AGRICULTURE
RURAL LIFE
FISHERIES
DEAR READER!

You are holding a publication about the activities of the Ministry of Agriculture. I believe it will surprise those who think that the Ministry of Agriculture is mainly involved in organising agricultural production. It should be said that the Ministry is not directly involved at all in organising production.

In fact, the Ministry’s name no longer really reflects the scope of the institutions activities, especially after Estonia became a Member State of the EU.

The greatest part of the Ministry’s work relates to three areas. The first task is ensuring food safety throughout the food production chain, so that our inhabitants can consume inspected and hence safe food. This includes activities pertaining to animal health and the protection of animals and their welfare; plant health, organic farming, etc.

Another important field is agriculture, rural affairs and the food industry — development and implementation of the policies needed for their development.

The third area is fishery, where our objective is to promote the development of Estonian fishery under the conditions of limited fish resources.

If we add the promotion of private forestry, agricultural science and education, and the maintenance of agricultural museums as the carriers of culture, then we can convey the scope of the Ministry’s activities and its responsibilities in promoting Estonia’s affairs.

Accession to the European Union resulted in great changes in the scope of our work — now we can and must have our say in the development of various European policies so as to ensure the development of EU agricultural policy.

The degree of how rationally and progressively we do it has a direct impact on Estonian rural development in the short and long term. Therefore it also influences Estonia’s development as a whole.

Ministry of Agriculture
**FACTS ABOUT ESTONIA**

**Population:** 1,342,000*.

**Capital:** Tallinn, 396,000 inhabitants*.

¼ of the population is rural.

**Territory:** 45,227 km².

**Forests:** 2,27 million ha or ½ of the territory.

**Agricultural land:** 830,000 ha.

**Gross domestic product (GDP):**

billion Estonian kroons (EEK)**

**Agriculture’s share in GDP:** 2.4%.

* as of 1.1.2007

** data for 2006

**Population density:** 30 inhabitants / 1 km².

Estonia’s territory includes 1,521 islands in the Baltic Sea.

There are 1,150 lakes in Estonia. The largest of them is Lake Peipus – 3,555 km².

Estonia has 5 national parks and 55 ecological reserves.

Estonia is one of the swammiest countries in Northern Europe after Finland;

swamps occupy nearly ¼ of Estonia’s land area.

**Natural resources:** oil shale, peat, and phosphorite.

**Climate:** the annual average temperature is +5.9°C.

July is the warmest month with an average temperature of 16–17.5°C.

The annual average precipitation is 600–720 mm.
Accession to the EU economic area meant, first and foremost, the abandoning of a narrow, agriculture-centred approach, and switching to a rural policy serving and considering the broader interests of society.

Accession resulted in positive changes for both the new and old Member States. The enlarged EU is a powerful economy, as it is a remarkably large market (about 480 million inhabitants) subject to strict requirements for social inclusion, food safety, environmental sustainability, and animal welfare.

**Consumer interests first**

Both consumers and undertakings benefited from EU membership. Consumers benefited in the broadest sense – from the healthiness, quality and safety of food, improvement of the physical and social environment, and in some cases, from better prices.

Undertakings benefited from the economic stability facilitated by the EU Common Agricultural Policy and the fair distribution of sales income across the food production chain: producers, processors, and tradesmen earn in accordance with the contribution of each link of the chain. Thanks to this, the prices of agricultural products and the income of farms increased remarkably. There was no significant increase in consumer prices.

Until EU accession, the competitive burden was the greatest for the link between the producer and processor, while after accession it was shifted toward the consumer and tradesman. Undertakings acknowledged that the key for being competitive was not only economic viability, but also orientation to the needs of consumers – the quality and range of products and the efficiency of production.
Pre-accession aid programs, which were largely aimed at bringing production into conformity with EU food safety and hygiene requirements, also had a favourable effect on the economic development of businesses.

After accession, the main issue in policy choices was how to make more efficient use of the aid that compared to the pre-accession period increased nearly a three-fold. The aid was planned according to the principle that economic ability should be in line with environmental sustainability and improvement of the quality of rural life.

**Increased income for farmers**

As a result of implementing the measures of the Rural Development Plan and National Development Plan for 2004–2006, investments in fixed assets in agriculture increased within three years on average a three-fold, compared to the pre-accession period.

It is also remarkable that agricultural production applies environment-friendly cultivation methods to a large area of land – nearly two-thirds of all agricultural land.

Owing to a stable economic environment and aid, the income of farmers increased substantially and was largely used for investments in those branches of production which produce the greatest value added, as well as for creating new jobs and product development.

The decline in economic results that had lasted for nine consecutive years (1994–2002) halted after EU accession. During those years, value added (the aggregate of wages and business income) decreased by an average of 5% a year in constant prices.

Compared to the pre-accession year, the value of total agricultural output increased by one-tenth, while income increased by one-fifth already during the first year following EU accession. Economic growth continued in the following years. Although income per employee increased more than 2.5 times over a period of three years, the main condition for economic development was also met – the increase in labour productivity exceeded the increase of wages by 1.5 times.

**Productivity increase**

Specialisation of production facilitated an increase in the productivity of agriculture. Cereal and dairy farming have primarily been concentrated into large-scale agricultural holdings. Two-thirds of the total cereal supply comes from holdings where the grown area of cereals is larger than 100 ha. Small farms have practically ceased to produce cereals. Greenhouse vegetables are mostly grown in three or four larger enterprises which are located near the largest cities.

Over the past five years, agricultural holdings have invested most of their additional income in the most profitable business – the development of dairy cattle farming.

After the opening of SAPARD support, the construction of new generation large livestock housing began in Estonia in 2002. The high technological standard of such housing implies much better working conditions for people and greater yields for animals here than in older farms.

Dairy farming was, is, and will continue to be the main source of income for farms in the future. Milk accounts for 40% of the value of livestock production. After Estonia regained its independence, the total output of milk has decreased along with the number of animals, while the yields of cows have increased 1.5 times.

One half of the herds are kept in large livestock housing accommodating more than 300 cows; the average yields of cows in such farms are more than 7000 kg of milk a year. The average yield per cow was 6225 kg in 2006.

Four-fifths of dairy cows are kept in herds of more than 100 animals, and one half is kept in herds of over 300 animals. The yields of cows kept in large livestock housing exceed those of cows kept in smaller housing (less than 100 animals) by a quarter.
Over the past ten years, the yields of cows have increased by one-third and exceeded the EU average by one-tenth in 2006.

**Technological development**

As a result of technological development and specialisation, the number of agricultural holdings decreased by one-fourth, and the number of small holdings (up to 5 ha) decreased by one-third after Estonia’s accession to the EU. Two-thirds of agricultural land is held by holdings which are larger than 100 ha.

After Estonia regained its independence, rural employment decreased by one-third during a period of ten years; the lowest point was in 2002. After accession to the EU, employment started to rise again and unemployment halved.

With the implementation of support measures under the Rural Development Plan, it became possible to recruit the work force released from agriculture into alternative fields of activity: rural tourism, cultivation of medicinal herbs, fish and mushroom farming, etc.

As in developed countries, the relative share of agriculture in the country’s total economy is decreasing. In 2006, agriculture accounted for 2.4% of GDP and agricultural employment formed less than 4% of the country’s total employment.
COMMON RULES FOR MEMBER STATES

Upon EU accession, Estonia adopted the Common Agricultural Policy (CAP), the main objectives of which were laid down in 1957 in the Treaty of Rome.

The reasons for developing the CAP lied in the situation after the Second World War – agriculture dwindled and the supply of food for the population was insufficient.

In the first period of the CAP – end of the 1950s and beginning of the 1960s – the main goal was to promote the food industry. This implied, above all, the rapid development of the agriculture sector, because this was the only way to ensure a stable supply of reasonably priced foodstuffs to consumers.

CAP was originally a powerful market price support policy, which on the other hand included import duties, intervention buying-in, and export refunds (this is how today’s “first pillar” was founded). This policy resulted in significantly higher prices for agricultural products produced in the EU, compared to the world market, and overproduction.

Dynamically changing targets

The CAP has been in constant change throughout its history. By the 1970s, the CAP had attained its original goal – internal market demand was met with foodstuffs produced in the EU. There were surpluses of agricultural products, some of which were exported (subject to export refunds covering the difference between the EU internal market and world market prices), and some of which were removed from circulation, resulting in large budgetary expenditure. To tackle this problem, production restrictions (quotas) were introduced in the 1980s.

At the end of the 1980s and beginning of the 1990s, more attention was paid to reducing the negative environmental impact of agriculture, and relevant support was introduced. This was the beginning of the second pillar of the CAP.

Agricultural environment programmes prepared by the Member States were added to mandatory environmental protection restrictions. The programmes compensated farmers for additional expenses or loss of income due to environment-friendly farming methods.

The policy became more market orientated. Market price support (import duties, intervention prices, and export refunds) was reduced as a result of reforms in the 1990s and direct aid was introduced. These direct payments replaced the former additional payments made upon the marketing of products.

In 2000, the second pillar – an integral rural development policy – was added to the CAP.

By that time, significant changes had occurred in the world economy, which also had their impact on the EU CAP and necessitated further reforms. Intensifying competition, decrease of rural population and reduction in the viability of rural areas, technological changes, food safety and environmental risks arising from concentration of production – all
new activities should be found for the rural population, which means developing alternative businesses and diversification of rural activities.

Protection of environmental, landscape, and cultural heritage – acknowledgement and provision of “agricultural public services” becomes increasingly more important. The higher expenses of environmentally sustainable production will probably continue to be compensated in the future.

This is the direction of development of Estonian and European agriculture.

these triggered the reforms of 2003. Market price support was further reduced; direct payments were decoupled from production obligations, and a system (compliance system comprising 18 requirements for farm management) was applied by which a beneficiary of direct aid who violates a veterinary and food safety, environmental or animal welfare rule receives support at a lowered rate or is deprived of support altogether.

The second pillar of the CAP, i.e. rural development measures, was also strengthened by transferring every year 5% of the first pillar direct aid to the second pillar (mandatory modulation).

Development in the forthcoming years

The CAP development in 2007–2013 will largely depend on the effectiveness of the decisions taken in 2003. Estonia is interested in keeping its rural areas populated and managed. This means two courses of action.

First, the continued growth of efficiency and competitiveness of agricultural producers must be ensured to secure their coping in a situation of reduced support (or policy changes). This is also one of the main goals of the Estonian Rural Development Plan (RDP) for 2007–2013, for which implementation larger sums than before have been allocated for investment support.

The increase in support in forthcoming years will probably be followed by a reduction of support, meaning that in the future, farmers should receive the funds for their principal business from the market, based on a normal balance of supply and demand. Support should be aimed at introducing technological innovation.

Secondly, as the introduction of new production technologies and equipment frees the work force from food production,
The development of the dairy sector continues toward further increase of dairy cattle yields and the development of higher value added, quality and healthy products.

The development of the dairy industry is geared toward higher value added products. Great attention is paid to the assortment and quality of products, modernisation of technology and environmentally sustainable production.

The production of butter, whole milk, and skimmed milk powder is decreasing, while the production of and demand for cheese, curd, and yoghurt is increasing.

### Number of dairy cows and average yield

<table>
<thead>
<tr>
<th>Year</th>
<th>Dairy cows</th>
<th>Average yield per cow, kg</th>
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<tbody>
<tr>
<td>2000</td>
<td>131 000</td>
<td>4660</td>
</tr>
<tr>
<td>2002</td>
<td>115 600</td>
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<td>2003</td>
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<tr>
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<tr>
<td>2005</td>
<td>112 800</td>
<td>5886</td>
</tr>
<tr>
<td>2006</td>
<td>108 900</td>
<td>6225</td>
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We produce the cereal we need ourselves

The low world market prices for cereals, orientation to import and preferential development of dairy farming have resulted in a year-by-year decrease in cereal production. Now the situation is apparently changing – with the development of bio-energy.

Dairy cattle farming will continue to be the main activity for Estonia, but general global development trends should also be taken into account – decrease in fossil fuels and their price increase contribute to the development of bio-energy.

Aiming for high quality milk

One of the EU CAP measures is a milk production quota that prevents excessive production of milk. Estonia’s milk quota of 624 482 tonnes was agreed to during the accession negotiations. For 2007 Estonia was assigned an additional milk quota of 21 885 tonnes.

Estonian milk production already exceeds the amount of domestic milk consumption by one-third. The excess is marketed in EU Member States or elsewhere. Dairy farming provides one-third of the income of the agriculture sector, followed by cereal farming with 15% and pig farming with 12%.

The main export articles of the dairy industry are milk powder, skimmed milk powder, and cheese.

Great progress has been made over the past ten years in improving milk quality. When premium or higher grade milk accounted for 41% of all bought-in milk in Estonia in 1995, the relevant percentage is now 96%. Estonia produced 690 000 tonnes of milk in 2006.

One of the peculiar products in Estonia is 2.5% drinking milk (3.5% milk is common in the EU). This accounts for more than 90% of the drinking milk produced and consumed. Estonia was provisionally allowed to produce such milk until April 2009 by a decision of the EU Special Committee on Agriculture. After that, market regulation will probably cease and every country will be able to decide what type of milk to produce.
bio-energy and a greater need for animal feed, demand for cereal production is increasing.

Estonia can currently supply about 80% of its cereal need, but the goal is to grow and process all the cereals needed by the domestic market.

More than four-fifth of cereals are grown in holdings that have more than 100 ha under cereals, and more than one-third of cereals is grown in holdings having more than 400 ha under cereals. Large farms have made great progress in improving their per hectare yields – they have reached 4000–5000 kg/ha. Estonia’s average cereal yield is 2400 kg per hectare.

Despite the price increase, yields lower than 3500 kg/ha are not cost-effective, since the prices and expenditure on purchased products are rising. Efforts should therefore be made to improve the per hectare yields; this requires the implementation of modern cultivation equipment and techniques. This in turn requires large investments and contemporary economic thinking.

**Energy crops have a future**

In addition to the diminishing of fossil fuel resources and their rising prices, there are other reasons to develop bio-energy.

First, it helps to reduce emissions (CO2); secondly, it helps to put arable land that has so far lain fallow into use. Thirdly, agricultural producers will have the possibility to produce fuel in addition to producing food, and there should always be sufficient market for fuel.

Generally, the broader use of biomass and bio-energy helps to raise the GDP and maintain or create new jobs.

Estonia already uses biomass to a relatively high degree – its share in the energy balance is about 12%. This is mostly wood and wood waste. Estonia is in second place in the world after Sweden in terms of the production volume of wood pellets, most of which (93%) are exported.

Estonia has good technologies and the research and development basis for producing energy from wood fuel. Society's readiness for technological and innovative development is also good in Estonia, plus our energy networks comply with current requirements and cover a large part of the country's territory.

Beginning this year, producers of energy crops can apply for support at a rate of 700 EEK (EUR 45) per hectare. This is equal to the support paid in the old EU Member States.

The state’s role in promoting the production of biomass lies in research activities, information and dissemination, and the launching of the market.
A development plan for the promotion of bio-energy and the use of biomass for the years 2007–2013 was drafted at the initiative of the Ministry of Agriculture in cooperation with other ministries. In the first stage (2007–2008), various studies will be conducted to analyse the market, resources, technologies, market organisation measures, and other factors influencing the use of biomass.

Dissemination of information will begin, international cooperation will continue, and the environmental impact of the applied measures will be strategically assessed.

In the second stage (2009–2013), market organisation measures – support, levies, standards, the availability of know-how, etc. – will be implemented based on the analyses and studies of the first stage.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
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<th>2004</th>
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<tbody>
<tr>
<td></td>
<td>Quantity ('000 t)</td>
<td>Yield kg/ha</td>
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<td>Total cereals</td>
<td>502</td>
<td>1877</td>
<td>608</td>
<td>2330</td>
<td>760</td>
<td>2694</td>
<td>606</td>
<td>2211</td>
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<tr>
<td>incl. rye</td>
<td>27</td>
<td>2000</td>
<td>18</td>
<td>2228</td>
<td>20</td>
<td>2747</td>
<td>18</td>
<td>2454</td>
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<tr>
<td>Winter wheat</td>
<td>53</td>
<td>2200</td>
<td>66</td>
<td>2869</td>
<td>71</td>
<td>3634</td>
<td>65</td>
<td>2796</td>
</tr>
<tr>
<td>Summer wheat</td>
<td>98</td>
<td>2050</td>
<td>130</td>
<td>2357</td>
<td>192</td>
<td>2917</td>
<td>150</td>
<td>2257</td>
</tr>
<tr>
<td>Barley</td>
<td>234</td>
<td>1778</td>
<td>293</td>
<td>2306</td>
<td>366</td>
<td>2544</td>
<td>295</td>
<td>2141</td>
</tr>
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</table>
European, including Estonian agricultural policy emphasises the landscape and biodiversity of rural areas in addition to efficient and competitive agricultural production.

Nature conservation restrictions apply to 16% of Estonia’s land area, of which 4% is a result of the creation of the Natura 2000 network. Thanks to long-term agricultural activities, especially cutting of grass and grazing, there are also various semi-natural areas in Estonia which are valuable for their biodiversity and cultural heritage.

About 140 000 ha of land that was covered with weeds and brush before Estonia acceded to the EU was cultured as a result of the direct aid introduced by the CAP.

**Billions for environment-friendliness**

Support for less favoured areas as provided by the Rural Development Plan for 2004–2006 will continue in 2007–2013.

Its objective is to preserve the locality via continued use of agricultural land and promote the principles of sustainable agricultural production, including organic farming. Payment of support for areas with environmental restrictions (Natura 2000) continues and new support will be extended to the maintenance of semi-natural biotic communities in the same areas.

Restoration and establishment of stone walls is an important aspect of the protection of our cultural heritage and also the aesthetic value of agricultural landscapes. This activity was already supported under the RDP for 2004–2006 and support will continue over the next seven years.

Although Estonia’s groundwater is one of the cleanest in Europe, especially in sparsely populated and extensively used areas, it still needs protection, especially in nitrate vulnerable zones. Farms whose manure management is out of line with environmental requirements continue to be the main sources of pollution.
Reorganisation of manure management began in 2004–2006 and it was subject to support payments. Manure storage facilities must be brought into compliance with environmental requirements by the end of 2008 in nitrate vulnerable zones and by the beginning of 2010 elsewhere in Estonia.

Examples of biodiversity are the Estonian horse and Estonian cattle breed, which are part of our cultural heritage and whose future is in danger. Estonia also has various endangered varieties, which are valuable from the aspect of genetic and population diversity, such as ‘Sangaste’ rye.

The previous period’s support for endangered animal species was complemented in 2007 with similar support for endangered varieties.

BEEK 5.7 has been allocated to the preservation of the agricultural environment and locality under the RDP for 2007–2013.

Environmentally sustainable production has a direct impact on people’s quality of life. The way we maintain our natural environment influences our health via food. Plant and animal breeding, fertilisers applied to plants, feedingstuffs, plant and animal diseases, compliance with requirements for keeping animals – all this is reflected in our food and via that in our health.

**Growth of organic farming**

The rise of environmental awareness has brought about the development of organic farming. Organic farming began in Estonia in 1989, when the Estonian Biodynamic Society was established, which developed its own standards in cooperation with foreign experts and started to inspect producers.

The Organic Farming Act was adopted in 1997; the current version entered into force on 1 January 2007.

The number of organic farms started to increase in 1999; by the end of 2006, the register of organic farming contained 1173 producers with more than 70 000 ha of agricultural land, including 80% of grasslands. Cereals were grown on 8520 ha, potatoes on 241 ha, industrial crops on 312 ha, and fruits and berries on 1145 ha in 2006.

Organic livestock farming has also developed in recent years. Cattle and sheep farming are the main types of organic livestock farming.

Consumers have a positive attitude toward organic products. The 2006 study “Interest in and Possibilities of Buying Estonian Small Farm Products” showed that consumers appreciate foods that contain little or no preservatives, colourings, and additives. The main problem lies in the small number of shops selling such products.
In order to survive and develop without support in the future, farmers need to become much more competitive. This requires not only investments, but also a new way of economic thinking.

The main objective of supporting Estonian agriculture and rural activities is to make our products competitive on the common European agricultural market. This in turn helps to maintain employment in the agriculture sector.

Increased competitiveness is also among the goals of the Estonian National Development Plan (NDP) for 2004–2006 for the introduction of EU Structural Funds. The same goal has been set for the forthcoming years – 5.8 billion EEK was allocated for this purpose under the RDP for 2007–2013.

The objective is to increase the share of products with a higher value added; this in turn requires greater attention to technological innovation of production. As a low value added is largely the problem of small producers, they constitute the main target group for the purposes of the new RDP.

Investments are needed in infrastructure and buildings that have a long pay-back period: animal housing, technological facilities, land improvement systems, forest roads, etc. Support is also extended to the purchase of agricultural equipment that will serve the producer longer than usual — the best possible equipment that will also attend to future needs.

Although the bulk of money will be used for investments in equipment and buildings, the farmers’ own willingness and ability to adapt to the rapidly developing economic environment plays an important role. This in turn depends greatly on the quality of the advisory system and the dissemination of competent information. Both help the farmer answer the question of which direction of development to choose.

To promote the introduction of new technologies, the DRP for 2007–2013 facilitates the agriculture and forestry sector’s cooperation with research institutions; certain funds are dedicated to improving dissemination and the quality of the advisory service. A coordinating centre was established in 2007 to coordinate the work of advisory centres.

The purpose of the advisory service is to attend to the needs of the target groups. As large-scale producers need more information on new technological and technical solutions, they can be advised by top specialists, researchers and teachers in their respective fields.

Another target group consists of smaller producers who need advice on animal and plant protection as well as general knowledge regarding economics and marketing. Their advisers need to have good knowledge and experience.

The third group needing advice is those who should decide whether agricultural production is profitable for them or whether they should engage in something else.
Competition is tough in the food industry, meaning that product development and the ability to market products in Estonia and elsewhere is becoming increasingly important.

The food industry accounts for a significant part, 17% of the total output of Estonia’s processing industry. Nearly a third of this is dairy products, followed by beverages and meat products.

A greater concentration took place in the food industry in 1998–2002. Three of the largest dairy industries have a combined market share of two-thirds, and five of the largest meat industries have an aggregate market share of four-fifths.

Before and immediately following EU accession, the food industry was mainly focused on bringing their operations into compliance with the EU food safety requirements and implementing the related technological renewal.

Currently the food industry is focused on product and market development. The Ministry of Agriculture’s initiated development plan “Estonian Food” covers a remarkable number of product development projects: revival of old and development of new recipes, as well as improving the marketing knowledge and skills of small producers.

As a result of product development, the assortment of bread – a basic food for Estonians – available in the shops has grown nearly eight times since 1995. The assortment of biscuits, wheat flour, and pasta products has also expanded.

Successful product development has also boosted the export of bread and bakery products. While only a few per cent of the bread and bakery industry output was exported in 2000–2004, then in 2006 the share of export was already 17%.

Support for market development was introduced as a national measure in 2005. Its aim is to extend the possibilities of marketing agricultural produce or products and contribute to the implementation of R&D accomplishments both in the production and processing of agricultural produce.

MEEK 9.8 and MEEK 14.4 was paid out as market development support in 2005 and 2006, respectively. MEEK 17 has been allocated for this purpose for the year 2007.

More than one-quarter of the food industry’s output is exported. The main export articles are fish and fishery products, which account for nearly one-quarter of the export volume of foodstuffs. The second largest group of export articles is dairy products, which account for one-fifth. The main export articles are cheese, milk powder, and non-concentrated milk products. Export of whey products is also growing.

Export of meat and meat products has increased in recent years. Although the Estonian meat industries are mainly oriented to the domestic market, quality sausage and smoked meat products and semi-finished meat products (meat in various marinades and sauces) are also sold in other countries.

Our main trading partners in the EU are Latvia, Lithuania, Germany, Finland, Netherlands, etc.; Russia is the main partner among third countries.
Appreciation for domestic food

According to a 2006 study, 75% of consumers prefer domestic food products. Middle-aged and elderly persons have a greater preference for Estonian products compared to persons younger than 30.

Children and young people are an important target group of the “Estonian Food” development plan. The healthiness of milk and dairy products, rye bread, and vegetables is explained and the basics of healthy nutrition are introduced to them via various projects.

Estonian consumers consider quality first when choosing their food, and are aware of the risks relating to food production and safety. According to studies conducted in 2005, 94% of respondents considered quality first and 92% considered freshness first in their choices of food. A little more than one-third of the respondents appreciated the healthiness of food.

Our food industry enterprises want and can offer domestic products to the consumers. In 2006, 100% of the drinking milk, 94% of curd, 82% of yoghurt and 55% of natural cheese assortments offered in the shops were domestic.

Food is part of culture, and Estonian food is thus part of the Estonian culture. Estonians consider it their duty to honour food. However, food is a major attraction for tourists in all countries, which is why offering our food in the local restaurants, pubs, and rural tourism enterprises has a significant economic effect. A tourist survey conducted in 2006 showed that 90% of the respondents liked Estonian food.

Plans are in place to establish a Baltic Sea food route in cooperation with other Baltic Sea countries to offer competition to the well-known Mediterranean cuisine.
Consumers want to be sure that the food they buy at a shop or restaurant is safe; this requires strict compliance with regulations by food preparers and an efficient supervision system ensured by the state.

Food safety is an important factor in ensuring people's health. Compared to other EU Member States, Estonia has a lower average life expectancy and higher mortality and morbidity rates. If these indicators deteriorate, the sustainable development of Estonia may be jeopardised.

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Efficient supervisory system

From 1st July 2007, the Veterinary and Food Board will begin supervision of the entire feedingstuffs and food handling chain. The EU approach is that in order to ensure food safety, all the links of the production chain need to be monitored as an unbroken whole, from the manufacture of feedingstuffs and primary production of food till delivery to consumers.

Concentration of all areas of supervision under the same institution economises the use of human and other resources. It will be possible to identify the higher and lower risk links of the food chain and to implement a uniform approach to food business operators.

The guidance of inspectors will be aligned to improve the quality of supervision, for example, a common approach to the implementation of legal requirements will be ensured by training, meetings, etc.

The institutions supporting the supervisory institutions by carrying out laboratory analyses also play an important role in food safety. The bulk of laboratory services are offered by state laboratories: the Veterinary and Food Laboratory and the Agricultural Research Centre. Laboratories of research institutions and private laboratories are involved in specific and small-scale studies in food and animal health (such as dioxin monitoring in Baltic Sea fish, etc.).

In addition to the Veterinary and Food Board, the Plant Production Inspectorate, which is in the area of administration of the Ministry of Agriculture, is involved in food safety activities.
Legal framework

The availability of safe and quality food and informed nutrition choices is only one side of the coin. Equally important is the availability of safe and quality feedingstuffs in ensuring the health of animals and the supply of safe food for humans.

To complete these tasks and ensure a safer environment, ensuring an efficient legal environment is one of the most extensive activities in the field of food safety, plant health, and animal health.

The main act governing this field is the Food Act, while more specific mechanisms of regulating the various links of the food chain are provided by the Plant Protection Act, Animal Protection Act, Feedingstuffs Act, Infectious Animal Disease Control Act, Veterinary Supervision over Trade in, Import and Export of Animals and Animal Products Act, etc.

Epidemic-free Estonia

Estonia’s sustainable development can also be jeopardised by crises such as epidemics and outbreaks of infectious animal diseases and harmful organisms, responses to which requires readiness for ensuring efficient food safety (by the institutions responsible for food inspection, animal and plant health, etc.).

Estonia has been successful in the field of plant and animal health and food safety. There have been no extremely dangerous infectious animal diseases in Estonia since 1994, when one case of classical swine fever was diagnosed.

Under the National Infectious Animal Disease Control Programme, the Veterinary and Food Board also monitors for fowl plague among both wild birds and poultry. Fowl plague has not been diagnosed in Estonia so far.

According to annual animal disease control programmes, monitoring is carried out in Estonian herds for nearly 40 diseases which threaten domestic and farm animals. These diseases include rabies, BSE or mad cow disease, bovine leucosis, brucellosis, tuberculosis, and other infectious animal diseases, many of which can pass from animals to humans by immediate contact or when eating food originating from infected animals.

Estonia has made great progress in many areas. For example, while 800 cases of rabies were diagnosed in 2003, then after vaccination began in 2005, only 114 cases of rabies were diagnosed, and during the first three months of 2007, no cases of rabies have been registered at all.

Supervision of compliance with animal welfare requirements involves checks of the general animal-keeping conditions on farms, their ante-mortem housing and slaughter in slaughterhouses, and compliance with the requirements for the public display and transport of animals.

The well-organised supervision system and the supporting network of laboratories give consumers the confidence that the food they consume is safe and of high quality.
There are 60,000 forest owners in Estonia who own a little less than one half of the country’s forests. These forests need care and their owners need guidance.

Estonia is one of the most forested countries in the European Union. Forests account for 49% of our territory; nearly 40% of the woodlands are in private ownership.

Each of the 70,000 private forest owners has an average of 12 ha of forests; 80% of forest holdings are smaller than 5 ha and 40% are smaller than 2 ha. The largest private forests are located in the Viljandi, Pärnu, and Saare counties, and the smallest private forests are located in Hiiu County.

While inventories of state forests are conducted after every ten years, inventories of private forests are conducted only when the forests are entered in the land cadastre and when the state has sufficient funds to carry out such inventories. Inventories are necessary to give the state an overview of the national forest resources, and also for private forest owners to be able to manage their forests, for example, to cut trees.

Since 2006, forest owners are able to apply for support from domestic as well as EU funds (RDP 2004–2006, measures 3.7 of the NDP). Support is available for forest plantation, maintenance and supplementation, restoring forests damaged by natural disasters and fire, maintaining young growth, purchasing forestry machines and plant protection products, establishing forest associations and implementing development projects. It is also important to advise and train private forest owners.

Support to private forest owners will continue under the RDP for 2007–2013 in order to improve the economic value of forests and forestry infrastructure, as well as to establish protection forests; support is also paid for woodlands located in the NATURA 2000 areas.
Agriculture is no longer the only activity for rural inhabitants; they also run handicraft and amusement farms, develop rural tourism, or cultivate mushrooms as a business.

The number of persons involved in agriculture and their relative share in the population has decreased throughout Europe year by year. The same trend prevails in Estonia.

In order to preserve the rural population, the relative share of alternative activities has substantially increased in the EU Common Agricultural Policy. These activities offer farmers new opportunities of earning an income for themselves and their families, or additional income in addition to income from agricultural production.

One-third are agricultural producers

Out of the 18,000 rural undertakings, one-third are engaged in agricultural production. The rest are active in wholesale and retail trade, repairs of motor vehicles and household appliances, processing industry, real estate, transport and warehousing, fishing, building, hospitality, etc.

Considering that it is harder for small producers to be successful on the agricultural market, it is via diversification and/or expansion of either agricultural or other production that their competitiveness can be enhanced.

In the former case, support is granted for processing a farm’s own produce, thus increasing the value added. In the latter case, producers engage in a completely different activity such as organic farming or rural tourism.

Diversification of rural activities has been a target since 2004 when Estonia acceded to the EU. The measure dedicated to diversification of rural business under the NDP for 2004–2006 provided for creating additional means of subsistence within agriculture (horticulture, apiculture, organic farming) and in addition to agriculture (handicraft, rural tourism, catering in rural areas, etc.).
Applications were submitted and payments were made under the NDP for the reconstruction of a potato storage facility, construction of an extension to a hotel, purchasing a drier, acquiring a wood chipper, and many other purposes.

Diversification of rural business also has an important place in the RDP for 2007–2013; the relevant budget is three billion kroons.

**Holiday in Estonia!**

Estonia’s scenic countryside attracts more and more locals as well as foreign tourists to spend their holidays at tourist farms and other rural accommodation facilities.

A little more than one-third of rural tourists are foreigners, usually from Finland, Sweden, Russia, the UK, Germany, and a little less than two-thirds are Estonians. Holiday-makers can choose between bed-and-breakfasts, holiday homes, guest houses, and holiday villages and camps, most of which are located on the islands and in South Estonia. New recreational facilities have also been established in other areas in recent years. Estonian rural tourism businesses offer their guests plenty of entertainment: walks on interesting hiking trails, horseback riding, tours of moors, mushroom and berry picking and making preserves, ATV and jet-ski safaris, kayak, canoe, and sea canoe trips, bicycle tours, rope descending, sailplane rides, skiing, survival courses, and hiking in the wild.

Special holiday packages are offered for children and families. The places that offer such packages have special family rooms and children’s menus. Children’s playgrounds are equipped with sandboxes and swings, and indoor playgrounds are available for rainy days.

There are facilities for both extreme sports enthusiasts and those who wish to spend a quiet holiday.

Most rural tourism businesses offer traditional Estonian food. Surveys show that holiday-makers appreciate the low prices, taste and freshness, and also the simplicity of Estonian food.
Rural development depends not only on business activities, but also on the strength and mutual cooperation of the local community.

It is difficult to tell from the distance of the capital what life in a village or small town should be like; only the local people know that.

A survey conducted in 2006 showed that rural people consider the improvement of the physical and social environment the most important issue, followed by improvement of the area’s competitiveness in terms of production and services, and a better utilisation of natural and cultural resources, and appreciation for local products.

The respondents believed that the focus should be on the young generation, with a particular view to creating jobs for them.

Solving all the problems, however, requires better cooperation between the public, private, and third sectors, so as to develop a regional strategy and implement it. The public and third sectors are more willing to cooperate, although the private sector needs to be actively involved when it comes to the creation of jobs.

The LEADER approach has been applied in Estonia via measure 3.6 of the NDP (development of local initiative – a LEADER type measure). The general objective of support is to contribute to local initiatives, to facilitate cooperation between various parties, such as the local government and non-profit associations, so as to identify the needs and opportunities of the particular area. Another objective is to obtain experience and knowledge for implementing LEADER-type activities of the EU.

This trend is continued in the new RDP – the activities of local initiative groups are supported with EEK 1.4 billion over the course of seven years. The funds are dedicated to a more sustainable use of local natural and cultural heritage, development of the community’s joint activities, appreciation for the specificity and traditions of the locality, and implementation of new ideas that strengthen the local community.
Estonia is an interesting fishery country as it represents various types of fisheries: deep sea and coastal fishing, inland water fishing and fish farming.

Fishing is a traditional activity in Estonia and fish is an important part of our diet. After Estonia’s accession to the EU, our fisheries are governed by the Common Fisheries Policy that covers four closely interrelated areas: use and protection of fish resources, structural and market organisation policy, and foreign fisheries policy. The latter includes fisheries agreements with third countries and negotiations in international organisations.

Estonian fishermen catch fish mostly in the Baltic Sea (mainly in the Pärnu Bay, Väinameri, and the Gulf of Finland), while Estonia has a sizable deep sea fishing fleet (the traditional fishing area is the Atlantic Ocean), and inland water fishing is also represented (mainly in Lake Peipus, but also Lake Lämmijärv, Pskov Lake, and Lake Võrtsjärv).

Fish farming has developed well in Estonia owing to the natural conditions, especially the clean groundwater. Fish farming plays a crucial role in fisheries development as it helps compensate for the diminishing fish resources.

### Fishing in the Baltic Sea in 2000–2006 (t)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total fish</strong></td>
<td>85 176</td>
<td>59 378</td>
<td>64 902</td>
<td>79 761</td>
<td>73 039</td>
</tr>
<tr>
<td>Brisling</td>
<td>41 394</td>
<td>29 366</td>
<td>34 113</td>
<td>55 285</td>
<td>46 689</td>
</tr>
<tr>
<td>Baltic herring</td>
<td>41 735</td>
<td>27 359</td>
<td>27 380</td>
<td>22 098</td>
<td>23 192</td>
</tr>
<tr>
<td>Perch</td>
<td>280</td>
<td>824</td>
<td>666</td>
<td>689</td>
<td>1117</td>
</tr>
<tr>
<td>Codfish</td>
<td>514</td>
<td>560</td>
<td>1279</td>
<td>589</td>
<td>702</td>
</tr>
<tr>
<td>Flounder</td>
<td>420</td>
<td>442</td>
<td>384</td>
<td>403</td>
<td>352</td>
</tr>
</tbody>
</table>
The fisheries sector should maintain its diversity in the future. This is an objective of the Estonian fisheries strategy and its implementation plan. Fishermen can apply for greater support than before: they have been allocated EEK 1.65 billion for the years 2007–2013, making the annual average amount of support nearly EEK 200 million.

The key issue is to make as efficient as possible use of that money so as to benefit the sector to the maximum possible extent. The specific goals of the strategy are:

- increasing the income of fishermen (central goal);
- balancing fishing possibilities and capacities;
- adding maximum value to the fish in Estonia so that fishermen get as high as high an income as possible for their catch;
- developing fish farming as an unused potential.

Trawlers continue to be discarded as the fishing capacity is larger than the available fish resources. Another goal is to use environment-friendly and selective fishing gear so as not to catch young fish.

The relative importance of specific communities in the development of coastal areas is increasing. This shows the way coastal, as well as inland water fishermen are able to jointly organise the entire chain from catching to marketing.

Although fishermen do not easily give up their jobs, some of them have already been engaged in other areas outside fishing. This process will probably continue in the forthcoming years. Fishing tourism is a promising activity, especially against the background of the general development of rural tourism.

In 2013, we hope to see viable fisheries areas that do not depend so much on the fishing industry or primary buyers-in, but can rely on their own intrinsic strength.

Export of fish and fishery products in 2006

<table>
<thead>
<tr>
<th>Fishery products</th>
<th>Export (t)</th>
<th>(t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live fish</td>
<td>Netherlands</td>
<td>28</td>
</tr>
<tr>
<td>Chilled fresh fish</td>
<td>Sweden, Russia</td>
<td>1034, 760</td>
</tr>
<tr>
<td>Frozen fish</td>
<td>Russia, Ukraine</td>
<td>32 319, 17 936</td>
</tr>
<tr>
<td>Fish fillet</td>
<td>Lithuania, Switzerland</td>
<td>1000, 709</td>
</tr>
<tr>
<td>Dried, salted, smoked fish</td>
<td>Russia, Romania</td>
<td>1069, 862</td>
</tr>
<tr>
<td>Crustaceans</td>
<td>Ukraine, Russia</td>
<td>4410, 2032</td>
</tr>
<tr>
<td>Molluscs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canned fish</td>
<td>Ukraine, Kazakhstan, Russia</td>
<td>19 918, 8403, 5976</td>
</tr>
<tr>
<td>Canned crustaceans</td>
<td>Sweden</td>
<td>167</td>
</tr>
</tbody>
</table>
COOPERATION IS THE KEY TO SUCCESS IN RESEARCH

Today’s research means strong research centres specialising in particular areas.

Agricultural research is conducted at the Estonian University of Life Sciences, Jõgeva Plant Breeding Institute, Estonian Research Institute of Agriculture, and the Agricultural Research Centre.

The Estonian University of Life Sciences is our only institution of higher education that provides higher education in agriculture. Since state of the art research is a prerequisite to higher education today, it is crucial for the development of our agricultural research to strengthen the research basis of the Estonian University of Life Sciences.

The remaining three research institutions are within the area of administration of the Ministry of Agriculture. Since there are many fields of research today, certain specialisation is required to avoid fragmentation.

The Estonian Agricultural Research Development Plan for 2007–2013 provides for the maintenance and development of the following areas of research in the research institutions acting in the area of administration of the Ministry of Agriculture: plant breeding; development of environment-friendly and efficient plant production technologies; rural economy and its sustainable development; protection of the agricultural environment and related studies; food safety, and natural diversification.

In order to improve the competitiveness of agriculture, it is vital to integrate Estonian agricultural research into the international research system and to rapidly implement research results into practice.
The development of agricultural education follows the general trends of agriculture and rural affairs – the relative share of agricultural education is decreasing and that of other rural areas of specialisation is increasing.

Estonia has a total of nine vocational educational institutions related to the rural economy. Three of them train agricultural workers with broad specialisations: the Olustvere School of Service and Rural Economics specialises in plant production, the Türi School of Technology and Rural Economy specialises in livestock farming, and the Räpina School of Horticulture specialises in horticulture.

The teachers at all of these schools conduct in-service training and act as advisers. The trend in agricultural education is thus the creation and development of multifunctional centres.

The Olustvere school will develop into a centre of competence for the food industry, where producers, especially small producers, receive advice on the cultivation of agricultural produce, and the production and marketing of foodstuffs and food.

The Luua School of Forestry specialises in training mid-level forestry specialists; forest management is also taught at the Pärnu County Vocational Education Centre. The Kuressaare Occupational School specialises in farm economics and rural enterprise, the Põltsamaa Occupational School specialises in farm economics and agriculture, the Suuremõisa Technical School trains landscape gardeners and fishermen/deck officers, and the Vana-Antsia Vocational Secondary School has farm and home economics, and agriculture on its curriculum.

All the schools also provide in-service training for adults and several of them have created a relevant department.

An important aspect in the development of the schools is strengthening the training facilities so as to provide good field training. The Ministry of Agriculture supports the organisation of field training; preparations are made for assessing the field training facilities and training the supervisors. The Rural Development Foundation awards a scholarship to students in agricultural areas of specialisation.
Museums have long ago ceased to be the collection places of old items; they actively explain history and serve as social centres, especially in the countryside.

Three museums operate under the area of administration of the Ministry of Agriculture: the Estonian Agricultural Museum in Ülenurme, Tartumaa County; the C.R. Jakobson Farm Museum in Kurgja, Pärnumaa County, and the Dairy Museum in Imavere, Järvamaa County.

The purpose of agricultural museums is to help to get to know and remember the roots of the nation and to uphold the reputation of agriculture and rural life. Great emphasis is placed on displaying the collections to the public, to introducing rural culture and way of life, and to promoting rural areas of specialisation.

The museums involve all target groups, but their work with the youth is especially important – besides exhibits, the museums feature various workshops where children and young people can try out various rural activities with their own hands. For example, the Estonian Agricultural Museum has a rye and rye bread programme. Within the framework of the “Estonian Food” development plan, the Ministry of Agriculture and the Estonian Chamber of Agriculture and Commerce cooperate with the Dairy Museum to promote dairy products. The C.R. Jakobson Farm Museum conducts interesting events introducing various farm operations.
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