Dairy Farming in Israel

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Table 1.3

No. of dairy farms, by farm type, and average annual milk quota per farm (x 1,000 ltrs.)

	2001	2002	2003	2004	2005	2006	2007	2008
Family farms (Moshav)								
Number	1,025	962	921	880	855	843	830	811
Average quota (x 1,000 ltrs.)	492	511	524	541	560	564	589	625
Cooperative farms (Kibbutz)								
Number	209	200	196	187	176	167	165	165
Average quota (x 1,000 ltrs.)	3,273	3,335	3,344	3,524	3,747	3,851	4,030	4,198
Agric. school farms								
Number	16	16	16	16	16	15	15	15
Average quota (x 1,000 ltrs.)	750	731	719	733	746	784	811	853
Total								
Number of farms	1,250	1,178	1,133	1,083	1,047	1,025	1,010	991
Average quota (x 1,000 ltrs.)	960	993	1,015	1,059	1,098	1,102	1,155	1,223

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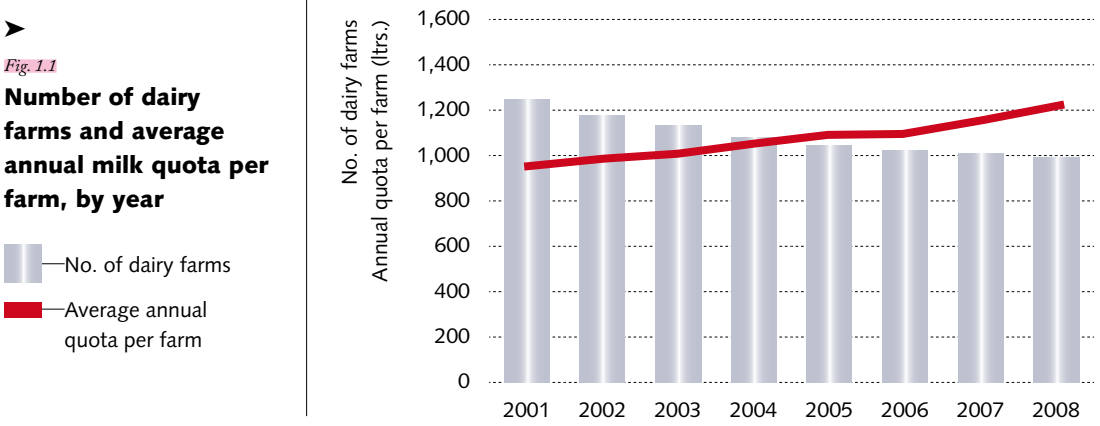
Fig. 1.1

Number of dairy farms and average annual milk quota per farm, by year



Types of Settlement

Much of Israel's agriculture is based on cooperative settlements, which were developed in the early 20th century. The Kibbutz is a large collective production unit. Kibbutz members jointly own the means of production and share social and economic activities. At present, most of the Kibbutz income comes from industrial enterprises owned by the collective unit. Another type of settlement is the Moshav, which is based on individual farms yet organized as a cooperative society. The residents in both types of settlements are provided with a package of municipal services. The Kibbutz and the Moshav currently account for 83% of the country's agricultural produce.

In addition to the Jewish agricultural sector, Arab villages are located in Israel's rural areas. Theses villages focus mainly on production of small livestock (sheep and goats), vegetables, field crops and olives.

All the Kibbutz dairy herds participate in the DHI system and represent 62.2% of the cows with recorded production. Their average milk yield in 2008 was 11,862 kg/cow/year and the average production of protein and fat was 808 kg/cow/year. Approximately 75% of the Moshav dairy herds participate in the DHI system and represent 37.8% of the cows with recorded production. Their average milk yield in 2008 was 10,794 kg/cow/year and the average production of protein and fat was 737 kg/cow/year.

Annual Milk Quota and Milk Supply

Cow milk in Israel is produced under a quota system with the annual volume divided into monthly quotas. Because of seasonal fluctuation economic incentives have been set to encourage dairy farmers to regulate monthly production, so that milk supply to the industry is at the desired level throughout the year. Due to the fast increase in the demand for milk products in 2008 the Israel Dairy Board allowed dairy farmers to produce unlimited amounts of milk above their quotas.

The basic milk price paid to the producer is agreed upon between the government, farmers and the dairy industry. This price reflects the average production costs plus an agreed compensation for the farmers' labor and invested capital.

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Table 2.1

Cow milk – annual supply and quota (millions of ltrs.)

Year	Milk supply (millions of ltrs.)	Milk quota (millions of ltrs.)
1997	1,095	1,085
1998	1,126	1,124
1999	1,132	1,124
2000	1,128	1,140
2001	1,174	1,200
2002	1,154	1,170
2003	1,122	1,150
2004	1,146	1,150
2005	1,150	1,150
2006	1,124	1,130
2007	1,166	1,185
2008	1,273	1,212

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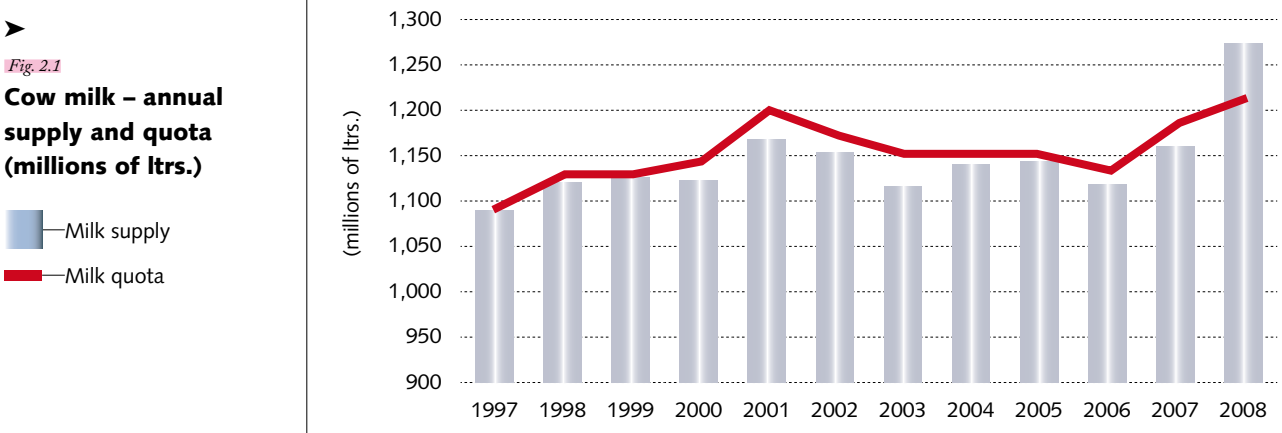
Fig. 2.1

Cow milk – annual supply and quota (millions of ltrs.)



Annual Marketed Milk

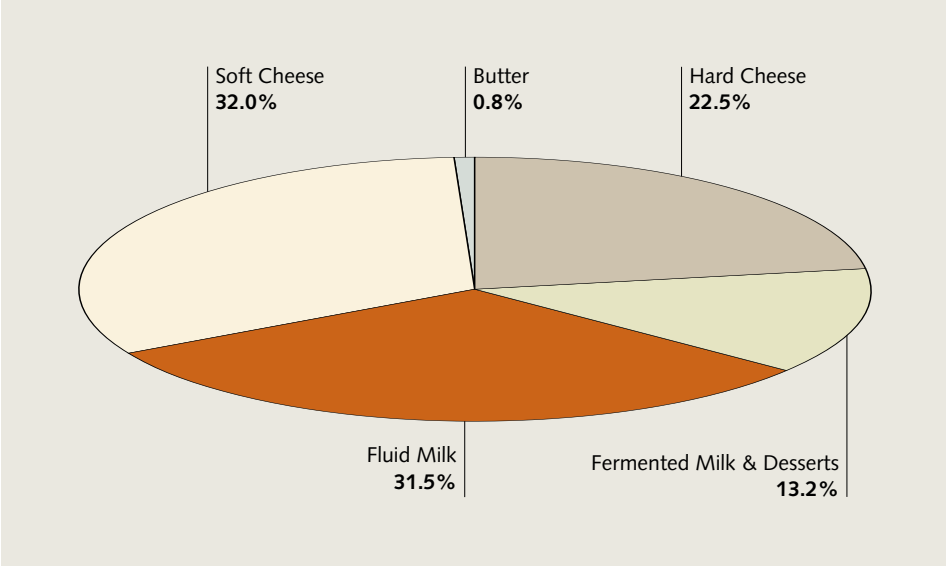
Year	Cow Milk					Sheep & Goat Milk		
	Fluid Milk	Fermented Milk and Desserts	Soft Cheese Ton	Hard Cheese Ton	Butter Ton	Soft Cheese Ton	Hard Cheese Ton	Yoghourt and others, Ton
2002	359,594	148,743	79,252	22,435	5,423	925	1,140	446
2003	359,859	147,151	79,900	22,547	5,444	1,040	1,131	776
2004	370,266	146,820	80,703	22,813	5,713	1,266	1,200	1,139
2005	378,957	151,766	82,359	23,528	5,816	1,273	1,236	1,387
2006	402,251	164,220	87,266	25,112	6,209	1,361	1,173	1,328
2007	405,928	166,610	88,177	26,472	6,175	1,703	1,096	1,780
2008	405,736	170,367	91,526	27,547	5,431	1,665	1,092	1,938

Table 2.5

Distribution of annual marketed milk, by dairy products. (tons)

Fig. 2.5

Distribution of annual marketed milk, by dairy products (% of total, based on skimmed milk equivalent)



Sheep and Goat Milk Production

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Table 2.3

Sheep and goat milk – Annual production

Year	Sheep milk (x 1000 ltrs.)	Goat milk (x 1000 ltrs.)
1997	9,021	2,581
1998	8,695	2,982
1999	8,716	2,940
2000	8,736	3,375
2001	9,758	3,579
2002	10,389	4,147
2003	9,931	5,142
2004	10,446	5,407
2005	11,527	6,171
2006	10,966	7,027
2007	9,877	7,928
2008	9,818	10,155

Raising sheep and goat for milk and meat is one of Israel's oldest agricultural branches. Today, approximately 2,500 families* raise sheep and goats under a wide range of production systems: from extensive, traditional, semi-nomadic, and transhumant flocks to the intensive, zero-grazing dairy and meat units of moshav and kibbutz farms in various parts of the country. The evolution of the Israeli sheep sector is a good example of how modern technology has been integrated into a traditional farming system through research and development.

Milk production

Some 11.0 million kg of sheep milk and 7.0 million kg of goat milk are produced annually. The milk is used for a diverse range of cheese and yogurt products. Due to their high quality and properties, sheep and goat cheeses are exported, mainly to the USA.

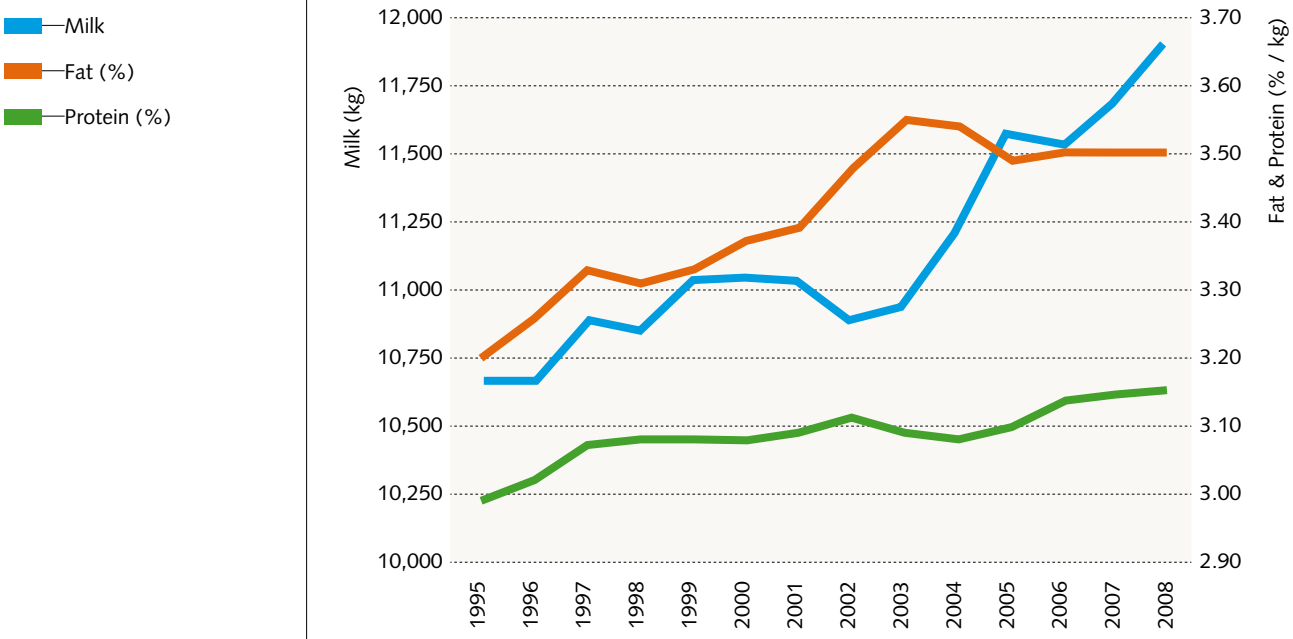
* sheep for meat included.

Table 3.1 & Fig. 3.1

Production averages of Israeli-Holstein cows, by calving year

305-day adjusted lactations (1-5)

Calving year	No. of cows	Milk, kg	Fat, %	Protein, %	Fat (Kg)	Protein (Kg)
1995	83,696	10,665	3.20	2.99	341	319
1996	81,477	10,665	3.26	3.02	348	322
1997	81,507	10,887	3.33	3.07	363	334
1998	82,004	10,850	3.31	3.08	359	334
1999	81,742	11,029	3.33	3.08	367	340
2000	81,622	11,048	3.37	3.08	372	340
2001	80,787	11,031	3.39	3.09	374	341
2002	86,554	10,890	3.48	3.11	379	339
2003	84,696	10,938	3.55	3.09	388	338
2004	84,694	11,200	3.54	3.08	396	345
2005	83,456	11,565	3.49	3.10	404	359
2006	77,334	11,506	3.52	3.14	405	361
2007	80,874	11,687	3.52	3.15	411	368
2008	88,147	11,903	3.52	3.16	419	376



Due to a policy which encouraged the production of milk rich with protein and fat there was an increase in their quantity over the years. The average fat content during 2008 was 3.71% (data from milk plants). The rise in fat content in raw milk is opposite to the decline in average fat content in consumption, for the consumers preference is low-fat milk products. Thus arose a need to suppress the growth in fat content. Starting August 2005 a policy of lower payment per fat above a specific level every year (in 2008 the level was 3.779%) caused a decline in fat content.

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Table 3.2

Production averages in 2008, by parity number

	1st lactation cows	2nd lactation cows	Adult cows	Total
Complete lactations				
No.	27,102	18,364	27,042	72,508
Milk yield, kg	11,406	13,295	13,817	12,782
ECM* yield, kg	11,605	13,391	13,616	12,806
Fat yield, kg	423	483	489	463
Fat, %	3.71	3.63	3.54	3.62
Protein yield, kg	372	429	434	410
Protein, %	3.26	3.23	3.14	3.2
Adjusted 305-d lactations				
No.	25,948	17,669	25,907	69,524
305-d adjusted ECM, kg	11,629	11,995	11,874	11,813
Days in milk	361	358	356	358
Milk yield, kg/day in milk	31.6	37.1	38.8	35.7
Feed days	423	421	420	421
ECM yield, kg/cow in herd-day	27.4	31.8	32.4	30.4
Dry period, days	61	62	62	62
Days open	147	145	144	145
Calvings				
Total No. of calvings	32,817	26,323	44,606	103,746
Calves born	33,122	27,459	47,868	108,449
Age at calving, months	24	38	67	46
Normal calvings	28,912	24,801	42,099	95,812
Normal calvings, %	88.1	94.2	94.4	92.4
Premature calvings	702	548	939	2189
Premature calvings, %	2.1	2.1	2.1	2.1
Abortions, %	11.9	11.3	10.5	11.1
Stillborn calves, %	8	5.9	7	7

* ECM = Economic Corrected Milk, according to the formula for milk payment :
up to 3.779% Milk Fat: 0.1 * kg Milk + 7.67 * kg Fat + 20.21 * kg Protein over 3.779% Milk Fat,
the index for kg Fat is 3.56

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Table 3.3

20 cooperative herds with highest average annual milk yield per cow (3x milkings) in 2008

No.	Herd	ECM kg	Milk kg	Fat %	Protein %	F+P kg	SCC x1000	No. of cows in herd
1	Carmiya	14,213	13,888	3.71	3.19	957	225	375
2	Habonim	13,822	13,480	3.60	3.25	921	220	244
3	Sa'ad	13,744	13,155	3.64	3.32	915	197	312
4	Nachal Oz	13,713	13,332	3.68	3.23	920	128	329
5	Maccabi-Hanaton	13,505	13,255	3.60	3.21	902	158	485
6	Shutfut Ran	13,470	13,131	3.61	3.24	899	130	970
7	Tze'elim	13,430	13,100	3.64	3.23	899	159	290
8	Be'Rishtenu	13,416	13,479	3.46	3.15	889	223	319
9	Yavne	13,404	13,096	3.67	3.21	899	151	407
10	Ginosar	13,339	13,274	3.59	3.15	893	177	272
11	Heftzibah	13,111	13,003	3.50	3.20	870	177	276
12	Refet Galil Ma'aravi	13,077	12,601	3.72	3.26	879	165	845
13	Ma'ale Gilboa	13,053	13,088	3.53	3.13	871	189	266
14	Mefalsim	13,047	13,121	3.40	3.17	860	215	308
15	Carmel Ma'on	13,005	12,644	3.57	3.27	864	208	437
16	Alumim	13,003	12,456	3.77	3.27	876	207	313
17	Refet Manor	12,909	12,707	3.59	3.20	862	182	561
18	Refet HaTabor	12,897	12,747	3.57	3.19	860	210	558
19	Kfar Masarik	12,881	12,710	3.59	3.19	860	187	264
20	Nitzanim	12,869	12,634	3.62	3.20	861	188	331

Table 3.4

20 Family herds with highest average annual milk yield per cow (2x + 3x milkings) in 2008

No.	Village	Herd	ECM kg	Milk kg	Fat %	Protein %	F+P kg	SCC x1000	No. of cows in herd
1	Kanaf	Koren Farm	13,847	13,811	3.59	3.13	928	109	36
2	Shfeyia Ag. School	Shfeyia Ag. School	13,622	13,275	3.71	3.20	917	177	80
3	Hayogev	Ben Tzvi Farm	13,088	12,335	3.72	3.38	874	140	60
4	Amatz	Israel Reuven Farm	12,997	12,535	3.69	3.27	871	218	107
5	Tzipori	Michaeli Farm	12,925	12,839	3.58	3.16	864	124	53
6	Givat Yo'av	Golani Farm	12,912	12,860	3.62	3.13	867	184	57
7	Givat Yo'av	Levin Farm	12,894	13,003	3.42	3.14	853	148	53
8	Kfar Haro'eh	Peleg Farm	12,886	12,435	3.65	3.27	861	107	96
9	Tzipori	Shmueli Bros. Farm	12,847	12,566	3.69	3.20	864	119	124
10	Neot Golan	Cohen Farm	12,845	12,767	3.61	3.15	861	183	44
11	Sde Ya'akov	Baranawski Farm	12,805	12,492	3.53	3.27	848	195	137
12	Nir Israel	Fodor Farm	12,791	12,600	3.51	3.22	848	184	197
13	Yokne'am	Strauss Farm	12,788	12,559	3.65	3.19	858	171	122
14	Givat Yo'av	Efrat Farm	12,765	12,552	3.63	3.19	855	67	49
15	Amatz	Sahar Farm	12,762	12,330	3.63	3.28	851	249	78
16	Ramat Tzvi	Landau Farm	12,708	12,726	3.46	3.16	842	180	68
17	Be'er Tuvia	H.B.Sh. Farm	12,661	12,519	3.64	3.16	850	157	102
18	Peduyim	Hason Farm	12,630	12,709	3.39	3.17	832	92	79
19	Givat Yo'av	Sofer Farm	12,598	12,726	3.49	3.11	839	238	37
20	Be'er Tuvia	Katz Farm	12,585	12,138	3.77	3.23	850	156	70

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Table 3.5

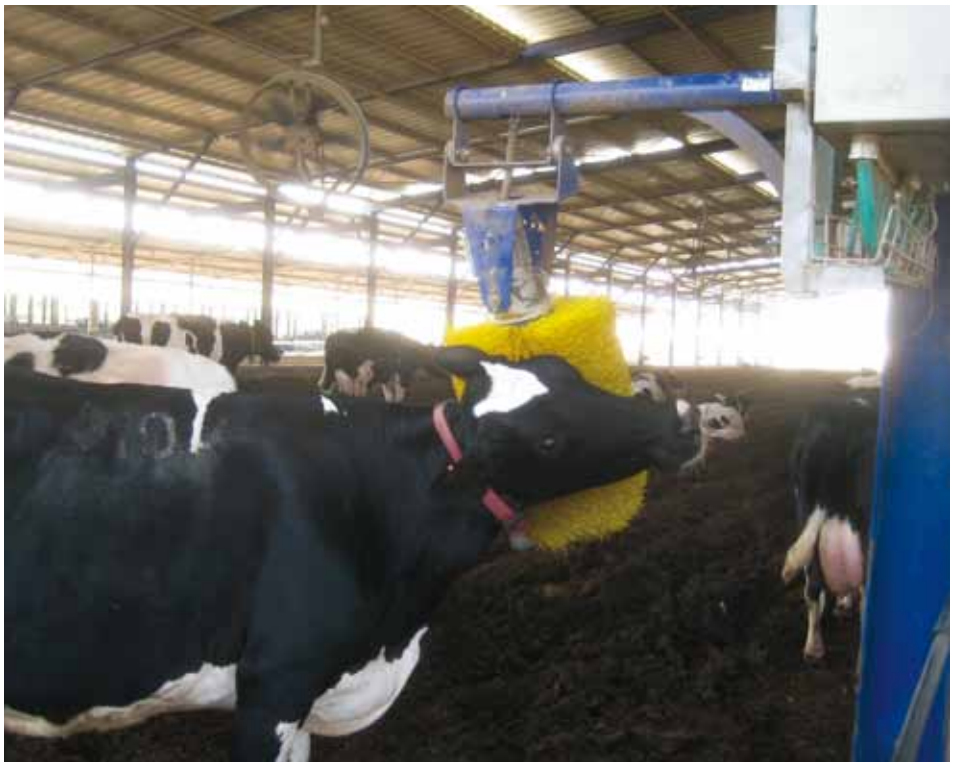
20 cows with highest adjusted ECM yield in 2008

No.	Herd	Cow No.	Sire	Lact. No.	Milk kg	Fat %	Protein %	ECM kg
1	Shutfut Ran	3834	Gad	3	17,769	3.71	3.35	18,492
2	Alumim	724	Dachev	2	18,638	3.43	3.14	18,279
3	Nahal Oz	4909	Vogui	3	18,795	3.52	3.04	18,172
4	Shutfut Ran	6644	Avsha	1	18,285	3.49	3.18	18,137
5	Alumim	599	Merrill-Lynch	3	19,814	3.01	2.97	18,112
6	Carmiya	6278	Avsha	2	19,246	3.46	2.93	18,089
7	Carmiya	5936	Sus	4	17,598	3.90	3.24	18,070
8	Shutfut Maccabi-Hanaton	5680	Avsha	3	17,826	3.63	3.23	18,053
9	Alumim	469	Sus	4	19,209	3.14	3.04	18,030
10	Shutfut Ran	1094	Moach	2	17,931	3.68	3.16	17,997
11	Carmiya	6144	Avsha	3	19,220	3.48	2.90	17,983
12	Shutfut Ran	6596	Avsha	2	16,908	3.88	3.42	17,944
13	Shutfut Ran	6366	Rogy	2	17,589	3.79	3.22	17,915
14	Migdal Oz	6234	Roliez	4	18,302	3.30	3.16	17,825
15	Shutfut Ran	6642	Marcie	2	16,105	4.27	3.58	17,819
16	Yad Hail	7933	Avsha	2	17,716	3.61	3.20	17,817
17	Shutfut Maccabi-Hanaton	5877	Avsha	2	17,373	3.96	3.21	17,747
18	Shutfut Ran	5647	Roliez	4	17,005	3.78	3.34	17,724
19	Ginosar	6608	Avsha	3	18,802	3.54	2.90	17,707
20	Hof HaSharon	8500	Aise	3	16,142	3.99	3.58	17,704

No.	Herd	Cow No.	Sire	Lact. No.	Days in milk	Milk kg	Average milk yield kg/day	Fat %	Protein %	Culling date
1	Ma'ale Gilboa	6492	Lasso	13	5,085	200,538	40.0	3.27	2.87	
2	Maoz Hayim	4616	Ginat	13	4,382	183,797	42.6	3.34	2.81	
3	Ma'ale Gilboa	6817	Boteach	9	4,249	167,113	40.1	3.33	3.15	
4	Shluchot	4131	Bosna	14	4,411	161,252	41.5	3.43	2.83	26/7/2007
5	Refet Tefen-Tuval	998	Bum	11	3,887	160,687	41.9	3.46	3.02	10/9/2007
6	Strashnov Farm	295	Tamim	11	3,872	157,786	41.3	2.83	2.74	
7	Efrat Farm	4132	Boteach	12	3,811	157,239	37.6	3.25	2.87	
8	Yavneh	504	Boteach	12	4,011	154,994	41.7	3.65	3.05	
9	Sa'ad	4061	Scorer	9	3,304	150,901	47.6	3.61	3.05	21/6/2007
10	Israeli Farm	963	Unknown	12	3,714	149,734	41.9	3.10	3.08	
11	Gezer	2312	Scorer	10	3,477	148,646	37.4	3.09	2.86	20/6/2007
12	Sa'ad	4180	Scorer	8	2,997	146,979	43.6	3.18	2.98	
13	Refet Tzfon Hagolan	359	Boteach	8	3,962	145,431	41.3	3.70	3.04	
14	Refet HaTabor	4889	Scorer	11	3,415	145,086	37.3	3.27	3.04	6/4/2007
15	Ein Tzurim	4685	Scorer	9	3,170	144,787	37.7	2.86	2.79	21/11/2007
16	Ma'ale Gilboa	7131	Sport	10	3,363	144,631	38.6	3.59	3.24	
17	Refet Darom	3586	Flor	10	3,620	143,050	39.9	3.14	3.00	8/1/2007
18	Carmel Ma'on	6450	Saf	11	3,773	142,838	44.8	2.89	2.98	
19	Beit Sefer Kfar Galim	729	Chalutz	11	4,063	142,643	40.1	3.75	3.06	
20	Revadim	3733	Doren	10	3,219	141,505	39.2	3.29	2.84	10/1/2007

Table 3.6

20 cows with highest lifetime yield, producing in 2008



Israeli Breeding in 2008

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In general, 2008 was characterized by a change in the milk-quantity demand by the dairy industry in Israel. During the first six months of the year most of the dairy farms exceeded their production quota, while the opposite was true during the second half of the year. On an annual basis, results were within the limits of set quotas.

The large number of inseminations was in direct correlation with the large quantity of cows per herd. There was an increase in the culling rate towards the end of the year. The Israeli dairy farmer continued to rely on local proven bulls and the number of inseminations performed with imported semen was slightly lower than those of 2007 (Table 1).

Table 1
Number of inseminations performed with imported semen, by breed, during the past two years

BREED	No. of Doses		% of Total No. of Inseminations	
	2007	2008	2007	2008
Holstein	10,150	7,921	2.9	2.1
Charolais	6,196	6,329	1.8	1.7
Belgian Blue	4,131	3,357	1.2	0.9
NRF	3,064	4,968	0.9	1.3
Other breeds	1,115	618	0.3	0.2
Total	24,656	15,890	7.1	6.2

Inseminations

The number of inseminations at SION has reached a total of 375,000, signifying an increase of approximately 6.5% compared to the number registered in 2007. There was a 12.6% decline in the use of imported semen between 2008 and 2007, mainly due to a decrease in the demand for beef-cattle semen. The number of imported Holstein semen doses declined as well. In contrast, the use of NRF in 2008 increased slightly and reached 1.3% of the total number of inseminations. The imported semen is used primarily for the heifer population.

Laboratory and Semen Production

Approximately 200 bulls are kept at SION's main site. Each year, SION tests 50 new young bulls. The majority of the bulls mount twice a week, but those in high demand, or those for which a semen bank of 40,000 straws is being prepared (30% of each new young group), can mount as often as four times a week. In 2008, the total production of SION's laboratory reached approximately 1,233,000 doses, with an average of 365 mountings with effective ejaculation per month. The group of mounting bulls primarily comprises bulls aged up to 2.5 years (young and tested bulls), that produce an average of 250 doses per mount. Thus, an average of 160 mounts is required to produce the 40,000 doses stored in the semen bank per bull, a process that takes about a year and a half to complete.

Table 3.7

Average Breeding Value of cows, by birth year – Genetic Trends

Birth Year	Milk kg	Fat kg	Fat %	Protein kg	Protein %	SCS	Daughters' Fertility	Productive Longevity	Calf Mortality	Calving Diff.	Lactation Persist. %	PD07 kg
1987	-680	-33.6	-0.09	-34.2	-0.13	0.03	-0.58	-217	-0.45	-0.14	-3.34	-1264
1988	-546	-32.9	-0.13	-32.0	-0.14	0.10	-0.48	-193	-0.60	-0.65	-2.67	-1198
1989	-426	-31.3	-0.15	-29.6	-0.15	0.13	-0.52	-167	-0.44	-0.54	-2.21	-1121
1990	-290	-28.1	-0.17	-28.1	-0.18	0.12	-0.55	-145	0.00	0.00	-2.13	-1048
1991	-230	-23.1	-0.14	-24.2	-0.16	0.14	-0.22	-133	0.76	0.80	-1.84	-913
1992	-150	-18.2	-0.12	-20.0	-0.14	0.17	0.24	-92	1.41	1.54	-1.64	-751
1993	-125	-17.1	-0.12	-18.0	-0.13	0.25	-0.10	-95	1.35	1.31	-0.94	-721
1994	-128	-15.8	-0.10	-15.2	-0.10	0.22	-0.57	-89	1.60	1.49	-0.72	-641
1995	-164	-12.9	-0.06	-14.0	-0.08	0.19	-0.31	-82	1.33	1.24	-0.93	-572
1996	-91	-10.7	-0.07	-10.7	-0.07	0.13	-0.10	-51	1.37	1.29	-0.43	-427
1997	-71	-6.9	-0.04	-8.3	-0.05	0.09	0.26	-31	1.12	1.02	-0.64	-307
1998	-52	-6.4	-0.04	-5.7	-0.04	0.06	0.78	-4	1.21	1.09	-0.31	-198
1999	-23	-4.0	-0.03	-3.4	-0.02	0.01	0.28	-5	1.10	1.40	-0.24	-122
2000	0	0.0	0.00	0.0	0.00	0.00	0.00	0	1.06	1.46	0.00	-11
2001	62	2.9	0.01	2.8	0.01	0.02	-0.30	17	0.82	1.45	0.53	84
2002	92	4.7	0.02	3.7	0.01	0.01	0.41	37	0.49	1.76	0.51	150
2003	128	8.4	0.04	6.2	0.02	-0.03	0.69	43	0.18	1.70	0.44	260
2004	83	13.0	0.10	7.6	0.05	-0.08	0.62	41	-0.02	1.88	0.60	340
2005	139	16.4	0.11	10.4	0.06	-0.13	1.56	86	0.00	2.46	0.64	498
2006	167	15.7	0.09	12.1	0.06	-0.13	1.94	98	0.04	2.36	0.88	555

Table 3.8

Average Breeding Value of bulls, by birth year

Birth year	Number of bulls	Milk kg	Fat kg	Fat %	Protein kg	Protein %	SCS	Daughters' Fertility	Productive Longevity	PD07
1985	39	-394	-14.4	-0.00	-18.4	-0.06	0.07	-0.06	-136	-683
1986	31	-308	-13.9	-0.03	-16.2	-0.06	0.16	-0.32	-120	-652
1987	38	-263	-14.4	-0.05	-12.6	-0.04	0.16	-0.16	-106	-547
1988	49	-188	-10.4	-0.03	-12.0	-0.06	0.04	-0.58	-89	-477
1989	33	-115	-7.7	-0.03	-11.0	-0.07	0.04	0.03	-72	-412
1990	32	-149	-8.8	-0.03	-11.2	-0.06	0.03	0.57	-79	-413
1991	41	-28	-6.9	-0.05	-5.5	-0.04	0.14	-0.17	-66	-293
1992	42	-191	-5.7	0.01	-6.6	-0.01	0.13	-0.72	-78	-341
1993	53	-226	-8.0	0.00	-8.1	-0.01	0.13	-0.02	-52	-352
1994	46	-129	-5.4	-0.01	-4.7	-0.01	0.08	-1.06	-63	-271
1995	38	-40	2.6	0.04	-0.5	0.01	0.09	-0.64	-44	-88
1996	53	-146	-1.2	0.04	-2.5	0.02	0.13	-1.02	-55	-192
1997	30	-125	0.4	0.05	0.6	0.04	-0.03	0.27	-24	3
1998	58	34	4.9	0.04	5.2	0.04	0.04	-0.86	-22	102
1999	21	-28	-0.3	0.01	1.7	0.03	0.05	0.06	-11	3
2000	28	-75	3.8	0.06	3.2	0.05	-0.04	-0.04	-20	83
2001	44	135	5.0	0.00	6.0	0.02	0.10	-0.09	4	143
2002	55	84	9.9	0.07	6.0	0.03	-0.03	-0.12	-2	201
2003	45	17	12.5	0.11	6.4	0.05	-0.10	-0.09	29	257
2004	26	-60	6.0	0.08	6.0	0.07	-0.04	0.90	31	236

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Table 3.9

Bulls that performed largest number of inseminations (all years)

Bull No.	Bull name	Sire	No. of inseminations
3274	Scorer	Thonyma Secret	199,301
829	Gyus	Oren	198,997
2132	Gaby	Arlinda Jet Stream	181,527
783	Pirchach	Hason	160,375
3651	Avsha	Sea-Mist Bell Extra	150,631
3212	Sinbad	Sunran Sundacer	145,711
2124	Shoeg	Shofet	128,094
7053	Aise	Avsha	121,938
787	Amir	Icar	119,631
3258	Shenef	Pony	115,990
2357	Flor	E-Z-Acres Starlite Bachelor	114,112
3241	Teva	Kingstead Valiant Tab	111,922
3089	Pitspon	Gyus	111,182
3123	Tamim	Crescent Mead Chief Stewart	110,645
3811	Sofon	Sccorer	110,273
3080	Pirate	Sabal	110,058
2122	Shats	Shofet	110,046
3304	Goopi	Goliat	108,771
7060	Badon	Ricecrest Brett	105,100
2176	Genosar	Gyus	103,848

Fertility Statistics

Information on insemination and pregnancy checks enable a thorough analysis of fertility performance at national and herd level. Reports are issued to farmers and are the basis for practical decisions regarding fertility management.
Data is presented as average results by parity categories.

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Table 3.10 & Fig. 3.4

Average Conception Rate at 1st service, for Heifers, 1st Lact. cows and Adult cows (all herds), by years

Conception Rate at 1st service (%)

Year	Heifers	1st Lact. cows	Adult cows
1994	65.6	42.6	34.7
1995	65.1	44.7	36.8
1996	64.6	44.2	36.9
1997	62.7	43.9	35.7
1998	59.6	40.4	33.2
1999	63.3	43.1	36.7
2000	63.2	44.5	37.4
2001	63.9	44.0	37.1
2002	63.8	43.0	36.1
2003	64.6	43.0	36.4
2004	65.9	43.0	35.6
2005	64.2	40.7	32.6
2006	64.3	41.2	33.3
2007	64.3	40.9	33.0
2008	63.1	40.7	30.5

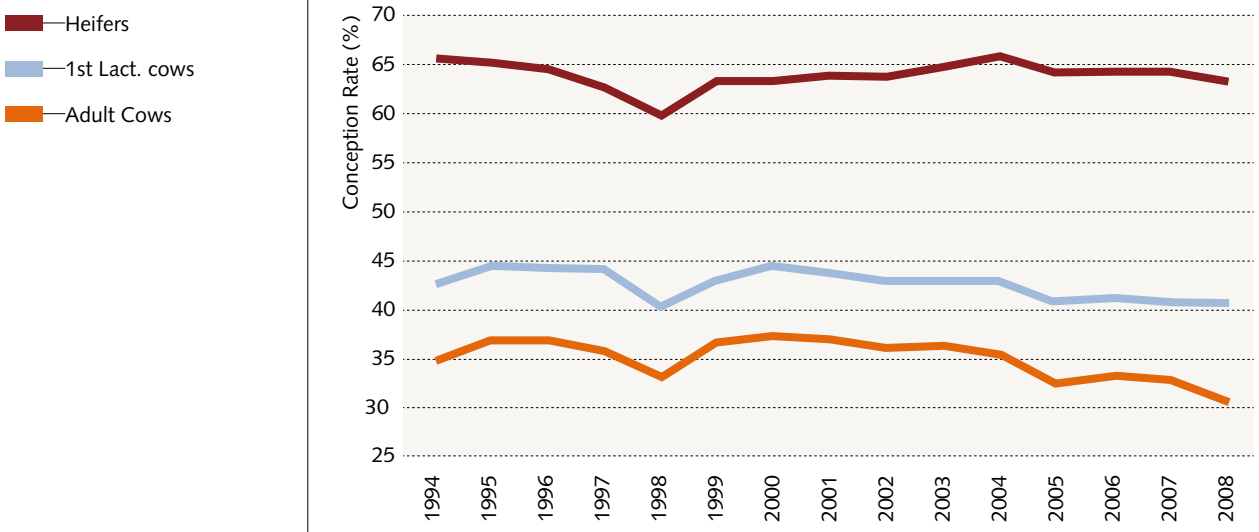

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Table 3.11

Fertility summary for heifers, all herds (period: 11/07 – 10/08)

Number of heifers and Conception Rate, by age at 1st service

	N	% of total	C.R. (%)
< 13 months	17,584	29.9	62.6
14-15 months	36,227	61.6	63.7
16-17 months	4,058	6.9	63.1
18-23 months	941	1.6	53.8
Total	58,810	100	63.1

Number of heifers and Conception Rate, by insemination number

	N	% of total	C.R. (%)
First inseminations	33,686	57.3	63.1
Second inseminations	12,847	21.8	55.1
Third inseminations	5,722	9.7	46.9
Fourth + more inseminations	6,555	11.1	30.5
Total of inseminations	58,810	100	56.2

Heat detection

Distribution of cycles length (days):			
5 - 17	910	4.9	
18 - 15	12,269	65.4	
16 - 35	1,149	6.1	
36 - 60	4,425	23.6	
Total of natural cycles	18,753	89.7	
Induced cycles	2,147	10.3	
Average days between inseminations	27		
Rejections by inseminator		17.8	
Preg.checks with negative results		11.8	

Distribution of heifers by age at pregnancy onset

<13 months	6,525	20.1	
14-15 months	18,312	56.5	
16-17 months	5,279	16.3	
18-19 months	1,638	5.1	
20-21 months	641	2.0	
Average age at effective insem. (mo)	15.2		