Jäneda Training and Advisory Centre

FINAL REPORT

on the "Generation of Data on Intermediate Consumption in Estonia – Approach Comparison"

by

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This report is made within the framework of the Multi Country Statistical Cooperation - Pilot Project on Statistics: Component: Agricultural Sector Modelling and according to the contract between the NEI/ICON/ASA-Consortium and the Jäneda Training and Advisory Centre

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Introduction

The importance of Agricultural Sector Modelling (ASM) has significantly increased within the last few years, especially with reference to the Estonia's accession to the European Union. Since agricultural sector has a significant role in the economy of the European Union, it is very important to analyse the competitiveness of Estonian agricultural producers in the EU market. Therefore we have to know the level of production costs of different agricultural products in order to compare them with the input data of the EU member states. In addition, the data on the cost of production is very important for internal use in Estonia (e.g. for preparing the market forecasts and analysing the impact of policy decisions).

The Pilot Project (ASM) is one of the four Eurostat Pilot Projects on Agricultural Monetary Statistics (AMS) implemented during the period from January 2000 to July 2001 and financed by the PHARE Multi-Country Statistical Co-operation Programme. The main objectives of sub-projects were to support the Candidate Countries (CC) towards bringing the agricultural statistics in line with the Eurostat requirements.

The purpose of ASM was to support the CC's in the generation of input data per type of agricultural activity for the AgrIS purposes. Many approaches for the generation of input coefficients were presented and elaborated in the framework of Eurostat Pilot Project on ASM during the period from January 2000 to July 2001.

Majority of works on ASM is carried out in the Jäneda Training and Advisory Centre in close co-operation with the Estonian Ministry of Agriculture and with the assistance of ASM experts from ASA Institute, Germany.

Although the ASM project started a year and a half ago there are a lot of works that still have to be done. This sub-project in the framework of the Pilot Project on ASM has been signed between the NEI/ICON/ASA-Consortium and the Jäneda Training and Advisory Centre.

The main objective of this sub-project was to compare the results of test running the French model 'INRA' with Estonian FADN data with the current Estonian data. In addition, the final results should be evaluated by applicability of a model in Estonia in order to generate the input coefficients per agricultural activity.

1. A summary of the applying Estonian FADN data to the INRA model

Background of the INRA-model

The INRA-model (full name of model is 'COUTPROD INRA-INSEE') was created by INRA and INSEE (National Statistical Office of France) in 1990 and has been enhanced and developed to the present time. The model is based on the FADN data, which is designed specially to describe the agricultural holdings from an economic, technical and financial aspect.

The main objective of the INRA-model is to calculate the production coefficients and production cost per different type of agricultural activity (e.g. per quintal, hectare or animal head). The INRA-model is econometric model that uses the regression analysis to estimate production coefficients, which are ratios of input and output values. All the calculations of coefficients are based on the input-output matrix. There are two assumption made in the model: 1) the specific features of each agricultural farm as well as production level are not taken into account; 2) the value of the input used is proportional to the value of the output.

It must be notes that this model was initially created considering the specific features of the French as well as the other EU countries' agricultural sector. Therefore, the model does not take into consideration the specific features of the CC's agricultural sector. The agricultural sector (e.g. the structure of producers, production efficiency and technology, general situation in agricultural sector as well as in total economy as a whole etc.) of the CC differs significantly from agricultural sector of the EU member states.

Applying Estonian FADN data to the INRA model

During the last ASM workshop held in April 2001 in Riga, it was agreed that Estonia and Estonia would send their own FADN data for the year 1999 to the National Agricultural Institute of France (INRA), in order to apply the INRA-model with the Estonian FADN data. Estonia sent the data necessary to run the model to INRA in May. Data analyzing and processing took about a month. After the data processing was completed, a study trip to Nancy, France was organized by the ASA Institute and financed by the EU Phare programme.

During the study trip a lot of work was done in co-operation with the INRA experts. As the INRA-model allows to choose between different output and input parameters as well as scope of production, 12 different results were received using Estonian FADN data. Approximately the same number of outcome was received with the Latvian FADN data.

As the first step a list of input items and production activities was made, which are necessary for fulfilling the AgrIS requirements to the minimum list of input and output items. Three lists were made during the first stage. During the next stage, twelve results were received of which five results using the second classification system of agricultural holdings i.e. type of farming like A, B, E, G and H. In addition, three variants were made using the all sample holdings presented in the FADN sample (accordingly for 14, 13 and 11 different outputs), two variants for crop production (13 and 11 outputs), one variant for milk production with 11 outputs and one variant for pig farming with 11 outputs.

After processing the FADN data, the results were discussed in detail with the INRA experts. During the processing the data, couple of problems emerged. Firstly, it should be mentioned that Estonian agricultural holdings produce majority of animal feedingstuffs themselves i.e. 60-70% of total feedingstuffs. This means that agricultural holdings try to produce fodders as much as possible on their farms in order to spend lesser amount of financial resources for purchasing the fodders for animals.

The problem is that the model does not take into account the intra-unit consumption in the estimation of the coefficients i.e. the production used on farms is not considered as an output. Therefore the self-produced feedingstuffs that is consumed on the same farm, as animal feed does not appear under the animal production costs. At the same time, the

inputs for animal production (e.g. milk, eggs) include the cost of fodder i.e. cost of fertilizers, crop protection products etc.

The second major problem emerged when the gross output of several agricultural activities (e.g. cattle and poultry) was negative. The reason is that the model, in order to determine the gross production, takes into account the sum of sales of certain agricultural product and changes in stocks (i.e. the stock at the end of year minus the stock at the beginning of the year). Thus, if the number of animals (especially cattle) as well as the sale prices of animal products decreased significantly in 1999, the gross production of animals was negative.

Another problem was that some production types are weakly represented in the FADN sample (e.g. horticulture and other permanent crops). Due to the small number of agricultural holdings represented in these two types of farming, it was not possible to estimate the cost coefficients for vegetables and fruits.

As a conclusion, it should be noted that only the cost coefficients estimated for the cereals, potatoes, milk, pig rearing and eggs (to a certain extend) are practicable and reliable. The cost coefficients for other agricultural activities (e.g. vegetable, fruit, cattle, poultry, other crop and animal products) are not practicable, thus they cannot be used for further analysis.

2. Sending Estonian FADN data to INRA

As it was agreed in the Workshop in Riga in April 2001, Estonia had to send its FADN data for the year 1999 to INRA in order to run the INRA-model. The FADN data for 1999 was collected, checked, processed and analyzed by the Jäneda Training and Advisory Centre in accordance with the requirements of European Commission and the FADN methodology. Data was collected from 400 sample agricultural holdings, but thirty of them were discarded for various reasons (size under 2 European size units, negative cash flow). Accordingly, only the data of 370 agricultural holdings was sent to INRA.

For processing and analyzing the collected data of the agricultural holdings, the farm holdings were grouped according to the type of farming and economic size based on the FADN classification system and typology of the agricultural holdings. According to the classification methodology of agricultural holdings all the calculations are based on the Standard Gross Margin (SGM). SGM is calculated per hectare in crop farming and per unit in livestock farming. In case of crop farming the cost of seeds, fertilizers, plant protection products and pesticides, grain drying costs and other costs are subtracted from the total output. In case of livestock farming the cost of feed and other costs are subtracted from the total output. In order to find the type of farming, the relative share of SGM for each main agricultural product was calculated. In accordance with the above mentioned, the analyzed farm holdings were divided as following: 1) arables; 2) horticulture; 3) permanent crops; 4) dairy cattle; 5) mixed livestock holding; 6) granivores; 7) mixed crops-livestock.

To compare Estonian FADN data with the European Union member states, the SGM of each type of production is summed up and the sum is divided by 1200 EUR, which gives the results in European Size Unit (ESU).

It must be noted that there are two types of farming classifications in Estonian FADN database and we sent the FADN data with both classifications. The first type of farming is

calculated according to the FADN methodology developed by the European Commission based on the SGM. The second type is calculated according to the other methodology, which is also based on SGM, but with some differences in the calculation formulas. It should be mentioned, that the second approach was used for publication of FADN data for 1998 and 1999. Table 2.1 below describes the calculation criteria for determining the types of agricultural holdings.

Table 2.1. Types of agricultural holdings on general level

Type	Area of production	Description
A	Field crops	Standard gross margin of field crop production is larger than 1/3 of the total standard gross margin and the number of grazing livestock and granivores (pigs + poultry) is less than 1/3 each.
B	Horticulture	The relative share of standard gross margin of horticulture is more than 2/3.
C	Grapes	Not grown in Estonia.
D	Other permanent crops	The relative share of standard gross margin of permanent crops (except grapes) is more than 2/3.
E	Dairy farming	The relative share of standard gross margin of bovines is more than 2/3 and more than 2/3 of this accounts for the standard gross margin of cows.
F	Grazing livestock	The standard gross margin of grazing livestock is more than 2/3, but the relative share of standard gross margin of cows is between 1/10 and 2/3.
G	Granivores	The relative share of standard gross margin of granivores (pigs, poultry) is more than 2/3.
H	Mixed production	The standard gross margin of mainly grazing livestock is between 1/3 and 2/3 of the total standard gross margin.

Sample of agricultural holdings and weighing

The database of the Agricultural Registers and Information Centre (ARIC) on the holdings that received subsidies in 1999 was used for forming a sample of agricultural holdings. The main reason why the ARIC database was used for preparing the sampling plan was that this database contained the agricultural holdings that actually produce agricultural products. In addition, it can be said that the ARIC database is one of the best available information sources regarding Estonian agriculture. The only weakness of the database is that it does not include the type of production for which no subsidies were granted. Therefore the expert assessments on additional holdings of types of production those were weakly represented or not represented in the ARIC database (horticulture, other permanent crops), were also included in the sample.

It should be mentioned that the current FADN sample based on the ARIC database does not completely represent the Estonian agricultural sector. Therefore, the result of the analysis of the FADN data does not fully reflect the real situation in Estonian agriculture. More precise and complete data on the structure of Estonian agriculture will be received after the agricultural census in July 2001. But processing and analyzing the data collected in the census will take some time before it can be used for the FADN purposes. According

to the work schedule of agricultural census and data processing, the preliminary summary of the census will be published in November 2001. The final results of the census will be published two years after the census period.

There were 9105 agricultural holdings in the ARIC database, which could be used in forming the FADN sample. In 1998, it was agreed that the agricultural holdings whose economic size is smaller than 2 ESU are not taken into account. According to that, 48% of holdings were with less than 2 ESU. Accordingly, only those agricultural holdings whose economic size was larger than 2 ESU were taken into account. Table 2.2 below gives an overview of the FADN sample and population of agricultural holdings by different types of farming.

Table 2.2. Structure of Estonian FADN sample for 1999

Type of farming	A	B	D	E	F	G	H	All
Population of farms	1564	10	23	1248	14	72	1825	4756
Sample farms	97	8	1	142	3	10	109	370

As shown in table, there are three types of farming prevailing in the sample: field crop, dairy farming and mixed production. Other types of farming are presented very weakly.

The weighing factor for the sample of test holdings was 12.8 in 1999, i.e. every holding in the sample represents 12.8 holdings of the population. The weighing factors for different types of holdings and different size groups have been calculated as well.

3. Test runs of the model with Estonian FADN data

As it was mentioned already, there were twelve results made using Estonian FADN data. It shoul be noted, that not all the input coefficients were good for using in the received results due to various reasons. The cost coefficients were good for cereals, potatoes, milk, pigs rearing and eggs. As much as there were different versions made, differenet results were received.

Taken into account that there were 17 different tables for every version, it was decided not to present all the data but only main aspects concerning the production costs per hectare of agricultural activity. The tables presented in the **Annex 1** give a short overview of the production costs per agricultural activity. There are twelve results for every single agricultural product, but only a few of them are realistic.

The different results are marked as numbers from 1 to 12. The list of meanings of different numbers in the table headline as well as some additional information regarding the input data and structure presented in the tables is introduced in **Annex 1**.

The first indicator in the table shows the number of farms, which produced relevant agricultural product (i.e. cereals, potatoes, milk, pigs rearing and eggs) in the field covered by the different version. The second indicator shows the share of the total product of the certain product in the total output in percentage terms.

Despite the fact that describing the INRA-model in detail is not the aim of this research, it should be mentioned that model takes account the family work. The main reason of such assumption is to avoid making false comparisons of the net income not including family

work as between countries or even between products. In addition, the proportions of paid employment and family work (unpaid employment) differ substantially from farm to farm according to the production structure and type of production. Thus, in order to define the value of family work, the average wage rate is applied to the number of family AWU (Annual Work Unit).

In addition, the subsidies are treated as negative costs. The net income excluding labour expenditure is the balance of the gross output plus subsidies and all the charges i.e. variable and fixed charges.

According to the FADN methodology and the EAA methodology as well, the depreciation of fixed assets should be calculated to the replacement value. Thus, in addition to the depreciation of fixed assets calculated according to the accounting value, the depreciation of fixed assets according to the replacement value was recalculated as well. In case of depreciation calculated according to the replacement value, the net income declined, since depreciation increased about 3.5 times compared with the accounting depreciation.

4. Results of running INRA-model compared with original Estonian data

General introduction

In order to compute the input coefficients per main agricultural activity, the Jäneda Training and Advisory Centre made a research "Calculation of the actual production costs for main agricultural products by the size of farming" in 2000 ordered by Estonian Ministry of Agriculture. The main data source used for determining the input data per unit of agricultural activity was the FADN database for 1999 (see chapter 2).

In case of crop production, the data of farm holdings specialized in field crop production was used. All calculations of the input data was done per hectare of certain field crop in EEK. It should be mentioned, that currently the input data is available only for the main crops (wheat, barley, oats, rye, mixed grain, legumes, rape and potatoes).

In case of livestock production, the data on livestock holdings was used. For example, in order to determine the input of milk production the data of dairy farms was used. For the input data of pigs and eggs the data from granivores type of farming was used.

As it was mentioned above, all calculation of the input data per hectare in the crop production and per head in the livestock production was done using the FADN data for 1999, because the FADN database provides information on the total cost of production on each sample farm according to the type of charge. The charges are not however matched with the various products. Therefore, in order to divide the FADN input data between the different kinds of agricultural products, the following was used: 1) the norm for consumption per product units; 2) the expert estimations and calculations; 3) the research results (Standard Gross Margin calculations for the crop and livestock production). It

should be pointed out that no econometric models were used in order to generate input coefficients.

The Figure 1 below shows the differences between two results, i.e. INRA-model and Estonian original data. There are only two indicators presented (i.e. variable and fixed charges) in this figure. For more detail information please see **Annex 2**.

Despite the fact that both the INRA-model and the Estonia's approach used the FADN database as the main data source, there are still some differences. In case of input data for cereals, milk and egg production, the differences are not significant. However, there are some differences in the structure of charges. The differences between the two results are quite significant in case of potatoes and pigs production. For example, the total costs of potato production estimated via Estonian method are about 45% bigger than the total sum of costs according to the INRA-model. The difference is more significant in case of pig production, i.e. the INRA-model figure is about 7 times bigger than the Estonian figure.

The main reason for these dissimilarities is the different method used in estimating the cost of production. The INRA-model is econometric model that uses the regression analysis to estimate production coefficients. The Estonian approach is based on expert estimation, normative data and actual FADN data. As a result of that, it is quite difficult to compare these two approaches, because of different specifications of the models.

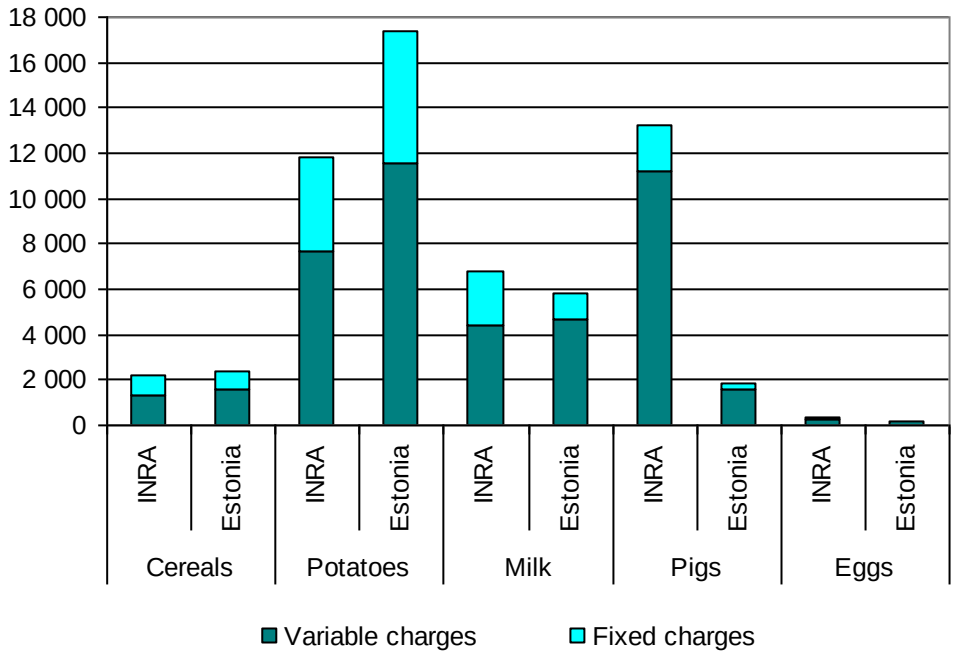

Figure 1. Differences between the INRA-model and Estonian original data results

5. Differences between the two approaches

The general description of both INRA-model and Estonian approach are given in the chapters 1 and 4 accordingly.

These two approaches differ from each other remarkably, especially by the methods that they use for estimating the cost of production. But at the same time both approaches use the FADN database as the main data source to determine the input coefficients. The INRA-model is econometric model that uses regression analysis to estimate input coefficients. The Estonian method is mainly based on expert estimation and normative data.

Despite all these differences, the results of the applying Estonian FADN data to INRA-model were quite acceptable, at least, for some agricultural products (e.g. cereals, milk and eggs). The data regarding potatoes and pig production is acceptable as well, but only to certain extend due to big differences between the INRA-model and Estonian original results.

There are a couple of methodological differences between these two methods. In case of INRA-model all calculation of input coefficients are based on the input-output matrix. This means that in order to estimate the input coefficients for the different agricultural products, the INRA-model tries to establish links between different outputs and input. Furthermore, there are two assumptions made in order to estimate the input coefficients: it does not take into account the specific features or the production level of different agricultural holdings and the value of inputs used is proportional to the value of output. Then, the INRA-model was initially created to serve the needs of agricultural statistics in the EU countries. So, the model does not consider the specific features of agricultural sector in the CC's.

Despite all these differences and assumptions, the INRA-model is quite good econometric model with long history and lot of experience as well. Therefore, it is necessary to continue research works concerning the applying Estonian FADN data to the INRA-model.

6. Applicability of the INRA-model in Estonia

The main objective of this sub-project was to assess the applicability of the French model INRA in Estonia in order to generate the input coefficients per agricultural activity. The input data per agricultural activity is necessary for providing to Eurostat and AgrIS and for internal use in Estonia as well. The INRA-model is the first econometric model that is applied with Estonian FADN data.

Despite the relatively short period (ca two months) there was a lot of work done by Estonian experts in close co-operation with the French experts during this sub-project. The main results of running INRA-model with the Estonian FADN data are input coefficients per agricultural activity generated using this model. Twelve different types of results were received altogether.

It can be said that the results received are quite acceptable in case of cereals, milk and eggs. The input coefficients for potatoes and pigs are not completely acceptable due to the big differences in comparison with the Estonian original data.

It should be also noted that the year 1999 was not good for the Estonian agricultural sector. The output of agricultural enterprises decreased compared with the previous year mainly due to the low buying-up prices of milk and pork. The long and cold spring and droughty summer also had a negative effect on animal production. Due to all these reasons, the agricultural sector has not produced any added value in the past few years.

Furthermore, the Estonian FADN is still in the developing phase and the current FADN sample does not completely represent the Estonian agricultural sector, especially the structure of the FADN sample. For example, there are three types of farming prevailing in the sample: field crops, dairy farming and mixed production. But at the same time the farms specialized in horticulture and permanent crops production are presented very poorly in the sample. Therefore, it is not possible to generate the input coefficients for vegetables and fruits production due to the small number of such farms in the sample.

It is quite difficult to evaluate the applicability of the INRA-model in Estonia on the bases of one year, i.e. the year 1999. In order to receive more precise data and have a clear idea of the applicability of INRA-model, it is very important to have longer time-series, at least two or three years. Therefore, further information and analysis is needed for evaluating the applicability of INRA-model to serve the Estonian needs related to the input coefficients.

As a conclusion, it should be mentioned that this sub-project provided a lot of information concerning the generating the input coefficients per agricultural activity and as well as helped us to exchange knowledge with the ASM experts. Both the Estonian experts and the French experts are very interested in further co-operation in order to adopt the INRA-model to Estonian conditions and requirements. Therefore, any additional expert support regarding the generating of input coefficients is welcomed; moreover, it is necessary.

ANNEXES

Annex 1

Cost of production generated by the INRA-model

The following tables are aggregated results of twenty different approaches that were elaborated using this model. There are five summary tables presented in this annex. The presented tables give an overview of the production costs per hectare or per head of animal in EEK. There are twelve different results for each kind of agricultural activity, i.e. cereals, potatoes, milk, pig rearing and eggs in these tables. It should be noted that not all presented data is useable for the tables, only those results can be considered which background is marked with black. The rest of results are not realistic and usable.

The top of table is completely conforming to the input nomenclature of the model. The bottom part of table is calculated in order to determine the owner's income in two different conditions: the depreciation of fixed assets computed according to the accounting value or based on the physical i.e. replacement value as well as its influence to the amount of owner's income. The reason of such calculation is that according to the FADN methodology as well as the EAA methodology, the depreciation of fixed assets should be calculated into replacement value. Taken into account that there is a small amount of investments made in agricultural sector during the last ten years, it is quite clear that most of agricultural buildings and machineries are over-depreciated and agricultural production with these machines is costly. Thus, if we compare the amortization computed according to the replacement value and accounting value, the amortization based on the replacement value is many times bigger than in case of the accounting value. In order to define the depreciation of fixed assets in the replacement value, the results of research "Calculation of Fixed Capital Consumption for EAA in Estonia" were used. It should be pointed out that the depreciation of amelioration was not taken into account.

The list below gives the meanings of different numbers in headline of tables.

1 - all 370 farms presented in sample (14 outputs)
2 - all 370 farms presented in sample (13 outputs)
3 - all 370 farms presented in sample (13 outputs)
4 - 106 farms that produced field crops (13 outputs)
5 - 106 farms that produced field crops (11 outputs)
6 - 133 farms engaged in milk production (11 outputs)
7 - 26 farms engaged in pigs rearing (11 outputs)
8 - 97 farms of field crops type of farming i.e. type **A** (14 outputs)
9 - 8 farms of horticulture type of farming i.e. type **B** (14 outputs)
10 - 142 farms of dairy farming type of farming i.e. type **E** (14 outputs)
11 - 10 farms of granivores type of farming i.e. type **G** (14 outputs)
12 - 109 farms of mixed production type of farming i.e. type **H** (14 outputs)

Table 1.1. Production costs of cereals per hectare by different type of farming

	1	2	3	4	5	6	7	8	9	10	11	12
Sample farms	**327**	**270**	**327**	**85**	**98**	**113**	**15**	**90**	**7**	**123**	**1**	**103**
Share of total output	**8,22**	**3,44**	**8,22**	**17,67**	**36,78**	**-1,04**	**2,58**	**38,77**	**1,73**	**-1,22**	**0,19**	**6,19**
Variable charges	**1 145,1**	**1 644,6**	**1 112,9**	**1 888,2**	**1 232,0**	**305,6**	**-811,8**	**1 293,9**	**350,7**	**315,6**	**123,4**	**313,5**
Feedingstuffs	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Veterinary cost	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,0	0,0	0,0
Seeds	80,9	172,6	78,8	302,5	121,3	-1,7	-56,6	133,1	-3 844,0	-1,2	0,0	41,3
Fertilisers	391,5	519,8	395,6	712,2	410,1	99,9	-173,2	438,9	3 969,1	104,8	56,8	115,5
Plant protection	220,9	277,1	216,7	392,4	271,7	66,7	-314,1	283,3	92,4	66,8	0,0	144,7
Fuels and propellants	436,1	638,1	409,0	494,9	416,3	172,4	-105,8	426,7	117,0	175,3	43,5	113,0
Other energy	15,7	37,0	12,8	-13,8	12,6	-31,7	-162,1	11,9	16,0	-30,1	23,1	-101,0
Fixed charges	**1 596,2**	**1 103,1**	**1 544,6**	**1 172,8**	**1 439,0**	**593,6**	**1 507,4**	**1 489,9**	**375,1**	**601,0**	**-659,3**	**1 817,4**
Upkeep of buildings	18,8	-261,6	60,7	34,8	13,5	31,6	108,4	16,0	3,4	32,1	-2 820,0	252,3
Upkeep of machinery	380,9	277,0	414,4	230,2	271,1	210,2	-107,4	276,2	52,3	213,8	6,2	-20,7
Other goods and services	402,6	581,2	370,3	504,4	462,4	130,3	1 752,1	483,4	158,9	125,3	1 087,8	740,1
Rent paid	12,3	18,6	11,0	32,1	24,8	-20,9	-12,0	27,3	17,9	-21,1	0,0	22,4
Intrest paid	141,9	64,0	128,9	59,6	126,3	-16,9	173,8	126,1	11,9	-18,7	200,0	170,7
Taxes paid	27,0	12,4	27,7	12,6	19,3	16,4	-38,6	21,6	8,9	16,9	37,7	38,0
Depreciation	612,7	411,5	531,6	299,1	521,6	242,9	-368,9	539,3	121,8	252,7	829,0	614,6
Subsidies	-692,0	-898,9	-637,8	-700,0	-651,7	0,0	0,0	-663,8	-30,1	0,0	-4 989,0	-798,9
Income	143,8	227,4	173,4	-154,8	264,6	773,2	2 415,4	257,2	953,1	762,9	8 888,0	1 119,2
TOTAL	**2 193,1**	**2 076,2**	**2 193,1**	**2 206,2**	**2 283,9**	**1 672,4**	**3 111,0**	**2 377,2**	**1 648,8**	**1 679,5**	**3 363,1**	**2 451,2**
Paid labours	354,0	248,8	346,9	128,5	224,1	356,6	2 264,1	223,4	212,9	354,3	0,0	940,3
Unpaid labours	520,1	276,3	513,8	438,2	582,1	414,9	64,4	595,0	797,7	429,2	2 384,2	688,0
Net income excluding labour	-730,3	-297,7	-687,3	-721,5	-541,6	1,7	86,9	-561,2	-57,5	-20,6	6 503,8	-509,1
Total cost of production	**2 128,6**	**2 336,2**	**2 125,9**	**2 761,9**	**2 149,4**	**656,3**	**1 064,5**	**2 244,5**	**604,0**	**663,9**	**-1 364,9**	**1 516,3**
Variable charges	1 145,1	1 644,6	1 112,9	1 888,2	1 232,0	305,6	-811,8	1 293,9	350,7	315,6	123,4	313,5
Fixed charges	983,5	691,6	1 013,0	873,7	917,4	350,7	1 876,3	950,6	253,3	348,3	-1 488,3	1 202,8
Depreciation (bookkeeping)	**612,7**	**411,5**	**531,6**	**299,1**	**521,6**	**242,9**	**-368,9**	**539,3**	**121,8**	**252,7**	**829,0**	**614,6**
Depreciation (replacement)	**2 113,8**	**1 419,7**	**1 834,0**	**1 031,9**	**1 799,5**	**838,0**	**-1 272,7**	**1 860,6**	**420,2**	**871,8**	**2 860,1**	**2 120,4**
Paid labour input	**354,0**	**248,8**	**346,9**	**128,5**	**224,1**	**356,6**	**2 264,1**	**223,4**	**212,9**	**354,3**	**0,0**	**940,3**
Subsidies	**692,0**	**898,9**	**637,8**	**700,0**	**651,7**	**0,0**	**0,0**	**663,8**	**30,1**	**0,0**	**4 989,0**	**798,9**
Income if bookkeeping depreciation	**-210,2**	**-21,4**	**-173,5**	**-283,3**	**40,5**	**416,6**	**151,3**	**33,8**	**740,2**	**408,6**	**8 888,0**	**178,9**
Income if replacement depreciation	**-1 711,3**	**-1 029,6**	**-1 475,9**	**-1 016,1**	**-1 237,4**	**-178,5**	**1 055,1**	**-1 287,5**	**441,8**	**-210,5**	**6 857,0**	**-1 326,9**

Table 1.2. Production costs of potatoes per hectare by different type of farming

	1	2	3	4	5	6	7	8	9	10	11	12
Sample farms	**243**	**243**	**243**	**59**	**59**	**81**	**16**	**55**	**5**	**88**	**1**	**91**
Share of total output	**4,58**	**4,58**	**4,58**	**20,12**	**20,12**	**1,74**	**0,51**	**21,26**	**5,01**	**1,77**	**0,03**	**1,54**
Variable charges	**7 534,9**	**7 708,6**	**7 892,6**	**7 776,0**	**7 585,5**	**2 228,3**	**26 428,1**	**7 678,1**	**3 123,8**	**2 073,4**	**1 513,5**	**-3 273,4**
Feedingstuffs	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Veterinary cost	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	27,7	0,0	0,0	0,0
Seeds	2 635,1	2 614,1	2 653,0	2 636,4	2 592,4	359,3	1 547,6	2 741,3	14 482,0	424,3	0,0	1 091,8
Fertilisers	2 835,4	2 763,0	2 799,0	2 458,1	2 390,2	6 513,1	10 636,0	2 281,2	-14 961,0	6 251,9	0,0	8 303,4
Plant protection	914,4	920,5	947,8	998,4	928,6	351,0	-3 436,0	940,0	1 154,0	334,4	0,0	1 970,1
Fuels and propellants	1 118,8	1 327,8	1 433,8	1 448,5	1 416,6	1 847,9	16 886,0	1 466,9	2 081,2	1 852,8	651,3	-13 652,0
Other energy	31,2	83,2	59,0	234,6	257,7	-6 843,0	794,5	248,7	339,9	-6 790,0	862,2	-986,7
Fixed charges	**4 228,9**	**4 690,5**	**4 774,5**	**6 113,0**	**6 044,9**	**-8 681,4**	**45 617,5**	**6 188,6**	**5 879,8**	**-7 768,5**	**4 973,5**	**-3 267,0**
Upkeep of buildings	41,6	-242,6	-388,8	419,1	422,0	229,1	-22,7	433,4	21,5	285,9	0,0	10 171,0
Upkeep of machinery	618,0	305,8	276,3	961,8	962,7	-1 671,0	8 925,0	1 027,1	905,6	-1 657,0	261,4	-9 558,0
Other goods and services	2 331,0	2 486,7	2 652,2	2 138,1	2 086,2	-7 895,0	23 610,0	2 214,7	2 357,4	-6 741,0	2 064,2	562,0
Rent paid	156,2	162,3	168,5	122,3	124,0	-1 295,0	-556,4	104,6	111,8	-1 271,0	0,0	1 384,2
Intrest paid	53,9	166,1	193,8	406,4	398,9	-412,6	-545,3	327,3	99,6	-396,0	1 728,7	-4 682,0
Taxes paid	113,3	108,3	106,4	70,2	73,2	559,2	1 124,9	64,0	146,5	521,7	13,1	536,8
Depreciation	914,9	1 703,9	1 766,1	1 995,1	1 977,9	1 803,9	13 082,0	2 017,5	2 237,4	1 488,9	906,1	-1 681,0
Subsidies	-606,2	-1 131,0	-1 193,0	-883,8	-838,5	0,0	-6 289,0	-685,9	-688,9	0,0	0,0	0,0
Income	14 170,0	14 050,0	13 843,0	12 280,0	12 494,0	40 196,0	-40 467,0	12 130,0	13 604,0	38 620,0	23 513,0	28 570,0
TOTAL	**25 327,6**	**25 318,1**	**25 317,1**	**25 285,2**	**25 285,9**	**33 742,9**	**25 289,6**	**25 310,8**	**21 918,7**	**32 924,9**	**30 000,0**	**22 029,6**
Paid labours	2 680,0	2 746,1	2 769,0	2 435,6	2 483,4	3 416,4	2 806,4	2 454,3	759,6	3 211,6	2 228,4	6 643,1
Unpaid labours	7 785,5	7 997,5	8 066,4	6 650,0	6 721,6	15 393,0	895,3	6 533,2	16 078,0	15 225,0	30 182,0	13 284,0
Net income excluding labour	3 704,5	3 306,4	3 007,6	3 194,4	3 289,0	21 386,6	-44 168,7	3 142,5	-3 233,6	20 183,4	-8 897,4	8 642,9
Total intermediate consumption	**10 848,9**	**10 695,2**	**10 901,0**	**11 893,9**	**11 652,5**	**-8 257,0**	**58 963,6**	**11 849,2**	**6 766,2**	**-7 184,0**	**5 580,9**	**-4 859,4**
Variable charges	7 534,9	7 708,6	7 892,6	7 776,0	7 585,5	2 228,3	26 428,1	7 678,1	3 123,8	2 073,4	1 513,5	-3 273,4
Fixed charges	3 314,0	2 986,6	3 008,4	4 117,9	4 067,0	-10 485,3	32 535,5	4 171,1	3 642,4	-9 257,4	4 067,4	-1 586,0
Depreciation (bookkeeping)	**914,9**	**1 703,9**	**1 766,1**	**1 995,1**	**1 977,9**	**1 803,9**	**13 082,0**	**2 017,5**	**2 237,4**	**1 488,9**	**906,1**	**-1 681,0**
Depreciation (replacement)	**3 156,4**	**5 878,5**	**6 093,0**	**6 883,1**	**6 823,8**	**6 223,5**	**45 132,9**	**6 960,4**	**7 719,0**	**5 136,7**	**3 126,0**	**-5 799,5**
Paid labour input	**2 680,0**	**2 746,1**	**2 769,0**	**2 435,6**	**2 483,4**	**3 416,4**	**2 806,4**	**2 454,3**	**759,6**	**3 211,6**	**2 228,4**	**6 643,1**
Subsidies	**606,2**	**1 131,0**	**1 193,0**	**883,8**	**838,5**	**0,0**	**6 289,0**	**685,9**	**688,9**	**0,0**	**0,0**	**0,0**
Income if bookkeeping depreciation	**11 490,0**	**11 303,9**	**11 074,0**	**9 844,4**	**10 010,6**	**36 779,6**	**-43 273,4**	**9 675,7**	**12 844,4**	**35 408,4**	**21 284,6**	**21 926,9**
Income if replacement depreciation	**9 248,5**	**7 129,3**	**6 747,1**	**4 956,4**	**5 164,7**	**32 360,0**	**-75 324,3**	**4 732,8**	**7 362,8**	**31 760,6**	**19 064,7**	**26 045,4**

Table 1.3. Production costs of milk per cow by different type of farming

	1	2	3	4	5	6	7	8	9	10	11	12
Sample farms	**247**	**247**	**247**	**10**	**10**	**133**	**14**	**6**	**0**	**142**	**1**	**95**
Share of total output	**43,72**	**43,72**	**43,72**	**0,73**	**0,73**	**80,40**	**26,85**	**0,09**	**0,00**	**80,57**	**0,00**	**39,03**
Variable charges	**4 913,9**	**4 926,7**	**4 902,3**	**1 835,3**	**2 434,6**	**4 425,9**	**11 634,6**	**-14 050,4**	**0,0**	**4 417,2**	**0,0**	**6 088,1**
Feedingstuffs	2 116,1	2 123,2	2 123,2	-202,7	-202,7	1 475,9	8 673,9	-1 401,0		1 473,4		5 136,6
Veterinary cost	553,0	554,3	554,3	775,9	775,9	684,6	979,4	-670,0		689,2		587,2
Seeds	113,4	119,6	111,7	-445,5	-315,4	153,1	70,3	-5 395,0		152,7		64,8
Fertilisers	169,8	170,5	169,5	-246,3	-49,3	336,5	-688,6	-1 221,0		331,5		-249,2
Plant protection	42,4	41,3	40,9	651,3	900,4	53,6	-20,8	-1 999,0		53,4		-194,0
Fuels and propellants	1 125,4	1 125,0	1 110,4	891,3	1 001,8	958,8	2 264,0	-5 509,0		958,0		935,9
Other energy	793,8	792,8	792,3	411,3	323,9	763,4	356,4	2 144,6		759,0		-193,2
Fixed charges	**3 669,1**	**3 575,5**	**3 644,8**	**9 090,2**	**9 422,4**	**3 846,8**	**4 867,1**	**-1 994,0**	**0,0**	**3 852,5**	**0,0**	**4 275,8**
Upkeep of buildings	208,6	192,5	229,7	-88,2	-105,1	117,5	1 809,0	-685,4		120,5		980,1
Upkeep of machinery	691,7	681,8	705,7	640,8	644,9	620,6	1 504,6	-1 397,0		619,9		1 016,7
Other goods and services	883,2	885,2	867,0	1 057,4	1 252,3	1 177,0	-1 548,0	-4 013,0		1 194,6		-350,2
Rent paid	46,8	46,6	46,1	138,7	130,0	64,6	103,2	660,7		64,6		18,9
Intrest paid	322,0	308,9	315,9	430,2	477,3	346,3	156,0	6 827,5		350,9		359,0
Taxes paid	76,1	73,8	75,9	-168,3	-178,9	54,4	111,1	229,2		53,6		51,4
Depreciation	1 440,7	1 386,7	1 404,5	7 079,6	7 201,9	1 466,4	2 731,2	-3 616,0		1 448,4		2 199,9
Subsidies	-1 736,0	-1 749,0	-1 734,0	-4 230,0	-4 394,0	-1 700,0	-2 064,0	-12 716,0		-1 701,0		-232,9
Income	1 556,9	1 650,0	1 590,0	246,7	-520,6	989,1	-3 594,0	34 325,0		1 023,6		21,5
TOTAL	**8 403,9**	**8 403,2**	**8 403,1**	**6 942,2**	**6 942,4**	**7 561,8**	**10 843,7**	**5 564,6**	**0,0**	**7 592,3**	**0,0**	**10 152,5**
Paid labours	2 484,1	2 453,2	2 485,6	368,1	352,0	2 310,9	958,8	1 547,7		2 289,0		1 731,8
Unpaid labours	1 320,8	1 316,2	1 326,7	6 868,1	6 406,2	1 185,1	72,4	21 909,0		1 259,6		821,4
Net income excluding labour	-2 248,0	-2 119,4	-2 222,3	-6 989,5	-7 278,8	-2 506,9	-4 625,2	10 868,3	0,0	-2 525,0	0,0	-2 531,7
Total intermediate consumption	**7 142,3**	**7 115,5**	**7 142,6**	**3 845,9**	**4 655,1**	**6 806,3**	**13 770,5**	**-12 428,4**	**0,0**	**6 821,3**	**0,0**	**8 164,0**
Variable charges	4 913,9	4 926,7	4 902,3	1 835,3	2 434,6	4 425,9	11 634,6	-14 050,4	0,0	4 417,2	0,0	6 088,1
Fixed charges	2 228,4	2 188,8	2 240,3	2 010,6	2 220,5	2 380,4	2 135,9	1 622,0	0,0	2 404,1	0,0	2 075,9
Depreciation (bookkeeping)	**1 440,7**	**1 386,7**	**1 404,5**	**7 079,6**	**7 201,9**	**1 466,4**	**2 731,2**	**-3 616,0**	**0,0**	**1 448,4**	**0,0**	**2 199,9**
Depreciation (replacement)	**5 028,0**	**4 839,6**	**4 901,7**	**24 707,8**	**25 134,6**	**5 117,7**	**9 531,9**	**-12 619,8**	**0,0**	**5 054,9**	**0,0**	**7 677,7**
Paid labour input	**2 484,1**	**2 453,2**	**2 485,6**	**368,1**	**352,0**	**2 310,9**	**958,8**	**1 547,7**	**0,0**	**2 289,0**	**0,0**	**1 731,8**
Subsidies	**1 736,0**	**1 749,0**	**1 734,0**	**4 230,0**	**4 394,0**	**1 700,0**	**2 064,0**	**12 716,0**	**0,0**	**1 701,0**	**0,0**	**232,9**
Income if bookkeeping depreciation	**-927,2**	**-803,2**	**-895,6**	**-121,4**	**-872,6**	**-1 321,8**	**-4 552,8**	**32 777,3**	**0,0**	**-1 265,4**	**0,0**	**-1 710,3**
Income if replacement depreciation	**-4 514,5**	**-4 256,1**	**-4 392,8**	**-17 749,6**	**-18 805,3**	**-4 973,1**	**-11 353,5**	**41 781,1**	**0,0**	**-4 871,9**	**0,0**	**-7 188,1**

Table 1.4. Production costs of pigs rearing per pig by different size of farming

	1	2	3	4	5	6	7	8	9	10	11	12
Sample farms	**126**	**126**	**126**	**15**	**15**	**28**	**26**	**14**	**0**	**35**	**9**	**68**
Share of total output	**20,71**	**20,71**	**20,71**	**4,81**	**4,81**	**1,96**	**53,66**	**3,29**	**0,00**	**2,00**	**81,48**	**31,16**
Variable charges	**5 575,4**	**5 594,5**	**5 549,2**	**4 489,7**	**3 729,3**	**155,4**	**6 227,2**	**2 911,6**	**0,0**	**294,1**	**5 831,5**	**6 429,2**
Feedingstuffs	4 795,1	4 782,3	4 782,3	2 059,6	2 059,6	-847,0	5 387,8	2 556,3		-793,1	5 161,5	5 802,5
Veterinary cost	169,5	167,1	167,1	156,5	156,5	-3 431,0	120,3	243,1		-3 421,0	60,1	460,0
Seeds	-17,9	-6,7	-18,8	158,0	-54,6	118,7	4,0	-223,7		125,9	3,2	-72,6
Fertilisers	56,1	66,0	59,6	664,2	330,1	-426,0	9,0	154,6		-405,4	2,3	-48,4
Plant protection	61,9	64,9	59,5	213,0	10,9	627,0	20,4	-66,0		626,6	0,0	279,2
Fuels and propellants	86,7	104,9	76,9	570,2	500,4	1 897,9	170,6	123,6		1 945,5	170,4	-526,2
Other energy	424,0	416,0	422,6	668,2	726,4	2 215,8	515,1	123,7		2 215,6	434,0	534,7
Fixed charges	**815,4**	**776,9**	**792,9**	**5 208,7**	**5 344,0**	**-1 403,2**	**908,0**	**8 430,9**	**0,0**	**-1 315,2**	**1 080,6**	**-414,4**
Upkeep of buildings	233,7	201,4	252,3	-10,9	-27,5	417,2	29,6	-75,0		410,3	62,3	678,4
Upkeep of machinery	87,2	83,4	103,5	1 314,6	1 340,3	1 643,7	184,3	2 007,9		1 654,7	153,6	-375,3
Other goods and services	234,0	266,5	219,9	51,4	-23,6	-3 064,0	472,9	-166,9		-3 007,0	596,2	-333,3
Rent paid	7,8	8,8	7,2	-20,1	-23,3	-347,6	3,0	-98,7		-347,5	1,1	28,0
Intrest paid	21,8	19,7	16,1	1 184,6	1 219,2	75,1	56,4	2 261,5		54,1	87,2	-196,5
Taxes paid	-7,7	-8,7	-7,2	105,7	112,9	428,4	8,7	181,1		424,3	6,6	5,4
Depreciation	238,6	205,8	201,1	2 583,4	2 746,0	-556,0	153,1	4 321,0		-504,1	173,6	-221,1
Subsidies	-13,9	-13,9	-13,9	-2 092,0	-2 017,0	90,8	145,3	-1 860,0		53,6	-69,5	0,0
Income	837,8	857,1	886,6	-1 699,0	-1 179,0	6 927,8	766,3	-4 109,0		6 747,2	163,2	1 500,7
TOTAL	**7 214,7**	**7 214,6**	**7 214,8**	**5 907,4**	**5 877,3**	**5 770,8**	**8 046,8**	**5 373,5**	**0,0**	**5 779,7**	**7 005,8**	**7 515,5**
Paid labours	942,6	915,5	950,3	1 328,0	1 572,2	2 930,0	1 068,1	683,2		2 810,8	666,6	846,8
Unpaid labours	186,4	189,9	196,2	758,9	932,8	1 027,0	168,4	1 351,6		1 333,2	8,4	-7,7
Net income excluding labour	-291,2	-248,3	-259,9	-3 785,9	-3 684,0	2 970,8	-470,2	-6 143,8	0,0	2 603,2	-511,8	661,6
Total intermediate consumption	**6 152,2**	**6 165,6**	**6 141,0**	**7 115,0**	**6 327,3**	**-691,8**	**6 982,1**	**7 021,5**	**0,0**	**-517,0**	**6 738,5**	**6 235,9**
Variable charges	5 575,4	5 594,5	5 549,2	4 489,7	3 729,3	155,4	6 227,2	2 911,6	0,0	294,1	5 831,5	6 429,2
Fixed charges	576,8	571,1	591,8	2 625,3	2 598,0	-847,2	754,9	4 109,9	0,0	-811,1	907,0	-193,3
Depreciation (bookkeeping)	**238,6**	**205,8**	**201,1**	**2 583,4**	**2 746,0**	**-556,0**	**153,1**	**4 321,0**	**0,0**	**-504,1**	**173,6**	**-221,1**
Depreciation (replacement)	**832,7**	**718,2**	**701,8**	**9 016,1**	**9 583,5**	**-1 940,4**	**534,3**	**15 080,3**	**0,0**	**-1 759,3**	**605,9**	**-771,6**
Paid labour input	**942,6**	**915,5**	**950,3**	**1 328,0**	**1 572,2**	**2 930,0**	**1 068,1**	**683,2**	**0,0**	**2 810,8**	**666,6**	**846,8**
Subsidies	**13,9**	**13,9**	**13,9**	**2 092,0**	**2 017,0**	**-90,8**	**-145,3**	**1 860,0**	**0,0**	**-53,6**	**69,5**	**0,0**
Income if bookkeeping depreciation	**-104,8**	**-58,4**	**-63,7**	**-3 027,0**	**-2 751,2**	**3 997,8**	**-301,8**	**-4 792,2**	**0,0**	**3 936,4**	**-503,4**	**653,9**
Income if replacement depreciation	**-698,9**	**-570,8**	**-564,4**	**-9 459,7**	**-9 588,7**	**5 382,2**	**-683,0**	**-15 551,5**	**0,0**	**5 191,6**	**-935,7**	**1 204,4**

Table 1.5. Production costs of eggs rearing per laying hen by different size of farming

	1	2	3	4	5	6	7	8	9	10	11	12,0
Sample farms	**67**	**67**	**67**	**5**	**5**	**22**	**6**	**6**	**1**	**28**	**1**	**31,0**
Share of total output	**1,60**	**1,60**	**1,60**	**0,03**	**0,03**	**0,12**	**0,59**	**0,03**	**0,13**	**0,13**	**16,33**	**0,7**
Variable charges	**145,2**	**145,8**	**145,3**	**693,3**	**1 035,7**	**-1 403,5**	**-154,8**	**2 911,6**	**26,4**	**-1 207,7**	**144,7**	**-442,9**
Feedingstuffs	95,4	95,4	95,4	-532,4	-532,4	-744,9	175,5	2 556,3	0,0	-676,4	96,1	-23,3
Veterinary cost	23,2	23,3	23,2	-29,3	-29,3	25,2	4,1	243,1	1,7	74,8	25,5	-13,7
Seeds	2,8	3,3	2,8	-241,2	-123,3	-21,8	34,4	-223,7	0,0	-16,3	0,0	21,1
Fertilisers	-0,4	-0,7	-0,4	255,4	457,9	-150,3	-162,1	154,6	0,0	-117,2	0,0	-104,1
Plant protection	-0,5	-0,3	-0,5	-1 307,0	-1 328,0	-6,3	-74,7	-66,0	3,2	-5,8	0,0	-38,2
Fuels and propellants	12,1	13,3	12,2	3 360,7	3 372,0	-164,5	-58,4	123,6	13,0	-111,9	9,3	-163,9
Other energy	12,6	11,5	12,6	-812,9	-781,2	-340,9	-73,6	123,7	8,5	-354,9	13,8	-120,8
Fixed charges	**33,5**	**38,4**	**34,0**	**-5 982,5**	**-6 428,8**	**188,1**	**363,5**	**8 430,9**	**65,7**	**307,2**	**31,5**	**159,3**
Upkeep of buildings	1,4	-0,6	1,8	284,2	318,1	144,9	82,2	-75,0	0,0	166,1	0,0	75,9
Upkeep of machinery	0,9	0,5	1,1	-1 070,0	-1 102,0	-89,0	36,6	2 007,9	4,3	-49,3	1,5	-95,1
Other goods and services	16,4	20,0	16,4	-358,3	-418,9	-73,6	24,4	-166,9	5,4	54,0	20,7	-0,5
Rent paid	2,0	2,2	2,1	-7,7	7,0	-8,5	-13,0	-98,7	0,0	-1,0	1,6	-11,2
Intrest paid	5,6	6,9	5,5	-1 858,0	-1 960,0	-7,8	59,4	2 261,5	0,0	-24,4	2,9	63,5
Taxes paid	-0,4	-0,4	-0,4	-30,7	-30,0	39,0	19,2	181,1	5,6	38,3	0,0	10,6
Depreciation	7,6	9,8	7,5	-2 942,0	-3 243,0	183,1	154,7	4 321,0	50,4	123,5	4,8	116,1
Subsidies	-6,8	-7,2	-6,5	0,0	0,0	0,0	0,0	-1 860,0	0,0	0,0	-2,2	0,0
Income	25,1	20,3	24,3	5 461,4	5 564,5	1 410,4	-19,2	-4 109,0	67,9	1 082,0	31,9	451,2
TOTAL	**197,0**	**197,3**	**197,1**	**172,2**	**171,4**	**195,0**	**189,5**	**5 373,5**	**160,0**	**181,5**	**205,9**	**167,6**
Paid labours	17,6	17,4	17,6	-13,2	-22,4	59,4	117,2	683,2	0,0	55,3	19,9	171,1
Unpaid labours	16,9	18,8	19,3	-1 157,0	-1 143,0	1 307,5	61,1	1 351,6	205,2	1 219,7	4,2	172,0
Net income excluding labour	-9,4	-15,9	-12,6	6 631,6	6 729,9	43,5	-197,5	-6 143,8	-137,3	-193,0	7,8	108,1
Total intermediate consumption	**171,1**	**174,4**	**171,8**	**-2 347,2**	**-2 150,1**	**-1 398,5**	**54,0**	**7 021,5**	**41,7**	**-1 024,0**	**171,4**	**-399,7**
Variable charges	145,2	145,8	145,3	693,3	1 035,7	-1 403,5	-154,8	2 911,6	26,4	-1 207,7	144,7	-442,9
Fixed charges	25,9	28,6	26,5	-3 040,5	-3 185,8	5,0	208,8	4 109,9	15,3	183,7	26,7	43,2
Depreciation (bookkeeping)	**7,6**	**9,8**	**7,5**	**-2 942,0**	**-3 243,0**	**183,1**	**154,7**	**4 321,0**	**50,4**	**123,5**	**4,8**	**116,1**
Depreciation (replacement)	**26,5**	**34,2**	**26,2**	**-10 267,6**	**-11 318,1**	**639,0**	**539,9**	**15 080,3**	**175,9**	**431,0**	**16,8**	**405,2**
Paid labour input	**17,6**	**17,4**	**17,6**	**-13,2**	**-22,4**	**59,4**	**117,2**	**683,2**	**0,0**	**55,3**	**19,9**	**171,1**
Subsidies	**6,8**	**7,2**	**6,5**	**0,0**	**0,0**	**0,0**	**0,0**	**1 860,0**	**0,0**	**0,0**	**2,2**	**0,0**
Income if bookkeeping depreciation	**7,5**	**2,9**	**6,7**	**5 474,6**	**5 586,9**	**1 351,0**	**-136,4**	**-4 792,2**	**67,9**	**1 026,7**	**12,0**	**280,1**
Income if replacement depreciation	**-11,4**	**-21,5**	**-12,0**	**12 800,2**	**13 662,0**	**895,1**	**-521,6**	**-15 551,5**	**-57,6**	**719,2**	**0,0**	**-9,0**

Annex 2

Comparison between INRA-model and original Estonian data

Table 2.1. Differences between INRA-model and Estonian results

	Cereals		Potatoes		Milk		Pigs		Eggs	
	INRA (8)	Estonia	INRA (8)	Estonia	INRA (10)	Estonia	INRA (11)	Estonia	INRA (11)	Estonia
Variable charges	**1 294**	**1 547**	**7 678**	**11 593**	**4 417**	**4 715**	**11 229**	**1 599**	**276**	**147**
Feedingstuffs	0,0	0,0	0,0	0,0	1 473,4	3 362,1	5 831,5	1 343,1	144,7	99,6
Veterinary cost	0,0	0,0	0,0	0,0	689,2	411,0	5 161,5	57,0	96,1	24,7
Seeds	133,1	426,4	2 741,3	6 446,2	152,7	0,0	60,1	0,0	25,5	0,0
Fertilisers	438,9	561,7	2 281,2	1 759,2	331,5	0,0	3,2	0,0	0,0	0,0
Plant protection	283,3	172,2	940,0	992,5	53,4	0,0	2,3	0,0	0,0	0,0
Fuels and propellants	426,7	333,3	1 466,9	1 840,2	958,0	469,4	0,0	61,0	0,0	9,1
Other energy	11,9	53,4	248,7	554,5	759,0	472,2	170,4	138,3	9,3	13,6
Fixed charges	**951**	**828**	**4 171**	**5 778**	**2 404**	**1 103**	**1 981**	**235**	**58**	**26**
Upkeep of buildings	16,0	23,9	433,4	248,2	120,5	71,3	1 080,6	11,9	31,5	0,0
Upkeep of machinery	276,2	296,5	1 027,1	1 004,7	619,9	319,6	62,3	38,9	0,0	1,5
Other goods and services	483,4	369,7	2 214,7	3 095,2	1 194,6	480,9	153,6	151,8	1,5	20,3
Rent paid	27,3	20,5	104,6	212,9	64,6	39,1	596,2	3,1	20,7	1,6
Intrest paid	126,1	112,0	327,3	1 162,8	350,9	176,1	1,1	27,7	1,6	2,8
Taxes paid	21,6	5,2	64,0	54,1	53,6	16,0	87,2	1,2	2,9	0,0
TOTAL COSTS	**2 245**	**2 375**	**11 849**	**17 371**	**6 821**	**5 818**	**13 210**	**1 834**	**334**	**173,2**
Paid input labour	**223**	**230**	**2 454**	**2 501**	**2 289**	**2 001**	**606**	**222**	**17**	**19,9**
Accounting depreciation	**539**	**547**	**2 018**	**1 366**	**1 448**	**368**	**907**	**65**	**27**	**4,7**
Subsidies	**664**	**683**	**686**	**199**	**1 701**	**845**	**667**	**29**	**20**	**2,1**

Note: the number inclosed by brackets indicates the number of variant (see annex 1)