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DIRECTORATE-GENERAL FOR AGRICULTURE AND RURAL DEVELOPMENT

Directorate G. Economic analyses and evaluation

G.3. Analysis of the situation of agricultural holdings

Brussels, 14 February 2006

**COSTS OF PRODUCTION FOR MILK
IN THE EUROPEAN UNION
PERIOD 1997 - 2003**

1. Introduction

In 2001, Unit G-3 published estimates of costs of production of milk covering the period 1989 – 1999 (RI/CC 1331 of 07/05/2001). The aim of this new paper is to update the data till 2003, the same methodology as in 2001 has been used.

The basis of the methodology is to allocate inputs to milk. Output plus subsidies is used as key to allocate farming overheads, depreciation and other non-specific inputs. Subsidies are taken into account due to the increasing importance of direct aids support compared to market price support in beef production. This methodology enables to take better into account the co-existence of beef production on farms where costs of milk production are estimated.

2. Need to estimate

It is necessary to estimate costs because FADN accounts, as many others, are not based on analytical accounts. This means that there is no separate recording of costs for the various enterprises. The details of inputs recording is only based on groups of products or of animals, for the specific costs, and for the entire holding, for all the other costs.

It is therefore necessary to define rules to allocate part of the total amount of different costs recorded at the farm level to each enterprise.

Another characteristic of FADN accounts is that no value is given for the fodder areas in some countries (generally of the north of the EU). It comes mainly from the difficulty to estimate production and value of forage. Therefore, based on the principal that forage production is just an input for animal production, and that not recording it - neither on the crops output side, neither on the animal costs side - does not affect the income, no effort is made to estimate it. In other countries, generally those where fodder production is more expensive, a value is allocated to the production of the fodder areas. Even if this difference should not affect margins, it leads to biases when comparing costs between Member States.

3. Definition of costs

With FADN information, it is difficult to take some costs items into account:

- Replacement costs of livestock is not perfectly covered as before 2000 in the farm return there was no information concerning purchases (and sales) of different cattle categories (calves, heifers). Other costs (feed, fixed costs, etc.) should be better covered, due to the definition of 'dairy herd' and the use of milk output and subsidies.
- Depreciation of milk quota is applied in some Member States and not in others. To improve comparability of results, it has been decided to apply a rule of non-depreciation of milk quota in our estimates. It should be mentioned that cost of buying or renting milk quota is covered (through interests and rent paid).
- Family factors costs (land, assets and labour) should be included to cover all costs, allowing a correct comparison. Economic theory tells us that they should be evaluated at their opportunity costs. This was done in the estimates covering 1989/90 – 1999/2000 (RI/CC 1341, 19/11/2001) but not in this one.

- Beef production is covered, neither on the output side, nor on the input side. The purpose of the estimation method is to separate costs between milk and beef productions. As beef can be important in some farms producing milk, synthetic information on beef output and inputs (expressed by tonne milk) is provided.

4. Selection of the sample

According to Eurostat 2003 Farm Structure Survey, 78% of dairy cows are found on specialised dairy farms at EU level (TF41 of European classification of farms). This share varies a lot among Member States (Table 1). To cover around 95% of dairy sector, farms less specialised in milk production should also be covered (TF81 - field crops and grazing, TF43 - cattle rearing and milk, TF71 - mixed livestock mainly grazing).

	Farm Type			
	41	41 + 81	41+ 81 + 43	41 + 81 + 43 + 71
Belgium	63%	73%	89%	92%
Denmark	89%	95%	95%	98%
Germany	71%	88%	92%	95%
Greece	60%	75%	84%	89%
Spain	87%	92%	94%	95%
France	63%	82%	90%	94%
Ireland	92%	93%	98%	98%
Italy	87%	91%	93%	95%
Luxembourg	75%	80%	95%	98%
Netherlands	94%	95%	96%	96%
Austria	75%	78%	95%	97%
Portugal	88%	91%	93%	96%
Finland	93%	96%	99%	99%
Sweden	95%	98%	98%	99%
UK	88%	95%	97%	97%
EU15	78%	89%	93%	96%

Source: Eurostat FSS 2003

The level at which costs of production are calculated is closely linked to the estimation methodology. Due to the need to allocate costs, the more the farm is specialised in milk production, the better should be the estimate.

Even if specialised dairy farms (TF41) are not fully representative of milk production in some Member States, the estimate of the total inputs in specialised dairy farms seems to be a satisfactory 'central' value of the level of costs in all farms producing milk (Table 2).

That is why for this publication, estimates of costs of production for milk are based only on specialised dairy farms.

Table 2: Estimate of total inputs per tonne of milk (current euros) for EU: TF41 versus different level of milk specialisation.

	% milk in total output & subsidies										TF41	
	=<10	10 < - <=20	20 < - <=30	30 < - <=40	40 < - <=50	50 < - <=60	60 < - <=70	70 < - <=80	80 < - <=90	>90		all farms
1997	249	237	249	256	253	249	249	251	248	254	250	249
1998	220	247	248	260	250	246	245	247	242	239	246	244
1999	206	246	255	250	247	245	243	244	238	235	243	241
2000	258	243	255	251	253	251	247	251	241	245	248	246
2001	271	219	266	268	269	265	263	255	252	249	259	255
2002	266	249	262	263	265	256	255	253	246	243	254	251
2003	294	252	262	263	265	259	253	250	244	254	254	250

Source : FADN - EU - DG AGRI G-3 / Internal model

5. Details of the methodology

The calculation is done for each individual holding. To take account of the differences in records, fodder production used on the farm is treated in the following way:

- the value of the farm use of non-fodder plants produced on the farm (e.g. barley, rye, etc) is retained in item 'Crops used for feed', but the farm use value of all crops used as forage (fodder roots, other fodder plants - e.g. silage of cereals, temporary grass, meadows and pastures and rough grazing) is excluded,
- the value of fodder plants is estimated by the specific costs of the crops (seeds, fertilisers, crop protection) on the basis of the area. As all types of forage crops do not benefit of the same inputs (e.g. no crop protection on temporary grass), the area take into account - on the forage part and on the total area part - varies according the input. This item is called 'Specific forage costs'.

The allocation of the charges to milk production is based on three criteria (see following table):

1. the proportion of livestock units: for the specific costs (mainly feed),
2. the proportion of area: for costs of farm-produced forage,
3. the proportion of output & subsidies: for the other costs.

'Dairy cattle' is defined as dairy cows and a share of total breeding heifers and young females. This share is equal to the proportion of dairy cows in total number of cows (dairy cows, cull dairy cows and other cows).

As 'output & subsidies' is used to build the allocation key, some precautions are needed to prevent problems in estimates:

- Output & subsidies respectively on milk, beef and total production should be positive
 - Milk and beef output & subsidies should not be greater than total output & subsidies
- Farms that do not respect these conditions are excluded from the sample.

COSTS ITEMS	ALLOCATION KEYS FOR MILK PRODUCTION ¹
Purchased feed for grazing livestock (concentrates & coarse fodder) Farm-use of non forage crops	% of 'dairy' livestock units in the total of grazing livestock units
Farm-use of forage crops = "Specific forage costs" Seeds Fertilisers Crop protection	% of 'dairy' livestock units in the total of grazing livestock units X % area of fodder crops (144), other forage crops (145) and temporary grass (147) in the total UAA - after exclusion of fallow lands (146), areas leased to others (149), meadows (150) and rough grazing (151) % area of fodder crops (144), other forage crops (145), temporary grass (147) and meadows (150) in the total UAA - after exclusion of fallow lands (146), areas leased to others (149) and rough grazing (151) % area of fodder crops (144) and other forage crops (145) in the total UAA - after exclusion of fallow lands (146), temporary grass (147), areas leased to others (149), meadows (150) and rough grazing (151)
Other specific livestock costs (e.g. veterinary costs)	% of 'dairy' livestock units in the total of livestock units
all other costs: - farming overheads, - depreciation, - external factors costs (wages, rent and interest paid).	% of milk and milk products output & subsidies in the total output & subsidies - after deduction of farm use of forage crops and subsidies not related to a specific production: subsidies on interests (89), rent (85), taxes (83 & 88), wages (59), intermediate consumption, for purchase of livestock, environment (800 & 810), for forest plantation (900), other support to forestry (910), calamity (998), extraordinary payments (999) and others (950, 951 & 952).

¹ Codes refer to products or costs codes in the farm return (Commission Regulation n° 1837/2001 from 10 September 2001).

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne)

		1997	1998	1999	2000	2001	2002	2003	03/97	03/99
Representativity of sample	Farms represented (n.)	415 300	406 000	363 800	367 100	367 100	326 500	319 500	-23%	-12%
	Sample farms (n.)	9 600	9 200	9 900	9 800	9 500	9 600	8 700	-9%	-12%
Structural information	Total util. Agricult. Area - ha	40	40	43	43	43	48	50	25%	17%
	Forage area - ha	33	33	36	36	36	39	40	21%	13%
	Dairy cows - LU	35	35	38	38	39	42	45	29%	17%
	Other cattle - LU	24	24	26	26	27	28	30	23%	14%
	Total livestock - LU	62	63	68	68	69	73	78	25%	15%
	Stocking density - LU/ha	1.7	1.8	1.8	1.8	1.8	1.7	1.8	2%	1%
	Milk yield - kg/cow	5 965	6 039	6 216	6 246	6 285	6 420	6 536	10%	5%
Milk production - tons	206	213	238	240	245	268	292	42%	23%	
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	323	318	310	322	339	322	313	-3%	1%
	- Price	320	316	308	319	336	319	312	-3%	1%
	- Balance subsidies	2.8	2.1	2.1	2.2	2.5	2.3	1.5	-45%	-27%
Costs (Euro / tonne of milk)	Total feed	85	80	77	79	84	82	87	3%	13%
	- Purchased concentrate feed	50	47	46	50	53	52	55	10%	18%
	- Purchased coarse fodder	8	7	7	6	7	7	9	10%	28%
	- Farm product. Crops used for feed	10	10	9	9	9	9	10	-7%	8%
	- Spec. forage costs	17	15	15	14	15	14	14	-17%	-5%
	Other specific costs	20	20	20	20	21	19	19	-7%	-5%
	Total specific costs	105	99	97	99	104	101	106	1%	10%
	Farming overheads	64	64	64	66	69	69	66	3%	2%
	Total intermediate consumption	168	163	161	166	173	170	171	2%	7%
	Depreciation	41	42	42	43	43	42	41	-1%	-2%
	External factors	39	39	38	37	39	39	38	-3%	0%
	- Wages paid	10	9	9	9	10	10	11	9%	19%
	- Interests paid	16	15	15	14	15	15	13	-16%	-8%
- Rent paid	14	14	15	14	14	15	14	2%	-3%	
Total inputs	249	244	241	246	255	251	250	1%	4%	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	74	73	70	76	83	71	63	-15%	-10%
	Margin on total inputs excl. subsid.	71	71	68	74	81	68	61	-14%	-9%
Joint milk and beef production (Euro / tonne of milk)	Total receipts	396	387	377	389	401	387	377	-5%	0%
	Total inputs for milk and beef	307	299	294	300	308	305	304	-1%	3%
	Margins on the joint production	89	87	83	89	93	82	73	-19%	-12%

Source : FADN - EU - DG AGRI G-3 / Internal model

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne) - Year 2003

		BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	OST	POR	SUO	SVE	UKI	EU15
Representativity of sample	Farms represented (n.)	7 700	6 000	70 300		17 200	61 600	21 300	32 900	700	20 600	29 100	8 200	15 300	8 500	18 600	319 500
	Sample farms (n.)	280	380	1 770		710	1 130	410	1 130	220	360	740	330	310	330	620	8 710
Structural information	Total util. Agricult. Area - ha	44	89	53		19	68	49	30	84	45	21	16	42	96	90	50
	Forage area - ha	38	62	40		15	55	48	23	65	43	18	14	27	66	80	40
	Dairy cows - LU	49	85	42		30	41	46	52	42	73	15	24	22	45	93	45
	Other cattle - LU	32	52	33		11	34	39	29	65	30	10	10	12	35	53	30
	Total livestock - LU	87	142	78		42	77	87	85	108	115	25	34	34	84	160	78
	Stocking density - LU/ha	2.1	2.0	1.8		2.5	1.3	1.8	3.4	1.6	2.4	1.2	2.2	1.2	1.1	1.9	1.8
	Milk yield - kg/cow	5 912	7 726	6 622		5 710	5 956	5 227	6 588	7 041	7 419	5 944	5 925	8 021	7 910	6 855	6 536
	Milk production - tons	292	657	281		171	246	239	344	297	540	86	140	174	356	639	292
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	296	330	297		307	317	268	370	316	324	290	286	452	343	258	313
	- Price	300	332	299		307	318	269	373	320	325	290	281	359	343	258	312
	- Balance subsidies	(3.4)	(2.0)	(2.0)		-	(0.7)	(0.5)	(2.4)	(3.5)	(1.2)	-	4.7	92.5	-	(0.1)	1.5
Costs (Euro / tonne of milk)	Total feed	71	92	77		114	81	70	141	64	67	74	104	106	101	73	87
	- Purchased concentrate feed	36	60	47		86	40	37	100	34	41	36	76	72	74	50	55
	- Purchased coarse fodder	8	12	3		18	6	2	25	1	12	8	8	1	4	5	9
	- Farm product. Crops used for feed	8	7	14		4	11	11	9	13	2	22	2	16	13	6	10
	- Spec. forage costs	19	12	13		5	24	20	8	16	11	7	19	18	10	13	14
	Other specific costs	18	24	21		15	12	17	12	17	20	24	23	29	16	25	19
	Total specific costs	89	116	98		129	93	88	153	81	86	98	128	135	117	98	106
	Farming overheads	45	68	78		29	91	41	33	62	72	77	36	107	86	49	66
	Total intermediate consumption	134	184	176		158	184	129	187	143	158	175	163	242	204	147	171
	Depreciation	33	38	45		15	54	21	33	78	36	73	28	83	66	25	41
	External factors	30	88	40		10	31	26	27	32	58	12	15	29	54	38	38
	- Wages paid	1	22	11		4	3	9	17	5	6	2	6	11	23	17	11
	- Interests paid	14	55	9		2	10	7	1	10	35	5	2	11	20	9	13
	- Rent paid	14	12	20		4	18	10	9	16	17	5	6	8	11	12	14
Total inputs	197	310	261		183	269	175	247	253	253	260	206	354	323	210	250	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	99	20	36		125	48	93	124	64	71	30	80	98	20	48	63
	Margin on total inputs excl. subsid.	103	22	38		125	49	93	126	67	72	30	75	6	20	48	61
Joint milk and beef production (Euro / tonne of milk)	Total receipts	375	370	364		378	405	376	420	435	357	400	322	503	401	307	377
	Total inputs for milk and beef	244	355	323		212	342	250	286	387	282	344	236	407	391	253	304
	Margins on the joint production	131	15	41		166	62	126	134	48	76	55	85	96	10	54	73

Source : FADN - EU - DG AGRI G-3 / Internal model

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne) - Year 2002

		BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	OST	POR	SUO	SVE	UKI	EU15
Representativity of sample	Farms represented (n.)	7 200	6 100	71 200	2 500	20 400	62 400	20 500	34 300	700	20 700	29 100	9 700	14 900	8 300	18 500	326 500
	Sample farms (n.)	290	400	1 830	20	860	1 240	390	1 760	240	330	730	340	320	340	540	9 620
Structural information	Total util. Agricult. Area - ha	43	88	51	8	19	65	49	25	80	45	20	21	41	97	89	48
	Forage area - ha	38	59	39	2	15	52	48	20	62	42	18	19	26	64	80	39
	Dairy cows - LU	50	84	42	19	31	41	44	34	41	70	14	20	21	45	92	42
	Other cattle - LU	33	53	33	8	10	32	40	18	62	31	9	10	12	35	55	28
	Total livestock - LU	89	142	77	28	42	75	86	52	104	113	25	30	33	81	161	73
	Stocking density - LU/ha	2.2	2.1	1.8	6.7	2.5	1.4	1.8	2.3	1.7	2.3	1.3	1.5	1.2	1.1	1.9	1.7
	Milk yield - kg/cow	5 785	7 414	6 490	4 457	5 839	5 981	5 064	6 268	6 879	7 366	5 743	5 901	7 964	8 038	6 660	6 420
	Milk production - tons	291	622	271	87	179	245	223	210	283	515	83	119	166	359	615	268
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	302	342	310	331	306	322	280	398	322	337	326	300	446	327	270	322
	- Price	303	343	310	331	306	322	282	398	327	337	326	297	353	327	270	319
	- Balance subsidies	(0.7)	(0.3)	(0.1)	-	0.2	(0.5)	(1.6)	(0.3)	(5.5)	(0.8)	-	3.0	92.7	-	(0.0)	2.3
Costs (Euro / tonne of milk)	Total feed	74	98	74	176	110	79	72	117	64	67	56	104	104	104	75	82
	- Purchased concentrate feed	37	65	45	112	89	40	39	84	34	41	36	78	70	76	51	52
	- Purchased coarse fodder	9	12	2	43	16	4	2	17	1	13	6	5	1	4	6	7
	- Farm product. Crops used for feed	9	8	15	18	(1)	11	11	8	13	2	6	2	17	13	5	9
	- Spec. forage costs	19	13	12	2	7	24	20	9	16	11	7	18	17	11	14	14
	Other specific costs	17	23	20	10	14	11	20	12	17	20	32	22	29	17	26	19
	Total specific costs	91	121	94	185	124	90	92	130	81	87	88	125	133	120	102	101
	Farming overheads	47	69	81	21	26	90	46	35	65	78	72	40	105	83	51	69
	Total intermediate consumption	138	191	174	207	150	180	138	165	146	165	160	166	239	203	152	170
	Depreciation	33	40	47	25	14	51	25	41	79	36	69	30	78	60	26	42
	External factors	30	95	41	15	11	31	27	25	34	62	14	16	28	54	41	39
	- Wages paid	1	22	10	8	5	3	8	12	5	7	3	7	10	23	19	10
	- Interests paid	15	61	9	3	2	10	8	2	12	38	6	3	11	19	10	15
	- Rent paid	14	12	21	5	4	18	10	10	17	18	5	6	7	12	12	15
Total inputs	201	325	262	247	176	262	189	231	258	263	242	212	345	317	219	251	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	101	18	48	84	131	59	91	167	64	74	84	88	101	10	51	71
	Margin on total inputs excl. subsid.	102	18	48	84	131	60	93	167	69	74	84	85	9	10	51	68
Joint milk and beef production (Euro / tonne of milk)	Total receipts	373	387	381	427	370	405	403	450	420	370	437	343	498	383	324	387
	Total inputs for milk and beef	246	374	325	310	203	331	278	266	382	293	315	252	400	384	266	305
	Margins on the joint production	127	13	56	117	167	74	126	184	38	77	122	91	98	(1)	58	82

Source : FADN - EU - DG AGRI G-3 / Internal model

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne) - Year 2001

		BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	OST	POR	SUO	SVE	UKI	EU15
Representativity of sample	Farms represented (n.)	7 800	8 500	77 900	2 000	28 700	67 500	24 900	37 600	900	24 200	26 700	9 300	19 300	11 600	20 400	367 100
	Sample farms (n.)	300	400	1 590	20	1 190	1 230	470	1 650	220	310	630	330	320	350	540	9 540
Structural information	Total util. Agricult. Area - ha	40	68	42	7	14	61	46	25	80	41	21	15	38	78	84	43
	Forage area - ha	36	47	35	3	12	50	45	21	63	39	18	13	25	53	77	36
	Dairy cows - LU	47	65	36	20	25	39	41	35	41	64	15	20	19	37	90	39
	Other cattle - LU	33	44	29	8	8	31	38	20	64	29	9	9	11	29	56	27
	Total livestock - LU	85	113	67	28	33	74	81	56	106	106	26	30	31	68	158	69
	Stocking density - LU/ha	2.2	2.1	1.9	8.5	2.4	1.4	1.8	2.3	1.7	2.4	1.3	2.1	1.2	1.1	2.0	1.8
	Milk yield - kg/cow	5 641	7 055	6 323	3 862	5 564	5 816	5 148	6 102	6 687	7 312	5 669	5 513	7 750	7 879	6 567	6 285
	Milk production - tons	267	461	227	77	138	228	212	214	274	470	85	112	150	292	590	245
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	326	347	339	316	319	329	305	403	330	351	334	285	436	324	307	339
	- Price	326	349	340	316	319	329	305	403	332	352	334	280	342	324	307	336
	- Balance subsidies	-	(1.7)	(1.3)	-	0.1	(0.2)	(0.4)	(0.3)	(1.8)	(1.1)	-	4.7	93.9	-	(0.0)	2.5
Costs (Euro / tonne of milk)	Total feed	74	98	72	157	100	83	70	118	64	65	55	107	111	102	85	84
	- Purchased concentrate feed	38	66	43	103	81	43	36	84	34	41	36	77	74	77	57	53
	- Purchased coarse fodder	8	12	3	31	13	4	2	19	1	11	8	9	1	3	8	7
	- Farm product. Crops used for feed	9	8	14	20	(4)	11	12	6	12	2	5	2	17	12	5	9
	- Spec. forage costs	18	13	13	4	11	25	20	8	16	11	6	18	18	11	15	15
	Other specific costs	16	23	22	12	18	16	19	18	17	18	30	20	29	15	28	21
	Total specific costs	90	121	94	169	119	99	89	135	81	83	85	126	139	118	113	104
	Farming overheads	47	71	85	18	26	85	51	40	63	75	71	34	99	85	54	69
	Total intermediate consumption	137	192	179	187	145	184	140	175	143	158	156	161	239	203	167	173
	Depreciation	34	41	54	28	18	51	26	41	79	35	71	31	72	62	30	43
	External factors	30	91	39	13	8	31	28	29	37	60	14	16	28	47	43	39
	- Wages paid	1	19	8	6	2	3	8	18	4	5	3	7	8	19	20	10
	- Interests paid	15	63	9	3	2	10	9	3	15	37	7	3	13	18	12	15
	- Rent paid	14	9	21	5	3	18	11	8	17	17	5	6	7	10	11	14
Total inputs	200	325	272	228	170	266	194	245	259	254	242	207	338	312	240	255	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	125	22	67	88	149	63	111	158	71	97	92	78	98	12	67	83
	Margin on total inputs excl. subsid.	125	24	68	88	149	63	111	158	73	98	92	73	4	12	67	81
Joint milk and beef production (Euro / tonne of milk)	Total receipts	396	390	405	437	370	408	421	458	436	381	429	318	492	376	363	401
	Total inputs for milk and beef	247	375	332	292	191	333	280	284	389	281	305	239	395	376	289	308
	Margins on the joint production	149	15	73	145	179	75	141	174	47	99	125	79	97	0	74	93

Source : FADN - EU - DG AGRI G-3 / Internal model

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne) - Year 2000

		BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	OST	POR	SUO	SVE	UKI	EU15
Representativity of sample	Farms represented (n.)	7 900	8 300	80 100	1 700	28 700	68 500	20 800	37 700	900	26 200	26 300	9 900	18 400	11 200	20 600	367 100
	Sample farms (n.)	310	410	1 660	20	1 160	1 240	360	1 690	190	390	670	440	330	330	640	9 810
Structural information	Total util. Agricult. Area - ha	40	68	42	6	15	61	47	24	75	38	20	17	37	76	83	43
	Forage area - ha	35	46	35	2	13	49	46	20	59	36	18	15	25	53	75	36
	Dairy cows - LU	47	64	37	23	25	39	42	34	38	60	15	22	19	37	85	38
	Other cattle - LU	32	43	29	9	8	31	40	17	60	28	9	10	12	32	55	26
	Total livestock - LU	83	111	67	32	33	75	84	52	100	103	26	32	31	70	153	68
	Stocking density - LU/ha	2.3	2.2	1.9	8.5	2.3	1.4	1.8	2.3	1.7	2.5	1.3	2.0	1.2	1.2	2.0	1.8
	Milk yield - kg/cow	5 663	7 076	6 312	4 140	5 314	5 813	5 006	5 822	6 524	7 623	5 495	5 713	7 628	8 096	6 297	6 246
	Milk production - tons	266	455	232	94	132	224	212	196	251	458	82	126	146	297	536	240
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	307	329	325	328	288	317	289	383	310	323	304	273	428	348	280	322
	- Price	307	331	326	328	288	318	290	383	314	323	304	268	335	348	281	319
	- Balance subsidies	-	(1.1)	(1.9)	-	(0.0)	(0.4)	(1.4)	(0.1)	(4.2)	-	-	5.0	93.1	-	(0.8)	2.2
Costs (Euro / tonne of milk)	Total feed	70	89	70	172	107	77	65	116	61	60	53	98	107	102	77	79
	- Purchased concentrate feed	36	59	42	120	81	39	32	84	32	36	34	71	72	73	52	50
	- Purchased coarse fodder	8	11	2	34	16	3	3	16	1	8	7	7	2	3	6	6
	- Farm product. Crops used for feed	9	8	14	15	1	11	11	7	14	4	6	3	15	14	5	9
	- Spec. forage costs	18	11	12	4	9	23	19	8	14	12	6	18	18	11	14	14
	Other specific costs	17	21	24	11	15	16	23	16	17	15	29	18	27	13	28	20
	Total specific costs	87	110	94	183	122	92	88	132	78	76	82	117	134	115	106	99
	Farming overheads	43	65	76	18	23	82	51	47	59	69	68	35	98	92	53	66
	Total intermediate consumption	130	175	169	200	145	174	139	179	137	145	150	152	231	207	159	166
	Depreciation	33	39	51	25	18	47	25	45	79	37	67	32	70	63	34	43
	External factors	30	85	37	11	7	29	29	22	33	49	14	18	28	49	50	37
	- Wages paid	1	18	7	4	2	3	9	11	5	3	2	8	8	19	22	9
	- Interests paid	15	57	9	2	3	10	9	2	13	29	7	4	13	19	15	14
	- Rent paid	13	10	20	4	3	17	12	9	15	16	5	7	7	11	12	14
Total inputs	193	299	257	236	170	250	193	246	249	230	231	202	329	319	243	246	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	114	30	68	92	118	67	95	137	61	92	73	70	99	29	38	76
	Margin on total inputs excl. subsid.	114	32	70	92	118	67	97	137	65	92	73	65	6	29	38	74
Joint milk and beef production (Euro / tonne of milk)	Total receipts	388	383	395	440	347	408	413	443	432	360	407	308	484	407	331	389
	Total inputs for milk and beef	242	352	316	303	194	320	283	285	384	261	298	234	386	390	292	300
	Margins on the joint production	147	31	79	136	153	88	130	158	48	99	108	73	98	17	40	89

Source : FADN - EU - DG AGRI G-3 / Internal model

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne) - Year 1999

		BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	OST	POR	SUO	SVE	UKI	EU15
Representativity of sample	Farms represented (n.)	7 800	8 400	80 400	1 600	25 900	68 300	20 800	36 900	900	26 300	26 600	9 000	18 800	10 600	21 500	363 800
	Sample farms (n.)	320	390	1 680	20	920	1 220	330	1 940	180	390	680	460	320	330	780	9 940
Structural information	Total util. Agricult. Area - ha	39	69	41	6	14	61	45	23	75	38	20	14	34	94	82	43
	Forage area - ha	35	45	34	3	13	49	43	19	59	36	18	13	23	72	73	36
	Dairy cows - LU	47	65	36	20	24	39	39	32	39	60	15	22	18	36	86	38
	Other cattle - LU	32	45	29	8	8	31	39	17	60	28	9	9	11	31	54	26
	Total livestock - LU	85	113	67	28	33	73	81	50	100	103	25	31	29	68	153	68
	Stocking density - LU/ha	2.2	2.2	1.9	6.8	2.4	1.4	1.9	2.3	1.7	2.5	1.3	2.3	1.2	0.9	2.0	1.8
	Milk yield - kg/cow	5 670	7 024	6 228	4 219	5 406	5 782	4 873	5 835	6 360	7 598	5 229	5 546	7 351	8 169	6 330	6 216
	Milk production - tons	269	459	224	83	132	225	191	188	248	456	77	121	131	293	547	238
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	295	324	300	334	283	310	281	387	315	311	304	274	421	317	276	310
	- Price	295	325	301	334	283	310	282	387	316	312	304	269	328	317	277	308
	- Balance subsidies	0.1	(0.7)	(0.9)	0.3	0.1	(0.3)	(0.2)	(0.0)	(1.7)	(1.5)	-	5.1	93.3	-	(1.0)	2.1
Costs (Euro / tonne of milk)	Total feed	69	88	66	158	103	75	65	114	60	63	51	102	107	99	72	77
	- Purchased concentrate feed	35	57	40	101	73	36	32	79	30	36	32	73	69	70	46	46
	- Purchased coarse fodder	8	12	3	32	19	3	3	16	1	12	5	9	1	3	6	7
	- Farm product. Crops used for feed	8	8	12	19	2	11	10	9	14	4	6	2	16	13	6	9
	- Spec. forage costs	17	11	12	6	9	25	19	10	14	12	7	19	22	13	14	15
	Other specific costs	16	21	23	14	14	16	21	13	16	15	28	19	24	12	28	20
	Total specific costs	85	108	89	172	117	91	85	126	76	79	79	121	132	110	100	97
	Farming overheads	41	65	73	19	20	81	54	36	63	65	76	33	101	87	53	64
	Total intermediate consumption	127	173	162	191	137	172	139	163	139	144	155	154	233	197	153	161
	Depreciation	33	37	50	23	16	46	16	42	89	37	72	32	75	61	33	42
	External factors	30	87	36	14	10	29	31	23	36	48	14	20	28	46	53	38
	- Wages paid	1	21	8	6	4	3	9	10	6	3	3	10	8	19	22	9
	- Interests paid	16	57	9	2	3	10	9	3	12	29	7	3	12	17	14	15
	- Rent paid	13	9	20	6	3	17	14	10	18	15	5	6	7	10	17	15
Total inputs	189	297	249	229	163	246	186	228	263	229	242	206	336	304	238	241	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	106	27	51	105	120	63	95	159	52	82	62	68	85	13	38	70
	Margin on total inputs excl. subsid.	106	28	52	105	120	64	95	159	53	83	62	63	(8)	13	39	68
Joint milk and beef production (Euro / tonne of milk)	Total receipts	372	374	377	456	337	399	389	448	426	348	400	309	472	368	328	377
	Total inputs for milk and beef	235	349	313	290	186	315	271	264	395	260	309	238	392	370	286	294
	Margins on the joint production	137	25	64	166	151	85	118	184	31	88	91	72	81	(1)	42	83

Source : FADN - EU - DG AGRI G-3 / Internal model

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne) - Year 1998

		BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	OST	POR	SUO	SVE	UKI	EU15
Representativity of sample	Farms represented (n.)	8 800	9 900	99 600	2 800	33 400	69 400	21 500	33 700	1 000	28 200	27 800	10 600	21 800	12 900	24 600	406 000
	Sample farms (n.)	300	410	1 510	30	870	1 090	270	1 530	180	390	680	470	350	340	770	9 170
Structural information	Total util. Agricult. Area - ha	38	59	40	5	12	55	41	24	73	36	20	15	30	74	77	40
	Forage area - ha	34	39	32	2	10	46	39	21	57	34	18	13	20	54	70	33
	Dairy cows - LU	45	59	33	13	22	36	36	35	39	57	14	18	16	30	79	35
	Other cattle - LU	30	40	27	5	7	26	36	16	59	28	10	8	10	28	49	24
	Total livestock - LU	80	104	63	18	29	65	75	51	100	103	25	26	26	59	142	63
	Stocking density - LU/ha	2.2	2.4	1.9	6.3	2.4	1.3	1.9	2.2	1.7	2.6	1.3	1.8	1.2	1.0	2.0	1.8
	Milk yield - kg/cow	5 535	6 794	5 987	4 272	5 045	5 704	4 677	5 768	6 150	7 348	5 116	5 325	7 112	8 032	6 122	6 039
	Milk production - tons	248	399	195	55	109	206	168	199	241	417	73	94	115	243	482	213
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	305	339	307	327	289	314	288	396	321	322	302	275	423	344	282	318
	- Price	305	340	308	317	289	314	289	396	320	324	302	267	328	344	282	316
	- Balance subsidies	(0.4)	(0.7)	(1.2)	10.3	(0.1)	(0.3)	(1.3)	(0.1)	0.8	(1.9)	-	7.6	94.2	-	(0.5)	2.1
Costs (Euro / tonne of milk)	Total feed	71	92	69	151	105	79	64	119	61	68	50	106	105	108	69	80
	- Purchased concentrate feed	35	61	38	103	75	38	31	83	32	37	32	75	64	76	45	47
	- Purchased coarse fodder	8	11	3	23	18	4	2	20	0	13	5	9	2	2	6	7
	- Farm product. Crops used for feed	9	9	16	22	3	11	12	6	15	4	6	2	17	17	6	10
	- Spec. forage costs	19	12	13	4	9	26	19	10	14	13	7	20	22	13	13	15
	Other specific costs	16	20	23	8	13	16	22	14	17	16	28	20	25	13	29	20
	Total specific costs	88	112	92	159	118	95	86	133	78	84	78	126	130	121	98	99
	Farming overheads	41	64	74	21	24	79	56	35	60	65	73	37	105	87	52	64
	Total intermediate consumption	129	176	166	181	142	174	142	168	138	148	151	163	235	208	150	163
	Depreciation	32	36	49	21	16	43	19	42	87	38	71	35	77	77	33	42
	External factors	32	86	37	9	12	28	34	21	35	49	15	20	30	46	53	39
	- Wages paid	1	20	8	3	6	2	9	10	5	3	3	10	10	16	23	9
	- Interests paid	17	58	10	1	4	10	12	2	12	30	7	3	14	21	15	15
	- Rent paid	13	9	19	4	3	16	13	8	17	16	5	7	7	10	16	14
Total inputs	193	299	252	211	170	245	195	231	260	235	237	218	342	331	237	244	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	112	41	55	116	118	69	93	165	60	87	65	57	81	13	45	73
	Margin on total inputs excl. subsid.	112	41	56	106	118	69	94	165	60	89	65	49	(13)	13	45	71
Joint milk and beef production (Euro / tonne of milk)	Total receipts	388	396	389	431	350	400	398	453	439	364	406	312	477	408	335	387
	Total inputs for milk and beef	241	354	320	279	197	308	283	265	395	270	309	251	400	409	284	299
	Margins on the joint production	147	42	68	152	153	92	115	188	45	94	97	61	77	(1)	51	87

Source : FADN - EU - DG AGRI G-3 / Internal model

Average costs of production of milk in specialist dairying farms (TF41) in the EU15 (Euro per tonne) - Year 1997

		BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	OST	POR	SUO	SVE	UKI	EU15
Representativity of sample	Farms represented (n.)	8 700	9 900	103 700	2 800	33 900	68 600	24 600	33 600	1 000	28 200	28 000	11 100	23 300	12 600	25 400	415 300
	Sample farms (n.)	300	500	1 600	20	880	1 090	310	1 500	180	450	680	510	450	320	760	9 580
Structural information	Total util. Agricult. Area - ha	38	59	40	4	12	54	41	23	69	36	20	12	29	97	77	40
	Forage area - ha	34	38	31	1	10	45	39	21	53	34	18	11	19	77	71	33
	Dairy cows - LU	44	58	32	14	19	36	36	33	36	56	14	16	15	30	79	35
	Other cattle - LU	30	40	26	8	6	26	35	16	53	30	10	7	9	28	51	24
	Total livestock - LU	80	103	62	22	26	64	74	51	91	104	25	23	25	59	144	62
	Stocking density - LU/ha	2.2	2.5	1.8	8.1	2.2	1.3	1.9	2.2	1.7	2.6	1.3	2.0	1.3	0.7	2.0	1.7
	Milk yield - kg/cow	5 558	6 680	5 835	3 856	4 881	5 660	4 657	5 581	5 886	7 383	4 972	5 218	6 819	8 185	6 171	5 965
	Milk production - tons	244	386	187	55	92	203	166	187	214	416	72	85	105	249	486	206
Receipts from milk (Euro / tonne of milk)	Total receipts from milk	304	333	299	363	289	308	288	437	310	326	297	282	447	343	313	323
	- Price	305	335	301	353	286	308	290	435	309	327	297	268	335	343	313	320
	- Balance subsidies	(1.7)	(1.7)	(2.2)	10.6	3.9	(0.5)	(1.4)	1.4	0.5	(1.1)	-	14.8	111.6	-	0.5	2.8
Costs (Euro / tonne of milk)	Total feed	79	99	75	197	106	84	64	126	69	75	55	109	108	111	79	85
	- Purchased concentrate feed	39	63	40	133	74	40	30	89	32	42	35	78	64	79	50	50
	- Purchased coarse fodder	10	12	4	46	18	5	2	20	0	15	6	8	2	2	6	8
	- Farm product. Crops used for feed	9	10	16	15	4	13	13	8	20	3	6	3	18	17	6	10
	- Spec. forage costs	21	14	15	3	11	27	19	10	17	14	8	21	23	14	17	17
	Other specific costs	16	19	24	11	14	15	22	14	17	15	29	17	26	10	30	20
	Total specific costs	94	118	98	208	119	99	86	140	86	90	83	126	134	122	109	105
	Farming overheads	41	61	74	19	23	75	54	36	66	61	74	38	111	86	54	64
	Total intermediate consumption	136	179	172	227	143	174	140	176	152	150	157	165	245	208	163	168
	Depreciation	33	34	48	18	15	42	20	46	83	37	72	36	59	70	33	41
	External factors	32	84	39	10	11	28	35	18	33	49	15	22	31	51	54	39
	- Wages paid	1	19	11	4	4	2	10	6	4	4	3	10	9	16	23	10
	- Interests paid	18	57	11	1	4	10	12	4	12	30	7	5	16	25	14	16
	- Rent paid	13	9	18	5	3	15	13	8	17	15	5	7	6	10	16	14
Total inputs	201	298	260	255	169	244	196	240	269	236	245	222	335	329	250	249	
Margin (Euro / tonne of milk)	Margin on total inputs incl. Subsid.	103	35	40	108	121	63	93	196	41	89	53	60	111	15	64	74
	Margin on total inputs excl. subsid.	104	37	42	98	117	64	94	195	40	90	53	45	(0)	15	63	71
Joint milk and beef production (Euro / tonne of milk)	Total receipts	388	391	381	514	360	388	422	501	423	371	391	320	510	394	385	396
	Total inputs for milk and beef	251	355	330	330	199	304	291	274	406	274	315	257	399	397	306	307
	Margins on the joint production	137	36	51	184	162	83	131	226	17	97	76	62	111	(3)	78	89

Source : FADN - EU - DG AGRI G-3 / Internal model