



Organic farming in Estonia

Development of organic farming sector

Early beginnings

Estonian organic farming began in 1989 with the establishment of the Estonian Biodynamic Association, which also acted as the certifier of organic farming. The association used IFOAM standards as the basis for the first Estonian organic agriculture standards, introduced the organic trademark ÖKO, and started to train and supervise organic producers.

A landmark event took place in 1994, when the Centre for Ecological Engineering organised a high-level international organic farming conference. In the early years, many specialists from both private and state institutions abroad—particularly from Sweden, Finland, and Germany—supported the development of the organic sector by sharing expertise in control and production systems.

State steps in

The first national Organic Farming Act came into force in 1997; this marked the beginning of a new phase of development.

During the EU pre-accession period Estonia was advised to create the state's organic farming inspection and certification system based on the example of Denmark. Since 2001 the state's system was implemented and organic farmers were inspected and certified by the Agricultural Board while other operators like processors and traders by the Veterinary and Food Board. In 2021, the boards were merged into new state institution, the Food and Agriculture Board.

In 2000, the Ministry of Agriculture established the Agri-Environment Bureau, with responsibilities that also included organic farming. In 2004, when Estonia joined the EU, there was more focus on the development of the organic sector, and the Organic Farming Bureau was established in the ministry. In 2016, the bureau was closed, and the responsibilities related to organic farming were transferred to the Plant Health Department. As of 2025, two people in the Ministry work exclusively with organic farming topics.

Emergence of Organic Farming Organisations

In addition to the Estonian Biodynamic Association, in 1990s and 2000s several local

organic organizations were founded. In 2000, the Estonian Organic Farming Foundation was created with the focus on organic farming development. In 2008, the Research Centre of Organic Farming of EMU was established to integrate organic farming and food knowledge at the Estonian University of Life Sciences (EMU).

Creation of the Organic Farming Platform

In 2006, eight organic farming organisations founded the umbrella organisation **Organic Farming Platform**, with the main aim of jointly developing the organic farming sector.

By 2025, the Platform brings together 14 organisations: the Estonian Biodynamic Association, Estonian Organic Farming Foundation, Harju Organic Farmers Association, Hiiu Organic, Läänemaa Organic Farmers Society, Saare Organic, the Centre for Ecological Engineering, the Research Centre of Organic Farming of EMU, Virumaa Organic Producers, Wiru Grain, Liivimaa Beef, Organic Cluster, the Estonian Sheep and Goat Breeders Association and the Estonian Organic Beekeepers.

The Platform's overall management and policy work is based on the voluntary contribution of board members and representatives of its member organisations. In addition, it applies for different projects, mainly connected to knowledge transfer activities, with the project budgets covering part of the work. Over the years, the Platform and its members have made a significant contribution to the development of organic farming through a wide range of projects and voluntary efforts.

The Organic Farming Platform represents the organic sector in several national committees and councils related to agriculture, rural development, and food policy:

- The Joint Monitoring Committee of the Estonian Rural Development Plan 2014–2020 and the CAP Strategic Plan of Estonia 2021–2027

- The Steering Committee of the Agriculture and Fisheries Development Plan 2030
- The Advisory Council on Agriculture and Rural Development
- The Client Council of the Agriculture and Food Board
- The Council for Plant Breeding and Genetic Resources

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

Other Organisations Connected to Organic Farming

Working in organic sector there is also Organic Estonia, which is not a member of the Platform. Its focus is developing the export of natural and organic products, including cosmetics and other non-food items.

In addition, organic producers are represented within larger agricultural organisations such as the Estonian Chamber of Agriculture and Commerce, the Estonian Farmers' Federation, the Estonian Young Farmers, and the Estonian Beef Breeders Association. The largest agricultural organisation, Estonian Chamber of Agriculture and Commerce also has a separate Organic Committee dedicated to organic farming matters.

Organic production

Organic production in Estonia experienced reliable, linear growth for many years; however, in 2023 both land area and the number of organic producers started to decline (with a 2.5% drop in area and 78 producers less). The decline continued in 2024 and 2025. This downturn reflects a combination of challenging market conditions—particularly low export prices for organic cereals and

weakened consumer demand amid economic headwinds—and insufficient support under the new CAP scheme, which fails to cover the additional costs and income reductions intrinsic to organic farming.

Nevertheless, organic farming is a significant part of Estonia's agricultural landscape. In 2024, 224,133 hectares of land – about 22% of the country's total agricultural area – were managed organically, keeping Estonia among the EU leaders in organic land share. 1,885 farms were engaged in organic production, including 1,016 livestock keepers. Organic farms have been growing larger year by year, with the current average size reaching 119 hectares. Fifteen farms each manage more than 1,000 hectares of organic land.

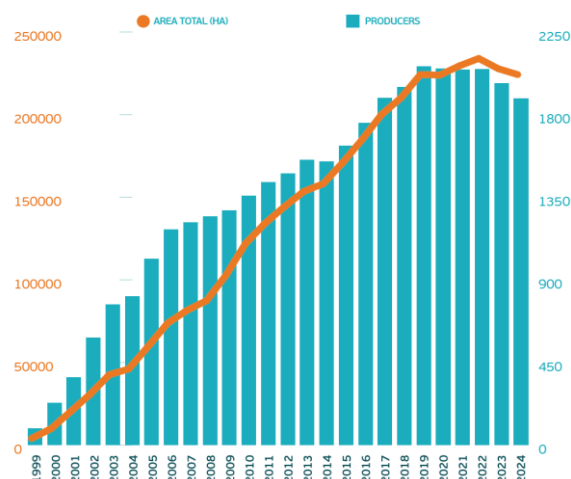


Figure 1. Organic farming development 1999–2024. Source: *The register of organic farming*

Organic **crop production** is diverse. Cereals dominate with about 50,000 hectares (particularly oats, rye, and buckwheat, the latter with 81% of the national area under organic management). Legumes, oilseeds, hemp, and fruit and berry orchards also contribute. Orchards cover more than 2,000 hectares, with sea buckthorn and blackcurrant as the most common berries, and apple as the main fruit. Permanent and rotational grasslands make up over 60% of organic land, highlighting the importance of forage and ruminant farming.

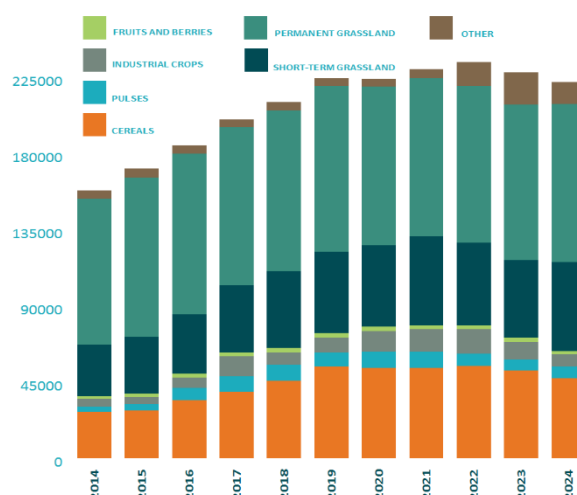


Figure 2. Dynamics of organic area (incl. in-conversion land) of main crop groups in Estonia in 2014–2023, ha. Source: *The register of organic farming*

In **animal husbandry**, about 60% of Estonia's beef cattle and sheep are organic, though their total numbers are declining. Organic poultry, dairy cows, and bee colonies play a smaller role. Organic poultry consists mainly of laying hens and broilers. Pig production is virtually absent.



Figure 3. Number of organically kept animals in 2014–2023. Source: *The register of organic farming, according to on-site inspection data.*

Organic support scheme under CAP

In the pre-accession period (2001-2003) organic farming support scheme was a part of

the agri-environmental schemes, it was one of the few piloted in Estonia nationwide.

After accession, support for the organic land and organic animals was paid under Rural Development Scheme (II pillar of CAP). In 2023, a new CAP strategic plan was implemented, which moved support for organic crop production to the first pillar under eco-schemes, while support for organic livestock farming remained in the second pillar. Previously, farmers applying for organic support had to commit to continuing organic farming for at least five years, but since 2021, the commitment period has been reduced to one year.

Annual support rates for ongoing organic plant production per hectare:

- cereals, legumes, oil or fiber crops, root crops (excluding potatoes), other technical crops, certified forage plants – €132
- grassland in rotation up to 3 years – €100
- potatoes, strawberries – €300
- fruit or berry crops – €300 (paid in total for up to 70 hectares)
- medicinal or aromatic herbs – €300 (paid for up to 5 hectares, beyond that €135)
- vegetables – €800 (paid for up to 10 hectares, beyond that €136)
- grassland older than 3 years with at least 0.2 livestock units of organically kept cattle, horses, sheep, or goats per hectare – €25
- grassland older than 3 years up to one hectare if at least five beehives are kept organically – €25

Producers **starting organic farming** receive organic crop production support for the first two years **at rates 10%** higher than those for continuing organic production.

Organic livestock farming support is provided if the producer keeps cattle, sheep, goats,

horses, pigs, rabbits, poultry, or bees organically. This support is also paid per hectare. The annual support amount per hectare is calculated by multiplying the number of livestock units of organically kept animals by €85 and dividing the resulting sum by the number of hectares receiving organic crop production support (the areas mentioned above).

Livestock units are calculated as follows:

- Dairy cow – 3.7
- Cattle aged 6 months or older, including suckler cows – 1.0
- Cattle younger than 6 months – 0.2
- Horse aged 6 months or older – 0.6
- Sheep aged 1 year or older – 0.3
- Goat aged 6 months or older – 0.3
- Sow (including piglets) or boar – 2.2*
- Fattening or young pig aged 2 months or older – 1.2*
- Poultry (excluding quail) aged 18 weeks or older – 0.08*
- Rabbit aged 4 months or older – 0.04*
- Quail – 0.01*
- Beehive – 0.47

**The unit calculation is based on the average number of organically kept animals/birds in the calendar year preceding the commitment year.*

In 2024, the Agricultural Registers and Information Board (PRIA) allocated a total of €23.8 million in organic farming support.

Export of organic products

The latest data available on export is from 2023 by EKI¹. A large share of Estonian organic producers and processors are small-scale, which makes exporting challenging. Therefore,

¹ [Mahetoodangu eksport ja Euroopa Liidu riikidesse turustamine Eestist 2023. aastal](#)

the main export category is unprocessed cereals.

In 2023, at least 54 Estonian companies were exporting organic products —51 within the EU and 14 to third countries, with 11 trading in both. Compared to 2022, the number of exporters fell, as some companies reduced or stopped exports, while others increased their volumes or entered foreign markets for the first time.

Altogether, exports and intra-EU trade of Estonian organic products amounted to just over EUR 40 million in 2023, down 13% from the previous year. The decline was mainly due to lower exports of cereals, oilseeds, and legumes, driven by smaller harvests due the drought and lower crop prices. At the same time, exports of processed food (including baby food), frozen and processed berries, meat and meat products, dairy, and alcoholic beverages grew.

Organic exports in 2023 consisted mainly of plant-based products (69% of total organic export turnover), with the largest shares coming from cereals, oilseeds, and processed foods (including baby food). In addition, Estonia exported various beverages (including alcoholic beverages), cereal and legume products (flours, flakes, etc.), processed berries and fruit (including frozen and dried berries), confectionery, culinary and medicinal herbs, food supplements (including so-called superfoods), and nutritional yeast. Of plant-based products, 42% of export turnover came from organic cereals; the remainder from the other organic products listed above. Within plant products, export turnover of alcoholic beverages grew a little over twofold, while export turnover of processed foods (including baby foods) increased by 27%. Exports of berries (including frozen berries) also grew by just over 20%.

Animal products accounted for 31% of total organic exports, the bulk of which was sales of

live cattle and of meat and meat products. Live sheep, dairy products, honey, and honey products were also exported. Within the animal-products group, the export volume of meat and meat products increased by a little over twofold, and the export volume of dairy products by 16%.

Estonian organic products reach at least 25 European Union member states and 12 countries outside the Union. The main EU destination countries are Germany, Latvia, Lithuania, Poland, Finland, Denmark, the Netherlands, Sweden, and Italy. Outside the EU, the most common destinations were the United Kingdom, the United States, and Norway.

Entering foreign markets with Estonian organic products—especially under local brands—remains difficult. Building trade contacts outside Estonia is also costly and complex. In the short term, unprocessed cereals are likely to remain the main export category.

Local market of organic food

The share of organic food in retail sales in 2022 and 2023 was close to 5%. Later data is not yet available.

The assortment and prices are monitored by EKI². Although imported organic products account is estimated for over 70% of total organic sales, the opposite is true for variety: local organic products have the broader range. According to the most recent local market assortment review in September 2024, in supermarkets domestic organic products account for about 70% of the distinct items. On average per store, the largest selections of domestic organics were in juices, cheese, and beef. Among imported organics, the largest selections were in juices and edible oils. There

² [Eesti toidukaupade positsioon siseturul 2024. aastal](#)

are product groups which are missing in supermarkets but can be available in specialist organic or natural food shops. Rimi had the widest selection among the supermarket chains, with about 120 different organic items at the time of counting. In Rimi there are special Talu Toidab (Farm Feeds) sales areas, where only local organic and small-scale producers' products are sold.

There are about 40 specialized organic food stores, with half of them located in Tallinn and Harju County. Ökosahver in Tallinn has the largest selection of domestic organic products. Biomarket, with nine stores, had the largest number of stores and sales turnover. There are also several online-only stores.

Availability is only slightly affected by seasonality, but fixed delivery schedules can limit fresh products like dairy and meat, and very small production runs rarely reach big chains. Organic products are also less easily distinguishable on shelves than before: dedicated "organic" sections are inconsistent, labelling can be weak or missing, and the domestic organic label is used less often. English-only packaging can make local origin harder to spot. Foreign chains tend to prioritise their own-brand organic lines because they are cheaper for consumers and available in steadier volumes, while individual domestic producers struggle to meet the quantity and price requirements for listing; entry is easier with larger and more stable volumes.

Only domestic products were present in supermarkets in seven groups—organic bread, poultry, beef, ice cream, cheese, quark, and milk—while domestic items also dominated biscuits/cookies, yogurt, juice, and wheat flour. Domestic and imported shares were roughly equal for butter and vodka, and domestic products were in the minority for edible oils and oat flakes. Among imported categories, the widest expansion was in juices.

The latest price comparison of domestic organic and conventional products was conducted by EKI in September 2024. It

showed that organic products are usually sold at higher prices, though the gap varies by product. Exceptions include some herbal teas, jams, and certain meat products, where organic items are occasionally cheaper or closer in price. Compared with 2023, price differences generally widened, as organic prices rose faster. The sharpest increase was seen in organic dairy: vanilla quark (+43%), plain yogurt (+26%), and milk (+16%), while their conventional equivalents rose only 3–8%. The largest price gaps remain in potatoes and vegetables, where loose organic carrots were six times more expensive and organic potatoes five times more expensive than conventional. Some items, however, became cheaper, such as organic chocolate ice cream (–21%) and packaged organic carrots (–20%). Organic meat prices rose moderately, while grains and flours were stable or cheaper. Overall, both organic and conventional prices mostly increased, but organic price growth was stronger, further expanding the gap.

Research

Research in organic farming in Estonia is primarily conducted by the Estonian University of Life Sciences (EMU), the Centre of Estonian Rural Research and Knowledge (METK), and through collaborative initiatives with farmers' organisations and international partners. The studies cover both long-term field trials and applied research projects, ranging from crop rotation and soil fertility to fruit and berry cultivation, animal husbandry, and socio-economic aspects of organic production.

Estonian University of Life Sciences (EMU)

At the Estonian University of Life Sciences, research in the field of organic farming is mainly carried out in arable crop cultivation with long-term crop rotation trial and fruit and berry growing in Polli Horticultural Research Centre.

Long-term organic crop rotation trial in EMU

In 2008, a five-field organic crop rotation experiment was set up at Estonian University of Life Sciences. Experiments were set up as systematic block design with four replications and the size of the plot was 60 m². Crop rotation: barley undersown with red clover, red clover, winter wheat, pea, potato. In 2022, potato was replaced with winter oilseed turnip.

There are three treatments in the organic farming system:

- ORG 0 – control, follows crop rotation without winter cover crops. No cover for the winter.
- ORG I – winter cover crops are used: the mixture of turnip rape and winter rye are sown after the main crop of winter wheat; winter turnip rape after the main crop of pea; and winter rye after the main crop of potato. All fields are covered in winter.
- ORG II+M – in addition to cover crops mentioned previously, composted cattle manure (10 t ha⁻¹ for cereals and 20 t ha⁻¹ for potato) is ploughed into the soil in spring. Winter cover crops are sown immediately after the harvesting of the main crop in August.

The aim of the field trial is to diversify cropping systems by winter cover crops to improve soil fertility and health, support biodiversity, and ensure better, stable, and high-quality crop yields.

This field trial has been a part of many national and international organic research projects, e.g.: [TILMAN-ORG](#) (2011-2014), [FERTILCROP](#) (2015–2017), [ALL-Organic](#) (2021–2024), [OrganicYieldsUp](#) (2024–2028).

Organic fruit and berry orchards in EMU Polli Horticultural Research Centre

Organic trials started at Polli Horticultural Research Centre in 2000. The first experiments



Fotos: I Keres, E. Peetsmann

were carried out with plum trees, blackcurrants and strawberries. In 2002, a 2.5-hectare organic orchard was established, where apple trees, sweet cherries, plums and blackcurrants were planted. In 2008, a trial with three different rootstocks and eight apple cultivars was set up. Currently, experiments in Polli are carried out with apple, sea buckthorn, currants, Japanese quince, honeyberry, plum, sweet cherry, apricot and peach. In apples and plums, the suitability of different cultivars and rootstocks for organic production is studied, along with the effectiveness of natural means for pest and disease control, as well as the use and impact of fertilizers allowed to use in organic and different mulches on fruit quality. In sea buckthorn, sweet cherry and currants, the research focuses on cultivar suitability, cultivation technologies and berry quality traits. In blackcurrants, the aim is also to determine which cultivars bred in Estonia are better suited for machine harvesting under organic conditions. In 2023, the first apricots and peaches were planted to study the suitability of cultivars to the Estonian climate specifically under organic farming conditions.

As part of the breeding programme, fruit and berry cultivars suitable for organic production are being developed.

Orchard management practices include mowing between the rows 3–4 times per growing season as needed and trimming under the trees twice. The tree rows are also cultivated 3–5 cm deep in spring and autumn to aerate the roots. Every spring, crown pruning is carried out, branches from the rows are collected and removed from the orchard to prevent the spread of diseases. In the orchard trials, before and after flowering, natural plant protection products and foliar fertilizers are sprayed mainly for pest control and improving crop quality.

In the currants trial area, grass grows between the rows, which is mown every 2–3 weeks during the growing season and left on the ground. In spring, fertilizer allowed in organic is used once, and the soil at the edges of the rows is milled once with a cultivator for aeration. Weeds are removed as needed, and no plant protection measures are applied in the organic orchard.

At Polli Horticultural Research Centre product development centre small-scale processors can develop new products, and various projects explore different possibilities for adding value to organic raw materials.

Centre of Estonian Rural Research and Knowledge (METK)

For years, comparative variety trials have been conducted with wheat, rye, oats, rape, barley, field pea and field bean. The effect of organic fertilizer on peas has also been studied.

In 2021 a field trial was established with different crop rotations in organic and environmentally friendly conventional farming, where influences on crop yield and soil environment indicators are studied. In addition, organic fertilizer application and different soil tillage methods' effects on soil nutrients and organic matter contents, weeds,

soil organisms, crop yield, quality and cross margins are studied.

METK also prepares an annual evaluation report on the performance of agri-environmental measures, including the organic support scheme.. The research also includes the effect of the support scheme on bumblebee and farmland bird indicators and NPK balance in organic farms. The socio-economic indicators of organic farms are being analysed based on the FADN database.

Innovation clusters

Farmers' organisations have initiated applied research activities in cooperation with research institutions through innovation cluster projects. These projects were funded under the RDP 2014–2020 innovation cluster support scheme:

- **Innovations in organic plant production** (2017-2023) carried out with the Organic Cluster (NGO of organic farmers), METK, EMU, the University of Tartu, and other partners, tested technologies for arable crops and vegetables. Experiments included the use of minerals and bioactivators (seed treatment, foliar fertilisation, and soil application), potato disease control trials, and assessments of the carbon footprint of organic production.
- **Innovative solutions to ensure the environmental and economic sustainability of grassland cattle production** (2017-2023) was carried out in cooperation with Liivimaa Beef (NGO of organic farmers), EMU and METK. The project sought ways to increase the sustainability and efficiency of organic grass-fed beef and lamb production. Portion grazing systems for beef cattle were developed.
- Two more innovation clusters carried out activities related to organic farming in cooperation with EMU and METK: the **Horticultural innovation cluster** (bioactivators in black currant growing, plant protection techniques in strawberry growing); the

Crop cluster (granular organic fertilizers and a soil condition assessment system).

Some observations and recommendations regarding research

- **Funding and continuity:** stable and sufficient funding is crucial for long-term experiments, which are especially important in organic farming.
- **Research teams and next generation:** involving students and young researchers ensures knowledge transfer and innovation. Experimental stations provide excellent opportunities for final theses and doctoral research.
- **Cooperation with producers:** close contact between farmers and researchers ensures practical relevance of research and quick uptake of results. Farm visits, study days, and student involvement add practical value.
- **International cooperation:** participation in international projects brings additional funding, contacts, and new knowledge.

Organic Scholarship

The Organic Scholarship was established in 2009 at the Research Centre of Organic Farming of the Estonian University of Life Sciences. Founded by Professor Anne Luik and supported through private donations, the scholarship encourages research in organic farming and sustainable food systems.

Each year, it recognizes outstanding contributions in the field of organic food and agriculture at the Estonian University of Life Sciences. Awards are presented for the best bachelor's thesis, the best master's thesis, the best published scientific article, and the best popular scientific article in Estonia.

Education and knowledge transfer

Education

It is not currently possible to obtain a **degree** in organic farming or to specialize in organic farming in vocational schools or universities in Estonia. EMU offers some organic courses in masters' level, e.g., Sustainable crop husbandry and organic farming (6 ECTS); Basic principles of ecological agriculture (6 ECTS, also in English for Erasmus students); Organic animal production (4 ECTS).

EMU is offering the possibility to obtain a **microdegree**. Microdegrees are separate training courses derived from formal education subjects, designed to provide participants with targeted knowledge and skills in a specific field. They range from 5 to 30 ECTS credits and are offered alongside degree studies in flexible formats, such as session-based or online learning, making them suitable for working individuals. Completion of a microdegree allows participants to continue in degree programs and pursue higher education. Graduates receive a continuing education certificate (microdegree certificate). Examples include Environmentally Sustainable Crop Production and Organic Production (9 ECTS, €630) and Plant Pests and Their Control (13 ECTS, €910).

Since 2023, the Centre of Estonian Rural Research and Knowledge—is acting as coordinating body of **AKIS (Agricultural Knowledge and Innovation System)**, including advisory services and knowledge exchange in Estonia.

Advisory

The advisory system is largely based on independent advisors, who often operate individually or are grouped into small companies. METK oversees the system, coordinating the accreditation of advisors as well as the validation of specialists, such as experienced farmers or researchers. Farmers

can access advice from these accredited advisors or validated specialists at a highly reduced cost, as 90% of the fee is covered by CAP support. To maintain their status, advisors are required to complete 24 hours of training each year.

Within this system, organic advisory has a distinct structure. It is brought together under the Estonian Organic Platform, which provides an umbrella for activities in this field. Advisory support is delivered both by full-time professional advisors—who usually work with both organic and conventional systems—and by experienced organic farmers or researchers who act as part-time advisors.

Knowledge transfer

Knowledge transfer from science to practice but also from practitioner to practitioner are very important for all farmers. The knowledge transfer activities are provided under the AKIS system from 2024.

Until 2016 many trainings were organised and materials published, but without a long-term budget and plan. In 2016, a special knowledge transfer program in organic farming started and all the activities are free for farmers (except study trips to other countries where farmers must pay participation fee). The programme is implemented within the framework of the Estonian Rural Development Plan 2014–2020, with the support of the Common Agricultural Policy of European Union. Since then, the program has continued and is now a part of the Agricultural Knowledge and Innovation System AKIS. Activities in the organic programme are mostly carried out by Estonian Organic Farming Platform and EMU in cooperation with other organic farming organisations.

Activities in the organic programme cover all areas of crop and livestock production, as well as more general organic topics. The activities are implemented in different formats across Estonia:

- web-based and contact-based information days, most of them in farms,
- farm visits,
- study trips in Estonia and abroad,
- study groups,
- demonstration days in research stations,
- conferences.

Educational materials are also published, including videos, video lectures, online and printed materials. Audiovisual content is available at [Maheklubi YouTube channel](#), while other materials can be accessed through the organic farming information portal [maheklubi.ee](#), both operated by Organic Farming Platform.



Since 2012, the Estonian University of Life Sciences and the Research Centre of Organic Farming have been publishing a collection of pre-reviewed short articles in Estonian called “From Science to Organic Farming” for organic farmers and other interested parties. The compendium presents the results of organic farming studies conducted in Estonia. The sixth collection will be published at the end of 2025.

Alongside the long-term knowledge transfer programme, smaller-scale financial resources are also used for organizing trainings and publishing information materials.

Material is compiled by Airi Vetemaa (Estonian Organic Farming Platform) and Elen Peetsmann (the Research Centre of Organic Farming of EMU). Tartu, 2025 in the framework of the project "Advancing Organic and Regenerative Agriculture Education in Armenia" is supported by Estonian Centre for International Development ESTDEV.