

ESTONIA



Report on the Status of Organic Agriculture and Industry in Estonia

Gefördert durch



Bundesministerium
für Ernährung
und Landwirtschaft

BÖLN

Bundesprogramm Ökologischer Landbau
und andere Formen nachhaltiger
Landwirtschaft

aufgrund eines Beschlusses des
Deutschen Bundestages

Imprint

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Disclaimer

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This report has been prepared to the best of our knowledge and belief. We cannot however accept any guarantee for the accuracy, correctness or completeness of the information and data provided.

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Facts and Figures

Estonian Map

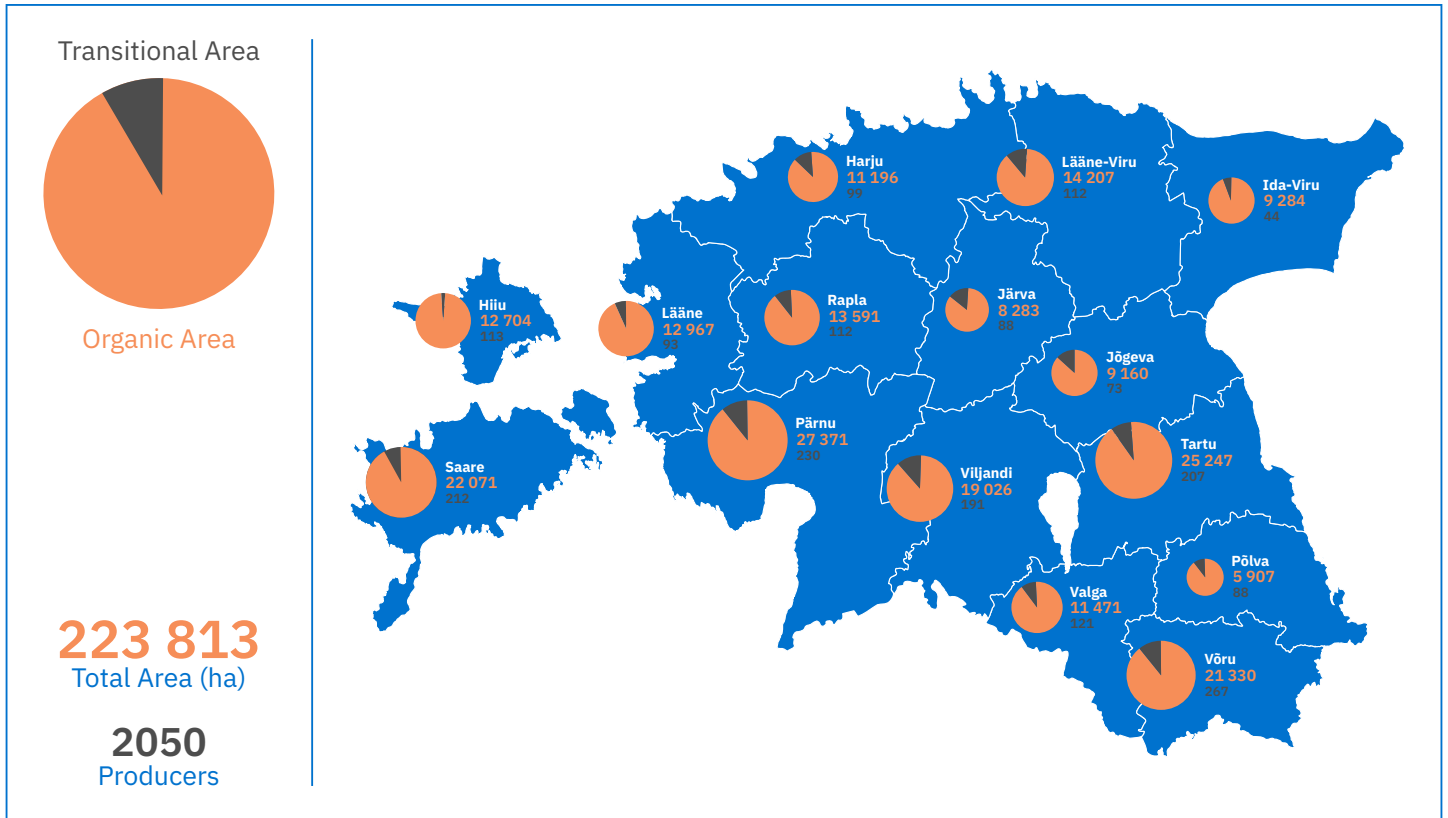


Figure 1: Location of organic farms and land by counties in Estonia in 2020

Country

45,339 km²

Area

1 382 976 mil.

Population (2020)

30.6 inhabitants per km²

Population density (2021)

626,000

Number of households

2.1 persons

Average household size

EUR €

Currency

20 324 EUR

GDP at current prices per capita (2020)

Food Market

986,254 ha

Utilised agricultural area (2021)

11,400

Number of agricultural households (2021)

1,300.4 EUR

Expenditure on food and non-alcoholic drinks per capita and year (2020)

1,670 mil. EUR

Turnover in organised food retail trade

1,258 mil. EUR

Exports of agricultural products (2020)

8.8 %

Total agricultural products as % of total exports (2020)

1,508 mil. EUR

Imports of agricultural products (2020)

10 %

Total agricultural products as % of total imports (2020)

Most important exports (2020 / mil. Eur)

Milk and milk products, eggs and honey	215
Cereals	210
Drinks, alcohol and vinegar	156

Figure 2: Most important exports out of Estonia in 2020

Most important food imports (2020 / mil. Eur)

Drinks, alcohol and vinegar	244
Fruits, berries and peanuts	141
Miscellaneous edible preparations	136

Figure 3: Most important food imports into Estonia 2020

Trade Relations

Agricultural products and food was exported in the value of 1.5 billion euros, nearly 80 % of which were products of Estonian origin. 80 % of exports go to EU Member States. There are around 100 different export destinations. The market has expanded each year, the main export turnover comes from Finland, Latvia, Lithuania and Sweden. The highest share in export turnover comes from milk and dairy products (21 %), cereals (12 %), fish (10 %) and crustaceans.

Ministry of Rural Affairs has foreign agreements with many countries. Memorandums of understanding for co-operation in fields of economic cooperation, agriculture, rural development and fisheries can be found here ([↪](#)).

Nearly half of all imported goods come from neighbouring countries – Latvia, Lithuania and Finland. The main product groups are drinks, alcohol, fruits and nuts. 1.6 billion euros worth of agricultural products and food were imported in 2019.

Level of self-sufficiency in Estonia (2019 / %)

Product Category	2019
Fresh milk products	125
Fresh cream	100
Skimmed milk and buttermilk powder	100
Butter	94
Cheese and curd	145
Cereals	246
Rapeseeds	114
Pork	79.5
Poultry	57.2
Beef	89.1
Offals	96.3
Lamb and goat meat	87.5
Potatoes	76.8
Fresh vegetables	54.6
Fresh fruit and berries	10.4

Figure 4: Level of self-sufficiency in Estonia in 2019

Climate

Because Estonia is continuously warmed by maritime air influenced by the heat content of the northern Atlantic Ocean, it has a milder climate despite its northern latitude. Estonia has four seasons of near-equal length. Average temperatures range from 17.8 °C on the Baltic islands to 18.4 °C inland in July, the warmest month, and from -1.4 °C on the Baltic islands to -5.3 °C inland in February, the coldest month.

The average annual temperature in Estonia is 6.4 °C. Estonia is located in a humid zone in which the amount of precipitation is greater than total evaporation. The average precipitation in 1991–2020 ranged from 573 to 761 millimetres (22.6 to 30.0 in) per year and was heaviest in late summer. There were between 102 and 127 rainy days a year.

Land and Soil

Estonia is a flat country covering 45,228 km². Estonia has a long, shallow coastline (3,794 km) along the Baltic Sea, with over 2000 islands dotting the shore. Forests cover about 50 % of the territory of Estonia and 22 % of the land (986,254 ha) is used for agriculture.

The main soil types are Gleysols (28 % of total land area and 17 % of agricultural area) and Histosols (13.8 % of total land area and 7.8 % of cultivated area),

followed by Luvisols (2 % of land area and 6 % of cultivated area). The most common soil texture is sandy loam. A comprehensive database of Estonian soils and a map application is digitally available at the Geoportal of the Estonian Land Board in several formats ([↪](#)). Estonian soils face a number of degradation problems including unbalanced use of nutrients, decomposition of organic matter, compaction, erosion and acidification.

Agriculture

Agriculture is one of the most traditional economic activities in Estonia. It has provided us with food for millennia. Agriculture continues to be important in Estonia, supplying with food not only Estonia, but also other countries, and providing jobs for many people. Despite Estonia's small area, the soil-climatic conditions for plant growth are extremely variable.

Agriculture, fisheries and the food industry provide 4 % of added value produced in Estonia, accounts for 5 % of employed people and 9 % of Estonia's

total export. According to the preliminary data of the Agricultural Census conducted by Statistics Estonia, there are 11,400 agricultural holdings in Estonia, which is 3,800 fewer than ten years ago. 84 % of the agricultural output is contributed by 1,300 largest producers who use more than two thirds of the utilised agricultural area and account for more than a half of agricultural labour. According to FADN, the average farm had 140 ha of land, with 122 ha being arable and horticulture land, 4 ha of permanent grasslands and 12 ha of forests.

The Organic Sector in Estonia

The organic sector in Estonia is well developed and consists of a wide range of both, public and private actors, research bodies and producer organisations providing services to the organic farming community.

History

1989 is the year in which Estonian organic farming began, when the Estonian Biodynamic Association was established. The association used IFOAM standards to establish the first Estonian organic agriculture standards, began using the trademark ÖKO and also started to train and supervise producers. In 1997 Kagu-Eesti Bios was founded, which acted as a second control body in addition to the Estonian Biodynamic Association.

The first Estonian Organic Farming Act came into force in 1997 and this marked the beginning of a new phase of development. The state's organic farming inspection system was implemented in 2001 – organic farmers were inspected by the Agricultural Board and other operators by the Veterinary and Food Board. The Agri-Environment Bureau (also responsible for organic farming) was founded by the Ministry of Agriculture in 2000. From 2004–2015 the responsibilities were assumed by the Organic Agriculture Bureau. In 2016 the bureau was eliminated and its duties were merged into the Plant Health Department.

National Legal Frame

The basic rules for organic farming are uniform in all European Union member states. They are laid down in the EU regulations (EC) 834 / 2007 and (EC) 889 / 2008. These regulations define the principles and detailed rules for organic farming. At the national level, organic farming is regulated by the Estonian Organic Farming Act and its implementing acts. Estonian legislation mainly specifies matters related to control and labelling. The keeping of rabbits and quail and organic catering are also regulated nationally.

In 2014, the EU legal reform of organic farming was launched. As a result of several years of discussions, a new regulation on organic farming (EU) 2018 / 848 was adopted in 2018 and it will come into force together with the accompanying legislation on 1st of January 2022.

References to the relevant EU regulations and Estonian legal acts, as well as general information on organic farming, can be found on the websites of the Ministry of Rural Affairs ([↗](#)).

Labelling

An organic product bears the Estonian term **ökoloogiline** (often used in the form of the prefix **öko**) or **mahe**, which are both legally acceptable terms in Estonian for organic. Organic products are labelled with the EU organic logo, which is compulsory on pre-packaged products (Figure 5). In addition, the Estonian organic logo (Figure 6) can be used.

Products that bear any reference to organic farming must always include the code of the state inspection authority / body:

- Agricultural Board: EE-ÖKO-01 (until 31.12.2020)
- Veterinary and Food Board: EE-ÖKO-02 (until 31.12.2020)
- Agriculture and Food Board: EE-ÖKO-03 (from 01.01.2021)



Figure 5: The use of the EU organic label is compulsory on packaged products



Figure 6: The Estonian national organic label; the usage of the label is voluntary

National Support System

Organic farming support has been paid annually in Estonia from 2000. Since joining the EU in 2004, the basis for the distribution of subsidies has been the Rural Development Plan (RDP). By applying for this

support, the applicant commits to continue organic farming for at least five years.

Annual support rates for ongoing organic production (RDP 2014–2020):

- grassland (except grassland with an up to 3-year crop rotation plan and field-inspected and approved hayseed fields), for which there are at least 0.2 animal units of bovine animals, horses, sheep, goats or bee-hives kept per hectare – € 25 / ha;
- grassland with an up to 3-year crop rotation plan – € 80 / ha;
- cereals, legumes, oil and fibre crops, other technical cultures and field-inspected and approved hayseed fields – € 125 / ha;
- cereals sown with certified organic seed – € 150 / ha;
- intertilled crops – € 210 / ha;
- potatoes sown with certified organic seed – € 252 / ha;
- fruit and berries (except strawberries) – € 300 / ha;
- vegetables, strawberries, herbs and aromatics – € 600 / ha.

If the applicant keeps organically raised bovine animals, sheep, goats, pigs, rabbits or poultry, the support rate per hectare will be increased by a unit figure calculated based on an average number of animal and poultry units multiplied by €85 and divided by the acreage of support compliant grassland, cereals, pulses, oil and fibre crops and other technical crops.

For beehives, the support rate is € 40 per hive, if at least five hives were kept organically in the year preceding the submission of the support application.

Animal units:

- milking cow – 3.0
- bovine animal at least 6 months, incl. suckler cow – 1.0
- bovine animal aged up to 6 months – 0.2
- sheep aged at least 1 year – 0.3
- goat aged at least 6 months – 0.3
- sow (incl. with piglets) or boar – 2.5*
- fattening pig or piglet aged at least 2 months – 1.25*
- laying hen and other poultry – 0.07*
- rabbit – 0.03*
- quail – 0.01*

* The units are calculated based on the average number of organically kept animals in the year preceding submission of the support application.



Figure 7: Organic grain field in Estonia

For an applicant starting conversion to organic farming, the organic farming conversion support is paid with 10 % higher support rates for the first two years of application. Based on the support applications, ARIB-designated organic farming support totalled 20.0 million euros in 2020, 0.2 million euros more than the previous year. The total area under support was 177,229 ha, support was granted to 1,769 applicants (86 % of all organic producers). In 2019 the total area under support was 188,461 ha, support was granted to 1,842 applicants (89 % of all organic producers).

Organisations

In 2006, eight organic farming organizations founded the Estonian Organic Farming Platform, the main aim of which is to develop the organic farming sector: the Estonian Biodynamic Association, the Estonian Organic, the Estonian Organic Farming Foundation, the Harju Organic Farmers Association, the Hiiu Organic, the Läänemaa Organic Farmers Society, the Saare Organic and the Centre for Ecological Engineering. Later on joined the platform: the South-Estonian Food Network, the Re-

search Centre of Organic Farming of EULS, the Virumaa Organic Producers, the Wiru Grain, the Liivimaa Beef, the Organic Producers Strength & Knowledge Guild, the Organic Cluster and, the Estonian Sheep and Goat Breeders Association. The platform had 15 members in 2020.

The Estonian Organic Farming Foundation, the Estonian Biodynamic Association and the Research Centre of Organic Farming of EULS are also members of IFOAM, a worldwide umbrella organization for the organic movement. The first of them represents Estonia in the IFOAM EU Group.

Info

Estonian Agricultural Registers and Information Board



PÖLLUMAJANDUSE REGISTRITE
JA INFORMATSIOONI AMET

– E-mail: pria@pria.ee

www.pria.ee

Overview of the most important organisations

Organic Farming Platform



– E-mail: mahekogu@gmail.com

Estonian Organic Farming Foundation

– E-mail: airi.vetemaa@gmail.com;

www.maheklubi.ee

Research Centre of Organic Farming of EULS



– E-mail: mahekeskus@emu.ee

www.mahekeskus.emu.ee

Centre for Ecological Engineering

– E-mail: merit.mikk@gmail.com

Estonian Biodynamic Association

– E-mail: aare@haanimaa.ee

Hiiu Organic

– E-mail: tiina.kattel@gmail.com

Harju Organic Farmers' Association

– E-mail: margus@mahetalu.ee

Läänemaa Organic Farmers' Society

– E-mail: lauriantso@hot.ee

Saare Organic

– E-mail: kiiderjaan@gmail.com

Virumaa Organic Producers

– E-mail: virumahetootjad@roela.ee

Cooperative South-Estonian Food Network



– E-mail: info@let.ee

www.let.ee

Cooperative Wiru Vili



– E-mail: info@wiruvili.ee

www.wiruvili.ee

Liivimaa Beef



– E-mail: airi@liivimaalihaveis.ee

www.liivimaalihaveis.ee

Organic Producers Knowledge & Strength Guild

– E-mail: mahekoda2@gmail.com

www.mahekoda.wordpress.com

Organic Cluster



– E-mail: maheklaster@gmail.com

www.maheklaster.ee

MTÜ Organic Estonia



– E-mail: info@organicestonia.ee

www.organicestonia.ee

Estonian Sheep and Goat Breeders Association



– E-mail: kontor@lammas.ee

www.lammas.ee

Control Bodies

Estonia has a state-run organic farming inspection system. Until the end of 2020, the supervision of organic farm production was the responsibility of the Agricultural Board (AB), while organic food and feed processing, marketing (incl. importing) and catering were the responsibility of the Veterinary and Food Board (VFB). The basis for certification is an application for approval submitted either to the AB or to the VFB. Caterers present their notification to the VFB. **As of 1st of January 2021**, these Boards merged into the **Agriculture and Food Board, so all organic operators remain under the supervision of one agency.**

For every operator, the documentary evidence is published in the Register of Organic Farming, which can be found on the website of the Agriculture and Food Board ([↪](#)).

Research

Research in organic farming is conducted in the Estonian University of Life Sciences, the Estonian Crop Research Institute and the Agricultural Research Centre. Also, innovation cluster projects are carried out by the organic farmers associations in cooperation with research institutions.

The Estonian University of Life Sciences, as well as some vocational schools, offer organic farming courses, but it is currently not possible to obtain a degree in organic farming or to specialize in organic farming.

The Estonian University of Life Sciences (EULS) is conducting research about sustainable food production, including organic farming and food in national and international level. Some recent research projects in organic farming:

- ERA-Net CORE Organic Cofund project “Innovative and sustainable grazing-based dairy systems integrating cows and young stock” (GrazyDaiSy, 2018–2021) where the overall objective is to improve the use of pastures and investigate how to manage mixed age groups of cows, incl. rearing calves with their dams, whilst maintaining a high level of health and a constant effort to minimize medication.
- ERA-NET CORE Organic Plus project „Drying, Juices and Jams of Organic Fruit and Vegetables: what happens to Desired and Non- Desired compounds” (FAVOR-DeNonDe, 2015–2018) studied the effects of processing on the quality of organic and conventionally produced apple juice;
- ERA-NET CORE Organic Plus project “Fertility Building Management Measures in Organic Cropping Systems” (FertilCrop, 2015–2018) continued its earlier trials on the effects of cover crops on soil, weed control and yields. The long-term crop rotation experiment was established in 2008 and is still running.

Info

Agriculture & Food Board, Organic Farming & Seed Department



– E-mail: mahe@pta.agri.ee

www.pta.agri.ee

- In the Polli Horticultural Research Centre of EULS, crop trials for apple, seabuckthorn, blackcurrant and sweet cherry have been established. Within the framework of the plant breeding program of the Ministry of Rural Affairs, the breeding work is aimed at breeding fruit and berry varieties suitable for organic cultivation.

Based on knowledge gained from plant breeding and research, processing opportunities, and an existing competence centre, Polli Horticultural Research Centre has created a fruit and berry value chain (from raw materials to value-added products), in order to provide production and product development knowhow to organic companies.

Producers can also develop new products in the EULS micro-dairy and meat laboratory.

The **Estonian Crop Research Institute (ECRI)** is focused on crop breeding, agro-technology, plant bio-technology and plant protection research. Some applied research projects in organic farming:

- “Varieties suitable for production in organic management” (2016–2020). The effect of bio-activators to the yield and quality of winter rye, influence of different species of catch crops (tillage radish, winter vetch, turnip rape, rye etc.) to the yield and quality of following spring barley are examined. Trials are established to test the impact of slurry, wide sowing ride spacing and various pre-crops to spring cereals.
- “Crops and grazing mixtures of high protein and energy content for organic management” (2016–2020). The feeding value of several grazing mixtures sown with different varieties of alfalfa is studied. Grain yield and feed value of barley, feed pea and spring turnip rape are tested.
- In ERA-NET Sustainable Crop Production project “Development of lodging-resistant and climate-

smart rye – a contribution to a sustainable cereal production in marginal environments” (2019–2022) an organic trial was established to access the potential of winter rye varieties of different origins for production in organic farming in Nordic climatic conditions.

One of the main tasks of the **Estonian Agricultural Research Centre (EARC)** is to prepare an annual evaluation report on performance of agri-environmental measures. The effect of the organic support scheme is being evaluated through land use and crop structure analysis. The research also includes dynamics of soil nutrients and organic carbon stock, the effect of the support scheme on bumblebee and farmland bird indicators, leaching of plant nutrients according to drainage water monitoring and NPK balance in organic farms.

Furthermore, the socio-economic indicators of organic farms are being analysed on the basis of the organic farms in the FADN sample.

The innovation cluster project „Innovations in organic plant production“ (2017–2021) is testing innovative technologies in arable crops and vegetables in cooperation with ECRI, EULS, University of Tartu and FiBL. Field trials are carried out on minerals and bioactivators, including seed treatment, foliar fertilization and soil application, also trials to evaluate the efficiency of cover crop mixtures are established.

The innovation cluster project **„Innovations that Improve Sustainability and Profitability of Beef and Lamb Production from Grass-fed Cattle and Sheep in Northern Europe“** (2017–2021) continued in cooperation with EULS and ECRI. Together with ECRI, experiments are carried out to develop agro-techniques suitable for the establishment of multi-species grasslands suitable for the fattening of organic beef cattle and their maintenance.

Research organisations

**Estonian University
of Life Sciences**



— E-mail: info@emu.ee

www.emu.ee

**Polli Horticultural
Research Centre**



— E-mail: polli@emu.ee

<https://polli.emu.ee/>

Estonian Crop Research Institute



— E-mail: info@etki.ee

www.etki.ee

The Estonian Agricultural Research Centre



— E-mail: info@pmk.agri.ee

<https://pmk.agri.ee/en>

Training

Before 2015, organic producers were offered training courses procured by the Ministry of Rural Affairs, financed by the Ministry budget and the RDP. In addition, there were also some trainings provided. To improve the training system, the Ministry of Rural Affairs prepared a long-term programme of knowledge transfer in organic farming for the period 2016–2020, with a budget of € 710,000. The programme was financed from the RDP and was implemented in cooperation with the Estonian University of Life Sciences, the Estonian Organic Farming Foundation, the Centre for Ecological Engineering, the Estonian Crop Research Institute and the Research Centre of Organic Farming of EULS.

During the 5-years, an average of 25 people per day participated in 300 days of activities covering all 15 counties in Estonia. Half the activities were organized in farms and research stations.

The long-term programme covered the whole organic farming value chain: organic plant and animal production, processing, catering and marketing. Activi-

ties included trainings, study groups, field trips, demonstration events and conferences as well as providing printed and digital informational materials and quarterly magazine. All activities and materials were free of charge.

In addition, there are also other financial resources used for organizing trainings and publishing information materials.

Farmers applying for organic farming support must take part in a two-day basic training course during the first year plus, during the 5-year support contract period they have to participate in two additional training days that cover organic production, processing and marketing.

A specialised organic farming advisory system does not currently exist in Estonia; organic advice is provided by the general advisory system. There are around ten advisors who give advice on organic farming through the advisory system. They are not specialized in organic farming only, giving advice also on issues related to conventional farming. There are no organic processing or catering advisors.

Organic Crop Production

In 2020, there was 223,813 ha of organic land accounting for around 22 % of all agricultural land in Estonia.

204,283 ha or 91 % have gone through the conversion period (Figure 8). Compared to the previous year, the area under organic farming decreased by 348 ha. While the area under cereals has increased the most in recent years, in 2020 it also decreased by 786 ha.

Organic plant production in Estonia (2019–2020 / ha)

	2019	2020	2020	2020
	Total	Total	Converted	In conversion
Arable land	120,469	124,378	111,912	12,465
Grain	53,935	53,150	48,570	4,580
Pulses	8,544	9,477	8,069	1,408
Industrial crops, incl. Herbs	8,722	12,492	11,675	817
Potatoes	132	158	146	12
Root vegetables for fodder	421	228	206	22
Field vegetables	126	198	167	32
Strawberries	57	51	43	7
Greenhouses	0.27	0.30	0.27	0.03
Grasslands (up to 5 years)	47,982	47,880	42,701	5,179
Black fallow	291	241	198	43
Unused agricultural land	258	503	137	366
Permanent crops	2,548	2,523	2,334	189
Fruits and berries (except strawberries)	2,547	2,522	2,334	188
Nursery	0.59	0.78	0.50	0.28
Mushrooms	0.05	0.05	0.05	0.00
Permanent grassland	97,721	93,896	87,313	6,583
Grazed non-agricultural land	3,424	3,016	2,723	293
Total organic area	224,161	223,813	204,283	19,530

Figure 8: Organic plant production in Estonia 2019–2020

Cereals, including buckwheat, were cultivated on 53,149 ha, of which oats accounted for the largest share, 51 % or 27,253 ha. Oats are also the crop with the highest organic share – 66 % of the area of all Estonian oat growing was organic. In terms of area, wheat and rye followed with 10,563 ha and 7,963 ha respectively. Compared to the previous year, the area under rye decreased the most, while the areas under oats and buckwheat increased slightly. The share of organic buckwheat in the total area under buckwheat in Estonia was as high as 84 %. 913 holdings grew cereals, 149 of which had more than 100 ha. The largest areas under cereals were in Tartu, Võru and Viljandi counties. The area under organic cereals accounted for 14 % of the total area under cereals in Estonia.

Of the **organic pulses**, mainly field peas (7,478 ha) and field beans (1,761 ha) were grown, and of **technical crops** turnip rape (4,988 ha), hemp (4,089 ha), herbs, etc. were grown.

The area of **fruit and berry orchards** (figure 9) remained unchanged compared with the previous year. In total, fruits and berries (incl. strawberries), were grown on 2,573 hectares, more than half of which was taken up by seabuckthorn (1,398 ha). The most common berries were blackcurrant (259 ha), blueberry (111 ha), strawberry (51 ha) and chokeberry (54 ha). Red and white currants, cranberries, grapes, etc. were also grown. Fruit orchards consisted mainly of apple trees (465 ha). Plums, pears and cherries were also grown, but on very small scale.

Vegetables were grown on 198 ha. Thirty-nine farms had more than 1 ha of vegetables. The area of greenhouses for vegetables was 0.3 ha.

The area under **potatoes**, after a long decline, has slightly increased, to 156 ha. The largest area of potatoes in one farm was 20 ha, twenty-one farms had more than 1 ha of potatoes.

Seeds (mostly cereals and grass seed) were produced by forty-seven operators.

Although organic crop production is characterised by a high share of **grassland**, this share has been steadily decreasing. Short-term grasslands in crop rotation, which are needed to maintain soil fertility, accounted for 21 % and permanent grasslands for 43 % of all organic land.

In cooperation with the Land Board, the Agriculture and Food Board and Organic Estonia, the map of organic areas is updated every year, showing organic land, registered and potential organic harvesting areas and managed heritage meadows and organic meadows. The map can be found on the Geoportal of the Land Board ([↗](#)).

Organic fruits and berries, cereal and buckwheat areas (incl. in-conversion land) in Estonia (2020 / ha)

Culture	ha
Oats	27,254
Rye	7,964
Wheat	10,563
Barley	3,713
Buckwheat	2,761
Spelt	268
Other cereals	305
Triticale	322
Sea buckthorn	1,398
Apple	465
Black currant	259
Small orchards	123
Blueberry	111
Strawberry	51
Chokeberry	54
Other fruits and berries	54
Raspberry	28
Red currant	15
Cranberries	15

Figure 9: Organic fruits and berries, cereals and buckwheat in Estonia (2020 / ha)

Outstanding organic producers

Tammejuure mahetalu

Tammejuure organic farm is a family farm for 30 years, producing organic products with solar energy and using their own processing equipment and self-grown organic cereals. Farm manages 600 hectares organically and sells worldwide. They produce organic cold pressed hemp oil and turnip rape oil, other hemp products, whole wheat and rye flour and semolina. Tammejuure organic farm was **The Best Estonian Organic Producer in 2018**.

<https://tammejuure.ee/en/>

Tõrvaaugu Mahe Talu

Tõrvaaugu organic farm is growing and processing organic buckwheat since 2012. Buckwheat is grown in approximately 200 hectares of arable land during last year's sowing period and a flock of 150 Suffolk sheep is taking good care of the rest of the fields. Their product list includes raw buckwheat, buckwheat flour, semolina, pasta, bread baking mixtures, muesli etc.

<https://www.torvaaugumahetalu.eu/index.php/et/>

Lauri-Jaani

Lauri-Jaani is one of the first organic farms in Estonia. It was the first farm in Estonia to grow spelt, a highly prized organic crop in Germany. For 30 years they have grown cereals in Lääne County and today it is grounded into flour using a traditional stone mill. Organic whole meal flour, flour, semolina and flakes are produced. In addition, groats are made from oats, barley and spelt. The farm was **The Best Estonian Organic Producer in 2017**.

<https://jahujaan.ee/>

Kiltsimäe mahetalu

Kiltsimäe organic farm is one of the biggest organic vegetable growers in Estonia with the experience for almost 20 years. Their main products are carrots, beetroots, turnips and cabbage. Their produce is available as whole, sliced, or even in wedges. They have worked with many store chains, restaurants, schools, early childcare facilities and large manufacturers. Kiltsimäe organic farm was **The Best Estonian Organic Producer in 2013**.

<https://mahetalu.ee/index.html>



Figure 10: The Best Estonian Organic Producers in 2020: Juhan Kanemägi (Best Organic Drink, Õun Drinks), Sandro Batisto Rossi (Best Organic Food, Eco Flora) and Harro Rannamets (Best Organic Producer, Ehe Mesi)

Organic Animal Husbandry

As of the end of 2020, about half of Estonian beef cattle and sheep were kept as organic with permanent grassland accounting for 43 % of all organic land in Estonia. But in overall, numbers of organically raised animals are declining in recent years (figure 12).

In 2020, 55 % of organic producers (1,133 producers) were engaged in organic livestock farming, the largest number of organic livestock farmers were in Saaremaa (175), followed by Võru and Pärnu counties. The number of organic livestock farmers decreased by 37 compared to the previous year.

In particular, cattle (52,062 animals according to on-site inspections in 2020) and sheep (39,318) were raised (Figure 11). As of the end of 2020, about half of Estonian beef cattle and sheep were kept as organic.

The increase in the number of **beef cattle** has been modest for the second year in a row, the number of suckler cows remained almost the same as last year. The number of beef cattle farms was slightly down compared to the previous year – 676 farms. 190 producers had more than 30 suckler cows, with the largest herd of 378 suckler cows in Põlva County.

Altogether 93 farms had **milking cows**, 1,811 cows in total. The number of cows has been declining for the last 10 years, for the first time their number increased slightly in 2019 but now the number has decreased again. There were 16 herds with more than 30 dairy cows. The largest herd had 198 dairy cows (in Hiiu County), three other herds had more than 100 dairy cows.

The number of **sheep** fell for the fifth year in a row, this year by as much as 12.5 %. Sheep were

reared in 350 farms. The number of farms with more than 100 sheep was 109, with the largest herd of 2,440 animals in Rapla County (Figure 11).

Both, the number of goat farmers and the number of **goats** decreased for the second year in a row. The number of goat keepers was 57 with 1,462 goats in total. The largest herd was 545 goats (Ida-Viru County).

Most of the 47,491 **birds** were **laying hens** and laying hens chicks. The broiler breeding, which had started last year, continued with 8,192 chickens. Ducks, geese, turkeys and guinea fowls were also kept in very small numbers. Laying hens were reared on 121 holdings, but most were reared for own consumption. More than 100 laying hens were kept on 34 holdings, the largest of which had 16,871 laying hens (in Lääne-Viru County). A total of four holdings had more than 1,000 laying hens.

Pig farming has not recovered since the outbreak of swine fever. Pigs were kept in three holdings, with a total of only 732 animals.

After a downturn in 2018, the number of **bee hives** showed an increase for the second year, as did the number of beekeepers. Estonia's 61 organic beekeepers had a total of 2,965 bee hives. Eleven of them had more than 100 hives; the largest apiary had 425 colonies (in Lääne-Viru County).

Number of organic animals (2019–2020)

	2019	2020		
	Total	Total	Incl. converted	Incl. in conversion
Cattle	51,921	52,062	50,978	1,084
of which milking cows	1,872	1,811	1,807	4
of which suckler cows	19,203	19,380	18,977	403
Sheep	44,948	39,318	38,494	824
Goats	1,515	1,462	1,454	8
Deer	17	10	10	0
Horses	1,714	1,593	1,554	39
Pigs	711	732	732	0
Poultry	42,978	47,491	47,490	1
of which laying hens	24,412	19,486	19,486	0
Rabbits	509	334	334	0
Bee hives	2,705	2,965	2,869	36

Figure 11: Number of organic animals (2019–2020)

Animal husbandry in Estonia (2009–2020)

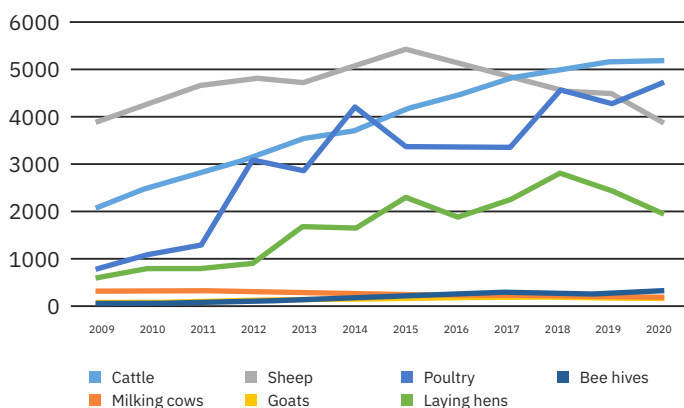


Figure 12: Animal husbandry in Estonia (2009–2020)

Outstanding organic producers

Ehe Mesi

Ehe Mesi (Ehe Organic) is the biggest beekeeper in Estonia with 490 beehives which are located mainly in the natural collection areas of the Pandivere Upland. Ehe Mesi OÜ was **The Best Organic Producer in 2020**.

Vilsi Angus

Vilsi Angus breeding farm was established in 2012. From the start they have been committed to creating the best breeding farm with the main prerequisite of acquiring genetically pure purebred bulls and their genetic material. Vilsi Angus was **The Best Organic Producer in 2019**.

<http://vilsiangus.ee/en>

Riido organic farm

Riido organic farm raises dairy (100 cows) and beef cattle (120 suckler cows) on the coast of Saaremaa and maintains semi-natural coastal areas. Riido Farm's organic raw milk is available in bottles in stores in Saaremaa; some of the organic milk goes to the Saaremaa dairy industry to make organic cheese. The farm also produces organic beef and chicken eggs for sale. Riido ökotalu was **The Best Organic Producer in 2011**.

<https://www.facebook.com/riidotalu/>

Äntu Mõis

Äntu Manor has been organic since 2008 and in 2012, they started with organic poultry farming. They manage ca 400 hectares and are the biggest organic egg producer in Estonia. In 2021, they added organic chicken meat to their product range known as Kirerikii, first ones in Estonia.

<https://www.antumois.ee/>

Taali Mesila

Taali Mesila is a family farm that has been engaged in organic production since 2000. They have 140 beehives and offer honey, and different honey products. They also train other beekeepers in Estonia.

<https://taalimesila.ee/>

Organic Processing

Most organic food processors are small businesses in Estonia with a big portion being farmers adding value to their own agricultural production. The total volume of organic food processing increased by 27 % in 2020 compared to the previous year, namely dairy, cereal, fruit, vegetable and berry products.

At the end of 2020, there were 185 (Figure 13) organic food processors operating in Estonia. Most organic food processors are small businesses.

54 of organic processors (29 %) are farmers who add value to their own agricultural production. However, only 3% of organic farmers process their produce.

All the main product groups – milk, meat, cereals, berries, fruits and vegetables, aromatic and medicinal herbs – were processed (Figure 13).

The largest number of processors made fruit, vegetable and berry products, like jams, juices, preserves, peeled vegetables, etc. Second are beverage producers, including alcoholic beverages. Almost all types of alcohol are represented: beer, vodka, spirits, gin, fruit wines including cider, etc. One small enterprise has started to produce wine from home-grown grapes.

The number of processors of cereal products, dairy products and oils has remained more or less stable compared to 2019 and 2018. There has been a slight decrease in the number of processors in the category of bakery, confectionery incl. pasta.

From category of „other products“, the largest number of processors made herbal teas, herbs and spices.

Although in 2020 there was a crisis due to COVID-19, the volume of organic production did not decrease. On the contrary, the total volume of organic food processing increased by 27 % compared to the previous year.

Organic dairy products were processed in biggest volume in 2020. The volume of cereal products made a big jump, up by almost 73 %. Volumes of fruit, vegetables and berry products increased by 35 %. Production

volumes of beverages, including alcoholic beverages, somewhat increased. The volume of bakery products fell by 38 % and that of oils by 25 %.

Although the range of processed products is expanding, it is still relatively small, as are production volumes. However, there are a number of larger companies that are active in organic processing and have increased sales volumes, including exports. Among the companies with a larger processing volume are **Salvest** (baby and other foods), **Tartu Mill** (cereal products), **Saaremaa Dairy Industry** (dairy products). Many organic producers also continue to have an interest in small-scale processing.

The number of organic processors according to product category (2018–2020)

Product group	2018	2019	2020
Cereal products	26	25	21
Dairy products	9	9	11
Bakery products, confectionery, pasta	15	17	13
Meat products	12	16	18
Vegetable, potato, fruit and berry (incl. forest berries), mushroom products	58	50	71*
Oils	8	11	11
Fish products	0	0	1
Beverages	52	55	32*
Other products**	61	57	54
Total***	167	175	185

Figure 13: Number of organic processors by product category (2018–2020)

- * The significant change in the number of processors is due to the fact that juices have now been reclassified from the group „Beverages“ to the group „Vegetable, potato, fruit and berry (incl. forest berries), mushroom products“.
- ** Prepared foods, cacao and cacao products, sauces, seasonings, tee, coffee, food supplements, vinegar, honey products, algae products, sprouts, yeast, broth, dried fruits, nut and seed mixtures, etc
- *** Several processors process 2–3 product categories



Figure 14: Best organic products in 2019



Figure 15: Best organic products in 2020



Figure 16: Products that participated in the competition for the best organic product of the year 2020

Certified enterprises

Pajumäe talu

Founded in 1989, the Pajumäe dairy farm has grown to one of the most well-known producers of organic milk products in Estonia. Their dairy plant is organic from 2005. Currently there are about 60 different dairy products produced, including different tastes of yoghurt and curd cheese creams, butter, cream, cheese and ghee. Pajumäe farm was **The Best Organic Producer in 2010**.

<https://www.pajumae.ee/front-page/>

Eco Flora (Rand & Rossi)

Established in 2018, this company produces different tomato sauces and soups. Their product Dried tomatoes in extra virgin olive oil was **The Best Organic Food in 2020**.

<https://randrossi.eu/>

SirLoin

Established in 2014, SirLoin was the very first company to produce organic beef jerky in Estonia and possibly in Europe, too. Today they also produce frankfurters, Paris sausages and smoked sausages. They also export to other European countries.

<https://sirloin.ee/en/>

La Muu

La Muu is the first organic ice cream producers in Estonia with the selection of ca 50 different products. They also have a cafe in Tallinn and ice cream is sold in all the biggest supermarkets in Estonia.

<https://lamuu.ee/en/>

Saidafarm

Saidafarm is one of the first organic farms in Estonia since 1992. Currently they have 150 dairy cows and approximately 1,000 hectares of land, which provides enough hay, silage and grain. In their own dairy they process curd, cream cheese, yoghurt and cheese. Saidafarm was awarded the Baltic Sea **Farmer of the Year Award in 2013**.

<https://saidafarm.ee/en/>

BabyCool

Established in 2017, this company produces baby food: frozen puree cubes of fruit, berries, vegetables and meat. Their product line was **The Best Organic Food in 2019**.

<https://babycool.ee/en/>

Pagar Võtaks

The only organic bakery in Estonia. They produce different cookies, bread and pastries.

<https://pagarvotaks.ee/>

Mahe Eeriksaare

Organic Eeriksaare grows and produces herbal and berry teas in Viljandi County, with the selection of more than 15 flavors.

<https://vaetee.ee/>

The Organic Market in Estonia

Organic food sales on the retail market are growing dynamically in Estonia with a significant share imported from other EU countries. More and more conventional food shops in Estonia sell also organic products now. Export of processed goods increases.

Market Size and Trends

Organic food sales on the retail market are growing every year. The most recent data collected on organic food sales are from 2019. Total organic food sales on the retail market were estimated to be at least 61.8 million euros, amounting ca 3.7 % of total food sales in the retail market. This is 13 % more than in 2018 (54.6 M) and 48 % more than in 2017 (41.8 M). Based on information collected from organic producers and processors, by the Estonian Institute of Economic Research (EKI), sales of domestic organic products were estimated to total 18.5 million euros. Although the statistical data for 2020 has not yet been collected, operators confirm that sales have also grown in the last year.

Despite the fact that a significant share of the organic products sold are imported from other EU countries, the product range of local organic products is also increasing each year. According to a 2020 study conducted by EKI, 1,921 different domestic organic products were available on the domestic market (1,779 in 2019, 1,695 in 2018). The product range has widened in all main categories except meat and meat products. The cereal, pulse and oil products category has the highest assortment, comprising 18 % of the whole range, followed by seasonings, herbs and tea (15 %), potato,

vegetables and products from them (14 %), and fruits, berries and products from them (13 %). Baby food product range has increased rapidly – in 2017 there were 13 products available compared to 48 in 2020.

Sales Channels

Organic food is more and more available on the shelves of conventional food shops. For example, selections can be found at Tallinna & Tartu Kaubamaja, Stockmann, as well as at bigger chain stores (e.g. Prisma, Selver, Coop). The widest variety of domestic organic products in supermarkets was available in Rimi shops together with Talu Toidab (Farm Food) areas. In total, ca 40 organic and health food shops can be found in Estonia; half of them are located in Tallinn and Harju County. Such shops have opened in most county centres and other smaller towns. According to the Estonian Institute of Economic Research (EKI) the shop with widest variety of domestic organic food was Õkosahver (as in previous years). Bio-market has the biggest number of shops (9) and sales revenue from specialised shops. Around 10 online stores supplying organic produce are available. Influenced by COVID-19 several organic producers and processors started their own e-shops or direct sales to customers.

Supermarkets in Estonia

Supermarket chain	Stores	Location	Estonian organic products
Rimi Eesti Food AS	83	All over Estonia	Depends on the size of the shop. Rimi hypermarket together with Talu Toidab area ca 590 local organic products (many products only seasonal)
Talu Toidab area in Rimi Eesti Food AS	36		
Prisma	11		Depends on the size of the shop
Coop	over 290		Depends on the size of the shop, ca 200
Selver	71		Depends on the size of the shop
Maxima	83		ca 150
Tallinna & Tartu Kaubamaja	2	Tallinn & Tartu	ca 150
Stockman	1		

Figure 17: Supermarkets in Estonia

The Register of Organic Farming listed ca 300 traders (wholesalers, retailers, importers) in 2020. In addition,

there are many retailers who sell only packaged food and are therefore not listed in the register.

Specialised Organic Shops

Ökosahver

– in Tallinn (also e-shop)

<https://www.sahver.ee/>

Biomarket

– 10 shops in Tallinn, Tartu and Pärnu (also e-shop)

<https://www.biomarket.ee/>

Bio4you

– 5 shops in Tallinn, Pärnu and Rakvere (also e-shop)

<https://bio4you.eu/et/>

Looduspere

– 4 shops in Tallinn and Tartu (also e-shop)

www.looduspere.ee

Farmers Markets (local and organic food)

Tartu Lõunakeskus

<https://taluturg.ee/esindus/lounakeskuse-taluturg/>

Tartu Kaubamaja

<https://taluturg.ee/esindus/kaubamaja-taluturg/>

Tallinn

<https://taluturg.ee/esindus/vaike-jarve-taluturg/>

Pärnu

<https://taluturg.ee/esindus/parnu-keskuse-taluturg/>

Export

Estonian organic products were sold to at least 15 EU countries and 12 countries outside of EU in 2019. According to the EKI survey in 2019, export of Estonian organic products reached ca 32 million euros, which is 17 % more than in 2017. Plant based products accoun-

ted 73 % of the products exported. Cereals, processed food, pulses and oil cultures had the highest turnover. Export turnover of cereals decreased in 2019 compared to 2017 because of much lower prices, but volumes kept increasing. Share of processed products in export has increased – in 2019 it accounted 43 % of total turnover compared to 30 % in 2017.

Organic Exporters

TÜ Wiru Vili

- Export products: organic cereals

<http://wiruvili.ee/et/>

Salvest AS

- Export products: baby food, smoothies for children and youngsters, puree soups

<https://www.salvest.ee/en/>

Moe Distillery

- Export products: hand-crafted distillates

<https://moe.ee/en/moe-distillery/>

ÖselBirch

- Export products: fermented and non-fermented birch juices with different flavours.

<https://oselbirch.com/>

Catering

As the EU does not regulate organic catering, the relevant rules can be established with national legislation. In Estonia the caterers have to make the relevant notification to the VFB (from 1.01.2021 AFB) and follow national organic

Liivimaa Lihaveis (Linnamäe Lihatööstus AS)

- Export products: organic grass-fed beef

<https://grassfedbeef.eu/>

Chaga Health

- Export products: chaga elixirs

<https://chagahealth.eu/en/>

Punch Drinks

- Export products: ready-to-drink cocktails (also alcohol free)

<https://punch.club/en/>

Öun Drinks

- Export products: functional drinks, sparkling juice drinks, celebration drinks. All the products are alcohol free. Their product **Rhubarb-spruce sparkling dink** was the **Best Organic Drink in 2020**.

<https://oundrinks.com/en/>

catering rules. The Ministry of Rural Affairs prepared simplified rules for organic caterers based on the examples of Nordic countries, to encourage restaurants to enter the organic system. New rules with 3-tier labelling (20–50, 50–80 or 80–100 %) showing the percentage of organic ingredients used entered into force in 2017 (Figure 18).

By the end of 2020, a total of 43 kitchens declared that they were providing organic food, 28 of them (incl. 17 kindergartens/ schools) were using organic label.

In the last few years, some development can be noticed related to the kindergartens and schools. In 2018 just three of them used organic reference, in 2019 there were 18 kindergartens/ schools, and in 2020 there were already 25 that used organic reference. Tartu city government initiatives played an important role here and as a result of the food procurements giving preference to the use of organic food, 17 school and kindergartens canteens had the right to refer to organic. Also, other Estonian regions have shown interest to use organic food in their kindergarten/ school menus, e.g. Võru County. In

September the municipalities of Võru County, the Võrumaa Development Centre and the NGO Setomaa Union signed a goodwill agreement with the aim that by 2024 at least 20 % of the food offered in Võru County kindergartens/ schools will be made from organic raw materials.



Figure 18: Estonian national organic labelling for caterers depending of the percentage of used organic raw material.

Opportunities

Production

Agro-technological development in organic crop production is needed to increase production efficiency and yields, which in turn will contribute to competitiveness. There is a lack of both knowledge and skills in different areas of plant and livestock production, including specialized organic advisors. There is a clear need for more research into organic production and more cooperation between scientists and practitioners in the future. Sufficient support for organic production in the new EU support period is also important to ensure competitiveness for producers.

Processing

Although 22 % of Estonia's total agricultural land is organic, there is still room for growth in the market share of organic products. Almost half of the sheep and beef cattle raised in Estonia are organic, however, the choice of organic meat products on the market is very limited and certain product groups are not available at all, e.g. organic pork and chicken meat and products. There is also a shortage of several other product groups.

The main barriers to organic processing are the continuous availability of sufficient quantities of raw materials of a consistently high quality, the lack of cooperation between producers and processors and the lack of know-how of small-scale processors. The low investment capacity cannot be overlooked. The development of cooperative activities, investment aid for organic processing and, also, the support of processing consultants could be solutions. The processing of organic products in Estonia gives them added value and the opportunity to reach export markets.

Organic Catering

Organic catering is a good way to have healthy organic food on people's tables every day. Green public procurement in the public sector is a good way to do this: particularly in nursery and school catering, but why not also in hospitals and other public canteens. There are already good examples of local governments (Tartu city and Võru County) that offer organic food in their educational institutions and interest in using organic food is growing. State support is also essential to develop organic catering in childcare institutions - the food allowance per child paid by the state must increase and the organic food pilot programme, which has been discussed for years, must be implemented. Caterers need advice on how to get started and apply for the organic catering label, how to adapt recipes to the availability of organic raw materials, etc. It is also important to work together with local organic producers to ensure a secure supply and the necessary quantities of organic food.

Consumer Awareness

So far, consumer awareness has been raised by organic organisations, but there is a clear need for nationwide marketing and outreach activities, including social media, media and TV campaigns to promote the benefits of organic food. There is a need to raise consumer awareness of the environmental impacts of food production and the quality and benefits of organic food so that consumers can make better choices for their health and the environment. An informed consumer is also willing to pay more for organic food. Raising consumer awareness needs to start at an early age already in kindergartens and schools, as youngsters are the ones who will take the message back to their parents. And young people interested in organic food are the future consumers.

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