AGRICULTURE AND THE DEVELOPMENT OF RURAL LIFE

Overview 2004/2005

Tallinn 2005
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Dear yearbook reader,

The past year was an important and significant one for Estonia in many aspects. Accession to the European Union had a wide-ranging impact on the sector of agriculture in particular. We succeeded in harmonising Estonian legal acts with those of the European Union (EU) and in implementing the EU policies on agriculture and rural life as well as market regulation measures. The Agricultural Registers and Information Board (ARIB) disbursed a total of 1.8 billion kroons of assistance for agriculture, diversification of economic activities in rural areas, modernisation of the food industry and fisheries. 1.3 billion of this came from the EU budget. Agricultural producers received their funds on time, despite fearing the opposite and we proved being able administrators.

Structural aid was adopted without delay and optimal use was made of SAPARD assistance. The past year can also be marked as the year when the SAPARD program was concluded. We started distributing SAPARD investment support four years ago, and all in all, 1 billion kroons was disbursed to Estonian business community.

Since the accession to the EU, many Estonian farmers have received new modern tractors or new dairy plant equipment through the Estonian National Development Plan investment support. The village development measure has promoted and will continue to promote the development of our villages in the future as well. New community centres, cultural buildings and athletic facilities are being built in our villages – so that life in the countryside could be richer.

Largely thanks to EU support, Estonia now has an animal waste handling plant in Väike-Maarja, which is in fact the only one of its kind in the Baltic States. Construction of this plant was one of the measures required by the EU to prevent spreading animal disease and protect humans from
diseases spread by animals. The implementation of animal disease prevention measures by incineration of hazardous animal waste in this special facility enables Estonian farmers and processors to freely trade their products on the EU common market. The construction of the animal waste handling plant in Väike-Maarja was one of the primary prerequisites and conditions for free movement of foodstuffs of animal origin.

Even though many of our goals are now bound with EU standards, it remains extremely important to preserve the characteristic features of our people. One of the areas of activity in the Ministry of Agriculture is rural life, agriculture and food industry part of the National Budget Strategy for 2005-2008, one of the stated aims of which is to ensure the sustainability of the Estonian agriculture and food sector. Measures include raising the level of competitiveness as well as ensuring the satisfaction of domestic and foreign consumers with Estonian products. The food industry is one of the most important sectors of the processing industry. The Ministry of Agriculture has initiated the project Eesti Toit (Estonian Food) to increase the level of competitiveness in the field and to support the development of Estonian food.

The objective is to increase the amount of competitiveness of Estonian products and gain a large market share for products through added value. Secondly, we are trying to increase the level of knowledge and satisfaction of foreign consumers regarding local food products.

From the perspective of product development, Estonia is according to the major indicators one of the most successful of the former socialist countries. There are many different products available and the assortment is constantly expanding. In terms of products such as bread and milk, we can already be compared to countries such as England and France, where bread aisles and dairy cases are no larger.

ESTER TUIKSOO
Minister of Agriculture
1. **Overview of the share of the food sector**  
*Urve Valdmaa, Ants Laansalu*

The added value for agricultural products in 2004 was 3.4 billion kroons in current prices, increasing 17% compared to the previous year. The share of agriculture in the gross domestic product (GDP) was 2.7% - showing a decrease of 20% compared to the year 2000. The share of the food industry in the gross domestic product was approximately 4%, and the share of food exports in the food industry was 4.6% of total export. An average of 3% of the employed work in the food industry sector, making up 14% of all employees in the processing industry.

**Share of agriculture in the GDP and total employment, 2000–2003**

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value added by agriculture and hunting in current prices (millions kroons)</td>
<td>2,660.8</td>
<td>2,953.7</td>
<td>2,946.8</td>
<td>2,930.0</td>
<td>3,421.8</td>
</tr>
<tr>
<td>Share of GDP (%)</td>
<td>3.2</td>
<td>3.1</td>
<td>2.8</td>
<td>2.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Value added by agriculture and hunting in 2000 fixed prices (millions of kroons)</td>
<td>2,660.8</td>
<td>2,642.8</td>
<td>2,535.8</td>
<td>2,627.4</td>
<td>2,722.0</td>
</tr>
<tr>
<td>Share in GDP (%)</td>
<td>3.2</td>
<td>3.0</td>
<td>2.7</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Engaged in agriculture and hunting (thousands)</td>
<td>28.9</td>
<td>29.0</td>
<td>30.1</td>
<td>25.9</td>
<td>...*</td>
</tr>
<tr>
<td>Total employment (%)</td>
<td>5.0</td>
<td>5.0</td>
<td>5.1</td>
<td>4.4</td>
<td>...*</td>
</tr>
</tbody>
</table>

* This data not published until July 2005  
* Source: Statistical Office of Estonia (ESA)

According to 2003 structural study data, there were around 36,800 farms and 795,600 ha of agricultural territory. 70% of farms had less than 10 ha of agricultural land and owned 12% of it. Most (66%) agricultural land belonged to farms with over 50 ha of agricultural land. There was an average of 244 ha of agricultural land in the possession of such farms.
Distribution of farms and the agricultural land in their use by size (on the basis of a 2003 structural study)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Less than 5 ha</th>
<th>5-10 ha</th>
<th>10-20 ha</th>
<th>20-30 ha</th>
<th>30-50 ha</th>
<th>50-100 ha</th>
<th>More than 100 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>36,792</td>
<td>18,671</td>
<td>7,264</td>
<td>5,347</td>
<td>1,889</td>
<td>1,482</td>
<td>1,051</td>
<td>1,090</td>
</tr>
<tr>
<td>Hectares of agricultural</td>
<td>795,640</td>
<td>45,929</td>
<td>50,546</td>
<td>74,004</td>
<td>45,493</td>
<td>56,422</td>
<td>71,704</td>
<td>451,542</td>
</tr>
</tbody>
</table>

Source: Statistical Office of Estonia (ESA)

The value of agricultural production produced in 2003 together with support made up 7.3 billion kroons according to preliminary data. Plant production made up 37%, animal raising 52% and other production 11% of the value of the agricultural production. The greatest production value is created in milk production.

Structure of agricultural production in 2004

The total food industry production made up 12 billion kroons in 2004, including dairy production in the amount of 32%, beverage production of 18% and meat production of 17%.
Agriculture has an important role in procuring raw material for the food industry, whose production made up nearly one-fifth of the total production of the processing industry in 2004.

Public opinion surveys show that society supports conservationist agriculture.

According to a study carried out by M. Taru and R. Toomla in April-May 2004, 80% of city dwellers feel that all of society benefits from the amounts spent on supporting rural life. Conservationist agriculture (environmentally friendly production and organic farming, which ensure that future generations will have an environmental legacy and natural resources to use) was practiced on 63% of agricultural land in 2004.

The gross monthly wage in agriculture and hunting was one of the lowest compared to other economic sectors in 2004–5253 kroons a month. The gross wage made up 66% of the national average in the first quarter, 68% in the second quarter, 80% in the third quarter and 65% in the fourth quarter.

The average gross wage in forestry in 2004 was 9,146 kroons per month, 5,327 in the fisheries, 7,328 in dairy and 6,464 kroons per month in meat industry, respectively.
Average gross monthly wage, 2000–2004

Compared to 2003, the gross monthly wage was estimated to grow more than 10% in 2004.
2. Production of agricultural products, fishing, processing, markets and trade

2.1. Dairy market, production, processing

Dairy production
Matti Piirsalu

According to preliminary data, 639,600 tons of milk was produced in Estonia in 2004, which is 28,200 tons or 5% more than in 2003. The greatest amount – 114,000 tons – was produced in Järva county, followed by Lääne-Viru county with 73,000 and Pärnu county with 66,000 tons. Dairy production made up an estimated 29% of total agricultural production in 2004.

As of 31 December, there were 114,900 cows, which is 1,900 animals or a few per cent less than in 2003. The number of cows decreased mainly due to small producers dropping out of milk production; large producers on the other hand increased fulfilment of milk quotas and numbers of cows in order to increase quotas further. Successful milk producers bought valuable Holstein breeding heifers from Holland and Germany to supplement their herds.

Number of cows, total milk production and milk per cow 1999–2004
In comparison to 2003, the commercial value of milk increased. While in 2003, 79% of all milk produced was sold to the dairy industry, the amount for 2004 was 84%. Of the milk purchased, 96% was elite or premium grade and only 3% was grade I. Milk of such high quality had not been sold to the Estonian dairy industry to this point. Fat content of milk was an average of 4.1%.

In 2004, 5,484 kg of milk was milked per cow, or 308 kg (6%) more than in 2003. In Järva and Põlva county the milk production per cow surpassed the 6,000 kg mark, being 6202 kg and 6,153 kg, respectively. At the present time, over 90% of the Estonian dairy herd is being monitored for capacity. In herds under capacity monitoring, the average milk produced per cow exceeded the 6,000 kg level for the first time. Another record in its own right was set by Põlva Agro OÜ, where the amount of milk produced per thousand head of cattle reached 10,177 kg. Milk producers have successfully expanded free-range cattle farming in refrigerated barns.

### Milk produced per cow and number of cows (thousands), 1993–2004

![Graph showing milk production per cow and number of cows, 1993–2004](image)

Source: *Statistical Office of Estonia (ESA)*

From 1 April 2003, a pre-accession milk production quota system was applied. By the end of the first quota year, by 31 March 2004, 491,749 tons or 76.6% of the quota set for producers for that whole period had been fulfilled, of which 12,148 tons (or 54.6%) was the direct marketing quota and 479,601 tons (or 77.4%) was the supply quota. From 1 May 2004, the EU quota system and the quota sizes it established came into effect in Estonia—537,118 tons of supply quota and 87,365 tons of direct marketing quota. In the period between the end of the first quota year and accession, a correc-
tion of quota amounts set for producers took place based on their actual compliance. As of 31 December 2004, 395,996 tons of the supply quota for 2004/2005 and 8,953 tons of the direct marketing quota had been fulfilled.

**Dairy industry**

_Eha Niinepuu_

The share of the dairy industry in 2004 made up 32% of the food industry. In 2004, a total of 536,000 tons of milk was bought from dairy farms—51,000 tons more than the year before. Even though milk production has decreased from 1.277 million tons in 1989 to 639,600 tons in 2004, the production quantity still exceeds domestic needs.

**Share of the dairy industry**

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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Share in the processing industry, %</td>
<td>*</td>
<td>7,9</td>
<td>8,8</td>
<td>8,0</td>
<td>5,6</td>
<td>7,1</td>
<td>5,6</td>
<td>5,1</td>
<td>6,2</td>
</tr>
<tr>
<td>Share in the food industry, %</td>
<td>34</td>
<td>21</td>
<td>26</td>
<td>28</td>
<td>28</td>
<td>30</td>
<td>26</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Share in export of foodstuffs, %</td>
<td>*</td>
<td>*</td>
<td>33</td>
<td>32</td>
<td>28</td>
<td>25</td>
<td>22</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Number of dairy processing entities</td>
<td>9</td>
<td>12</td>
<td>28</td>
<td>41</td>
<td>44</td>
<td>38</td>
<td>38</td>
<td>41</td>
<td>42</td>
</tr>
</tbody>
</table>

*data not available

_Source: ESA, Tax and Customs Board; Ministry of Agriculture calculations_

According to the Veterinary and Food Board (VFB) as of 14.03.2005 there were 42 dairy processing entities registered in Estonia. The average number of employees in the dairy industry has decreased from the second half of 1998. In 2004, there were an average of 2,670 employees in the industry, which was 15% of all employees in the food and beverage industry. Compared to 2003, the average number of employees has increased by 9%.

Labour costs have not changed much. The average wages in 2004 were 7,328 kroons a month, 12% more than the average monthly wages in the processing industry and 14% more than the average in the food industry.
Average number of employees, labour costs and average gross wages per month in the dairy industry (kroons)

Source: Statistical Office of Estonia (ESA)

In 2004, dairy industries owned by four proprietors bought nearly 76% of all raw milk.

The shares of enterprises AS Kalev Paide, AS Võru Juust and industries not belonging to Estonian Dairy Association have increased significantly on the raw milk market (9%, 4% and 5% respectively). Enterprises losing the most market share were OÜ Põlva Piim (7%) and TÜ E-Piim (4%).

Utilization of raw milk 1993–2004 (%)

Source: Statistical Office of Estonia (ESA)
Buying-in of raw milk in 2004

In 2002-2003, milk production decreased, competition on the raw milk market became stiffer and thus the average buying-in price for milk rose in 2004 by 1.04 kroons/kg or 37%. The price began to grow from October 2003 and reached 4 kroons/kg by December 2004, according to ESA data. Clearance sale prices also grew, which is why dairy products in the food basket of the Institute of Economic Research (EKI) became 15% more expensive from December 2003 to December 2004.

Buying-in price of raw milk, 1994–2004 (kroons/kg)

Source: “Loomakasvatus” (Animal production)
Thanks to consistent and effective inspections, the quality of raw milk has improved markedly over the years. Currently 96% of the raw milk produced in Estonia conforms to EU raw milk requirements. The fat content is an average of 4.1% and protein content 3.3%.

**Quality of raw milk 1999–2004**  
(percentage of high grade of bought-in raw milk)

![Quality of raw milk 1999–2004](image)

*Source: Statistical Office of Estonia (ESA)*

**Production of dairy products 1993–2004 (thousand tons)**

![Production of dairy products 1993–2004](image)

*Source: Statistical Office of Estonia (ESA)*
In 2004, 323,900 tons of all categories of dairy products were produced, including 12,870 tons of cheese, 22,480 tons of skimmed-milk powder, 8,930 tons of ice cream and 8,100 tons of whole milk powder and mixtures. In 2001–2002, production of whole milk powder and mixtures increased due to favourable export price conditions, and production of skimmed-milk powder decreased due to the same reasons. In 2003, the opposite took place: milk powder and mixtures decreased and skimmed-milk production increased. In 2004, cheese production decreased. At the same time, production of butter, ice cream and skimmed- and whole milk powder increased.

Studies conducted by EKI and commissioned by the Ministry of Agriculture reveal that in general, domestic dairy products are cheaper than imports and that buyers prefer Estonian products. Consumers are also satisfied with quality: domestic products receive the highest ratings from consumers.

According to EKI, the share of domestic cheese in turnover is 95%, the share of processed cheese 53%, yoghurt 92% and ice-cream 81%.

In the last few years, domestic market volumes have been relatively stable, though, and dairy product consumption is showing signs of rising. It must be borne in mind that Estonian consumers are still very price-conscious and a steep rise as a rule results in consumption decreasing.

### Average prices for domestic products and imports (kroons/kg)

<table>
<thead>
<tr>
<th>Product name</th>
<th>May.02</th>
<th>Nov.02</th>
<th>May.03</th>
<th>Nov.03</th>
<th>May.04</th>
<th>Nov.04</th>
<th>May.02</th>
<th>Nov.02</th>
<th>May.03</th>
<th>Nov.03</th>
<th>May.04</th>
<th>Nov.04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk (kroons/litre)</td>
<td>7.13</td>
<td>6.54</td>
<td>6.39</td>
<td>6.40</td>
<td>7.43</td>
<td>7.51</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Natural cheese</td>
<td>77.85</td>
<td>76.34</td>
<td>75.58</td>
<td>74.94</td>
<td>76.85</td>
<td>79.41</td>
<td>122.84</td>
<td>103.18</td>
<td>107.84</td>
<td>102.01</td>
<td>99.08</td>
<td>117.14</td>
</tr>
<tr>
<td>Processed cheeses</td>
<td>78.01</td>
<td>74.85</td>
<td>74.83</td>
<td>73.38</td>
<td>73.02</td>
<td>74.27</td>
<td>108.84</td>
<td>75.27</td>
<td>108.74</td>
<td>110.06</td>
<td>106.60</td>
<td>101.59</td>
</tr>
<tr>
<td>Yoghurt</td>
<td>27.75</td>
<td>27.03</td>
<td>27.03</td>
<td>27.45</td>
<td>27.85</td>
<td>28.13</td>
<td>33.84</td>
<td>34.11</td>
<td>34.25</td>
<td>32.06</td>
<td>32.66</td>
<td>33.73</td>
</tr>
<tr>
<td>Butter</td>
<td>44.6</td>
<td>43.61</td>
<td>43.67</td>
<td>45.46</td>
<td>53.23</td>
<td>59.60</td>
<td>59.91</td>
<td>51.74</td>
<td>42.70</td>
<td>66.80</td>
<td>71.55</td>
<td>77.03</td>
</tr>
<tr>
<td>Curd</td>
<td>38.58</td>
<td>34.64</td>
<td>34.84</td>
<td>34.67</td>
<td>36.63</td>
<td>37.61</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ice cream</td>
<td>29.89</td>
<td>30.34</td>
<td>28.47</td>
<td>27.02</td>
<td>26.89</td>
<td>27.60</td>
<td>28.34</td>
<td>33.02</td>
<td>27.71</td>
<td>26.05</td>
<td>25.99</td>
<td>27.16</td>
</tr>
</tbody>
</table>

*Source: EKI*

Even more than by consumer purchasing power, the dairy sector is influenced by developments on the world market and access to foreign markets.

After accession to the European Union, the value of production and export of milk products increased.
According to preliminary data, the export volumes for dairy products have grown nearly 14% with respect to the previous year and import volumes have decreased nearly 27%. Dairy products made up 22% of the export volumes for agricultural products and 5.3% of the import volume.

The dairy product balance as a whole has been positive for each year. Butter (26%) was the dairy product sold the most in 2004 (26%), followed by skimmed milk powder (25%), cheeses (19%), whole milk powder (17%). The greatest amount of production was sold to the Netherlands (36%), Germany (18%) and France (10%).
Export volumes by country 2004, %

Of dairy products, cheese (29%) claims the top spot in imports, followed by butter (18%), ice cream (8.1%), skimmed milk powder (4.2%). The most dairy products were bought from Lithuania (27%), the Czech Republic (25%) and Latvia (9%).

Dairy product import volumes by country in 2004

According to forecasts by FAPRI and OECD, growth in dairy product demand is expected in the near future, since consumer preferences are changing. Increased demand is expected in developing countries due to
increase of income. Demand for cheese and dairy products with high added value should increase on the world market. The production volumes for butter and skimmed-milk powder are falling in the EU as a whole. These may increase somewhat in new member states as a result of rising prices.

2.2. Meat production, processing, market

Meat production
Matti Piirsalu

In 2004, a total of 67,700 tons of meat was produced, 200 tons more than last year. Pork production decreased by 3%, lamb and goat meat was down by 25%. Production of beef and poultry each grew 5%.

Pork makes up over half of meat production; beef production has decreased. Poultry production has grown dynamically. Very little lamb and goat meat is produced—under 1% of all meat.

Meat production from 2000–2004
Beef production

In 2004, 13,800 tons of beef was produced. Production grew compared to 2003 by 700 tons or 5%. The increase took place mainly in terms of beef cattle and crossbreeds. The share of beef in total meat production in 2004 was 20%.

As of 31 December 2004, there were 249,100 cattle, which was 8,100 animals or 3% fewer than at the end of 2003. There are over 11,000 cattle in the ARIB register. The most common breeds were Hereford, Limousine and Angus.

In 2003, an average of 18,436 kroons/t was paid for beef and 2% more in 2004. The purchase price for bulls was under the intervention purchase threshold until the first week of July. Intervention purchase was not opened because there was no actual surplus of unmarketable beef; in other words the reason for the low price was not excessive amounts of beef.

In the second half of the year, the price of beef started rising, and reached a nearly 30% higher level by the end of the year than before EU accession. Retail prices changed little in 2004.

Pork production

In 2004, 38,500 tons of pork was produced. Meat industries bought a total of 328,700 pigs in 2004, which was 4,300 more than in 2003. The average body mass of pork carcasses continued to be between 75-78 kg. The share of pork in the entire meat production continued to be large last year and easily in first place among meats, reaching 57%.

As of 31 December 2004, there were 353,700 pigs in Estonia, which is 9,100 animals more than the same time last year. After 1 May 2004, the EU pork market system took effect in Estonia, which had a positive effect on the development of the pork sector. Pork and mechanically deboned meat was no longer imported at subsidized prices. This forced meat industries to use more local meat.

In 2004, larger meat companies started using a system for measuring lean meat that conforms to EU requirements.

Production of lamb and goat meat

300 tons of lamb and goat meat was produced, a decrease of one-quarter compared to the previous year. The share of lamb and goat meat in all meat production made up only 1% in 2004. According to preliminary data from the Statistical Office, Estonia had 41,600 sheep and 2,900 goats on 31 December 2004.
The purchase price of lamb rose during the summer and fall, when a kilogram of quality lamb cost 45 kroons. Many sheep farmers had difficulties selling sheep to industries and lamb farmers were forced to leave a number of animals in pasture until early 2005.

An emphasis is placed on raising sheep for meat. In developing the Estonian blackhead sheep, the meat properties are being improved with Oxford Down and Suffolk breeds and the meat properties of Estonian whitehead sheep with Texel, Dorset and Dala breeds.

Extremely few lambs and goats and little lamb and goat meat is exported from Estonia. Import in this field is nearly as modest. In the first nine months of 2004, 23.5 tons of lamb was imported into Estonia, of which 16.2 tons was from Belgium and 7.2 tons from Finland.

**Poultry production**

In 2003, 14,400 tons of poultry was produced in Estonia, while in 2004 production increased 700 tons or 5% and total production was 15,100 tons. The share of poultry in total meat production was 22% in 2004. Increased production was made possible by the growth of export to Latvia and the domestic populace’s continually increasing consumption of poultry. The sale of boneless meat to Sweden also began. An important part of production growth is the new crossbreed Ross 388, which has better productivity than previous breeds.

Due to stiff competition and a certain amount of influence from EU accession, poultry product prices have fallen slightly on our market, and are the lowest on the European market. Before EU accession, Tallegg was in a monopoly on our market, but now it acts in free competition with other firms selling poultry products.
The meat industry
Siret Kade

In 2004 there were 16 meat industries with larger capacities and 123 with smaller capacities. Prior to EU accession, rapid consolidation of the meat industry took place.

Share of the meat industry in the food industry

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</tr>
</thead>
<tbody>
<tr>
<td>Share in the food industry; %</td>
<td>23</td>
<td>15</td>
<td>14</td>
<td>16</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>18.5*</td>
</tr>
<tr>
<td>Share in export of foodstuffs; %</td>
<td></td>
<td>8.0</td>
<td>8.5</td>
<td>9.2</td>
<td>9.6</td>
<td>9.4*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of enterprises</td>
<td>18</td>
<td>245</td>
<td>282</td>
<td>261</td>
<td>219</td>
<td>143</td>
<td>135</td>
<td>139</td>
</tr>
<tr>
<td>Meat output, thousand/ton</td>
<td>107.9</td>
<td>58.6</td>
<td>60.0</td>
<td>53.3</td>
<td>57.3</td>
<td>68.3</td>
<td>67.5</td>
<td>66.4*</td>
</tr>
</tbody>
</table>

Source: ESA, VFO

Three largest enterprises hold three-fourths of the Estonian meat and meat product market. The market share of eight largest enterprises is 92% and the remaining meat industries (about 70 enterprises) share an 8% market share.

Distribution of meat industry enterprises by size

<table>
<thead>
<tr>
<th>Area of activity</th>
<th>Large capacity enterprises</th>
<th>Small capacity enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2003</td>
</tr>
<tr>
<td>Poultrymeat processing enterprises</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cold storage</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Mixed enterprises (slaughterhouse + cold storage + meat cutting + products)</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Slaughterhouses</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Preparation of cuts of meat and meat products</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Packing and packaging of meat products</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Meat cutting</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Source: VFO
Meat industry competitive ability

The low international competitive ability of the Estonian meat industry is related to the low level of processing of products and the fact that it is difficult to sell finished production in foreign countries under domestic trademarks.

The only possibility for smaller producers is to sell finished production abroad under the importer’s brand. At the same time, the production volumes of smaller Estonian producers are too small to fulfill the orders of the destination country for generic production.

Examination of the strategies of meat industries shows that in domestic markets, most producers are oriented toward offering a high quality and product development. The only significant statistical difference in the case of domestic strategies of enterprises is the fact that some enterprises (mainly smaller ones) are oriented to market niches.

Specialization of meat industries

Source: VFO, Ministry of Agriculture

Labour force and labour costs

According to data from the Statistical Office, there were 2,622 people employed in the meat sector in the fourth quarter of 2004, which makes up 16% of all people employed in the food industry. Compared to the figure for the fourth quarter of 2000, the number of people employed at meat enterprises has grown 4.4%, and around 7% compared to the same period in 2002.
The average gross wages paid in the meat sector have been on the increase since 2003. In the fourth quarter of 2004, the average gross wages were 6,853 kroons a month, which is 1.5% of the state’s average gross wages.

Labour costs in the meat sector in the fourth quarter of 2004 grew 12% compared to the same period the previous year, and around 20% compared to 2002.

**Labour force and labour costs, 2002–2004**

![Graph showing labour costs and employed persons from 2002 to 2004](image)

*Source: ESA*

In 2004, meat industry enterprises slaughtered 444,084 pigs, 66,486 cattle, 3,647 sheep, 2,532 rabbits and 9.7 million fowl. Compared to 2003, cattle slaughtering has grown 8.7%, pig slaughtering 3% and sheep slaughtering 7.3%. Nearly 13% more fowl were slaughtered in 2004 with respect to 2003. No quail were slaughtered in 2004, compared to a total of 7,870 the year before.
Meat buying-in in 2004 was generally stable, and traditionally seasonal in the beginning and end of the year. The buying-in price for pork was on the rise from January, with only a light drop in November. The year’s average price was 21,790 kroons/t, which is 7% more than in 2003 (20,355 kroons/t). Slightly larger fluctuations can be seen in the buying-in price for beef, which fell continuously since 2003 but got new momentum in February 2004. A short-term setback was seen again in May, when the price per ton fell around 13% compared to the previous month.

**Meat buying-in (thousand/t) and buying-in price (kroons/t), 2003–2004**
According to Statistical Office data, Estonia’s 16 largest meat industry enterprises produced a total of 33,700 tons of sausage products, 7,400 tons of smoked meat products and 114 tons of tinned meat in 2004.

Compared to 2003, nearly 4.2% more sausage products were produced; compared to 2002, 4.4% more. In terms of percentage, smoked meat products have risen the most during the three previous periods; the growth exceeded 12% in 2003 and nearly 32% in 2002.

From one year to the next, tinned meat production has been the most unstable; this year it decreased nearly 18% compared to the year before, and 46% compared to 2002.

### Production of meat and meat products, 2002–2004 (thousand tons)

![Graph showing production of meat and meat products, 2002–2004](chart.png)

Source: ESA

In value, according to Statistical Office data, Estonia’s 16 largest enterprises produced 2.06 billion and sold 2.05 billion kroons of product, of which 13% (267 million kroons) was exported.

Compared to the year before, production value grew 9.6%, export value decreased by 7%.
Consumption of meat and meat products

Each Estonian consumed an average of 63.5 kg of meat and meat products in 2003, which is 30% less than the EU average. Optimal meat consumption per person is considered to be 64 kg per year, which we are fairly close to.

In most new member states meat consumption is under the EU average (around 90 kg per person per year), except for Slovenia, where consumption per person is 96 kg a year.

In comparison to the 1980s, meat consumption has decreased in Latvia by 49%, in Lithuania by 28%, followed by Bulgaria and Estonia with around a 10% drop.

The reasons for declining consumption are several: decrease in production, price rise and drop in demand. In the last 8 years, pork consumption has grown over 14% in Estonia, making up an average of 29.8 kg per person in 2003.

Poultrymeat is gaining more and more popularity among consumers. An average of 22.3 kg of poultrymeat was consumed per person in 2003, which compared to 1996 is nearly double. Beef consumption is somewhat lower.

Source: ESA, Ministry of Agriculture (PM), EKI

According to Statistical Office data, the turnover in the meat industry sector was 2,293 million kroons in 2003, or nearly 33% more than in 2003. Profit was 12.5 million in 2004, however—9.2% less than in 2003. Significant reasons include continually increasing competition and growing input prices.

Net sales, total profit and value added of meat industry enterprises, million kroons

Source: ESA

419.9 million kroons of meat and meat products were exported, including 407.3 million kroons to EU member states. 32.2 million kroons was exported to old EU member states and 372.4 million kroons to new EU member states. 12.6 million kroons were exported to third countries, which is 14.6 million less than in 2003. The main export partners for Estonia were Ukraine with
5.1 million kroons (40%), Russia with 3.7 million kroons (30%) and Liberia with 0.7 million kroons (5.8%).

Nearly 71% of total export was sausage products exports. As of the end of 2004, Estonia had 16 meat industry enterprises that had an operating license in all EU member states. Despite the opening of the EU market, the biggest trading partners continue to be Latvia and Lithuania, with 222.6 million (55%) and 145.7 million kroons (36%) respectively. Export of meat and meat products to EU member states made up 9.6% of all agricultural product exports.

Export of meat and meat products to third countries was 1% of agricultural product exports.

Estonia imported meat products from EU member states in the amount of 557.1 million kroons in 2004. The main meat imported was pork (11,543 t), poultry meat (11,223 t) and beef (1,257 t).

The primary trading partners among the old EU member states were Finland (135.2 million kroons), Denmark (124.6 million kroons) and Sweden (68.7 million kroons). Of the new EU member states- Lithuania (41.9 million kroons), Hungary (36.6 million kroons) and Poland (25.6 million kroons).

Since 2002, meat industry enterprises have invested a total of nearly 563 million kroons into tangible fixed assets. Of this, almost 60% was invested into buildings and facilities and 40% into machinery and equipment. Large investments have been required of meat industry enterprises by the transition to the new SEUROP meat classification system, the goal of which is quality improvement.

The major part of investments was done at the end of 2002 and in 2003. The reason is the fact that 2003 was the final deadline for enterprises to bring themselves into conformance with the requirements established in the Food Act.

During four quarters of 2004, investments of 152 million kroons were made into tangible fixed assets, which is 54.6 million less than in the same period a year before. In 2004, 78.6 million kroons (52%) was invested into buildings and facilities and 53.1 million kroons (35%) into machinery and equipment. 2 million kroons was spent on purchases of transport vehicles, in addition to 5.6 million in the form of capital rent.
According to preliminary data, 211.2 million eggs were produced in 2004, which was 23.1 million or 10% less than in 2003. Production was down because OÜ Munatalu went bankrupt and OÜ Remolius ended operations due to non-profitability of operations. Estonia’s chicken farmers have not received any domestic or EU assistance funds to this point. In 2004, 135 tons of egg powder and 1,011 tons of liquid egg products were produced at AS Eesti Munatooded.

Following EU accession, the average price of a chicken egg fell slightly, since a large quantity of eggs from Latvia and Lithuania were imported into Estonia.

2.3. Grain production, processing and market

Grain cultivation
Elsa Nurk

The area under grain cultivation was 265,700 ha in 2004, which comprised 51.1% of the growing area of all crops (519,800 hectares). 9,300 hectares of rye was planted (3.5%) and 23,100 ha of winter wheat or 8.7%
of the total grain-sowed area. The relatively small winter grain area was due
to the large amount of precipitation in July and autumn 2003, which made it
difficult to cultivate winter grain fields and sow seed. The area under rye was
the smallest in many years due to the unfavourable climate and the low
sales prices for rye.

2004 had a good yield, with harvest conditions not helped by the weather.
The cleaned grain harvest was 599,700 tons, of which 19,700 was rye (23,300
tons in 2003), 184,700 tons of wheat (2003: a 144,900 tons) and 289,500
tons of barley (253,600 tons in 2003). Grain was harvested from 245,700
hectares and the average yield was 2,441 kilograms of grain per hectare.
The productivity for rye was 2,400 kg/ha, for wheat 2,531 kg/ha and rye
2,437 kg/ha.

According to preliminary data from the ESA, only 6,300 ha of rye was
planted for harvest in 2005 and 16,300 ha of winter wheat, 4,200 ha of
triticale and winter barley.

The total need in the country for grain for food, seed, feed and industrial
uses is an estimated 750-800,000 tons a year.

The quality of winter wheat was better than summer wheat in all indica-
tors: the average liter weight of 788 g/l, falling estimate of 263 seconds,
protein content as dry weight 14.1% on average. 72% of the rye samples
had a liter weight of over 720 g/l and 69% of the number of samples had a
falling estimate of over 170 seconds.
Grain prices in Estonia (weighted average prices of processing companies, kroons/t without VAT)

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td></td>
<td>28.12.04 /</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25.11.04</td>
</tr>
<tr>
<td>WHEAT</td>
<td></td>
<td></td>
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<tr>
<td>Breadmaking</td>
<td>1918</td>
<td>1781</td>
<td>1818</td>
<td>2.1</td>
</tr>
<tr>
<td>common wheat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed wheat</td>
<td>1663</td>
<td>1503</td>
<td>1602</td>
<td>6.6</td>
</tr>
<tr>
<td>RYE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rye of</td>
<td>1564</td>
<td>1630</td>
<td>1626</td>
<td>-0.2</td>
</tr>
<tr>
<td>breadmaking</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>quality</td>
<td></td>
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<tr>
<td>Feed rye*</td>
<td>1308</td>
<td>1495</td>
<td>1495</td>
<td>0.0</td>
</tr>
<tr>
<td>BARLEY</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Barley for</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>human consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed barley</td>
<td>1513</td>
<td>1454</td>
<td>1416</td>
<td>-2.6</td>
</tr>
<tr>
<td>OATS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oats for</td>
<td>1512</td>
<td>1580</td>
<td>1551</td>
<td>-1.8</td>
</tr>
<tr>
<td>human consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed oats</td>
<td>1170</td>
<td>1239</td>
<td>1265</td>
<td>2.1</td>
</tr>
</tbody>
</table>

* price also include the price of grain for alcohol

Source: EK

As the table shows, prices have risen as of December 2004 with respect to December 2003 only for rye and oats; barley and wheat prices have fallen. The EU common agricultural policy took effect in Estonia upon EU accession and due to this, it will be possible for Estonia starting 1 November 2004 to implement, as one market procedural measure, grain intervention purchases. For 2004/2005, the effective intervention price is 1585.16 kroons/t.

In November and December 2004, there were nearly 13,800 tons worth of bids with regard to barley. No bids were made for wheat.

A deleterious and persistent weed on grain growing fields is the wild oat. The wild oat is an annual, wild species of oat that thanks to its tenacious roots exceeds many crops in its absorption of nutrients and water, and with its fast growth leaves crops in the understory, shielding them from light. On the basis of experiments of the Estonian Research Institute of Agriculture (ERIA) conducted 1999–2000, the losses of barley from wild oat were as much as 57%, in 2003, 66%. Wild oat control and eradication measures are
provided by the Rural Development and Agricultural Market Regulation Act, according to which land users are obliged starting in 2005 to notify the Estonian Plant Production Inspectorate (TTI) of wild oats on their fields and to implement the necessary measures in order to prevent the growth and spread of wild oats on their land.

**Grain product production, consumption and trade**

*Taavi Kuntu*

According to the VFO, as of 15.02.2005 there were 331 bread, bakery and confection producers and enterprises that processed grain and products. Nearly half of them—165 enterprises—processed grain and grain products, 147 enterprises were engaged in producing bread, baked goods and confectionery products.

The grain and other food product-processing industry accounts for nearly 18% of the Estonian food industry’s total production. Of this, more than three-fourths is formed by the output of enterprises making bread, baked goods and other products and one-fourth by the output of enterprises making flour and processed grain and finished animal feed.

**Share of grain, grain product and other food processing sector**

![Graph showing the share of grain, grain product and other food processing sector from 1994 to 2004.]

*Preliminary unadjusted data*

**Short-terms statistics (enterprises with 50 and more employees)**

*Source: ESA, Ministry of Agriculture*
According to the Statistical Office data, the share of the grain and grain product processing industry in food and beverage exports was 2% in 2004, of which export of bread and baked goods (without export of other products) made up 49%, finished animal feed export 10% and flour and grain export 26%. Export in the grain and grain product processing sector is relatively smaller than for other food and beverage sectors.

According to TTI data, there were eight registered and eight certified producers of animal feed in Estonia as of 11.02.2005. Flour manufacturing has the greatest concentration in the grain processing sector. In 2003, the three largest flour mills produced an estimated 85% of total flour output.

Many of Estonia’s grain refiners are in foreign ownership or have a foreign stakeholder. Of 17 enterprises engaged in flour and processed grain production, 6 are foreign owned; of 16 enterprises producing animal feed for sale, two. Of the largest bread factories and bakeries, three are in foreign ownership.

Foreign investments into the grain processing industry have been made into the largest enterprises, those with the greatest market power.

Sources of foreign investments are Germany (flour production), Finland (processed grain, finished animal feed, manufacturing of bread and bakery goods) and Sweden (manufacturing of finished animal feed).

### Concentration of the grain processing industry
(four largest enterprises) according to origin of capital in 2003

![Bar chart showing concentration of grain processing industry](image)

*Source: Commercial Register; Ministry of Agriculture calculations*
Nearly 66% of Estonia’s domestic market demand comes from consumption of grain as animal feed, 18% for human consumption, 10% as seeds and only 5% industrial consumption. Industrial consumption includes consumption of grain in the manufacturing of alcoholic beverages and other products other than food and animal feed.

**Grain consumption 1999–2004 (1 July to 30 June)**

*To determine the self-sufficiency level, the formula (output/consumption)*100% was used

*Source: ESA, Ministry of Agriculture*

From 2002 on, consumption of grain as animal feed decreased, and this has increased the share of other categories of consumption somewhat. The reason is a drop in the number of animals.

Depending on the year, Estonian grain production covers 65-80% of consumption. In harvest year 2003–2004, Estonian grain self-sufficiency was an estimated 76%¹. In comparison with neighbouring states: according to EKI data, Latvia’s level of grain self-sufficiency was predominantly over 90% and in Lithuania as much as over 100%. Estonia’s grain deficit in consumption is mainly covered by import from other Baltic States.

According to ESA data, a total of 64,000 tons of grain flour was produced in Estonia in 2004. Of this, 70% was wheat flour and 20% rye flour. Flour

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¹ Smaller, according to some sources
production in Estonia has started to rise again after a period of decline in the 1990s. From 2000 to 2004, grain flour production grew 2.2 times. The rise continued in 2004, when 18% more grain flour was produced compared to 2003.

### Grain product manufacturing

Growth in grain flour production stems above all from increasing wheat flour production. From 2000–2004 wheat flour production grew 3.8 times. The rising trend in production continued in 2004 as well, when wheat flour production increased by 24% compared to 2003. The growth in rye production has been much more modest compared to that of wheat. Compared to the level of 2000, rye production increased only 5.4% in 2004 and was smaller than it was in 2000 and 2001.

The main reason behind the increase in grain flour production is the greater competitiveness of Estonian flour products compared to imports. Since 2000, flour import into Estonia has dropped and domestic production has increased (partly thanks to imported raw materials).

A total of 117,300 kroons of finished animal feed were produced in Estonia in 2004. Compared to 2003, production of finished animal feeds increased in 2004 by 19%. This is not a permanent growth trend, however. There have been periods of decline in the recent past. As a whole, however, finished animal feed production exceeds the average production for the last eight years (1997–2004) by 11%.

In 2004, a total of 68,500 tons of bread and baked goods was produced in Estonia. Production of baked goods continuously declined in the 1990s.
The declining trend continued in 2004. Compared to 2003, the production of bread and baked goods was down 2.7% in 2004.

A liberal trading policy has been the greatest influence on the Estonian grain and grain product trade. As a result of this policy, the import to Estonia of flour and processed grain grew markedly in the first half of the 1990s. In the last few years, the import of flour and processed grain has declined. At the same time, imports of unprocessed grain have increased. This is a positive development for Estonia, since value added in the form of grain products is now being created in Estonia.

**Consumption and origin of flour in 2003**

Source: ESA, Ministry of Agriculture

The Estonian food industry requires a total of 50,600 tons of wheat flour and 31,700 tons of rye flour. Besides that used by the baking industry, there is also "other" flour, which is predominantly used by households and small businesses that are not reflected in the short-term statistics.

Net import\(^1\) of wheat flour in 2003 was 5,300 tons. Rye flour and flour of other grains was exported and imported in small quantities, under a thousand tons. Since domestic flour may also be produced of imported grain, the share of imported food grade flour in total production is derived from trade statistics\(^2\).

Up to one-third of the wheat flour produced in Estonia may originate from imported grain. The predominant share of rye flour production originates from domestic rye.

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1 net import = import-export
2 Source: ESA, Ministry of Agriculture calculations
Compared to 2003, there have been significant changes in trading volumes for 2004. For example, from 01.01.2004–30.04.2004 (that is before EU accession) 15,300 tons of barley was imported into Estonia, which is 2.9 times more than in 2003 total.

At the same time the price per unit of imported barley was 40% higher than the year before. The import of corn also increased in this period. In the four months of 2004 18,100 tons of corn was imported into Estonia, which makes up ¾ of the import volume for the year before. The reason for increased import may lie in the crop failure that hit Europe (and Estonia) the year before, which is why the difference between own production and consumption should be covered from import. EU accession resulted in changes in Estonian grain trading. While before EU accession, Estonia’s most important trading partner for grain was Ukraine, to a lesser extent Russia, then after EU accession, a rerouting of trade took place: trade with non-EU states stopped and was replaced with trade with EU members states.

**Estonia’s main trading partners and their share in grain trade (2002–2004)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Wheat</th>
<th>Wheat flour</th>
<th>Rye</th>
<th>Barley</th>
<th>Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Ukraine 63%</td>
<td>Finland 25%</td>
<td>Ukraine 84%</td>
<td>Ukraine 56%</td>
<td>Ukraine 92%</td>
</tr>
<tr>
<td></td>
<td>Latvia 23%</td>
<td>Latvia 25%</td>
<td>Germany 9%</td>
<td>Sweden 19%</td>
<td>Finland 7%</td>
</tr>
<tr>
<td></td>
<td>Lithuania 6%</td>
<td>Germany 23%</td>
<td>Latvia 6%</td>
<td>Great Britain 12%</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>Lithuania 33%</td>
<td>Latvia 68%</td>
<td>Ukraine 49%</td>
<td>Ukraine 72%</td>
<td>Ukraine 69%</td>
</tr>
<tr>
<td></td>
<td>Russia 22%</td>
<td>Finland 22%</td>
<td>Russia 18%</td>
<td>Russia 19%</td>
<td>Russia 23%</td>
</tr>
<tr>
<td></td>
<td>Latvia, Ukraine 22%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Germany 34%</td>
<td>Latvia 57%</td>
<td>Latvia 80%</td>
<td>Lithuania 82%</td>
<td>Finland 77%</td>
</tr>
<tr>
<td></td>
<td>Lithuania 27%</td>
<td>Finland 39%</td>
<td>Lithuania 20%</td>
<td>Latvia 8%</td>
<td>Latvia 23%</td>
</tr>
<tr>
<td></td>
<td>Latvia 27%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: ESA, Ministry of Agriculture*
After EU accession, grain from Latvia, Lithuania, Germany and Finland was imported to Estonia. Compared to 2004, the share of grain imported from Latvia and Lithuania increased the most compared to previous years. This trend is expected to continue in 2005 as well.

According to EKI data, 87% of Estonian consumers prefer domestic food-stuffs. Of grain products on sale in stores, the share of domestic production is greatest in consumption of bread and baked goods—nearly 100%. Next come wheat flour 85%, baked goods 33% and pasta 23%. The growth of the market share for foreign baked goods and pasta halted in 2004.

**Share of domestic grain products in the turnover value of stores**

![Share of domestic grain products in the turnover value of stores](image)

*Source: EKI, Ministry of Agriculture calculations*

Estonia’s accession to the EU did not result in changes in the prices of finished production, and the average price of bread did not increase much in 2004.
2.4. Fruit and vegetable manufacturing, processing and market
Viive Alliksoo

3,100 ha of open field vegetables were sowed and planted in 2004 and according to initial ESA data, 2,800 ha was harvested, which makes up only 0.6% of the growing area under various agricultural species. Part of the harvest was lost in the field before ripeness, some was not harvested, since the too-moist fields did not offer enough support to mechanical harvesters.

According to initial ESA data, the total vegetable yield from open fields was 40,800 tons, which is about 10,000 tons less than in 2003, but the harvested area was also 600 ha smaller. The productivity for vegetables in fields per harvested hectare was 14,600 kg. The quality of the crop obtained from fields suffering from excessive moisture was low.

The domestic vegetable production is not sufficient to satisfy the needs of domestic consumers, meeting only half of the demand. According to EKI data, the prices for the primary vegetables were lower last year than they were in 2003.

The total area under fruit trees and berry bushes was around 15,000 hectares, making up 3% of cropland. Apple trees comprise 55% of the total
area under fruit tree and berry cultivation. Next come plum orchards and black currant and strawberry patches (both with around 8%).

The weather conditions for the 2004 vegetative period (frost in May, with the minimum temperature -7°C in some places) were unfavourable for berry cultivation. 2004 was not a bumper year for apple trees. The yield was affected by the spring frost and excessive moisture. According to EKI data, apples prices were 30% higher than in 2003 due to the low yield. Domestic apple prices in stores have remained on the same level for three straight years.

Summer was favourable for diseases, which is why the yield was somewhat lower than for years with sunny summers.

**Measures to regulate the fruit and vegetable market.** To prevent production of an unsatisfactory quality from reaching market and to improve producers' market orientation, standards for 37 fruits and vegetables have been established, according to which each fruit or vegetable marketed is to be divided into quality categories.

The other important part of standard market procedures for fruit and vegetables is producer organizations. According to the EU vision, producer organizations ensure the decentralized functioning of the market and supply of planned and consumer-oriented products.

2.5. **Production of industrial crops and organic products, market**

*Elsa Nurk, Einar Kikkas*

The area under rapeseed cultivation in 2004 was 52,800 ha and total production according to preliminary data was 73,000 tons. Productivity was 1,518 kg/ha. Most rapeseed was refined into cooking oil at AS Werol Tehas and rapeseed cake for animals.

The average quality indicators for rapeseed were as follows: additive content 3.6%, chlorophyll 33.9% and oil content 41.7%. The average moisture of seeds was 7.5%.

The area under potato cultivation in 2004 was 15,000 ha and the total yield was 178,900 tons. Average productivity per hectare was 13 tons.

In recent years, the average productivity has been 13–16 t/ha, for larger growers, potato yields reach 35–45 t/ha. In Estonian Research Institute of Agriculture trials, potato yields in previous years have reached an average of 55–68 t/ha, with the highest yield being 82 t/ha.
Many factors affected the potato yield negatively in 2004. Potatoes sprouted longer due to the spring freezes, close to a month, and due to the cold, potato plants in many places contracted rhizoctonia. The first leaf rot was discovered at the end of June, when the early tubers had formed, but later varieties had not bloomed, which was an indication to the partial decrease in the yield. Due to abundant precipitation, standing water remained on lower fields and in the presence of a heavier sediment, for over 10 days in places, which caused tubers to rot in later varieties.

According to the TTI’s field certification data, a total of 113.3 ha of potato fields were certified in 2004.

The average producer price in January 2004 nearly did not change at all compared to 2003 and remained from 1.50–3.00 kroons/kg. Higher price category potatoes were sold by producers at the end of May 2004 for 1.80–3.50 kroons/kg, while lower price category potatoes went for 1.80–2.50 kroons/kg. The average producer price for potatoes rose in June to 3.00 kroons/kg, which was 22% higher than in May. Compared to June 2003 prices, potatoes were 65 cents/kg or 28% more.

Pursuant to the Plant Protection Act that took effect on 1 May 2004, the plant health register also must list persons who market consumer grade potatoes or grow the crop for their own use on more than one-half hectare. According to the same act, the plant health register number of the producer must be listed on the cover sheet of the goods in the case of unpackaged consumer grade potatoes or on the packaging of packaged consumer grade potatoes.

Organic farming
Peeter Prass

Organic farming has become more popular in Estonia with each passing year, not only among producers but also among consumers. According to Plant Production Inspectorate’s data from 3 February 2005, there were 810 organic farms. The numbers of producers and area under organic cultivation in recent years have been as follows:
The Ministry of Agriculture announced a competition to design a new eco-logo to indicate organic agriculture, which was approved in December. The eco-logo took effect at the end of the first quarter of 2005. The previous organic symbol may be used until the end of 2005.

The eco-logo certifies that a product has been grown and processed in conformance with organic farming standards and that genetically modified organisms, ionizing radiation and prohibited substances were not used in production. Companies that use the symbol must undergo state inspection at least once a year.

The TTI performs inspections of compliance with organic agriculture requirements; it also keeps the organic agriculture registry.

Organic products were grown on 46,000 ha and organic agricultural products were obtained from 10,100 cattle and 10,860 sheep.

In 2004, land under organic cultivation made up under 5% of overall cropland, including organic grain with a little over 1.3% of all grain (harvest about 6,000 tons) and potatoes with around 1.2% (harvest around 2,500 tons). Of dairy cows, a little over 2% were organic and total organic milk
production exceeded 10,000 tons. Due to marketing problems, most of Estonia’s organic production was not sold as organic.

2.6. Alcohol production and market

Katrin Karolin

The bases of this overview are the data by the Statistical Office of Estonia of foreign trade, company production and domestic market sales, as well as the results of store price surveys by the Estonian Institute of Economic Research.

The data analysis proved that the production volumes concerning the main alcoholic beverages grew within nine months, in 2004, with ethyl alcohol and cider being the only exceptions.

Production of alcoholic beverages in Estonia (9 months, 2002–2004)

<table>
<thead>
<tr>
<th></th>
<th>2002 9 months</th>
<th>2003 9 months</th>
<th>2004 9 months</th>
<th>Change +/-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004 9 months</td>
<td>2004 9 months</td>
<td>9 months</td>
<td>2004 9 months</td>
</tr>
<tr>
<td>Rectified ethanol</td>
<td>1,91</td>
<td>2,69</td>
<td>2,41</td>
<td>-0,28</td>
</tr>
<tr>
<td>Strong alcoholic beverages</td>
<td>9,83</td>
<td>12,00</td>
<td>12,77</td>
<td>0,77</td>
</tr>
<tr>
<td>Fruit and berry wines</td>
<td>1,48</td>
<td>1,93</td>
<td>2,59</td>
<td>0,66</td>
</tr>
<tr>
<td>Beer</td>
<td>82,70</td>
<td>83,00</td>
<td>83,29</td>
<td>0,29</td>
</tr>
<tr>
<td>Mild mixed alcoholic beverages</td>
<td>2,60</td>
<td>3,88</td>
<td>7,10</td>
<td>3,22</td>
</tr>
<tr>
<td>Cider</td>
<td>2,88</td>
<td>4,83</td>
<td>4,33</td>
<td>-0,50</td>
</tr>
</tbody>
</table>

Source: ESA, ESA short-term statistics (extended to larger sample batch)

The foreign trade balance of alcoholic beverages continued to be negative, with the negative balance increasing, since in comparison with the same period last year, import grew much more rapidly (+87%) than export (+35%). At the same time, we should view the foreign trade data of 2004 with some caution, since a part of the growth in export and import is due, although not solely, to the changes in statistical methodology methods. There were also substantial changes on the market. After May 1st, ships bought the predominant share of their alcohol from Estonia and Estonian alcohol producers
imported products as well as raw material and were more actively engaged in subcontracting. This also conditioned the considerable growth in the export and import quantities of the majority of alcoholic beverages.

The alcohol retail turnover for 9 months in 2004 reached to 2.2 billion kroons, which is 13% larger than for the same period in the previous year (1.95 billion kroons for nine months in 2003). The growth in retail sales has taken place primarily due to the substantially increased tourist purchases.

The alcoholic beverage consumer price index decreased by 3% in the third quarter of 2004 when compared to the same period a year before and rose 0.3% in comparison with the second quarter of 2004.

The average prices of most alcoholic beverages were lower in November 2004 in Tallinn as well as all over Estonia than that of a year ago.

The position of domestic beer and vodka on the Estonian market in 2004 was still strong. However in both product groups, a weakening of the position could be detected, more with reference to beer than to vodka.

The weight of domestic and imported beer in the shops’ turnover was 88-89% in 2004 and that of vodka 90–93%.

**Influence of tourism on alcohol consumption**

The number of foreign visitors who stayed in Estonia overnight in 2004 had, according to 8-month data, increased by 30%, and the number of foreign visitors who arrived in Estonia in 2004 was estimated to have exceeded 4 million. The number of visitors from Finland grew over 7%; concurrently, the numbers of arrivals from all other countries have grown much faster. The largest amounts of alcoholic beverages bought from Estonia by foreign visitors to be taken to their home country, were bought by Finns. After Estonia’s accession to the EU, the customs barriers on the import of alcoholic beverages have decreased in Finland. Therefore, the amounts of alcohol bought by Finns from Estonia have in terms of several beverages more than doubled. The average quantity bought by foreign visitors in stores has nearly doubled.

Foreign visitors’ alcohol purchases comprise nearly 23% of the retail sales of alcoholic beverages, amounting to 890–900 million kroons, nearly half of which is spent on vodka purchases.
Alcohol consumption on the basis of inhabitant assessment

<table>
<thead>
<tr>
<th>Inhabitants’ assessment of general alcohol consumption (% of respondents)</th>
<th>Inhabitants’ assessment of own alcohol consumption (% of respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drink little 0</td>
<td>Do not drink at all 16</td>
</tr>
<tr>
<td>Drink moderately 9</td>
<td>Drink little 61</td>
</tr>
<tr>
<td>Drink a lot 47</td>
<td>Drink moderately 21</td>
</tr>
<tr>
<td>Cannot say 5</td>
<td></td>
</tr>
</tbody>
</table>

Consumption of alcoholic beverages by social demographic group:
- **vodka**: men, lower education, smaller income, north-eastern Estonia and central Estonia;
- **whiskey, cognac, rum, liqueurs, gin**: higher education, larger income, Tallinn and Harju County;
- **wine**: women, higher education, larger income;
- **beer**: men – one in ten men who drink alcohol drink beer every day;
- flavoured beverages, cocktails: young people (up to age 29).

2.7. Fishing, processing, market

Vahur Võrel

**Fishing and stocks**

The Estonian fishing sector uses Baltic Sea and inland fish stocks. In addition, Estonia has access to Northwest Atlantic (NAFO) and Northeast Atlantic (Spitzbergen and NEAFC) fish stocks. International scientific organizations assess the status of internationally regulated stocks, and each year the assessments have become more critical and more limits are desired on fishing capacity. The situation of inland fish stocks depends most on the effectiveness of the domestic inspection system.

In 2004, 59,378 tons of fish was caught in the Baltic Sea, and an additional 2,367 tons was netted in inland waters. Fishing is regulated on the Baltic sea by the maximum allowable catch quantity (quota), and in inland waters by nets. The restrictions are established by the Minister of the Environment.

The majority of fishing volumes or 75% is made up by the Baltic Sea catch. But deep-sea fishing is very valuable for Estonia; the caught quantities make up 20% of Estonia’s total catch, which in terms of value exceeds
catches on both the Baltic Sea and inland waters. The reason is the species of high value caught in deep sea fishing; the Baltic herring and sprat are considered low-value species.

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

![Pie chart showing percentage distribution of fishing activities.](chart.png)

*Source: Ministry of the Environment (KKM)*

**Catch quantities and value 2000–2002**

<table>
<thead>
<tr>
<th>Year</th>
<th>Catch quantity (tons)</th>
<th>Catch value (kroons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baltic Sea + inland waters</td>
<td>Deep sea</td>
</tr>
<tr>
<td>2000</td>
<td>85 176</td>
<td>24 693</td>
</tr>
<tr>
<td>2001</td>
<td>87 438</td>
<td>15 549</td>
</tr>
<tr>
<td>2002</td>
<td>83 597</td>
<td>17 817</td>
</tr>
</tbody>
</table>

*Source: Ministry of Environment, ESA*

By catch region, Estonian fishing can be divided into three principal areas: the Baltic, NAFO and the Spitzbergen area.
Baltic Sea fishing quotas

<table>
<thead>
<tr>
<th>Name</th>
<th>Unit</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltic herring</td>
<td>Tons</td>
<td>41 070</td>
<td>41 070</td>
<td>39 000</td>
<td>26 036</td>
<td>20 800</td>
<td>21 536</td>
</tr>
<tr>
<td>Sprat</td>
<td>Tons</td>
<td>41 200</td>
<td>41 200</td>
<td>41 200</td>
<td>35 123</td>
<td>43 260</td>
<td>56 650</td>
</tr>
<tr>
<td>Cod</td>
<td>Tons</td>
<td>1 869</td>
<td>1 869</td>
<td>1 353</td>
<td>1 335</td>
<td>1 060</td>
<td>1 079</td>
</tr>
<tr>
<td>Salmon</td>
<td>fish</td>
<td>17 667</td>
<td>15 807</td>
<td>14 877</td>
<td>14 154</td>
<td>2 555</td>
<td>2 000</td>
</tr>
<tr>
<td></td>
<td>incl. fish in the Baltic Sea</td>
<td>9 297</td>
<td>8 297</td>
<td>9 297</td>
<td>9 504</td>
<td>2 000</td>
<td>1 800</td>
</tr>
<tr>
<td></td>
<td>incl. fish in the Gulf of Finland</td>
<td>8 370</td>
<td>6 510</td>
<td>5 580</td>
<td>4 650</td>
<td>555</td>
<td>200</td>
</tr>
</tbody>
</table>

Source: Ministry of Environment

In 2004, the fishing fleet had 153 ships on the Baltic Sea and 14 on the Atlantic Ocean. As of 2004, the Fishing Information System had entries on 889 coastal fishing vessels measuring 7-12 meters. There were a total of 276 inland fishing vessels, used on Lake Peipsi and Võrtsjärv.

Fish processing
Maarja Purik

The share of fish processing in the food industry made up 11.9% in 2004 and 24.9% of export.

Share of fish processing in the processing sector and food industry

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of fish processing in the processing industry, %</td>
<td>6,0</td>
<td>5,9</td>
<td>3,9</td>
<td>3,5</td>
<td>3,3</td>
<td>2,5</td>
<td>2,2</td>
</tr>
<tr>
<td>Share of fish processing in the foodstuff industry, %</td>
<td>16,2</td>
<td>17,8</td>
<td>15,3</td>
<td>14,2</td>
<td>14,8</td>
<td>12,3</td>
<td>11,9</td>
</tr>
<tr>
<td>Share of the foodstuff export, %</td>
<td>44,2</td>
<td>50,7</td>
<td>44,4</td>
<td>43,1</td>
<td>36,9</td>
<td>31,9</td>
<td>24,9</td>
</tr>
<tr>
<td>Number of companies</td>
<td>*</td>
<td>80</td>
<td>135</td>
<td>109</td>
<td>97</td>
<td>95</td>
<td>96</td>
</tr>
</tbody>
</table>

Source: ESA
* data not available
As of 15 February 2005, there were 96 companies under VFO monitoring where fish processing and fish product preparation was taking place.

**Fish processing units that meet EU requirements**

<table>
<thead>
<tr>
<th>MANUFACTURING UNITS AND SHIPS CONFORMING TO EU REQUIREMENTS BY YEAR</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004 (feb.)</th>
<th>2005 (feb.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDUSTRIAL UNITS</td>
<td>25</td>
<td>27</td>
<td>36</td>
<td>41</td>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>SHIPS</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>10</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

*Source: VFO*

A total of 2,941 people were employed by the fish industry in the third quarter of 2004. The highest number of employees was achieved in the first quarter of 1998 (7485 people). Since that time, the number of employees has constantly dropped. A sudden drop in employee numbers was caused by the Russian economic crisis in 1998 and the sudden disappearance of the eastern market. The increase in the number of employees in the first quarter of 2004 was due to a temporarily larger volume of tinned production.

**Employees in the fishing sector 1995–2004**

*Source: ESA*

The primary raw material for the Estonian fish processing industry is the local Baltic Sea species of fish: Baltic herring and sprat and for filleting companies the freshwater species perch and pike perch. Ready-to-eat production is mainly based on imported raw material.

In the first half of 2004, 22,000 tons of fish products for food were produced (not including tinned fish). 19,811 tons of tinned fish or 56.6 million cans were produced. In monetary terms, 368 million kroons of fish and fish
products were produced in the second quarter of this year, and sold at a value of 342 million kroons.

**Fishing industry production**

![Graph showing fishing industry production]

*Source: ESA*

**Share of realized fish products and seafood 2003, %**

![Pie chart showing share of realized fish products]

*Source: Estonian Association of Fisheries*

Compared to 2002, the share of tinned product decreased. The share of food product (frozen fish, surimi products, fish finger-type products) increased.

A total of 70,441.6 tons of fish and seafood was sold by the members of the Estonian Association of Fisheries, which is nearly 1% more than in 2002.
Among tinned fish, the primary articles of merchandise continue to be the traditional sprats in oil and fish in tomato sauce.

**Tinned fish production, 2003, tons**

![Pie chart showing tinned fish production](chart.png)

Source: Estonian Fish Association

**Consumption of fish and fish products**

*Hannes Ulmas*

Consumption per person has been more or less stable in recent years—that is, in terms of fresh fish, around 16 kg per year (data on consumption from the study carried out by EKI in 2003, Fish and fish product market in Estonia”).

**Average consumption of fish and fish products per person per year, kg**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased</td>
<td>12,6</td>
<td>12,8</td>
<td>12,2</td>
<td>11,8</td>
<td>13,3</td>
<td>13,0</td>
<td>13,3</td>
</tr>
<tr>
<td>Non-commercial consumption</td>
<td>2,3</td>
<td>1,9</td>
<td>2,1</td>
<td>2,0</td>
<td>2,2</td>
<td>1,6</td>
<td>1,8</td>
</tr>
<tr>
<td>Total</td>
<td>14,9</td>
<td>14,7</td>
<td>14,3</td>
<td>13,8</td>
<td>15,5</td>
<td>14,6</td>
<td>15,1</td>
</tr>
<tr>
<td>Total as recalculated for fish</td>
<td>16,2</td>
<td>15,9</td>
<td>15,6</td>
<td>15,1</td>
<td>17,0</td>
<td>16,1</td>
<td>16,7</td>
</tr>
</tbody>
</table>

Source: ESA
The share of fish products in the bill of fare in many countries tends to be on the decline. The figure for Estonia of 17 kg/person (in raw material) is in terms of quantity far below the level of the Nordic countries (37 kg/person in Norway). The growth of consumption in Estonia is checked by the price increase, the poor availability of fresh fish and the relatively low purchasing power of the population as compared to that of people in the Nordic countries.

The major part (59%) of fish consumed in Estonia in 2002 was made up of fresh, refrigerated or frozen fish, according to ESA data. Other important types of fish for Estonians are salted fish (11%), tinned fish (8%) and smoked fish (7%).

**Structure of consumption of fish and fish products, 2002**

![Pie chart showing the structure of fish consumption in Estonia](image)

Source: EKI

The structure of consumption of fish products has changed in recent years. Tinned fish, imitation crab sticks and noodles and gourmet fish items are eaten more often than in the past, while refrigerated or frozen fish are less often partaken of. The reason is both the more bountiful selection of fish products with greater added value as well as the growth in the incomes of residents.

EKI consumer studies have shown that over half (57%) of Estonians eat fish and fish products at least once a week and around one-fourth (26%) at least once every couple of weeks. Only 1% of Estonians do not eat fish or
fish products at all. Among those who eat fish more often than others are those living in large towns, the more affluent and older people.

The share of export has risen in the last three quarters of 2004, making up nearly 74% by the fourth quarter.

**Share of export in sales, %**

![Graph showing the share of export in sales from 2005 to 2004.](image)

*Source: ESA*

Tinned fish is in terms of quantity the major export from Estonia, but in terms of value, fish fillets are the leader, even though it can be said on the basis of data for 11 months in 2004 that the share of tinned fish in export has decreased compared to the previous year. Tinned fish is primarily exported to the eastern market and Central and Eastern European markets. Fish fillets mainly go to the Western market.
Dynamics of export and import volumes of fish and fish products, tons

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Import</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fresh and frozen fish (group 03)</td>
<td>Fish products and canned fish (1604; 1605)</td>
</tr>
<tr>
<td>1997</td>
<td>61545</td>
<td>69777</td>
</tr>
<tr>
<td>1998</td>
<td>68400</td>
<td>66698</td>
</tr>
<tr>
<td>1999</td>
<td>60719</td>
<td>40627</td>
</tr>
<tr>
<td>2000</td>
<td>72702</td>
<td>13950</td>
</tr>
<tr>
<td>2001</td>
<td>101537</td>
<td>46314</td>
</tr>
<tr>
<td>2002</td>
<td>63692</td>
<td>62134</td>
</tr>
<tr>
<td>2003</td>
<td>54099</td>
<td>58224</td>
</tr>
<tr>
<td>2004</td>
<td>45818</td>
<td>38069</td>
</tr>
</tbody>
</table>

Source: Tax and Customs board data, Ministry of Agriculture trade policy office calculations

The export volumes of fresh and frozen fish have decreased incrementally in the last few years, but import of fish products and tinned fish has grown by 17% compared to 2003. Export of fish products and tinned fish has also decreased (35%).

2.8. General trading (foodstuffs market)

Foreign trade balance for foodstuffs
Õme Pill, Liia Laanes, Ene Maadvere

On 1 May 2004, the European Union market with its 454 million people opened for Estonia, which meant that it was possible to sell all agricultural products without restrictions on quantity or tariff barriers on the markets of EU member states. At the same time, foreign trade agreements that had been signed by Estonia and were in effect up to then, lost their validity. Most of the states with which Estonia had a foreign trade agreement, are today EU members, with the exception of Ukraine, Turkey and Bulgaria. Upon EU accession, most favoured nation status with Russia came into effect in the framework of the agreement on partnership and cooperation between the
EU and Russia, which meant that Russia’s punitive double tariffs were no longer in effect with regard to Estonia.

In connection with Estonia’s accession to the EU, the foreign trade data gathering system changed. Trading data on transactions between EU member states are gathered by ESA through statistical reports (Intrastat), which includes only enterprises with a large trade turnover; this is why total trading turnover is estimated using statistical methods and comparisons with same period in the previous year do not necessarily give an objective picture of the situation. The estimates are corrected through additional information. It should be noted here that whenever the EU has expanded in the past, there have been certain lags in time-series of trade data on the EU and also Member States level arising from changes in methodology and data gathering. In general, it takes about 2 years for acceding states to develop stable statistical production system. Every previous expansion (1 January 1973 – Denmark, Ireland and United Kingdom; 1 January 1981 - Greece; 1 January 1986 –Spain and Portugal; 1 January 1995 - Austria, Finland and Sweden) has caused distortions in the trading statistics of the EU and Member States.

In addition to the above, the reliability of statistics is also affected by the fact that any changes in the middle of a reporting period (in this case, 1 May 2004) are extremely unsuited to the consistency of statistical data.

ESA has expressed the position that in the best case scenario, Estonia will have statistically reliable time-series only starting from 2005, and it is not ruled out that it will be even later and that the data for 2004 will not be compatible with either earlier or later years.

Data on trade with third countries is still obtained on the basis of customs declarations. In this analysis, data on trade between EU and third countries is consolidated and data for 2003 have been adjusted to make them comparable with the data for 2004. Trade has been analysed by country of consignment.

In 2004, agricultural products (EKN 1-24) were exported in the amount of 5,574 million kroons and imported in the amount of 10,081.7 million kroons. The export value grew compared to the same period the year before by 5.1% and import value decreased by 1.8%. The negative trade balance was 4507.7 million kroons. Of EU member states, the trade balance was positive with Cyprus, Latvia and Malta, and negative with all the others. Of major partners outside the Communities markets, Estonia had a positive trade balance with Russia, Ukraine, Switzerland and the United States. In 2004 exports of agricultural products to the EU member states market made up 76.3% of total exports (4250.3 million kroons) and imports from EU market 87.3% of total imports (8801.9 million kroons).
Foreign trade balance of agricultural products in 2004 by trade partners, million kroons

Export volumes were down in 2004 compared to 2003 to Latvia, Lithuania, Netherlands, Germany, Ukraine and the United States markets and up to Russia, Finland, Sweden, Denmark, France and Belgium.

The decrease of export volumes to the Ukrainian market is related to the expiration of the free trade agreement between Estonia and Ukraine on 1 May 2004. This affected trading of fish with Ukraine the most. In 2004, fish and fish products were exported to Ukraine in the amount of 207.5 million kroons, which was only 47% of the value of 2003 (440.1 million kroons).

Export volumes to Russia have nearly tripled compared to the year before. The export of beverages has grown significantly, comprising 193.3 million kroons (36.2%) of total exports to Russia. Exports of coffee, tea and spices has grown 36 times, dairy exports 5.6 times, and exports of fish products and tinned fish by nearly two times. The growth in export volumes arose foremost from the double tariffs being dropped with regard to goods of Estonian origin in connection with EU accession, but exports was also curtailed by the hygiene and phytosanitary restrictions applied by Russia from September 2004.
The rapid growth of exports to two countries with high price level, Finland (1.9 times) and Sweden (2 times), can be explained by the opening of the EU market. At the same time, exports to Latvia and Lithuania has decreased, which can presumably be explained by the rerouting of trade to more attractive (expensive) markets.

Exports of agricultural products by main trading partners, million kroons

As is traditional, fish and fish products claimed the top spot among exported agricultural products (27.5%), followed by dairy products (21.5%), non-alcoholic and alcoholic beverages (14.4%) and live animals, meat and meat products (8.9%).
Structure of exports of agricultural products 2004

Compared to 2003, fish and fish product exports decreased 12.1% (221.3 million kroons), dairy product export grew at the same time by 13.7% (144 million kroons). Import of agricultural products decreased in 2004 compared to the previous year by 1.8%.

Imports of agricultural products by main trading partners, million kroons
Imports of agricultural products (593.2 million kroons) decreased the most from Poland. Import volumes from Czech Republic decreased in 2004 by 27 million kroons compared to 2003. Prior to EU accession, large quantities of butter were imported from Czech Republic to Estonia with export subsidies; toward which Estonia applied from 23 February 2004 to 1 May 2004 a most favoured customs duty. Imports of agricultural products have also decreased from United Kingdom, France, Sweden and Germany. Imports from Latvia and Lithuania have grown markedly, which undoubtedly was promoted by the higher price level on the Estonian market. Imports of agricultural products have also grown from Denmark, Russia, Belgium, Italy and Norway’s markets. In 2004, by commodity groups, non-alcoholic and alcoholic beverages were the most imported at 16.7%, miscellaneous foodstuffs 8.1%, fruits and berries 7.2%, fresh and frozen fish 6.4%, sugar and baked goods 6.3%, meat and edible subproducts 5.3% etc. Miscellaneous foodstuffs (EKN group 21), dairy products and cocoa products were less imported. Compared to 2003, the imports of beverages, sugar and sugar confectionery increased. The large growth in sugar imports directly prior to the EU accession resulted in large excessive warehouse stock, which the Estonian government is responsible for removing from the market.

The trade balance for 2004 by commodity chapters shows that only 4 of 24 chapters were positive and that these were chapter 01 – live animals and poultry (50.2 million kroons); chapter 03 – fish and crustaceans, molluscs, and other aquatic invertebrates (343.6 million kroons); chapter 04 – dairy produce, birds’ eggs, natural honey (635.2 million kroons) and chapter 16 – preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates (473.7 million kroons).
Prices of foodstuffs

According to the Statistical Office data, consumer prices of foodstuffs increased an average of 3.7% in 2004 compared to the year before. Food prices thus outstripped the general growth in the consumer price index (3.0%). However, after EU accession, there was no explosive rise in the retail price of foodstuffs. A comparison of December retail prices published by the EKI ("Hinnainfo" no 1-11, 2004) with March retail prices reveals that a notable price change has only taken place for sugar, which has become 2.8 times dearer; and bananas, which are 1.4 times as expensive.

A moderate retail price rise has taken place with regard to dairy products. In 2004, producers were paid an average of 3838 kroons/t for raw milk, which is 33.2% more than in 2003. Due to this, clearance sale prices for enterprises have grown an average of one-fifth in the case of butter, 10-11% in the case of whole and skimmed-milk powder, 3-6% for cheese and
drinking milk. The clearance price of 2.5% milk in a plastic bag has grown the most (15%). The price rise was promoted by the complete opening of the EU market and no doubt also by stiff competition among processors in procuring raw material. The exports of butter to the EU market grew 30% in terms of quantity compared to last year and the average price of export butter by 24%. Export prices were higher compared to last year for cheese (11%), skimmed-milk powder 16%, and milk powder (38%) as well. Increased export opportunities decreased price pressure on the domestic market and allowed to pay farmers the highest price ever for milk. A growth trend for dairy products was similarly seen on the domestic market, a trend that was curtailed for the consumer by the stiff competition by enterprises and retail chains. Dairy industry enterprises have made investments to comply with EU requirements and also to expand product lines. When markets open, saving on expenditures becomes important if enterprises want to stay in the market. Otherwise, the market may be seized by producers who can offer cheaper products. Already now, products from other Member States have stormed on to the market, such as cheese from Lithuania. According to EKI estimates, the prices of dairy products in the EKI food basket were 15.4% higher in December 2004 than they were in December 2003; the food basket as a whole was 5.3% more expensive, while meat products got cheaper (2.3%), as did eggs (4.3%) and fruits and vegetables (11.3%).

Store retail prices were slightly lower than last year’s levels for meat products and eggs, according to ESA data. A grain price rise began in late 2003, at which time it emerged that grain harvests worldwide would not reach expected levels and started falling. According to the EKI grain prices in the EKI food basket increased 7.3% from December 2003 to December 2004.

Comparing Tallinn food prices to prices in Riga, Vilnius, Warsaw, Helsinki and Berlin reveals that many retail prices in Berlin are lower than they are in Tallinn. Vegetable prices in Warsaw were the lowest. Helsinki had the highest prices.

Ever stiffer competition puts the brakes on price rises. There is however a number of factors that may condition price rises, such as waste handling becoming more expensive, electricity prices rising, and packaging and fuel excise rising.
Situation in retail trade

Competition was seen as getting stiffer in retail trade, and even though the position of domestic goods is strong in the case of most goods, imports came onto the market with more momentum than ever before. A study carried out by EKI in November 2004 showed that compared to May, the share of domestic foodstuffs in the turnover value of stores had increased in only four product groups (pork, beer, oat flakes and domestic tomatoes), decreased in 19 groups and stayed the same in 4. In November, Estonia had 7 product groups where the selection of import goods was larger than the selection of domestic goods—processed cheese, margarine, cooking oil, biscuits, pasta, juice, fresh tomatoes. The selection of Estonian goods is generally extensive and due to small production volumes, it would not be economically possible for enterprises to continue to widen their assortments.
The expansion of the VP Market chain of stores in Estonia in 2004 doubtlessly contributed to the widening of the assortment of goods of Lithuanian origin.

**Average number of different brand names of Estonian goods in stores**

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</thead>
<tbody>
<tr>
<td>Sausage</td>
<td>30</td>
<td>30</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Biscuits</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Bread</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>20</td>
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<td>20</td>
<td>20</td>
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<tr>
<td>Ice cream</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Yoghurt</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Natural cheese</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
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</table>

Production costs and prices are very significant to any enterprise trying to stay in competition on the EU common market. Estonian consumers are very price-concious, as shown by the analysis of shopping places examined in the framework of an EKI study: 54% of respondents usually buy groceries at Säästumarket, 22% Citymarket, 16% Selver and only 3% from Stockmann. 59% of consumers bought groceries from large stores (3 or more cashiers), 31% from small stores and only 7% from the market. Product quality is becoming more important as the standard of living rises. In making their consumer decisions, consumers consider the flavour of food very important (93%), followed by quality (92%), freshness (95%), wholesomeness (73%) and economical price (65%).

The development plan *Eesti Toit*, which is initially meant for 2005–2008, points up as its two main goals the sustainable development of the Estonian food sector and protection of consumer rights and information. Projects have been worked out and assignments delegated for each goal.

As a result of the successful execution of the development plan, consumer knowledge ability should increase regarding food safety, quality, health-
ful eating and typical foods. Greater consumer knowledge ability will affect producers as well through demand. Tourists' level of knowledge about Estonian food and their interest in this should also increase, which would make it simple for enterprises to enter foreign markets.
3. **Agricultural policy**

3.1. **Post-accession changes in the economic environment**

*Urve Valdmaa, Ants Laansalu*

Estonia’s accession to the European Union brought about major changes, above all in the food sector. Prior to accession, a legal and institutional framework was established for the implementation of the Common Agricultural Policy and for the functioning of common market organisations. The Estonian Agricultural Registers and Information Board (ARIB), the implementing agency, was accredited, which meant that we were ready for aid processing. Following the accession, agricultural producers and processors had the opportunity to participate in different market organisation schemes. Various measures regulating the market organisation and trade with non-EU countries were implemented in the internal market. Farmers of Member States are being guaranteed price and income stability through market organisation mechanisms. A system of import and export licenses, certificates and guarantees is being used to apply preferential treatment, import tariffs and export refunds with regard to goods of Community origin. Customs duties are applied to import and subsidies are applied to export.

Estonia was prepared for implementing intervention purchase and private storage, but there was no need to implement it in 2004.

An extensive informational campaign was conducted to introduce EU agricultural policy measures, as a result of which agricultural producers and rural operators submitted their properly formalised applications and business plans in time.

The final document of the accession negotiations between Estonia and the EU lays down the aid intensity based on EU support and aid eligibility of the Member States. In 2004, Estonian agricultural producers received support in the amount of 25% of the EU direct support level. Member States had the opportunity to pay additional support up to 55% of the level in 2004. Direct support level paid from EU funds increases yearly and by 2013 it should reach the level equal to that of the older Member States.
### Subsidies implemented in 2004 and funding sources

<table>
<thead>
<tr>
<th>Estonian state budget</th>
<th>European Agricultural Guidance and Guarantee Fund (EAGGF) and state budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>National support</td>
<td>EAGGF Guarantee Section and state budget</td>
</tr>
<tr>
<td>Dairy cow breeding support</td>
<td>EU Common Agricultural Policy (CAP)</td>
</tr>
<tr>
<td>Farm animals breeding support</td>
<td>CAP 1st pillar or direct support and market organisation</td>
</tr>
<tr>
<td>School milk support in 2003/2004 academic year</td>
<td>CAP 2nd pillar or Estonian Rural Development Plan 2004-2006 support</td>
</tr>
<tr>
<td>Single area Payment Scheme (SAPS)</td>
<td>Agri-environmental support</td>
</tr>
<tr>
<td>Complementary National Direct Payments (CNDP)</td>
<td>Less-favoured areas support</td>
</tr>
<tr>
<td>Support for bringing manure storage facilities into conformity with requirements</td>
<td>Support for semi-subsistence farms undergoing restructuring</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EAGGF Guidance Section and state budget</th>
<th>Structural Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. Investments in agricultural holdings</td>
<td>Estonian National Development Plan 2004-2006 support for the 3rd priority “Agriculture, rural development and fisheries”</td>
</tr>
<tr>
<td>3.2 Investment support for improving the processing and marketing of agricultural products</td>
<td>3.3 Diversification of economic activities in rural areas</td>
</tr>
<tr>
<td>3.5 Regeneration and development of villages</td>
<td>3.10 Modernisation and renewal of the fishing fleet</td>
</tr>
<tr>
<td>3.11.1 Investment support for the processing of fishery and aquaculture products</td>
<td>3.11.2 Investment support for aquaculture</td>
</tr>
<tr>
<td>3.11.4 Investment support for inland fisheries</td>
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3.2. State aid

National support
Urve Valdmaa

In order to support dairy cow breeding, producers were paid 108.3 million kroons from 2004 state budget funds. There were 2,673 applicants for assistance seeking aid for breeding 102,100 cows (449 of them Estonian native cattle). Aid was granted to 2,627 farmers for 101,144 cows (397 of which were Estonian native cattle). Support per cow equalled to 1,065 kroons and support per Estonian native cow was 2,600 kroons.

In 2004, similarly to the previous years, the number of final recipients was highest in Pärnu County (359 farmers i.e. 14% of aid applicants), who received aid for 11,229 cows in the amount of 12.2 million kroons. The county with the greatest number of cows receiving aid was again Järva County, where 16,917 cows were supported with 18 million kroons. Hiiumaa had the fewest number of applicants; it also had the smallest number of animals.

In 2004, most of the farmers receiving dairy cow breeding support had only a few cows. The number of one-cow owners was the highest – 346 (last year the number of two-cow owners was the highest – 328). The largest dairy herd receiving support was in Järva County and comprised of 2,020 cows. As last year, there were altogether six herds with over one thousand dairy cows.

Estonian native cattle breeding support recipients are those producers who received support at an increased rate of 2,600 kroons per animal for rearing an endangered breed. County-wise, native cattle is mostly being reared in Pärnu County, the largest herd having 53 heads. Hiiumaa and Põlva County have the smallest native cattle— only one cow in both counties. In most of the counties the number of local breed cows has increased over the years.

Pursuant to the Farm Animals Breeding Act, breeders’ associations recognised by the Veterinary and Food Board (VFB), executers of performance testing or the preservers of endangered breeds could apply for farm animal breeding support.

All in all eleven breeding support applications were submitted to ARIB in 2004. Eight recognised breeders’ associations appealed for the aid. Breeders’ associations had to specify the number of agricultural animals in the application. Taking into account various applicants and breeding objectives, the number of animals amounted to 139,765. In view of animal species, the
majority of the animals specified in the application for were bovine animals (over 74%), followed by pigs, sheep, horses, and poultry.

Maximum level of support established by the Minister of Agriculture for one applicant was 10 million kroons, which was paid to one breeders’ association engaged in cattle breeding.

In 2004, eight applicants were paid a total of nearly 15 million kroons, which was 2.5% more than in 2003, when the number of breeding associations receiving aid was the same.

**Common Agricultural Policy support**

Direct aid was adopted after the reform of 1992 with the aim of compensating the producers for income decrease following from the reduction of intervention prices.

**Single area payment and supplementary direct aid support levels in 2004 and payment entitlements**

<table>
<thead>
<tr>
<th></th>
<th>Maximum support level, 2004</th>
<th>Payment entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Single area payment</td>
<td>25% of the EU level</td>
<td>800,000 ha</td>
</tr>
<tr>
<td>2) CNDP for growing crops</td>
<td>55% of the EU level</td>
<td>362,827 ha</td>
</tr>
<tr>
<td>3) CNDP for certified seed growing</td>
<td>100% of the EU level</td>
<td>757 ha, of which:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>497 ha = grasses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>260 ha = leguminous grass plants</td>
</tr>
<tr>
<td>4) CNDP for cattle breeding</td>
<td>55% of the EU level</td>
<td>146,029 livestock units</td>
</tr>
<tr>
<td>5) CNDP for ewe breeding</td>
<td>Pre-accession level + 10% of the EU level</td>
<td>48,000 ewes</td>
</tr>
</tbody>
</table>

Single area payment comes from EU budgetary resources. Estonian state budget and Estonian Rural Development Plan (RDP) funds are being used for paying supplementary direct aid. The share of direct aid may not exceed 20% of the RDP budget, and the funds from this budget may only cover 40% of the level of EU direct aid. In 2004, 621.95 million kroons of direct aid was allocated. According to initial calculations the amount of direct aid will increase by 23.5% in 2005.

Producers were granted **CNDP for cattle breeding** in the total sum of 76.8 million kroons. There were 6,397 applicants, appealing for aid for the breeding of 135,425 bovine animals. Aid was given to 6,254 farmers for 132,829 bovines. Direct aid support levels for 2004 per animal were as follows: heifers from 24 months and cows 1084 kroons; heifers from 8 to 24 months 542 kroons; bulls from 8 months 774 kroons and calves from 1 to 8 months 155 kroons.
12.2% of the aid was granted to cattle farmers in Järva County, 11.8% to Lääne-Viru County and 10.3% Jõgeva County producers.

767 farmers with 19,757 ewes applied for **ewe breeding CNDP**. Aid was granted to 729 applicants with 18,945 animals. The established aid intensity was 219 kroons per ewe. One-fifth of the aid was given to Saaremaa sheep farmers.

8,192 farmers applied for **crop farming CNDP**, the applied area being 330,300 ha. Aid was provided to 7,849 applicants having altogether 324,300 ha. Aid intensity was 632.8 kroons per hectare.

The biggest sums went to the agricultural producers in Lääne-Viru County (14.9%) and Tartu County (12.5%).

There were 18,954 **single area payment** applicants for 818,400 ha of agricultural land. Aid applications of 18,597 applicants were approved, the total area being 803,700 ha. Single area payment level was 414 kroons per ha.

**School milk support** was paid until 1 May 2004 pursuant to national legislation, according to which 1–4 grade pupils could consume dairy products at lower prices. The size of the aid per student was 1.5 kroons per school day. In the third quarter of the 2003/2004 academic year, ARIB paid 3.9 million kroons for school milk support and the same amount in the fourth quarter.

From 1 October 2004, the arrangements for paying EU school milk support were implemented, according to which more people were eligible for aid and new requirements were established for applicants. Regulation no. 298 of the Government from 17 September 2004 provides that school milk may be provided to kindergarten children, 1–12 grade pupils and to students of vocational educational institutions with basic education. School milk support will be granted ‘ex post’ in a certain period on the basis of quantities consumed. The maximum quantity is 0.25 litres of milk or dairy product per student per school day.
In 2004, the European Commission approved the Estonian Rural Development Plan 2004-2006 (RDP). Rural development measures that are part of the EU common agricultural policy (CAP) are implemented under RDP. The financing sources for RDP measures are the EU budget (80%) and the Estonian state budget (20%). The primary aim of rural development measures is to make agricultural production more environmentally friendly and help increase the sustainability of agricultural producers and small producers in less-favoured areas. In addition to the agri-environmental support, which helps to compensate for the costs of supplementary activities related to environmental conservation, one other aspect of environmental conservation – bringing agricultural production into conformity with EU environmental standards – plays an important role as well. Harmonization is supported by the aid for bringing manure storage facilities into conformity with water conservation requirements. To improve the economic situation of entrepreneurs related to the post-accession reorganisations, support for semi-subsistence farms undergoing restructuring is implemented in RDP framework.

The objective of less-favoured areas support is to ensure the continuing use of agricultural land in less-favoured areas and thereby contribute to the maintenance of a viable rural population.

The measure is being implemented in 101 municipalities that being nearly half of the Estonian territory. Eligible applicants are persons involved in agriculture who are taking a 5-year commitment to continue agricultural land use in the same region and meet the good farming practice requirements in the entire holding.

In 2004, support for less-favoured areas was applied for a total of 308,798 ha. There were 8,520 applicants. Support was granted in the amount of 117 million kroons.

Agri-environmental support is a compulsory measure that has to be implemented by all Member States. The overall aim of the measure is to facilitate the implementation and continuous use of environmentally friendly agricultural methods and to preserve and increase biological and landscape diversity. Eligible applicants are persons engaged in agriculture who meet the good farming practice requirements (provided in RDP) and other requirements for getting the support and who undertake an obligation to com-
ply with the requirements for 5 years. Three sub-measures were implemented in 2004:

5761 applicants applied for **environmentally friendly production scheme**, in a total amount of nearly 462,000 ha. Nearly 260 million kroons of aid was granted.

779 producers sought **support for organic production** for over 40,000 ha. A total of nearly 48 million kroons of support was provided.

**Support for breeding Estonian native horse** was sought by 277 horse owners for 855 horses. Nearly 2 million kroons were paid out.

**Support for semi-subsistence farms undergoing restructuring** is aimed at sole proprietors engaged in the production of agricultural products in rural areas, sales revenue from agricultural products was between 31,300 and 281,600 kroons in 2003. The objective of the support is to give smaller agricultural holdings provisional income support in the post-accession transitional period and help to strengthen them economically. Support for semi-subsistence farms is paid in the amount of 15,647 kroons (1000 euros) per applicant per year. Over five years, each farmer is paid up to 78,235 kroons. In 2004, 2,249 producers applied for the aid, 2,215 of them received a total of nearly 35 million kroons. The business income (including agriculture) of 72% applicants was between 31,300 and 125,000 kroons.

In order to apply for aid in 2005, the applicant's business income from agricultural activities in 2003 has to be at least 31,293 kroons, and the total business income may not exceed 281,639 kroons. Applicants must be continuously engaged in agriculture, but may also be engaged in other types of business activities in rural areas. In the interests of the consistency of economic activities, the applicant has to compile a business plan showing the areas of activity for the next five years and activities planned for the period when the assistance is received.

The goal of the **support for bringing manure storage facilities into conformity with water protection requirements** is to bring animal husbandry into conformity with environmental requirements arising from the EU water policy. The construction, expansion and reconstruction of manure storage facilities are being supported along with the procurement and renovation of technical systems and preparatory work accompanying the aforementioned investments. Eligible applicants are natural or legal persons rearing more than 10 livestock units (LU) of cattle, pigs, sheep or goats. In 2004, 760 farmers applied for nearly 100 million kroons.
The Special Assistance Programme for Agriculture and Rural Development (SAPARD) was aimed at EU candidate countries for helping them to prepare for accession to the EU, bring production in compliance with EU standards and support rural development.

By the end of 2004, 995 million kroons of SAPARD funds had been disbursed, which meant that nearly 90% of the applications were approved. In the first years of the programme, application activity was not very high as it took time to get used to new schemes. In the last year that aid applications were accepted, 2003, aid from all measures was actively applied for. The application process for aid in the SAPARD programme is over, but the disbursement of aid, aid use monitoring and other supervisory activities will continue for a number of years. When the programme comes to an end, an evaluation will be performed, which will give an overview of its success and fulfilment of goals.

In 2001–2003, applications were accepted for five measures:
1) Investments in agricultural holdings (measure 1);
2) Investment support for improving the processing and marketing of agricultural and fishery products (measure 2);
3) Investment support for development and diversification of economic activities in rural areas (measure 3);
4) Investment support for development and improvement of rural infrastructure (measure 4);
5) Investment support for regeneration and development of villages (measure 6).
Approved applications 2001 – 2004

In 2001–2004, aid applications with a total sum of over 1.1 billion kroons were approved. 75% was funded from the EU and 25% from the Estonian budget. The approved aid sum was used by rural entrepreneurs and societies to invest with a total sum of over 2.3 billion kroons. Measure wise, investments into agricultural holding were supported the most – 46% of all SAPARD funds i.e. 524 million kroons.

Mid-term evaluation of SAPARD by an independent evaluation showed that unemployment rate in rural areas had decreased by 4.9% in 2000–2003, from 13% to 8.1%.

The programme has contributed to the promotion of equal opportunities for men and women and the creation of employment for youth.

Budget, approved and disbursed projects, 2001–2004
Estonian National Development Plan
measures
Margus Palu

The Estonian National Development Plan (NDP) came into effect after Estonia’s accession to the EU. Applications were accepted in relation to 8 measures and sub-measures:

- Measure 3.1: Investments in agricultural holdings: 26 April–10 May;
- Measure 3.2: Investment support for improving the processing and marketing of agricultural products: 5–30 July;
- Measure 3.3: Diversification of economic activities in rural areas: 23–26 August;
- Measure 3.5: Regeneration and development of villages: 22 November–16 December;
- Measure 3.10: Modernisation and renewal of the fishing fleet: 1 September–29 October;
- Sub-measure 3.11.1: Investment support for the processing of fishery and aquaculture products: 30 April–30 June;
- Sub-measure 3.11.2: Investment support for aquaculture: 30 April–8 October;
- Sub-measure 3.11.4: Investment support for inland fisheries: 22 November-16 December.

In 2004 a total of 1015 applications were submitted for 868.7 million kroons. 57% of the applications were approved — i.e. 582 applications in the amount of 619.3 million kroons. By the end of the year, 204 projects had been disbursed in the amount of 174.5 million kroons.

The three-year budget of the third priority is 1.52 billion kroons. First year applications covered 57% of the three-year aid intended for the priority. Applications were approved in the amount of 41% of the three-year budget.

By the end of 2004, processing of applications had ended in connection with (sub)measures 3.1, 3.2, 3.3 and 3.11.1. Processing has not ended (i.e. the number of approved applications will change) for (sub)measures 3.5, 3.10, 3.11.2 and 3.11.4.

Investments in agricultural holdings

A total of 463 applications were submitted in the amount of 360.6 million kroons. A total of 503 million kroons (Estonian public sector + EU) is intended for investments into agricultural production in 2004-2006. 72% of the
three-year budget was applied for in the first application round. In 2004, 429 applications were approved in the amount of 345.6 million kroons — 93% of the submitted applications conformed to the requirements. Aid totalling 170.3 million kroons was paid out for 202 projects.

77% of the submitted projects applying for investment support were related to horticulture, 7% to animal husbandry and equipment and 4% to the diversification of agricultural production. Aid was most often applied for in the horticulture sector (68%) and for farm buildings (21%), followed by the diversification of agricultural production and purchase of animals.

Object wise, most of the approved applications were related to the purchase of certified or inspected berry seedlings (211,710 units), followed by the purchase of certified or inspected fruit tree seedlings (74,000 units). Applications for the purchase of tractors covered the largest sum (78.5 million kroons), followed by the construction of cowsheds, milking parlours or primary milk cooling/store rooms (38.2 million kroons) and the purchase of grain harvesters and supplementary equipment (36.5 million kroons).

Most applications came from Pärnu County (62 applications), followed by Tartu County and Lääne-Viru County (48 applications). The fewest applications came from Hiiumaa (4) and Ida-Viru County (13). Most of the approved applications came from Pärnu County (57), followed by Tartu County and Lääne-Viru County (45).

**Investment support for improving the processing and marketing of agricultural products**

A total of 49 applications were submitted for aid in amount of 135.3 million kroons. A total of 177.9 million kroons is foreseen for 2004-2006; thus in the first round, 76% of the total budget of the measure was applied for. 40 applications submitted in the framework of measure 3.2 were approved in the amount of 120.6 million kroons — i.e. 82% of the submitted applications met the requirements. No projects had been completed by the end of 2004 and thus no disbursements were made.

Support for agricultural products processing industry was distributed among the following sectors: the improvement of meat processing—55%, dairy processing—26%, fruit and vegetables and berry processing—15% and grain processing—3%.

Approved aid is mostly aimed at the purchase of meat and meat products handling equipment and technical lines (67 units). They are followed by devices for handling milk and milk products and technological lines (including cold-start devices, stationary heating installations and milk transport trailers and collection tanks) — 21 units.
The largest part of the approved amount will support projects related to the construction and renovation of meat and meat products handling facilities (31 million kroons), followed by projects related to the purchase and installation of meat and meat products handling equipment and technological lines (21 million kroons).

Tartu County submitted most applications (15), followed by Harju County (9). No applications were received from Hiiumaa, Järva County or Rapla County. Most of the approved applications came from Tartu County (15), followed by Põlva County (6).

**Diversification of economic activities in rural areas**

103 applications covering 107.1 million kroons were submitted for measure 3.3. The 2004–2006 budget includes 136.1 million kroons for the support, and 79% of the three-year budget was covered by the first round applications. 75 applications were approved — i.e. 73% of the applications submitted. So far, one project has been disbursed in the amount of 216,600 kroons.

Approved assistance was distributed as follows: renovation of buildings for servicing tourists (28 sites), purchase of necessary handicraft equipment (22 units).

The largest sum was allocated for the construction of buildings necessary for servicing tourists, amounting to 20.6 million kroons. 14.9 million kroons went to renovation of buildings necessary for servicing tourists.

Most applications originated in Tartu County (17), followed by Valga County (11) and Lääne-Viru County (10). No applications were received from Lääne County. Most of the approved applications were from Saaremaa and Tartu County (9).

**Regeneration and development of villages**

A total of 306 applications were submitted for aid in the amount of 114.4 million kroons. 100.1 million kroons are budgeted for 2004–2006 support; thus first round applications amounted to 114% of the three-year budget. As applications were received until December 16, no projects were approved by the end of 2004. County commissions draw up the order of the applications. 60% of the three-year budget will be disbursed in the first year.

The amounts applied were the following: 86% for buildings, facilities and furnishings, 7% for musical instruments, sporting equipment and folk costumes and 6% for public information centres.
Most applications came from Viljandi County (30), followed by Jõgeva County (29) and Lääne-Viru County (27). The fewest applications were submitted from Rapla County and Hiiu County (12).

**Modernisation and renewal of the fishing fleet**

A total of 39 applications were submitted for aid amounting to 43.5 million kroons, to support investments totalling 108.8 million kroons. A total of 50 million kroons is intended for aid in 2004–2006. So far 16 applications have been approved in the amount of 14.03 million kroons. No disbursements had been made by the end of 2004.

One could apply for support for building or purchasing a new fishing vessel only in 2004 as Article 9(1)(a) of Council Regulation (EC) No 2792/1999 sets out that aid for fishing fleet renewal could only be allocated until 31 December 2004.

Most of the approved applications were aimed at hull works (8 items), the purchase and installation of navigation systems and software (8 items). This was followed by the purchase of vessels (6 items), the purchase and installation of equipment related to environmental protection (5 items), alteration or major repairs of the main engines (5 items). Support for the purchase of vessels formed the largest aid category with the amount of 7.6 million kroons. This was followed by the alteration or major repairs of the main engines in the amount of 3.56 million kroons and hull work in the amount of 737,346 kroons.

Most applications were submitted from Hiiumaa (12), followed by Pärnu County (11), Saaremaa (7), Harju County (5), Lääne County (3). The fewest applications were submitted from Ida-Viru County (1). No applications were received from Lääne-Viru County and Tartu County.

Most of the approved applications were from Pärnu County (9). The approval of applications continues.

**Investment support for the processing of fishery and aquaculture products**

A total of 17 applications in the amount of 68.3 million kroons were submitted to support investment amounting to 138.3 million kroons. So far, 13 applications (76% of applications) have been approved in an amount of 47.1 million kroons. In 2004, one project of the given measure was disbursed.

No applications were submitted for waste handling. Investment into buildings and facilities (81.6% of the total sum applied for), fishery and aquaculture products handling equipment (18.3%) were most popular.

Most of the approved applications were related to the purchase and in-
installation of fishery and aquaculture products handling equipment and technological lines (36). This was followed by the purchase of refrigerated lorries (9) and warehouse hoists (7).

In view of the aid amount, projects related to the purchase and installation of fishery and aquaculture were most approved, the support totalling 28 million kroons. This was followed by renovation of buildings or facilities for fishery and aquaculture products handling (7.4 million kroons) and purchase of refrigerated lorries (6.1 million kroons).

**Investment support for aquaculture**

A total of 23 applications were submitted in the amount of 35.1 million kroons. Nine applications were approved (39% of the applications received) in the amount of 13.3 million kroons. Review of the applications will continue in 2005. No disbursements were made in connection with this measure in 2004.

97% of the applied support was aimed at the renewal and construction of aquaculture buildings and facilities. No applications were received for the purchase of equipment necessary for the first-stage processing of aquaculture products.

Most of the approved applications were connected with design work (7 items) and with the compilation of applications and business plans (7 items). This was followed by the construction of aquaculture buildings or facilities (6 items) and the purchase and installation of aquaculture buildings or facilities equipment (51).

The construction of aquaculture buildings or facilities received the biggest support (8.04 million kroons), followed by the renovation of aquaculture buildings or facilities (3.6 million kroons).

**Investment support for inland fisheries**

A total of 15 applications were submitted in the aid amount of 4.2 million kroons. All applications received (15) were declared to be in conformity with the requirements. No applications were approved by the end of 2004. 99% of the aid applied was related to the purchase of new fishing vessels, 1% to preparatory work. Processing of this measure continues.
3.3. Participation in the EU decision-making process

Depending on their areas of expertise the officials of the ministry took part in the meetings of many different committees and working groups, where opinions and proposals co-ordinated with the social partners were expressed.

In 2004, many fundamental questions related to economic policy were discussed in the EU institutions, most important of which were issues connected with the next financial period, such as the reform of rural development policy in 2007-2013, the reform of the European Fisheries Fund and the sugar market reform. In addition, many other issues associated with subsidies, market organisations, food safety and trade in agricultural products were discussed and appropriate decisions and legal acts were adopted.

Draft Council Regulation on rural development

Jüri Rute

In the summer of 2004, the draft Council Regulation on rural development in 2007-2013 was submitted to Member States for comments and proposals. Starting from September discussions were launched with social partners in the public sector working groups of the Member States. In 2004, five working groups were organised in Brussels by the Council of the European Union where positions and proposals of the Member States were discussed. Draft regulation was discussed in the Special Committee on Agriculture (SCA) and the first reading was completed in the Council of Agriculture and Fisheries Ministers.

The regulation provides new principles for financing the agricultural and rural development measures, according to which the system will be simplified and made more transparent from 2007. Measures set out in three different documents - the Common Agricultural Policy, Rural Development Plan for 2004-2006, and national development plan - will be merged into a single document – rural development plan for 2007-2013.

For achieving the common goals of the Community and the balance of measures, the European Commission has proposed the minimum funding levels for the programme goals or priority axes (expressed in percentage) as follows:
- increase of competitiveness 15%;
- environmental conservation and land management 25%;
- rural development and diversification of rural activities 15%.

7% of the total amount of the financing package for LEADER-type (supporting local initiative) measures, which is considered to be part of the three priorities. Member States have the right to decide the goals at which it would be most efficacious to target 45% of funds.

The new RDP does not have to solve all the problems of rural development. European Social Fund as well as Regional Fund measures will continue to play their role.

According to the plan, the regulation and strategic guidelines are to be adopted in June 2005, after which the preparation of a new rural development plan and development strategy is started; these are to be submitted to the European Commission for approval.

The development plan has to reflect agreed-upon priorities as well as the special needs of diverse European rural areas. Member States are requested to show where they think the EU priorities should be directed.

While putting together a new rural development plan and strategy, the fields where rural development resources and EU co-financing would give the greatest added value on the EU level should be identified and agreed upon. A link with EU primary priorities should be established: between development, jobs and sustainability, and measures and activity plan for achieving the three primary goals should be developed.

**Common fisheries policy reform**

*Kädi-Liis Kangur*

In December 2002, the principles for reforming the common fisheries policy for 2007-2013 were agreed upon in the Council of Europe. The corresponding draft regulation provides new principles and goals for financing aid in order to ensure the sustainability of fishing and aquaculture, to make financing more effective, and adapt it to the changing needs in the conditions of the enlarged EU.

At the moment, the fishing sector of the EU Member States is funded from the Financial Instrument for Fisheries Guidance (FIFG). According to the principles set out in the draft regulation, the working principles of the new European Fisheries Fund (*hereinafter* EFF) will be harmonised with the working principles of the European structural funds. Reform objectives fo-
The work of EFF will be focused on five priorities:
1) Measures for adapting the fishing fleet of the Community;
2) Aquaculture and the processing and marketing of fishery and aquaculture products;
3) Measures generally beneficial to the sector;
4) Sustainable development of coastal regions;
5) Technical assistance.

EFF’s terms and conditions allow to support those fishermen and ship owners who are affected by the measures implemented in the framework of multiannual fish resources restoration plans and measures regulating the fishing capacity of the fishing fleet proposed in the framework of national programmes. Aid can also be paid when the fishing activity is temporarily suspended, if this is follows from an emergency situation, non-renewal of a fisheries agreement or natural disaster. Those leaving the fishing sector can apply for support from training and early retirement schemes.

The use of environmentally friendlier fishing gear and technologies may be supported, for example in a case when vessels are obliged to change their fishing technologies in the framework of a fish resources restoration plan when they switch to another fishery sector. Draft regulation also makes it possible to support the training of young fishermen who are preparing to buy their first fishing vessel.

As agreed within the framework of the common fisheries policy reform, provision of aid for the renewal of fishing fleet was terminated (it contributed to the creation of excessive fishing capacity) in December 2004. Financing of the regulation of the fishing capacity of the fishing fleet continues. In case of the utilisation of fishing vessels, programmes regulating the national fleet, which are established within two years from the completion of the fish stock restoration plan are given a priority and their aid intensity is higher. Modernisation of hygiene and safety conditions on board is also being supported. Fishermen engaged in small-scale coastal fishing can get a higher level of support for several measures. EFF continues to support the sustainable development of European aquaculture.

Support is also granted to projects initiated by a organisation representing the fishing or aquaculture sector and the goal of which is to contribute to the sustainable use or preservation of fish resources, increase transparency on fishing and aquaculture markets or to promote cooperation between the fishing sector, scientists and the fisheries administration.
Sugar market reform
Ants Laansalu

In the middle of July 2004, the European Commission presented the sugar market reform programme, the goals of which are to increase the sector’s competitiveness, meet the market demands, make it more consumer and environmentally friendly; and put an end to overproduction. The most visible result from the standpoint of the consumer is three times lower price. Discussions over the reform programme began in September 2003, but consensus between the Member States has not yet been achieved. The reason why sugar market organisation has remained unchanged for nearly 40 years lies in its conflict with the interests of many different and influential sectors of the economy. The share of sugar beet growers in consumer and taxpayer expenditure is relatively small. A large part of the revenue coming from the higher price paid by consumers goes into the pockets of landowners, industry and enterprises servicing the sector. The Commission predicts that 83,000 jobs will be lost as a result of decreased production and fall in prices. 25,500 of these jobs will be lost in sugar industry and 51,000 in companies servicing the sugar sector. Only 6,500 positions will be lost in agriculture. The reform affects the industry and commerce foremost. Even though the EU has been criticised for its high export volume, the Estonian media has not stressed the fact that the EU is one of the world’s greatest sugar importers, with 1.7–1.9 million tons per year. The exporters—developing African, Caribbean and Pacific States with whom Europe has longstanding ties—will also be greatly affected. These countries would miss out on 190 million euros a year due to the loss of price advantage. Thus the problems do not only lie in agricultural policy, but mainly in an outdated market regulation, which distorts the prices most.

European Commission estimates that Brazil will fill in the EU market share after the reform is being carried out; the country is constantly increasing its production and export at the expense of cleared rain forest. In the end the costs of restructuring the sugar sector will be borne by consumers and taxpayers.

The reform plan has taken into account the need to support regions where sugar beet growing and production is to be ended. The factories will be able to sell their quota within the EU to places where production is more effective. If the quota of a factory is not bought up, the EU is ready to support the closure and redeployment of the workforce in other fields.
Estonia has submitted its position and expressed support towards the reform plans.

Management Committee for Direct Payments focused on the specification of implementing regulations details, for instance the transfer of eligibility related to leased land or possible sanctions when it is revealed after such transfer of eligibility that the initial transfer was faulty – who will be sanctioned and in what amount, specification of the definition of permanent grassland, etc.

The 2005 regulation on direct aid budget was approved, providing the necessary sums for Member States for the financing of various aid schemes. Annex VI of the Commission Regulation (EC) No 118/2005 sets out 27,908,000 euros for Estonia under the single area payment scheme.

The main topics of discussion in the Management Committee for Cereals (the ones that were finalised) were the minimum prices for grain and rice lots sold from grain and rice intervention stocks, the highest tenders of which are realised.

Since it is no longer possible for the enlarged EU to regulate all questions very precisely, new EU legal acts have delegated more and more decision-making powers to the Member States. This has caused much dissatisfaction among the old Member States, who are expecting the Commission to regulate matters precisely.

In order to form the Estonian positions to be presented in the committee, a national working group has been established, made up of representatives from the Ministry, its divisions and producers. In most part, Estonia’s positions are harmonised between the working group members via electronic channels, but if necessary, the working group is also convened.

Management Committee for Fresh and Processed Fruit and Vegetables discussed the establishment of export subsidies for lemons, oranges, tomatoes and apples. Regulations were adopted correcting the import of garlic and canned mushrooms in connection with the enlargement of the EU. The Commission also worked out a regulation that provides the obligations of Member States to inform the Commission of the market prices for fruits and vegetables in order to get an overview of the situation in European markets. This regulation will not result in obligations for Estonia, since the market here is so small and does not affect the EU market.

In addition to the meeting of the organising committee, a meeting of the fruit and vegetable council working group took place in September, which focused on four issues:
• How could producer organisations simplify the implementation of market organisation and make the services of the producer organisations more attractive to producers;
• How would it be possible to improve the collection of tenders in regions where organisations are weak, especially in the new Member States;
• What can be done to improve quality products and/or products produced in environmentally friendly conditions;
• What can be done for better crisis management.

It was desired to add recognition categories to the existing Council Regulation, increase the share of direct sales, supplement the chapters regarding the merging of producer organisations and associations and support the initiatives of producer organisations. The Commission noted that it was difficult to find a balance as regards the proposals made.

Export subsidies for fresh and processed products were established at the committee’s October meeting and the trigger levels of supplementary customs duties were changed.

Management Committee for Milk and Milk Products discussed the progressive reduction of intervention prices decided by the CAP reform, tender procedures and export issues. Despite abundant votes against, many support levels were reduced at the Commission’s initiative.

Management Committee for Pigmeat considered pork as a grain-based production. At the beginning of 2004 the price of pork (EU average in January 2004 – 116.27 euros i.e. 1,819 kroons per 100 kg) decreased even more than the average market price in 2003 (125–130 euros i.e. 1,956–2,034 kroons per 100 kg). Supplementary export refunds were adopted and private storage continued in January and February. In the course of the year, regulations on export and import licenses and import quotas (CN codes of the export license regulation) were amended and supplemented. In spring 2004, pork purchase prices began to rise and reached a satisfactory level for the producers by the end of the year. One of the most important sessions topics last year was also the Commission authorisation of methods for estimating the lean meat content of pig carcasses. This has been the most important topic for Estonia, as the corresponding protocols for authorising the grading method for pig carcasses were submitted to the Commission in November 2004. Experts from other Member States approved of the scientific work done for finding the lean meat content measurement formulas.

Management Committee for Beef and Veal approved of the draft regulations on tariff quotas for the 2004/2005 financial year. WTO treaty and
bilateral treaties provide that a reduced tariff level is applied for quantities of certain products or they are allowed to be imported duty-free. Compared to earlier years, the management of frozen beef tariff quotas was changed significantly—from 2004 on the quota is distributed in accordance with the previous year’s import. The definition of high quality beef was also changed. Producer prices for beef rose notably during the year in new the Member States, purchase price increase was especially sudden and fast in Poland. The export of EU beef into third countries has decreased yearly. A slight rise in beef production is forecasted for 2005 but in the longer term, beef production should decline a bit. Decoupling will certainly have its effect. Prices should continue to be of a relatively high level.
4. The economic situation of agriculture and food industry

4.1. The development of income in the agricultural sector in 2004 (based on EAA)  
Kristel Maidre

The economic results of the agricultural sector are evaluated on the macroeconomical level, on the basis of the Economic Accounts of Agriculture (EEA), which have been prepared in accordance with Regulation 138/2004/EC.

According to the original data, the production of the agricultural industry in 2004 was 7.3 billion kroons (together with subsidies), product subsidies of which for plant and animal breeding formed altogether 5.4% (392.9 million kroons). Compared to the year 2003, the production of the agricultural industry (in current prices) grew by 8.1% including subsidies and 6.4% without subsidies. The volume of agricultural production decreased by 2.6%, but producer prices grew on the average by 9.3%. Of the producer prices, the price of raw milk increased the most (by 32.7%).

Of the total value of the agricultural production, plant-growing production formed 36.9% and animal breeding production 52.1%, agricultural services 2.0% and integral non-agricultural auxiliary production 9.1%. The proportion of plant growing produce decreased by 2.3% and the proportion of animal breeding produce increased by 3.3%.

Compared to 2003, plant-growing produce went up by 1.8% in 2004, with the value of grains growing the most (by 26%). The value of potato production suffered the largest decrease (by 26.3%), resulting from a 29.1% drop in production. The largest proportion of plant growing production was made up by grains (34%), fodder crops (22%), vegetables (15.6%) and potatoes (12.2%). The proportion of grains has grown by 6% compared to 2003.

Animal breeding production, which includes the mass of slaughtered animals, livestock mass growth and the production of animal breeding produce, grew by 15.4% compared to 2003. The value of raw milk increased the most (by 37.1%), primarily due to the drop in the price of milk, and the
value of sheep and goats (by 35.95) due to an increase in the number of animals. Compared to 2003, the value of cattle production dropped by 6.8% due to a decrease in the number of animals. The value of pig breeding dropped by 7.8%. The largest part of animal breeding production is made up by raw milk (58.6%), pigs (21.4%) and cattle (8.2%).

The value of intermediate consumption in 2004 was 4.147 billion kroons, which forms 56.8% of agricultural production. Compared to 2003, intermediate consumption grew by 3.1%.

Compared to 2003, gross added value grew by 15.4% in 2004 and net added value by 20.5%, first of all due to an increase in product subsidies and a higher increase in production sales prices compared to the increase in input prices. Product subsidies (additional direct subsidies for growing field crops, cattle and ewes and the dairy cow subsidy) grew by 49.1%, the subsidies paid to plant growing by 73.9% and the subsidies paid to animal breeding by 29.3%. Other subsidies (for more disadvantaged regions, agri-environment support, standard area aid, breeding subsidy) grew from the 124.3 million kroons in 2003 to 769.6 million kroons in 2004, or by 6.2 times. Factor income (net added value together with other subsidies and without other taxes) that measures the benefits to all production factors used (land, labour, capital) – according to original data – grew by 49.7% in 2004 as compared to 2003.
Agricultural accounts figured in 2001-2004 (in million kroons)

<table>
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<td>115.9</td>
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<td><strong>Factor income</strong></td>
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<td><strong>2120.1</strong></td>
<td><strong>2126.8</strong></td>
<td><strong>3183.1</strong></td>
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</table>

* preliminary data

Source: Ministry of Agriculture, Statistical Office of Estonia (ESA)

4.2. Evaluation of the economic sustainability of agricultural undertakings (based on FADN)

Urve Valdmaa

The Farm Accountancy Data Network (FADN) was created by EU member states in 1985 with the aim to gather information for analysing the economic activities of agricultural households.

In Estonia, work to create the data network was started in 1996 and data was gathered about 50 farms and agricultural undertakings. Since 2000 data is gathered from 500 professional agricultural producers. According to the objectives of FADN, the Farm Accountancy Data Network only includes the
so-called professional commercial undertakings, who receive the main part of their income from agricultural production, and the minimum value of agricultural production is 2 ESU (European Size Units), which corresponds to 37,550 kroons. Figuratively speaking, undertakings should have at least 20 ha of grains or 5 cows to exceed that minimum level.

According to ESA, there are 7,970 agricultural producers in Estonia who meet the FADN requirements and form the population of agricultural producers. Over a half (58.8%) of the agricultural producers’ population are in the group of producers with the lowest economic size (2 to 3 ESU). By production type, producers involved in plant and cattle growing and the so-called mixed type undertakings are prevalent.

The main source of data is the annual reports and other accounting documents of the companies and therefore we can currently analyse the data for 2003. The principal difference compared to accounting is related to accounting for the value of fixed assets and the depreciation on it, as in the FADN system fixed assets are recorded at replacement value and depreciation is calculated using the straight-line method, based on the useful life of the fixed asset.

The average economic size of agricultural undertakings in 2003 was 12.6 ESU. Pig and poultry farming undertakings were the largest (40.3 ESU). On the average, an Estonian agricultural producer in 2003 had 90.4 ha of agricultural land, of which 60.2% was rented. The proportion of rented land has been decreasing in the recent years. In 2000, 70.3% of all agricultural land was rented, in 2001 the proportion was 67.6% and in 2002 64.6%. The larger the undertaking, the larger the proportion of rented land. While smaller producers rented 35.5% of their agricultural land, then undertakings largest by the use of land rented 85.2% of their land.

Approximately a half (47.5%) of Estonian agricultural producers are small producers, who have up to 40 ha of agricultural land to use (the average size of undertakings in this group was 24 ha). Large undertakings using over 400 ha of land formed 3.7% of the population, the average size being 868 ha. In 2003, over a half of the land (54.6%) was used for fodder crops and ca a third for growing grains. While the majority of the total production of smaller undertakings was made up by plant growing production, then the majority of the total production of larger undertakings came from animal breeding.

On the average, 2.9 annual units of labour was used per undertaking (1 annual unit being 2,200 working hours), of which a little over a half was made up by the owners’ unpaid labour. The largest by labour were pig and poultry growing undertakings with the average of 6.7 employees.
The proportion of subsidies (excl. investment subsidies) was 6.4% of total production. In 2003, subsidies had the biggest effect on the undertakings involved in animal breeding. Undertakings involved in gardening, perennial plants and pig and poultry growing received practically no subsidies. In 2003, the average of 43,576 kroons of subsidies was received per undertaking. The largest subsidies went to animal breeding, the subsidy for dairy cow breeding forming 32% of the total amount of subsidies and the subsidy for suckler-cows and other cattle 14.2%.

The largest subsidies in plant growing were the grain subsidy (24.3%) and the agri-environmental support (18.4%). In 2003, 482 kroons of subsidies were received per one hectare of agricultural land, whereas the smallest producers received 572 kroons and producers in the group of 40 to 100 ha only 423 kroons.

Total production in 2003 (incl. subsidies) per one hectare of agricultural land was 7,535 kroons. Compared to 2002, this was 1,013 kroons, or 12% smaller. The total expenses per hectare have also decreased. While in 2002 expenses per one hectare were 7,510 kroons, then in 2003 the figure was 6,621 kroons, which is 889 kroons, or 12% less than in 2002. The comparison of total production and total expenses per one hectare of agricultural land shows that only 914 kroons was left over for investment and production development in 2003.

**Total production and total expenses per one hectare of agricultural land in 2000-2003**

![Diagram](https://via.placeholder.com/150)

Gross added value per labour unit was 83,510 kroons in 2003, which is 3,551 kroons more than in 2002.
The proportion of subsidies in the gross added value was 18.0% in 2003, while it was 15.6% in 2000, 12.5% in 2001 and 19.1% in 2002. By producing added value, 2003 was more successful than 2002, except in milk producing undertakings. The average net added value per labour unit was 58,870 kroons in 2003. Undertakings in the 100 to 400 ha group were the most successful ones, with the average net added value per labour unit of 114,402 kroons.

**Net added value per labour unit by production type and size in 2003**

By economic size, larger undertakings (>16 ESU) produced 2.5 times more net added value per labour unit than the smaller ones.

### 4.3. The structure and competitiveness of the food industry

*Siret Kade*

Food industry sector forms the most important and most diverse branch of the industrial sector in the EU, being both the largest employer and exporter. There are over 26,000 food processing undertakings in the EU today, employing the average of 2.7 million people (a third of all those employed in the industrial sector) and having the annual turnover of over 600 billion euros.
In Estonia food industry formed 19% of the entire processing industry production in 2004. Compared to the 90ies this proportion has been continually decreasing, but it is still the largest branch of industry that gives approximately 4% of the gross domestic product and 4.6% of total export. The food industry sector employs the average of 3% of all those employed and 14% of all those employed in the processing industry sector.

**The proportion of food industry in the total production of processing industry; %**

![Proportion of Food Industry](chart.png)

*Source: Statistical Office of Estonia (ESA)*
The structure, employment level and export of the food industry sector; million kroons

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<td></td>
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<td></td>
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</tr>
<tr>
<td>Production of fish and fish</td>
<td>2055</td>
<td>1938</td>
<td>1248</td>
<td>1514</td>
<td>1934</td>
<td>1347</td>
<td>1304</td>
<td>1118</td>
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<tr>
<td>products</td>
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<tr>
<td>Production of dairy products</td>
<td>2983</td>
<td>3022</td>
<td>2031</td>
<td>2551</td>
<td>2916</td>
<td>2660</td>
<td>2734</td>
<td>3849</td>
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<tr>
<td>Products of the milling</td>
<td>87</td>
<td>103</td>
<td>76</td>
<td>52</td>
<td>99</td>
<td>105</td>
<td>158</td>
<td>97.5</td>
</tr>
<tr>
<td>industry</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production of finished fodder</td>
<td>351</td>
<td>412</td>
<td>412</td>
<td>240</td>
<td>296</td>
<td>324</td>
<td>278</td>
<td>280</td>
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<td>products **</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production of bakery products</td>
<td>984</td>
<td>995</td>
<td>1003</td>
<td>1010</td>
<td>1130</td>
<td>1205</td>
<td>1257</td>
<td>1065</td>
</tr>
<tr>
<td>**</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production of drinks</td>
<td>1806</td>
<td>1721</td>
<td>1725</td>
<td>1893</td>
<td>1810</td>
<td>1918</td>
<td>2059</td>
<td>2211</td>
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<tr>
<td>Employment in the food industry</td>
<td>24.4</td>
<td>24.5</td>
<td>21.5</td>
<td>19.9</td>
<td>17.9</td>
<td>15.5</td>
<td>14.3</td>
<td>13.8</td>
</tr>
<tr>
<td>(% of those employed in the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>entire processing industry)</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Food industry export,</td>
<td>3543</td>
<td>3735</td>
<td>2417</td>
<td>2392</td>
<td>2742</td>
<td>2557</td>
<td>2988</td>
<td>3368</td>
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<td>million kroons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion in total export, %</td>
<td>8.7</td>
<td>8.2</td>
<td>5.6</td>
<td>4.4</td>
<td>4.7</td>
<td>4.4</td>
<td>4.7*</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Source: Statistical Office of Estonia (ESA)

* Preliminary unadjusted data

** Short-term statistics (undertakings with 50 and more employees)

According to the data from 2004, the turnover of the Estonian food industry was 16 billion kroons. Based on ESA's information, the profit was 8.2 billion kroons. Compared to 2003 the turnover has grown by 14%, while the profit has dropped by approximately 11%.
Dairy industry forms the largest part of the total production volume of the food industry, amounting to 32% in 2004 and having grown constantly over the years. The proportion of drink, meat and bread and bakery industry has remained fairly stable, 18%, 17% and 14% respectively. The proportion of fish industry has dropped by 40% from 2000, amounting only to 9% of the total production of the food industry in 2004.

The proportion of sectors in the total production of the food industry; %

Source: Statistical Office of Estonia (ESA)
The Estonian food industry has in its renewal and consolidation process been constantly reducing the number of employees in the sector. At the moment there are people in the labour market who have worked in the sector and are familiar with the specifics of and experienced in the sector, but the situation will become more complicated when highly qualified, motivated employees are needed who are interested in their profession. In addition the attractiveness of this sector on the skilled labour level has already decreased in the eyes of young people. Therefore finding workers already in the nearest future may prove difficult.

(Source: PRAXIS, 2003) \(^1\)

**The average number of employees by sectors in 2002-2004**

![Bar chart showing the average number of employees by sectors in 2002-2004.](chart)

*Source: Statistical Office of Estonia (ESA)*

**The competitiveness of the food industry and factors influencing it**

The success of companies in the market is influenced by external factors. From one side it is the general laws regulating the economy, food industry and agriculture and the economic room, and from the other side it is the raw materials used, the quantity and quality thereof in various subbranches, the number and level of producers in the market and the technology used. An important influencing factor in the case of food industry is also trade and the structure thereof, incl. the proportion and strategy of chains. And finally, the consumers’ wishes and consumption trends, sensing which and pro-acting to which enables companies to sell more. Companies who can more effectively take into account these factors by making adequate decisions in their team at various stages in time are successful in competing with others.
The key word for the Estonian food industry in the coming years is trading in the EU market. In order to achieve larger quantities of goods, volumes need to be increased and efforts must be made to improve the quality of products. Companies based on the capital of several countries have therefore a distinct advantage in competing in the common EU market, already having their own marketing network, experience and advanced product development activities. What concerns the volumes necessary for trading and exporting in the common market, the larger companies of various sub-branches again have a higher potential. Being active, well informed and knowing how to enter markets is important. The main target markets for the food industry will still presumably be the neighbouring countries Latvia and Lithuania as well as the Nordic countries.

**Expenses of the companies on research and development in 1998-2003**

![Graph showing expenses of companies on research and development from 1998 to 2003.](image)

*Source: Statistical Office of Estonia (ESA)*

Scarce attention to product development and quality is one the biggest problems for many companies. The task of effective product development is both to strengthen and to improve market position. While in the recent years the investments of companies have been related to ensuring the requirements established in the Food Act, then today we can already see increasing investments into product development. According to ESA's information, compared to 2000 the investments into research and development in the food industry have grown by over 42%. In 2003, 89% of internal expenses were made up by testing and development expenses, 7% of application research and 4% of baseline research. Compared to 2002, when the proportion of baseline and application research in the total expenses incurred
by companies on research and development activities was nearly non-existent, by today there has been progress in that respect.

<table>
<thead>
<tr>
<th>FACTORS INFLUENCING COMPETITIVENESS</th>
<th>ACTIVITIES AND CONDITIONS TO INFLUENCE THE FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product quality</td>
<td>Quality management, increasing reliability</td>
</tr>
<tr>
<td>Product development</td>
<td>Skills and resources to learn the consumers' wishes, innovativeness, cooperation with research institutions, sufficient resources</td>
</tr>
<tr>
<td>Capable and motivated team</td>
<td>Cooperation ability, motivation, increase in sense of responsibility</td>
</tr>
<tr>
<td>Increasing production efficiency</td>
<td>Training workers, rearranging the production process, narrowing the product range in various product groups</td>
</tr>
<tr>
<td>Flexibility in order to react to changes in the market, strengthening the position in the Estonian market</td>
<td>Being well informed, awareness of demand and changes therein, taking them into account, expanding the distribution network</td>
</tr>
<tr>
<td>Specialising</td>
<td>Product development and quality, specialised products</td>
</tr>
<tr>
<td>Readiness and wish to cooperate with partner companies</td>
<td>Creating and maintaining relations, active development of contacts with the EU trading network, reducing fragmentation</td>
</tr>
<tr>
<td>Strong umbrella organisations</td>
<td>Cooperation with institutions and international organisations uniting the food industries of other countries</td>
</tr>
</tbody>
</table>

(Source: PRAXIS, 2003)´

**Investments**

**Public sector subsidies**

Of all the industrial sectors, joining the EU has most affected the food industry. This is expressed by large investments the companies have done to bring the sector into compliance with the EU normative documents and harmonised legislative acts.

According to ESA, approximately 2.7 billion kroons has been invested into the food industry in 2002-2004. Larger investments have been made into acquiring machinery and equipment (49%) and into reconstructing buildings and facilities (34.5%).
Investments into fixed assets in the Estonian food industry in 2002-2004

Source: Statistical Office of Estonia (ESA)

In 2001-2004, the food industry has received investment support from two sources, under SAPARD (2001-2003) and NDP (2004-2006).

The SAPARD measure 2 for the food industry is in 2004-2006 replaced by the NDP measure 3.2. The main difference between the two measures is in the sectors and activities subsidised. If the SAPARD measure 2 only subsidised meat and dairy industries, then the NDP measure 3.2 allows undertakings processing grain, fruits and vegetables and berries also to apply for subsidies. While the main objective of the SAPARD measure 2 was to help the food industry undertakings to achieve the established processing conditions, then the priority of the NDP measure is rather to support product development and environmentally friendly processing. Indeed, 2004 already saw a growth in the proportion of environmental investments, including investments into waste treatment. In 2001-2004, the Estonian undertakings processing agricultural produce have under the SAPARD programme and NDP received the total of 318.5 million kroons in subsidies. This amount includes 187.6 million kroons worth of approved applications and paid subsidies, with which the Estonian meat and dairy undertakings have implemented 382.6 million kroons worth of investments.

48.7% of the approved subsidy amount was made up by investments into equipment and 46.4% of investments into buildings. The proportion of investments into waste treatment facilities and equipment and environmental investments amounted to 4.1% and 0.8% respectively.
Subsidy amounts by objects in 2001-2004

By sectors, the majority of investments have gone to the meat and dairy sector, 58% and 35% respectively. The fruit and vegetable and berry sector has received 5.7% and the grain sector 1.2%.

Subsidy amounts by sectors

Source: PRIA

2 Heili Riik “Analysis of the international competitiveness of the sector of economy on the basis of the Estonian meat industry”, master’s thesis, Tartu University, Economic Department, 2003
3 European Commission / Enterprise and Industry, 2004
5. Development of rural life and the agricultural environment

5.1. A short overview of rural enterprise

Tõnu Taat

Pursuant to the Commercial Code, an entrepreneur may be a physical person who offers goods and services under his or her own name, or a company provided by law (AS, OÜ, TÜ). A company is defined as the economic unit through which the entrepreneur acts. Reports from the Statistical Office of Estonia show the number of entrepreneurs registered in the Commercial Register.

According to the register centre, the number of undertakings in rural areas has remained fairly stable in recent years (23–24,000 companies). Of these, around 73-75% are economically active (operating). Larger population centres and the rural municipalities around them are the most vital. The influence of Tallinn extends beyond Harju County to the northern part of Rapla and Järva County. The area of influence of the cities of Tartu and Pärnu is smaller, taking in parishes in a radius of twenty kilometres.

Entrepreneurial level of activity and structure of companies

This section looks at business undertakings (full partnerships, limited partnerships, public and private limited companies, commercial associations, and sole proprietors) that have been entered into the Register Centre’s statistical profile; in other words, firms that are economically active.

The level of entrepreneurial activity of the population is characterised by the number of companies per 1,000 people. In rural areas, this figure was 37 in 2003, with up to 2.5-fold variations from region to region. The lowest level of entrepreneurial activity is found in Ida-Viru (20) and Põlva and Võru counties (32 and 33), the greatest occurring on the islands of Hiiumaa (52) and Saaremaa (49) along with the parishes of Lääne County (46). The average level of entrepreneurial activity in Estonian urban areas (43) was 16% higher than that of rural areas. Counties notable for greater levels of enterprise include Harju County (58) and for lower levels, the towns of Ida-Viru County (17), Valga County (21) and Järva County (22).
Besides Hiiumaa, Saaremaa and Lääne County, other areas with a high level of entrepreneurial activity are the parishes of Pärnu County (45), Lääne-Viru and Jõgeva County (41 companies per 1,000 people).

**Companies per 1,000 people, 2003**

![Companies per 1,000 people, 2003](chart)

Analysing the data allows us to conclude that economically active entrepreneurs in the parishes are very unevenly distributed: companies in Harju, Lääne-Viru, Pärnu, Rapla and Tartu counties make up 53% of entrepreneurs in all parishes. The concentration of companies near Tallinn is also noteworthy.

Of the sectors of the economy, the greatest variations in share size (up to 3.7-fold) are among businesses in the primary sector: from 71% in Jõgeva and 69% in Järva County to 19.4% in Harju County.

The economic results posted by agricultural companies have a direct effect on total employment. In 2000, total agricultural production increased 24% compared to the year before, but the income levels were 8% less than in 1998, which resulted in the number of the employed decreasing by 10,100 (-24.3%). The main reason was imports supported with direct or hidden subsidies by other countries driving down prices on the domestic market.
In 2002, a new, more liberal set of commercial procedures took effect between Estonia and the EU. EU export subsidies were abandoned and the amount for approved applications under the SAPARD program increased by 60%, which had a positive effect and allowed total employment to be increased by 3.8%.

The revenue of companies engaged in agriculture decreased in 2003 by 56% or 212 million kroons. The large drop was due to a decrease in prices of agricultural products, growth of wages and decreased subsidisation, since 101 million kroons had been paid out the year before as partial drought relief. The net added value in base prices decreased by 3.4%, which was brought about by a 12.9% drop in prices, even while quantities grew 10.9%. These circumstances caused the number of the employed to fall by 4,200 or 14%.

Farmers were forced to do their work at the expense of their assets, and until 2002, nearly 2.5 times less was invested into agricultural production than was in the old member states of the EU. From 2000, investments have increased and in 2002, most achieved EU15 member state levels. At the same time, however, equity decreased in small farms (of up to 40 ha) and economic activity continued at the expense of non-current assets.

Following accession, stabilisation of the economic environment and standardisation of competitive conditions is expected.

In the secondary sector, Harju County (20%) has the greatest share and Jõgeva County (8.3%) the smallest share—the difference being 2.4-fold—and in the tertiary sector, Harju County (60.6%) and Jõgeva County (20.6%)—a 2.9-fold difference.

Besides Harju County, other notable secondary sector counties with large shares are the counties of Rapla (16.3%) and Tartu County (15.7%). Besides Jõgeva County, other counties with a low share of the secondary sector are Järva County (9.5%), Saaremaa and Valga (10.1%) County.

In terms of the relatively great number companies in the service sector, Rapla (44.4%) and Tartu County (42.2%) parishes rank with those of Harju County. Similarly to Jõgeva County, the share of the service sector is low in Järva County (21.6%), Saaremaa (21.9%) and the parishes of Viljandi County (22%).
Employment

The economic situation of rural dwellers has changed significantly from 1989–2003. Unemployment and inactivity have become problems. At the beginning of the 1990s there was nearly no unemployment at all, but in 2000 there were 28,500 unemployed in the countryside (13.8%) and 144,300 inactive people or 41.2% of those of working age. In the years that followed, unemployment dropped to 8.1% in 2003. In total, the number of unemployed people in the countryside decreased by 13,800 from 2001-2003. In the second quarter of 2004, the unemployment level rose to 10.3%, which was 1.2 percentage points more than compared to the same period the year before.

15–74-year-old rural dwellers according to economic status, 1997–2003 (annual average) and 2nd quarter 2004 (thousands)

<table>
<thead>
<tr>
<th>Period</th>
<th>Workforce total</th>
<th>Workforce employed</th>
<th>Workforce unemployed</th>
<th>Inactive total</th>
<th>Inactive employed</th>
<th>Inactive unemployed</th>
<th>Total Employment</th>
<th>Unemployment %</th>
<th>Unemployment %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>199.6</td>
<td>177.1</td>
<td>22.5</td>
<td>137.3</td>
<td>336.9</td>
<td>52.5</td>
<td>11.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>205.0</td>
<td>183.5</td>
<td>21.5</td>
<td>138.9</td>
<td>343.9</td>
<td>53.4</td>
<td>10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>207.9</td>
<td>181.0</td>
<td>26.9</td>
<td>143.9</td>
<td>351.8</td>
<td>51.5</td>
<td>12.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>205.9</td>
<td>177.4</td>
<td>28.5</td>
<td>144.3</td>
<td>350.1</td>
<td>50.7</td>
<td>13.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>189.5</td>
<td>164.2</td>
<td>25.3</td>
<td>134.7</td>
<td>324.2</td>
<td>50.6</td>
<td>13.4</td>
<td></td>
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</tr>
<tr>
<td>2002</td>
<td>180.4</td>
<td>163.3</td>
<td>17.0</td>
<td>139.3</td>
<td>319.7</td>
<td>51.1</td>
<td>9.4</td>
<td></td>
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</tr>
<tr>
<td>2003</td>
<td>182.6</td>
<td>167.9</td>
<td>14.7</td>
<td>135.5</td>
<td>318.1</td>
<td>52.8</td>
<td>8.1</td>
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</tr>
<tr>
<td>2004</td>
<td>186.0</td>
<td>166.8</td>
<td>19.2</td>
<td>136.7</td>
<td>322.7</td>
<td>51.7</td>
<td>10.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Workforce study data (ETU) 1997-2003, ESA monthly newsletter no. 7 (151) 200

The share of the non-active decreased in 2001 (0.3%) and 2003 (1%) but grew in 2002 by 2.1%, which adds up to a decrease of 8,800 for these three years. Compared to the second quarter of 2003, the number of the non-active grew by 5,700 in the second quarter of 2004, however.
In rural areas, the share employment in the primary sector (agriculture, hunting, forestry and fishing) has decreased 3 times since 1989 (55.9% to 18.4%). On average in the EU-15, 4.3% of all employees were employed in agriculture. The trend in Estonia is similar and the corresponding figure had reached 4.4% by 2003. Agricultural employment in Lithuania, Latvia and Finland was 19.6, 13.5 and 6.2% respectively. In such counties of longstanding farming traditions as Denmark and Germany, only 3.7% and 2.6% of the entire workforce is in agriculture.

The share of the tertiary sector has grown 1.9 times and that of the secondary sector (processing, mining, construction, energy, gas and water) 1.7 times. Since 1989, the number of people employed in the countryside has dropped from 246,300 to 167,900 in 2003 (-31.8%).

Besides large farms and companies, the EU also supports diversification of the activities of small farmers, the development of less advantageous regions and the development of alternative production sectors.

Thus for instance, the subsistence farm measure allows to support 2,257 farms (2004 applications in a total amount of 35.3 million kroons) during the next four years as well. 762 applications for bringing companies into conformance with EU requirements were submitted in 2004 in the total amount of 93.6 million kroons. Diversification of rural enterprise is being supported in 2004–2006 in the amount of 113.9 million kroons.
Thanks largely to the diverse EU assistance measures, a drop in agricultural employment was slowed in 2004 (4–5% according to expert evaluations) and moderate employment growth is forecast for 2005-2006 and a subsequent slow decline (around 1.1–1.6% per year).

5.2. Rural tourism

Kristine Hindriks

The rural tourism sector is formed of rural accommodation establishments, which are located in rural areas, i.e. villages and small towns with population below 10,000. There were 546 approved accommodation establishments in 2004, or 10% more than the previous year. Bed and breakfast and holiday homes account for about a half of these establishments (55%). The number of holiday villages and camps and guest houses is somewhat smaller (29%) and the percentage of hostels, hotels, motels and visitor’s apartments is the smallest (16 % in aggregate).

Approved accommodation establishments by type, November 2004

Rural lodging companies are concentrated in larger tourist areas such as the island of Saaremaa and Hiiumaa (35% are on the islands) and southern Estonia (22% of firms are in Valga County and Võru County).
Certified rural lodging firms by County, November 2004

On average, there were 16 lodging companies per 1,000 square kilometres in Estonia, with 51 on Hiiumaa, 45 on Saaremaa and 33 in Valga County.

Density of rural lodging companies per 1000 square kilometre

In 2004, assistance for developing rural tourism could be applied for under NDP measure 3.3 “Diversification of economic activity in rural areas”. Development of tourism was supported with 35 million kroons. Farmhouses and other buildings were rebuilt and new ones built, and catering opportunities improved in the framework of rural tourism activities.
Activities of MTÜ Eesti Maaturism

This non-profit organisation united 321 rural entrepreneurs in 2004, of which 254 offered rural lodging and 67 other services important to rural tourism. In June 2004, a study was carried out among the association’s members to clarify the firm’s future plans, preferences as to marketing channels and assessment of the association’s activities. In spring 2004, the need for training among the business community was investigated and based on the study, a training program notebook was put together ("Maaturismi koolitusprogramm") for 2005, which knit together various programs that had been created over time. Training sessions were held on topics such as food, sales work, safety and good practice in tourism.

The biggest step in the field of marketing was preparing the launch of the rural tourism and vacation services portal Ozoon.net in cooperation with AS Vaba Aja Ekspert. A reservation system was prepared at the Internet address http://www.ozoon.net/, where services can be reserved and purchased. On sale via the system are services ranging from lodging and canoe trips to bowling alleys and seminar rooms. Services not yet booked are displayed when reservations are placed.

An collection of materials, “Eestimaa reisijuht – Puhkus Maal 2005/2006” (Guide to Estonia – Holiday in the Countryside 2005/2006) in Estonian, Finnish, English, German and Russian, was published, along with product sheets for promoting activities. Rural tourism companies were promoted at trade fairs abroad, where surveys were conducted regarding target market inhabitants’ vacation preferences. Of those surveyed in Finland at the MATKA 2004 fair, 97% had been to Estonia. Half of these preferred active vacation packages. One-quarter of respondents considered nature and culture the primary values. The number of tourists preferring a spa vacation was the smallest. Nearly half of respondents desired to vacation in Estonia for 3-5 days. Around half of respondents prefer to use their own car. The preferences of Finnish tourists regarding size of expenditures did not change compared to the previous year. 42% felt that expenditures should be between 390–650 kroons per day. Participants in a survey conducted at the BALTTOUR 2004 fair in Riga said they wanted to vacation in northern Estonia, but interest in other regions was fairly even. Similarly to the Finns, Latvians also want more of an active vacation at vacation areas offering nature and cultural tourism. Nearly half of respondents would prefer to spend 3–5 days in Estonia and to spend 350–700 kroons per day. The majority of the respondents surveyed at the Berlin fair ITB 2004 wanted to take tours. Thus cooperation between entrepreneurs is very important to combine various leisure activities and lodging.
In the course of the international project Regiofood, or Local Food, a list of thirty Estonian national dishes was selected by experts and supplemented by members of the rural tourism association. A list of recipes of national foods has been completed along with serving instructions. On the basis of the survey, 98 rural tourism companies have been registered as prepared to offer national foods at their firm.

At the end of the year, as one result of the Flemish project, a rating of 60 rural lodging providers in the association was carried out, in the course of which firms certified as home lodging, vacation house and holiday villages and camps were rated. As a result of preliminary categorisation, numerous changes were made into the category requirements as a result of which the requirements are more in line with reality and consider the rural tourism firm. In addition, the association carried out training of adjudicators of categorisation of rural accommodation in 2004. 15 people took part in the training; they should become consultants to rural firms and judges of the quality of firms in the future.

5.3. The local-initiative of rural inhabitants

Sille Rähn, Ave Bremse

The development of rural areas depends on social infrastructure. The social infrastructure of Estonia’s smallest unit of settlement, the village, comprises the community buildings meant for common activities of the inhabitants and other buildings. Their existence increases the opportunities for residents to engage in cooperation and organise community events, and allows access to information. Developing such infrastructure helps improve the appearance of villages and the quality of the living environment.

Social infrastructure in the countryside was supported with regard to pre-accession programs by measure 6 of the SAPARD program, “Investment support for the renovation and development of villages.” Support went to projects where the local municipality government did not have a funding obligation, but which are important to renovate from the standpoint of social infrastructure. Applications for “Investment support for the renovation and development of villages” were accepted for the first time from 9–23 December 2003. 212 applications were submitted in the amount of 54.4 million kroons. Assistance could be sought for 23 objects. The most applications were submitted for renovating community buildings (84 applications), followed by purchases of information technology equipment (36 applications).
and interior furnishings for community buildings (26 applications). There were 183 applications that were in order (86% of all submitted) in the amount of 45 million kroons.

In 2004, 68 projects were carried out; the total cost was 18.5 million kroons. Of this, assistance was 15,178,127 kroons. The most investments were made into renovation of cultural centres. In 2004, 10 cultural centres that can be rented for individual events were repaired and two new ones built. Four new information centres were built within the framework of the measure, and many information centres received new furnishings. Three playing fields, 4 sports fields, 3 village greens and one boat dock were fixed up, with two new boat docks built.

Local initiative has rapidly grown in the rural areas and the opportunities of local residents to take part in the development of their region are increasing. The number of non-profit organisations has grown very rapidly in Estonia. While there were 6,499 of them in 1998, in 2004 there were already 19,398 (ESA, 2004).

The Movement of Estonian Villages and Small Towns Kodukant has spearheaded the local-initiative movement among rural people. Around 1,000 villages have elected leaders (971 villages as of 15 December 2003) in the framework of cooperation between village residents, and 169 have put together a development plan. The development plan is an agreement between residents on how the village might develop in the future.

The measures of NDP’s 3rd priority continue what was started in the framework of the SAPARD program, but with a number of new activities. Most 3rd priority measures are aimed at increasing the local-initiative of rural people (measure 3.5 “Renovation and development of villages” and measure 3.6 “Developing local initiative – LEADER+ type measure”).

To develop local initiative, NDP measure 3.6, the “Local Initiative Based Development Projects – LEADER”, offers multifaceted opportunities for development. Preserving diverse socio-economic structure in the countryside demands that priorities and capacity of local people’s need must be more taken into account. The European Commission initiated this program in 1991, drawing its name from the French, Liaison Entre Action de Developpement de l’Economie Rurale. It is not therefore merely a leader-based program, as the English acronym might suggest. The target group and applicants are small businesses, non-profits and local governments.

Europe has undergone several LEADER program stages: LEADER I (1991-1994), LEADER II (1994–1999) and LEADER+ in the program period, 2000–2006. LEADER will not be applied as a program in right away, but as a NDP measure during a transition period and that is why we can talk
about LEADER+ type measures in Estonia. The main difference from the
LEADER programs of other—old—EU member states is the dimension. In
2005 and 2006 is the commencement period of LEADER type activity for
Estonia, during which time a limited number of pilot areas and nine local
action groups will be supported.

The principles of LEADER-type activities and local action group are new
concepts in the development of Estonian rural life. Local action groups or
LAGs have the main role in distribution of Structural Aid. LAG status can be
applied for by non-profit associations that embody the principles of partner-
ship and which include representatives of all of the important socio-eco-
nomic sectors in the territory concerned (local governments, economic and
social partners).

The share of local governments on the decision-making level must be
under 50%. The territory of LAGs must comprise local municipalities in their
entirety, but may cross county borders. It is important that the number of
residents in the area would be between 10,000 and 100,000. The territory of
LAG must be homogeneous unit in geographical, economic and social terms,
and the objective of statue must be development of local life. The LAG must
consist of a balanced and representative selection of partners, must based
on the principles of partnership. Every municipality in LAG must be repre-
sented with at least one representative from each sector.

The goal of the LAG is to work out a development strategy for their territ-
ory that is in harmony with the local development plans and conforms to
one or two of the strategic themes listed in the NDP: the use of new know-
how and new technologies to make the products and services of rural areas
more competitive; improving the quality of life in rural areas; adding value to
local products, in particular by facilitating access to markets for small pro-
duction units via collective actions; making the best use of natural and cul-
tural resources, including enhancing the value of sites of Community inter-
est selected under NATURA. LEADER-type programs cannot resolve all
problems of LAG territory. The basis of a LEADER integrated development
strategy should be no more than one or two where local people can develop
their capacity and potential.
5.4. Private forestry
Monika Lublo

Since Estonia regained its independence in 1991 the restitution and privatisation process started (land reform). To the present day, nearly 60% of forest lands that are subject to be transferred to private owner by the end of land reform have duly been transferred. There are already an estimated 60,000 private forest owners, the majority of whom (60–70%) live away from their property or who do not have the knowledge and experience to manage their forest.

At the present time, at most of private forestland is in the counties of Viljandi and Pärnu and in the island of Saaremaa and least on the island of Hiiumaa. The variations on the size of the private forestland are primarily due to the size of the county, but also from the forest cover in the county, and its correlation with the agriculture. Even though Estonia’s average private forest property is 12 ha, it should be stressed that the most common type of cadastral unit in every county is one where the area of forest land is 1 to 4.9 ha and 80% of cadastral units have less than 10 ha of forest. There are only some big private forest owners, who have 100 ha or more forest—less than 1%. Taking the above into account, it is important in Estonia’s condition that joint activities develop and function between forest owners. Otherwise it will not be possible to manage private forests in a rational and effective manner and to gain revenue from managing forests.

Forestland and its share held by agricultural holdings vary by county. According to agricultural census data (2001) the average figure for Estonia is 26%. According to the agricultural census data of 2001, 91% of the forest belonged to natural persons (496,050 ha) and 9% to legal entities (51,181 ha).
Land use by holdings according to the 2001 agricultural census data

<table>
<thead>
<tr>
<th>Holding</th>
<th>Measurement unit</th>
<th>Agricultural land</th>
<th>Wooded land</th>
<th>Other land</th>
<th>Inland waters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating and non-operating</td>
<td>%</td>
<td>51,4</td>
<td>32,1</td>
<td>16,1</td>
<td>0,4</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>ha</td>
<td>10,4</td>
<td>6,5</td>
<td>3,3</td>
<td>0,1</td>
<td>20,3</td>
</tr>
<tr>
<td>Operating</td>
<td>%</td>
<td>59,9</td>
<td>26,3</td>
<td>13,3</td>
<td>0,4</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>ha</td>
<td>12,7</td>
<td>5,6</td>
<td>2,8</td>
<td>0,1</td>
<td>21,2</td>
</tr>
<tr>
<td>Non-operating</td>
<td>%</td>
<td>-</td>
<td>66,6</td>
<td>32,9</td>
<td>0,5</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>ha</td>
<td>-</td>
<td>11,0</td>
<td>5,4</td>
<td>0,1</td>
<td>16,5</td>
</tr>
</tbody>
</table>

At the same time, we should draw attention to the fact that the data obtained during the agricultural census also reflect only those operating holdings that had more than 1 ha of forest. In 2001, there were 42,614 of them with a total area of 384,493 ha of forest.

Number of operating holdings and area of forestland covered by the agricultural census

<table>
<thead>
<tr>
<th>Owner</th>
<th>Number of holdings</th>
<th>Forestland areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Natural person</td>
<td>42 323</td>
<td>99</td>
</tr>
<tr>
<td>Legal entity</td>
<td>291</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>42 614</td>
<td>100</td>
</tr>
</tbody>
</table>

Management of private forests

It is difficult to provide concrete data regarding management of private forests, since there is no official statistics about it. In state statistics, they are reified together. At the same time, it is possible to obtain certain data about management if we take as a basis forest notifications submitted by people or official forest inventories. We can exteriorize following indicators:

- Private forests are felled more intensively than state forests. According to the yearbook Mets 2002, in year 2000 cutting of state forest totalled 3.52 million cbm and private forest, 6.09 million cbm;
• Legal entities reforest much more than natural persons, but at the same time they also cut more (cut down more per hectare), which is why per 1,000 cbm of cut timber, natural and legal persons do the same amount of reforestation works;

• Problems with reforestation are mainly related to forestation more fertile sites; a large part of these forestland are left to natural regeneration. These clear-cut areas left for natural regeneration have not renewed by itself, however, or have renewed with less-valuable tree species;

• The share of coniferous forests is decreasing with every year: In terms of area, 63% cut stands were coniferous stands, but only 24% of cut areas have been renewed with evergreen species. The area of coniferous stands has decreased 39% and the problem involves declining spruce (picea abies) stands. Thus we can presume the continued rise of deciduous tree species, above all the share of soft deciduous tree species;

• The timber obtained from private forests, 70% is cut from land belonging to individuals and 30% from land owned by legal entities;

• Most timber, 73% is obtained from regeneration cuttings, the remainder mainly from thinning and sanitary cuttings;

• Forest roads have been built and drainage work has been performed in very few holdings, which is understandable given the cost of such work and the economic situation of private forest owners. The state’s assistance would be necessary to make investments;

• The main damage to forest is due to human activity or omissions and forest owners’ too-low knowledge. More effective training is necessary.

**Construction of forest roads and forest drainage work in private forests over five years**

<table>
<thead>
<tr>
<th>Owner</th>
<th>Forest road construction</th>
<th>Forest drainage works</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of holdings</td>
<td>km</td>
</tr>
<tr>
<td>Natural person</td>
<td>984</td>
<td>468</td>
</tr>
<tr>
<td>Legal person</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>994</td>
<td>478</td>
</tr>
</tbody>
</table>
- Forests and forestry products have above all an economic value for private forest owners (timber for own use, for sales, as guarantee). Less attention is paid to hunting and recreation.
- Based on analysis, it can be said that it is possible for one owner to get an average of about 420 kroons net income per hectare per year from forest management.

**Supporting private forestry development**

The principles of supporting private forests are set out in the Estonian forestry development plan until 2010 and in the Forest Act (1998). Pursuant to legal acts, private forest owners are supported as the state aid through the SA Erametsakeskus (Private Forest Centre; EMK), which is a foundation set up by the state. Through EMK it is possible to get support for joint activity, consultation, training and developing support systems. The principles of financing activity and levels of support are set forth in the procedures of applying for and using support (www.eramets.ee) and support is given to concrete expenditures.

Since 2002, private forest owners have been supported yearly from the state budget as well as from allocations of the Environmental Investment Centre. In 2004, support in an amount of 1,809,800 kroons was paid for joint activities (in 2003 in amount 1,672,500 kroons).
Supporting joint activity of private forest owners through SA Erametsakeskus

<table>
<thead>
<tr>
<th>Activity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>volume</td>
<td>kroons</td>
<td>volume</td>
</tr>
<tr>
<td>Soil preparation</td>
<td>588 ha</td>
<td>603,500</td>
<td>626 ha</td>
</tr>
<tr>
<td>Tending of young stands</td>
<td>242 ha</td>
<td>192,000</td>
<td>590 ha</td>
</tr>
<tr>
<td>Economic co-operation projects</td>
<td>3</td>
<td>27,000</td>
<td>20</td>
</tr>
<tr>
<td>Nursery</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Cocoon watch</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Melioration and road construction</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reforestation</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>822,500</td>
<td>1,672,500</td>
<td>1,809,800</td>
</tr>
</tbody>
</table>

The other major support package aimed at forest owners’ awareness and general development activities: training, consultation, instructional videos, sample plots, publications etc. As with joint activity, here too, financing has grown every year and while it was a total of 933,300 kroons in 2002, activities totalling 2,582,898 kroons were already carried out in 2004.
### Awareness and general development activities through SA Erametsakeskus

<table>
<thead>
<tr>
<th>Activity</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>volume</td>
<td>kroons</td>
<td>volume</td>
</tr>
<tr>
<td>Extension service</td>
<td>3226 hours</td>
<td>615,900</td>
<td>3561 hours</td>
</tr>
<tr>
<td>Group counsel</td>
<td>26 days</td>
<td>145,400</td>
<td>49 days</td>
</tr>
<tr>
<td>Training forest owners</td>
<td>6 courses</td>
<td>172,000</td>
<td>15 courses</td>
</tr>
<tr>
<td>Training consultants</td>
<td>0 courses</td>
<td>0</td>
<td>5 courses</td>
</tr>
<tr>
<td>Sample plot</td>
<td>0</td>
<td>0</td>
<td>4 trails</td>
</tr>
<tr>
<td>Tutorial films</td>
<td>0</td>
<td>0</td>
<td>3 films</td>
</tr>
<tr>
<td>Homepage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Publications</td>
<td>0</td>
<td>0</td>
<td>3 public.</td>
</tr>
<tr>
<td>Research and projects</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Preparing forest owners for EU accession</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>International co-operation projects</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Development activities</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Regional support staff</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Support to represent forest owners</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>933,300</strong></td>
<td><strong>1,906,650</strong></td>
<td><strong>2,582,898</strong></td>
</tr>
</tbody>
</table>
Problems for private forest owners

Forest owners have various problems and they can be divided into five major areas:

- An unjust taxation system, which consists of a high forest land tax (double that for agricultural land) and not taking into account the specific nature of forestry in taxation. Forest owners cannot deduct from taxable income all the expenditures done with growing the forest irrespective of when the expenditures were made;
- The great number of nature conservation restrictions and the absence of a corresponding compensation mechanisms that would motivate forest owners voluntarily to preserve and maintain their forests based on environmental requirements;
- Lack of knowledge regarding ways of receiving subsidies, benefits and compensations;
- Difficulties in organising and managing private forests arising from the paucity of funds allocated by the state for that purpose (e.g. drafting forest management plans, supports).

There are also difficulties in marketing of timber and selling of felling rights, the reasons for which are the small quantities of timber to be sold and the lack of forestry and legal competences of the vendors, likewise dishonest buyers.

5.5. Aquaculture

Vahur Võrel

According to Statistical Office data, there were 30 companies engaged in aquaculture in 2003. In addition to commercial fish producers, there were 84 companies which were engaged in fish farming but did not produce anything in 2003. The major part of these are companies that offer catch-your-own service, or fishing tourism providers.

Most companies have focused on multiple species in the interests of more rational use of their waters. The figure shows how companies are distributed with regard to fish species.
Ten companies were engaged in enriching fish stocks in 2003, for two of which – Põlula Kalakasvatuskeskus and Ōngu Noorkalakasvandus, this was the primary activity.

Pre-farmed baby fish were used to repopulate various inland and maritime bodies of water. A total of 11 species—perch, eel, pike, trout, crayfish, carp, pike perch, tench, salmon, sea trout and powan—were stocked. By quantity, sea trout and salmon are stocked the most. In 2004, SA Keskkonna-investeeringute Keskus allocated 2.87 million kroons for restocking baby salmon.

Pools and basins (34) and ponds (230) are the most common farming methods. Swift-current channels (10), sumps (16) and natural bodies of water adapted for fish farming (7) are other methods.

By commercial fish product, there were 19 companies that raised up to 5 tons of fish, 10 that raised 5–100 tons and one that raised over 100 tons. Total farmed fish production increased in 2003 compared to 2002 by 33 tons, reaching 373 tons. Most of the production was rainbow trout with 304 and carp with 51 tons. In addition, 15 tons of eel, 1 ton of crayfish and under a ton of other aquatic creatures was raised.
Total fish production in tons, 1995–2003

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainbow trout</td>
<td>278</td>
<td>194</td>
<td>227</td>
<td>285</td>
<td>147</td>
<td>313</td>
<td>412</td>
<td>287</td>
<td>304</td>
</tr>
<tr>
<td>Carp</td>
<td>30</td>
<td>61</td>
<td>28</td>
<td>23</td>
<td>30</td>
<td>47</td>
<td>52</td>
<td>53</td>
<td>51</td>
</tr>
<tr>
<td>TOTAL</td>
<td>316</td>
<td>355</td>
<td>255</td>
<td>312</td>
<td>177</td>
<td>360</td>
<td>466</td>
<td>356</td>
<td>373</td>
</tr>
</tbody>
</table>

*Source: ESA*

Of 373 tons of farm-raised fish, 242 tons was channelled into sale in 2003, and the value was 12.3 million kroons.

45% of the commercial fish raised in Estonia is sold to fishing tourism companies as live fish. A more or less equal part (12–14%) is sold directly to consumers and stores as well as wholesalers.

**Marketing channels for commercial fish**

(% of total sales of commercial fish)

<table>
<thead>
<tr>
<th>Channel</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>To fishing tourism companies as live fish</td>
<td>45%</td>
</tr>
<tr>
<td>Direct to the end consumer</td>
<td>14%</td>
</tr>
<tr>
<td>To distributors/wholesale</td>
<td>13%</td>
</tr>
<tr>
<td>Direct to stores</td>
<td>12%</td>
</tr>
<tr>
<td>Direct to market</td>
<td>5%</td>
</tr>
<tr>
<td>Direct to catering establishment</td>
<td>4%</td>
</tr>
<tr>
<td>Other (processing, export, subsidiary)</td>
<td>7%</td>
</tr>
</tbody>
</table>

*Source: EKI (2003 study)*

Acceptance of applications for NDP investment support measure 3.1.2, which came into effect in 2004 (aquaculture investment support), lasted from 30 April to 8 October. During this time, PRIA accepted 23 applications. The most applications came from Ida-Viru and Jõgeva County—4 and 3, respectively. From the rest of the counties, two or three were received. Of the approved assistance, 97% went for investments and construction of aqua-
ulture buildings and facilities, 2% for construction of water treatment stations and 1% for preparatory work.

Nearly half of all companies that received assistance had also asked for assistance for building crayfish ponds.

Most fish farms in Estonia (92%) employ under 10 people per company. The number of people earning their main wages from fish farming had grown to 101 as of 2003.

5.6. The agricultural environment

Eike Lepmets

Agricultural enterprise can have an effect on environmental biodiversity, soil, water and air depending on the intensiveness of the production, and the effect can be positive or negative. Traditional habitat landscapes - biodiversity in semi-natural habitats: wooded meadows, coastal grasslands, limestone barrens, grazing fields and others) only survive through consistent mowing and grazing. On the other hand, the hegemony of economic interests can cause irreversible environmental damage.

Water

The greatest problem is agricultural point source pollution (manure and silo facilities that are lacking or do not conform to requirements). From this year on, producers have the right to apply for assistance in the framework of RDP to fix up their manure storage facilities.

Agriculture is also a source of disparate contamination, which is primarily caused by the use of mineral and organic fertilisers. Compared to the 1980s and 1990s, the use of fertilisers is down many times, true (the amount of given nitrogen fertilisers is 3-5 times less), but from 2000, the quantity of fertiliser according to area has increased. The quality of groundwater is continuously bad in the Adavere area, and due to precisely this—more intensive agriculture. To keep the problems there in check, the Pandivere and Adavere-Põltsamaa nitrate-sensitive area has been formed with a total area of 3,250 km², where agricultural producers must consider several restrictions. These are areas with relatively high fertility, and in the case of Pandivere, the largest filtration area, where there are good conditions for groundwater to form; however, where any contamination passes very readily into the aquifer along with precipitation. The Adavere-Põltsamaa nitrate-sen-
sitive area is situated on a glacial plain and due to the thin soil layer, the groundwater is in jeopardy.

**Soil**

The main problem with Estonian soils is currently the decrease in organic matter and nutrient reserves, caused above all by the insufficient use of crop rotation and little use of organic fertiliser. The soil particles on the fields in the rolling terrain of Otepää and Haanja are easily carried away after sowing by running water and thus here there is water erosion. Wind erosion is encountered on central Estonia’s large fields in dry spring seasons and in places where there is no vegetation and light till. The problem with southern Estonia’s soils is acidity, which is mainly due to the properties of the bedrock and thus producers can only have an effect on the characteristics of the sowed layer, improving it with liming and introducing appropriate crop rotation as well as limiting the use of low-pH fertilisers.

**Air pollution**

Estonia’s main contributors to air pollution are energy companies, motor vehicles and to a lesser degree, agriculture as well. In the last few years, the level of general air pollution has decreased by a great amount, and the same goes for greenhouse gases deriving from agricultural activities. For example, in 1990, 30% of all methane emitted came from agriculture; by 1999 this had fallen to 20%. The level of emissions of ammonia from animal husbandry \( (\text{NH}_3) \) decreased 2.8 times in the same period. Emissions of nitrous oxide \( (\text{N}_2\text{O}) \) have fallen three times.

**Biological and landscape diversity**

The primary manifestation of agricultural biodiversity is above all semi-natural habitats, which are markedly more diverse in species compared to the natural kind—and this is due to consistent mowing or grazing. These areas also have plenty of rare flora and fauna, and a part of the meadows are used by migratory birds as a stopover and feeding area. The height of semi-natural habitats was the end of the 19th century, when these areas made up nearly one-half of Estonia’s mainland (about 18,000 km²), the share of these lands has fallen hundreds of times since the mid-20th century due to the introduction of new, more intensive ways of management.
The role of the state in ensuring a good agricultural environment

The goal of Estonia’s environmental strategy is to promote the use of environmentally friendly methods of production and the preservation of fertile farmland.

The transition from a unit-based payment to a common area based payment, where producers are paid a standard acreage subsidy irrespective of the company’s area of production and economic activities, is more conservationist. It gives farmers more freedom to decide which animals and crops to grow. Nor is the amount produced a determining factor in paying out assistance, as it used to be. In 2002, over 250,000 ha (26%) of agricultural land was not in use. Thanks to the introduction of acreage subsidies, 130,000 ha of overgrown land was taken back into use. Currently nearly 828,700 ha of agricultural land is in use in Estonia.

The agriculture policy based on the principle of “more you produce, the more you get,” has caused fairly major environmental problems in the so-called “old” EU countries: water contamination has increased a great deal, subtleties have been lost in landscapes, and the number of species and organisms has fallen significantly.

The other major problem in the current EU and by extension Estonian agriculture policy is the linking of assistance to compliance with environmental requirements and adherence to good agricultural practice, the so-called cross-compliance principle.

In the Estonian rural development plan 2004–2006, the environmental assistance budget makes up around 38%. Support for environmentally friendly production, organic farming and raising Estonian native horse breed was paid in 2004. The interest of farmers toward assistance was greater than expected. Applications for environmentally friendly production were received for 50% more area than planned (462,000 ha, one-third for pastures), while there were less organic farming applications compared to the rise in years past (41,000 ha). For example, a condition for receiving the environmentally friendly production assistance is a limit on nitrogen fertiliser of 100 kg active ingredient per hectare, as a result of which yield will fall, compared to the potential in Estonia’s conditions, by an average of 800 kg/ha. In conclusion, business revenue would fall an estimated 760 kroons/ha. Environmental assistance of 714 kroons/ha does not compensate entirely smaller revenue due to the restriction on fertiliser use.

One opportunity is also the promotion of adherence to the Good Agricultural Practice standard. Good Agricultural Practice is a generally recognised
set of agricultural rules, which if followed does not cause a significant dan-
ger to the surrounding environment and is advisable for all farmers. The
Agricultural Research Centre carried out a survey among farmers in Lääne-
Viru County, Pärnu County and Hiiumaa in 2004 where among other things,
it was examined how well farmers knew Good Agricultural Practice. The
results revealed that 32% of respondents had read Good Agricultural Prac-
tice and was complying with it. The same number or 32% had heard of it but
had not read it. And 22% of respondents had not heard anything about Good
Agricultural Practice.

5.7. Land improvement and land use

Helve Hunt

According to cadastral data, the Land Register contained a total of 3.536
million registered ha of land as of 31 January 2005, which is 78% of all
Estonian area (4,522,700 ha). Of the registered land, there was 1,131,406
ha of agricultural land (cropland and natural grassland), 1,836,293 ha off
forest, 59,924 ha of land under water and 509,214 ha of other land.

Land improvement is the drainage, irrigation and water table manage-
ment (controlled drainage or sub-irrigation), also the liming of acid soils and
the performance of agro-ameliorative, crop technology and other land main-
tenance work such as increases the fertility of the profitable rural land and
agriculturally usable rural residential land (up to 2 ha in the case of the
latter).

Over 700,000 ha of Estonian agricultural land has been drained a little
over half—and there are around 560,000 ha of drainage networks on forest
land. Of the drainage systems, there are polders on 7,600 ha, and 30 polder
pumping stations. The total length of drainage networks (predominantly clay
pipe) is 320,000 km, and there are 45,000 km of artificial recipients and
open drainage ditches. There is over 2,000 ha under sprinklers and 27 sprin-
kler pump stations.

Two-thirds of the systems currently operational on agricultural land were
constructed before the 1980s. Of drained agricultural land, around ¾ is in
use, of which around 1/5 is appraised as being in good condition, 3/5 as
satisfactory and slightly under 1/5 as deficient. Over half of artificial recipi-
ents require repairs. Since the lifespan of land improvement constructions is
considered to be 25-30 years, today the need for reconstruction is urgent if
we are to prevent the complete deterioration of the facilities. Without land
improvement work, in ten years time, we could lose our well-drained crop-land and after 30-40 years, we face all drained land falling out of agricultural use.

Land improvement systems were mainly built during the large collective farm era of the Soviet Union and are located on the land of multiple owners. The borders of land improvement systems do not gibe with borders of real rights and this makes organising land improvement work very complicated. Maintenance of artificial recipients—especially important for land improvement systems—is becoming technically impossible for individual landowners. It would be efficacious to perform renovation and maintenance work on land improvement systems on the land of multiple owners jointly. Non-profit cooperatives are one organisational for. At the present time, 100 land improvement cooperatives have been founded with 2,000 members and 180 of these are legal persons. Seven land improvement and water cooperative regional associations have been founded along with the Estonian Central Association of Land Improvement and Water Cooperatives.

The working environment of land improvement cooperatives covers 130,000 ha of drained land. In 2004, land improvement cooperatives organised the dredging of 30 km of ditches, over 180 km of mowing, repairing of 140 culverts, over 180 areas of beaver damage were removed. In addition, 340 drainage wells were repaired and cleaned and over 60 km of roads were repaired.

As a result of restoration or privatisation of land in the process of property and land reform, any land improvement systems on such land or parts of such systems, belong to the landowner. Pursuant to the Land Improvement Act, the state gives landowners documentation on land improvement systems through the regional land improvement offices. By the end of 2004, owners had received close to 40% of the documents on the land under land improvement systems.

In order to serve as an incentive for maintenance work, the land improvement system maintenance assistance state support was introduced in 2003. In 2003, 18.6 million kroons in land improvement maintenance support subsidies was sought and 17 million allocated from the budget. The monetary requests of 636 applicants were approved, with the most common types of maintenance being clearing underbrush off water lines and forest clearing. 15.7 million was disbursed. The most numerous of the recipients of land improvement maintenance support were those who received 1000 to 10,000 kroons (43% of recipients). Ida-Viru was the only County to pay out aid to all applicants in the total amount sought. In comparison between coun-
ties, the largest part went to Tartu County (19.6%), while Võru County had the most disbursed applications (15.7%). In 2004, the state did not allocate resources for land improvement work and in 2005 it plans to support maintenance performers with 9 million kroons.

The agricultural liming subsidy is intended as state assistance to those who are using land where the soil acidity (pH KCL) is up to 6.0 who have not been given agricultural land liming support in four years. In 2003, a total of 16 million kroons was disbursed in state assistance by which 13,120 ha was fertilised with soil conditioners. Assistance was disbursed to 268 applicants in the amount of 14.2 million. In 2003, the most agricultural land was limed in Põlva and Järva Counties (over 2,000 ha) and the least in Lääne County and the island of Saaremaa. The most commonly used conditioner was clinker dust, used for 84% of liming work. Limestone-dolomite mix was used for 8%, dolomite dust 5%, powdered lime 2% and limestone dust for 1% of the area. The state did not allocate money in 2004 for liming assistance and in 2005 it allocated 15 million kroons.

Pursuant to the Land Improvement Act, it is the state’s obligation to keep in good order 5,700 km of land improvement system recipients. In 2004, 10.4 million kroons of renovation and maintenance was performed, including 162 kilometres of renovation and 415 kilometres of maintenance. In 2005, the state has slated 8.626 million kroons of renewal and maintenance work on the artificial recipients in question.

160 million kroons has been allocated as EU agricultural state assistance in the framework of the Estonian national development plan measure 3.4, “Integrated land improvement”. The objectives of the assistance are to reduce risks in agricultural production stemming from disadvantageous regulation of water, to increase the productivity of forests and to create conditions for expedient use of land, ensure the good condition of bodies of surface water that are part of land improvement systems and to better access to agricultural land.

A register of land improvement systems was created in 2004 with the objective of consolidating, storing and publishing data on land improvement systems in use and being built. The data in the register are necessary above all for planning land improvements, building and maintaining land improvements and performing state supervision. The register will be used above all by owners of land improvement structures, members of land improvement cooperatives, applicants for rural life and agricultural support, state and local government officials and real estate developers.
6. **Agricultural education, research and advisory service**

6.1. **Agricultural education**

*Higher education in agriculture*

*Helena Tabur-Jõgi*

382 students graduated from the full-time study programme and 87 students from the distance learning programme of the Estonian Agricultural University in 2004. A total of 47 master’s theses and 8 doctor’s theses were defended. Students were admitted to 26 specialties in 2004. A total of 3,405 applications were submitted for 418 state-commissioned student places, thus, the competition ratio was 8.15 applicants per available student position. The most popular specialties remained real estate planning (competition: 23.20), natural resources consumption and protection (competition: 20.81) and landscape architecture (competition: 18.44). As of November 2004, the number of EAU students amounted to 4,708, with 1,884 students obtaining the state-commissioned education and 962 studying beyond state-commissioned education in the base study programme, and with 1,167 students in the distance learning programme, 13 in the teacher training programme, 469 in the master’s programme and 158 in the doctoral programme. The total number of foreign students amounted to 55.

In 2004, the state commissioned EAU to provide training for 263 prospective graduates in the base study programme in the following disciplines:

- agriculture, forestry and fishery - 80
- environmental protection - 34
- technical specialties - 51
- production and processing - 15
- architecture and construction - 53
- veterinary medicine - 25
- biosciences - 5
The state ordered 10 teacher training positions, 61 master’s programme positions (4+2 system) and 18 doctoral programme positions. The preparation of the curriculum for a new doctoral study programme with a greater emphasis on joint studies was launched in 2004. The plans of EAU include the establishment and participation in the work of graduate schools, as well as devising and development of master’s and doctoral study programmes in co-operation with the universities of the Baltic States and Nordic countries.

Vocational education in agriculture

Maarja Normak

According to the Ministry of Education and Research, the total number of students in agricultural specialties amounted to 1,839 in 2004. 234 students acquired secondary vocational education in basic schools and secondary schools. In addition, 82 vocational school students acquired vocational education in the specialties related to horticulture, landscape formation, agriculture and fishery. As regards the number of vocational education graduates, the specialty of horticulture ranked first with 64 graduates, followed by foodstuffs with 37, agriculture with 27, land management with 24, and forest management with 21 graduates.

In order to enhance the collaboration between the Ministry of Agriculture and the Ministry of Education and Research in the field of vocational education in agriculture, the two ministers signed the “Co-operation Protocol between the Ministry of Education and Research and the Ministry of Agriculture for 2004-2008” on 26 August 2004. The ministries deem it necessary to continue the mutual co-operation as to come up with the best solutions for ensuring high quality level of agricultural education and agricultural research.

The Ministry of Agriculture organised the conference “The Development of Vocational Education in Agriculture”, aiming at specifying the perspectives and suggestions of the interest groups in the field of vocational education and determining future actions.

In 2004, the Ministry continued its co-operation with the Rural Development Foundation and the Estonian Chamber of Agriculture and Commerce to award scholarships for students of agricultural specialties. The amount of the scholarship depends on the student’s academic performance and specialty, up to 1,000 kroons per month.

Vocational competitions were held between the students of agricultural specialties in vocational schools and young farmers.
6.2. Agricultural research, development and innovation
Helena Tabur-Jõgi

On 21 December 2004, the government approved the national programme “Applied research and development in the field of agriculture 2004-2008”.

The Ministry of Agriculture is the first ministry to succeed in devising a state programme as required by the Organisation of Research and Development Act for the funding of applied research. The overall programme budget for 2004 was 20.5 million kroons. Pursuant to the coalition agreement, this figure will reach an annual 44 million kroons in 2005-2008. A total, 18 applied research projects were funded in 2004.

Division of budgetary expenditure in 2004 (in millions of kroons)

| Institutes within the jurisdiction of the Ministry of Agriculture | 13.2 |
| Universities; institutes and enterprises outside the jurisdiction of the Ministry of Agriculture | 7.3 |

The submitted applications were meticulously analysed by expert committees and the council for agricultural sciences.

The applied research projects were primarily carried out by the EAU researchers in the fields of horticulture, plant biotechnology, plant protection, food safety, animal husbandry (incl. infectious and internal diseases, reproduction biology and feeding), as well as ecophysiology.

With 8.62 million kroons, the work commissioned by the Ministry of Agriculture (incl. applied research, preparation of manuals, training, specific contracts, etc.) gave nearly one-eighths of the total volume of research and development activities conducted at EAU in 2004.

The overview of the applied research and development projects funded by the Ministry of Agriculture is available in the Research and Development in Estonia data system at http://www.eris.ee/.
The aim of the research and development activities of the institute is to increase the efficiency of agricultural production and enhance the competitiveness, as well as to improve the quality of agricultural products through breeding and exploiting new plants.

The number of employees at the institute is 120, including 23 scientific researchers with an average age of 46 years. The institute employs 9 researchers with a doctor’s degree and 8 researchers with a master’s degree. 7 staff members currently study in the EAU doctoral programme and 2 researchers in the EAU master’s programme.

The following applied research was conducted in 2004 on the order of the Ministry of Agriculture:
- applied research in the field of breeding and varietal improvement of grains, legume vegetables, oil-seed crops, potato, vegetables and fodder crop, as well as variety agrotechnics and seed multiplication;
- preparation of agrometeorological forecasts and summaries;
- development and implementation of a web-based advisory system for plant protection;
- implementation of tissue culture methods in plant breeding.

The institute acted as the co-ordinator for the state programme “Collection and Preservation of the Genetic Resources of Agricultural Crop in 2002-2006” and took part in the project funded by three grants of the Estonian Science Foundation (ESF) and the Ministry of Education (“Associations between the Productivity, Quality and Disease Immunity of Crop Bred for Sustainable Agriculture and the Related Transmission”), implementation of the EU 6th Framework Programme projects EUFABA (FABA bean breeding for sustainable agriculture) and EUCABLIGHT (Potato late blight network for Europe) as well as in the implementation of the joint projects between Estonia and the Netherlands.

### Funding in 2004 (in kroons)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied research for the Ministry of Agriculture</td>
<td>6,483,000</td>
</tr>
<tr>
<td>ESF grants</td>
<td>189,000</td>
</tr>
<tr>
<td>Government grants</td>
<td>1,356,000</td>
</tr>
<tr>
<td>Contractual research</td>
<td>702,000</td>
</tr>
</tbody>
</table>
Estonian Research Institute of Agriculture (ERIA)

ERIA hosts 6 research and development departments – the Department of Agroecology, Department of Field Crops, Department of Plant Protection, Department of Grasslands, Department of Mechanisation and the Testing Laboratory of Agricultural Machinery. In 2004, the institute employed 59 people, including 31 researchers (3 researchers with a DSc degree in agriculture and 2 with a DSc degree in engineering; 10 with a PhD degree in agriculture, 3 in engineering and 3 in economy, and 4 with a MSc degree. 4 researchers, agronomists and engineers are students of the master’s programme at EAU, whereas two researchers with a MSc degree are students of the EAU doctoral programme).

In 2004, the institute conducted research and development within the framework of 19 projects ordered by the Ministry of Agriculture, 5 grants of the ESF, one EU project and 34 projects initiated by Estonian companies.

Funding in 2004 (in kroons)

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied research for the Ministry of Agriculture</td>
<td>7,165,500 kroons</td>
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<tr>
<td>(funding of the testing council not included)</td>
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</tr>
<tr>
<td>ESF grants</td>
<td>565,000 kroons</td>
</tr>
<tr>
<td>Government grants</td>
<td>0</td>
</tr>
<tr>
<td>Contractual research</td>
<td>1,219,000 kroons</td>
</tr>
</tbody>
</table>

The outcome of the research projects along with guides for agricultural producers for 2004 in the field of soil preparation, sowing, fertilisation, plant protection, harvesting, after-harvest processing, preservation, preliminary processing, exploitation and agrotechnology as well as machine technology for fodder manufacturing are available on the ERIA web page at www.eria.ee.

In 2004 total of 69 articles were published in various books, journals and dailies; 42 ERIA information leaflets were compiled, 4 training days organised and 73 presentations made at various conferences and training days.

6.3. Advisory activities

Merry-Aart Jüriado, Ove Põder

The purpose of agricultural advisory activities is to serve as the mediator between agricultural science and agricultural producers – i.e., between the
information creators (legislation, subsidies) and its consumers. Reliable advice enables to make wise production decisions. As a rule, agricultural advisers are responsible for providing producers with advice when required.

A total of 109 advisers have currently been attested. Advisers were attested for the last time in 2004. At the end of the year, the Estonian Qualification Authority (a.k.a. the Professions Chamber) set up the professional standards for advisers. The Professional Council for Food Industry and Agriculture appointed the Jäneda Training and Advisory Centre to act as the authority for awarding advisers with a professional qualification. A professional committee has been established for advisers in order to prepare the statutes of the professional committee, specify the liability, rights, staff, establishment, work procedure and competence of the professional committee, as well as to determine the procedure for verifying and awarding the professional qualification. From 2005 onwards, advisers will be provided with a professional qualification, which is also acknowledged by other EU member states.

The advisory system should be viewed as a link between the organisations of academic work, scientific research, legislation and agricultural activities, with the requisite information delivered by the advisers to farmers.

2004 saw further development of information centres managed by the Estonian Chamber of Agriculture and Commerce. County-based information centres, integrated with other organisations of agricultural producers, provided aid applicants with the required advice on and assistance in land declaration, forwarded urgent and rapidly changing information, and started gathering feedback. Co-operation between advisers, information centres, and the Estonian Agricultural Registers and Information Board (ARIB) proved highly fruitful. Advisers in the respective area were appropriately trained prior to the accepting of aid applications. Co-operation between the Ministry of Agriculture and other partners and information centres was significantly enhanced. Both private individuals and corporations were advised on business plan preparation, production know-how, etc.

2004 was a year of transition for the agricultural advice sector. The conditions of Measure 3.8 of the NDP (“Support for advisory and information services”) were formulated in co-operation with the representatives of agricultural producers and advisers. In 2005, Estonian agricultural producers will, for the first time, have the chance to apply for support for the use of advisory and information services from the EU structural funds. Decreased interest in the application for and use of advisory support, and dissatisfaction with the quality of advisory services in recent years exhibited the need for county advisory centres to be established. These centres are integrated
into a combined system, maximising the opportunities for refresher and updating courses for the advisers and publication of scientific and state information, as well as gathering and forwarding the feedback from agricultural producers. It was decided that only authorised advisory centres would have the right to render the supported advisory services within the framework of Measure 3.8 of the NDP. Measure 3.8 of the NDP also enables the application for setting-up aid for infrastructure development of advisory centres.

In 2005, Measure 3.8 of the NDP provides support for the provision of agricultural advice and advisory system development. Support will be provided to individual counselling as well as organisation of information days on both the county as well as national level. System development will be supported through the setting-up aid given to advisory centres.

Since the national support scheme for the use of individual advisory services was cancelled in 2004, no comparative overview is available on the advisory service market. The majority of active advisers were involved in advising farmers in the process of applying for various aids. For instance, in the spring, ARIB accepted nearly 19,000 complicated applications in a relatively short period of time. This required thorough preparatory work. Various joint meetings were held between advisers, information clerks and officials of ARIB and the ministry in a short period of time. 3,600 applications were submitted with the help of advisers and information clerks.

6.4. Activities of agricultural museums
Sirje Tamkõrv

The Estonian Agricultural Museum, the C. R. Jakobson Farmstead Museum and the Estonian Dairy Museum, all lying within the jurisdiction of the Ministry of Agriculture, are honourable envoys of Estonian agricultural traditions. Each museum pursues a different direction, depending on its specific characteristics.

Estonian Agricultural Museum
76,468 people visited the exhibitions on display and events held by the Estonian Agricultural Museum in 2004. Several temporary exhibitions were set up during the year: “Sukad, sokid, käpikud” (“Stockings, socks, mittens”), “Lumi ja liug” (“Snow and slide”), “Maarjakask–Neitsi pisarapuu” (“Curly birch—the tree of Virgin tears”), “Heinaaeg” (“Haymaking season”), “Kombekad kotid” (“Conventional bags”). The museum continued its educational
programmes “Karjalapse linnukool” (“Bird school for the shepherd child”), “Puutöö AB” (“Fundamentals of woodwork”) and “Viljast leivani” (“From grain to bread”) for preschoolers and school children.

The new role-play-based ventures “Karjapoiss on kuningas” (“Shepherd boy is king”) and “Villakera-kullakera” (“Wool ball-gold ball”) became very popular. The museum diversified its programmes in 2004 and plans to do so also in 2005.

In 2004, the museum continued registering and accounting for the showpieces received in 2003 in KVIS. In 2004, the data on 6,187 museum objects was entered in the register, with 8,885 different associations. By the end of 2004, the register included the data on 15,422 museum objects, with 11,462 associations made with the database.

2,882 display items were added to the museum collection. The stock includes 71,009 museum objects.

**C. R. Jakobson Farmstead Museum**

The year 2004 began with a great flood, and the consequent blasting of the ice amassed under the mill bridge. The Pärnumaa unit of the National Defence League salvaged the bridge and the overflowing Pärnu River returned to its bed.

The museum welcomed a total of 27,652 visitors in 2004, with 18,975 single visits and 8,677 group visits.

113 publications were added the museum’s scientific library. 55 newspaper articles were catalogued.

The museum stock comprises of 9,410 items with 6,862 scientific descriptions and 567 displays. 3,516 objects serve as reference material.

**Estonian Dairy Museum**

“Bring them in!” was the slogan of this year for the Estonian Dairy Museum. In co-operation with the newly opened Imavere Tavern, the museum launched a powerful advertising campaign, issuing publications, visiting tourism fairs and actively pursuing sales. Among other activities, the museum organised public recordings of TV-shows. A museum pedagogue was hired. As a result of these activities, the number of visitors doubled. The museum published a recipe book for milk-based dishes and curative methods. Museum objects are being actively collected and archived, with the total number reaching up to 51 thousand. Much of the equipment has been renovated for display at the industrial exposition.
7. **Food safety and quality**

*Kristina Samra*

7.1. **Veterinary activities**

Veterinary and Food Board (VFB) in the jurisdiction of the Ministry of Agriculture organises and conducts the implementation and state supervision of requirements deriving from the legislation regulating veterinary, food safety, market organisation, animal welfare and farm animal breeding.

**Activities of the Veterinary and Food Board in figures**

The broader objective of the Veterinary and Food Board is to ensure safe, healthy and high quality production of raw material for food and food to the consumers; to prevent and eradicate infectious animal diseases; to protect people from diseases common to humans and animals and from diseases that are spread by animals; to protect animals from human activity or inactivity endangering their health and welfare; to ensure the performance of farm animals and the increase of their genetic value, the preservation of the gene pool and the profitability of animal husbandry.

Deriving from that, the tasks of the Veterinary and Food Board are the following:

- prevention and organisation of the control of infectious animal diseases
- health protection from diseases common to humans and animals;
- protection of animals from activities endangering their welfare and requiring the fulfilment of conditions applying to keeping and treating animals;
- executing control over the safety of raw material for food and food at production, processing, transportation and wholesale;
- conducting surveillance over the activities of enterprises involved in production, preliminary processing, processing, transportation and wholesale of raw material for food and food at the implementation of requirements deriving from legislation that regulates handling of raw material for food and food;
- conducting surveillance over organic processing of raw material for food and food;
- organisation of laboratory analysis in order to diagnose infectious animal diseases and assess the properties of food, feeding stuffs of
animal origin, hay, straw, medicated feeding stuffs and drinking wa-
ter;
- protection of the environment from harmful factors resulting from keep-
ing animals or infectious animal diseases;
- executing control over the use of medicinal products and medicated
feeding stuffs by veterinarians and animal keepers manufacturing
animal products;
- executing control of animals, raw material for food and food, including
livestock and agricultural products that carry markings referring to or-
ganic farming, upon their import to the Republic of Estonia;
- approval of persons involved in breeding of farm animals;
- organising and conducting surveillance over the implementation of
requirements deriving from legislation that regulates breeding of farm
animals;
- organisation of preserving the genetic resources of farm animals;
- conducting surveillance, within acquired competence, over the
fulfilment of requirements in the field of agricultural market organisation.

15 County veterinary centres in the jurisdiction of the Veterinary and Food
Board carry out these tasks. 270 officials and 171 licensed veterinarians
ensure surveillance in approximately 11 600 stock farms, 1376 food busi-
nesses and 5 border checkpoints.

**Summary of the activities of the Veterinary and Food Board in 2004:**

**Inspections carried out:**
- animal health and protection 10 043
- food control 4 933
- breeding of farm animals 577
- market organisation 84

**Laboratory examinations carried out:**
- laboratory examinations on animal health 248 693
- assessment of conformity to requirements applicable to raw material
  for food and food 6696

**Veterinary and food control at the border:**
- total no of controlled batches of goods 52 635
- total no of controlled batches of goods from 01.01.2004 to 30.04.2004 50 839
- total no of controlled batches of goods from 01.05.2004 to 31.12.2004 1796

Approved enterprises and persons:
- enterprises approved on the basis of the Infectious Animal Disease Control Act 12
- enterprises approved on the basis of the Animal Protection Act 2
- enterprises approved on the basis of the Food Act 1376
- enterprises approved on the basis of the Veterinary Supervision over Trade in, Import and Export of Animals and Animal Products Act 6
- enterprises approved on the basis of the Organic Farming Act 2
- persons involved in breeding of farm animals 3

In Estonia 640 veterinarians have a valid activity licence, issued by the Veterinary and Food Board, to provide veterinary services. In 2004 163 misdemeanours were processed, fines were issued in the value of EKK 522 073.

Animal health and protection

According to the assessment of the Office International des Epizooties (OIE), Estonia has maintained the status of a country free from the diseases of list A, i.e. especially dangerous infectious animal diseases. In the framework of the national programme for control of infectious animal diseases, our animal herds were studied for more than 40 diseases in 2004, on the basis of which we may confirm that the epidemiological situation of Estonian animal populations is good.

The number of cases of infectious diseases diagnosed in animals had decreased from 814 to 314 as compared to 2003, however, the spread of (forest) rabies is still a problem in Estonia.

In order to improve the situation concerning rabies an oral vaccination of wild animals against rabies was carried out on the island of Vormsi in cooperation with OIE and the EU rabies reference laboratory AFSSA Nancy (France) in the spring and autumn. Work on a project with the general objective of controlling rabies among domestic and wild animals, aiming to reach the status of a rabies-free country, has also continued. The specific objective of the project is the minimisation of the number of cases of rabies among domestic and wild animal populations and the decrease of rabies infections in humans. In 2005 in the framework of the project vaccine pieces will be
spread from plane or helicopter in Northern and Central Estonia and sowed on the area of 28 000 sq km.

In March 2004 a full-scale surveillance of TSE (Transmissible Spongiform Encaphalopathy), or mad cow disease, was initiated in Estonia involving the examination, in addition to animals belonging to risk groups (more than 24 months old sick, emergency slaughtered and dead bovine animals and imported animals as well as over 18 months old sheep and goats with the same characteristics), of also all over 30 months old healthy cull cattle and over 18 months old slaughtered healthy sheep and goats. Altogether brain samples of 27 031 bovine animals, 402 sheep and 8 goats were examined. All test results were negative.

With the Commission Decision 2004/467/EC a derogation given to Estonia allowing to continue the disposal of animal by-products by burial ended on 1 January 2005. Therefore 2004 was the last year when the disposal of animal waste was permitted by burial. Afterwards the handling of animal waste is allowed only in the waste treatment facilities designed for that purpose.

Inspection officials and authorised veterinarians verify compliance with animal welfare requirements both through regular and random checks. Checks are carried out in the following fields: conditions of keeping livestock, pre-slaughter keeping conditions and slaughter in slaughterhouses, transport of livestock and compliance with requirements for raising, distributing and using experimental animals.

Surveillance is conducted in cooperation with the Police Board, the Environmental Inspectorate and voluntary animal welfare organisations. In order to improve surveillance a round-table meeting was held last year between the representatives of the Veterinary and Food Board, the Police Board and the Environmental Inspectorate.

In 2004 requirements entered into force concerning enterprises involved in raising, supply and using of experimental animals.

**Food control**

The most important event in the area of food control was Estonian accession to the EU on 1 May 2004 that brought along several additional responsibilities deriving from EU legislation with direct effect. For instance, implementing EU coordinated surveillance programmes, controlling certain raw material for food and food before entering the common market as stipulated by special decisions, etc. The main part of the work of the Food Department of the Board constituted, however, of procedures related to the approval of enterprises and of participation in drawing up legislation that regulates the area.
As stated in the rules for control of salmonellosis in farm animals, a national monitoring programme was initiated in 2003 in slaughterhouses and cutting plants, also for monitoring eggs as well as egg and milk based products. The programme continued in 2004. In addition, monitoring of Campylobacter in fresh poultry meat was started in 2004.

Different missions of the DG SANCO Food and Veterinary Office were held in Estonia more often than usual in order to control the administrative capacity of the Veterinary and Food Board in the field of food safety and to check, on the basis of enterprises, the process on bringing different sectors into compliance with requirements. The recommendations in the mission reports were a good ground for making improvements and amendments into the work organisation of both the central and the local offices of the Veterinary and Food Board.

In 2004 inspectors from the Russian Federal Veterinary Service carried out two checks in Estonian companies that produce meat, milk and fishery products and that were interested in exporting their products to Russia. On the basis of the inspections it was decided whether or not to prolong the right of export of the food businesses after 1 September 2004.

The first inspection was carried out in July. 36 enterprises were inspected and 16 of them received the export licence. The second inspection was held in October and November after which 24 enterprises got the export licence out of 51 enterprises inspected.

Breeding of farm animals and maintaining genetic resources

The majority of the work in the field of breeding farm animals constituted of the control of recognised breeders’ associations, persons engaged in performance testing, persons engaged in the preservation of endangered breeds and owners of animals concerning their compliance with the requirements set by the Farm Animals Breeding Act and legislation drafted on the basis of that as well as of the control of implementing European Community legislation after 1 May 2004, also of surveillance over the implementation of breeding and maintenance programmes.

There are nine recognised breeders’ associations in Estonia:
- Animal Breeders Association of Estonia;
- Estonian Native Cattle Breeding Society;
- Estonian Pig Breeding Association;
- Estonian Horse Breeders Society;
- Estonian Sport Horse Breeders’ Society;
- Estonian Native Horse Conservation Society;
- Estonian Trotting Association;
- Estonian Sheep Breeding Association;
- Estonian Poultry Society

In 2004 the Animal Recording Centre was recognised and issued a licence to carry out performance tests of dairy cows and assessment of their genetic value.

The Estonian Fur Breeders Association was issued a licence to keep the breeding register of chinchillas, rabbits, foxes and minks and carry out performance tests.

In October 2004 an inspection was held in the Estonian Fur Breeders Association and it was found that the Association had not been able to ensure conformity to the requirements applying to breeding activities and to the breeding register. The activities of the Association in the approved fields were stopped until 1 May 2005.

In 2004 the activities of the Estonian Sheep Breeding Association were stopped. At the inspection shortcomings were detected in implementing the Farm Animals Breeding Act and an infringement was found in the basic principles of creating records on sheep to the herd book and in complying with the requirements for keeping the herd book. Therefore the activities of the Estonian Sheep Breeding Association were stopped in the field of keeping the herd book of Estonian black-head and white-head sheep, however,
in August after the subsequent inspection the right to keep the herd book was restored.

The number of unannounced checks to keepers of animals increased. The main objective of the checks was control over marking of animals and over basic documentation. The officials of the Farm Animals Breeding and Genetic Resources Bureau issued altogether 402 inspection reports and 175 subsequent inspection reports and processed one misdemeanour.

The procedure of conducting surveillance of dairy cows and pigs was improved and inspection report on breeding farm animals was amended.

In 2005 it is planned to modify and specify the existing surveillance procedures and draw up procedural regulations to conduct surveillance of persons involved in breeding beef animals, sheep, goats and fur-bearing animals and of persons dealing with the preservation of endangered breeds as well as of persons engaged in performance testing. It is also planned to approve procedural regulations to verify the accuracy of data provided in order to receive support for breeding of farm animals and agri-environmental support as well as to check the conformity of the applicants to the established requirements.

It is planned to carry out a project, approved by the EU, on the TSE genotyping of sheep.

**Market organisation**

In 2004 the Farm Animal Breeding Department acquired an additional task, surveillance of market organisation measures within the competence of the Veterinary and Food Board. Therefore the department was renamed Farm Animal Breeding and Market Surveillance Department and the newly established Bureau of Surveillance of Market Organisation Support started to perform this function.

Deriving from the European Union Common Agricultural Policy Implementation Act and its lower level legislation and from the European Community legislation with direct effect, the Bureau carried out the following tasks in 2004:

- planning, coordinating and conducting surveillance necessary for the implementation of market organisation measures for quality indicators of milk products (butter, concentrated butter, cream, skimmed milk powder, recombined butter) and raw milk;
- as regards meat products, issuing the certificate of meat of adult male bovine animals and of boned meat;
- control of export of live bovine animals.
The Surveillance Bureau is also responsible for the verification of compliance with quality requirements of the products subject to market organisation measures, for the management and coordination in the Republic of Estonia of determining the quality classification of pig, bovine animal and sheep carcasses based on the common so-called SEUROP-system as well as for the training and approval of specialists and for organising surveillance over the quality of their work.

Surveillance of market organisation support was carried out on the basis of information provided by the Estonian Agricultural Registers and Information Board (ARIB).

During the accounting year the following people passed the training and were approved to carry out quality classification of animal carcasses: 1 person as regards sheep, 13 people as regards pigs and 7 people as regards bovine animal carcasses.

Concerning market organisation measures for milk based products, 139 samples were taken and 937 analyses were carried out in 2004. Altogether 56 inspections were conducted in four enterprises.

In the framework of surveillance over classification of carcasses, 28 inspections were held, including subsequent inspections, in altogether four enterprises.

In 2005 the Bureau acquires also the following tasks: surveillance of the geographical indication, of price information of bovine meat, of intervention buying of butter and skimmed milk powder, and of compliance with requirements to the quality and composition of privately stored agricultural products as well as drawing up respective procedural regulations.

**Trading, import and export**

In connection with Estonian accession to the EU, the former Border Service of the Veterinary and Food Board was reorganised and a new department, Trading and Import and Export Department, was created in the Board’s central office. The Department was established to conduct surveillance of goods subject to veterinary and food control at their import or transit to Estonia from third countries at that part of the border of the Republic of Estonia that constitutes the EU external border. The Department also administers work related to the common EU Rapid Alert System RASFF.

In the beginning of 2004, 14 border points in the jurisdiction of the Border Service of the Veterinary and Food Board were involved in veterinary and food control: 3 out of them on railroad, 4 on road, 6 at the port and 1 at the airport. With Estonian accession to the EU 11 border points were closed down as of 1 May and therefore many inspection officials had to be laid off.
While 92 people were employed by the Border Service at the beginning of
the year, then 42 inspection officials worked in the new department by the
end of the year.

At the moment the Department consists of the Surveillance and Control
Bureau and 5 Veterinary and Food Control Bureaus at border points: at
Luhamaa and Narva road and at the ports of Muuga, Paljassaare and Paldiski.

52 635 batches of goods were controlled at the border in 2004, out of
which 50 839 batches during the period from 1 January to 30 April and 1796
batches from 1 May to 31 December.

At 626 times samples were taken of products of animal origin for micro-
biological analysis and at 82 times non-compliance was detected; at 201
times samples were taken of products of non-animal origin. 70 batches of
goods were determined as subject to return and 7 as subject to destruction
last year.

6 food businesses have been approved for storing goods not complying
with the EU veterinary requirements at import. On the basis of the Veteri-
nary Supervision over Trade in, Import and Export of Animals and Animal
Products Act 6 businesses were approved.

22 misdemeanours were processed, out of which in 17 cases a fine and
in 3 cases a cautionary fine was imposed and in 2 cases an oral warning
was given. The main reasons for initiating and processing misdemeanours
were that marking, transport and means of transport did not comply with
requirements for import, there were also problems with the terminals of cus-
toms warehouses in connection with the requirement of approval deriving
from the Food Act.

The Rapid Alert System for Food and Feed is a part of the European
Commission information systems that have been created for the protection
of consumers from hazards deriving from food and feeding stuffs. European
Commission, European Food Safety Authority and Member States partici-
pate in the system. If a member of the network has information about seri-
ous direct or indirect health risks deriving from food or feeding stuffs, the
information should be immediately passed to the Commission that will for-
ward it promptly to other members of the network. The Estonian RASFF
contact point is the Veterinary and Food Board. Since 1 May 2004 the Trad-
ing and Import and Export Department of the Board has sent 6 safety mes-
sages to the European Commission and processed 4 safety messages sent
by the Commission when the products referred to had reached Estonian
market.

Last year the officials of the Department’s Surveillance and Control Bu-
reau were actively involved in drafting legislation. The most important legal
acts that were elaborated and where the officials participated were the ones connected to Estonian accession to the EU. Out of them the most significant ones were the Veterinary Supervision over Trade in, Import and Export of Animals and Animal Products Act and the Amendment Act of the Veterinary Activities Organisation Act.

From 17 May to 21 May 2004 a mission of DG SANCO Food and Veterinary Office was held in Estonia during which EU officials visited the veterinary and food control points at Narva road and at the ports of Paljassaare and Muuga. As a result of the missions the border points at Narva road and at the port of Muuga were assessed as complying with EU requirements and were entered to the list of border points located at the EU external border (through which products of animal origin may be imported to the EU). The report and its recommendations have been of great help for reorganising both the central office and the border points in order to bring them into conformity with EU requirements as well as for harmonising Estonian legislation with EU legal acts.

7.2. Surveillance of the quality of plant production

Enn Liive

Estonian Plant Production Inspectorate conducts national surveillance in seven fields that are regulated by seven Estonian laws and more than 60 lower level legal acts and over 1000 EU legislative acts. The Inspectorate has eight specialised departments for planning and organising national surveillance and 15 County offices with 104 posts for inspectors to carry out practical surveillance in the country and at the state border.

The number of inspections and the sampling level have increased year by year. When during the first year of the work of the Inspectorate approximately 3900 inspections and in 2002 6400 inspections were held, then in 2004 the number was already 6967. The number of control samples taken was respectively 1527, 7348 and 7790.

Control of goods is carried out 24 hours at five border points. Import of goods and conducting surveillance over them has increased annually. When in 2002 ca 25 000 and in 2003 over 30 000 batches of goods were checked at the border, then in 2004 the number was already more than 33 000.

Plant Health Department. The main fields of activity of the Department
are monitoring the spread of pests and determining the plant health condition in the territory of the country, registration of the persons involved in the production, marketing, storage and import of the plants and plant production as stipulated by law, control and certification of seed potato and vegetative propagating material, approving wood processing plants as conforming to the requirements, and conducting surveillance over these activities, including planning, supervising the inspectors in the country offices, organising their training, drawing up guidelines and assessing compliance with requirements and efficiency of the surveillance conducted by inspectors.

By 31 December 2004 there were 1843 objects in the national plant health register, including 342 wood processing plants, 129 producers of seed potatoes, 59 producers of propagating material of fruit and berry plants, 821 producers of potatoes for consumption on over 0.5 hectares of land and 45 importers.

According to the programme, monitoring of dangerous plant pests was carried out. No dangerous plant pests were detected.

According to Art 33 (7) of the Plant Protection Act, from 1 May 2005 the persons entered into the plant health register have to inform the Plant Production Inspectorate of potatoes for consumption imported from EU Member States. During 8 months in 2004 the Inspectorate had been notified of 125 batches of potatoes for consumption, out of which 101 batches were inspected. Potatoes for consumption were imported to Estonia from 7 EU Member States whereas more than half of them came from Poland. Altogether 78 potato tuber samples were taken in order to check the potatoes for potato ring rot and brown rot. In five batches imported from Poland the bacteria of potato brown rot were detected.

In the course of surveillance of the production and marketing of plant material 666 control samples were taken, out of them 238 from plant material and 428 from ground. Compared to previous years the occurrence of potato cyst nematodes in the fields used for producing propagating material has decreased significantly. Pests that are dangerous for propagating material - cyclamen mite (Tarsonemidae), strawberry nematode (Aphelenchoides) and Verticillium wilt (Verticillium spp.) - were found in the samples taken at the inspection of production. In a greenhouse the tobacco whitefly (Bemisia tabaci) was detected that had been brought in with gerbera plants from Spain. Products imported to Estonia from other EU Member States were checked randomly at wholesale warehouses, samples were taken mainly of flower bulbs. In seven batches, a pest dangerous to propagating material was detected.

In the course of phytosanitary control at the border, control samples were
taken of 430 consignments, out of which 51 were analysed at the spot and 379 were sent for analysis to the Laboratory of Plant Health of the Agricultural Research Centre.

In order to check for pine wilt nematode (*Bursaphelenchus xylophilus*) 369 samples were taken.

No dangerous plant pests were detected in the samples taken during phytosanitary control at the border.

**Plant Protection Department.** The main fields of activity of the Department are providing authorisation for plant protection products to be marketed, entering the products and the distributors allowed to enter the market to the register, surveillance over the marketing and use of plant protection products and equipment as stipulated by law. With the decision of the Plant Production Inspectorate 20 new plant protection products were authorised to enter the market in 2004. Deriving from the requirements in the Directive No 45/1999/EC, 99 plant protection products were reclassified. For 27 plant protection products the permission to market the product was prolonged. In 16 cases amendments (such as widening the area of application, changes to the type of preparation and to the standard expenses, renaming the product) were made in the register regarding products that had been allowed to the market earlier. 46 new places for marketing were added. The inspection of the use of plant protection products indicated that in 80 percent of cases it complied with the requirements (84 percent in 2003). Major problems that occurred were the lack or non-usage of personal detective equipment at plant protection work (in 7 percent of the inspected cases) and not keeping records in the field book of the use of plant protection products (in 5 percent of the inspected cases).

Marketing of plant protection products complied with requirements in 84 percent of the inspected shops (74 percent in 2003). The main problem was that sellers had not passed respective training or did not have the plant protection certificate (in 14 percent of the inspected cases). It is also a problem that the mini packages of plant protection products imported from Russia are sold without the Estonian label and illegally at the markets of Narva and Tallinn. For eight times misdemeanour report and fine were issued (altogether EEK 4000).

At the inspection of plant protection sprayers it was found that 55 percent of the sprayers were either new or had passed technical inspection (28 percent in 2003). Altogether 82 percent of the sprayers were in working order. Among the shortcomings that occurred 6 percent of the sprayers had problems with atomizers and 5 percent lacked the card an cover that is a serious violation of occupational safety requirements. Technical inspection of plant
protection sprayers started in 2003. In 2004 five out of seven entrepreneurs who had received training and the right of inspection were involved in that. By the end of 2004 253 sprayers had passed technical inspection.

**Fertilizers Department.** The main tasks of the Fertilizers Department are to organise national surveillance over the producers, importers, transporters and distributors of fertilizers, to control the documents presented for the registration certificate to be issued and to register fertilizers complying with the requirements in the national register.

In 2004 altogether 211 inspections were carried out during which 103 samples were taken. Most of the samples were sent for analysis to the laboratory of the Agricultural Research Centre, samples of compost were analysed in the laboratory of the Veterinary and Food Board. During the inspections 29 precepts were issued (12 in 2003). The main shortcoming was incorrect labelling of fertilizer packages. No misdemeanour procedures were initiated.

In the course of 2004 1 fertilizer manufacturer and 4 importers, 16 new types of fertilizers and 86 commercial names of fertilizers were entered to the register. 16 registration certificates for fertilizers and 22 annexes of registration certificates were issued. 7 enterprises were deleted from the register due to finishing dealing with fertilizers.

**Feeding stuffs Department.** The main tasks of the Feeding stuffs Department are to approve or register the producers and distributors of feeding stuffs and to organise national surveillance over their activities. When during the previous years the main problem has been labelling and issues connected to it, then last year more shortcomings were detected at labelling feeding stuffs imported from the EU Member States.

In 2004 some producers of feeding stuffs were prohibited from manufacturing feeding stuffs and pre-mixtures since they could not ensure compliance with the requirements laid down in the Feeding stuffs Act.

Assessment of risks related to feeding stuffs and control of documents is carried out in the Plant Production Inspectorate’s Feeding stuffs Department. In case there is a threat that feeding stuffs might be harmful, a respective notation is made to the documents and the feeding stuffs will remain under customs surveillance until the results of the control samples taken by the County inspector have arrived. If determined harmful, the feeding stuffs are sent out of the country and all surveillance authorities of Member States are notified of the harmful feeding stuffs through a respective safety message.

When comparing surveillance results in figures it may be said that the awareness of producers and distributors of feeding stuffs concerning compliance with requirements has increased. Misdemeanour procedures were
initiated at 11 times and the fines were issued in the value of EEK 70 100. In 2003 19 misdemeanour procedures were initiated and the amount of fines was EEK 110 000.

**Seed certification Department.** The main responsibilities of the Department are the certification of seeds and conducting national surveillance over the production, packaging, marketing and import of seeds according to legislation regulating the field. The certification of seeds is carried out on the basis of the OECD Seed Schemes and Estonian legislation that has been harmonised with EU directives. Estonia joined the OECD Seed Schemes on 23 October 1997. Certification in the general sense is a procedure where a third party confirms in written form that a product complies with requirements. Certification consists of determining the origin of the seeds as well as the identity and purity of the species and the variety of the seeds by the Plant Production Inspectorate, of carrying out laboratory analyses of the seeds in the accredited laboratory of the Agricultural Research Centre, and of monitoring the closing of the seed package under the monitoring of the Plant Production Inspectorate.

In 2004 556 inspections of marketing, packaging, producing and storage of seeds were conducted, 421 reports were drawn up and 8 precepts issued. The main mistakes were non-compliance with the requirements for labelling of small packages, advertising the sale of non-certified seeds, and opening certified seed packages and selling the seeds by weight. In 2004 inspectors took 1362 seed samples and sealed and labelled 37 367 seed packages.

**Horticultural Products Department.** The responsibilities of the Horticultural Products Department is the verification of conformity to requirements for quality and marketing of horticultural products that are cultivated in Estonia, that are imported to Estonia from a non-Community country or exported from Estonia to a non-Community country.

Until 1 May 2004 the Horticultural Products Act was in force, on the basis of which the Department issued 8 authorisations to inspect horticultural products and attest quality (that are in force until a respective date in 2005). 18 authorisations were prolonged.

From 1 May 2004 the work is regulated by the European Union Common Agricultural Policy Implementation Act and EU regulations. A requirement derives from a Commission Regulation that the persons applying for the authorisation to carry out conformity checks on their own and to use special labelling for fresh fruits and vegetables must have the suitable equipment for preparing and packing the products. Until now such authorisations have been issued to 9 producers and 4 wholesale distributors (Mykene, Rigual, Bambona, Karlskroona).
As of 1 May 2004 import from third countries is subject to a 100 percent control. Active control started in July when measures had been entered to the customs database TARIC. Importers cannot finish customs formalities before the Plant Production Inspectorate has finalised its inspection and issued a certificate of conformity. In 2004 255 import controls were performed during which 292 batches were controlled. Regular inspections were held at wholesale distributors at 239 times during which 1242 batches were inspected. Producers were checked at 67 times (141 batches). 8 precepts were issued.

**Variety Control Department.** The services of the Variety Control Department are registering plant varieties and granting plant variety rights at the request of the holder of the plant variety right or his/her representative as well as entering plant varieties to the Plant Variety Rights Gazette. In order or ensure better service accessibility, service standards have been elaborated and renewed.

On 2 February 2005 there were 61 protected varieties and 35 varieties under provisional protection in the state register of protected varieties. As of 2 March 2005 there were 436 Estonian plant varieties in the Register of Community Plant Variety Rights. In addition, there were 14 plant varieties in the Estonian Plant Variety Rights Gazette.

The Plant Variety Rights Gazette is modified regularly according to changes that take place. The web page of the Plant Production Inspectorate is updated immediately.

**Organic Agriculture Department.** The Organic Agriculture Department approves enterprises wishing to engage in organic farming, organises entering them to the register of organic farming and checks conformity to the requirements for organic plant and livestock production.

Compared to 2003 the number of enterprises in the register of organic farming increased by 6 percent and organic land by 8 percent. On 31 December 2004 810 producers were listed in the register with 46.1 thousand hectares of organic land that constitutes 5 percent of all agricultural land.

In 2004 the number of approved enterprises was the highest in the counties of Võru (97), Hiiu (91), Saare (83) and Viljandi (83). Organic plant production was a single activity in 352 enterprises (that constitutes 43 percent of the enterprises in the organic farming register); 452 enterprises (56 percent) have been approved both in the field of organic plant production as well as livestock production and 6 enterprises deal only with livestock production. 137 enterprises started organic production and were approved in 2004. According to data in the organic farming register, Hiiu County was at the first place as regards the size of organic land (6473 ha), the following
were Saare (5799 ha), Viljandi (4903 ha), Võru (4252 ha), Rapla (3871 ha), Lääne (3370 ha), Tartu (3175 ha) and Harju County (3102 ha). The least organic land was registered in Järva (778 ha) and in Ida-Viru County (742 ha). Natural grassland constituted 19.5 percent of organic land, annual and perennial grass plants 61.3 percent, cereals 11.8 percent, potatoes 0.6 percent, orchards and berry gardens together with strawberry plantations 1.4 percent. There was 490.71 ha i.e. 1 percent of unused agricultural land in the register.

As of 31 December 2004, 458 enterprises engaged in organic livestock production were listed in the organic farming register. Compared to 2003, 150 enterprises were added in 2004. Organic livestock production is especially popular in the islands of West-Estonia. In Hiiumaa 91 enterprises are involved in organic farming, out of them 82 deal with livestock production. In Saaremaa the figures are respectively 83 and 70.

Officials of the Plant Production Inspectorate inspected the producers in the organic farming register at least once last year. Altogether 1490 inspections were carried out. Enterprises that are involved in both organic and regular farming were inspected more thoroughly. At 11 times a deadline was set to eliminate shortcomings in plant and livestock production. Enterprises were evaluated as a whole, equal attention was paid to documents (plans, permissions, agreements, keeping records, etc) as well as to conformity to requirements concerning buildings, fields and animals.
8. **Activities of the Estonian Agricultural Registers and Information Board (ARIB)**

The Estonian Agricultural Registers and Information Board (ARIB) is a government institution, which lies within the jurisdiction of the Ministry of Agriculture, and has been assigned with the task of allocating various agricultural supports as well as the keeping of the agricultural register. The ARIB main office is located in Tartu; each county has a separate regional office (total of 15).

In 2004, ARIB administrated a total of 24 different supports, and received over 57,000 applications from 20,000 individuals. ARIB paid farmers, rural operators, the food industry and local governments a total of 1.8 billion kroons, of which 1.3 billion kroons originated from the EU.

The ARIB supports can be divided as follows:
- state aid;
- direct EU aid;
- supports under Rural Development Plan (RDP);
- supports under National Development Plan (NDP);
- market regulation supports.

For ARIB, the year began with the registration (i.e. declaration) of agricultural land. New support schemes were simultaneously prepared – accession to the European Union provided Estonian manufacturers with the option of applying for various new supports. The first milk quota year ended in March. With agricultural land declaration ending in April, ARIB started accepting applications for the agricultural production investment aid. In the summer, ARIB offices accepted applications for area support. On-site inspections were carried out until the autumn with the aim of counting the number of bovines and ewes, as well as measuring the fields. ARIB hired temporary staff for the area support application proceedings, employing 60 students of the Estonian Agricultural University and agricultural schools. The first investment aid under the National Development Plan was disbursed in July. Two new types of aid could be applied for in October and November – support for semi-subsistence farms and manure storage facilities. At the end of the year, ARIB paid farmers over a billion kroons in area and animal supports.
Declaration of agricultural land

All agricultural land users, who wished to apply for area support from the EU, had to declare (i.e. register) the land in ARIB by 12 April 2004. From the summer of 2004, area supports are only paid for declared land.

Agricultural land could be registered in ARIB both by users and owners of the land. The registration process included specification of the area under agricultural crop, permanent grassland, and temporarily out-of-use agricultural land in 2004. Prior to the declaration, the manufacturer or land owner had to register himself/herself in the ARIB customer register.

In the course of agricultural land registration, the number of ARIB customers grew from 14,600 to 42 thousand. 37,700 individuals declared a total of nearly 1.2 billion hectares of agricultural land, whereas 19 thousand of them applied for area support for a total of 820 thousand hectares of land.

Register of farm animals

The register of farm animals contains data on bovines, sheep, goats and pigs. Animal keepers also had to register all barns used for animal storage by February 2004. ARIB issues blue bovine passports for all local bovines; in July 2004 ARIB started issuing red passports for imported bovines. The register of farm animals contains data on 252 thousand bovines, 42 thousand sheep and 1,600 goats, owned by over 13 thousand animal keepers.

In October, ARIB started registering companies raising egg-laying hens.

State aid

In 2004, ARIB disbursed three state agricultural supports – school milk support, support for dairy cow breeding and support for farm animal breeding. The aid application and disbursement process took place in the second half of the year, with a total of 131 million kroons paid as state aid.

Area support

Direct EU aid together with complementary payments, as well as two supports under the RDP can be applied for land maintenance. ARIB offices accepted applications for single area support and complementary payments, as well as the support for less-favoured areas until June 15; delayed applications were accepted until July 9. A total of nearly 19 thousand applicants submitted over 49 thousand applications for the cultivation and maintenance of a total of 820 thousand hectares of agricultural land.

Between July and October, 6% of the applicants and 37% of the applied area was inspected on site. The on-site inspections included the audit of...
documents and inspection of the area (with GPS equipment). The compliance of the actual number of animals with the number specified in the application was also checked, together with the bovine passports and the existence of the cattle register.

ARIB approved 97% of the applications, and disbursed a total of over 1 billion kroons of EU co-financed aid to the applicants’ representatives.

**Support under the RDP**

ARIB started accepting applications for the manure storage facility renovation and semi-subsistence farm adaptation aids in October 2004. Opened for application for the first time, these aids constitute support under the RDP. 760 animal keepers applied for aid for the manure storage facility renovation, and over two thousand small farmers applied for aid for semi-subsistence farm adaptation. These aids will be disbursed in 2005.

**Support under the NDP**

Between 2004 and 2006, a total of 1.5 billion kroons can be disbursed as third-priority support under the NDP. 40% of the funds were disbursed in 2004. ARIB opened eight support measures under the NDP last year: investment aids for agricultural production, processing of agricultural products, diversification of the economic activities in rural areas, development of villages, modernisation of the fishing fleet, processing of fishery products as well as investment aids for water cultivation and fisheries of inland water bodies.

These investment aids, with which the applicants were already familiar from the SAPARD programme, proved to be highly popular. The number of applications significantly exceeded the expectations. Regardless of the short application period, the applications for investment aid for agricultural production and aid for the development of economic activities in rural areas were filed for a total amount of two year’s aid. 88% of the applications, which were submitted within the framework of the NDP measures, and which were reviewed in 2004, were accepted.

ARIB disbursed the first support under the NDP on July 23 to AS Teedla Mõis for the purchase of a tractor and a seeder. A total of over a thousand NDP investment aid applications were submitted to ARIB in 2004.

**Milk quota**

The first milk quota year commenced on 1 April 2003 and ended on 31 March 2004. Milk producers succeeded in fulfilling 78% of the total milk quota of 644 thousand tons – i.e. supplied and marketed 501 thousand tons of milk.
The second quota year commenced on 1 April 2004 and ended on 31 March 2005. A total of 624 thousand tons were allocated as milk quota to Estonia by the EU for the period. By the end of December – i.e. in the first nine months – milk producers fulfilled 71% of the total milk quota of the allocated 569 thousand tons, supplying and marketing 404 thousand tons of milk.

**Market regulation**

A common agricultural market regulation system was implemented in Estonia after accession to the EU. Within the framework of the program, ARIB issues export and import licenses for agricultural products; the exporters of agricultural products to third countries now have the option of applying for export refund. ARIB purchases grains, butter and skimmed milk powder under intervention buying-in, and disburses dairy product aid.

In 2004, ARIB issued 334 export and import licenses, awarded 34 million kroons worth of export refunds and 700 thousand kroons worth of dairy product aid. ARIB decided not to sell butter and milk powder under intervention buying-in, but received the first intervention purchase offers on grain at the end of the year.

**Publication of information**

The number of ARIB customers increased by several times in 2004. We use our web page, the media, the “PRIA Uudised” (“ARIB News”) information sheet (sent via direct mail) and an information brochure for informing the customers. The guidelines “Abiks taotlejale” (“Guidelines for applicants”) and the application forms are available at the regional ARIB offices. We also co-operate with the regional information centres of the Estonian Chamber of Agriculture and Commerce in the field of information publication.

We started training advisors in 2004. We now conduct training sessions before each aid. The applicants can thus contact a trained advisor in order to be provided with the required consulting and assistance. For the first time in history, we sent potential applicants printed material on the area support by post, and plan to do so in 2005 as well.

In 2004, we had our own box at the agricultural fair Maamess in April in Tartu for the first time. Introductory lectures were held in the ARIB box on all three days; specialists were provided with answers to questions concerning the supports. We received a warm welcome from farmers, and plan to continue the tradition in the future.
**Plans for 2005**

In 2005, ARIB can support Estonian farmers and entrepreneurs with a total of over 2.2 billion kroons. Ten supports will be added to those awarded in 2004. Some of them can be recognised from previous years – e.g. land improvement aid and field training aid. ARIB will start awarding advisory aid from the NDP funds. Several entirely new aids have been planned as well – e.g. the arable land foresting and integrated land improvement aid as well as new aids in the fisheries sector.
9. **Communication**

9.1. **Communication and the reputation of rural life**

*Ants Laansalu*

The years-long preparation for accession to the EU revealed that our main problems lay in bilateral communication, rather than with administrative capability, as erroneously predicted by several foreign experts. The polls conducted during three pre-accession years on the need for information revealed the embitterness among both small and medium-sized farmers, and their alienation from any communication with the public sector. This proved to be a hindrance to the publication of information on EU requirements and new opportunities, and endangered the launch of the information exchange process between the private and public sectors. The reasons behind the farmers’ estrangement and alienation from the public sector lay in the failure to establish bilateral communication between the internal and external target groups and interested parties – i.e. between the ministry and its departments and the representative organisations of producers and entrepreneurs.

A good example of imbalanced and misleading information is “Take a look at the globe”, an economic comment by Juhan Teder, published in *Eesti Ekspress* on 5 November 1993, providing several misleading delusions about the contribution of agriculture to economy. Quote: “They (agricultural producers - A.L.) practically pay no taxes”. In fact, according to the analysis of the Estonian Institute of Economics, the tax burden of the agricultural sector, calculated as a ratio to net turnover, was twice as big in 1994 (16%) than the respective indicator for industry (7.6%).

The farmers’ demands regarding the establishment of equal competitive conditions and cessation of the import of agricultural products at dumping prices (which conditions a drop in domestic market prices) received the following comment in the same article: “Obviously, we cannot afford such a large number of farmers in the future.”

The actual situation was quite the opposite: between 1993 and 1995, farmers were feeding people at the expense of a decrease in their own assets. According to OECD experts, agricultural products were sold at prices lower than those at the global market – at prices too low to cover production
costs. In other words – the prices established for agricultural products forced farmers to pay off consumption. Industry and trade were the only sectors profiting from the drop in the price of agricultural products from 1996 onwards.

Incompetent and malicious comments in the media had a negative effect on the reputation of agriculture and rural life as well as the decisions passed with respect to the agricultural and rural life policies.

With the aim of ascertaining the options for improving the reputation of agriculture and rural life, the ministry ordered a survey in the field. The report on the results of the survey conducted by the research centre Factum together with Suhtekorralduse OÜ was published in February 2005.

The report states that the aim of the survey was to determine whether or not people are concerned about rural life in general, as well as to ascertain what the state needs to do in order to improve the situation. If the results reveal that rural life is considered important, this would be our cue for starting to handle the actual problems, and to truthfully communicate the positive achievements in rural life.

The report on the survey results (drafted by Aune Past) brings out the most significant outlooks and conclusions, together with examples added by the author. A few excerpts from the report have been brought out below.

“Since the media is, for the most part, a profit-seeking venture, which collects, packages and sells information and entertainment (this means that the media produces commodities with a market demand – i.e. commodities we all wish to purchase), there is no reason to expect a positive reflection of the reality (including of rural life). There are not that many positive messages on the organisation of daily life and establishment of modern production and living conditions out there. Scandals and crisis have a much larger consumer base in Estonia. We should not, therefore, blame the media. Still, the prevailing negative media reflection is one of the reasons behind people’s attitude towards rural life.”

The author states that “the reputation of rural life is a relatively solid argument, which:

- has an effect on what people know and think about rural life;
- manages people’s reactions, actions and stances;
- predicts people’s behaviour towards rural life.”

Regardless of the predominance of negative information about rural life in the media, the survey results reveal that the public opinion has remained relatively stable:

- Estonians consider rural life friendly, exclusive, safe, slow, warm and clean as well as feeble and monotonous.
- Rural people deem rural life, above all, exclusive, safe, friendly and clean. Warning signs can still be seen – every fourth person residing in a rural community considers rural life deterrent. Indeed, rural people make up the biggest part of the respective group.
- Women were found more prone to consider rural life to be in decline, at a standstill and closed off.
- The reputation of rural life is the best in Southern Estonia, the worst in Western Estonia, and the most vague and ill-defined in Virumaa.
- We can assume that negative attitudes towards rural life are prevalent among those, who care about rural life, who consider it exclusive, friendly and attractive, and yet slow, feeble and at a standstill.
- People with a lower income were found more prone to expect improvement of the reputation of rural life to improve their own life.
- It turned out that people, who are dissatisfied with the current situation with rural life, are, above all, not satisfied with the development in the area.
- As regards the question of whether or not the state should pay more attention to improving the reputation of rural life, nearly nine out of ten people polled believed the state should pay more attention to improving the reputation of rural life.
- Those, who believe the state should pay more attention to forming the reputation of rural life (86%), are more prone to deem rural life as developing, rising, growing and exclusive. The state is evidently expected to give a helping hand in the fight against feebleness and slowness.
- Those, who have no opinion on what the state should do with the reputation of rural life, deem rural life unfamiliar. Three out of four people polled deem the current situation with rural life bad, or bad rather than good; whereas 20% of those polled deem the situation good, or good rather than bad. Only 7% of those polled had no opinion on the current situation, or do not care. The results reveal that the public opinion on rural life is currently bad rather than good.
- Without doubt, the negative opinion on the situation with rural life has, to a large extent, been triggered by the changes introduced to traditional rural life, as well as by the predominantly negative attitudes reigning in the media and daily life, resulting from the total chaos generated by the decisions, which were rushed by political populism, as well as lack of resources and know-how required for market economy.
- To create a more positive image of rural life, we need to accelerate development, enhance entrepreneurship, as well as reflect on the existing farms and companies. It would be erroneous to assume that
rural life is only associated with a bed of phloxes, strawberry jam or bird singing – this is the view cultivated in media articles by politicians toying with rural people.

The question of whether or not to start handling the issues related to the reputation of rural life is so important that a “no” by the decision-making authorities would constitute a betrayal of public expectations. The reputation of rural life is not only an issue for rural people; it is an issue for all Estonians. (Factum, consolidated report; February 2005).

The results of the survey ordered by the ministry and conducted by Marti Taru and Rein Toomla in April/May 2004 are surprising. Negative media reflection on agricultural and rural life policies has had a smaller effect on the public than initially feared. Most of the townspeople are on the opinion that the entire society would benefit, if agriculture and rural life were to be provided with support. Considering the hitherto economic policy, we could have assumed that the attitude of townspeople towards agriculture as a branch of economy is rather liberal, letting each branch of economy (and each individual) find his own method for survival in a market economy. The results, however, are surprising – 85% of those polled believe agriculture should be supported by the state.

More than 70% of those polled made the connection between organic agriculture and the nature restoration period. The nature-protective mindset of townspeople is manifested in the opinion that the state should support implementation of nature-friendly technologies.

9.2. Communication and publication of information

Janika Salev

Regardless of the fact that the ministry published the relevant information on the EU political measures regarding agriculture and rural life as well as the new opportunities thereof in various information channels on a regular basis, the survey on the need for information revealed that agricultural producers had received conflicting information. Objective information exchange was hindered by negative predispositions prevailing among agricultural producers (mainly small farmers), which, in turn, were enhanced by eurosceptics, who communicated misleading information concerning the opportunities and requirements related to the EU agricultural policy.
The ministry faced the task of awakening small and medium-sized farmers’ interest in communicating with government institutions, as well as winning the farmers’ trust in official information communicated on the EU agricultural policy. To get an overview of the situation, the ministry ordered two surveys from the research company Saar Poll in 2002, and one survey on the need of information from the advisory centre in 2003.

The surveys aimed at ascertaining the main obstacles that hinder efficient operations and data availability, discerning the harmful or positive effect of accession to the EU and determining the causes behind the problems occurring upon the forwarding and reception of information, as well as developing efficient methods thereof. Several questions needed to be answered in order to determine the causes behind problems related to the forwarding of information. Has the information been made available? What are the preferred channels (printed press, TV, publications, seminars, consulting, etc.) for receiving information? Is the information explicable and reliable? What is the main cause for dissatisfaction? Has the dissatisfaction been caused by the overload of information, failure to separate the wheat from the chaff, the scattering of information, etc.? How to increase satisfaction and how to decrease dissatisfaction? We were also interested in how active/passive people themselves are upon collecting information. Must everything be delivered on a silver plate, or do people actively pursue information themselves? If so, what kind of information? Which channels do they use? How? If the interest is passive, what kind of a “plate” should be used for the delivery of information?

The results of the survey revealed that the positive information possessed by farmers is rather of general nature (e.g. we are told that life will get better and we will start receiving aids), whereas negative information is often specific (e.g. a Finnish farmer told us at a presentation that the price of fuel went up while the price of crop went down in Finland after accession to the EU). Agricultural producers were also confused by misleading information published by eurosceptics on the rise in fuel excise duty as well as extensive costs and unaffordable requirements related to the accession.

It turned out that a majority of those polled (mainly medium-sized and small farmers) have failed to receive any information published on the EU requirements and opportunities. This has been caused by the failure to independently collect and process information, as well as little confidence in public information services, poor solvency and inability to use advisory services and partake in training days. Many agricultural producers were embittered and “became passive and frightened bystanders in the accession process” (Saar Poll, report, December 2002). Although farmers do not consider
lack of information to be their main problem, it is the lack of information which is often the biggest hindrance for development.

On the other hand, heads of large and successful agricultural companies, who have access to the Internet, use advisory services and regularly visit seminars and partake in training days, were well-informed of EU requirements and the related opportunities.

Upon planning the publication of information, the ministry considered the research company’s recommendations as regards the choice of information channels, the presentation methods and the most desired topics. In 2003 and 2004, “Euronõu” (“Euro-advice”) was periodically published as an extra to Maaleht. In addition, poorly informed small farmers were sent a free-of-charge brochure by post. The survey conducted by advisors in 2003 revealed that the advisory service recommended by the research company turned out to be most efficient.

In the aftermath of the World Bank project, the ministry concluded, in 2002, an agreement with the Estonian Chamber of Agriculture and Commerce (ECAC) on the organisation of the publication of information so as to maximise access to the target groups.

Established in the same year, the information centre, which first lay within the jurisdiction of the Rural Development Foundation, was incorporated under the ECAC in January 2003. The information centre started providing free-of-charge information to agricultural producers with poor solvency, as well as rendering simpler but urgent information services. In addition to publishing official information (laws, regulations, guidelines), the information centre was also assigned with the task of systematising data, providing clarifications, commenting on legal acts and collecting from agricultural producers feedback on the need for information.

The ECAC information centre established relations with the regional information and advisory centres of professional associations of agricultural producers that had so far lacked efficiency and systematisation, and concluded information forwarding agreements with agricultural producers.

Under the supervision of the ECAC, the regional information centres implemented their own development plans and analysed the hitherto activities in 2003. By now, the centres have adopted a smooth work rhythm and have no need for constant handling of administrative issues. The information centre has also opened an Internet portal to make information available to agricultural producers and regional information centres, and organises training and information days. The centre serves as a mediator between agricultural producers and the holders of the information - public institutions, scientific research establishments and business enterprises.
Fuelled by mutual interest, the information centres and advisory centres established a close partnership, enabling to enhance the quality of information and maximise rational use of resources. The partnership has yielded excellent results.

Implemented in 2005, Measure 3.8 of the National Development Plan enables regional information centres to apply for the status of information and advisory centres, further enhancing the availability of information and advice in the different counties.
The Ministry of Agriculture prepared 10 draft legal acts, 61 draft regulations of the Government of the Republic and 199 draft regulations of the Minister of Agriculture in 2004.

As can be seen from the volume of legislative drafting, several draft legal acts were prepared, and all of them play an important role in the regulation of the respective area. Especially important are the two laws that entered into force on 1 May 2004: the European Union Common Agricultural Policy Implementation Act and the Veterinary Supervision over Trade in, Import and Export of Animals and Animal Products Act. After years of preparation, final efforts needed to be made before 1 May 2004 to prepare for the accession to the European Union, enabling Estonia become a full member of the EU. The work volume was substantial, considering that over 50% of the EU legal acts concern the area of agriculture1.

Although many believed accession to the EU would bring an end to the preparation of legal acts in Estonia, the actual volume of legislative drafting increased many times. In order to bring the Estonian laws into line with the EU laws, we needed to analyse the compliance of our legal acts to those of the European Union.

When analysing the compliance, we needed to consider, in addition to the requirements concerning the content, also the differences regarding the various categories of EU legal acts. Binding for the member states, directives and regulations are the most widely used categories of legal acts. However, while a regulation is binding for a member states in its entirety, a directive is only binding as to the results to be achieved (see Article 249 to the EC Treaty).

Therefore, the directives need to be transposed into the Estonian laws, i.e. Estonian laws to be harmonised, while the method of achieving the purpose of the directive is to be chosen by the member state itself. As regards the area of agriculture, the process, however, often involves directives, which resemble regulations, and which arise from the European Court practice. In this case, the directive needs to be fully transposed – in effect, rewritten in

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1 “With Articles 43 and 100 of the EC Treaty often combined as legal basis, it is barely possible to get an overview of the agricultural laws in areas such as livestock feed, plant protection, veterinary medicine and animal protection as well as seeds and sets (Guide to EC Legal Acts: 03.50).” T. Oppermann. Ministry of Justice. European law. Tallinn, 2002, p. 427
the Estonian legal act\(^2\) together with the means and methods for achieving the purpose of the directive. Such directives include a majority of the directives in the area of veterinary medicine.

Unlike the directive, it is forbidden for the member state to harmonise a regulation. However, this does not mean that there is no need to work on national legislative drafting. A lot of regulations grant to the member state the right to, or oblige the member state to adopt legal acts for implementation of the regulations – for instance, for the purpose of solving administrative issues, establishing competent authorities, specifying the requirements within the scope provided by the regulation, or establishing the applicable sanctions. The implementing regulations, however, must be enforced under the authority delegating provision specified in the EU and the Estonian legal acts. This conditioned the need to introduce additions to our legal acts. We must additionally point out that, in the pre-accession years, many of the requirements stipulated in the directly applicable EU legal acts were included in Estonian legal acts so as to give manufacturers and processors time to adapt to the new requirements. This, too, conditioned the need to make amendments to our legal acts.

The common agricultural market organisation to be implemented under the EU common agricultural policy is, to a large extent, regulated by regulations that are binding for and directly applicable in the member states. Above all, this has been conditioned by historical reasons – for the purpose of ensuring common rules of market organisation measures for all member states, and guaranteeing a controlled division of the financial resources as well as protection of the EU financial interests, as the market organisation measures are largely funded by the EU budget.

The area of veterinary medicine, however, is regulated by a large number of directives that resemble regulations and that need to be include word-by-word in the Estonian legal acts due to the importance of the results to be achieved (human life and health as well as animal health).

Similarly to other new EU members, the EU common agricultural policy was implemented in Estonia on 1 May 2004 on the basis of the European Union Common Agricultural Policy Implementation Act, which was adopted by the Riigikogu on 24 March 2004 and entered into force on 1 May 2005. On that date, the system was implemented on an equal basis with the old member states – the majority of the measures implemented in old member states were made available to our manufacturers and processors. As we

\(^2\) the same, p. 182
have mentioned above, the EU common market organisation has been regulated by directly applicable regulations. Therefore, the above act largely consists of the authority delegating provisions to the government and the ministry for the purpose of establishing more detailed requirements with separate regulations.

The European Union Common Agricultural Policy Implementation Act includes a total of over 50 authority delegating provisions for the establishment of implementing acts. Consequently, the following market organisation measures (by areas) were implemented in 2004:

stabilisation of agricultural markets (single area payment and complementary national direct payment; aid for disposal and complementary national direct payments, school milk support, production quota and national quantities, intervention buying-in, private storage, horticultural products market organisation, export refund), support for rural development, other measures (collection of market information, quality requirements, agricultural advisory centres, the security system, organisation of agricultural accounting).

The measures organising the agricultural market and the grant of the relevant supports were regulated, until accession to the EU, by the Rural Development and Agricultural Market Regulation Act, which was declared null and void on May 1, giving way to a new act of the same name, which regulates the agricultural market only with respect to national measures.

The entry into force of the Veterinary Supervision over Trade in, Import and Export of Animals and Animal Products Act on 1 May 2005 was especially important for the unhindered operation of the frontier-free internal market for the trade of animals and animal products. Estonia had to make the transition to the EU common veterinary and food surveillance system, and bring an end to the hitherto veterinary and food surveillance of imported and exported traditional goods at the border checkpoint on the border shared with an EU member state.

In internal EU trade, the common veterinary and food surveillance system is based on the tightening of the inspection at the place of departure, and random inspection (by way of sample-taking) at the destination. The system operation as well as the sufficient and efficient veterinary supervision at the place of departure and at the destination is facilitated by measures such as implementation (in the competent authorities of the member states) of a common computer-based animal trade information system, which provides the relevant supervising agencies of the destination country with information on the movement of the animal in the particular country; mutual exchange of information between the member states on the results of vet-
erinary and food surveillance; as well as implementation of the co-operation principles.

In addition to the above legal acts, the ministry prepared several draft acts – e.g. the draft Plant Protection Act, Fisheries Market Organisation Act, Organic Agriculture Act, Excessive Stock Fees Act, Infectious Animal Disease Control Act, and the draft Fodder Act.

From 2004, the ministry can include more external experts in the legislative drafting procedure. The opportunities for reviewing the draft legal acts under preparation by the ministry have increased, as well. So have the opportunities for stating an opinion on them.

So far, only the draft laws and government regulations were available from the draft act harmonisation system e-Õigus. From November 2004, the draft regulations of the minister have been made available for review in e-Õigus. A respective note is sent on the draft to the ministries, national associations of local governments as well as other persons listed in the government regulations. e-Õigus has been made public and accessible via the web page of the Ministry of Justice or at http://eoigus.just.ee/ to all other interested parties as well. As a result, the Ministry of Agriculture was obliged, similarly to other ministries, to review the drafts of the regulations of other ministers. In addition to e-Õigus and the round table meetings with the representatives of the targets of the legal act, the material draft regulations prepared by the Ministry of Agriculture are reviewed by the Agriculture and Rural Development Council, the Fisheries Council and the Quota Council.

Although the forecast for the volume of draft acts to be prepared by the Ministry of Agriculture in 2005 is smaller than the volume of 2004, this does not mean that the volume of work to be conducted in the field of legislative drafting will decrease. In order for the Estonian legal acts to be harmonised, Estonia will continue conducting expert legal analysis of the draft acts prepared on the basis of EU legal acts as well as those not related with the EU law in 2005. Estonia will also continue participating in the work groups, and working with the translation of the draft regulations prepared by the EU.
**Budget of the jurisdiction area of the Ministry of Agriculture for 2004**

*in thousands of kroons; by institutions*

<table>
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<tr>
<th>Total for the jurisdiction area of the Ministry of agriculture</th>
<th>2003</th>
<th>2004</th>
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<tr>
<td>purchase and renovation of property, plant and equipment, and intangible assets</td>
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<td>at the expense of subsidies for the jurisdiction area</td>
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**Ministry of Agriculture**

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<tr>
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<th>2003</th>
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<td>21 141,94</td>
<td>17 321,10</td>
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<tr>
<td>at the expense of foreign aid</td>
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<tr>
<td>co-financing projects</td>
<td>1 395,30</td>
<td>326,5</td>
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<tr>
<td>at the expense of foreign aid</td>
<td>5 085,20</td>
<td>1 902,70</td>
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<tr>
<td>at the expense of revenue</td>
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<tr>
<td>from operating activities</td>
<td>6 200,00</td>
<td>5 000,00</td>
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<tr>
<td>analyses conducted for state authorities</td>
<td>1 200,00</td>
<td>5 993,00</td>
</tr>
<tr>
<td>at the expense of subsidies</td>
<td></td>
<td></td>
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<tr>
<td>for the jurisdiction area</td>
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<td>membership fees for international organisations</td>
<td>43,86</td>
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<tr>
<td>Other expenses</td>
<td>450,00</td>
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<tr>
<td>land tax</td>
<td>21,81</td>
<td></td>
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<table>
<thead>
<tr>
<th><strong>Estonian Veterinary and Food Laboratory</strong></th>
<th>48 804,97</th>
<th>42 179,06</th>
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<tbody>
<tr>
<td>Operating expenses</td>
<td>48 797,75</td>
<td>40 179,06</td>
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<td>including:</td>
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<tr>
<td>at the expense of state revenue</td>
<td>23 195,44</td>
<td>22 610,70</td>
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<td>at the expense of foreign aid</td>
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<tr>
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<td>from operating activities</td>
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<td>6 000,00</td>
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<tr>
<td>analyses conducted for state authorities</td>
<td>4 470,00</td>
<td>10 990,56</td>
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<td>for legal persons in public law,</td>
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<td></td>
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<tr>
<td>operating within the jurisdiction</td>
<td>283,81</td>
<td>577,80</td>
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<tr>
<td>Other expenses</td>
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<tr>
<td>land tax</td>
<td>7,22</td>
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<table>
<thead>
<tr>
<th><strong>Land improvement bureaus</strong></th>
<th>24 693,45</th>
<th>24 435,75</th>
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<tbody>
<tr>
<td>Operating expenses</td>
<td>24 669,64</td>
<td>24 435,75</td>
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</table>
including:
- at the expense of state revenue: 24,017,46 23,975,70
- at the expense of foreign aid co-financing projects: 230,00
- at the expense of revenue from operating activities: 422,18 460,05
- interest expenses: 16,70
- land tax: 7,11

### Agricultural museums

<table>
<thead>
<tr>
<th></th>
<th>6 955,57</th>
<th>7 034,60</th>
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</thead>
<tbody>
<tr>
<td>Operating expenses</td>
<td>6 951,64</td>
<td>7 013,80</td>
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</table>

including:
- at the expense of state revenue: 6,476,64 6,564,60
- at the expense of revenue from operating activities: 470,00 449,20
- at the expense of subsidies for the jurisdiction area: 5,00
- Other expenses: 20,80
- land tax: 3,93

### State research and development authorities

<table>
<thead>
<tr>
<th></th>
<th>28 221,66</th>
<th>25 252,73</th>
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</thead>
<tbody>
<tr>
<td>Operating expenses</td>
<td>14 513,35</td>
<td>24 597,80</td>
</tr>
</tbody>
</table>

including:
- at the expense of state revenue: 1,834,00 1,834,00
- at the expense of foreign aid co-financing projects: 32,00 180,00
- at the expense of foreign aid: 540,00 200,00
- at the expense of revenue from operating activities: 11 942,35 8 725,30
- at the expense of subsidies for the jurisdiction area: 165,00
- applied research for state authorities: 13 669,00 13 658,50
- Other expenses: 654,93
- land tax: 39,31
12. The structure of the Ministry of Agriculture