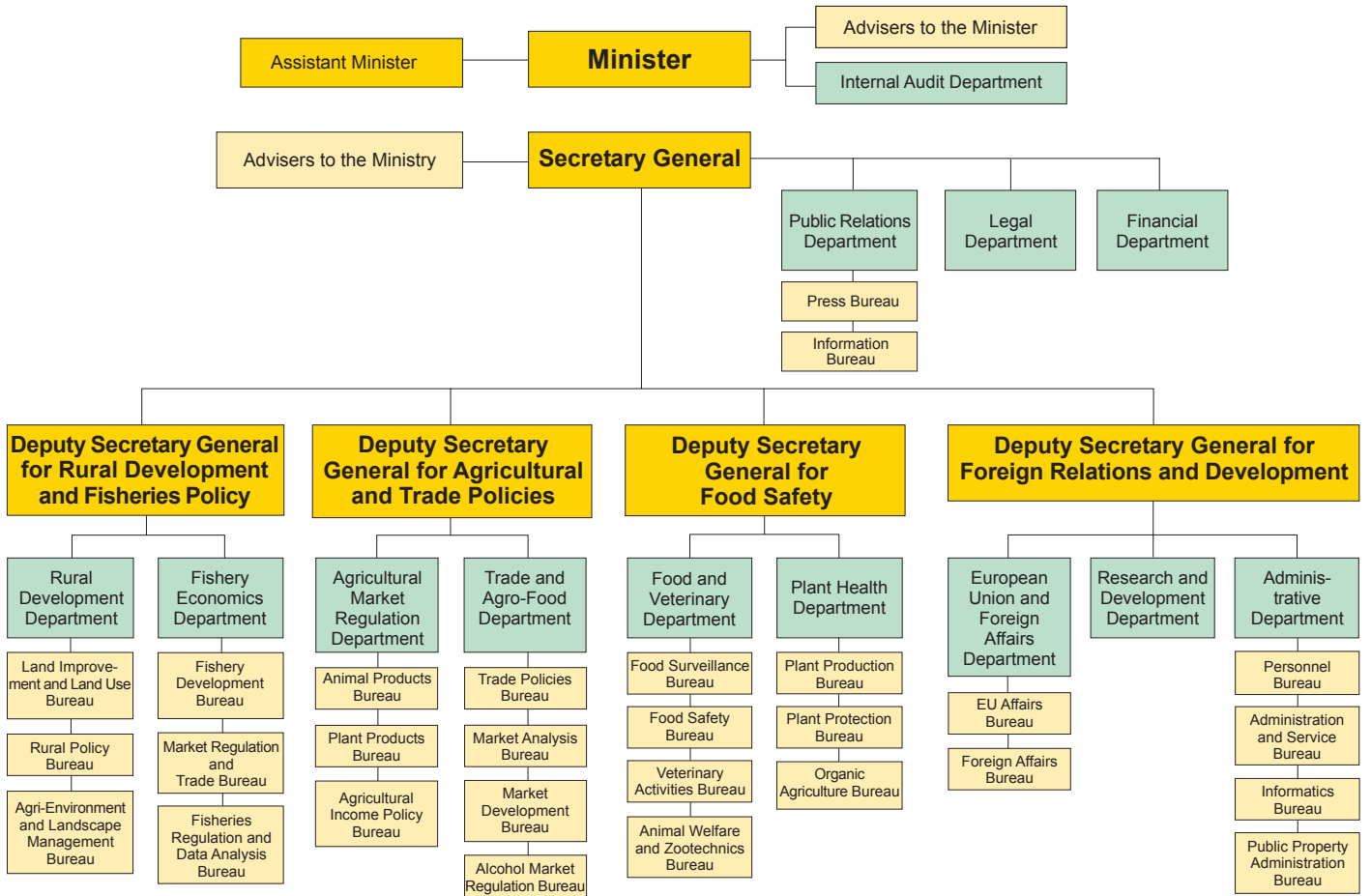


# **ESTONIAN AGRICULTURE, RURAL ECONOMY AND FOOD INDUSTRY**



Ministry of  Agriculture



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# What is characteristic of Estonia?

## Area

- The territory of Estonia is 45,227 km<sup>2</sup>
- Estonia has 1,521 offshore islands with a total area of 4,140 km<sup>2</sup>
- Estonia has 1,200 lakes, covering 4.7% of the territory
- 828,700 hectares of agricultural land and 2,051,900 hectares of forest land
- Estonia has 4 national parks, 47 natural conservation areas and 91 landscape conservation areas, which cover 11% of the area of the country.

## Population

- 1.35 million people live in Estonia
- Administrative division: 15 counties, 47 cities and towns and 202 parishes
- Largest towns: Tallinn (capital city) (440,000), Tartu, Narva and Jõhvi
- 70% of the population lives in urban areas

## Climate

The annual average temperature is +5<sup>0</sup>C (41<sup>0</sup>F). July is the warmest of months, during which the average temperature peaks at 16-17.5<sup>0</sup>C and the coldest is February, with average temperatures dropping to around -3.5<sup>0</sup>C in western Estonia and the islands and down to -7.5<sup>0</sup>C in eastern Estonia.

Annual precipitation on average is 550-720 mm. More precipitation falls than is lost to evaporation. The period of vegetative growth (when the average temperature for a 24-hour period remains over +5<sup>0</sup>C) is 180-195 days.

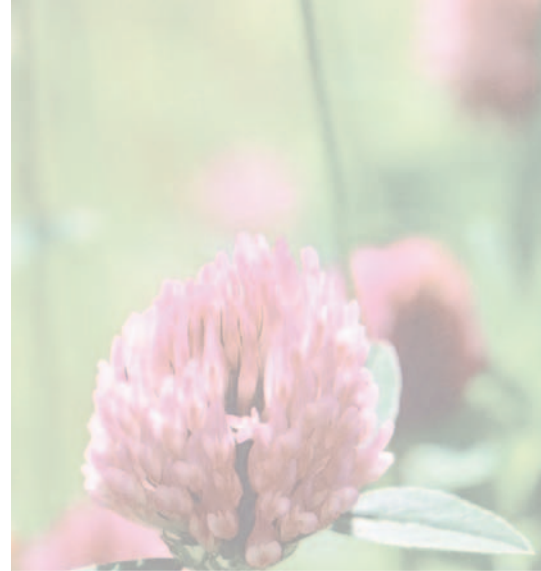
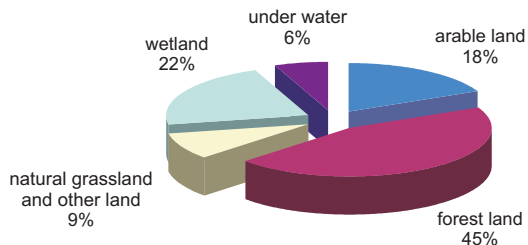
## Natural resources

The principal natural resources of Estonia include oil shale, phosphorite, limestone, dolomite, curative mud and mineral water.

Estonian oil shale is considered to be one of the world's finest. It can be found in a

6,000 square kilometre area. Wetland areas have plentiful peat reserves. There are over 900,000 hectares of peat deposits and peat reserves of 2.37 billion tons.

**Land usage in 2003**



On 1 May 2004, Estonia joined the European Union.

Estonia's agricultural sector did much work preparing for the accession. Estonian legislation was brought into conformance with the European Union legislation and European common agricultural policy and market organisation principles adopted in Estonian agricultural policy.

European assistance implemented before and during the accession gave new stimuli to the development of agricultural production and rural life. The additional value of agricultural products in 2004 grew by 17% (compared to the previous year) and stood at 3.4 billion kroons. Agricultural production increased (in current prices) with assistance by 8.1% and without it by 6.4%.

A total of 1.8 billion kroons of assistance for agriculture, fisheries, diversification of rural economic activities and modernisation of the foodstuff industry was disbursed, 1.3 billion of which originated from the budget of the European Union.





## The price hike that never was...

According to the Statistical Office, consumer price of food products increased from the previous year by 3.7% in 2004. The price of sugar and bananas went up noticeably (2.8 and 1.4 times, respectively).

Prices of dairy products increased moderately. Dairy industries began paying producers a higher price, thus increasing the sale clearance cost for goods, as well.

An increase in export prospects and an elevated price for export food alleviated the price pressure for food processors on the domestic market and enabled producers to pay a better price.

Saving on expenditures becomes important amid competition in order to stay in the market. Competitors may enter the Estonian market with cheaper goods and supplant local agricultural producers. Among others, Lithuania is bringing additional competition to the domestic foodstuff market (especially with their selection of cheeses).

Beside reasonable cost, Estonian consumers also appreciate quality of food products. They consider taste, freshness and healthiness to be important. In these areas, domestic foodstuffs have clear-cut advantage over imported products.

## Accession to the European Union brought along changes in foreign trade

After joining the European Union, the EU market with its 454 million people became open to Estonia. This means that all agricultural products can be sold on European Union markets without any quantity restrictions or protective barriers. Formerly existed free trade agreements became invalid.

In 2004 agricultural products were exported in the value of 5,574 million kroons and imported in the value of 10,084 million kroons. The export volume grew by 5.1% in respect to 2003 and the import volume went down by 1.8%. The export of agricultural produce onto the EU market made up 76.35% of all export and import from these countries made up 87.3% of all import.

Export volumes onto the Russian market grew threefold compared to 2003. Export of beverages to Russia (36.2% of all Estonian exports to Russia), as well as the export of

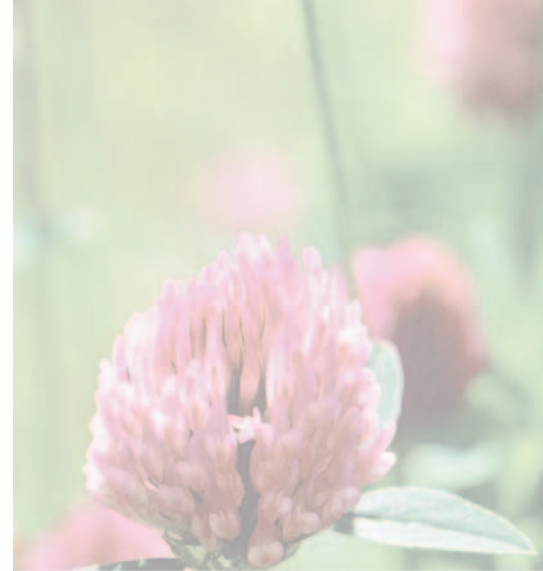
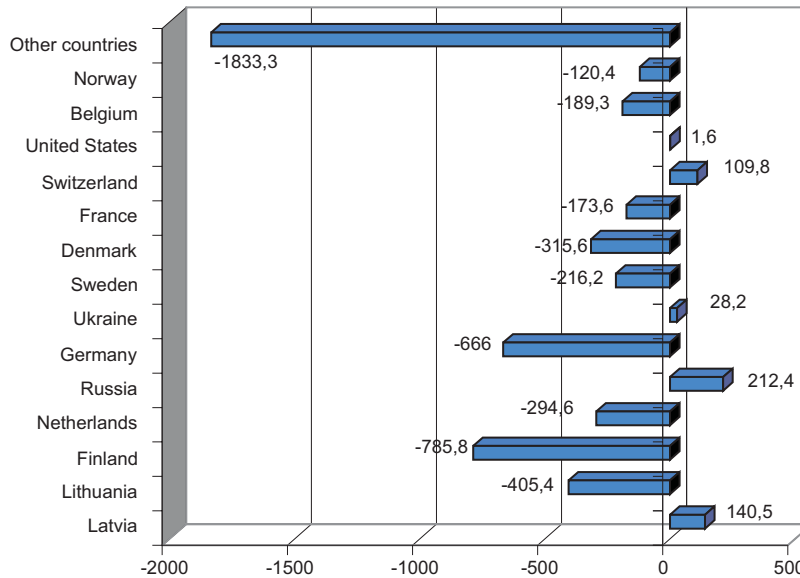


coffee, tea and seasonings increased 36 times. Such increase was caused by the removal of double customs.

Export to countries with a high standard of living also went up rapidly after the accession, for example to Finland (1.9 times) and to Sweden (2 times).

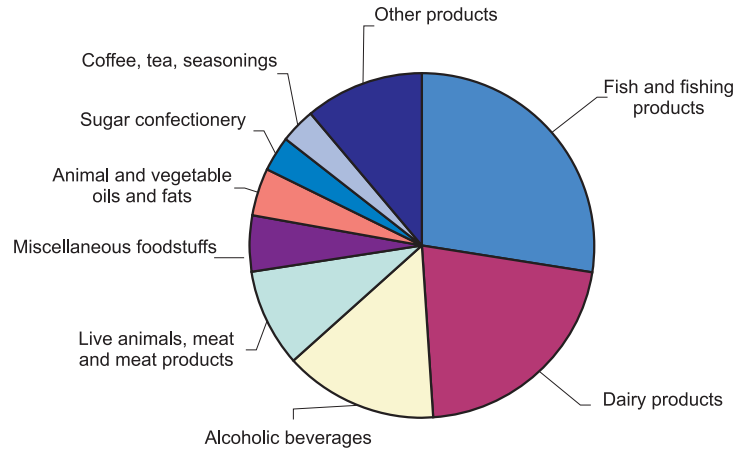
As usual, fish and fish products claim the top spot in the structure of export (27.5%), followed by dairy products (21.5%), non-alcoholic and alcoholic beverages (14.4%), and finally live animals, meat and meat products (8.9%).

### Foreign trade balance for agricultural products in 2004 by country (millions of kroons)





## Structure of export of agricultural products in 2004



### *Eesti Toit* (Estonian Food Project)

Dietary preferences form a part of a country's culture. Every country has its own national traditions and foods. As members of the EU, new and appetising products arrive on our market from EU as well as from the Third World every day.

Amid close competition, it is our duty to uphold our country's national cuisine and dietary culture. To increase the value of Estonian food and promote it to foreign visitors, the Ministry of Agriculture and the Estonian Chamber of Agriculture and Commerce launched the project *Eesti Toit* (Estonian Food). The aim of the Estonian Food Project is to further the local foodstuff industry by means of common markets. More on the topic of Estonian food can be found at [www.eestitoit.ee](http://www.eestitoit.ee).



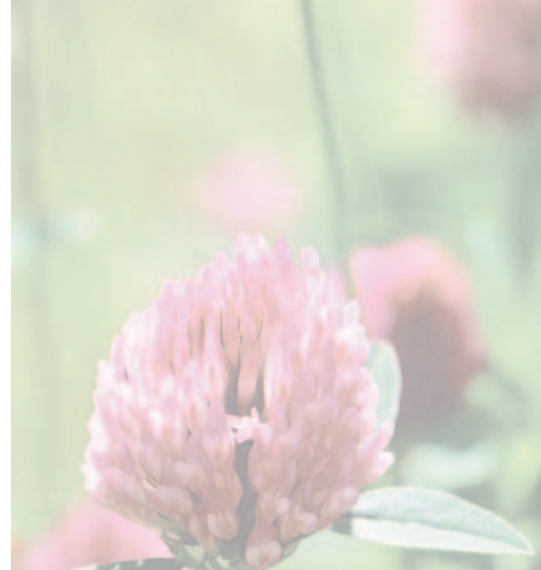
## Food safety

Along with the accession to the EU, many new obligations in the field of food safety arising from EU legislation became mandatory. Food inspections in Estonia are carried out by the Veterinary and Food Board (VFB), which is responsible for ensuring safe, healthy and high quality food production as well as safeguarding the health and well-being of animals tended on farms to prevent the spread of contagious animal diseases. There are 15 county veterinary centres serving the VFB with 270 employees and 171 certified veterinarians.

To ensure compliance with the requirements for the well-being of animals, random inspections are performed by supervisory officials and certified veterinarians.

To monitor market organisation measures, a supervisory office was created at the VFB. To inspect dairy products, 139 samples were taken in 2004 and 937 analyses done. 56 companies were inspected. More than several dozen meat quality grading experts were trained and certified. The border service of the VFB was reorganised and its structure modified to include a department of commerce, export and import. This department performs supervision of the foreign borders in the transit and import of foodstuffs from EU and non-EU member states. 14 border checkpoints are involved in veterinary and food-related supervision: 3 on the railways, 4 on the highways, 6 at ports and 1 at an airport. In 2004, 52,635 lots of goods were inspected at the border.

In the following sections we will look at the Estonian agricultural production and rural life in 2004, the first year in the European Union.



# Common Agricultural Policy in Estonia

## Pre-accession SAPARD programme

The European Union pre-accession assistance programme SAPARD provided support for candidate countries and was meant to bring agricultural production into conformance with European requirements and develop rural life.

Estonian agricultural producers were paid 995 million kroons from SAPARD funds by the end of 2004 (nearly 90% of applications for aid were approved).



Estonian state budget	European Agricultural Guidance and Guarantee Fund (EAGGF) and state budget	
Domestic subsidies	EAGGF Guarantee Fund and state budget	
Support for dairy cow breeding	EU Common Agricultural Policy (CAP)	
Support for breeding farm animals	CAP 1st pillar or direct aid and market organisation	CAP 2nd pillar or Estonian Rural Development Plan 2004-2006 support
School milk support in the academic year 2003/2004	School milk support in academic year 2004/2005	Agricultural environmental support
		Estonian National Development Plan 2004-2006 support for 3rd priority "Agriculture, rural development and fisheries"
		3.1 Investment support for agricultural production



Applications for aid were accepted from 2001–2003 for the following five measures:

- investment into agriculture;
- improving processing and marketing of agricultural and fishery products;
- diversifying rural enterprise (developing alternative forms of economic activities);
- developing the infrastructure of rural areas;
- developing villages.

From 2001-2004, 1.1 billion kroons of assistance was disbursed (75% from the EU budget and 25% from the Estonian budget). With the support of the assistance money, Estonian agricultural producers invested more than 2.3 billion kroons.

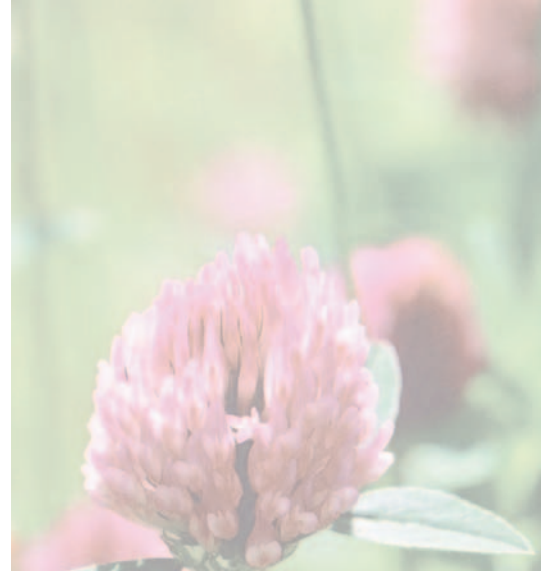
## Getting aboard the common agricultural policy

Prior to the accession to the EU, an extensive promotional campaign introduced the common agricultural policy (CAP). As a result, agricultural producers and rural entrepreneurs could fluidly join CAP support schemes. In order to implement the measures, the Agricultural Registers and Information Board (ARIB) was accredited.

## Estonian national aid

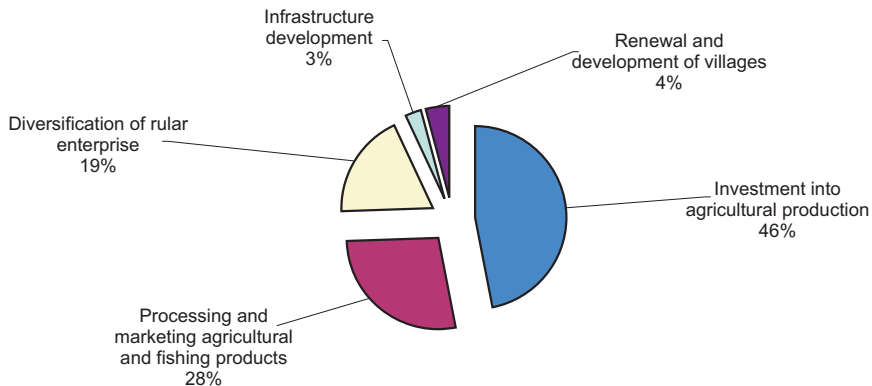
**To support dairy cow farming**, 108.3 million kroons was disbursed from the 2004 Estonian state budget. Support was paid to a total of 2,627 farmers who were raising 101,144 milk cows (397 of them domestic-bred). 1,065 kroons per animal was disbursed and 2,600 kroons per domestic-bred animal.

**To support breeding of agricultural animals**, eight breeding cooperatives were paid a total of almost 15 million kroons (for breeding cows, pigs, sheep, horses and poultry).





## Approved applications, 2001-2004



## Single area payment and additional direct support

Single area payment is paid from EU budgetary resources. Estonian state budgetary and Rural Development Plan funds are used to pay additional direct support. In 2004, 621.95 million kroons of direct support was paid.

Applicants for the single area payment included 18,954 agricultural producers with 818,400 ha of arable land. Support was approved for 18,597 applicants (with 803,700 ha of arable land). 414 kroons per hectare was paid.

Thanks to the area payment, 130,000 ha of fertile fields, otherwise in danger of becoming overgrown and falling out of agricultural use, were retaken into use.

76.8 million kroons was paid as additional direct support for **cattle**. 6,254 farmers got support for raising 132,829 cows (1084 kroons per animal).

**Sheep raising support** was paid to 729 applicants for 18,945 sheep (219 kroons per animal).

**Crop farming support** was paid to 7,849 applicants for 324,000 hectares (632.8 kroons per hectare).

**School milk support** was paid until 1 May 2004 under domestic procedure; pupils from the 1st to 4th grade received dairy products for just 1.5 kroons per day.

On 1 October 2004 the EU procedures on payment of school milk money came into effect; kindergarten children, 1st to 12th graders and vocational school students get 0.25 litres of milk per student every day).

## **Estonian Rural Development Plan (RDP) support**

RDP funds are derived in the amount of 80% from the EU budget and 20% from the Estonian state budget. The goal of RDP support is to make agricultural production more environmentally friendly, contribute to the sustainability of larger and smaller agricultural producers located in less-favoured areas.

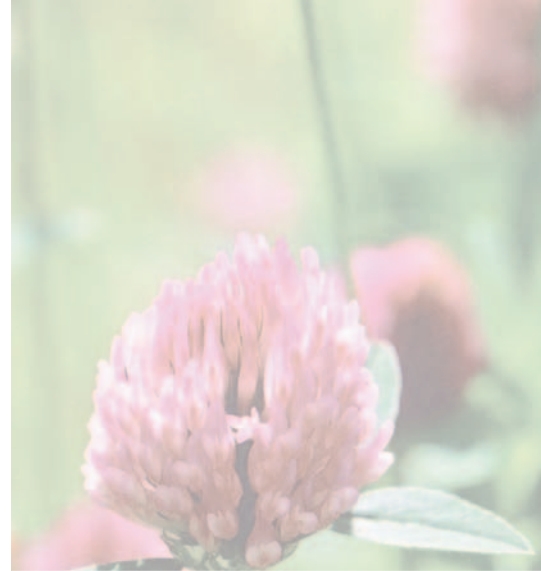
**Agricultural environment aid** is a compulsory measure that all member states must implement. The primary goal of this measure is to promote the adoption of environmentally-friendly agricultural methods and preserve as well as to increase the biological and geotopical diversity.

**High nature value production** aid was applied for by 5,761 applicants with nearly 462,000 ha of land. Assistance was disbursed in the amount of nearly 260 million kroons.

**Organic farming** aid was applied for by 779 producers with over 40,000 ha. The aid was paid out in the amount of nearly 48 million kroons.

The goal of the **less-favoured area** support is to ensure the use of arable land in areas that are naturally disadvantaged and to help rural life continue in such regions. The measure is initially being implemented in 101 parishes over Estonia (nearly half of the territory of Estonia).

**Support for semi-subsistence farms undergoing restructuring** helps out smaller producers, whose revenue from the sale of their own produce is in the range of 31,300-281,000 kroons. The amount of the support is 1,000 euros (15,647 kroons per company (farm)).

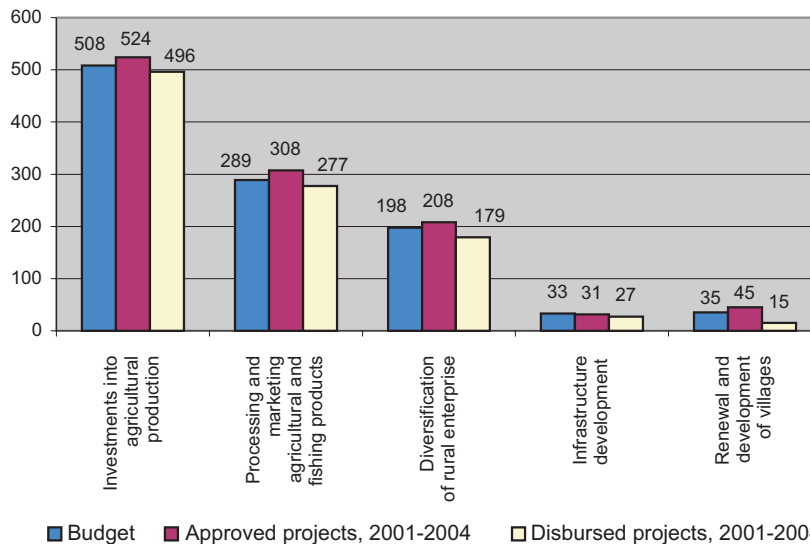




In 2004, aid was approved for 2,215 small producers in the amount of 35 million kroons. To bring use of manure into conformance with water protection requirements, the construction, expansion and reconstruction of manure storage facilities is being supported along with the purchase of necessary equipment. In 2004, 760 applications were submitted for nearly 100 million kroons of aid.

In supporting **endangered breeds**, nearly 2 million kroons of support was disbursed to Estonian horse breeders (277 applicants with 855 horses).

**Budget, approved projects and disbursements by measure 2001–2004 (millions of kroons)**





## Estonian National Development Plan (NDP) aid

The National Development Plan (NDP) came into effect after accession and started processing applications regarding its eight measures and sub-measures.

In 2004, 1,015 applications were submitted to the NDP for support. 582 of these were approved and 619.3 million kroons of aid distributed.

503 million kroons is slated for **investments into agricultural production** for 2004–2006. In 2004, 429 applications were approved and 345.6 million kroons in aid disbursed.

For investment into **agricultural processing and marketing**, 49 applications were submitted in the amount of 135.5 million kroons. By the end of 2004, there were no completed projects and no disbursements made. By 2004–2006, 177.9 million kroons was slated for support.

**For support in diversification of economic activity**, 103 agricultural producers submitted applications in the amount of 107.1 million kroons. 75 applications were approved and disbursement of aid is in progress. The estimate aid through 2004-2006 in this measure is 136.1 million kroons.

**To restore and develop villages**, 306 applications were submitted in the amount of 114.4 million kroons. By the end of 2004, no decisions had been made regarding paying out the aid. Through 2004-2006, 100.1 million kroons is slated for restoring and developing villages.

Several support payments are meant to support investment into **aquaculture** (renewal and construction of buildings). By the end of 2004, 9 applications for an overall amount of 13.3 million kroons were received and they are currently being reviewed. Of projects submitted for the processing of fish and other aquatic life forms, 13 have been approved, in the amount of 47.1 million kroons. 39 applications for the renewal of the fishing fleet had been submitted by year's end and 16 of them approved, in the overall amount of 14.03 million kroons.



## Estonian Rural Development Plan (RDP) 2007–2013

In 2004, a draft Council regulation on RDP for the years 2007-2013 was submitted to member states for general discussion and proposals.

The draft regulation introduces new principles for funding agricultural and rural life, with the system of assistance being simplified and rendered more transparent.

The European Commission has set the following requisites to be achieved for the support to be mutually balanced:

- level of competitiveness by 10%;
- environmental conservation and stewardship of lands 25%;
- developing rural life and diversifying rural enterprise 10%.

LEADER type measures (supporting local initiative) make up 5% of the entire aid package.

Each member state must identify and agree on the fields in which rural development funds and EU co-financing will find the most added value and have the right to decide the goals on what 45% of the aid money will be spent. A high level of economic feasibility must go hand in hand with a conservationist use of natural resources.



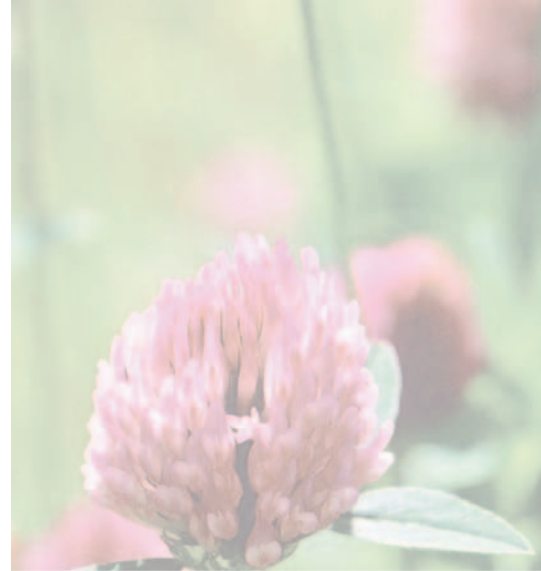
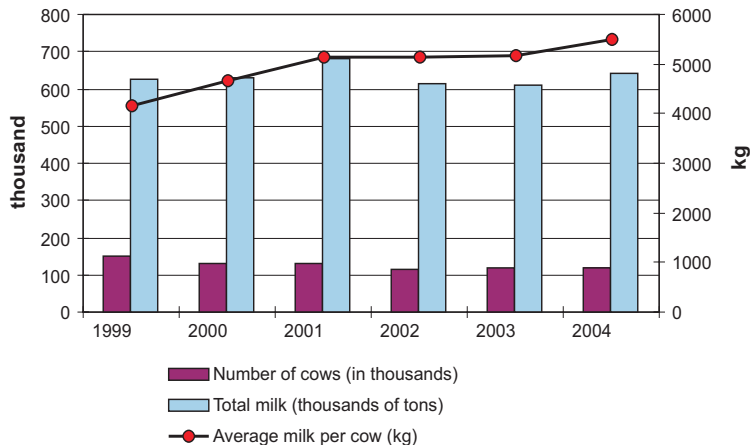
# Estonia developing into a dairy state

According to preliminary data, 639,000 tons of milk was produced in Estonia in 2004, which exceeds that of 2003 by 5% or 28,200 tons. The most successful milk producers in the republic are Järva county with 114,000, Lääne-Viru county with 73,000 and Pärnu county with 66,000 tons.

The number of cows has decreased in recent years, due to smaller agricultural producers dropping out of milk production. Larger producers, on the other hand are increasing their herd sizes, building new modern cold cowsheds.

Total milk production has increased due to consistently larger output per cow. In 2004, each cow in Estonia produced 5,484 kg of milk, which is 308 kg (6%) more than in 2003. Cows in Järva and Põlva county consistently have the highest outputs, with average

Number of cows, total milk production and milk per cow, 1999-2004





milk production exceeding the 6,000 kg mark. Indeed, this is the first time the average milk production of all performance tested herds has exceeded the 6,000 kg mark. The herd with the highest productivity is at Põlva Põllumajandusosauhing, where production in a herd of more than 1,000 head exceeded 10,000 kg (10,177 kg).

Estonian farmers produce high-quality milk. The fat content of purchased milk was 4.1% and protein content 3.3%. 96% of milk sold was of elite or of premium grade.

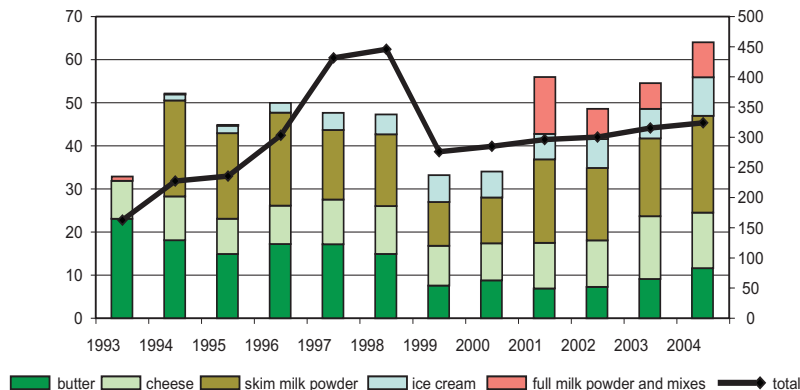
## Delicious domestic dairy products

In 2004, 223,900 tons of all sorts of dairy products were produced in Estonia, including 12,870 kg of cheese, 22,480 kg of milk powder, 8,930 kg of ice cream, and 8,100 tons of whole-milk powder and mixes.

In 1995, EU milk quality standards were adopted, according to which, the share of elite and premium grade milk was 41%. Thanks to efforts by dairy farmers and EU assistance programmes, the share of elite and premium grade milk was 97% in 2004.



Production of dairy products 1993-2004 (thousand of tons)





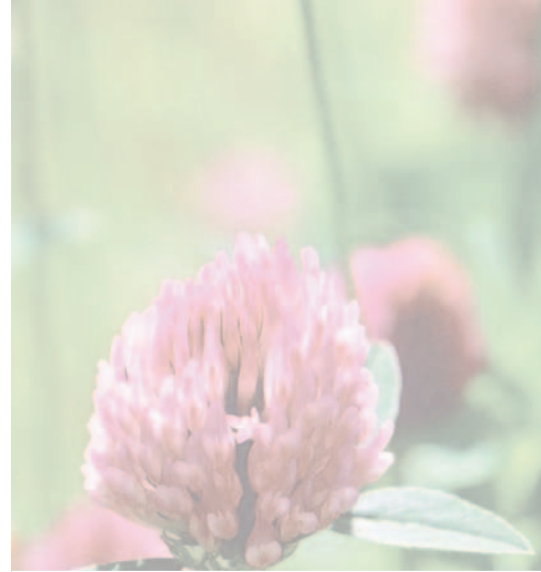
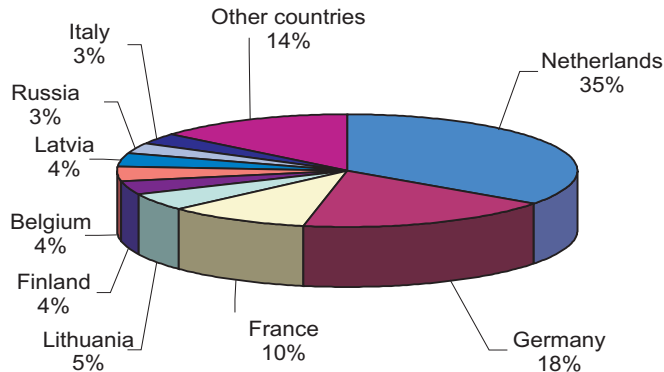
A study carried out by the Estonian Institute of Economic Research (EKI) revealed that consumers are content with domestic dairy products and consider them cheaper and tastier than imported products.

According to EKI data, the share of domestic cheese is 95% of sales, and soft cheeses 53%, yoghurt 91% and ice cream 81%. Consumption of Estonian dairy products continues to rise.

## Export increasing

According to preliminary data, export volumes for dairy products grew in the first year of EU membership by 14% from the year before, imports decreased 27%. Dairy products made up 22% of agricultural exports. The largest groups of dairy exports consisted of butter (26%), followed by milk powder (25%) and cheese (19%). The Estonian dairy products are mainly exported to the Netherlands (36%), Germany (18%) and France (10%). The greatest share of imports is from Lithuania, Latvia and the Czech Republic.

**Export volumes of milk products by country, 2004**





## Beef and poultry consumption increasing

In 2004, a total of 67,700 tons of meat was produced in Estonia, which is 200 tons more than the year before. The production of pork, sheepmeat and goat meat decreased whereas beef and poultry production went up.

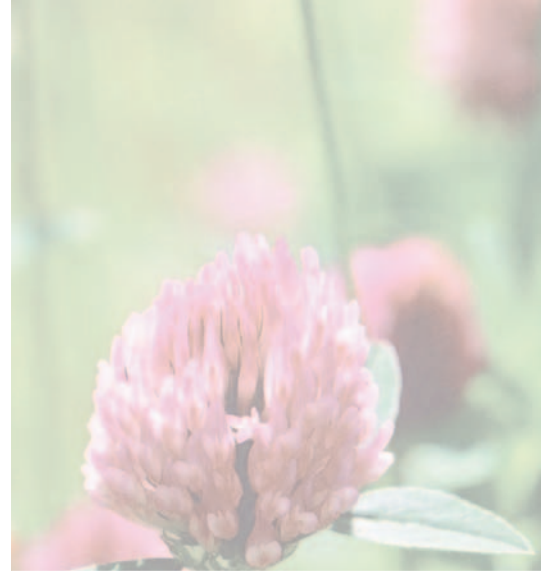
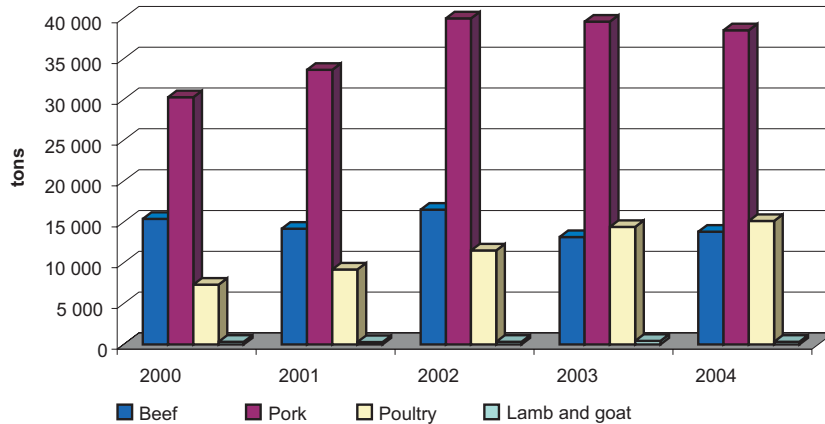
Beef production grew due to increased raising of beef-breed and hybrid breeding cattle. Beef farming in Estonia is slowly expanding. Beef had a 20% share in last year's meat production. At the end of 2004, there were 249,100 bovines in Estonia. There were more than 11,000 beef cattle in the register of the Estonian Agricultural Registers and Information Board. The most common breeds were the Hereford, Limousine and Aberdeen Angus. In 2004, the price of beef began to rise, and by the end of the year, it was 30% higher than it was before EU accession.

The share of pork, comprising 57%, is still the highest in meat production. At the end of 2004 there were 353,700 pigs in Estonia.

Prices of Estonian pork depend on the changes in the world market price. At the end of 2004, the prices on the world market began to rise. The EU market system had a positive effect on Estonian pork production. Meat or lump meat with prices subsidised in is no longer imported. The Estonian meat industry must use domestic raw material. In 2004 larger meat companies began to use a system of lean meat measuring that corresponds to EU requirements and enables more comprehensive information to be gathered on the quality and price of pork.

There were 41,600 sheep and 2,900 goats by the end of 2004. Due to a low price and difficulties in slaughtering sheep in a proper manner (few slaughterhouses are in conformance with requirements), little lamb and goat meat is produced. To produce higher-quality meat, an emphasis is placed on raising sheep for meat. When higher-quality meat is introduced to the market, the consumption will hopefully increase as well.

## Meat production, 2000–2004



## Popularity of poultry growing

The production of poultry increased by 700 tons or 5% in 2004 and 15,100 tons of poultry was produced over the year. The share of poultry production was 22% out of all meat.

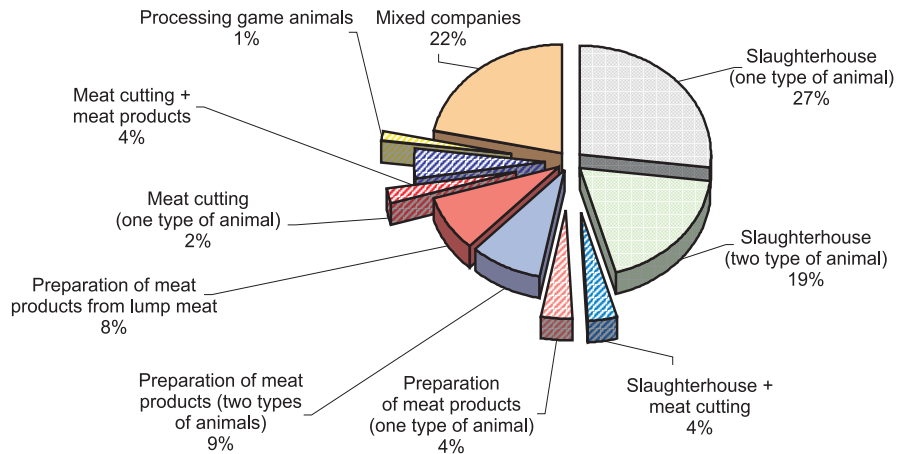
Growth of production was contributed to an increase in export to Latvia and the launch of boneless broiler meat export to Sweden. Local consumers, are developing a greater appreciation for healthy poultry products as well.

Stiff competition on the meat market is forcing meat companies to put more and more emphasis on quality and product development. Smaller meat producers are holding their own in competition by specialising more on high-quality special products.



The estimated optimum quantity of consumed meat per year is approximately 64 kg per person. This figure for Estonia was 63.5 kg in 2003; poultry made up 22.3 kg of this amount. From 1996, poultry consumption has nearly doubled in Estonia.

### Specialisation of meat enterprises



### The poultry industry invests

Since 2002, poultry producers have invested nearly 563 million kroons into non-current assets. Around 60% has been spent on buildings and facilities and 40% has gone into plant and equipment, as to bring production into full conformance with the requirements established in the Food Act and to manufacture high-quality products that are competitive on the EU market.



## Domestic grain is mostly turned into animal feed

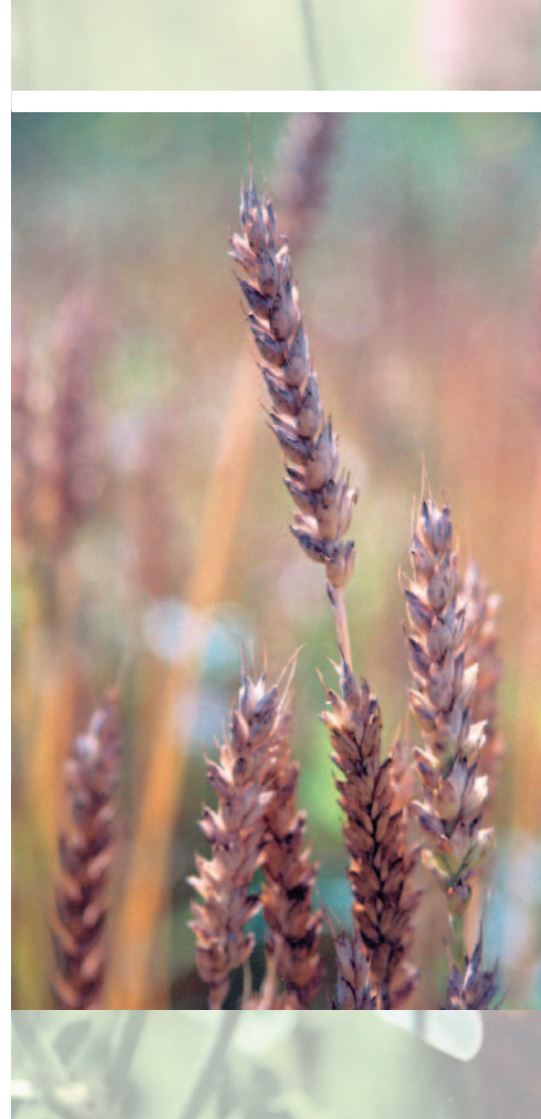
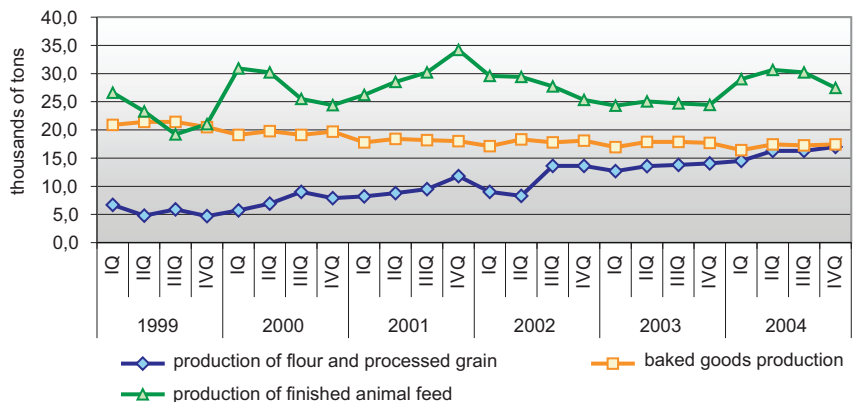
In 2004, grain was being grown in Estonia on 265,700 ha, making up 51.1% of all arable land.

Biologically speaking, the harvest was good, but unfavourable weather conditions served as complicating factors, part of the harvest remained uncollected. The harvest was 599,700 tons, of which 19,700 tons was rye, 184,700 tons wheat and 289,500 tons barley. The average yield was 2441 kg/ha, which is a modest result. Estonian grain producers are still to work up to the others in the EU.

Nearly 66% of domestic demand for grain is made up by consumption of grain as animal feed. 18% is consumed by people, 10% as seeds and only 5% is used in industry (distilleries and others).

Depending on the year, the yield covers 65-80% of consumption (76% in 2003-2004). Our Baltic neighbour, Latvia covers 90% of its needs and Lithuania 100%. Both countries are helping to cover Estonia's grain deficit.

### Manufacturing of grain products





Estonian consumers have a growing preference for flour products made in Estonia, leading to decrease of grain import in 2002 and increase of domestic flour production (imported raw materials still hold an important share).

Prepared animal fodder was produced in the amount of 117,300 tons in 2004 and compared to 2003, the production has increased by 19% and is likely to continue.

Accession to the EU brought along changes in the grain trade. Before the accession the main trading partner of Estonia was Ukraine, and to a lesser extent Russia. After accession the importers have changed: now the main part of trade takes place within EU member states. Grain is currently imported from Latvia, Lithuania, Germany and Finland.

Estonia's accession to the EU was not accompanied by changes in the prices of finished production and the price of grain-based products underwent no notable changes in 2004.

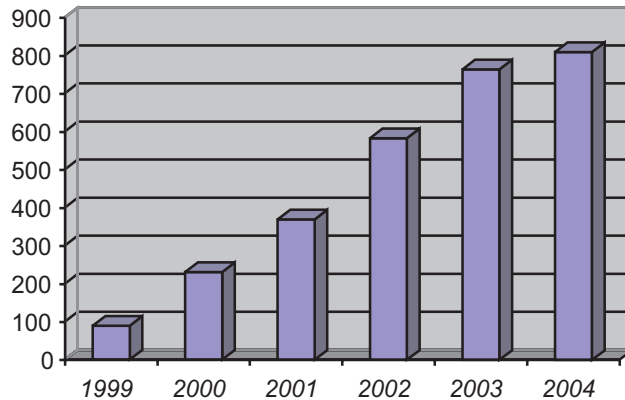
### Organic farming growing in popularity

According to the Estonian Plant Production Inspectorate, organic products were being grown on 46,000 ha and organic produce was obtained from 10,100 bovine animals and 10,800 sheep in 2004.

As indicated by the estimates, land devoted to organic agriculture made up less than 5% of total agricultural land in 2004 and a little less than 1.3% of area planted with grain (yield around 600 tons) and potatoes 1.2% (yield about 2500 tons). Organic dairy cattle accounted for slightly over 2% of dairy cows; those gave a total of over 1,000 tons of milk.

The primary problems for organic farmers were finding organic processors for their organic produce and marketing it. It has not yet been possible to sell organically produced food at prices that take into account the value of the produce.

**Number of organic producers**



## Main share of Estonian fish caught in the Baltic

The fishing waters for Estonian fishermen are the Baltic Sea and inland waters, and for deep-sea fishing the Atlantic waters.

In 2004, 59,378 tons of fish was caught in the Baltic Sea, and an additional 2,367 tons was netted in inland waters. Thus the majority of the catch (75%) was caught in the Baltic Sea.

In 2004, 153 vessels caught fish in the Baltic Sea, 14 in the Atlantic. The Fishing Information System also included entries on 889 coastal fishing boats. 276 fishing boats used in inland waters were registered. The share of fish processing in the foodstuff industry was 11.9% in 2004, and 24.9% of export.

The primary raw material for the Estonian fishing industry was Baltic herring and sprats; for the filleting industry, such freshwater species as perch and pike perch.





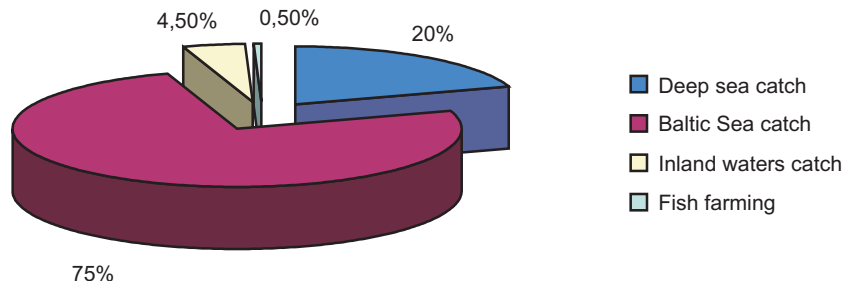
22,000 tons of fish products were produced in the first half of 2004. 19,811 tons of canned fish was produced, which makes 56.6 million cans. The main products were past sprats in oil and Baltic herring in tomato sauce, like in the previous years. Compared to 2002, the share of frozen fish and breaded precooked products has grown.

Estonians consume fish and fish products at the same rate, in terms of raw fish, 17 kg per person per year. Canned products, imitation crabmeat and various marinated products are preferred. Consumer studies show that over a half of Estonians eat fish and fish products once a week.

Export of fish has grown since EU accession. In the last three quarters of 2004, about 74% of all fish marketed was destined for export. The largest export groups are canned fish and fish fillets. Canned fish is bound for the Central and Eastern European market, while fillets are bound for Western European countries.



**Structure of fishing and fish farming in 2003  
(% of total volume)**





## Rural life is developing

Estonia has about 23,000-24,000 companies operating in rural areas. The level of entrepreneurial activity is characterised by the number of companies per 1,000 people. In rural areas, this figure was 37 in 2003 (in towns, 43), with the island Hiiumaa (52), the island Saaremaa (41), Lääne county (46) and Pärnu county (45) having the highest level of entrepreneurial activity.

The rural municipalities of Harju county, Rapla county, and Tartu county have the biggest number of service providers.

By 2004, the need for labour force had decreased more than five times from 1991. In the period after independence was regained, the newly sovereign state did not have sufficient funds to create new jobs for the employees of the former state. Thanks to EU aid programmes, new prospects have been created for the development of rural life.

## Rural tourism is expanding

In the countryside, many villages and small towns of less than 10,000 people have firms offering tourism services. In 2004, there were 546 certified rural accommodation establishments in Estonia, 10% more than the year before. The most of them are bed and breakfast and holiday homes, but there are also village retreats, hostels, motels and guest apartments.

Rural accommodation places are concentrated around the most popular tourist areas of Estonia - Saaremaa and Hiiumaa (over 35% companies are located there) and southern Estonia (Valga county and Võru county have 22% of companies).

Rural tourist service providers have joined into a non-profit organisation called *Eesti Maaturism* [www.maaturism.ee](http://www.maaturism.ee). In 2004, the association had 321 members, 254 of which offered accommodation and 67 other tourist services.

A holiday services site, [www.ozoon.net](http://www.ozoon.net) allows tourist services to be purchased and booked. There are services from accommodations and canoe trips to bowling lanes and

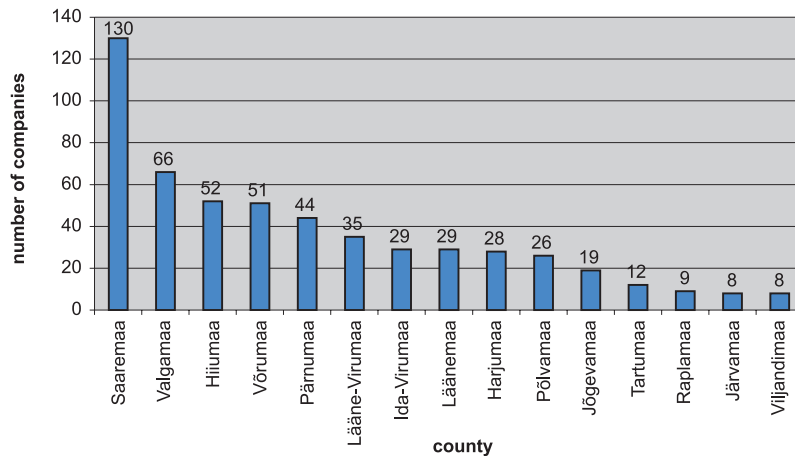




seminar rooms are offered. At the fair *Matka 2004* in Finland there were surveyed the preferences of the Finnish people regarding hikes and holidays in Estonia. Nearly one-half of the respondents said that they prefer active vacation product packages. Estonia's main attractions are considered to be nature and culture. Nearly half of the respondents prefer to stay in Estonia for 3-5 days and travel to Estonia in their own car. Nearly half of respondents estimated their expense range to be between 390-650 kroons per day. In the course of an international cooperation project called Regiofood or *Kohalik Toit* (Local Food), experts put together a list of thirty Estonian national foods (later complemented by members of the rural tourism association). A collection of recipes for national dishes along with serving suggestions has been drawn up. In 2004, 98 rural tourism companies were ready to offer national foods.



**Certified accomodation enterprises by counties, November 2004**



## Cooperation among village residents

Development of rural areas depends on the development of the social infrastructure. Village life development was greatly helped by SAPARD investment support for renewing and developing villages.

In 2004, 68 projects with a total cost of 18.5 million kroons were carried out, support for which comprised 15.1 million. Most money was spent on renovation of community centres (10 were fixed up and 2 new ones built). Four new information centres were also built and several got re-furnished. Three playing fields were patched up, four recreational fields, three village squares and one boat dock (two new piers were built). The organiser of the self-initiative of rural people is the Movement of Villages and Small Towns, *Kodukant*. 169 villages have devised with a development plan for themselves.

An Estonian National Development Plan LEADER+ type measure is being developed to support local initiative. The development of nine local activity groups is being supported in 2006.

The principles of LEADER type activities and local activity group are new concepts. Local activity groups are formed from sector representatives. The task is to develop the development strategy for the district and be responsible for carrying it out.

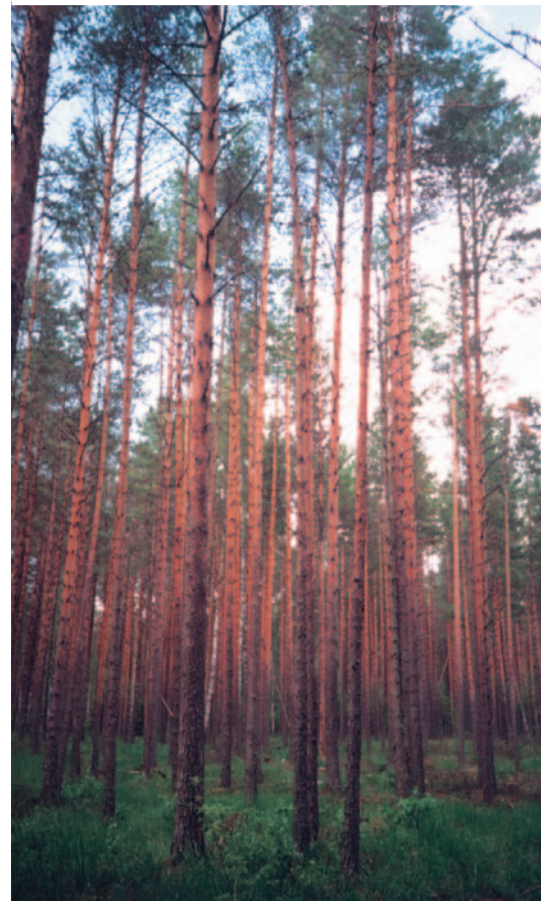
## Private forestry

Estonia has an estimated 60,000 private forest owners, of whom a large number (60-70%) are absentee owners. Viljandi county, Pärnu county and the island of Saaremaa have the most private forestland.

The average Estonian private forest unit is 12 ha.

Private forests are cut more intensively than state-owned forests. For example, in 2002 3.52 million cubic meters of state forest and 6.09 million cubic meters of privately held forest were felled. Individuals and corporations are equally active in reseeded.

The state supports private forestry on the basis of the Estonian forestry development plan. Forest owners receive support for joint activities, consultation, training, and





developing support systems through the Private Forest Centre Foundation. In 2004, support totalling 1.8 million kroons was disbursed for joint activities. The state paid out over 2.5 million kroons in 2004 for educating and advising forest owners and developing support systems (instructional videos, publications, model forest areas).

### Supporting joint activity of forest owners through Private Forest Centre Foundation

Name of activity	2002		2003		2004	
	amount	in kroons	amount	in kroons	amount	in kroons
Preparation of ground surface	588 ha	603 500	626 ha	670 500	924 ha	799 300
Maintenance of young forest	242 ha	192 000	590 ha	559 000	478 ha	563 900
Small projects in economic cooperation	3 tk	27 000	20 tk	203 300	11 tk	118 600
Growing of forest plants	0	0	4	199 700	8 tk	328 000
Surveillance of the vicinity of private forests	0	0	1	40 000	1 tk	11 500
Forest improvement	0	0	0	0	3 tk	103 600
Renewal of cuts	0	0	0	0		1 143 036
<b>TOTAL</b>		<b>822 500</b>		<b>1 672 500</b>		<b>1 809 800</b>



### Fish farmers add to the horn of plenty

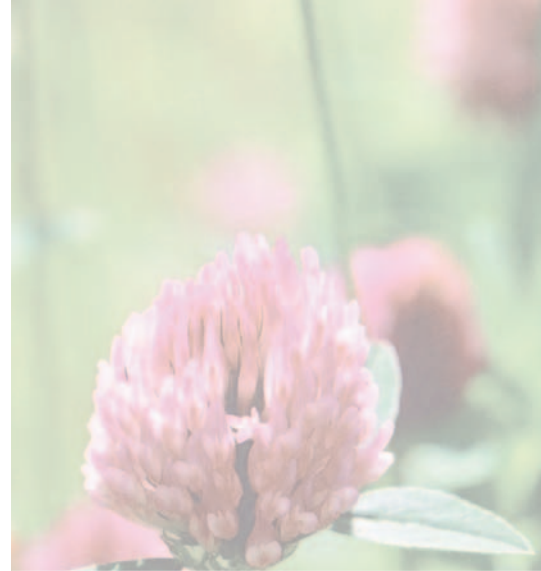
This field comprises commercial fish producers and fish farms offering catch-your-own fish services. Ten firms were involved in enriching fish stocks in 2003. A large number of inland and marine bodies of water were repopulated by hatchlings grown on farms. The primary species were sea trout and salmon, perch, eel, pike, river trout, crayfish, carp, perch and tench. The state allocated 2.87 million kroons in 2004 to replenish salmon hatchlings.



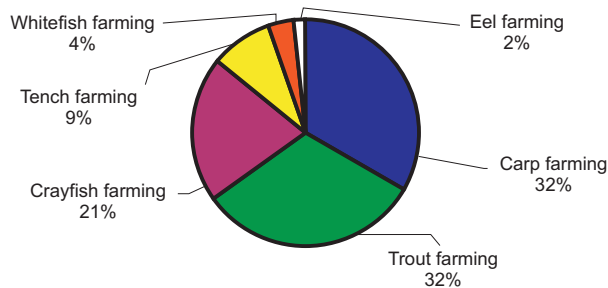
The most fish are farmed in basins (349), ponds (230), as well as sumps and natural bodies of water adapted to farming needs.

There were 19 firms that raised up to 5 tons of commercial fish; 10 firms produced 5,100 tons. The total production of farmed fish increased by 33 tons in 2003 with respect to 2002, reaching 373 tons. The main share of domestic fish is made up by rainbow trout (304 tons) and carp (51 tons).

The European Union along with state co-financing supports aquaculture by investment support via the NDP. ARIB accepted 23 applications from 30 April to 8 October in 2004. Investments were sought in the amount of nearly 24 million kroons. By the end of March 2005, nine applications had been approved in the amount of 13,375,313 kroons of aid. Fish farmers are using the received aid money above all for construction of aquaculture buildings and facilities, likewise water treatment facilities. Interest has developed in constructing crayfish ponds, since crayfish are beginning to disappear from natural bodies of water due to poaching and disease.



**Number of companies by percentage**





## Preserving fertile arable land and a favourable agricultural environment

Agricultural activity may affect the environment positively or negatively. The objective is to preserve the land as it traditionally appeared: with meadows, coastal grasslands, limestone barrens, scattered pastures.

The greatest problem is manure and silo facilities that fail to conform to requirements and are potential sources for contaminous leaks. Here the state has again stepped in, allowing agricultural producers the support for improving their manure facilities.

In areas sensitive to nitrates, numerous restrictions on the use of fertilizers have been established for agricultural producers, in order to avoid groundwater contamination. Soil properties are improved by rotational sowing, implementing more modern cultivation technologies and liming.

The amount of greenhouse gases stemming from agriculture has started to decrease. By 1999 the level of ammonia emissions from animal husbandry activities had decreased by 2.8 times from 1990.

Estonia's environmental strategy has claimed promoting the implementation of environmentally friendly production technologies and preservation of fertile arable land as its goal.

The transition, in paying out support, from unit-based support to a standard acreage support, where the amount of product is no longer of consequence, also helps preserve the agricultural environment. Support now depends to a significant degree on conformance to requirements and observance of good agricultural practice.

Good Agricultural Practice is a set of agricultural rules that help to prevent environmentally hazardous behaviour. A survey conducted among producers in 2004 revealed that over one-third of respondents was familiar with the Good Agricultural Practice and observed it.

## Land improvement must continue

Over 700,000 ha or slightly over half of Estonia's agricultural land has been drained, with 560,000 ha of drainage networks on forestland.

Three-fourths of drained agricultural land is in use, with over half of the primary drainages requiring repairs. The wisest way to keep the systems in good repair and organise repair work is to form owners' cooperatives. There currently exist over 100 land improvement cooperatives.

In 2003, the state launched a land improvement system maintenance subsidy to assist land owners. In 2003, 18.6 million kroons of aid was sought for land improvement work; the state allocated 17 million kroons. The most common project was to clear water lines of encroaching underbrush and forest.

The goal of the state is to keep the irrigation system drainages in operation. In 2004, maintenance work was performed, totalling 10.4 million kroons.

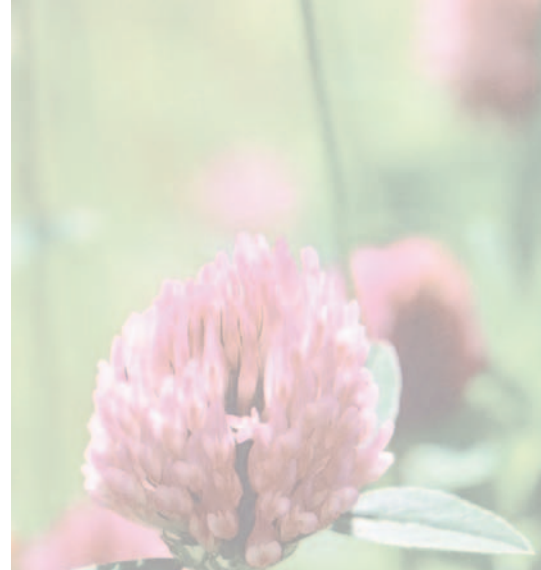
160 million kroons was allocated to assist land owners in the framework of the NDP's "Integrated land improvement" measure.

## Towards a good education

There is a genuine interest among Estonian youth to obtain a college degree in an agricultural field. In 2004, the Estonian Agricultural University (EAU) accepted students in 26 specialty areas. There were 3,405 applications received for 418 state-funded positions, giving a competition ratio of 8.15 applicants per position. The most popular majors were conservation, landscape architecture, real estate planning.

In 2004, 382 resident students and 87 distance learners graduated from EAU. Eight doctoral dissertations and 47 master's theses were defended.

1,839 students were studying at vocational schools in areas related to agriculture.





## National programme for applied research in agriculture

The Ministry of Agriculture was the first ministry to develop a national programme for organising research and development activities for 2004-2008. The cost of the programme budget in 2004 was 20.5 million kroons. A total of 18 applied research projects were funded, selected on a competitive bases. The applications submitted underwent a close screening by expert committees and Agricultural Research Council discussions. The applied research projects were carried out predominantly by EAU scholars, in such fields as horticulture, phytobiotechnology, plant conservation, food safety, animal husbandry (including communicable and internal diseases, reproductive biology, feeding) and ecophysiology.

Work commissioned by the Ministry of Agriculture made up nearly one-eighth of the research and development activities of EAU (including applied research, handbook authorship, training, specific contracts and so on) in the total amount of 8,623,110 kroons.

Two scientific bodies belong under the jurisdiction of the ministry: the Estonian Research Institute of Agriculture (ERIA) and the Jõgeva Plant Breeding Institute (Jõgeva PBI).

### Financing of the Jõgeva Plant Breeding Institute in 2004 (kroons)

Ministry of Agriculture process-oriented R&D	6 483 000
ETF grants	189 000
Targeted financing	1 356 000
Contractual research	702 000



The topics of research of the **Jõgeva PBI** in 2004 were the following:

- breeding of grains, pulses, oil cultures, potato, vegetable and animal feed, agrotechnology and seed production;
- agrometeorological forecasting and summaries;
- using tissue culture methods in breeding;
- developing a Web-based plant protection consultation system.

In 2004 **ERIA** gave agricultural producers recommendations on soil cultivation, sowing, fertilizing, plant conservation, harvesting, post-harvest processing, conserving, feed production in the specialty field of agrotechnology and mechanised technology.

### Financing of the Estonian Research Institute of Agriculture in 2004 (kroons)

Ministry of Agriculture process-oriented R&D	7 165 500 krooni (without Council of Trials funds)
ETF grants	565 000 krooni
Target financing	0
Contractual research	1 219 000 krooni

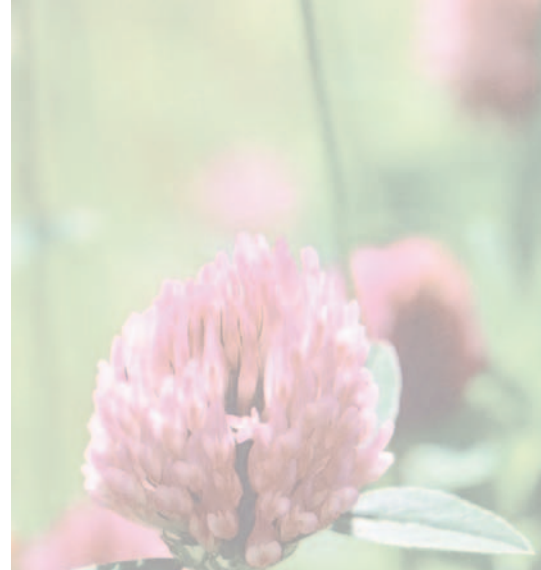
### Advisory service for farmers

The task of agricultural advisors or consultants is to make every farmer aware of the feats of agriculture and to share valuable experience of successful producers.

The Jäneda Training and Advisory Centre certifies consultants.

2004 saw information centres continuing to grow, as directed by the Estonian Chamber of Agriculture and Commerce. In the counties, information centres advise aid applicants and provide other important information.

2005 was the first year for the Estonian agricultural producers to get consultation aid from the EU structural funds. Aid will go to both individual consultation as well as public information days.





## Agricultural museums keep memories alive

**The Estonian Agricultural Museum's** exhibits and events were visited by 76,468 people in 2004. A series of exhibits on rural customs and traditions were held. The museum holds 71,009 items. In 2004, 2,882 items were added to its collection.

**The C. R. Jakobson Farmstead Museum** was visited by 27,652 people in 2004. 18,975 of them were individual visitors and 8,677 came with a larger group. The museum's primary holdings consist of 9,410 items, 567 of which are on public display and 6,862 of which have been documented for research purposes.

**The Estonian Dairy Museum** currently holds 51,000 items. This museum has not yet achieved wide renown, but active promotional work is in progress (brochures are printed, exhibits travel to large gatherings). A recipe book on curative dairy foods was published based on the materials in the museum collections.

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