

07

Agriculture and forestry

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Food and Agriculture

Pocket Statistics 2017



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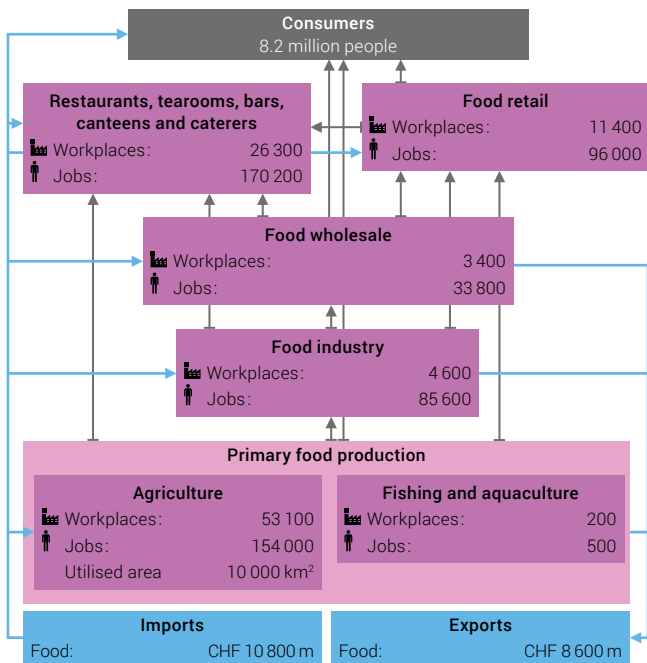
Table of contents

These Pocket Statistics provide concise data, facts and useful information about Switzerland's food supply chain, with a focus on agriculture. The key figures give an overview of the status and changes in individual areas.

1	Overview	4
2	Context	6
3	Agricultural structures	8
4	Primary production	14
5	Food industry, trade, food and beverages	20
6	Consumption and health	24
7	Environment	30
8	International comparisons	32
9	Key cantonal figures	34

1 Overview

The food supply chain in Switzerland, 2014¹



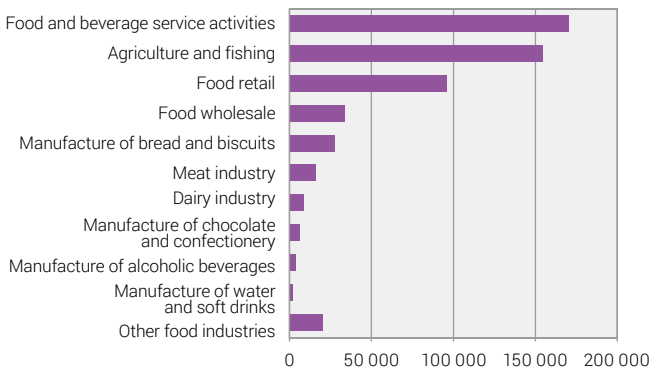
¹ Workplaces and jobs, 2014: provisional

Sources: FCA – Foreign trade statistics; FSO – STATENT, STATPOP, Farm structure survey

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Jobs in the food supply chain, 2014¹

Number of jobs



¹ provisional

Source: FSO – STATENT

© FSO 2017

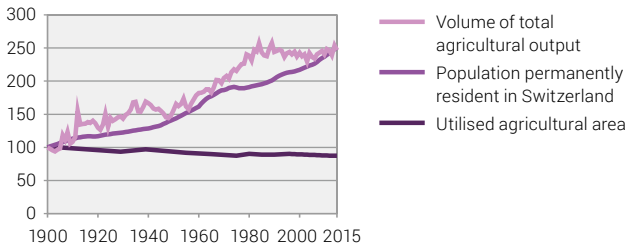
The food supply chain describes the different processes from raw material production in agriculture and fishing to processing and from retail to the food on consumers' tables. It has key economic significance for Switzerland.

In 2014, some 100 000 workplaces operated in the food supply chain. Of Switzerland's total workforce of some 5 million, approximately 548 000 people, representing 11% of jobs, worked within the food supply chain in 2014. Most were employed in food and beverage establishments and primary production (agriculture and fishing).

2 Context

Population and agriculture

Index 1900 = 100

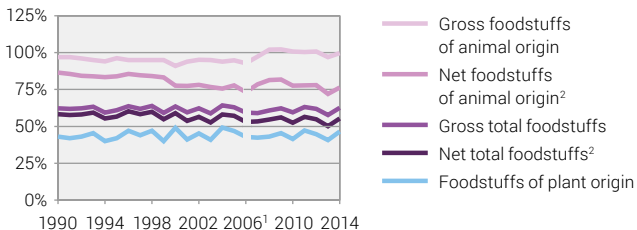


Sources: FSO – EAA, STATPOP, Farm structure survey

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Self-sufficiency rate

by usable energy in %



¹ New calculation method since 2007

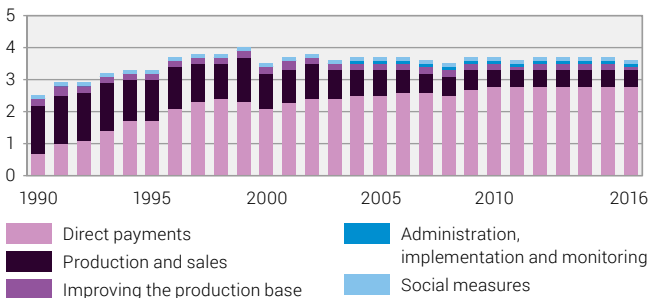
² Excluding animal products manufactured from imported feed

Source: SFU – Food balance sheet

© FSO 2017

Federal expenditure on agriculture and food

in CHF billions



Source: FFA – Federal budget

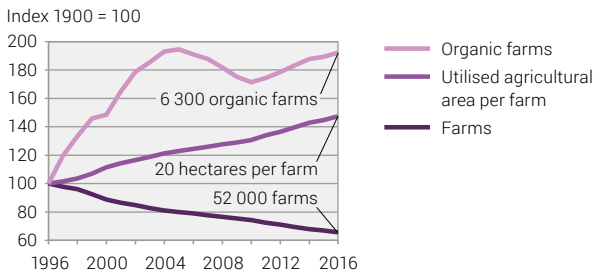
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Since the early 20th century, Switzerland's resident population has grown by a factor of 2.5, to over 8 million in 2015. At the same time, breeding and technical progress in agriculture has seen food production increase. This has meant that 60% of food consumption (in terms of usable energy) has been covered by domestic production over the past 20 years.

The Confederation spent some 5.5% of its total budget on supporting food production in 2016. This is intended to ensure that through sustainable and market oriented production, agriculture can make a key contribution to supplying the population with food, conserving natural resources, preserving the countryside, allowing decentralised land settlement and ensuring animal welfare.

3 Agricultural structures

Farms and utilised agricultural area

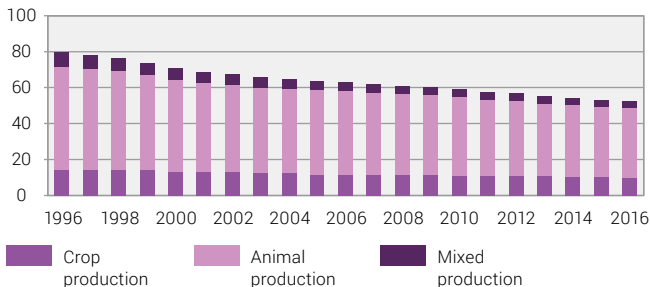


Source: FSO – Farm structure survey

© FSO 2017

Farms by type of farming

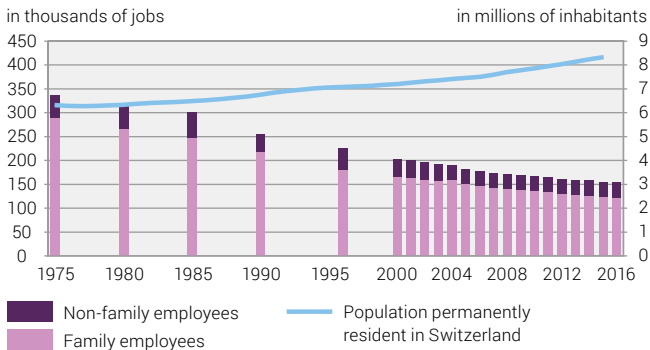
in thousands of farms



Source: FSO – Farm structure survey

© FSO 2017

Jobs in agriculture¹ and resident population



¹ Pursuant to the definition for farms applicable since 1996.

Sources: FSO – Farm structure survey, ESPOP and STATPOP

© FSO 2017

The number of farms declined from 79 500 in 1996 to 52 300 in 2016. The remaining farms now cultivate an area that is almost 50% larger per farm than it was in 1996. Agriculture supplies food to more people with fewer and fewer employees. The number of organic farms fell between 2006 and 2010, before rising again.

The majority of farms are active in livestock farming (livestock and livestock products). Farms with mixed production have been the most affected by the structural change, declining by over 54% since 1996, followed by farms focusing on animal production (–32%) and crops (–31%).

Numbers of livestock

In thousands (rounded)

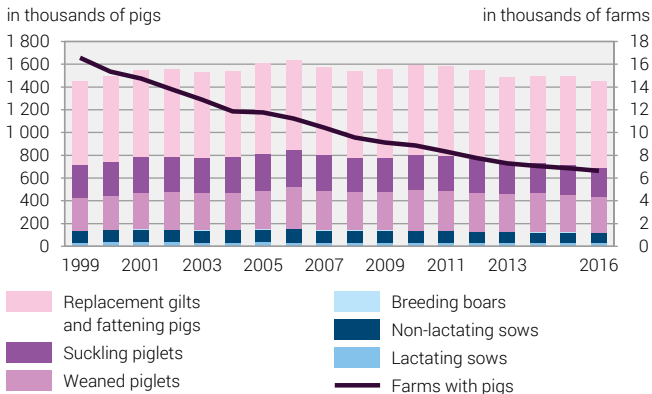
	1996	2006	2011	2016 ¹
Cattles	1 750	1 570	1 580	1 560
of which cows	760	710	700	700
Horses	40	60	60	60
Sheep	420	450	420	340
Goats	60	80	90	80
Pigs	1 380	1 630	1 580	1 450
Chickens	6 240	7 520	9 390	10 890

¹ From 2015 reference day moved from early May to 1 January.

Source: FSO – Farm structure survey

© FSO 2017

Pig farming

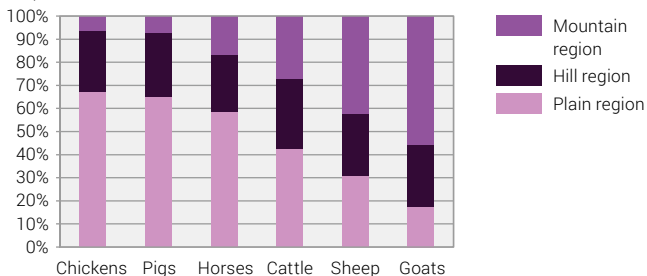


Source: FSO – Farm structure survey

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Livestock by region, 2016

Proportion of animals



Source: FSO – Farm structure survey

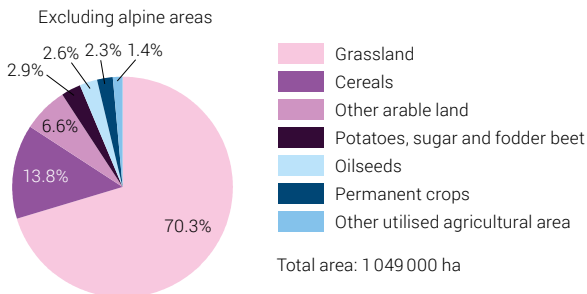
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Cattle numbers fell by 11% between 1996 and 2016. On account of a turbulent dairy market, the number of cows has fluctuated in recent years. The keeping of horses on farms has become more popular. In 2016 approximately 56 000 horses were kept, 29% more than in 1996.

Sheep numbers rose between 1996 and 2006 since when numbers have seen a downward trend that continued into 2015/2016. The number of pigs fluctuated from 1999 to 2016 between 1.5 and 1.6 million, with pig rearing particularly affected by structural change. 60% of pig fattening or breeding farms stopped keeping pigs.

Chickens, pigs and horses were mostly reared on lowland farms. Meanwhile, goat and sheep farming is typical of hill and mountain regions.

Use of utilised agricultural area, 2016



Source: FSO – Farm structure survey

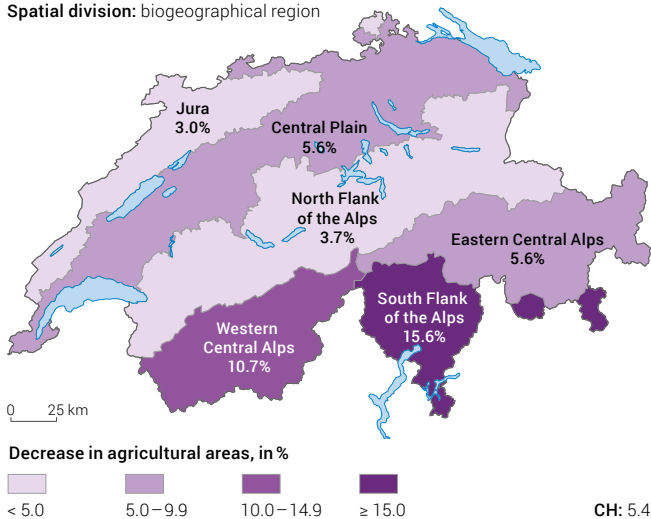
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In 2016, grassland accounted for 70% of the utilised agricultural area. This was followed by cereals (14%), the most important arable crop.

The agricultural area, as defined in the context of the land use statistics, also includes, in particular, alpine agricultural areas and is therefore larger than the utilised agricultural area. Two-thirds of the agricultural area are in the Central Plain and the North Flank of the Alps. Between 1985 and 2009 an average 1.1m² of agricultural land was lost per second in Switzerland. This land was mainly converted into settlement areas. The eastern Central Alps and the southern flank of the Alps are an exception, where mostly shrubs, woodland and forests are expanding at the cost of the agricultural area.

Loss of agricultural areas, 1985–2009

Spatial division: biogeographical region



Source: FSO – Land use statistics

© FSO 2017

4 Primary production

Crop production¹

In thousands of tonnes

	2005	2010	2015 ²
Cereals	1 057	924	891
Potatoes	485	421	365
Sugar beet	1 409	1 302	1 356
Vegetables	313	364	397
Fruit and berries	311	277	296

¹ gross production minus losses in the field and on the farm

² provisional

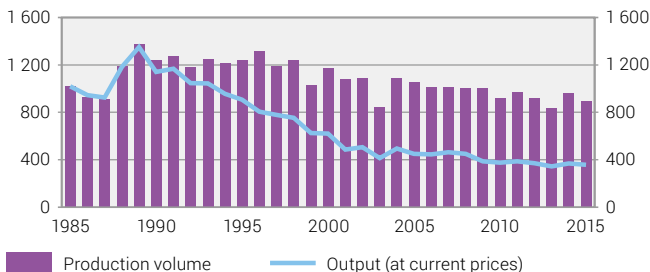
Source: SFU – Crop production

© FSO 2017

Cereals production and output¹

in thousands of tonnes

in CHF million

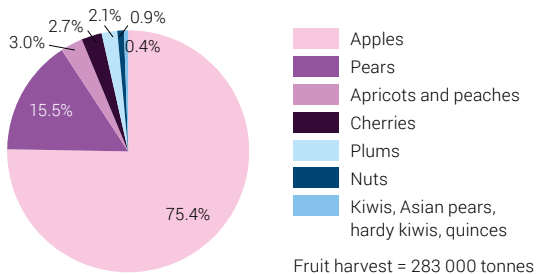


¹ 2015: provisional

Source: FSO – Economic accounts for agriculture

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Fruit harvest, 2015



Source: SFU – Crop production

© FSO 2017

Crop yields are largely dependent on the weather. Overall, 2015 was one of the warmest years since records began. A hot, dry summer began in June. Maize is a drought-sensitive cereal and the growth of its cobs was stunted. Potatoes and sugar beet were also small due to the heat although the beets did contain record levels of sugar. The cereal and rape harvests were larger than the 5-year average.

Between 1985 and 2015 the area under cereals fell by 22% while the harvest size shrank by 13%. Output value fell even more sharply due to price erosion and made up just a third of the 1985 value in 2015.

In 2015 283 000 tonnes of fruit were harvested. 213 000 tonnes of this harvest were apples, which grew in orchards covering a total of 3 863 hectares. Gala was the most popular variety of apple grown (861 hectares).

Animal production¹

In thousands of tonnes

	2005	2010	2015 ³
Meat ²			
Cattle	132	143	141
Pigs	236	249	241
Sheep	6	5	5
Poultry	58	69	87
Cow's milk	3 871	4 079	4 043
Hen's eggs	38	44	51

¹ gross domestic production

² usable output, carcass weight

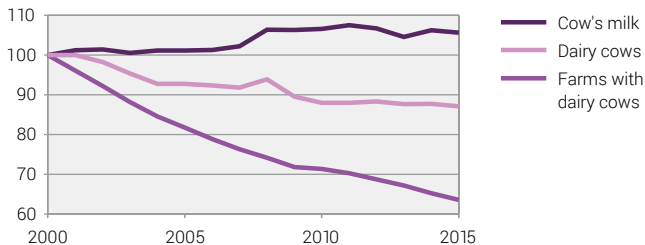
³ provisional

Source: SFU – Animal production

© FSU 2017

Production of cow's milk

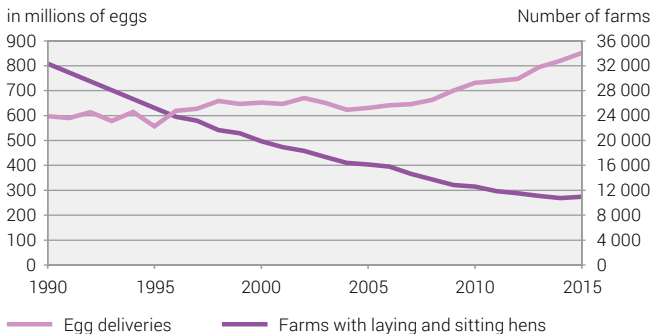
Index 2000 = 100



Sources: FSU – Farm structure survey; SFU – Milk statistics

© FSU 2017

Hens' eggs



Sources: FSO – Farm structure survey; SFU – Animal production

© FSO 2017

Between 2000 and 2015 meat production rose by 16% as a result of growth in livestock numbers, which was especially marked for poultry.

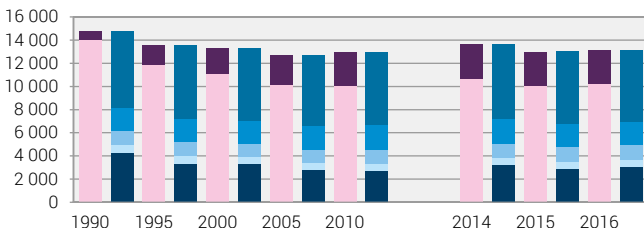
In addition to poultry meat, egg production also increased. In 2015, 11 000 farms kept laying hens, in particular in the cantons of Aargau, Bern and St. Gallen. They produced 851 million hens' eggs, which is more than 2.3 million eggs per day and roughly 40% more than in 1990.

Since 2008, more than 4 billion kg of milk have been produced every year, despite the fact that more than a third of farms ceased dairy production between 2000 and 2015. The remaining farms produced in total 6% more milk in the same period, with 13% fewer cows (-86 000 cows). This is only possible with greater milk production per cow.

From output to sector income of Swiss agriculture

At current prices

in CHF millions



+ Resources

- Other subsidies on production (direct payments)
- Output to basic prices (including subsidies on products less taxes on products)

- Uses

(costs of production)

- Intermediate consumption
- Fixed capital consumption (depreciation)
- Compensation of employees
- Other taxes on production, rents and interests

= Balance

- Sector income (net entrepreneurial income)

2014: semi definitive, 2015: provisional, 2016: estimate

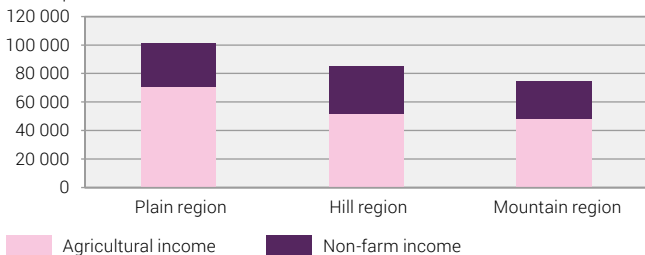
Source: FSO – Economic accounts for agriculture

© FSO 2017

The economic accounts for agricultural provide information on the value added and income of the Swiss agricultural sector. Between 1990 and 2016 the sector resources declined by CHF 1.6 billion (–12%). Their composition also changed: The State lowered its price support for agricultural commodities and focused more on direct

Total income per farm, 2015

in CHF per farm



Source: Agroscope – Farm Accountancy Data Network

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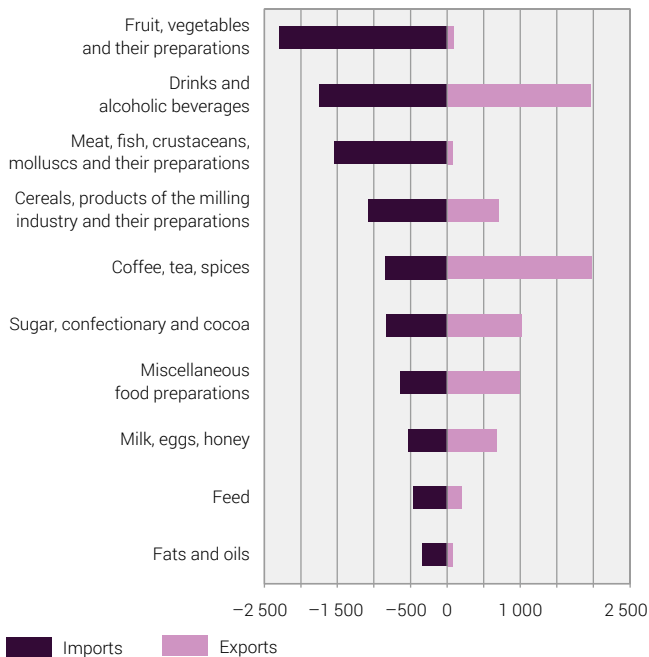
payments. Expenditure (costs of production) fell by CHF 0.4 billion (-4%), due in particular to cheaper agricultural input (e.g. fodder). Sector income, which compensates self-employed farming families' labour and assets, fell by 29%. Over the same period, the farming families' input of labour declined by 40%.

The agricultural income per farm was an average of CHF 61 400 in 2015. The average income per self-employed person working on a family farm was CHF 44 600. Non-farm income contributed roughly a third of total income and was therefore very important to farming families. Total income tended to be lower in hill and mountain regions than in lowland farms.

5 Food industry, trade, food and beverages

Imports and exports of the most important foodstuffs, 2015

in CHF millions

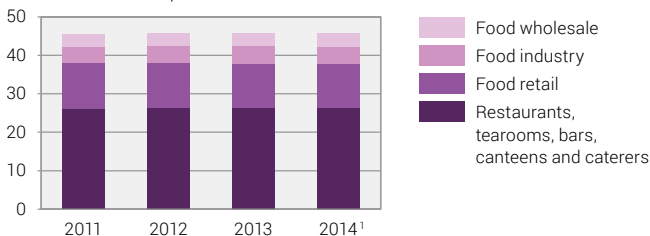


Source: SCA – Swiss foreign trade statistics

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Workplaces in the food industry, trade and catering

in thousands of workplaces



¹ 2014: provisional

Source: FSO – Structural Business Statistics (STATENT)

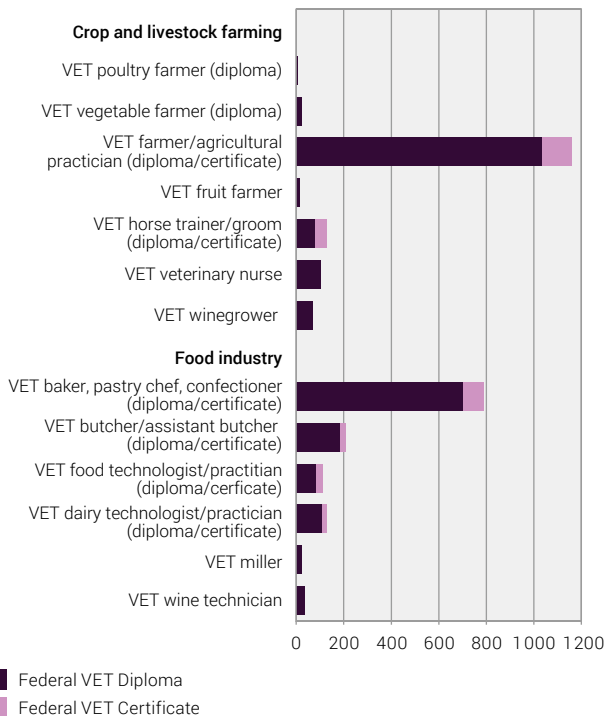
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In 2015, fruit and vegetables were the most commonly imported foodstuffs in terms of value. The most common exports were not cheese or chocolate, but beverages containing water, and coffee.

In addition to the approx. 53 000 farms, there were almost 46 000 businesses in the downstream food industry, trade and catering sectors in 2014. Whereas farms declined by 6% between 2011 and 2014, the food industry had 10% more businesses.

Education and training in crop and livestock farming and in food industry, 2015

Number of vocational qualifications

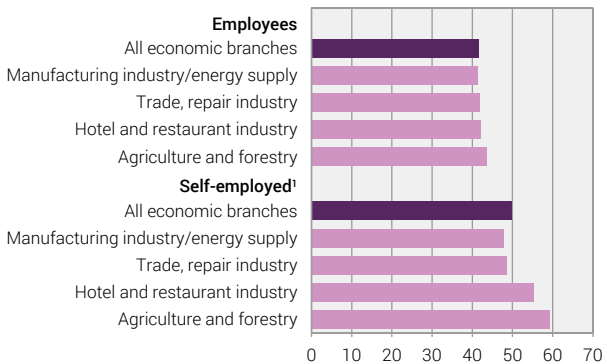


Source: FSO – Statistics on basic vocational education

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Normal weekly working hours for full-time employed people, 2014

Hours per week



¹ Including self-employed people and employees in their own company (joint stock company and limited-liability company).

Source: FSO – Swiss Labour Force Survey

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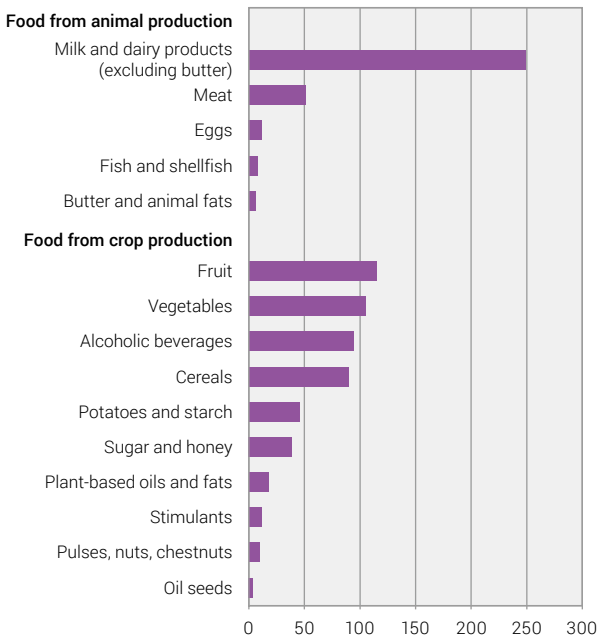
Many different occupations are involved in the production of crops and livestock as well as food. In these two areas, the largest number of vocational and professional qualifications awarded in 2015 was for young people undertaking training in agriculture, as well as for baker, pastry chef and confectioner apprenticeships. For both types of occupation, training is completed with a Federal VET diploma or VET certificate.

The normal weekly working hours in the restaurant and hotel industry and in agriculture and forestry are among the highest of all economic sectors.

6 Consumption and health

Food consumption¹, 2014

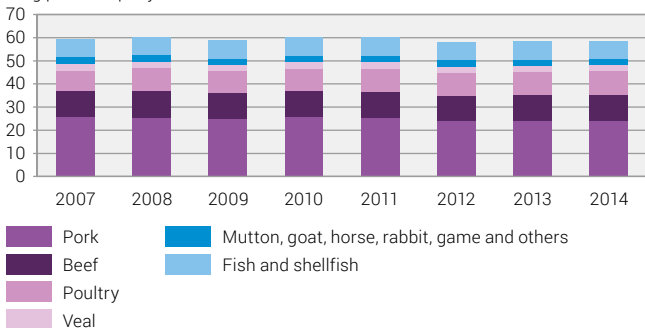
in kg of raw product per head per year



¹ Represents food potentially available. Quantities actually consumed are lower because of losses (e.g. unsold or spoiled food)

Consumption of meat and fish

in kg per head per year



Source: SFU – Food balance sheet

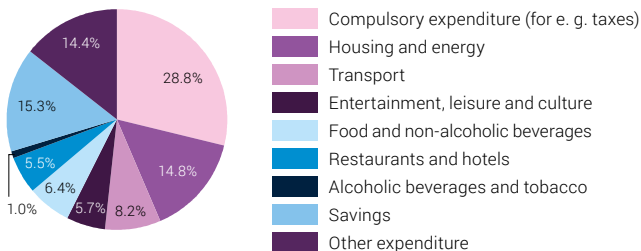
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In Switzerland, dietary energy supply was 12 900 kJ per capita per day in 2014, taking account of waste (e.g. unsold or spoiled food). The target daily energy supply for an adult is between 7 500kJ–10 500kJ.

In 2014, approximately 857 kg of food were consumed per person. 533 kg were from crop and 324 kg from animal production. Overall meat consumption per person and year was 1.1 kg less than in 2007. However, per capita consumption of poultry grew by 17% and fish, shellfish and molluscs by 4%.

Household expenditure, 2014

Proportion of gross household income

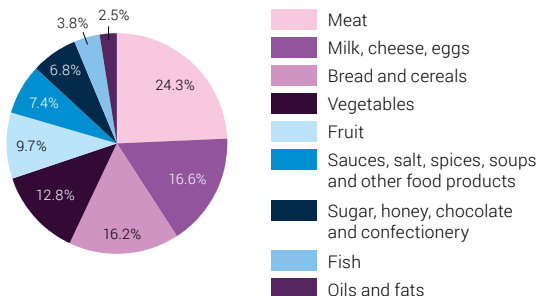


Average number of persons per household: 2.2

Source. FSO – Household Budget Survey

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Household consumption expenditure for food, 2014



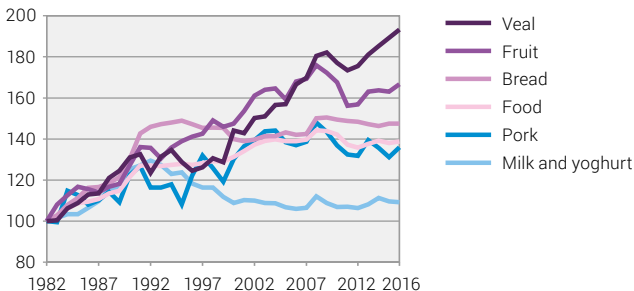
Average number of persons per household: 2.2

Source. FSO – Household Budget Survey

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Consumer Price Index

Index December 1982 = 100



Source: FSO – Consumer Price Index (CPI)

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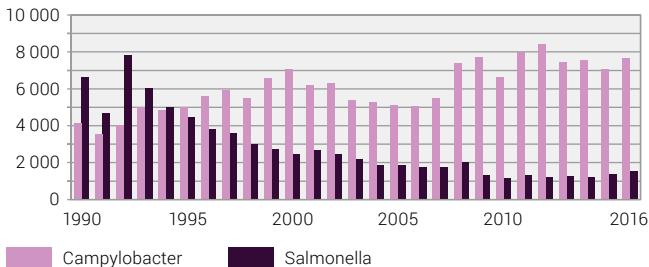
In 2014 households spent roughly one eighth of their budget, i.e. on average CHF 1 200 per month on food, including meals and drinks in restaurants. At approximately CHF 140 per month, meat was the largest food expenditure item, followed by the group “Milk, cheese and eggs”.

Overall food prices rose by almost 40% between 1982 and 2016. Within this product group veal and fruit became disproportionately more expensive, while during the same period prices for milk and yoghurt developed under proportionally.

Food poisoning

The most common zoonoses reported in humans

Number of cases



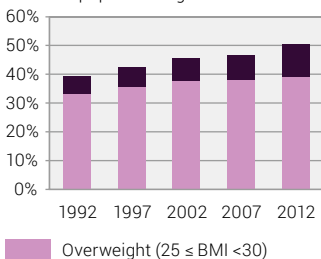
Source: FOPH – Epidemiology

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Overweight or obese persons

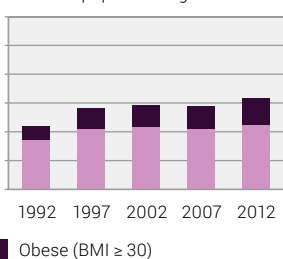
Men

Resident population aged 15 or over



Women

Resident population aged 15 or over

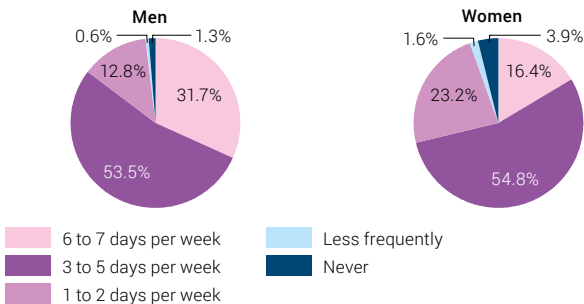


Source: FSO – Swiss Health Survey

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Weekly meat and sausage consumption, 2012

Population aged 15 or over living in private households



Source: FSO – Swiss Health Survey

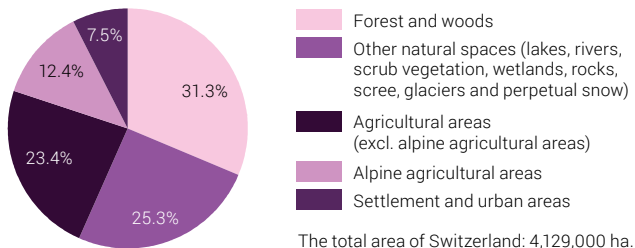
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Food poisoning usually occurs when food is not heated properly or if it is spoiled. The diarrhoea pathogen campylobacter has long been the most common zoonosis. The main source of infection is the consumption of raw meat. Salmonella infections are less frequent than in the 1990s, which can largely be attributed to successful control of infected laying hens.

The proportion of overweight or obese people rose between 1992 and 2012. In 2012, some 51% of men and 32% of women were overweight or obese. More than half of the population claim that they eat meat 6 to 7 days a week. More women (3.9%) than men (1.3%) are vegetarian.

7 Environment

Land use, 2004/2009¹



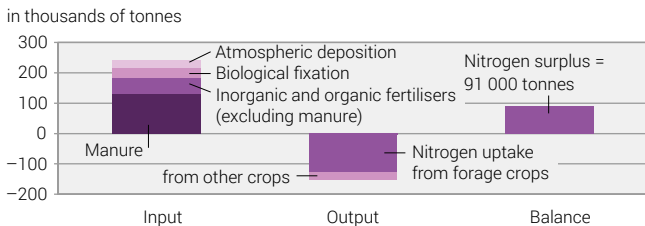
¹ Areas surveyed between 2004 and 2009.

Source: FSO – Swiss Land Use Statistics (NOAS04)

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Nitrogen balance of agricultural land, 2015¹

Amounts of nitrogen inputs and uptake from agricultural soil



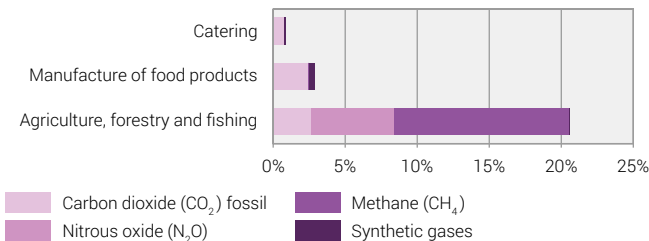
¹ According to the Organisation for Economic Co-operation and Development (OECD) method

Source: FSO – Nitrogen balance

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Greenhouse gas emissions from the food supply chain, 2014

Proportion of total greenhouse gas emissions produced by the economy



Source: FSO – Manufacture of food products

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The agricultural and alpine agricultural areas together make up more than one third of the total area of Switzerland. Between 1985 and 2009, 850 km² of this area was lost, equivalent to the size of the canton of Jura.

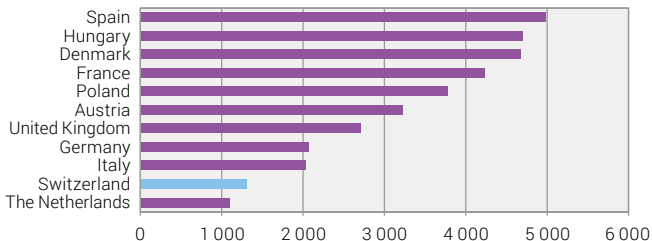
In the long-term, the nitrogen surplus from the agricultural area (including alpine meadows) is on the decline. According to the 2015 nitrogen balance, there was a nitrogen surplus of 60 kg/hectare. In the 1990s this figure was over 80 kg/hectare per year. Nitrogen can become a pollutant in the environment (as ammonia in the air or as nitrate in groundwater).

The sectors of agriculture and forestry, manufacture of food products and the restaurant and hotel industry caused 24% of the greenhouse gas emissions generated by the economy as a whole in 2014. The largest share of the total methane and nitrous oxide emissions were caused by agriculture, in particular from cattle and fertilisers.

8 International comparisons

Utilised agricultural area per inhabitant, 2013

in m² per inhabitant

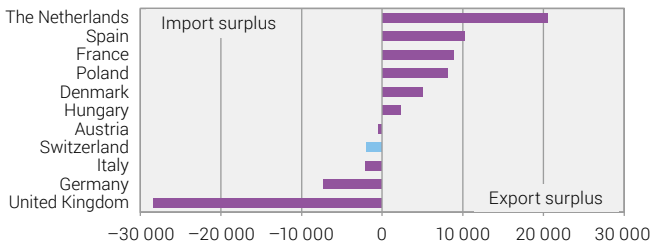


Source: Eurostat – Farm structure survey

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International trade of food, beverages and tobacco, 2015

Balance in EUR millions

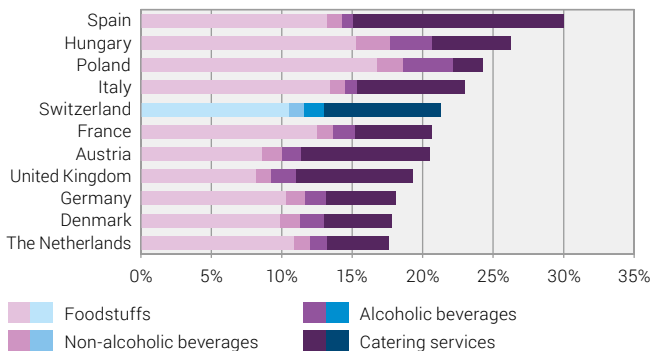


Source: Eurostat

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Income of households spent for food, 2012

in % to total consumption expenditures



Source: Eurostat, FSO – Household Budget Survey

© FSO 2017

Switzerland and the Netherlands are among the European countries that have a small utilised agricultural area per person. In 2013 this area was 1 300 m² per person.

Various European (EU27) countries, including the UK, Germany and Italy, import more food than they export in terms of value, while Spain and the Netherlands are the most important exporters.

In 2012, an average of 22% of total consumer spending in the EU27 and in Switzerland went on food.

9 Key cantonal figures

Population and workplaces, 2014

Cantons	Population in thousands	Agricultural holdings	Cheese dairies ¹	Bakeries ¹	Large supermarkets ¹ (1000–2499 m ²)	Restaurants ¹
ZH	1 446	3 655	19	195	55	2 924
BE	1 009	11 031	137	220	45	2 126
LU	395	4 746	45	93	12	676
UR	36	602	9	11	0	99
SZ	153	1 647	8	34	8	432
OW	37	661	12	12	2	82
NW	42	457	11	7	1	76
GL	40	379	3	10	3	105
ZG	120	579	6	22	5	247
FR	303	2 937	102	60	10	616
SO	264	1 400	7	53	8	595
BS	191	12	0	28	6	535
BL	281	945	0	25	10	452
SH	79	583	0	12	2	212
AR	54	739	9	10	1	165
AI	16	481	1	8	1	55
SG	496	4 162	68	119	22	1 289
GR	196	2 445	29	45	11	731
AG	645	3 462	4	96	27	1 121
TG	264	2 698	36	45	12	599
TI	350	1 145	9	56	9	1 155
VD	761	3 756	60	134	33	1 719
VS	332	3 289	31	62	16	1 325
NE	177	823	16	35	5	433
GE	477	384	1	53	22	1 480
JU	72	1 028	6	16	4	177
Switzerland	8 238	54 046	629	1 461	330	19 426

¹ 2014: provisional

Sources: FSO – Farm survey, STATENT, STATPOP

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