min. Agric.)	2018	Serrana	Yes 172	No	Progeny-test	Data not available	Data not available
Portugal (Min. Agric.)	2017	Serrana	Yes 97	No	Progeny-test	Data not available	Data not available
Slovenia	2018	Drežnica goat	No	No	Artificial insemination is not in use		
Slovenia	2017	Drežnica goat	No	No	Artificial insemination is not in use		
Slovenia	2016	Drežnica goat	No	No	Artificial insemination is not in use		
Slovenia	2017	Slovenia Saanen Goa	No	Yes	Small number of does were inseminated		
Slovenia	2016	Slovenian Alpine Goat	No	Yes	Small number of does were inseminated		
Slovenia	2018	Slovenian Alpine Goat	No	Yes	Small number of does were inseminated		
Slovenia	2017	Slovenian Alpine Goat	No	Yes	Small number of does were inseminated		
Slovenia	2018	Slovenian Saanen Goat	No	Yes	Small number of does were inseminated		
Slovenia	2016	Slovenian Saanen Goat	No	Yes	Small number of does were inseminated		

Table 6 - Breeding programme using artificial insemination

Country	Year	Breed or population	Artificial Insemination		Progeny test		
			Fresh semen	Frozen semen	Selection criteria	AI progeny-tested rams per year	Number of AI per progeny-tested rams
Spain	2016	Florida	1,434	No	Milk production and composition, morphology of goats	3	250
Spain	2016	Guadarrama	Yes	No	Milk production	6	150
Spain	2016	Majorera [1]					
Spain	2016	Malagueña	1,640	No	Genetic value and morphology of goats, milk composition	18	250
Spain	2016	Palmera	158	No	Milk production and composition	1 (estimated)	
Spain	2016	Payoya	586	10	Milk production and composition	16	82

[1] Beginning of the insemination programme planed for 2017

Table 7 - Molecular information

Country	Year	Breed or population	Type of genotyping	Number of analysis, Number of flocks involved	Use in experimental program	Effective use in selection program
Croatia	2018	All breeds		No data available		
Croatia	2017	All breeds		No data available		
Croatia	2016	All breeds		No data available		
Portugal (Min. Agric.)	2018	Algarvia				
Portugal (Min. Agric.)	2017	Algarvia				
Portugal (Min. Agric.)	2018	Charnequeira	Casein alpha S1	207 analysis		
Portugal (Min. Agric.)	2017	Charnequeira				
Portugal (Min. Agric.)	2018	Preta de Montesinho		43 analysis, 3 flocks	No	Yes
Portugal (Min. Agric.)	2017	Preta de Montesinho		63 analysis; 9 flocks	No	Yes
Portugal (Min. Agric.)	2018	Serpentina	Casein alpha S1	1.200 analysis	No	Yes
Portugal (Min. Agric.)	2017	Serpentina				
Portugal (Min. Agric.)	2018	Serrana		637 analysis, 60 flocks	No	Yes
Portugal (Min. Agric.)	2017	Serrana		661 analysis, 39 flocks	No	Yes
Slovenia	2018	Drežnica Goat	GoatSNP50	116 analysis; 20 flocks	Yes	No
Slovenia	2017	Drežnica Goat	GoatSNP50	96 analysis; 20 flocks	Yes	No
Slovenia	2016	Drežnica Goat	GoatSNP50	96 analysis; 20 flocks	Yes	No
Slovenia	2018	Slovenian Alpine Goat			No	No
Slovenia	2017	Slovenian Alpine Goat			No	No
Slovenia	2016	Slovenian Alpine Goat			No	No
Slovenia	2018	Slovenian Saanen Goat			No	No
Slovenia	2017	Slovenian Saanen Goat			No	No
Slovenia	2016	Slovenian Saanen Goat			No	No
Spain	2016	Florida	Filiation test	4.035 analysis in 44 flocks	Yes	Yes
Spain	2016	Guadarrama	Filiation test	935 analysis in 30 flocks	Yes	Yes
Spain	2016	Majorera	Filiation test (19 markers) and Casein	2.114 (Filiation test) and 186 (Casein) analysis in 12 flocks	Yes	Yes (Both)
Spain	2016	Malagueña	Filiation test (19 markers)	1.938 analysis in 23 flocks	Yes	Yes
Spain	2016	Palmera	Filiation test (19 markers) and Casein	256 (Filiation test) and 18 (Casein) analysis in 5 flocks	Yes	Yes (Both)
Spain	2016	Payoya	Filiation test (19 markers)	930 analysis in 12 flocks	Yes	Yes
Spain	2016	Tinerfeña	Filiation test (19 markers) and Casein	1.375 (Filiation test) and 51 (Casein) analysis in 11 flocks	Yes	Yes (Both)
Spain	2016	Verata	Filiation test (17 markers)	250 analysis in 6 flocks		

ICAR Member Organisations participating in the survey

The following are the contacts of the ICAR Member Organisations who participated in the surveys and that are responsible for the submission of the data.
Their collaboration is acknowledged and much appreciated

Argentina
Asociación Cridadores de Holando Argentino (ACHA)
info@acha.org.ar

Australia
DataGene Limited
lcalder@datagene.com.au

Austria
Zentrale Arbeitsgemeinschaft Österreichischer Rinderzüchter (ZAR)
rehling@zuchtdata.at

Belgium (Flemish Region by CRV)
Coöperative CRV u.a.
jos.buiting@crv4all.com

Belgium (Wallonia Region)
Service Public de Wallonie (SPW)
JeanFrancois.duckerts@spw.wallonie.be

Canada
Lactanet Canada
dlefebvre@valacta.com

Chile
COOPRINSEM
jlama@cooprinsem.cl

China
Shanghai Dairy Cattle Breeding Center Co. Ltd
anpengpeng@brightdairy.com

Croatia
Hrvatska agencija za poljoprivredu i hranu (Croatian Agency for Agriculture and Food)
zdenko.ivkic@hapih.hr

Czech Republic
Czech Moravian Breeder's Corporation Inc. (Českomoravská společnost chovatelů, a.s.)
bucek@cmsch.cz

Denmark
RYK
Danish Cattle Federation
ufl@ryk-fonden.dk

Estonia
Põllumajandusloomade Jõudluskontrolli AS
aire.pentjarv@epj.ee

Finland
ProAgria Group
juho.kyntaja@mtech.fi

France
France Genétique Elevage
gilles.thomas@idele.fr

Germany
German Livestock Association (Bundesverband Rind und Schwein e. V. – BRS)
k.keller@rind-schwein.de

Hungary
Livestock Performance Testing Ltd.
kenez.arpad@atkft.hu

India
National Dairy Development Board
nileshn@nddb.coop

Ireland
Irish Cattle Breeding Federation Society Limited
bcoughlan@icbf.com

Israel
Israel Cattle Breeders' Association (ICBA)
yaniv@icba.co.il

Italy
Associazione Italiana Allevatori
fioretti.m@aia.it

Japan
Livestock Improvement Association of Japan Inc.
webmaster@liaj.or.jp

Latvia
State Agency Agricultural Data Centre (LDC)
Erna.Galvanovska@ldc.gov.lv

Lithuania
State Food and Veterinary Service of the Republic of Lithuania (SFVS)
dalia.tumeliene@vmvt.lt

New Zealand
DairyNZ
gerry.schuil@dairynz.co.nz

New Zealand
Livestock Improvement Corporation
bevin.harris@lic.co.nz

Norway
TINE SA
tone.roalkvam@tine.no

Poland
Polish Federation of Cattle Breeders and Dairy Farmers
d.radzio@pfhb.pl

Portugal
ANABLE (Associação Nacional para o Melhoramento dos Bovinos Leiteiros)
lmartins@abln.pt

Portugal
Direcção Geral de Veterinária, Gabinete de Recursos Genéticos Animais, Direção Geral de Alimentação Veterinária
dirgeral@dgav.pt

Romania
Asociatia Crescatorilor de Vaci Baltata Romaneasca tip Simmental
office@baltataromaneasca.ro

Serbia
University of Novi Sad, Agricultural Faculty, Dept. of Animal Scince
dobrila.jankovic@stocarstvo.edu.rs

Slovak Republic
The Breeding Services of the Slovak Republic (Plemenárske služby SR š.p.,)
petergorozdi@pssr.sk

Slovenia
University of Ljubljana, Biotechnical Faculty
Marija.Klopcic@bf.uni-lj.si

South Africa
ARC (Agricultural Research Council), Centre for Animal Breeding and Genetics, Animal Improvement Institute
alta@arc.agric.za

South Africa
SA Stud Book and Animal Improvement Association
japie@studbook.co.za

South Korea
Korean Animal Improvement Association
scpark@aiak.or.kr

South Korea
Dairy Cattle Improvement Centre, NongHyup Agribusiness Group Inc.
mountdew@naver.com

Spain
FEAGAS (Federación Española de Asociaciones de Ganado Selecto)
feagas@feagas.es

Sweden
Växa Sverige
nils-erik.larsson@vxa.sse

Switzerland
ASR Arbeitsgemeinschaft Schweizerischer Rinderzüchter
info@asr-ch.ch

The Netherlands
Coöperative CRV u.a.
Jos.buiting@crv4all.com

Tunisia
Ministère de l'Agriculture, Office de l'Elevage et des Pâturages (OEP)
contact@oep.nat.tn

Turkey
Cattle breeders' association of Turkey
onur@dsymb.org.tr

UK
Cattle Information Service
suecope@thecis.co.uk

UK
National Milk Records plc
tonyc@nmr.co.uk

UK
Royal Jersey Agricultural & Horticultural Society-Royal Jersey
Showground Milk Records
suecope@thecis.co.uk

Uruguay
Instituto Nacional para el Mejoramiento Lechero
fsotelo@mu.org.uy

USA
AgSource
jljohnson@agsource.com