



Areas Farmed Organically

Organic farming excludes using chemically/synthetically produced agents such as commercial fertilizers or pesticides as well as genetically manipulated organisms or resultant products. For this reason, it is expected to have a positive impact on biodiversity. Switzerland's federal government subsidizes organic farming.

Between 1993 and 2012, areas farmed organically expanded from just under 19'000 to around 119'000 hectares, which corresponds to roughly 11% of Switzerland's total agricultural area. However, there are marked regional differences: In the mountains, in particular, organic farming claims a considerably larger share.

Status: February 2014

Contents

Development in Switzerland.....2

Development in the cantons.....3

Additional findings.....4

Significance for biodiversity.....5

Definition.....5

Surveying methods.....6

Further information.....6

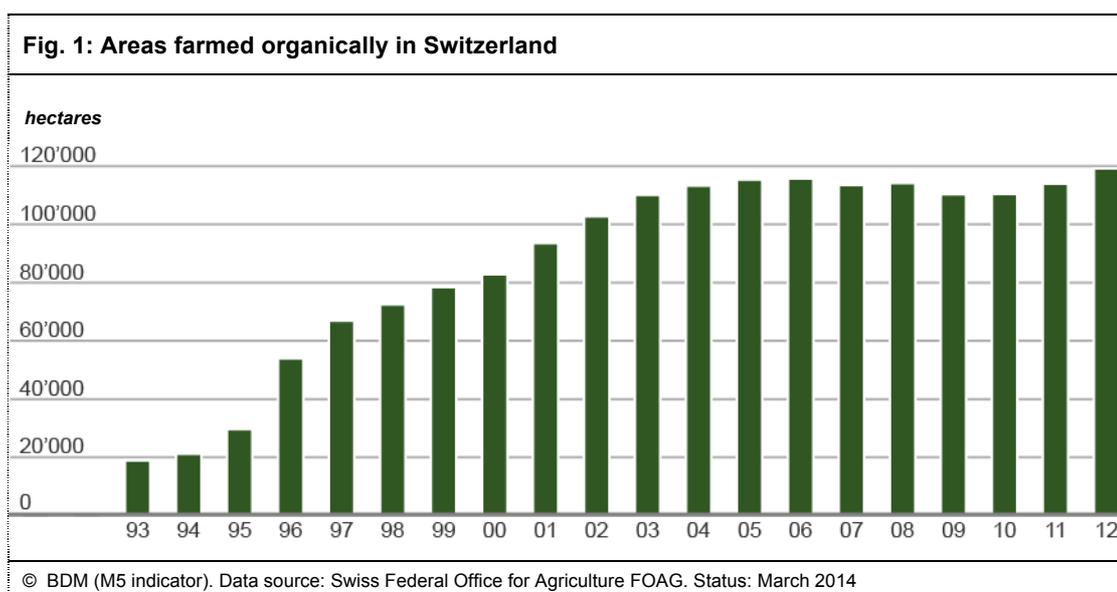
Data tables and complementary information.....Appendices

True to its ecological foundation, organic farming has a positive impact that goes beyond agriculture itself. Since organic farming is less harmful to the environment than traditional farming, areas farmed organically may be used to give an indication of the progress that has been made in greening agriculture.

Switzerland's federal government subsidizes areas farmed organically according to the guidelines stipulated by the Swiss Ordinance on Direct Payments. In order to benefit from such subsidies, farmers must meet certain criteria defined in the Swiss Ordinance on Organic Farming. Its terms apply to farms as a whole; partial fulfillment is only possible in case of vineyards and permanent orchards.

When farmers switch to "organic", their farms are initially classified as transitional farms for two years. These are included for the purposes of the M5 indicator, since they receive federal subsidies from the start. However, transitional farms are not yet allowed to market their produce as "organic", but must label it as "organic from transitional farm".

Development in Switzerland

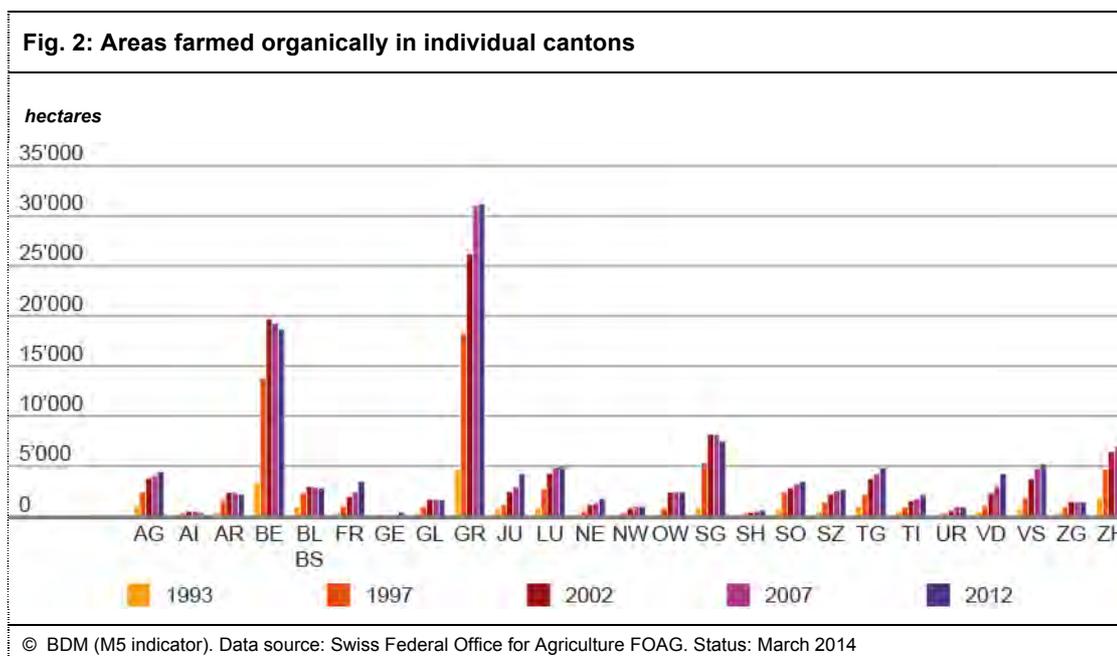


Comments

- Between 1993 and 2012, areas farmed organically have increased from just under 19'000 hectares to 119'000 hectares.
- After a period of strong growth up until 2003, increases leveled off subsequently. At close to 116'000 hectares, organic farming reached its greatest expanse in 2006, only to shrink again slightly afterwards. Since 2009, areas farmed organically have been reincreasing, peaking in 2012 with 119'000 hectares.
- At 6'420, the largest number of organic farms was registered in 2005. By 2012, it had dropped to 5'828. At the same time, however, the average farm size increased from 18.2 to 20.5 hectares.
- For a detailed data table covering the development of areas farmed organically in Switzerland, please go to Appendix 1.

Development in the cantons

Figure 2 below illustrates the development of organic farming in Switzerland's cantons in multiple-year steps. For a data table listing annual figures on the development of areas farmed organically in individual cantons, please go to Appendix 2.

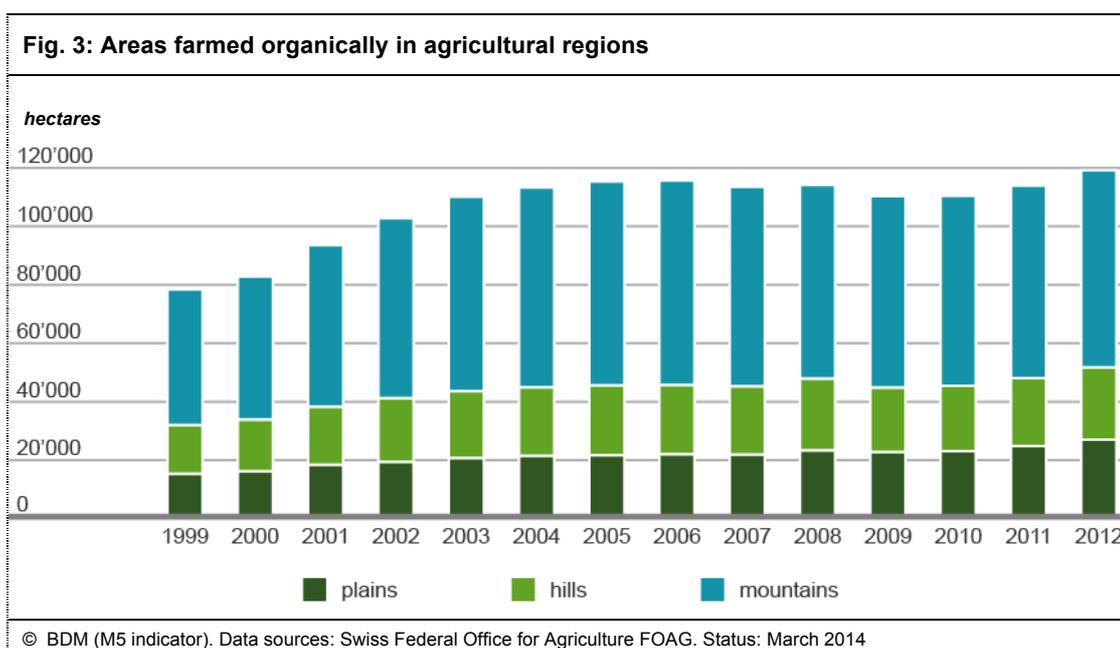


Comments

- Between 1993 and 2006, areas farmed organically increased in all cantons.
- Featuring a high proportion of permanent grassland, mountain cantons are the leaders in organic farming, with the largest expanse to be found in Graubünden (GR), followed by Bern (BE). In 2012, increases by more than 400 hectares have been registered in the cantons of Waadt (VD, +689 ha), Bern (BE, +575 ha), Freiburg (FR, +523 ha) and Jura (JU, +436 ha).
- Compared to 2011, 22 of Switzerland's cantons held at least the same or a larger size of areas farmed organically in 2012. The only cantons to record a decrease were Appenzell Aargau (AR, -21 ha), Genéve (GE, -3 ha) and Schaffhausen (SH, -1 ha). Nationwide, areas farmed organically increased by 3'455 hectares in 2011 and even by 5'347 hectares in 2012, after having decreased by 2'255 hectares in 2009. It remains to be seen whether the current change in trend will continue, and for how long.

Additional findings

Figure 3 below illustrates how areas farmed organically have developed in Switzerland's plains, hills and mountains.¹ As zones were classified differently from 1993 to 1998, data gathered in this earlier period cannot be compared to later figures, so they are not taken into account for the purpose of this comparison.



Comments

- In 2012, 23.8% of the agricultural land in the mountains were farmed organically, versus 9.1% in the hills and 5.5% in the plains. This amounts to a Swiss average of 11.3%.
- Switching to organic farming carries certain financial risks. In the mountains, where permanent grassland is predominant, these risks are lower than at lower altitudes, where farmers typically cultivate cereal crops and specialized crops. Accordingly, the share of organic farms is a particularly high the mountains.

¹ Article 2 of the Ordinance on Agricultural Zones lists the criteria used for demarcating agricultural zones. These zones have been grouped into the following three regions:

- plains: plains zone
- hills: hill zone, mountain zone I
- mountains: mountain zones II to IV.

Significance for biodiversity

The destruction of near-natural habitats and the intensification of agriculture triggered a huge decline in species diversity in agricultural areas in the second half of the 20th century. Slowing down this negative trend is an essential objective of organic farming.

To this end, production cycles on organic farms are kept as closed as possible, using environmentally sound production methods. Chemical/synthetic fertilizers and pesticides are banned. As a result, biodiversity benefits from an increase in organic farming, evidenced by the fact that on areas farmed organically, the diversity of plants, small animals, and birds tends to be greater than on areas farmed conventionally. In a long-time study on plots farmed either organically or conventionally, the Research Institute of Organic Agriculture (FiBL) proved plant and small animal species diversity to be greater on land farmed organically². The soil of plots farmed organically features higher soil crumb stability, a larger proportion of microbial biomass, and a larger number of earthworms. Furthermore, as stands formed by organic crops are less dense, more light is allowed to reach the ground, which has a favorable impact on the microclimate that favors species diversity.

Adjacent waterbodies also benefit from organic farming, since they will not be loaded with chemical/synthetic fertilizers and pesticides (cf. E14 indicator "Proportion of Polluted Waterways"). Likewise, efforts to maintain production cycles as closed as possible keep the number of cattle on organic farms adapted to farm size. In other words, organic farmers do not overfertilize the soil, keeping waterbodies from being burdened with a nutrient overload.

Organic farmers are particularly committed to preserving genetic diversity. For example, the Swiss *Pro Specie Rara* conservation organization primarily relies on them to grow heirloom vegetable and fruit varieties and to keep heirloom livestock breeds (cf. indicators Z1 "Number of Livestock Breeds and Plant Varieties" and Z2 "Proportion of Livestock Breeds and Plant Varieties").

So far, most comparative studies on organic farming vs. traditional farming have been conducted on arable land, causing the positive effect of organic farming on species diversity in grassland and at higher altitudes to be rather underdocumented. However, that is precisely where most of Switzerland's areas farmed organically are located. Furthermore, the actual impact of organic farming is largely dependent on location, climate, crop plants, and prevailing farming methods. For this reason, the M5 indicator does not directly reflect the extent to which organic farming promotes biodiversity.

Definition

Changes in areas farmed organically in Switzerland as a whole and in individual cantons.

The M5 indicator covers all areas annually receiving federal subsidies under the Swiss Ordinance on Direct Payments to Farmers dated December 7, 1998 ("Ordinance on Direct Payments"). Farmers receiving such subsidies meet the criteria of the Swiss Ordinance on Organic Farming and the Labeling of Organic Produce ("Ordinance on Organic Farming") requiring that organic farmers

1. respect natural cycles and processes;
2. avoid using chemical/synthetic agents and additives;
3. refrain from using genetically manipulated organisms and resultant products, except for veterinary purposes;

² Mäder, P.; Fliessbach, A.; Dubois, D.; Gunst, L.; Fried, P.; Niggli, U., 2002: *Soil Fertility and Biodiversity in Organic Farming*. *Science* 296:1694-1697.

4. abstain from treating their produce with ionizing radiation or using irradiated products;
5. adapt the number of farm animals to the ability of the farmland they own or lease to absorb the amount of manure produced;
6. keep farm animals in accordance with the requirements of the Ordinance on Organic Farming throughout their lives, supplying them with forage produced in compliance with this Ordinance.

Surveying methods

Farm data acquisition in Switzerland is carried out jointly by the Swiss Federal Office for Agriculture (FOAG) and the Swiss Federal Statistical Office (SFSO). This data includes information on areas farmed organically. Evaluations made by the Federal Offices are based on standardized questionnaires that must be filled in by farmers. Their statements, which refer to an appointed day in early May, are verified by national and cantonal authorities and managed in the FOAG's central database.

Further information

In charge of this indicator

Lukas Kohli, kohli@hintermannweber.ch, +41 (0)31 310 13 02

Related indicators

- > M4 "Ecological Compensation Areas"
- > E7 "Intensity of Agricultural Land Use"

Additional sources of information

- > www.blw.admin.ch/index.html?lang=en (comprehensive information on the Swiss Federal Office for Agriculture)
- > www.bfs.admin.ch/bfs/portal/en/index.html (comprehensive information on the Swiss Federal Statistical Office)
- > www.admin.ch/ch/d/sr/910_18/index.html (Ordinance on Organic Farming; not available in English)
- > www.admin.ch/ch/d/sr/910_13/index.html (Ordinance on Direct Payments; not available in English)
- > www.admin.ch/ch/d/sr/912_1/index.html (Ordinance on Agricultural Zones; not available in English)
- > www.fibl.org/en/homepage.html (comprehensive information on organic farming)

Additional non-illustrated appendices

- > Appendix 3: Agricultural land in Switzerland and in individual cantons

This information is based on the German-language document 1180_M5_Basisdaten_2012_v1.docx dated February 3, 2014.