

# Current status of organic oilseeds worldwide – Statistical update<sup>☆</sup>

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**Abstract** – Organic oilseeds constitute an important element in organic production. Their products are important feedstuffs (oilcake) and also relevant for human consumption (soya products, oils), and demand for these is continually growing. Almost 1.5 million hectares or 11% of the world's organic arable land were used for growing organic oilseeds in 2018. This is 0.6% of the world's total harvested oilseed area. On half of the organic oilseed area soybeans are grown, and about one third of the organic oilseed area is in China, where much of the production is for export. It is expected that with the growing organic market, which reached 97 billion euros in 2018, the organic oilseed area and in particular that of soybeans will continue to grow fast.

**Keywords:** oilseed / soybeans / organic trade / organic production

**Résumé – Situation actuelle des oléagineux biologiques dans le monde – Mise à jour statistique.** Les oléagineux « bio » représentent une part importante de la production biologique. Leurs produits sont des aliments importants pour les animaux (tourteaux) et la consommation humaine (produits du soja, huiles), et la demande pour ces produits ne cesse de croître. En 2018, près de 1,5 million d'hectares, soit 11 % des terres arables biologiques du monde, ont été utilisés pour la culture d'oléagineux biologiques. Cela représente 0,6 % de la superficie totale mondiale consacrée à la culture des oléagineux. La moitié de la superficie dédiée aux oléagineux biologiques est consacrée à la culture du soja, et environ un tiers de la superficie d'oléagineux biologiques se trouve en Chine, où une grande part de la production est destinée à l'exportation. Portée par la croissance du marché des produits biologiques qui a atteint 97 milliards d'euros en 2018, la superficie consacrée aux oléagineux biologiques, et en particulier au soja, devrait continuer de croître rapidement selon les prévisions.

**Mots clés :** oléagineux / soja / commerce biologique / production biologique

## 1 Introduction

In this article, the current status of organic oilseed production worldwide is presented. The latest data show that in 2018 approximately 1.5 million hectares of organic oilseeds were grown, constituting about 0.6% of the global oilseed area.<sup>1</sup> While the organic share of the oilseed area is still lower than the organic share of the total farmland, the organic oilseed area has more than trebled in the decade 2009–2018 and has thus grown faster than the organic farmland. Major producers of organic oilseeds are countries in Asia, supplying European markets with oilseed based-feedstuffs.

## 2 Background: latest data on organic agriculture worldwide and organic arable crops

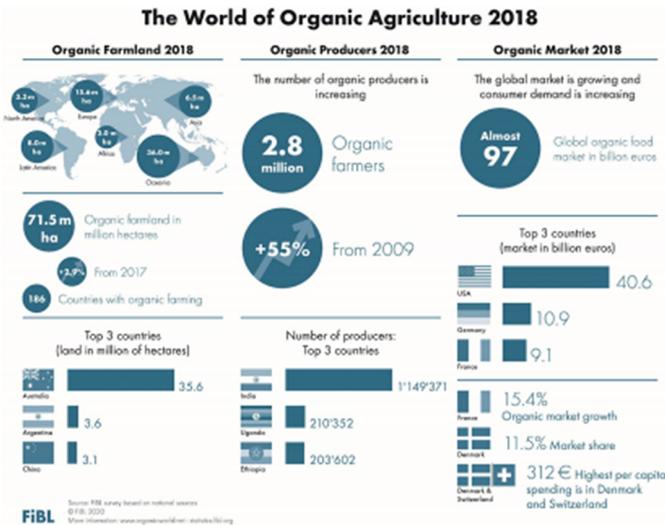
### 2.1 Organic agriculture worldwide

A total of 71.5 million hectares were organically managed at the end of 2018, representing a growth of 2.9% or 2 million hectares compared to 2017. In the past decade, organic farmland has more than doubled. Australia has the largest organic agricultural area (35.7 million hectares), followed by Argentina (3.6 million hectares), and China (3.1 million

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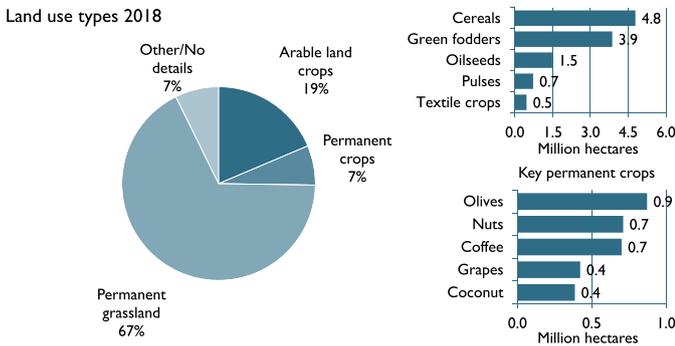
<sup>1</sup> The numbers are based on the annual survey on organic agriculture worldwide, which is carried out by the Research Institute of Organic Agriculture FiBL. For this survey, the organic area, number of producers, retail sales and exports and imports are collated annually and published together with IFOAM-Organics International (Willer *et al.*, 2020).



**Fig. 1.** The world of organic agriculture 2018. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

**Distribution of main land use types and crop categories 2018**

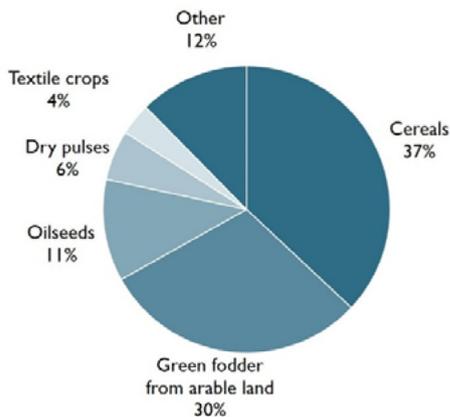
Source: FiBL survey 2020; based on information from the private sector, certifiers, and governments.



**Fig. 2.** World: land use in organic agriculture 2018. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

**Use of organic arable cropland by crop group 2018**

Source: FiBL survey 2020



**Fig. 3.** World: use of arable cropland by crop group 2018. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

hectares). Due to the large area of organic farmland in Australia, half of the global organic agricultural land is in Oceania (36.0 million hectares). Europe has the second largest area (15.6 million hectares), followed by Latin America (8 million hectares). Globally, 1.5% of farmland is organic. However, many countries have far higher organic shares area. The countries with the largest organic share of their total farmland are Liechtenstein (38.5%), Samoa (34.5%), and Austria (24.7%). In sixteen countries, 10% or more of all agricultural land is organic.

Organic is a fast-growing market, and global retail sales reached almost 97 billion euros in 2018. The United States was the leading market with 40.6 billion euros, followed by Germany (10.9 billion euros) and France (9.1 billion euros). The European Union's market amounted to 37.4 billion euros. In 2018, some major markets continued to show double-digit growth rates, and the French organic market grew by more than 15%. In the European Union, the market grew by 7.8% and in the United States by 5.5%. Danish and Swiss consumers spent the most on organic food (312 euros per capita in 2018). Denmark had the highest organic market share, with 11.5% of its total food market being organic (Fig. 1).

**2.2 Organic arable crops**

In 2018, over two-thirds of the 71.5 million hectares of organic agricultural land were grassland/grazing areas (almost 48.2 million hectares), while the cropland area (arable land with 13.3 million hectares and permanent crops with 4.7 million hectares) constituted 18 million hectares and over a quarter of the organic agricultural land. The cropland area is probably much higher because details on land use are not available for some countries (Fig. 2).<sup>2</sup> More than half of the world's arable cropland is in Europe.

With a total of more than 13.3 million hectares, organic arable land constituted 19% of the world's organic agricultural land and 0.9% of the world's arable cropland.<sup>3</sup> An increase of 5.1% over 2017 was reported, and there was an increase in most crop categories. Most of the arable cropland is used for cereals (4.8 million hectares) and green fodder (3.8 million hectares). Oilseeds constitute 11% of the arable cropland or 1.5 million hectares) (Fig. 3).

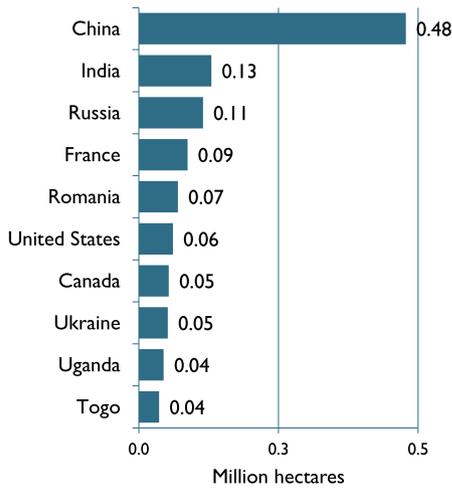
**3 Oilseeds – current status worldwide**

Organic oilseeds constitute an important element in organic production. Their products are important feedstuffs (oilcake) and also relevant for human consumption (soya products, oils), and demand for these is continually growing. While sunflower seeds are an unproblematic crop, soya production, mainly grown for feed, is challenged in the

<sup>2</sup> For some countries, only information on the main uses (arable crops, permanent crops, and permanent grassland) was available. For other countries, very detailed statistical land use information can be found).

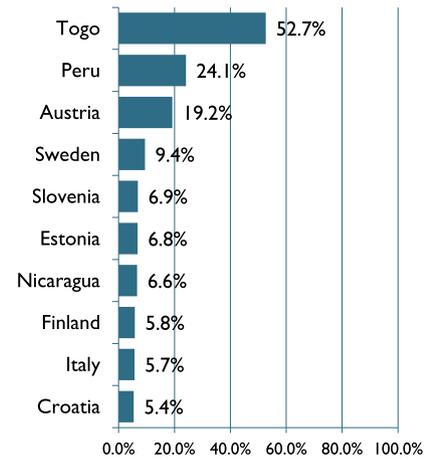
<sup>3</sup> There were 1561 336 753 hectares of arable cropland in 2017, according to FAOSTAT, FAO, Rome. See the FAO Homepage at [www.fao.org/faostat/en/#data](http://www.fao.org/faostat/en/#data) > Inputs > Land > [www.fao.org/faostat/en/#data/RL](http://www.fao.org/faostat/en/#data/RL).

**Global organic oilseed area: Top 10 countries 2018**



**Fig. 4.** World: organic oilseed area: top 10 countries 2018.

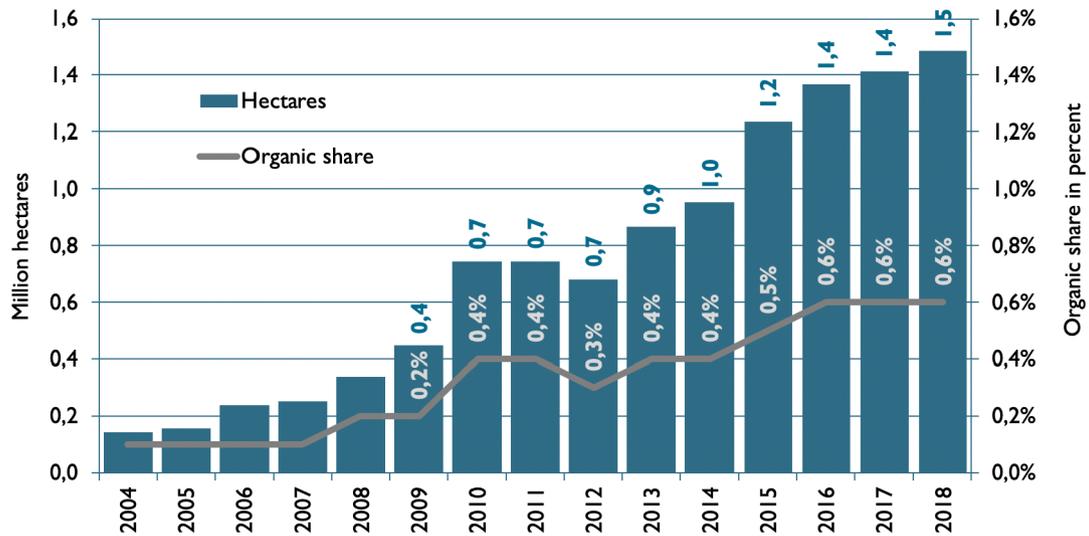
**Global organic oilseed area share (%): Top 10 countries 2018**



**Fig. 5.** World: organic oilseed area share: top 10 countries 2018. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

### Growth of Growth of the global organic oilseed area 2004-2018

Source: FiBL-IFOAM-SOEL-Surveys 2001-2020



**Fig. 6.** World: organic oilseed area and area share: development 2004 to 2018. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

Northern hemisphere by a lack of adapted varieties and competition from countries, where soy can be grown more easily. In rapeseed production, the yield gap of 20 to 30%, as well as crop protection issues, such as the rape pollen beetle, persist (Niggli *et al.*, 2016). In Africa, where almost 200 000 hectares of organic oilseeds were grown, sesame was the most important organic oilseed (95 000 hectares), with Europe being an important export destination. Sesame is the main cash crop, and it is common to cultivate sesame without having a crop rotation in place. Consequently, the crop has become susceptible to pest and disease infestations, putting farmers' harvests at risk, including those for organic farmers, as the necessary inputs are not yet available (Bernet, 2019).

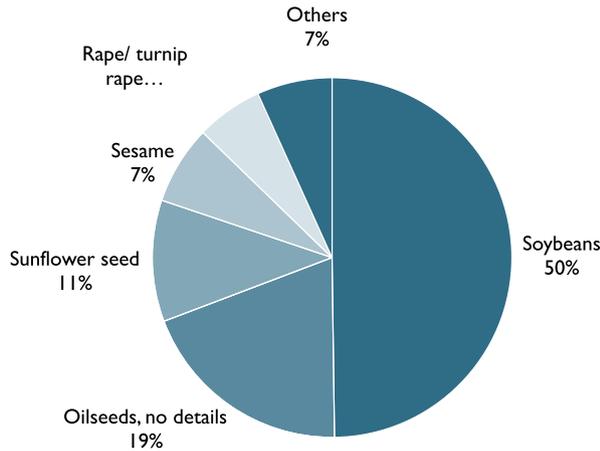
**Table 1.** Organic oilseed area by key crop 2018.

Crop	Organic area (ha)	Organic % of total crop area
Rape and turnip rape	91 958	0.3
Sesame	105 053	1.1
Soybeans	739 081	0.6
Sunflower seed	162 281	0.6
Total	1 484 585	0.6

Note: total includes further oilseed areas. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

### Use of organic oilseed area 2018

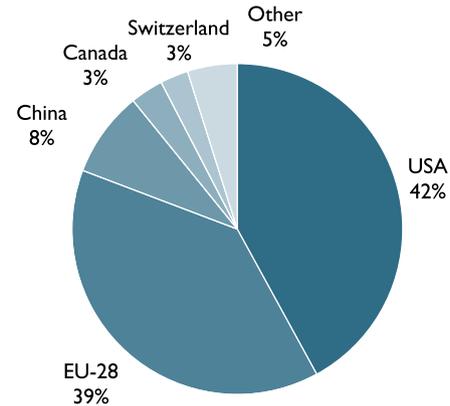
Source: FiBL survey 2020



**Fig. 7.** World: distribution of organic oilseed area by crop 2018. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

### World: distribution of retail sales by single market 2018

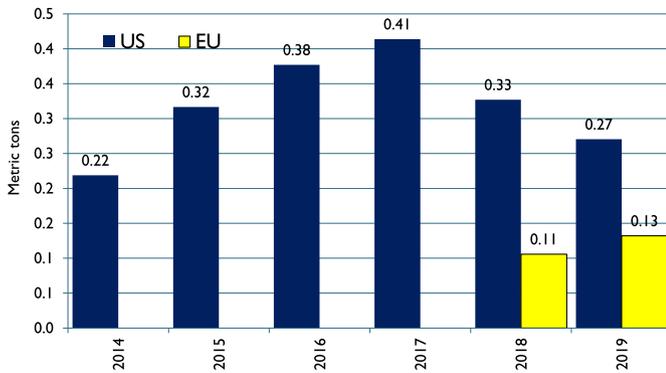
Source: FiBL-AMI survey 2020



**Fig. 9.** The global market for organic food: distribution of retail sales by country and by single market 2018. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

### Oilseed imports US and EU compared

Source: USDA and Traces/European Commission



**Fig. 8.** US and European Union: organic soybean imports 2018. Source: FiBL survey 2020 (European Commission, 2019a, 2020 and USDA, 2020).

Almost 1.5 million hectares were used for growing organic oilseeds in 2018. This is 0.6% of the world's total harvested oilseed area (more than 230 million hectares, according to FAOSTAT 2020). The countries with the largest organic oilseed areas were China, India, the Russian Federation, France, Romania, and the United States (Fig. 4). The highest organic oilseed area shares were in Togo 51.4%, mostly peanuts and soybeans), Peru (23.4%, mostly peanuts) and Austria (19.7%, mostly soybeans) (Fig. 5).

Since 2004, when global data on land use and crops was collected for the first time, the oilseed area has increased more than ten-fold. In 2018, for the organic oilseed area an increase of nearly 5% was reported (over 70 000 hectares).

Almost half of the global organic oilseed area is for soybeans, and another almost 20% is for sunflower seeds and sesame. Rape and turnip rape constitute about 6% of the organic oilseed area (Fig. 6, Tab. 1).

Looking at the distribution of the oilseed crop by continent, it is notable that in Africa almost half of the oilseed area is for sesame, whereas in Asia, two-thirds is used for soybeans. In Europe, soybeans and sunflower seeds are equally important, whereas in North and Latin America, soybeans are the most important oilseed crop (Fig. 7, Tab. 2).

## 4 Import data

Unfortunately, few data on organic exports and imports are available. However, the United States has released import data for selected crops since 2014 (USDA, 2020) and the European Union (European Commission, 2020) is now regularly issuing data on organic imports to the European Union. This data was available for the first time for 2018.

As for the US, data on soybeans only, but not all oilseeds imports are available, we are comparing the imports for this particular crop (Fig. 8).

In 2019, the European Union imported 132 079 metric tons of soybeans and the United States 270 453 MT, *i.e.* double as much as the European Union. For the US (for which a decrease in soybeans imports should be noted), the key suppliers of soybeans in 2019 were Argentina, contributing a third of the US soybean imports, followed by India and Ukraine. In the European Union, Togo led the pack followed by China, India and Ukraine.

While the EU and the US organic markets have both shares of the global organic market of about 40% each (Fig. 9), the distribution of the soybean imports indicates that the US market is far more dependent on imports than the European Union, which boasts of a stronger local production: in the European Union, 13.6 million hectares were organic in 2018 (0.5 million hectares of oilseeds), in the US only 2 million (0.1 million hectares of oilseeds). Facilitated by the increasing availability of organic feed, including oilseed-based feed, in

**Table 2.** Organic oilseed area by key crop and continent 2018.

Continent	Crop	Organic area (ha)	Organic % of total crop area
<i>Africa</i>	Rape and turnip rape	0	0.0
	Sesame	95 933	1.7
	Soybeans	44 898	2.0
	Sunflower seed	12 088	0.6
<b>Africa, total</b>		193 684	0.7
<i>Asia</i>	Rape and turnip rape	4449	0.0
	Sesame	345	0.0
	Soybeans	440 574	2.3
	Sunflower seed	3504	0.1
<b>Asia, total</b>		634 479	1.1
<i>Europe</i>	Rape and turnip rape	85 947	1.0
	Sesame		
	Soybeans	169 875	3.0
	Sunflower seed	142 104	0.7
<b>Europe, total</b>		496 099	1.4
<i>Latin America</i>	Rape and turnip rape	947	0.4
	Sesame	8775	3.2
	Soybeans	11 671	0.0
	Sunflower seed	947	0.0
<b>Latin America, total</b>		45 261	0.1
<i>Northern America</i>	Rape and turnip rape	614	0.0
	Sesame		0.0
	Soybeans	72 064	0.2
	Sunflower seed	3638	0.6
<b>Northern America, total</b>		115 063	0.2
<i>Oceania: no data</i>			0.0
<b>Total</b>		1 484 585	0.6

Note: totals by continent include further oilseed areas. Source: FiBL survey 2020, based on information from the private sector, certifiers, and governments.

the European Union, organic livestock is projected to grow significantly for pigs and poultry (European Commission, 2019b).

## 5 Outlook

Due to the high demand for organic products, the organic oilseed area, while still below the global share for farmland and arable crops, has grown considerably in the past years. This is due to the increasing demand for organic products, particularly in Europe and in Northern America. China's organic market is also growing fast. With this increasing demand, demand for livestock products and in particular for eggs is growing, resulting in an increased need for organic feedstuffs and in particular for oilseed-based feed. Currently, some of the demand is covered with imports, many of which come from Asia. This is particularly true for the United States. In Europe, efforts are being made to decrease the dependency on imports for soybeans in particular. It is expected that with the growing organic market, the organic oilseed area and in particular that of soybeans will continue to grow fast, particularly in Europe, but also in China, where soybeans are grown for local supply and export.

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