

# FORKFUL OF FACTS

Finnish Food Industry Statistics 2017



Ruokatieto

## FOR THE READER

Forkful of Facts – Food Industry Statistics contains a wide variety of figures concerning Finnish agriculture, covering the entire food chain, from field to fork.

Forkful of Facts presents figures about food chain practices and value-adding factors, which can be utilised to enhance the competitiveness of the Finnish food chain, which relies on responsible practices. The statistics have been divided under headings environment, product safety, nutrition, work and well-being at work, animals and animal well-being, locality and economy. This division follows the seven dimensions of food chain sustainability. Nevertheless, it must be noted that the selected statistics do not measure the level of sustainability, as research on the subject is still at an early stage.

The latest information in this Forkful of Facts is mainly from 2016. We have also included information from earlier years as well as international data for comparison.

A paper copy of Forkful of Facts is available in three languages (Finnish, Swedish, English) and it is also available online at [www.ruokatieto.fi/tietohaarukka](http://www.ruokatieto.fi/tietohaarukka).



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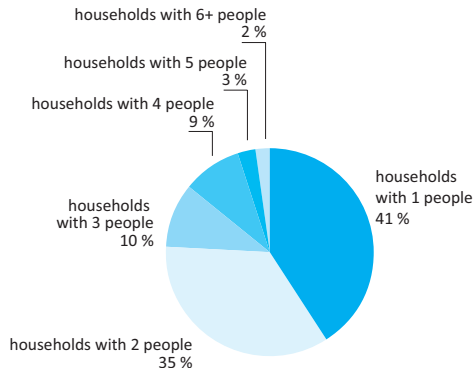
Explanation of symbols:

p. = preliminary data

.. = data not available

### HOUSEHOLDS BY SIZE

In 2015 there were 2 655 500 households in Finland.



Source: Statistics Finland

The population of Finland was 5 502 593 in December 2016.

On 1st January 2017 the population density of Finland was approximately 18.11 people per square kilometer.

The average size of a household was approximately 2.04 people in the year 2015.

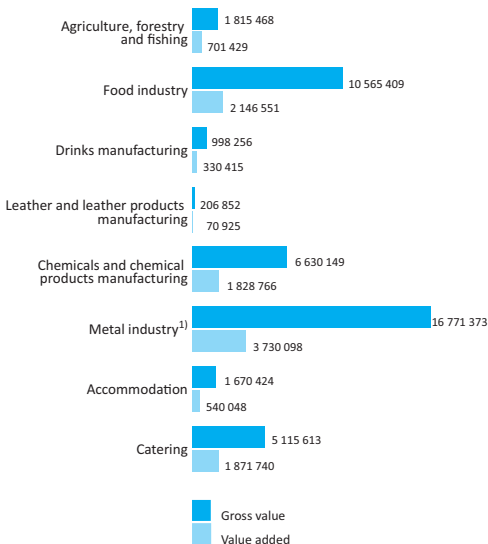
Source: Statistics Finland

GROSS DOMESTIC PRODUCT

Distribution by field of activity % <sup>1)</sup>	2005	2010	2014 p.	2015 p.
Agriculture, forestry and fishing	2.6	2.7	2.8	2.6
of which agriculture	1.1	0.9	0.8	0.6
Manufacturing	24.3	19.5	16.9	17.0
of which food industry	1.5	1.3	1.2	1.4
Construction	6.4	6.4	6.2	6.2
Wholesale and retail trade <sup>1)</sup>	9.8	9.4	9.6	9.3
Transportation and storage	5.7	5.1	5.0	4.9
Accommodation and food service activities	1.6	1.6	1.6	1.7
of which food service activities	1.2	1.3	1.3	1.3
Information and communication	5.0	5.0	5.5	5.8
Financial and insurance activities	2.7	2.6	3.0	2.9
Real estate activities	10.2	11.2	12.3	12.7
Human health and social work activities	8.2	9.3	10.0	10.0
<sup>1)</sup> selected fields of activity included in the gross domestic product				
Gross value added at basic prices, billion EUR	143.6	163.6	176.7	180.3
GDP in purchasers' values, billion EUR	164.4	187.1	205.2	209.1

Source: Statistics Finland, National Accounts

## GROSS VALUE OF AND VALUE ADDED TO PRODUCTION BY INDUSTRY BRANCH 2015



Source: Statistics Finland, Standard industrial classification TOL 2008

<sup>1)</sup> The metal industry includes metal refining and manufacture of metal products (excl. machines and equipment).

Gross value (thousand euros).

Value added (thousand euros).

The gross value of production measures the actual production of the site. All revenues related to production are included in production activity, also manufacturing for its own use, and manufacturing which is supplied to the other sites of the company.

The value added measures the total added value of the site produced in its actual production activity by the various producers. The value added is calculated as the difference between the revenues obtained from production activity and the costs incurred from the activity.

## BIOECONOMY IN 2014

	Output, MEUR	Value added, MEUR	Number of em- ployees	Exports, MEUR
Agriculture	4 800	1 477	86 500	696
Food industry	11 205	2 577	37 900	1 442
Forestry	4 741	3 375	24 300	14 878
Chemical industry	2 516	646	2 850	1 587
Water treatment and distribution	693	395	2 700	0
Bioeconomy services	3 280	1 459	34 425	23
Nature tourism	3 036	1 283	32 625	0
Hunting	62	62	0	1
Fishing	182	114	1 800	22
<b>Bioeconomy total</b>	<b>63 747</b>	<b>21 469</b>	<b>309 179</b>	<b>17 039</b>
<b>National economy total</b>	<b>386 768</b>	<b>176 781</b>	<b>2 496 800</b>	<b>77 600</b>
<b>Share of bioeconomy, %</b>	<b>16.5</b>	<b>12.1</b>	<b>12.4</b>	<b>22</b>

Source: Statistics Finland, Natural Resources Institute Finland



## LABOUR FORCE

Field of activity	2000	2005	2015	2016	2016
	%	%	%	%	1 000 persons
Agriculture, forestry, fishing, mining and quarrying	6	5	4	4	101
of which agriculture	5	4	3	3	71
of which forestry	1	1	1	1	22
Industry <sup>1)</sup>	20	18	14	15	356
of which food and beverage industry	2	2	2	2	37
of which other industry	18	17	13	13	319
Construction	6	7	7	7	178
Wholesale and retail trade <sup>2)</sup>	12	12	12	12	290
Transport and storage	7	6	6	6	141
Accommodation and food service activities	3	3	4	3	85
Other services	45	48	53	6	148
Unknown field of activity	0,3	0,2	0,4	0,3	8
Employed total	100	100	100	100	
in thousands	2 335	2 401	2 437	2 448	2 448
Total labour force in thousands	2 589	2 621	2 689	2 685	2 685
of which unemployed %	9.8	8.4	9.4	8.8	8.8

Source: Statistics Finland, Standard industrial classification TOL 2008

<sup>1)</sup> including electricity, water supply, waste management etc.

<sup>2)</sup> including repair of motor vehicles and motorcycles

## OCCUPATIONAL DISEASES BY INDUSTRY 2014

Occupational diseases	pcs	per 10 000 employed
Crop farming, animal husbandry, game husbandry	141	18.5
Production of foodstuff	50	14.7
Bevegare industry	1	3.2
Food service activities	25	3.5

Source: Finnish Institute of Occupational Health

## NUMBER OF OCCUPATIONAL ACCIDENTS

Occupational accidents <sup>1)</sup> per 100,000 working in the industry	2005	2010	2013	2014
Agricultural entrepreneurs	5 962	4 882	4 994	4 754 <sup>2)</sup>
Food and drink industry employees	7 696	6 919	3 258	3 228
All occupations <sup>3)</sup>	2 581	2 103	1 887	1 783

Source: Statistics Finland, Workers' Compensation Center

The accident frequency has been calculated as per the industry of the employer.

<sup>1)</sup> occupational accidents leading to at least 4 days of incapacity for work.

<sup>2)</sup> value of year 2015

<sup>3)</sup> occupational groups with at least 10,000 employees.

## AVERAGE AGE AND NUMBER OF AGRICULTURAL ENTREPRENEURS

	1995		2005		2016	
	aver. age	number	aver. age	number	aver. age	number
Agricultural entrepreneurs	45.1	142 000	47.6	90 000	48.7	62 000
Start-up entrepreneurs <sup>1)</sup>	29.9	70	29.8	760	29.9	70
Retiring entrepreneurs <sup>2)</sup>	60.2	6 600	60.8	3 900	62.2	2000
Recipients of farmers' early retirement aid <sup>3)</sup>	57.8	560	58.6	1 420	58.3	100

Source: Farmers' Social Insurance Institution Mela, statistics based on data on agricultural entrepreneurs covered by insurance under the Farmers' Pensions Act (MYEL)

<sup>1)</sup> entrepreneurs taking up farming through succession within the farmers' early retirement aid scheme.

<sup>2)</sup> covering those retiring on old-age, disability and unemployment pension.

<sup>3)</sup> those giving up farming through succession within the farmers' early retirement aid scheme.

## MOST IMPORTANT REASONS FOR RETIREMENT ON DISABILITY PENSION AMONG AGRICULTURAL ENTREPRENEURS

%	1995	2005	2015	2016
Respiratory diseases	7	3	3	2
Mental illnesses	14	20	16	7
Musculoskeletal disorders	46	47	46	17
Injuries, poisonings, etc.	6	9	8	44
Cardiovascular diseases	15	8	8	8
Tumours	..	..	6	7
Nervous system disorders	..	..	7	9

Source: Farmers' Social Insurance Institution Mela

% = share of the entire year's disability pensions among agricultural entrepreneurs.

## AGRICULTURE

### MEAN PRECIPITATION 1981–2016, mm

	spring	summer	autumn	winter
Helsinki	107	204	200	149
Jyväskylä	114	232	176	127
Oulu	85	193	133	95
Sodankylä	101	197	139	102
Frankfurt <sup>1)</sup> , Germany	145	180	159	149
Padova <sup>1)</sup> , Italy	195	183	221	149

Source: Finnish Meteorological Institute

<sup>1)</sup> average years 1981–2015

### MEAN TEMPERATURES 1981–2016, °C

	spring	summer	autumn	winter
Helsinki	4.5	16.3	6.8	-3.3
Jyväskylä	2.6	14.8	3.7	-7.4
Oulu	1.5	14.7	3.2	-8.7
Sodankylä	-0.9	12.7	0.1	-12.4
Frankfurt <sup>1)</sup> , Germany	10.7	19.2	10.6	2.5
Padova <sup>1)</sup> , Italy	13.6	23.5	14.4	4.2

Source: Finnish Meteorological Institute

<sup>1)</sup> average years 1981–2015

### WEATHER CONDITIONS DURING THE GROWING SEASON

	Effective temperature comparative period			Precipitation comparative period		
	2016	2015	1981–2010	2016	2015	1981–2010
Jokioinen	1416	1 230	1 307	282	341	341
Kauhava	1304	1 161	1 185	378	409	286
Oulu	1245	1 102	1 170	325	415	257
Sodankylä	996	820	795	413	329	227
Frankfurt	..	2 647	2 411	..	351	496
Padova	..	3 558	3 368	..	784	643

Source: Finnish Meteorological Institute

### DAY LENGTH, hours

	spring	summer	autumn	winter
Helsinki	14.5	17.5	10.2	7.2
Kauhava	14.9	18.4	9.9	6.4
Oulu	15.3	19.1	9.7	5.8
Sodankylä	15.8	21.1	9.3	4.3
Frankfurt, Germany	13.7	15.5	10.8	8.9
Padova, Italy	13.4	15.0	11.0	9.4

Source: Finnish Meteorological Institute

## ORGANIC PRODUCTION AREA AND NUMBER OF ORGANIC FARMS

Area, ha	1995	2005	2015	2016
Certified organic area, ha	23 139	135 223	191 460	199 552
In-conversion area, ha	21 557	12 364	33 155	41 063
Total organically farmed area, ha	44 696	147 588	224 615	240 614
Percentage of organically farmed area of the total area of production %	..	6.7	9.9	10.7
Organic farm size, ha/farm	20	34	53	54.5
Organic farms, number	2 793	4 296	4 328	4 415
Percentage of organically farmed area of the total area of production % EU 28	..	3.6 <sup>1)</sup>	6.4	..
Total organically farmed area, EU 28	..	6 475 828 <sup>1)</sup>	11 139 595	..

Source: Finnish Food Safety Authority Evira, Eurostat

<sup>1)</sup> the 2005 figure is for the EU 27

## Locality

### NUMBER OF ORGANIC PRODUCERS

	2008	2011	2015	2016
Organic primary production <sup>1)</sup>	3 758	3 975	4 191	4 356
from which organic animal farms	511	643	899	959
Organic foodstuff producers	401	487	674 <sup>2)</sup>	697
Organic feedstuff producers	16	33	45	47
Organic seed packing plants	..	31	25	25
Total	4 175	4 526	5 044	5 241
Organic primary production EU 28	..	..	271 547	..

Source: Finnish Food Safety Authority Evira, Eurostat

<sup>1)</sup> includes, in addition to farms, also greenhouse, mushroom farms and beekeepers

<sup>2)</sup> this figure includes subcontractors

## USE OF ARABLE LAND ON ORGANIC FARMS

Certified organic area, ha	1995 <sup>1)</sup>	2005	2015	2016
Grass	11 431	60 195	114 257	120 724
Cereals	8 158	46 362	50 445	54 179
wheat	724	6 629	5 682	4 901
rye	1 616	4 594	5 143	4 685
barley	2 118	6 760	5 199 <sup>2)</sup>	5 042 <sup>2)</sup>
oats	2 447	23 134	24 242	28 750
mixed : straw grains	302	2 798	3 163	3 114
mixed: legumes+straw grains	927	1 842	6 747	7 557
Peas	120	1 289	2 697	2 003
Buckwheat	23	185	432 <sup>2)</sup>	527 <sup>2)</sup>
Caraway	9	355	148 <sup>2)</sup>	142 <sup>2)</sup>
Flax	22	277	153	167
Turnip rape	64	2 419	2 589	1 676
Potatoes	423	440	544	607
Vegetables, open land	197	211	259	317
Greenhouse vegetables	2	9	9	8
Leafherbs	17	16	12 <sup>2)</sup>	7
Berries and fruit	256	800	650	677
Other crops	395	3 672	15 319	14 605
Fallow	2 022	19 178	3 937	3 913
<b>Total</b>	<b>23 139</b>	<b>135 223</b>	<b>191 460</b>	<b>199 552</b>

Source: Finnish Food Safety Authority Evira

<sup>1)</sup> Åland's data not included

<sup>2)</sup> no production in Åland

Figures for the traditional use of arable land are on page 19.

## ORGANIC PRODUCTION

	2007 mil- lion kg	% of total product- ion	2015 million kg	% of total product- ion	2016 million kg	% of total product- ion
Beef	..	..	3.0	3.4	2.9	3.4
Pork	..	..	0.7	0.4	1.0	0.5
Lamb	..	..	0.3	23.0	0.3	24.1
Poultry	..	..	0.2	0.2	0.2	0.1
Eggs	1.1	2	3.1	4.7	3.3	4.6
Bread grain (wheat and rye)	18.2	2.1	21.2	2.3	15.4	1.7
Potato	0.3	0	4.8	0.9	7.2	1.2
Peas	1.2	18.8	5.0	19.7	3.6	14.4
Milk, million litres	26.8	1.2	54.2	2.3	55.1	2.3

Source: Gallup Food and Farm Facts, Pro Luomu, Natural Resources Institute Finland

In 2016, the market share of organic produce (€) in grocery trade was 2%.

Source: Pro Luomu

## ENVIRONMENTAL AID

Farms committed to environmental aid	2012	2016
Number	56 143	44 349
% of farms	91	86
% of areable area	90	89

Source: Agency for Rural Affairs

## VOLUME OF PESTICIDES SALES

	1995	2005	2014	2015
Active ingredient sales (tonnes)				
fungicides	114	255	204	231
agricultural insecticides	57	47	24	29
agricultural herbicides	791	1 077	1 306	1 368
growth regulations	73	52	886	102
Product sales (tonnes)				
fungicides	236	718	809	857
agricultural insecticides	160	147	118	141
agricultural herbicides	1 768	2 639	3 334	3 375
growth regulations	131	107	167	184

Source: Finnish Safety and Chemicals Agency

## Product safety

### PESTICIDE RESIDUE CONTROL 2016 <sup>1)</sup>

Source of sample	Random samples	Non-compliant %
Domestic	553	0.0
EU	1235	0.6
Outside of EU	475	4.2
Total	2 263	4.9

Source: Finnish Food Safety Authority Evira

<sup>1)</sup> samples from fruits, plants, grains, processed foodstuffs, baby food and products of animal origin.



## SUBSTITUTING FOR AGRICULTURAL ENTREPRENEURS

	2000	2005	2015	2016
MYEL <sup>1)</sup> -insured agricultural entrepreneurs	105 993	90 007	64 277	59 597
Those using annual leave <sup>2)</sup>	45 254	34 719	19 800	18 716
Those using substitutes	14 934	14 624	7 833	5 959
Those using substituting subject to subsidised charge	10 995	13 521	10 291	9 490
Those using substituting subject to total charge	643	314	590	377

Source: Mela

<sup>1)</sup> TYEL employee's pension insurance for farmers, forest owners, fishermen and reindeer herders and their families.

<sup>2)</sup> to receive annual leave, a farmer must have at least four domestic animal units, and they must be a full-time agricultural entrepreneur.

## Locality

## NUMBER OF AGRICULTURAL AND HORTICULTURAL ENTERPRISES

Farm size Hectares of arable land	1995 pcs	2005 pcs	2015 <sup>1)</sup> pcs	2016 <sup>1)</sup> pcs	% of farms	% of arable land
0–5	9 988	5 228	2 081	2 175	4	0
5–10	17 049	8 765	6 404	6 471	13	2
10–15	16 918	8 481	5 275	5 211	10	3
15–25	25 634	13 989	8 799	8 535	17	7
25–50	23 870	19 660	13 053	12 646	25	20
50–75	4 508	7 549	6 732	6 489	13	17
75–100	1 209	3 116	3 645	3 645	7	14
100–150	622	1 990	3 119	3 213	6	17
150–	166	739	1 892	2 003	4	19
Total	99 964	69 517	51 000	50 388	100	100

Source: Natural Resources Institute Finland

In 1995 farms with over 1 ha arable land

<sup>1)</sup> the definition of an agricultural and horticultural enterprise was revised. The figures cannot be compared with figures from previous years.

## CHANGE IN NUMBER OF AGRICULTURAL AND HORTICULTURAL ENTERPRISES

Farms	2000	2015 <sup>1)</sup>	2016 <sup>1)</sup>	Change 15/16 %
pcs	78 434	50 999	50 388	-1,2

Source: Natural Resources Institute Finland

<sup>1)</sup> after the definition reform in 2013, agricultural and horticultural enterprises include estates whose economic size is more than EUR 2 000.

## OWNERSHIP OF AGRICULTURAL AND HORTICULTURAL ENTERPRISES

Category	1995 <sup>1)</sup> pcs	2005 pcs	2015 <sup>2)</sup> pcs	2016 <sup>2)</sup> pcs	% of farms
Private individuals	86 933	61 477	44 083	43 491	86.3
Heirs	12 468	7 297	5 646	5 608	11,1
State, communes etc.	563	743	1 271	1 289	2.6
Total	99 964	69 517	51 000	50 388	100

Source: Natural Resources Institute Finland

<sup>1)</sup> only farms with over 1 ha of arable land.

<sup>2)</sup> after the definition reform in 2013, agricultural and horticultural enterprises include estates whose economic size is more than EUR 2 000.

## AGRICULTURAL LABOUR FORCE

Labour force in thousands	1995	2005	2015	2016
Farmers	116	73	58	54
of which women	37	22	16	15
Permanent employees	25	20	17	17
of which women	12	9	7	7
Total	141	93	75	71

Source: Statistics Finland / Labour force survey

## SPECIALIZATION IN AGRICULTURAL AND HORTICULTURAL ENTERPRISES

Number of farms	1995 <sup>1)</sup>	2010	2015	2016	%
Dairy farms	32 480	10 205	7 730	7 285	14,5
Other cattle husbandry	9 394	1 270 <sup>2)</sup>	655 <sup>2)</sup>	577 <sup>2)</sup>	1,1
Beef farms	..	3 080	3 036	3 004	6,0
Pig farms	6 249	1 355	789	680	1,3
Poultry farms	2 239	375	412	400	0,8
Other grazing livestock <sup>3)</sup>	..	3 544	2 680	2 624	5,2
Plant production	42 287	..	..	..	..
of which grain growing	..	20 927	17 757	16 324	32,4
Other plant production	..	13 092	13 496	15 078	29,9
Others	7 315	..	..	..	..
Greenhouse production	..	1 371	884	877	1,7
Outdoor horticultural production	..	1 696	1 466	1 405	2,8
Mixed production	..	2 568	2 094	2 134	4,2
<b>Total</b>	<b>99 964</b>	<b>58 213</b>	<b>50 999</b>	<b>50 388</b>	<b>100</b>

Source: Natural Resources Institute Finland

<sup>1)</sup> the figures cannot be compared with figures from 1995.

<sup>2)</sup> includes combined suckler cow production and cattle fattening.

<sup>3)</sup> includes sheep, goat and horse production.

## INCOME OF AGRICULTURAL AND HORTICULTURAL ENTERPRISES PER PRODUCTION SECTOR

	Taxable income total spouses together			Farm economy's income spouses together		
	2000	2014	2015	2000	2014	2015
	€	€	€	€	€	€
Dairy farms	31 746	69 312	57 500	24 812	55 864	43 593
Other cattle farms	30 129	60 006	53 892	15 878	32 826	27 053
Poultry farms	45 752	91 858	97 740	28 624	580 625	56 907
Pig farms	41 644	85 064	65 041	28 421	47 011	38 916
Sheep, goats, horses	29 434	52 518	60 327	3 704	9 441	8 702
Crop farms (grain)	38 623	64 514	62 951	10 999	16 461	15 045
Other crop farms	35 760	59 057	62 505	11 695	16 362	15 048
Other farms	28 901	63 381	59 657	6 524	16 521	10 611
<b>Average</b>	<b>35 235</b>	<b>63 784</b>	<b>64 952</b>	<b>16 324</b>	<b>25 110</b>	<b>26 984</b>

Source: Statistics Finland

## OTHER ENTREPRENEURSHIP ON AGRICULTURAL AND HORTICULTURAL ENTERPRISES

<b>Number of farms</b>	<b>2000 <sup>1)</sup></b>	<b>2005 <sup>1)</sup></b>	<b>2010</b>	<b>2013</b>
Industry	4 786	3 753	2 747	2 245
food processing	1 065	684	479	381
other agricultural products processing	134	152	94	78
timber processing	1 349	889	583	405
making handicrafts for sale	274	277	155	79
energy production	959	1 037	907	855
other industrial production	1 005	714	529	448
Construction industry	<sup>2)</sup>	881	438	344
Trade	1 056	1 298	850	986
Services	15 252	16 547	13 793	12 419
tourism, accommodation and recreation services	2 272	1 865	1 440	1 180
contracting	8 880	10 013	8 896	8 583
other services	4 100	4 669	3 457	2 656
Other primary production	744	1 815	981	808
fish, crayfish etc. farming	112	65	48	51
fur farming	632	510	315	280
reindeer husbandry	<sup>2)</sup>	573	365	310
fishing industry	<sup>2)</sup>	144	104	62
other primary production	<sup>2)</sup>	523	149	103
Farms whose line of business is unknown			721	..
<b>Number of farms with other entrepreneurship</b>	<b>21 838</b>	<b>24 294</b>	<b>19 530</b>	<b>16 802</b>

Source: Natural Resources Institute Finland, MTT, Agrifood Research Finland

<sup>1)</sup> figures for 2000 and 2005 do not include horticultural enterprises engaged exclusively in greenhouse production.

<sup>2)</sup> the classification is somewhat different; the industry in question was not included in that particular year.

NB The line of business with the largest turnover.

## USE OF ARABLE LAND

	1995 1 000 ha	2005 1 000 ha	2015 <sup>1)</sup> 1 000 ha	2016 <sup>1)</sup> 1 000 ha
Grassland	755	620	653	690
Cereals. total	978	1 188	1 138	1 109
wheat	101	215	249	223
rye	21	14	32	27
barley	516	595	513	486
oats	329	346	307	332
mixed grain	11	16	36	40
other cereals	1	1	2,5	2,6
Oil plants	85	77	57	62
Sugar-beets	35	31	13	12
Potatoes	36	29	22	22
Other crops	29	49	87	91
Area in production	1 918	1 993	1 970	1 985
Fallow	223	241	271	262
Cultivated area	2 141	2 235	2 241	2 248

Source: Natural Resources Institute Finland

<sup>1)</sup> includes only enterprises that exceed the threshold value (SO 2000 EUR).

	1995 ha	2005 ha	2015 ha	2016 ha
Mean arable land	21.7	33.0	45.0	45.0

Source: Natural Resources Institute Finland

## CROP

	1995	2005	2015	2016
<b>Wheat</b>				
area (in 1 000 ha)	101	215	242	215
total yield (M kg)	380	801	992	824
yield kg/ha	3 770	3 730	4 100	3 830
<b>Rye</b>				
area (in 1 000 ha)	21	14	31	26
total yield (M kg)	58	32	108	87
yield kg/ha	2 770	2 290	3 420	3 340
<b>Barley</b>				
area (in 1 000 ha)	516	594	451	435.9
total yield (M kg)	1 764	2 103	1 569	1 581
yield kg/ha	3 420	3 540	3 470	3 630
<b>Oats</b>				
area (in 1 000 ha)	329	345	281	305
total yield (M kg)	1 097	1 073	980	1 035
yield kg/ha	3 330	3 110	3 480	3 390
<b>Sugar-beets</b>				
area (in 1 000 ha)	35	31	12	12
total yield (M kg)	1 110	1 181	407	434
yield kg/ha	31 900	37 870	32 740	37 340
<b>Oil plants</b>				
area (in 1 000 ha)	85	77	55	60
total yield (M kg)	128	106	85.3	96
yield kg/ha	1 500	1 380	1 540	1 590
<b>Peas</b>				
area (in 1 000 ha)	5	4	12	10
total yield (M kg)	11	8	25	25
yield kg/ha	2 420	93	2 130	2 470
<b>Potatoes</b>				
area (in 1 000 ha)	36	29	22	22
total yield (M kg)	798	743	532	588
yield kg/ha	22 110	25 700	24 310	27 120
<b>Vegetables</b>				
total yield (M kg)	234	248	249	262
tomatoes	31	38	39	41
cucumber (greenhouse)	24	32	40	39
cabbage	24	19	21	19
carrots	61	67	64	73
onions	17	21	28	26
<b>Potted vegetables (M pcs)</b>	30	64	112	100

Source: Natural Resources Institute Finland

## AGRICULTURAL PRODUCTION COSTS

	2000	2005	2014	2015
	MEUR	MEUR	Milj. €	Milj. €
Material costs	1 525	1 628	2 037	2 065
Fertilizer, lime	193	185	289	270
Other crop production costs	264	324	350	373
Fuel and lubricants	189	207	294	300
Electricity	114	102	150	184
Forage costs	482	454	518	511
Livestock costs	282	357	436	427
Farm operating costs <sup>1)</sup>	318	314	498	496
Machinery cost	757	885	1 082	1 043
Depreciation of machines	445	545	582	565
Other machinery costs	311	340	500	477
Building costs	301	329	383	378
Depreciation of buildings	237	273	310	303
Other building costs	64	57	74	74
Other cost	641	785	926	920
Insurance cost paid	227	262	312	310
Fixed rents paid	82	104	170	168
Other depreciations	44	45	50	48
Other costs	288	373	394	393
Wages costs	1 493	1 771	1 403	1 427
Wages paid	190	180	234	248
Wages claim	1 303	1 591	1 169	1 178
Interest costs	598	622	729	674
Interest paid	133	114	107	115
Interest claim of equity	465	508	621	560
<b>Total costs</b>	<b>5 631</b>	<b>6 335</b>	<b>7 059</b>	<b>7 001</b>

Source: Luke Economydoctor. Total Calculation of Agriculture.  
Data: Luke Profitability bookkeeping results.

<sup>1)</sup> costs of feedstuff and seeds produced and used on the farm

## AGRICULTURAL GROSS RETURN

<b>Income from</b>	<b>2000 MEUR</b>	<b>2005 MEUR</b>	<b>2014 MEUR</b>	<b>2015 MEUR</b>
Crop revenues total	881	720	1 065	1 104
Rye and wheat	84	74	151	172
Barley	171	155	261	283
Oats and other cereals	139	80	138	127
Oilseeds	15	19	28	44
Grass crops	269	218	401	388
Potato and sugar beet	183	158	59	48
Pulses and other crops	21	16	27	41
Livestock revenues total	1 612	1 653	2 050	1 858
Cattle revenue	1 089	1 094	1 469	1 300
Pig production	311	360	286	297
Poultry revenues	204	194	247	219
Sheep and goat revenues	9	6	49	42
Glasshouse and outdoor horticultural revenues total	549	517	550	648
Financial yields	16	14	10	8
Other income	147	168	182	198
The sum of subsidies	1 776	1 966	1 966	1 898
CAP subsidies	385	514	575	578
LFA- and environmental subsidies	721	747	806	854
National and investment subsidies	667	702	581	436
Gross return total	4 981	5 038	5 824	5 714

Source: Luke Economydoctor. Total Calculation of Agriculture.

Data: Luke Profitability bookkeeping results

The value of feedstuff and seeds produced and used on the farm is included in the calculation.



## BEEKEEPING FIGURES

	2015	2016
The Finnish Beekeepers' Association members	2 441	2 565
Professional beekeepers <sup>1)</sup>	70	77
Organic beekeepers	61	63
Number of productive beehives	61 000	64 000
Number of organic beehives	4 456	4 398
Yield per beehive, kg	30	24
Honey production, tonnes	1 500	1 200
Imported honey, tonnes	1 560	1 755
Honey consumption, tonnes	3 556	3 849
Honey consumption, g/person	646	700
Winter beehive losses <sup>2)</sup> , %	13	14
Gross profit, beekeeping <sup>3)</sup> , €	28 000	29 000
The share of organic production and consumption, %	9	8

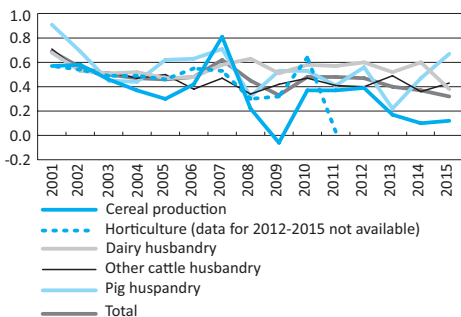
Source: Suomen Mehiläishoitajain Liitto SML ry (The Finnish Beekeepers' Association), Natural Resources Institute Finland, Finnish Food Authority Evira, National Board of Customs

<sup>1)</sup> beekeepers with more than 100 hives according to hive grant statistics

<sup>2)</sup> percentage of bees that died during the winter

<sup>3)</sup> estimates from 2015 and 2016

## PROFITABILITY COEFFICIENT ON THE FINNISH FARMS 2001–2015



Source: Total Calculation of Luke Economic Research

## ENTREPRENEURIAL INCOME

	2000 MEUR	2005 MEUR	2014 MEUR	2015 MEUR
Entrepreneurial income	1 114	808	550	446

Source: Luke Economydoctor. Total Calculation of Agriculture.

Data: Luke Profitability bookkeeping results.

## PRODUCER PRICES

Annual average		1995	2005	2015	2016	Change 15/16 %
<b>Milk</b>	c/ltr					
producer price <sup>1)</sup>		31.3	31.5	34.1	33.6	-1.3
surplus payment		1.5	2.2	0.6	0.4	-22.8
<b>Meat</b>	€/kg					
beef		2.4	2.1	2.9	2.8	-1.7
pork		1.3	1.3	1.5	1.4	-4.1
chicken		1.1	1.1	1.4	1.3	-3.7
lamb		1.9	2.6	3.8	3.7	-3.2
horse		1.3	0.3	..	..	..
<b>Eggs</b>	€/kg	0.5	0.6	1.0	1.0	-2.4
<b>Grain and rootcrops</b>						
wheat <sup>2)</sup>	€/tn	147.0	106.2	167.4	150.7	-10
rye <sup>2)</sup>	€/tn	149.5	118.4	174.9	170.5	-2.5
barley <sup>2)</sup>	€/tn	122.3	99.5	136.8	124.1	-9.3
oats <sup>2)</sup>	€/tn	118.4	87.1	132.9	128.8	-3.1
malt <sup>2)</sup>	€/tn	142.1	115.3	158.7	153.5	-3.3
food						
potatoes <sup>3)</sup>	€/100 kg	..	..	17.7	20.0	12.9
oil plants <sup>2)</sup>	€/tn	..	200.1	356.5	362.0	1.5

Source: Natural Resources Institute Finland

<sup>1)</sup> 1st class milk 4.3/3.3 %. without production aid.

<sup>2)</sup> the basic price paid to farmers including transportation to the first reception point.

<sup>3)</sup> the price paid to farmers per 100 kg net. delivered to the packing facilities. Does not include early potatoes.

## LIVESTOCK

In thousands	1995	2005	2015	2016
Horses	50	64	74	74
Cattle	1 148	959	918	909
dairy cows	399	319	285	282
suckler cows	29	35	59	59
Sheep <sup>1)</sup>	159	87	155	157
ewes	69	52	81	76
lambs and rams	90	35	81	80
Pigs <sup>2)</sup>	1 400	1 401	1 243	1 235
sows	161	177	102	95
fattening pigs	451	460	579	575
piglets	476	451	537	543
Poultry <sup>3)</sup>	10 358	10 538	12 020	13 411
hens	4 179	3 128	3 521	3 662
broilers	4 276	5 472	6 992	8 175
turkeys	80	495	247	260
Goats	6	7	5	5
Reindeer <sup>4)</sup>	208	207	191	191

Source: Natural Resources Institute Finland, Statistics Finland, The Finnish trotting and breeding association

<sup>1)</sup> 2015 sheep statistics are not comparable with previous figures.

<sup>2)</sup> the definitions of pigs changed from 2015. Only class 'Pigs' is comparable with previous year.

<sup>3)</sup> the poultry figures in 2016 are not entirely comparable with previous years.

<sup>4)</sup> calculated reindeer that have been left to live + calves.

## AVERAGE NUMBER OF ANIMALS IN FARMS

Animals pcs/farms	2012	2015 <sup>1)</sup>	2016 <sup>1)</sup>
Pigs	1 175	1 565	1 816
Cattle	70	80	84
Poultry	32 412	29 174	33 528

Source: Natural Resources Institute Finland

<sup>1)</sup> the definition of an agricultural and horticultural enterprise was revised in 2013. The figure for 2012 has been counted retrospectively. The figures cannot be compared with figures from previous years.

## PROTECTION OF ANIMALS INSPECTIONS BASED ON SAMPLE

Item	Inspections			Cases of neglect		
	2011	2015	2016	2011	2015	2016
Pigs	52	35	36	13	7	10
Cattle	362	181	162	97	42	27
Poultry	26	6	19	5	0	5
Broiler chickens	..	9	5	..	2	0
Goats	12	8	8	0	0	0
Ducks and geese	8	7	..	0	1	..
Sheep	32	35	56	8	6	10

Source: Finnish Food Safety Authority Evira

## PREVENTION OF CRUELTY TO ANIMALS INSPECTIONS IN COMMERCIAL ANIMAL DELIVERIES

	2005	2011	2015	2016
Inspections (no.)	451	387	382	411
Cases of neglect (%)	24	16	10	9

Source: Finnish Food Safety Authority Evira

## FARMS RECEIVING ANIMAL WELL-BEING SUBSIDIES <sup>1)</sup>

Number of farms	2014	% of farms	2015	% of farms	2016	% of farms
Beef farms	4875	40	4 842	51	4 888	52
Pork farms	715	49	767	69	698	68
Sheep/goat farms	..	..	340	53	318	53
Poultry farms	..	..	326	70	304	70

Source: Agency for Rural Affairs

<sup>1)</sup> subsidised farms

% of farms that are able to apply for well-being allowance (sufficient number of animals).

In 2015, animal well-being subsidy (2008–2014) changed into animal well-being allowance. Terms and allowance levels changed.

## IMPLEMENTATION OF ANIMAL WELFARE ON PIG AND COW FARMS

	Health care agreement with a vet		Coverage %		At special level <sup>1)</sup>		At national level <sup>2)</sup>		At basic level <sup>3)</sup>		Passive <sup>4)</sup>		Health care visits	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2014	2015	2015	2016
Pig farms (places of keeping pigs)	1 266	1 220	84	88	51	42	1 219	1 094	43	37	101	42	6 131	5 577
Cow farms	7 303	7 504	58	60	..	..	..	..	..	..	..	..	5 589	6 749

Source: ETT (the Association for Prevention of Animal Diseases), Sikava (Health Classification Register for Pig Farms) and Naseva (Health Classification Register for Cow Farms)

<sup>1)</sup> meets the voluntary special requirements set by the industry for pig breeding farms [www.sikava.fi](http://www.sikava.fi)

<sup>2)</sup> meets the voluntary health care requirements set by the industry

<sup>3)</sup> some of the voluntary national requirements are not met

<sup>4)</sup> empty pens

Amount of pens in different healthcare levels at end of each year.

## RESPONSIBLE PRODUCTION LIMIT VALUES IN PORK PRODUCTION

Period	Farms <sup>1)</sup>		RPI exceeded <sup>1)</sup> , fattening pigs			RPI exceeded <sup>1)</sup> , sows	
	under RPI	exceeded RPI	whole carcass	part-carcass	mortality	whole carcass	mortality
1_2016	94.6	5.4	0.8	1.2	2.4	0.2	1.0
2_2016	95.8	4.2	0.6	1.1	1.5	0.2	0.8

Source: Animal Health ETT, Sikava (Health classification register for pig farms)

RPI (responsible production indicator) is part of the national pork production criteria ([sikava.fi/terveysluokitus](http://sikava.fi/terveysluokitus)). The values are inspected every six months. The limit for whole carcass condemnation: sows 7 % and fattening pigs 1.1 %. The limit for part-carcass condemnation: fattening pigs 12 %. The limit for mortality: sows 25 % and fattening pigs 4 %.

<sup>1)</sup> percentage of farms in proportion to all farms

## USE OF ANTIMICROBIAL AGENTS IN FOOD-PRODUCING ANIMALS

	EU/EEA, average			Finland		
	2010 <sup>2)</sup>	2013 <sup>3)</sup>	2014 <sup>4)</sup>	2010	2013	2014
mg/PCU <sup>1)</sup>	131	148	153	25	24	22

Source: The European Medicines Agency EMA, ESVAC

<sup>1)</sup> the sales in mg active ingredient sold per population correction (PCU, population correction unit, calculated by taking into consideration the most common food-producing animal species) Results for EU/EEA were calculated by dividing the total sales of veterinary antimicrobials in all participating countries by the combined PCU of these countries.

<sup>2)</sup> number of participating countries: 19

<sup>3)</sup> number of participating countries: 26

<sup>4)</sup> number of participating countries: 29

## THE FOODPAD DERMITITIS SCORE THAT REPRESENTS THE WELL-BEING OF BROILER CHICKENS

	2012	2015	2016
Share of flocks, %, with a score of less than 40	94.46	98.13	98.46
Share of flocks, %, with a score of 40–80	4.91	1.55	1.38
Share of flocks, %, with a score of more than 80	0.62	0.32	0.16

Source: Animal Health ETT

At least one footpad of a hundred chickens in every flock is analysed at the slaughterhouse. The seriousness of dermatitis is classified on a three-stage scale: 0, 1 and 2, where 0 refers to healthy footpad. Less than 40 points/flock is considered acceptable.

## HENNERIES

Henneries type	% of egg production		
	2010	2015	2016
Enriched cage	89	63	62
Floor	9	32	33
Organic	2	5	5

Source: Finnish Poultry Association

## BARN TYPES 2016

	Number of barns	%	Cows	%	Average number of cows/ farm
Tie stall barn	3 286	64	90 365	41	27.5
Free stall barn	1 801	35	128 411	58	71.3
Other	50	1	2 555	1	51.1
Total	5 137 <sup>1)</sup>	100	221 331	100	42.1

Source: ProAgria

<sup>1)</sup> All cows are not includedTie stall barn: Cow is connected to stall from its head.Stall barn: Cows are on the loose in a building where they have separate feeding and resting area. Cows are milked in a milking station or by a robot.

## GRAZING AND TIME OUTDOORS

Cattle	2010		2016	
	no.	%	no.	%
Graze in the summer, time outdoors in the winter	455	7.9	426	8.5
Graze in the summer, indoors in the winter	3 895	67.8	3 258	65.2
Fenced walking area in the summer, time outdoors in the winter	103	1.8	106	2.1
Fenced walking area in the summer, indoors in the winter	347	6	310	6.2
Indoors in the summer and in the winter	946	16.5	895	17.9
Total	5 746	100	4 995	100

Source: ProAgria

## MILKING MACHINES 2016

Milking machine type	Farms	%
Pipeline milking	3 243	63.3
Milking station	970	18.9
Robotic milking	856	16.7
Bucket milking machine	53	1.0
<b>Total</b>	<b>5 122</b>	<b>100.0</b>

Source: ProAgria

## AVERAGE YIELD PER COW AND MILK CONTENTS 2016

Breed	Cows number	Average output kg/cow	Milk contents %			
			Protein	Fat	ECM <sup>1)</sup>	Cells <sup>2)</sup>
Ayrshire	106 475	9 126	3.54	4.41	9 725	168
Holstein	91 415	10 123	3.43	4.11	10 334	189
Finncattle	2 280	6 203	3.45	4.41	6 573	188
Eastern Finncattle	314	3 578	3.45	4.24	3 720	153
Western Finncattle	1 496	6 979	3.45	4.45	7 427	189
Northern Finncattle	470	5 484	3.43	4.33	5 755	201
Jersey	734	8 072	3.78	5.15	9 498	186
Other	231	8 595	3.50	4.24	8 952	144
<b>All</b>	<b>201 135</b>	<b>9 542</b>	<b>3.49</b>	<b>4.27</b>	<b>9 964</b>	<b>178</b>

Source: ProAgria

<sup>1)</sup> energy-corrected milk output (milk's butterfat, protein and lactose content is taken into account)

<sup>2)</sup> somatic cell count, geometric mean

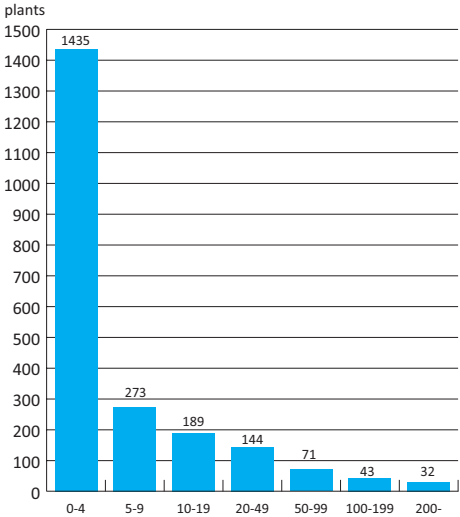


**FOOD MANUFACTURERS BY SECTOR**

Sector	2000		2013		2014	
	< 20 people	≥ 20 people	< 20 people	≥ 20 people	< 20 people	≥ 20 people
Slaughter and meat processing	330	50	374	40	385	42
Fish processing	243	13	298	16	300	15
Processing of vegetables, berries and fruit	373	22	439	22	433	27
Dairy processing	108	42	81	31	89	32
Milling industry	145	8	124	16	128	14
Bakeries	991	110	879	86	874	78
Production of beverages	85	14	116	16	128	19
Processing of other foodstuffs	330	48	351	42	343	43
<b>Total</b>	<b>2 605</b>	<b>307</b>	<b>2 662</b>	<b>269</b>	<b>2 680</b>	<b>270</b>

Source: Food Finland theme group

## FOOD AND DRINK INDUSTRY PLANTS ACCORDING TO ENTERPRISE SIZE



Source: Statistics Finland

Food and drink industry is SME-based.

## FOOD INDUSTRY KEY SECTORS

Sector	Number of plants		Employees total <sup>1)</sup>		Turnover € 1 000		Turnover €/ 1 000 employees	
	2014	2015	2014	2015	2014	2015	2014	2015
Slaughter and meat processing	243	254	8 045	8 089	2 434 172	2 485 481	303	307
Fish products	150	153	995	881	345 273	329 173	347	374
Fruit and vegetables	164	162	1 903	1 834	465 992	491 107	245	268
Processing and preserving of potatoes	49	52	395	384	115 122	124 988	291	326
Edible oils and fats	21	20	174	154	72 449	50 485	417	329
Dairy products and ice cream	82	91	4 902	4 945	2 476 479	2 205 488	505	446
Milling products and starch	72	76	571	571	351 160	327 752	615	574
Manufacture of bakery and farinaceous products	817	882	7 472	7 500	1 032 768	999 520	138	133
Manufacture of other food products	269	274	5 627	5 842	1 817 825	1 769 420	323	303
Sugar	3	3	290	270	280 611	235 102	969	871
Chocolate, cocoa and confectionery	45	49	1 483	1 562	388 501	380 659	262	244
Processing of tea and coffee	13	16	429	448	331 663	340 358	773	759
Convenience food	76	78	2 009	2 034	387 076	368 554	193	181
Food preparations and dietetic food	9	10	319	313	117 316	132 627	367	424
Soft drinks	143	155	2 761	2 918	1 157 348	1 174 437	419	402
Alcoholic beverages <sup>2)</sup>	96	101	1 877	1 995	775 599	797 708	647	638
<b>Food industry, total</b>	<b>1 904</b>	<b>1 998</b>	<b>30 684</b>	<b>30 735</b>	<b>9 657 459</b>	<b>9 241 069</b>	<b>315</b>	<b>301</b>

Source: Statistics Finland, regional and industrial statistics on manufacturing

- <sup>1)</sup> includes paid employees and entrepreneurs. Employees are converted to annual full-time employees so that, for example, an employee working half-time represents one half of a person and two employees working half-time for one year represent one annual full-time employee.
- <sup>2)</sup> manufacture of cider and fruit and berry wines, other distilled fermented beverages and beer production.

## IMPORT AND EXPORT OF FOODSTUFFS

Product group	Import MEUR		
	1995	2005	2015 <sup>1)</sup>
<b>Industrial products</b>			
Drinks	..	333.3	452.1
Alcoholic beverages <sup>2)</sup>	99.5	267.8	350.9
Beer	7.4	20.6	49.9
Soft drinks and mineral waters	4.0	33.5	49.9
Juices	9.1	13.0	73.8
Fats and oils	31.1	41.2	124.4
Butter	..	1.4	3.6
Canola oil	..	5.0	6.9
Margarin	6.9	23.6	31.0
Fruit preserves	..	42.5	78.4
Other vegetable preserves	..	35.6	69.6
Sugar and honey	1.3	2.2	52.6
Sugarchemical products	3.5	6.4	3.7
Honey	..	2.2	8.3
Coffee (instant and roasted)	11.3	19.7	60.4
Fish products	..	..	147.4
Frozen fish products	..	6.9	29.6
Soups and stocks	8.5	12.8	41.2
Babyfood	2.0	9.3	17.2
Meat	57.3	102.8	324.8
Pork	..	29.4	56.1
Beef and veal	..	37.9	62.9
Poultry	..	18.2	31.0
Dairy products	63.6	178.8	403.5
Milk powder	..	1.9	2.7
Cheese	..	123.1	280.7
Malt	1.7	0.4	2.0
Frozen berries and vegetables	23.6	59.0	97.5
Frozen potatoes	..	16.4	25.7
Flour and milling industry products	1.4	3.0	116.9
Rye flour	..	..	0.2
Feed products	83.7	147.0	350.7
Sweets	90.9	134.7	222.2
Chocolate	..	56.1	97.8
Starch	69.5	82.0	96.4
<b>All industrial products total <sup>3)</sup></b>	<b>860.1</b>	<b>1 781.6</b>	<b>3 257.2</b>
<b>Agricultural products</b>			
Fruits	146.7	220.3	309.4
Cocoa beans	0.2	0.0	0.2
Raw coffee	124.3	115.7	183.1
Birds' eggs	0.1	1.3	3.1
Fish and shellfish	..	..	195.8
Fresh fish	14.4	65.6	183.0
Berries	2.6	5.7	16.6
Blueberry	..	2.3	0.7
Spices	4.4	6.8	13.4
Nuts	7.4	9.5	37.5
Raw sugar	17.7	26.7	51.0
Vegetables and potato	62.5	113.6	205.1
Grain	37.2	28.5	34.7
Oat	..	0.01	1.2
<b>All agricultural products total <sup>3)</sup></b>	<b>1 335.8</b>	<b>2 448.3</b>	<b>1 170.0</b>

Source: National Board of Customs. Finnish Food and Drink Industries' Federation

<sup>1)</sup> Compilation of statistics changed in 2015. The 2015 and 2016 figures are not comparable with the previous figures.

2016 <sup>1)</sup>	Change 15/16 %	Export MEUR			2016 <sup>1)</sup>	Change 15/16 %
		1995	2005	2015 <sup>1)</sup>		
430.4	-4.8	..	90.2	161.0	163.4	1.5
325.3	-7.3	40.1	73.4	139.6	139.4	-0.2
37.7	-24.5	19.7	11.3	14.0	15.0	7.1
55.1	10.4	7.4	4.8	7.3	9.0	23.8
79.5	7.7	13.0	2.1	4.8	5.3	11.6
150.7	21.1	7.0	26.5	133.2	136.4	2.4
3.7	4.1	..	85.1	116.2	108.4	-6.7
7.5	9.2	..	22.7	5.3	8.6	62.4
28.6	-7.7	30.7	32.7	5.3	6.0	13.6
78.3	-0.2	..	3.2	3.1	2.6	-16.9
77.2	11.0	..	4.7	4.3	4.5	4.1
51.4	-2.2	0.0	0.0	95.9	105.9	10.4
3.9	5.4	13.4	81.5	75.8	78.7	3.9
8.7	4.3	..	0.003	0.03	0.04	38.5
59.6	-1.4	21.9	8.0	19.2	21.5	11.6
136.9	-7.1	..	..	12.7	18.2	42.7
27.2	-8.1	..	6.1	7.7	12.1	56.7
41.2	-0.1	0.4	0.4	3.0	2.8	-5.0
19.8	15.1	7.4	4.9	6.3	6.2	-2.5
312.5	-3.8	26.4	91.5	122.8	121.1	-1.4
54.9	-2.1	..	68.6	67.4	65.2	-3.3
64.1	2.0	..	6.4	11.3	14.6	29.6
30.3	-2.3	..	10.2	12.7	11.7	-8.2
376.3	-6.7	161.9	303.1	263.8	242.6	-8.0
1.8	-32.8	..	28.7	80.6	77.7	-3.6
265.1	-5.6	..	119.7	59.3	47.6	-19.7
3.9	95.6	15.7	21.9	15.7	16.2	3.1
99.1	1.7	9.0	18.2	28.6	23.8	-16.6
28.0	9.3	..	0.2	0.6	0.6	-3.1
120.8	3.4	4.3	7.7	43.0	45.9	6.8
0.2	50.5	..	..	0.5	0.4	-11.3
338.2	-3.6	15.0	21.7	52.9	54.9	3.9
220.6	-0.7	94.9	86.3	102.8	100.2	-2.5
101.2	3.5	..	46.8	61.7	59.7	-3.3
90.8	-5.8	8.5	15.7	11.2	12.4	10.5
3 237.5	-0.6	609.0	961.9	1 239.4	1 239.2	0.0
361.6	16.9	13.0	0.8	3.3	6.5	96.6
0.2	20.5	0.0	0.0	0.002	0.001	-70.0
210.5	15.0	2.3	0.0	29.8	30.6	2.8
4.3	38.2	7.1	6.6	15.0	10.4	-30.3
243.9	24.6	..	..	19.1	33.3	74.5
232.7	27.1	2.3	0.0	19.0	33.2	74.9
17.5	4.9	0.8	0.2	3.3	4.6	39.0
1.1	64.3	..	..	0.8	2.0	159.5
14.5	7.5	1.5	1.9	10.0	11.0	10.2
38.2	2.0	0.1	0.0	0.5	0.6	24.3
47.1	-7.6	0.01	0.8	1.0	0.9	-8.3
213.7	4.2	7.2	3.9	5.0	4.9	-1.5
28.1	-18.9	35.8	42.3	147.1	121.5	-17.4
1.7	36.7	..	35.9	62.1	55.4	-10.9
1 260.1	7.7	683.1	1 022.8	235.3	226.7	-3.7

<sup>2)</sup> includes spirits and vinegar and vinegar substitutes made from acetic acid, in addition to weak and strong alcoholic beverages <sup>3)</sup>The sum total of processed and agricultural products is the total value of exports and imports.

## FOOD EXPORTS BY COUNTRY

## Percentage of the total value of exports

1995	2005	2015 <sup>1)</sup>	2016 <sup>1)</sup>
%	%	%	%
Russia	Russia	Sweden	Sweden
29.5	19.7	20.4	19.9
Sweden	Sweden	Estonia	Estonia
14.2	15.4	8.8	9.2
Estonia	Estonia	Russia	Russia
6.9	9.2	7.6	7.6
Germany	U.S.	Germany	Germany
5.1	5.9	5.1	4.9
Belgium	Germany	The Netherlands	The Netherlands
4.4	5.3	4.5	4.4
Norway	UK	Denmark	Denmark
3.7	4.4	3.4	3.7
U.S.	Poland	France	France
3.6	3.2	3.2	3.1
UK	Norway	U.S.	U.S.
3.4	2.9	3.0	2.7
Denmark	Denmark	China	Poland
3.2	2.8	2.7	2.6
The Netherlands	France	Poland	China
2.8	2.8	2.4	2.6
Others	Others	Others	Others
23.2	28.4	38.8	39.4
Total	Total	Total	Total
100	100	100	100

Source: National Board of Customs, Finnish Food and Drink Industries' Federation

<sup>1)</sup> compilation of statistics changed from 2014. The figures are not comparable with the previous figures.

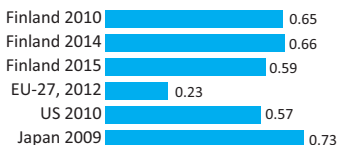
## FOOD EXPORTS BY COUNTRY AND PRODUCT GROUP, EXPORTS 2016

Russia	€ thousand	EU	€ thousand	Other countries	€ thousand
Coffee, raw	17 956	Alcoholic beverages	107 440	Milk powder	52 257
Compound feedingsuffs	17 100	Butter and other fats and oils derived from milk	87 948	Pork	36 779
Other foodstuffs	9 627	Oat	46 923	Other milk products	27 433
Malts	7 751	Chocolate	46 742	Alcoholic beverages	24 830
Alcoholic beverages	7 099	Other milk products	39 829	Cheese	20 911
Chocolate	6 110	Yoghurt	29 054	Butter and other fats and oils derived from milk	20 485
Other cereal products	5 925	Pork	28 400	Barley	15 461
Other bakery products	5 785	Cheese	26 688	Raw materials for feedstuff	13 878
Other grain mill products	3 962	Other sweets	26 511	Wheat	12 315
Bread	2 735	Fish, fresh	26 286	Granulated sugar	10 580
Other	27 666	Other	410 516	Other	93 950
<b>Total</b>	<b>111 714</b>	<b>Total</b>	<b>876 338</b>	<b>Total</b>	<b>328 878</b>

Source: National Board of Customs, Finnish Food and Drinks Industries' Federation

## THE SHARE OF FOOD INDUSTRY'S R&amp;D COSTS

(% of production)



Source: Statistics Finland, FoodDrinkEurope

## CONSUMPTION EXPENDITURE

Private consumption expenditure at current prices, MEUR	1995	2005	2015 p.	2016 p.
Food and non-alcoholic beverages	7 411	9 381	13 582	13 508
Share of food and non-alcoholic beverages in consumption expenditure, %	15	12	12	12
Alcoholic beverages and tobacco	2 976	4 052	4 975	4 973
Clothing and footwear	2 218	3 771	4 825	4 804
Housing and energy	11 889	19 253	30 773	31 958
Household equipment	2 132	4 147	5 403	5 460
Health	1 631	3 367	4 850	5 227
Transport	5 924	10 438	12 851	13 371
Telecommunications	780	2 185	2 521	2 610
Recreation and culture	5 087	9 094	11 572	11 859
Education	228	333	431	436
Hotels, cafés and restaurants	3 383	5 259	6 942	7 229
Other goods and services	4 709	7 074	10 801	11 008

Source: Statistics Finland, National Accounts

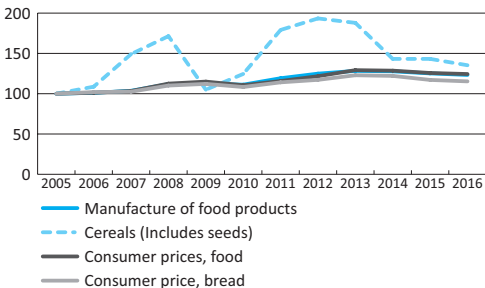


## FOOD EXPENDITURE

Food expenditure of households, per capita	1995		2005		2015 p.		2016 p.	
	€/y	%	€/y	%	€/y	%	€/y	%
Bread and cereal products	232	17	301	18	365	16	363	16
Meat and meat products	311	23	359	21	484	20	472	21
Fish and fish products	58	4	73	4	116	5	124	5
Milk, cheese and eggs	248	18	308	18	455	20	437	19
Fats and oils	42	3	39	2	40	2	40	2
Fruit and vegetables	190	14	287	17	432	19	440	19
Potatoes and potato products	45	3	45	3	56	2	58	3
Sugar	21	2	14	1	12	1	11	0
Coffee, tea and cocoa	69	5	45	3	76	3	74	3
Other goods <sup>1)</sup>	150	11	203	12	283	12	281	12
<b>Total</b>	<b>1 365</b>	<b>100</b>	<b>1 674</b>	<b>100</b>	<b>2 319</b>	<b>100</b>	<b>2 300</b>	<b>100</b>

Source: Statistics Finland, National Accounts

<sup>1)</sup> other drinks are not included

REAL PRICE DEVELOPMENT OF FOOD IN FINLAND  
2005–2016

Source: Statistics Finland

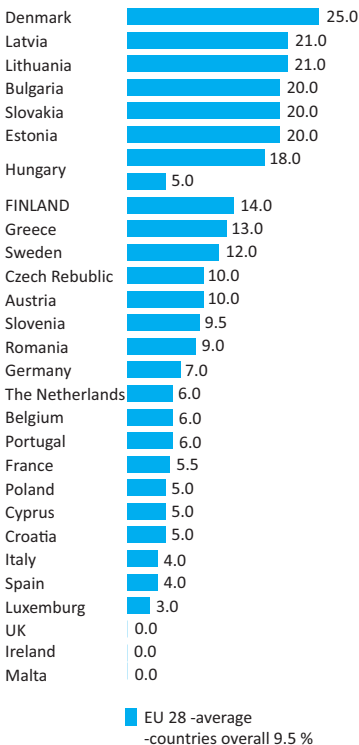
## RETAIL PRICES

Prices, €/kg, €/l	1994	2005	2015	2016
<b>Milk</b>				
low-fat milk	0.66	0.74	1.03	1.01
fat free milk	0.58	0.72	0.93	0.91
sour milk <sup>1)</sup>	0.58	0.89	1.32	1.33
<b>Cheese</b>				
Emmentaler	8.34	10.59	14.52	13.85
Edam	7.03	7.92	9.12	8.77
<b>Fat</b>				
butter	5.28	4.96	4.96	4.92
margarine	..	2.87	3.60	3.48
<b>Meat</b>				
roast of beef <sup>2)</sup>	11.16	9.08	16.21	16.07
minced beef	7.86	7.44	10.11	9.95
pork sirloin <sup>3)</sup>	7.59	9.02	9.63	9.60
broiler fillet <sup>4)</sup>	4.10	2.03	13.18	13.02
salami	15.86	12.19	15.77	15.51
frankfurter (skinless)	5.82	4.68	7.63	7.26
sausage	3.70	3.43	4.64	4.30
<b>Eggs</b>	2.79	2.33	3.60	3.45
<b>Fish</b>				
rainbow trout <sup>5)</sup>	5.84	8.29 <sup>6)</sup>	8.50	9.70
<b>Grain and vegetable products</b>				
wheat flour	0.90	0.59	0.67	0.66
rye bread	..	3.68	3.74	3.59
wheat bread	..	3.57	3.80	..
wheat coffee bread	5.63	5.79	5.79	6.79
granulated sugar	1.23	1.08	0.93	0.89
food potatoes	1.52	0.65	0.93	0.97
carrots	1.56	1.21	1.57	1.59
tomatoes	2.39	2.98	3.19	3.03
roasted coffee	5.56	5.04	7.74	7.32

Source: Statistics Finland

<sup>1)</sup> price calculations for 1994 based on fat free sour milk<sup>2)</sup> the average price for 1994 calculated from topside<sup>3)</sup> price calculations for 1994 based on pork chop<sup>4)</sup> price calculations for 1994 based on broiler, drumstick-thigh<sup>5)</sup> gutted whole fish<sup>6)</sup> value for 2006

## THE MOST COMMON VALUE-ADDED TAX ON FOOD IN THE EU COUNTRIES 2017 (%)



Source: European Comission, Gallup Food and Farm Facts

PRICE INDEXES 2015 (EU15=100)

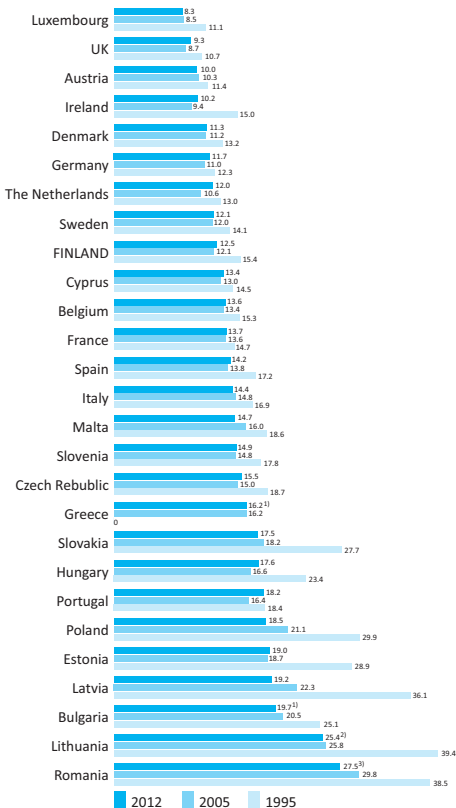
Economy

	Household consumption expenditure	Food and non-alcoholic beverages	Food and grain products	Bread and meat products	Meat and fish products	Fish and fish products	Milk, cheese and eggs	Fats and oils	Fruit, vegetables and potatoes	Other food-stuffs	Non-alcoholic beverages
The Netherlands	102.8	91.8	91.3	84.7	99.4	96.3	90.0	90.2	95.4	85.2	95.6
Belgium	99.8	101.3	101.4	101.3	106.5	107.0	108.7	110.7	91.0	95.7	99.7
Spain	85.0	86.7	87.0	97.3	76.7	86.1	92.4	83.2	87.4	95.3	82.9
Ireland	113.7	112.1	110.8	103.8	95.1	104.5	123.2	111.8	124.6	120.2	125.0
UK	124.8	104.4	102.5	89.9	100.2	102.1	113.1	102.5	106.2	108.6	122.5
Italy	92.0	102.6	103.8	110.3	100.7	105.0	116.4	95.9	96.4	103.7	90.4
Austria	100.2	112.7	113.8	128.0	118.5	122.2	101.0	122.9	114.3	101.9	104.1
Greece	77.1	96.6	95.8	106.8	79.1	110.9	126.2	113.4	75.9	113.8	105.4
Luxembourg	124.9	109.5	110.6	106.3	117.7	109.8	117.4	116.3	104.4	104.6	103.0
Portugal	73.7	88.3	87.3	89.0	70.3	92.9	97.6	101.0	83.2	124.4	100.1
France	96.0	102.5	103.6	105.3	114.4	104.9	89.1	101.7	106.6	97.7	91.7
Sweden	121.6	115.8	116.6	122.1	117.1	112.0	111.4	125.8	125.1	111.7	109.8
Germany	93.5	97.0	96.9	94.4	104.6	106.6	87.8	101.1	102.3	91.0	98.2
Finland	111.8	111.9	111.0	117.1	111.4	107.4	113.6	93.2	116.3	108.0	120.4
Denmark	126.6	135.7	132.9	151.4	122.3	126.1	122.7	145.7	122.0	160.8	163.1
EU-15	100	100	100	100	100	100	100	100	100	100	100

Source: Eurostat, Gallup Food and Farm Facts

## HOUSEHOLDS CONSUMPTION OF FOOD AND NON-ALCOHOLIC BEVERAGES

% from households total consumption



Source: CIAA, Gallup Food and Farm Facts

<sup>1)</sup> in 2011   <sup>2)</sup> in 2009   <sup>3)</sup> in 2010

## MEAT

Million kg	1995	2005	2015	2016
<b>Pork</b>				
total production	166	204	192	190
consumption	165	176	191	191
exports <sup>1)</sup>	9	40	36	38
imports <sup>1)</sup>	10	15	36	35
<b>Beef and veal</b>				
total production	95	87	87	87
consumption	96	98	105	105
exports <sup>1)</sup>	6	2	4	4
imports <sup>1)</sup>	8	14	21	21
<b>Poultry meat</b>				
production	43	87	117	125
consumption	45	84	119	129
exports <sup>1)</sup>	3	10	21	20
imports <sup>1)</sup>	0.3	7	21	21
<b>Mutton</b>				
production	2.0	0.6	1.3	1.3
consumption	2.0	1.9	3.9	3.8
exports <sup>1)</sup>	0.0	0.0	0.0	0.0
imports <sup>1)</sup>	1.0	1.4	2.7	2.5
<b>Horse meat</b>				
production	0.4	0.1	0.4	0.3
consumption	0.5	1.0	2.1	1.7
<b>Reindeer meat</b>				
Production <sup>2)</sup>	2.8	2.9	2.0	2.0
consumption	2.6	3.1	2.3	2.8
exports	..	0.04	0.6	0.2
imports	..	0.2	0.9	0.9
<b>Meat total</b>				
production	306	378	398	404
consumption	308	361	421	431
exports <sup>1)</sup>	15	52	61	62
imports <sup>1)</sup>	21	39	82	81
<b>Meat products export</b>	3.7	2.1	1.6	1.3

Source: Gallup Food and Farm Facts, Natural Resources Institute Finland, National Board of Customs, Reindeer Herders' Association

<sup>1)</sup> estimated meat in carcass, incl. bones and spoilage. Amount of meat eaten is approx. half of carcass weight.

<sup>2)</sup> statistics are compiled for the reindeer husbandry year, from 1st June to 31st May.

## EGGS

Million kilos	1995	2005	2015	2016
Production	74.7	58.2	71.5	72.6
Consumption	61.0	48.8	63.4	65.6
Exports	14.0	11.2	13.3	11.8

Source: Gallup Farm and Food Facts

## MILK PRODUCTS AND EDIBLE FATS

	1995	2005	2015	2016
Milk (M litres)				
production	2 397	2 362	2 365	2 359
yield litres/cow	5 981	7 505	8 323	8 406
received at dairies	2 296	2 293	2 325	2 320
consumption of liquid milk products	1 012	995	953	884
Butter (M kg)				
production	45	50	55	56
consumption	27	14	18	18
exports	19	37	39	38
Cheese (M kg)				
production	96	97	88	84
consumption	78	98	149	150
exports	29	37	20	16
Milk powder, exports (M kg)	7	15	42	45

Source: Gallup Farm and Food Facts, Natural Resources Institute Finland

## BREAD GRAIN

	1995	2005	2015	2016
<b>Wheat</b>				
Total yield (M kg)	379.5	801.3	992.1	823.9
First grade product % <sup>1)</sup>	..	32	18	26
Imports (M kg)	131.6	23.2	9.6	3.3
Exports (M kg)	8.4	25.5	301.7	249.7
Consumption as food, M kg <sup>2)</sup>	229.5	253.7	242.4	245.5
Annual consumption, kg/person	45.0	49.0	44.2	44.7
<b>Rye</b>				
Total yield (M kg)	57.7	32.4	107.5	86.8
First grade product % <sup>3)</sup>	..	28	88	49
Imports (M kg)	61.4	80.4	33.5	7.1
Exports (M kg)	..	2.4	0.4	0.6
Consumption as food, M kg <sup>2)</sup>	79.2	88.2	85.7	85.1
Annual consumption, kg/person	16.0	15.0	15.6	15.5

Source: Natural Resources Institute Finland, National Board of Customs, Gallup Food and Farm Facts

<sup>1)</sup> hectolitre weight  $\geq 78,0$  kg, falling number  $\geq 180$ , protein (N\*5,7)  $\geq 12,5$  %

<sup>2)</sup> consumption of ground grains expressed in flour weight

<sup>3)</sup> hectolitre weight  $\geq 71,0$  kg, falling number  $\geq 120$

## FISH

<b>Fish caught, million kg <sup>1)</sup></b>	<b>1995</b>	<b>2005</b>	<b>2015 <sup>2)</sup></b>	<b>2016 <sup>2)</sup></b>
Baltic herring ( <i>Clupea harengus</i> membras)	96	67	132	136
Vendace ( <i>Coregonus albula</i> )	4	5	4	4
Lavaret ( <i>Coregonus lavaretus</i> )	6	3	2	2
Atlantic salmon ( <i>Salmo salar</i> )	2	1	1	1
European perch ( <i>Perca fluviatilis</i> )	17	13	9	9
Pike-perch ( <i>Sander lucioperca</i> )	2	3	4	4
Commercial fishing, total	111	94	154	163
Recreational fishing, total	57	38	29	29
Fish farming	17	14 <sup>3)</sup>	15 <sup>3)</sup>	14 <sup>3)</sup>

Source: Natural Resources Institute Finland

<sup>1)</sup> the species named are the most important for commercial fishing (recreational fishing included)

<sup>2)</sup> recreational fishing and commercial inland fishing figures are from 2014

<sup>3)</sup> share of rainbow trout more than 90%

## FISH CONSUMPTION

<b>Domestic fish (kg/person)</b>	<b>2000</b>	<b>2005</b>	<b>2014</b>	<b>2015</b>
Farmed rainbow trout ( <i>Oncorhynchus mykiss</i> )	1.6	1.4	1.1	1.3
Baltic herring ( <i>Clupea harengus</i> membras)	1.2	0.7	0.3	0.3
Pike ( <i>Esox lucius</i> )	0.7	0.7	0.5	0.5
European perch ( <i>Perca fluviatilis</i> )	0.7	0.6	0.5	0.5
Vendace ( <i>Coregonus albula</i> )	0.7	0.7	0.6	0.6
Lavaret ( <i>Coregonus lavaretus</i> )	0.4	0.3	0.3	0.2
Pike-perch ( <i>Sander lucioperca</i> )	0.2	0.3	0.3	0.3
Other domestic fish	0.6	0.5	0.5	0.4
<b>Imported fish (kg/person)</b>				
Farmed rainbow trout ( <i>Oncorhynchus mykiss</i> )	0.3	0.6	0.9	0.8
Farmed Atlantic salmon ( <i>Salmo salar</i> )	0.9	1.9	4.4	4.1
Tuna ( <i>Thunnus thynnus</i> ) (preserved and prepared)	1.2	1.6	1.7	1.6
Saithe ( <i>Pollachius virens</i> ) (frozen fillets)	0.6	0.4	0.5	0.5
Shrimps and prawns	0.4	0.5	0.5	0.5
Herring ( <i>Clupea harengus</i> ) and preserved herring	0.5	0.5	0.5	0.5
Other imported fish	2.3	2.4	2.3	2.3

Source: Natural Resources Institute Finland

Domestic fish consumption (kg/person) as filleted weight.

Imported fish consumption (kg/person), with Atlantic salmon and rainbow trout as filleted weight, others as product weight.

Imported freshwater fish (such as lavaret, pike-perch etc.) not reported by species included under other imported fish.



## VEGETABLES AND FRUIT

1000 kg	1995	2005	2015 <sup>1)</sup>	2016
Potato				
exports	2 895	4 853	8 213	6 917
imports	3 909	19 304	11 250	12 470
Tomato				
exports	2 368	58	0.6	17
imports	16 130	19 471	28 073	26 998
Onions				
exports	..	117	78	4.8
imports	..	8 264	13 541	15 322
Cauliflower				
exports	75	..	..	..
imports	2 166	2 407	3 496	3 706
White and red cabbage				
exports	2 447	3	..	..
imports	1 660	1 608	2 338	2 523
Head lettuce				
exports	104	35	..	2.8
imports	5 672	11 056	17 257	18 889
Carrots and turnips				
exports	1.5	21	30	0.5
imports	2 643	4 816	7 107	8 197
Cucumber				
exports	498	66	18	5.6
imports	11 107	11 256	11 377	9 957
Pepper				
exports	354	5	28	31
imports	5 438	9 538	15 221	15 703
Other fresh vegetables				
exports	..	1 372	167	127
imports	..	12 353	24 530	26 302
Banana				
exports	2 352	..	2 011	5 766
imports	6 619	65 491	101 924	110 535
Citrus fruit <sup>2)</sup>				
exports	3 968	91	27	304
imports	62 100	63 749	74 150	79 227
Apple				
exports	11 480	100	0.03	197
imports	54 001	49 719	47 375	44 365
Other fresh fruit <sup>3)</sup>				
exports	..	373	2 223	3 794
imports	..	58 775	92 980	96 822

Source: National Board of Customs, Statistics Service

<sup>1)</sup> compilation of statistics changed in 2015<sup>2)</sup> fresh and dried<sup>3)</sup> incl. dried dates, figs, pineapples, avocados, guavas, mangos and mangosteens

## BERRIES AND MUSHROOMS

<b>Total crops of garden berries, mill. kg</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2016</b>
Strawberry	10.1	10.3	14.4	11.9
of which organic	..	0.2	0.3	0.3
Black- and greencurrant	1.8	1.0	0.8	1.0
Red- and whitecurrant	0.5	0.4	0.3	0.4
Raspberry	0.6	0.5	1.0	1.3
of which organic	..	0.01	0.03	0.03
Gooseberry	0.03	0.06	0.05	0.07
<b>Total</b>	<b>13.1</b>	<b>12.5</b>	<b>16.8</b>	<b>14.9</b>
<b>Supply of wild berries, 1 000 kg</b>				
Blueberry	3 111	2 780	7 200	5 512
of which organic	..	1 036	1 301	3 272
Lingonberry	8 544	6 057	9 615	11 240
of which organic	..	1 232	664	1 471
Cloudberry	321	152	160	248
of which organic	..	1	106	94
Other berries	51	108	28	198
<b>Total</b>	<b>12 027</b>	<b>9 097</b>	<b>17 003</b>	<b>17 198</b>
<b>Supply of wild mushrooms, 1 000 kg<sup>1)</sup></b>				
Chanterelle	16	5	10	39
Cep	181	747	62	383
Milk caps	152	98	77	160
Other wild mushrooms	77	5	18	16
<b>Total</b>	<b>426</b>	<b>855</b>	<b>166</b>	<b>597</b>

Source: Natural Resources Institute Finland, Gallup Food and Farm Facts, Finnish Association of Fruit and Berry Growers, Agency for Rural Affairs

<sup>1)</sup> weighted fresh

## GAME BAG

Amount and face value of game meat		2006	2010	2015
Number	Hares	268 800	248 200	217 600
	Moose	75 587	68 423	44 122
	Other artiodactyla <sup>1)</sup>	25 777	29 113	31 428
	Wild boar	3	100	486
	Waterfowl	586 000	533 800	409 500
	Grouse	459 200	306 200	209 200
	Other game birds	245 400	278 000	299 100
	Total <sup>2)</sup>	1 664 867	1 470 315	1 216 867
	Quantity 1 000 kg	Hares	525	501
Moose		10 018	9 124	5 787
Other artiodactyla <sup>1)</sup>		1 086	1 227	1 307
Wild boar		0	8	39
Waterfowl		327	305	232
Grouse		308	204	145
Other game birds		84	97	108
Total <sup>2)</sup>		12 400	11 559	8 117
Value EUR 1 000		Hares	2 608	7 446
	Moose	51 526	54 744	40 505
	Other artiodactyla <sup>1)</sup>	5 681	6 348	6 809
	Wild boar	1	80	389
	Waterfowl	5 157	6 146	4 359
	Grouse	4 515	5 921	4 325
	Other game birds	1 480	1 775	2 032
	Total <sup>2)</sup>	71 175	83 029	65 621

Source: The Natural Resources Institute Finland

<sup>1)</sup> white-tailed deer, Finnish forest reindeer, fallow deer and roe deer

<sup>2)</sup> Totals include bears and beavers

## LEVEL OF SELF-SUFFICIENCY IN FOOD PRODUCTS

Ratio of production to consumption (%)	1994	2005	2015	2016
Bread grain	75	102	123	103
Dairy products, liquid milk	112	106	97	96
Beef and veal	111	89	82	82
Pork	113	116	100	100
Eggs	130	119	114	112
Sugar	68	83	36	44
Tomato	..	62	57	60
Cucumber	..	74	78	80
Carrot and turnip	..	94	91	92
Yellow onion	..	80 <sup>1)</sup>	66	71
Cauliflower	..	62	47	39
Strawberry	..	67	71	66
Raspberry	..	24	27	37
Apple <sup>2)</sup>	..	21	11	13
Apple (includes private gardening)	..	31	14	16

Sources: Gallup Food and Farm Facts, Finnish Horticultural Products Society, Finnish Association of Fruit and Berry Growers, National Board of Customs, The Central Union of Agricultural Producers and Forest Owners, Natural Resources Institute Finland

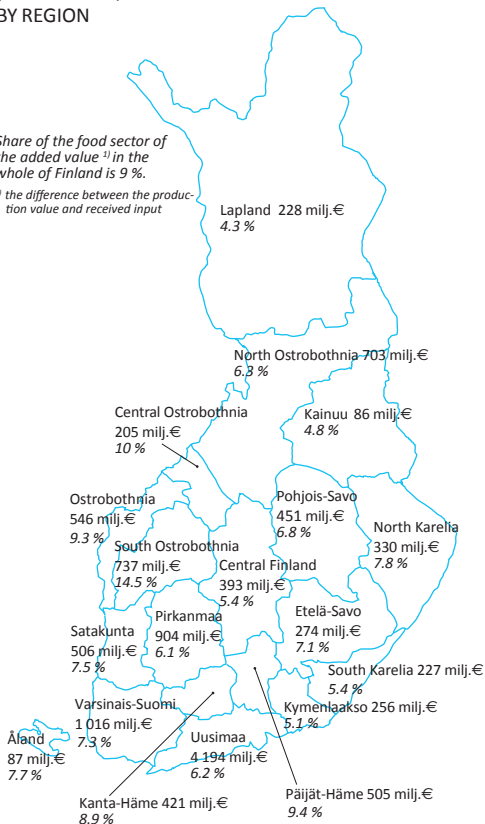
<sup>1)</sup> onions excluding garlic and leek

<sup>2)</sup> numbers are estimates (do not include private gardening)

## ADDED VALUE IMPACT OF THE FOOD SECTOR (EUR MILLION) BY REGION AND % OF ADDED VALUE BY REGION

Share of the food sector of the added value <sup>1)</sup> in the whole of Finland is 9 %.

<sup>1)</sup> the difference between the production value and received input



Source: Natural Resources Institute Finland. Ruokaketjun merkitys kansantaloudelle ja alueille Suomessa 2010–2016

## NON-COMPLIANT FOODS 2016

Inspected foods	Inspected batches <sup>1)</sup> , number	Non-compliant batches, %	Batches issued a notice, %
Grain and cereal products	175	0	11
Vegetables and vegetable products	585	4	6
Starchy roots and tubers	19	5	5
Leguminous plant seeds and leguminous products	30	7	13
Fruit and fruit products	690	3	4
Fish and fish products	12	0	0
Sweets and chocolate	58	3	21
Fruit, vegetable and plant juices, drinks and spreads etc.	143	6	9
Water, water-based soft drinks etc.	57	9	14
Ingredients for hot drinks and groats	133	8	9
Alcoholic beverages	18	0	67
Foodstuff for adolescents	65	11	3
Foodstuff for people with special diet (incl. dietary supplements)	224	35	21
Compiled dishes	172	3	5
Spicing products and dinner sauces	181	7	8
Purified and isolated ingredients	35	17	6
Cereal dough based products	209	8	12
Nuts and nut products	112	4	7
Oil seeds and fruit	105	1	8
Herbs, spices and similar	196	11	12
Hot drinks (coffee, hot chocolate, tea and herbal drinks)	16	0	13
Products imitating meat and dairy products	19	0	5
<b>Total</b>	<b>3 254</b>	<b>6.5 <sup>2)</sup></b>	<b>11.8 <sup>2)</sup></b>

Source: Customs Laboratory

<sup>1)</sup> 30 % of the batches were from countries outside the EU and the origin of 100 products was unknown.

<sup>2)</sup> the figure is an average

## CAUSES OF NON-COMPLIANCE 2016

<b>Cause of non-compliance</b>	<b>Number of batches</b>	<b>%</b>
Labelling	56	35.4
Plant protection products	35	22.2
Pharmaceutical classification	29	18.4
Additives	13	8.2
Microbiological causes incl.		
Salmonella	10	6.3
Allergens	8	5.1
Mycotoxins	7	4.4
<b>Total</b>	<b>158</b>	<b>100.0</b>

Source: Customs Laboratory

## VETERINARY MEDICINAL PRODUCT RESIDUES AND OTHER SUBSTANCES IN LIVE ANIMALS AND ANIMAL PRODUCTS

	<b>EU-27 average</b>		<b>Finland</b>		
	<b>2010</b>	<b>2014</b>	<b>2010</b>	<b>2013</b>	<b>2016</b>
Number of targeted samples	418 081	425 232	4 344	4 341	4 334
Non-compliant samples %	0.33	0.37	0.0	0.00	0.00

Source: EFSA and Finnish Food Safety Authority Evira

Contaminants are prohibited substances, permissible medicinal products and contaminants from the environment. The EU results include all samples examined in the programme, including contaminants from the environment. The results for Finland take into account the residues of prohibited substances and permissible medicinal products but not all results that exceed the limit, such as heavy metals found in game.

## FOOD CONTROL FIGURES 2016

Inspections, number	Primary production <sup>1)</sup>	Manufacture and packaging	Distribution and transport	Retail sales	Service sector	Manufacturers selling primarily on a retail basis	Total
Number of establishments	0	3 482	2 603	11 511	34 780	0	52 376
Number of establishments inspected	34	1 633	425	3 873	14 472	0	20 437
Number of inspections	34	3 395	587	5 280	18 531	0	27 827
Number of establishments committing infringements	4	315	39	497	1 829	0	2 684
<b>Type of infringement</b>							
Hygiene (HACCP, training)	0	21	5	0	17	0	43
General hygiene	4	356	19	443	2 026	0	2 848
Composition	0	6	3	14	0	0	23
Contamination (other than microbiological)	0	0	0	0	0	0	0
Labelling and presentation	0	65	11	206	51	0	333
Other	0	202	25	249	759	0	1 235

Source: Finnish Food Safety Authority Evira, Report on the implementation of the Multi-annual National Food Chain Control Audit Plan 2014–2018 in 2016

<sup>1)</sup> primary production data of foods missing as comprehensive information not available in 2016



## NUMBER OF RECALLS

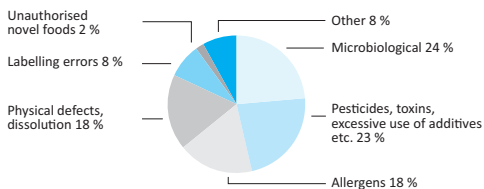
	2005	2010	2015	2016 <sup>2)</sup>
Recalls <sup>1)</sup> , number	28	84	111	131

Source: Finnish Food Safety Authority Evira

<sup>1)</sup> incl. both retailer and mass caterer recalls. The statistics for different years are not fully comparable, as recording methods have been defined.

<sup>2)</sup> incl. cases (25) where no products, at the time the information reached the Finnish market, have been left.

## REASONS FOR PRODUCT WITHDRAWALS 2016



Source: Finnish Food Safety Authority Evira

## FOODBORNE AND WATERBORNE OUTBREAKS AND NUMBER OF PERSONS AFFECTED 2016

Disease-causing agent	Number of outbreaks	Number of persons affected	
	N=59	N=1542	%
<b>Foodborne</b>			
Bacillus cereus	3	21	2
Campylobacter	5	54	4
Clostridium perfringens	2	5	0
EHEC (+EPEC)	2	240	17
Other bacteria/beetroot	3	68	5
Salmonella	2	25	2
Yersinia enterocolitica	2	24	2
Norovirus	22	784	57
Unknown	19	158	11
<b>Total</b>	<b>56</b>	<b>1 379</b>	<b>100</b>
<b>Waterborne</b>			
Campylobacter	1	22	15
Sapovirus	1	120	80
Unknown	1	8	5
<b>Total</b>	<b>3</b>	<b>150</b>	<b>100</b>

Source: Finnish Food Safety Authority Evira

## FOODBORNE AND WATERBORNE OUTBREAKS BY DISEASE-CAUSING AGENT 2016

Disease-causing agent	Unknown or several foodstuffs	Meat and meat products	Vegetables and vegetable products	Fish and fish products	Milk and milk products	Cereals and cereal products	Eggs and egg products	Drinks	Bakery products	Total
Bacillus cereus		1				2				3
Campylobacter jejuni	1				1					2
Clostridium perfringens	2									2
Salmonella	1		1							2
Norovirus	17		1	1			1	2		22
Verocytotoxigenic E. coli (VTEC)	1		1							2
Yersinia enterocolitica	1		1							2
Unknown	15		3				1			19
Total	38	1	7	1	1	2	0	2	2	54
%	70	2	13	2	2	4	0	4	4	100

Source: Finnish Food Safety Authority Evira

**FOOD CONSUMPTION PER CAPITA  
IN FINLAND AND IN THE EU**

<b>Consumption kg/ capita</b>	<b>1995</b>	<b>2005</b>	<b>2011</b>	<b>2015</b>	<b>2016</b>	<b>EU-28 <sup>1)</sup></b>
Grain	69.8	78.8	78.8	78.8	79.7	127.3
Potatoes	59.6	62.0	52.3 <sup>2)</sup>	..	..	69.6
Meat, total	60.3	73.0	77.6	79.3	81.0	81.3
beef and veal	18.8	18.6	18.6	19.2	19.2	14.9
pork	32.0	33.5	36.4	34.9	34.7	39.0
poultry meat	9.0	16.1	18.2	21.6	23.5	22.5
other meat	0.6	4.8	4.4	3.6	3.6	2.8
Liquid milk prod- ucts, total (litres)	203.0	187.8	181.8	170.5	163.2	236.4
milk	145.6	134.6	127.6	127.0	121.6	..
sour milk products	37.1	36.8	40.7	34.4	32.7	..
cream (incl. sour cream products)	6.8	6.6	8.8	9.1	8.9	3.9
Butter	5.5	2.6	4.0	3.4	3.4	3.7
Vegetable oils	4.3	5.3	5.5	3.4	..	19.6
Cheese <sup>3)</sup>	14.8	17.2	21.0	26.6	26.3	17.2
Ice cream (litres)	14.1	14.0	12.3	..	..	..
Eggs	11.8	9.3	10.0	11.5	11.9	12.0
Sugar	35.4	32.0	30.1	29.3	29.1	31.7
Fruit <sup>4)</sup>	43.6	54.5	58.8	64.7	67.3	103.7
Vegetables <sup>5)</sup>	61.7	68.3	62.6	62.4	63.7	109.4
Fish (fillet/product weight)	14.0	14.1	14.9	14.3	..	..
Coffee (roasted)	8.3	9.8	9.7	9.9	9.9	4.8
Soft drinks (litres)	45.8	52.0	56.0	43.3	52 <sup>6)</sup>	..
Beer (litres) <sup>7)</sup>	82.5	84.0	85.4	76.8	76.6	67.1
Wine (litres)	8.2	10.8	12.6	11.5	11.5	22.8
Spirits (litres)	4.9	6.7	5.4	4.5	4.4	..

Source: Gallup Food and Farm Facts, Natural Resources Institute Finland, FAO – Statistics Division – Food Balance Sheet, Canadean, ICO (International Coffee Organization), The Finnish Food and Drink Industries' Federation, Federation of The Brewing and Soft Drinks Industry

<sup>1)</sup> in 2013. Food product group specifications do not concern EU figures.

<sup>2)</sup> value for 2012

<sup>3)</sup> includes non-flavoured curd and cottage cheese

<sup>4)</sup> excluding fruit juices and berries

<sup>5)</sup> from 2011 onwards, no frozen or preserved vegetables

<sup>6)</sup> the figure is an estimate

<sup>7)</sup> also private import since 2009

## AVERAGE DAILY INTAKE OF ENERGY-YIELDING NUTRIENTS AND FIBRE AND PERCENTAGE OUT OF THE TOTAL ENERGY INTAKE

	Intake per day		E % <sup>1)</sup>		Recommendation
	Men	Women	Men	Women	
Protein, g	95.0	72.0	17.3	17.2	10–20 E%
Fat <sup>2)</sup> , g	93.0	71.0	37.0	35.9	25–40 E%
Saturated fat <sup>3)</sup> , g	39.0	30.0	15.5	15.1	< 10 E%
Monounsaturated fat <sup>3)</sup> , g	36.0	27.0	14.5	13.8	10–20 E%
Polyunsaturated fat <sup>3)</sup> , g	17.2	13.4	6.9	6.9	5–10 E%
Carbohydrates, g	230.0	186.0	42.2	43.9	45–60 E%
Sucrose, g	51.0	43.0	9.2	10.0	≤ 10 E%
Fibre g/MJ	2.4	2.9			3 g/MJ
Energy, MJ (kcal)	9.4 (2 243)	7.3 (1 733)			

Source: The National Findiet 2012 Survey  
25–64 years old

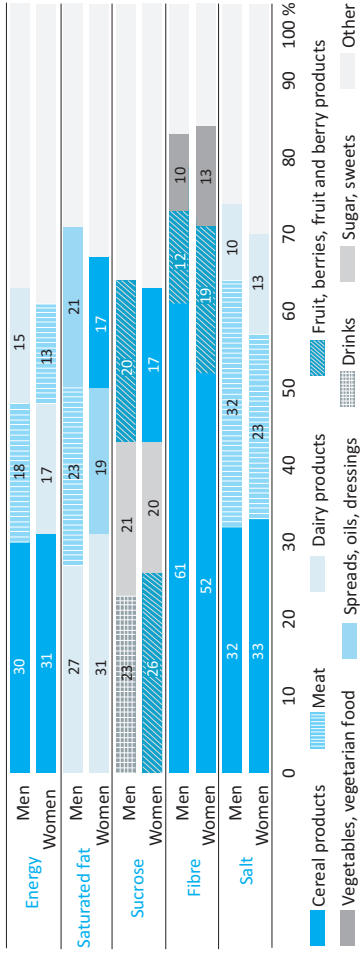
Energy includes fibre and alcohol

<sup>1)</sup> percentage of nutrient intake out of the total energy intake

<sup>2)</sup> crude fat

<sup>3)</sup> as triglycerides

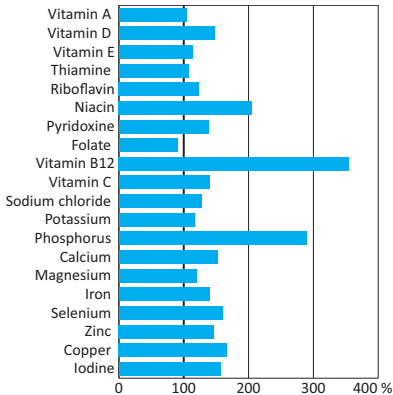
## MOST IMPORTANT SOURCES OF ENERGY AND NUTRIENTS



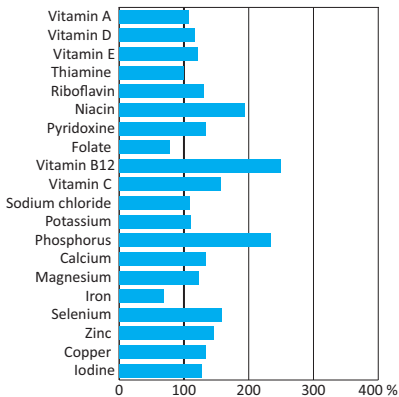
Source: The National FINDIET 2012 Survey  
25–64 years old

ACTUAL VITAMIN AND MINERAL INTAKE COMPARED TO THE RECOMMENDATIONS (% of recommendations)

Men



Women



Source: The National FINDIET 2012 Survey  
25–64 years old

## FINNS' DAILY MEALS (percentage)

	Children/teenagers <sup>4)</sup>				Working-age population		Older people	
	Primary school <sup>5)</sup>		Secondary school <sup>6)</sup>		Upper secondary school/vocational school <sup>7)</sup>		Men	Women
	Boys	Girls	Boys	Girls	Boys	Girls	Men	Women
Breakfast	90	91	63 <sup>8)</sup>	67 <sup>8)</sup>	57	60	91	95
Lunch	96	94	85 <sup>8)</sup>	73 <sup>8)</sup>			84	86
Dinner	86	91	77 <sup>8)</sup>	67 <sup>8)</sup>			83	81
Snack <sup>1)</sup>	70	68	29 <sup>8)</sup>	35 <sup>8)</sup>			88	95
Evening snack	92	87	69 <sup>8)</sup>	64 <sup>8)</sup>			80	85
Drink as a meal <sup>2)</sup>							86	84
School meal			68	67	71	72		
Meal with family <sup>3)</sup>			52	44	44	38		

The National FINDIET 2012 Survey, Late-tutkimus, Kouluterveystutkimus 2015 (Late Study, School Health Study 2015)

<sup>1)</sup> for children, snack in the afternoon

<sup>2)</sup> meal that only consists of a drink

<sup>3)</sup> meal in the afternoon or evening when the family eats together

<sup>4)</sup> for children and teenagers, the meals eaten on weekdays

<sup>5)</sup> primary school classes 1 and 5

<sup>6)</sup> secondary school classes 8 and 9

<sup>7)</sup> 1st and 2nd year students at upper secondary and vocational schools

<sup>8)</sup> secondary school class 8

## HEALTH BEHAVIOUR 2016 (%)

	All	aged 20–54	aged 55–74	75+
Access to a canteen at work or school	57	61	46	..
Eat few vegetables	22	22	21	29
Do not eat fish every week	19	26	10	8
Butter or butter/ vegetable oil spread every day	36	32	38	49
Coffeebread, Danish pastries, biscuits etc. every day	6	3	9	16
Drink too much alcohol	28	33	25	6
Smoke every day	13	14	13	2
Obese BMI ≥ 30	20	17	24	20
Do not exercise	21	17	24	33
Sleep <sup>1)</sup>				
Less than 6 hours	4			
6–8.9 hours	87			
9 hours or more	9			

Source: National Study of the Finnish Adult Population (ATH) 2010–2016, The National Finrisk 2012 Study <sup>1)</sup>



# DAILY CONSUMER GOODS TRADE AND INSTITUTIONAL KITCHENS

Economy

## NUMBER OF SHOPS BY SHOP TYPE

Shop type	Total 1.1.2017
Hypermarkets	149
Department stores	88
Supermarkets, large	645
Supermarkets, small	405
Self-service shops, large	1 009
Self-service shops, small	349
Small shops	357
Speciality shops	847
Market halls	30
<b>Total 1.1.2016</b>	<b>3 879</b>
Mobile shops	13
Closed down	890

Source: A.C. Nielsen Finland Oy

## SALES OF DAILY CONSUMER GOODS BY SHOP TYPE

MEUR	1996	2005	2015	2016
Hypermarkets <sup>1)</sup>	1 533	2 772	4 592	4 726
Department stores	655	611	541	504
Supermarkets, large	1 847	3 789	6 046	6 307
Supermarkets, small	2 118	1 648	1 709	1 763
Self-service shops, large	1 401	1 916	2 499	2 166
Self-service shops, small	766	490	415	329
Small shops	131	216	324	220
Speciality shops and market halls	148	158	298	293
<b>Total</b>	<b>8 599</b>	<b>11 601</b>	<b>16 424</b>	<b>16 308</b>
Mobile shops	52	18	5	5
Closed down	114	289	161	425
<b>Total</b>	<b>8 765</b>	<b>11 908</b>	<b>16 591</b>	<b>16 738</b>

Source: A.C. Nielsen Finland Oy

<sup>1)</sup> classification has been chain-based since 2005, including chains K-citymarket, Prisma and Euromarket. Since 2010 includes chains K-citymarket, Prisma and Minimani.

## NUMBER OF INSTITUTIONAL KITCHENS BY SECTOR

	2011 pcs	2013 pcs	2015 pcs	Change 13/15 %
Cafés and restaurants	11 211	11 229	9 673	-13.9
Workplace canteens	1 360	1 242	1 034	-16.7
Public kitchens	4 116	3 835	3 655	-4.7
Total	16 687	16 315 <sup>1)</sup>	14 379 <sup>1)</sup>	-11.9

Source: Taloustutkimus Oy

<sup>1)</sup> the figure includes some institutional kitchens, the field of operations of which are not known

## NUMBER OF PORTIONS PREPARED IN INSTITUTIONAL KITCHENS (BY SECTOR)

Million portions	2011 pcs	2013 pcs	2015 pcs	Change 13/15 %
Cafés and restaurants	398	416	419	0.7
Workplace canteens	72	70	62	-11,4
Public kitchens	419	411	383	-6.8
Total	889	904 <sup>1)</sup>	868 <sup>1)</sup>	-4

Source: Taloustutkimus Oy

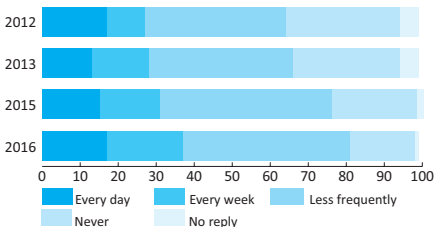
<sup>1)</sup> the figure includes some institutional kitchens, the field of operations of which are not known

In 2015, the share of organic products in public catering services was approx. 6 % (in kg).

Source: EkoCentria, Taloustutkimus Oy

## Environment

## FREQUENCY OF CONSUMPTION OF ORGANIC PRODUCE BY CATERING PROVIDERS, %



Source: Taloustutkimus Oy/Food Service Feedback 2016

Forkful of Facts can be ordered from Finnish Food Information by e-mail: ruokatieto@ruokatieto.fi or by phone +358 40 710 4170.

The publication is free, but postage are charged (handling 6 €+ shipping costs).

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Finnish Food Information  
Helsinki 2017

# Ruokatieto

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Central Union of Agricultural Producers  
and Forest Owners  
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