
Macedonian Association of Processors

Aco Karamanov 13, 1000 Skopje

Republic of Macedonia

Tel.: + 389 2 31 77 125

Fax: + 389 2 31 77 125

E-mail: map@t-home.mk



Survey on the Performance of the Fruit and Vegetable Processing Industry 2012

Prepared by: Saso Risteski

Supported by:



USAID
FROM THE AMERICAN PEOPLE

AgBiz Program

APRIL, 2013

“This publication was produced for review by the United States Agency for International Development. It was prepared by Saso Risteski and MAP.”

“The authors views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.”

TABLE OF CONTENTS

LIST OF CHARTS.....	3
1. INTRODUCTION	4
2. OBJECTIVES AND SCOPE	5
3. WORKING METHODOLOGY	5
4. RESULTS ON FINDINGS.....	6
4.1 Classification of companies by type of production	6
4.2 Processing industry performance	7
4.2.1 Raw materials supply	7
4.2.2 Production of processed F&V.....	9
4.2.3 Utilization of production capacity.....	11
4.2.4 Trade with processed F&V.....	11
4.3 Location of the processing companies, size and employment	15
4.3.1 Size of the companies.....	15
4.3.2 Employment and seasonal labor	16
4.3.3 Seasonal labor compensation rates	18
4.3.4 Food safety and food quality	18
4.4 Perspectives of the industry in 2012	18
5. CONCLUSIONS	19

LIST OF TABLES

Table 1: Raw materials buy out 2007-2012	7
Table 2: Types of fresh F&V purchased by the industry 2009 - 2012	8
Table 3: Production figures 2003-2012.....	9
Table 4: Production of processed F&V by category 2009-2012.....	10
Table 5: Processed F&V products produced in 2009 - 2012.....	10
Table 6: Performance of the F&V processing industry 2007-2012.....	12
Table 7: Export contribution of processed vegetables and fruits 2007-2012.....	13
Table 8: Main export markets for processed F&V 2007-2011	14
Table 9: Size of F&V processing companies 2008-2012	16
Table 10: Number of full time employees 2005-2011.....	17
Table 11: Engaged seasonal labor by the industry 2008-2012.....	17

LIST OF CHARTS

Chart 1: Processing activities according to the raw material input	6
Chart 2: Number of companies according to the type of processing.....	7
Chart 3: % of purchased F&V by the industry in 2011 and 2012	8
Chart 4: Production output 2003-2012 in '000 tons.....	9
Chart 5: Exported quantities of processed products 2007-2012 in '000 tons	12
Chart 6: Value of exported processed products 2007-2012 in Mil. Euros	13
Chart 7: Number of processing companies by size in 2008-2012.....	16

LIST OF ANNEXES

Annex 1: List of F&V processing companies.....	20
Annex 2: Definition of different tariff numbers	22
Annex 3: Export of Macedonian processed products 2004-2011.....	23

Survey on the Performance of the Fruit and Vegetable Processing Industry 2012

1. INTRODUCTION

The activity titled “Survey on Performances of Fruit and Vegetable Processing Industry 2012” is a result of joint cooperation between USAID’s AgBizE Program and the Macedonian Association of Fruit and Vegetable Processors (MAP).

The objective of AgBiz Extension will be to build off of the existing capacity and expertise of Macedonian professionals, lead firms, and farms to create a new understanding in the market for embedded services and fee-based service delivery. The provision of the services will be delivered sustainably by local partners well beyond the anticipated graduation of the USAID Macedonia program. AgBiz Extension will focus on two value chains—fresh fruits and vegetables (FF&V) and processed vegetables (PV); emphasis will be on the lower levels of the value chains, with a view to increasing product quality and quantity to meet demand, and to raising the critical mass of stakeholders in the targeted value chains and increasing the use of service providers and the development of sustainable packages of services.

The Macedonian Association of Processors – MAP was established in March 2002, with the overall objective to further develop the fruit and vegetable processing industry, to contribute to the overall economic growth and to increase the employment in the Republic of Macedonia. There are 26 processing companies – members of the association at the moment. Main activities of MAP encompass the following:

- Increasing the competitiveness of Macedonian processed fruit and vegetables;
- Strengthening the potential of MAP members to enter foreign markets;
- Informing members about market trends, technological and legal issues;
- Coordinating business delegations and joint presentations at trade fairs;
- Lobbying towards protecting the interests of the processing industry;
- Establishing business communications with foreign companies and institutions;
- Strengthening the cooperation with farmers and farmer associations; and
- Establishing cooperation with private and public institutions, the business community and international projects active in the Republic of Macedonia.

The above mentioned parties, understanding the need for having detailed information on the performance and impact of the processing industry in the country, agreed to collaborate and to initiate, design and execute the project that would particularly target those issues. Also, AgBiz and MAP agreed to devote resources, expertise and commitment in order activity to be successfully accomplished.

2. OBJECTIVES AND SCOPE

Fruit and vegetable processing industry plays a very important role within the Macedonian agribusiness sector. The industry is very export oriented, continuously improves its performance in terms of increase in production and export value over the last decade and is very labor demanding.

The overall objective of the “Survey on Performances of Fruit and Vegetable Processing Industry 2012” project is to provide detailed and updated information on the performances of the industry. More specifically, this project was designed to:

- Research and analyze the production figures and export performances of the fruit and vegetables processing industry;
- Compile and analyze information related to the number of full-time employees and seasonal labor engaged by the industry;
- Address the issues related to the impact of the global economic crisis on the performances of the domestic processing industry; and
- Sublime the findings and develop conclusions into a comprehensive report.

The scope of work encompassed the following:

- Prepare an up-to-date data base of the fruit and vegetable processors in RM;
- Gather and analyze relevant export related statistical data ;
- Conduct the survey, collate and analyze data; and
- Prepare a report on findings and present the outcomes to the interested parties.

The final report, although similar to the previous ones, contains more details related to the purchasing of the raw materials by the industry, type of processed products produced in 2012 etc. Also, export statistics were reviewed and updated, which in return makes this document as a reference material for further analysis and studies.

3. WORKING METHODOLOGY

The project was carried out during the period 10 – 30 April 2013 and was consisted of the following phases:

- I. **Preparatory work** - Collecting existing information and developing a data base of fruit and vegetable processors
- II. **Desk Research** - Information collection (directories, databases, statistics)
- III. **Field Research** - Contacting, visiting and interviewing the companies
- IV. **Collating and analysis** - Data entering and data analyzing
- V. **Report writing, review and submission**

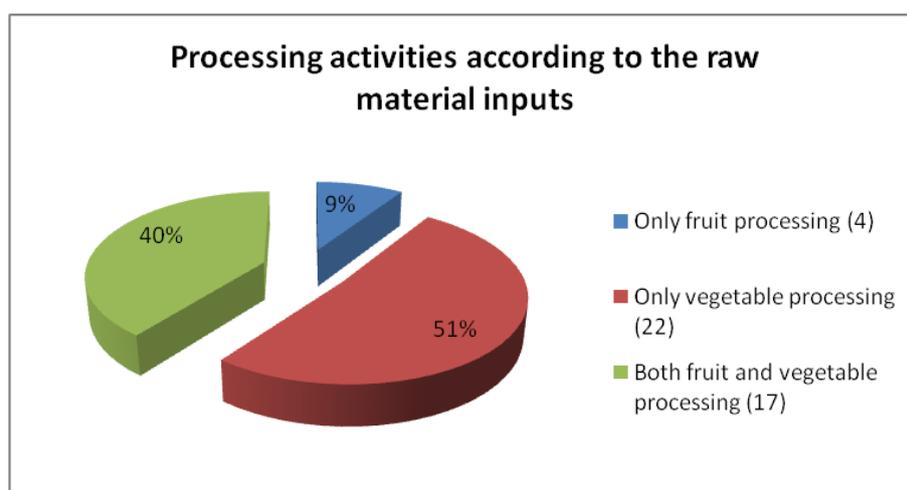
4. RESULTS ON FINDINGS

The survey encompassed 52 fruit and vegetable (F&V) processing capacities in the country, out of which only three companies (small scale processors) declined to participate and to provide the requested details. Another 6 companies could not complete the questionnaire due to the fact that they did not perform any processing activity in 2012 (due to various reasons, but mainly because of renovation of processing facilities, installation of new equipment etc.). Hence, the results and the analysis elaborated in this document are based on the answers obtained from 43 active F&V processing companies (unless otherwise stated). Due to the very high response rate, all the details stated in the report are relevant and statistically correct.

4.1 Classification of companies by type of production

Most of the processing companies process both fruits and vegetables. According to the survey, 22 companies process only vegetables (the same as in 2011), 4 are involved in fruit processing solely, while 17 companies (15 in 2011) process both groups of agricultural products, as presented on the following chart.

Chart 1: Processing activities according to the raw material input

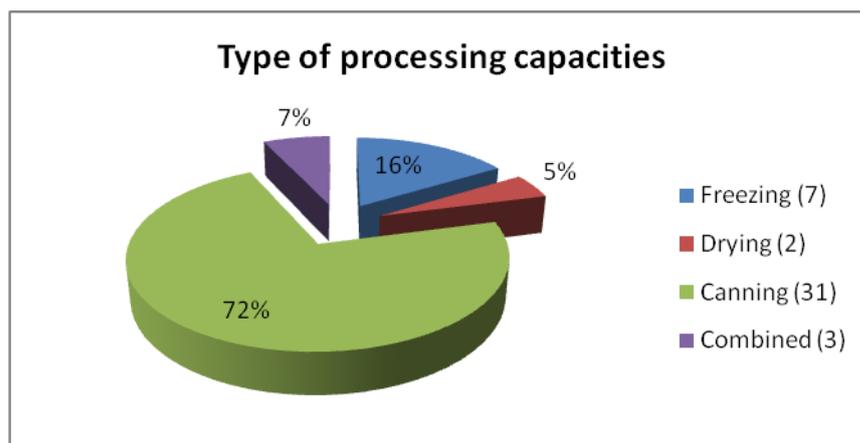


Source: Own research 2013

Although combined processing (fruits and vegetables) was the most present during 2007-2010, in 2011 and 2012 vegetable processing is dominant activity accounting for 51% from the overall processing capacities in 2012. Fruit processing activity remains symbolic. In general, around 91% from the overall production is vegetable processing, while only 9% is fruit processing activity.

In relation to the type of processing, the largest portion of the processors are involved in canning¹ - 31, small number of them are drying – 2 (the same as in 2011) and freezing capacities - 7 (the same as in 2011), while the rest of them have combined production lines – 3 (the same in 2011), as presented on the following table.

¹ Canned products - Processed fruits and vegetables packed mainly in glass jars, but also in tins or in plastic

Chart 2: Number of companies according to the type of processing

Source: Own research 2013

4.2 Processing industry performance

4.2.1 Raw materials supply

The F&V processing industry is highly dependant on domestic production and supply of agricultural products. High import tariffs and complicated procedures for imports of fresh produce for processing purposes leaves the industry to rely almost exclusively on arrangements with private farmers, enterprises and cooperatives involved in primary production and intermediaries – traders that supply the industry. Contract farming is still insufficiently applied as an efficient mechanism that regulates the production and supply of raw materials to the industry. Also, the prices vary heavily, depending on the demand for fresh produce in the region and over or under production in the country. This acts as a serious impediment that prevents the industry to reach its full potential and to conclude larger export contracts. According to the industry, around 85% of the raw materials acquired by the processing capacities in 2012 were contracted and delivered by the producers and traders/consolidators. The bulk of the raw materials are obtained on ad hoc basis typically just before or during high processing season. Lack of cooling and storing facilities within the industry is another major obstacle that prevents better organization, planning and execution of the production plans.

According to the survey, the industry purchased more raw materials in 2012 in comparison to 2011. In 2012, the industry purchased 71,8 thousand tons of raw materials in total or 2,4% more than in 2011, as presented in the following table.

Table 1: Raw materials buy out 2007-2012

Year	Buy out of F&V (in '000 t.)	Increase in % (compared to the previous year)
2007	57,5	-
2008	74,8	+ 30
2009	67,1	-10,3
2010	69,4	+3,4
2011	70,1	+1,0
2012	71,8	+2,4

Source: Own research 2013

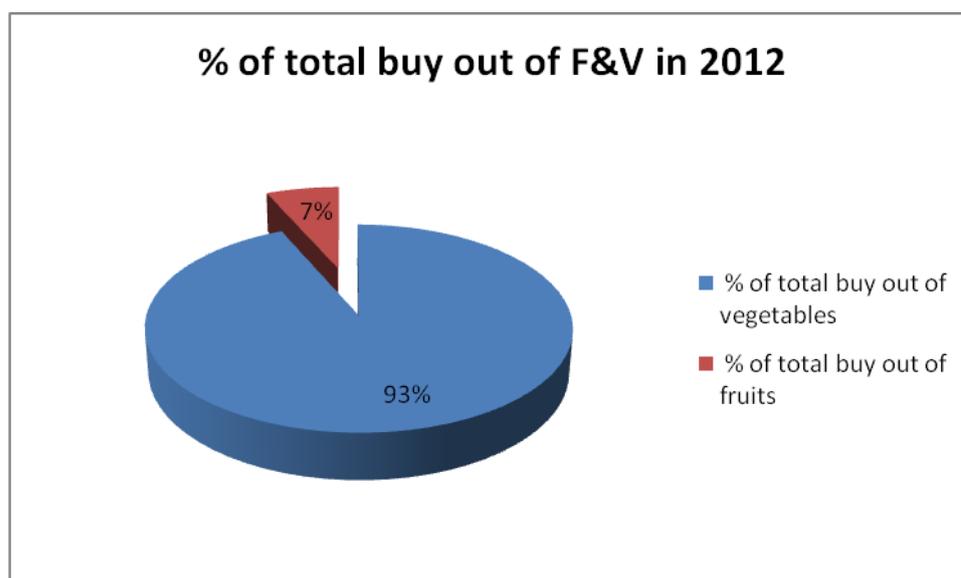
Red pepper, as previously, is the most important raw material for the processing industry. According to the survey, the quantities of red pepper purchased by the processing capacities in 2012 represented nearly 58% of the overall raw material volume, as presented below.

Table 2: Types of fresh F&V purchased by the industry 2009 - 2012

Raw materials	Buy out in 2009 (in '000 t.)	% of total	Buy out in 2010 (in '000 t.)	% of total	Buy out in 2011 (in '000 t.)	% of total	Buy out in 2012 (in '000 t.)	% of total
Red pepper (kapija)	29,7	44,1	32,9	47,4	37,6	53,7	41,4	57,7
White pepper	1,0	1,5	1,2	1,7	1,1	1,7	0,8	1,1
Gamba	0,7	1,1	1,6	2,3	1,6	2,3	1,1	1,5
Chili peppers	2,0	3,0	2,1	3,0	1,5	2,1	1,6	2,2
Gherkins	2,7	4,1	3,5	5,1	4,3	6,1	4,6	6,4
Beetroot	2,7	4,1	1,5	2,2	2,4	3,4	2,6	3,6
Eggplant	3,2	4,8	3,0	4,3	3,2	4,5	3,0	4,2
Cabbage	2,9	4,3	2,5	3,6	2,1	3,0	1,8	2,5
Carrot	0,9	1,3	0,3	0,4	0,3	0,4	0,2	0,3
Industrial tomatoes	4,9	7,3	8,4	12,1	6,2	8,9	6,2	8,6
Onion	1,4	2,1	1,3	1,9	0,6	0,9	0,3	0,4
Sour cherry	3,2	4,8	2,4	3,5	3,3	4,7	3,6	5,0
Plum	0,9	1,3	1,6	2,3	0,7	1,0	0,7	1,0
Industrial apple	1,7	2,5	1,5	2,2	0,3	0,4	0,2	0,3
Others	9,2	13,7	5,6	8	4,9	6,9	3,7	5,2
Total	67,1	100	69,4	100	70,1	100	71,8	100

Source: Own research 2013

Overall, the industry purchased 1,8 thousand tons more vegetables for processing purposes in 2012 compared to the previous year or 67,1 thousand tons in total (93%) and 0,03 thousand tons more fruits for processing purposes in 2012 compared to 2011 or 4,7 thousand tons in total (7%).

Chart 3: % of purchased F&V by the industry in 2012

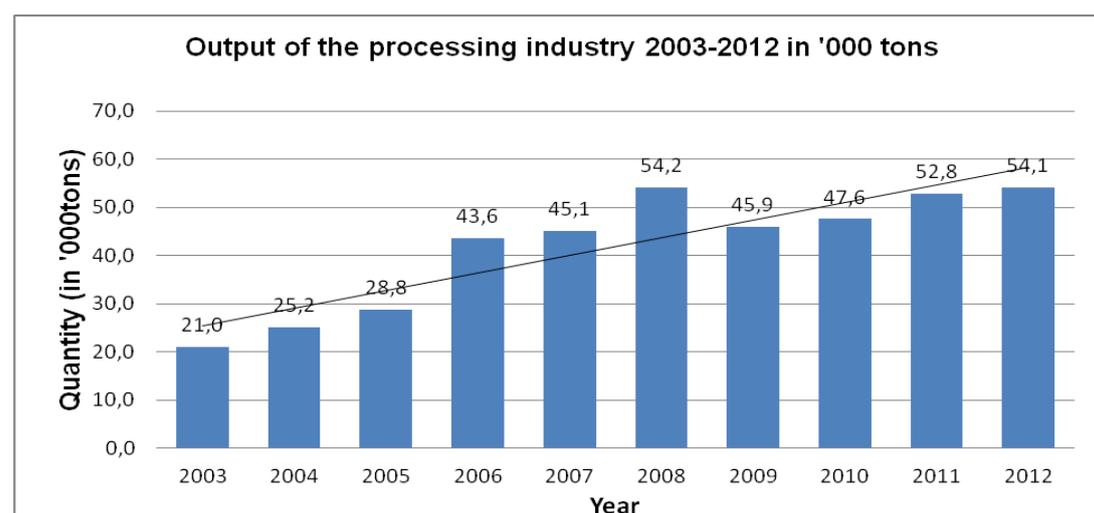
Source: Own research 2013

According to the results, the processing capacities purchased 23, 2 thousand tons of fresh produce directly from the individual farmers (or 32,3%), while 38 thousand tons were supplied by the traders/consolidators (or 52,9%). Agricultural cooperatives supplied the industry with only 0,2 thousand tons (or 0,3%), while the remaining 10,4 thousand tons of fresh F&V (or 14,5%) were provided by agricultural enterprises.

4.2.2 Production of processed F&V

The industry over the period 2003 – 2008 continuously increased its production, mainly due to the increased demand for the Macedonian processed goods by the foreign buyers, and domestic market growth resulting from strong penetration of the retail chains and changes in the lifestyle of the population (buying processed products rather than preparing homemade preserves). However, in 2009 the output was reduced due to the effects of the global economic and financial crisis while in 2010 industry again showed an increase in production. This trend continued in 2011 and 2012 - the industry's output increased in comparison to previous years, mainly as a result of improved marketing and sales practices of the producers, increased demand by international markets and additional governmental support to the farmers that cooperate with the industry. More details related to the production outputs are presented on the following chart.

Chart 4: Production output 2003-2012 in '000 tons



Source: Own research 2013

The output in 2008 outran the volume from 2007 by 9,1 thousand tons or + 20%, while the output of the industry in 2009 was 45,9 thousand tons in total, which was 8,3 thousand tons less compared to the previous season or – 15,3%. According to the 2010 survey, the industry had an output of 47,6 thousand tons or 1,7 thousand tons more compared to the previous year or +3,7%, while in 2011 the output reached the volume of 52.8 thousand tons in total or + 10,9% compared to 2010. In 2012 the industry had an output of 54,1 thousand tons in total or + 2,5 % compared to 2011. Summary of the production figures is presented below.

Table 3: Production figures 2003-2012

Year	Total production ('000 t.)	Increase in quantity (in 000 t. compared to the previous year)	Increase in % (compared to the previous year)	Index
2003	21,0	-	-	100
2004	25,2	+ 4,2	+ 20,0	120
2005	28,8	+ 3,6	+ 14,3	137
2006	43,6	+ 14,8	+ 51,4	208

2007	45,1	+ 1,5	+ 3,4	215
2008	54,2	+ 9,1	+ 20	258
2009	45,9	-8,3	-15,3	219
2010	47,6	+1,7	+3,7	227
2011	52,8	+5,2	+ 10,9	251
2012	54,1	+1,3	+2,5	258

Source: Own research 2013

The main characteristics of the 2012 season were favorable weather conditions but still present shortcomings (such as access to finance, full deployment of contract farming, etc.) did not allow the processing capacities to fully utilize the potential of the domestic raw material production and to optimize their production plans. Canning component had highest contribution in the overall production of processed products in 2012, as presented below.

Table 4: Production of processed F&V by category 2009-2012

Category	Production in 2009 (in tons)	% of total	Production in 2010 (in tons)	% of total	Production in 2011 (in tons)	% of total	Production in 2012 (in tons)	% of total
Canning	39 558	86,1	38 225	80,1	40 415	76,5	44 373	82,0
Freezing	6 246	13,6	9 275	19,5	12 353	23,4	9 679	17,9
Drying	159	0,3	173	0,4	89	0,1	84	0,1
Total	45 963	100	47 673	100	52 857	100	54 136	100

Source: Own research 2013

According to the survey, industrial ajvar was mostly produced by the industry, (individually contributing with 18% to the overall production), followed by processed gherkins, roasted pepper, homemade ajvar, beetroot, frozen pepper, etc. Frozen peppers in terms of quantity faced slight output decline in 2012 compared to 2011 (13,7 thousand tons were produced in 2012 compared to 16,9 thousand tons from 2011). Overall speaking, pepper based products were the most dominant in the overall production. More details related to the quantities of the specific products produced by the processing industry are provided in the following table.

Table 5: Processed F&V products produced in 2009 - 2012

Product name	Production in 2009 (in '000 t.)	% of total	Production in 2010 (in '000 t.)	% of total	Production in 2011 (in '000 t.)	% of total	Production in 2012 (in '000 t.)	% of total
Industrial ajvar	10,4	22,7	10,3	21,6	9,5	18,0	11,3	20,9
Homemade ajvar	2,2	4,8	2,1	4,5	3,1	5,9	4,6	8,5
Lutenica	0,9	2,0	0,9	1,9	0,8	1,5	0,8	1,5
Roasted pepper	3,2	7,0	3,1	6,5	3,9	7,4	4,7	8,7
Bleached pepper	1,9	4,2	1,2	2,5	1,3	2,5	1,2	2,2
Chilli peppers	1,9	4,2	2,4	5,1	1,6	3,0	1,8	3,3
Gherkins	3,9	8,4	4,8	10,1	5,4	10,2	5,3	9,8
Beetroot	3,3	7,2	2,0	4,2	2,8	5,3	3,2	5,9
Ketchup	2,3	5,0	2,1	4,5	2,9	5,5	3,0	5,5
Mixed salads	1,3	2,8	1,1	2,3	0,8	1,5	0,7	1,3

Frozen sour cherries	1,3	2,8	1,4	2,9	1,6	3,0	1,5	2,8
Frozen pepper	2,8	6,1	5,3	11,1	8,9	16,9	7,4	13,7
Other	10,5	22,8	10,9	22,8	10,2	19,3	8,6	15,9
Total	45,9	100	47,6	100	52,8	100	54,1	100

Source: Own research 2013

4.2.3 Utilization of production capacity

As in previous years, the general characteristic about the F&V processing industry is low level of utilization of installed production capacity. The average utilization in 2005 amounted to approximately 27%, 38% in 2009, 40% in 2011 and 45% in 2012. The overall installed capacity for processing of F&V is around 120.000 t. of final output. Small increase in capacity utilization is result of the recovery of the industry and markets from effects of the economic crisis, but on the other hand, the industry is challenged by the Eurozone crisis which has considerable implication on the overall performances of the domestic processing capacities. Additional factors heavily affect the overall performance of the industry, including:

- Continuous supply of quality raw materials;
- Improved dialogue with F&V raw material suppliers
- Defined purchasing prices for raw materials well before the season;
- Building of cooling facilities for storing the products;
- Access to finance;
- New product development and production of value added products;
- Training of the management and employees;
- Marketing related support etc.

According to the survey, targets of the F&V processing industry for 2012 season were buy out of around 75 thousand tons of fresh vegetables (67,1 thousand tons were actually purchased) and 5 thousand tons of fresh fruits (4,7 thousand tons were actually purchased). According to the F&V processors the main reasons that prevent higher utilization of the processing capacities were the following:

- Lack of working capital, insufficient cooperation with the financial sector and reluctance of the financial institutions to add new products/services in their portfolios;
- Lack of certain raw materials;
- Lack of labor force (for seasonal activities during the peak production periods) and,
- Lack of strong marketing presence on key export markets.

4.2.4 Trade with processed F&V

The processing industry of the RM has strong export orientation. Macedonian processed products currently enjoy positive reputation among the food importers from the region and EU, as well. As a result, there is a positive trend for increase of exported quantities. Very favorable trading regime between Macedonia and the EU, and further liberalization especially as a result of CEFTA agreement should even more enhance the competitive position of the processed fruit and vegetable products.

Interestingly, domestic sales are also increasing, contributing to the overall performance of the industry. For example, a domestic sale in 2005 was 13% above

2004. Following this positive trend domestic sales in 2006 reached the volume of 7,5 thousand tons and further increased by 5% in 2007, reaching the volume of 7,9 thousand tons. In 2008, the domestic sales increased by 7% compared to 2007 and reached the volume of 8,5 thousand tons. In 2009, the domestic sales totaled to 8,6 thousand tons or + 1,1% compared to 2008. In 2010, the domestic sales is 8,2 thousand tons or – 0,4 % compared to 2009. In 2011, the domestic sales is around 9 thousand tons or +1,9% compared to 2010, while in 2012 it reached the volume of 10,7 thousand tons or + 1,7 % compared to 2011. As already mentioned, the key reasons for having an increased domestic demand for processed products are:

- Strong penetration of the supermarkets (retail chains) and changes in the purchasing patterns of the domestic consumers;
- Replacement of the traditional home-style individual production of processed goods (preserves) and shift towards buying products produced by the industry; and,
- Increased awareness about food safety and food quality issues.

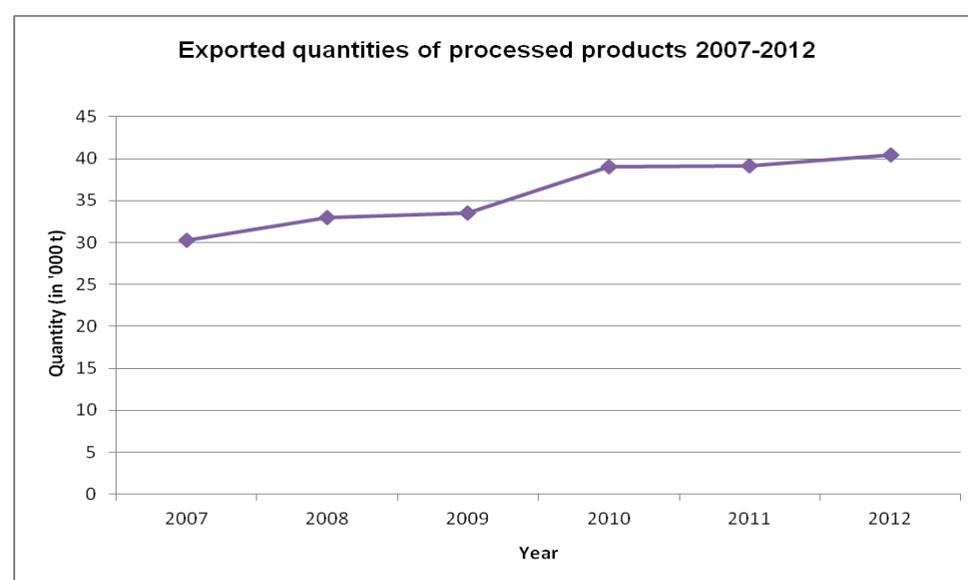
Details related to the production, export and domestic sales as well as export values for the period 2007-2012 are presented below.

Table 6: Performance of the F&V processing industry 2007-2012

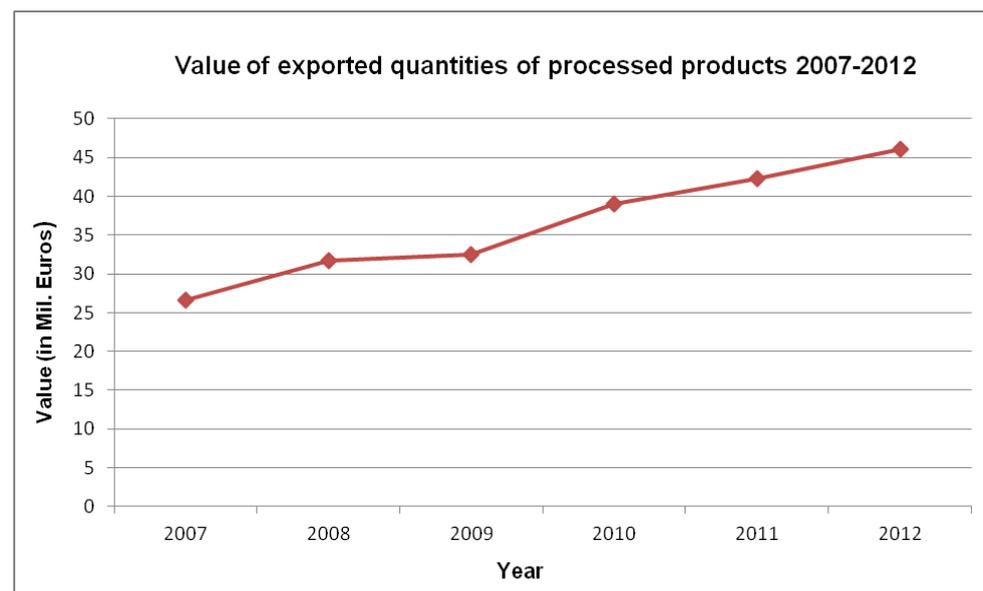
Year	Total production ('000 t.)	Export ('000 t.)	Domestic market ('000 t.)	Export value (in Mil. €)
2007	45,1	29,5	7,9	26,6
2008	54,2	32,0	8,5	31,7
2008/2007	+ 9,1	+ 2,5	+ 0,6	+ 5,1
2009	45,9	32,2	8,6	32,5
2009/2008	-8,3	+0,2	+ 0,1	+0,8
2010	47,6	39,0	8,2	39,0
2010/2009	+1,7	+6,8	-0,4	+6,5
2011	52,8	39,2	9,0	42,3
2011/2010	+5,2	+0,2	+0,8	+3,3
2012	54,1	40,5	10,7	46,1
2012/2011	+1,3	+1,3	+1,7	+3,8

Source: State Statistical Office, Own research 2013

Chart 5: Exported quantities of processed products 2007-2012 in '000 tons



Source: State Statistical Office, Own research 2013

Chart 6: Value of exported processed products 2007-2012 in Mil. Euros

Source: State Statistical Office, Own research 2013

Macedonian processing companies predominately export processed vegetable products. In 2011 processed vegetables contributed with 81,5% in volume and 79,3% in value of the overall exports of processed products. Details related to the contribution of processed vegetable and fruit products to the overall exports for the period 2007-2012 are provided below.

Table 7: Export contribution of processed vegetables and fruits 2007-2012

Exports 2007 - 2010	2007	2008	2009	2010	2011	2012
Export of processed vegetables (in '000 tons)	23,365	25,198	27,169	30,119	31,950	32,576
Export of Processed Vegetables (in '000 Euro)	21,079	24,819	27,542	29,912	33,550	34,730
Average value of exported processed vegetables (Euro/kg.)	0,90	0,98	1,01	1,00	1,05	1,07
Export of processed fruits (in '000 tons)	6,218	6,840	5,130	8,956	7,283	7,961
Export of Processed fruits (in '000 Euro)	5,549	6,920	5,041	9,148	8,776	11,347
Average value of exported processed fruits (Euro/kg.)	0,89	1,01	0,98	1,02	1,20	1,42

Source: State Statistical Office, Own research 2013

The EU and neighboring markets are the main export destinations for domestically produced processed products. According to the 2012 survey, exports to the EU market contributed with 53,6% in volume (compared to 54,8% in 2011) and 48,2% in value (compared to 49,9% in 2011) of the overall export of processed products from Macedonia. In total, exports to the EU in 2012 decrease by 1,2% in volume and 1,7% in value compared to 2011. Serbian market was the second biggest (16,5% in volume and 17,6% in value from the total exports in 2012). Exports to Kosovo considerably increased in 2012 in comparison to 2011. Overall regional exports of processed products in 2012 (to Serbia, Croatia, Bosnia and Herzegovina, Montenegro and Kosovo) contributed with 39,4% in volume and 41% in value of the overall exports of Macedonian processed F&V.

Overseas markets (particularly Australia and USA) due to large communities of immigrants from Macedonia but also from other Balkan countries are also very important export destinations. The most important export markets for domestically produced processed products, including the exported quantities and values for the period 2007-2011 are presented in the following table.

Table 8: Main export markets for processed F&V 2007-2011

Year: 2007	Quantity (in '000 t.)	Quantity (In %)	Value (in Mil. €)	Value (in %)
Total export	29,5	100	26,6	100
EU	16,9	57,3	14,0	52,7
Serbia ²	5,6	18,9	4,6	17,3
Croatia	2,1	7,1	2,2	8,3
Bosnia and Herzegovina	1,5	5,1	1,5	5,6
Montenegro	1,1	3,7	1,2	4,5
Australia	0,8	2,7	1,1	4,1
USA	0,6	2,1	0,8	3,0
Other	0,9	3,1	1,2	4,5
Year: 2008	Quantity (in '000 t.)	Quantity (In %)	Value (in Mil. €)	Value (in %)
Total export	32,0	100	31,7	100
EU	15,2	47,5	14,6	46,1
Serbia	8,7	27,2	8,1	25,5
Croatia	2,6	8,1	2,6	8,2
Bosnia and Herzegovina	1,8	5,6	1,8	5,7
Montenegro	1,7	5,3	2,0	6,3
Australia	0,6	1,9	0,8	2,5
USA	0,5	1,5	0,7	2,2
Other	0,9	2,9	1,1	3,5
Year: 2009	Quantity (in '000 t.)	Quantity (In %)	Value (in Mil. €)	Value (in %)
Total export	32,2	100	32,5	100
EU	13,0	40,3	11,6	35,7
Serbia	6,8	21,1	7,0	21,6
Croatia	4,7	14,5	4,7	14,4
Bosnia and Herzegovina	2,2	6,8	2,5	7,7
Montenegro	1,8	5,5	2,1	6,5
Kosovo	1,6	4,9	1,5	4,6
Australia	0,7	2,1	1,2	3,7
USA	0,4	1,2	0,6	1,8
Other	1	3,6	1,3	4
Year: 2010	Quantity (in '000 t.)	Quantity (In %)	Value (in Mil. €)	Value (in %)
Total export	39,0	100	39,0	100
EU	20,5	52,5	18,0	46,1
Serbia	5,5	14,1	6,3	16,1
Croatia	4,3	11,0	4,6	11,7
Bosnia and Herzegovina	2,8	7,1	3,3	8,4
Montenegro	1,5	3,8	1,8	4,6
Kosovo	2,1	5,3	1,8	4,6
Australia	0,6	1,5	1,0	2,5
USA	0,4	1,0	0,7	1,7
Other	1,3	3,7	1,5	4,3
Year: 2011	Quantity (in '000 t.)	Quantity (In %)	Value (in Mil. €)	Value (in %)
Total export	39,2	100	42,3	100
EU	21,5	54,8	21,1	49,9
Serbia	5,5	14,1	6,4	15,1
Croatia	3,5	8,9	4,0	9,5
Bosnia and Herzegovina	2,3	5,9	2,8	6,7
Montenegro	1,8	4,6	2,2	5,2
Kosovo	2,0	5,1	2,1	4,9
Australia	0,9	2,2	1,5	3,5
USA	0,4	1,1	0,6	1,4
Other	1,3	3,3	1,6	3,8

² With Kosovo, also for 2008.

Year: 2012	Quantity (in '000 t.)	Quantity (In %)	Value (in Mil. €)	Value (in %)
Total export	40,5	100	46,1	100
EU	21,7	53,6	22,2	48,2
Serbia	6,7	16,5	8,1	17,6
Croatia	3,5	8,6	4,3	9,3
Bosnia and Herzegovina	2,1	5,2	2,4	5,2
Montenegro	1,3	3,2	1,8	3,9
Kosovo	2,4	5,9	2,3	5,0
Australia	1,0	2,5	2,0	4,3
USA	0,6	1,5	1,1	2,4
Other	1,2	3,0	1,9	4,1

Source: Own research 2013

According to the research, the most exportable processed products are pepper based products, in particular ajvar and lutenica (tariff number 2005), roasted red peppers, frozen peppers (0710), gherkins, chili and semi sweet pepperoni, beet root (tariff number 2001), dried products (0712), sour cherries frozen (0811) and preserved in alcohol (2008), etc. Definitions of the most important tariff numbers are provided in this report as annex 2, while complete statistics related to the export by country (values, quantities) and by tariff number (value, quantities) for the period 2004-2012 are attached as annex 3.

As it could be seen from the above, the Macedonian processed products have relatively low export value (around 1kg. per 1,14 €). This categorizes the processed goods as “commodity” rather than products with added value. Also, producing and selling of own brands is lower than producing under private labels. As a result, the industry is building its export strategy primarily on competitive prices, rather than supply of value added products. Product differentiation; new product development; market segmentation, positioning and targeting; joint exports etc. will become major challenges that will face the industry in the forthcoming period.

At the moment, domestic processors seem to be heavily dependent on intermediate dealers (importers and wholesalers) when exporting their products abroad, although some of the processors already started to negotiate and cooperate directly with the retail chains and/or to establish partnerships with specialized food products distributors. Domestically, they distribute their products directly to the retailers (in particular to the retail chains) or use intermediaries (wholesalers/distributors) with developed distribution network to cover numerous small retail shops. Production under private labels especially for large retail chains active in the country is also very present.

4.3 Location of the processing companies, size and employment

In order to better understand the role of the processing industry and the impact that it has on the agribusiness sector performance, the analysis also takes into consideration aspects related to employment within the industry, both for full time and seasonal employment.

4.3.1 Size of the companies

According to the Macedonian legislation, companies in the country are classified as micro, small, medium and large according to the number of employees or by their annual turnover. The first criterion is mostly used to determine the size of the company. For the purpose of this analysis companies are classified according to the number of employees, as follows:

- Micro enterprises - up to 10 employees;

- Small enterprises - 11 to 50 employees;
- Medium size enterprises - 51 to 250 employees; and,
- Large enterprises – more than 250 employees.

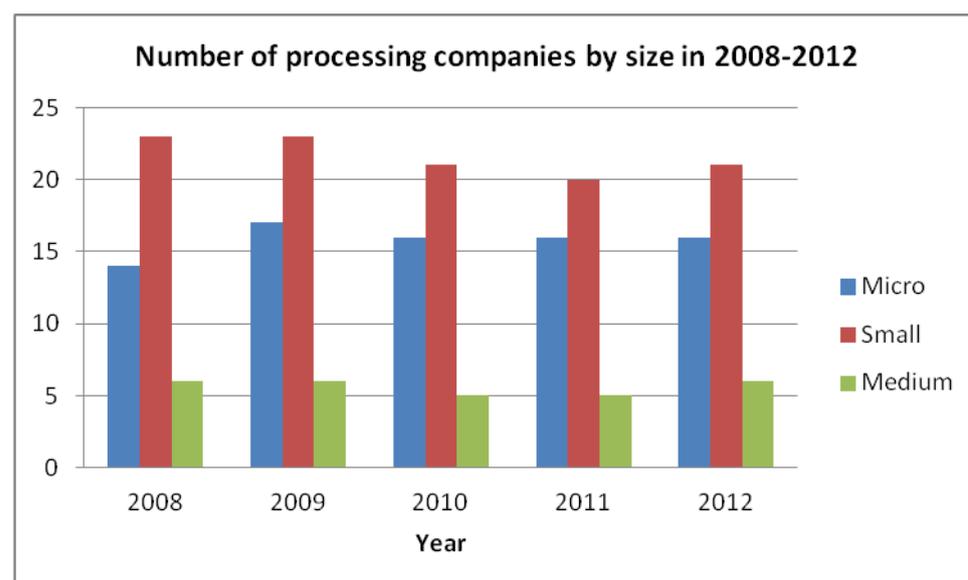
Information related to the size of the F&V processing companies is provided in the following table.

Table 9: Size of F&V processing companies 2008-2012

Category	2008	As % of total	2009	As % of total	2010	As % of total	2011	As % of total	2012	As % of total
Micro enterprises	14	32	17	37	16	37	16	39	16	37
Small enterprises	23	54	23	50	21	49	20	49	21	49
Medium enterprises	6	14	6	13	6	14	5	12	6	14
Large enterprises	0	0	0	0	0	0	0	0	0	0
Total:	43	100	46	100	43	100	41	100	43	100

Source: Own research 2013

Chart 7: Number of processing companies by size in 2008-2012



Source: Own research 2013

The vast majority of the F&V processing companies are classified as micro or small sized companies (86% in 2008, 87% in 2009, 86% in 2010, 88% in 2011 and 86% in 2012). Only 6 companies in 2012 (5 companies in 2011) had more than 51 employees. According to the surveys conducted in the period 2008-2012, the number of micro sized companies remains the same as in 2010, 2011 and 2012 -16, while the number of small enterprises increased - 21 in 2012 compared to 20 in 2011. This preponderance of micro and small enterprises should encourage greater full-time labor demand in the forthcoming period. There are no large scale enterprises in the F&V processing industry, due to the seasonal character of the production, which in return only provides an opportunity for seasonal employment.

4.3.2 Employment and seasonal labor

The F&V processing industry is very labor intensive. Many of the production processes such as sorting, filling etc. are manually handled. Therefore, there is a

need for seasonal labor, especially during production peaks. Extreme seasonality of the processing business on the other hand, does not allow larger employment on full time basis. According to the data provided by respondents the total number of full time employees amounted to 1.050 in 2007, 1.149 in 2008, 1.205 in 2009, 1.165 in 2010, 1.179 in 2011 and 1.108 in 2012 (– 6,7% in 2012 in comparison to 2011), as presented in the following table.

Table 10: Number of full time employees 2005-2012

Year	Full time employees	Increase in % (compared to the previous year)
2005	1.021	-
2006	1.125	+ 10%
2007	1.050	-6,7%
2008	1.149	+ 9,4
2009	1.205	+4,8%
2010	1.165	-3,3%
2011	1.179	+1,1%
2012	1.108	-6,7%

Source: Own research 2013

As already mentioned, seasonal labor is particularly important for the processing companies. The industry does not require a high level of skills or education from the seasonal workers. Most of the production phases do not require specialized preparations and/or training, apart from basic instructions related to net weight of finished goods, rejects identification and handling, waste disposal, etc. Complex procedures are handled by the full time employees. Most of the seasonal workers are recruited from the rural areas (villages), which is appreciated by the employers, since they have the experience in handling agricultural products. Women are mainly engaged to work on the production lines, while men are mainly involved in more physical demanding activities (loading, unloading etc.)

According to the survey, the number of seasonal workers engaged by the industry slightly increased from 3.312 in 2010 to 3.353 in 2011 and 3.364 in 2012 or + 0,3%, predominantly due to increased productivity in production and legal restrictions related to engagement of seasonal labor. Small size enterprises engage most of the seasonal labor since they represent the majority of the companies from the processing industry. More details are provided in the table below.

Table 11: Engaged seasonal labor by the industry 2008-2012

Company size	2008	% of total	2009	% of total	2010	% of total	2011	% of total	2012	% of total
Micro enterprises	589	16	737	22	960	28	603	18	617	18
Small enterprises	1.793	48	1.646	47	1.542	47	1730	52	2185	65
Medium enterprises	1.340	36	1.110	31	810	25	1020	30	562	17
Total	3.722	100	3.493	100	3.312	100	3.353	100	3.364	100

Source: Own research 2013

The seasonal labor is usually engaged during the high processing season for around 4-6 months per year. It should be emphasized that the seasonality depends on the type of processing (canning, freezing or drying). The most important factor for engagement of the seasonal labor is availability of the raw materials for processing.

4.3.3 Seasonal labor compensation rates

Seasonal labor compensation scheme is calculated as net price per working hour. The net price per working hour in 2012 (as in 2009-2011) varies from 40 to 70 MKD. Compared to the previous year, the net price per hour paid in 2012 remained stable, the average reaching 55 MKD/hour. Based on the average net price per working hour, one seasonal worker usually earns an average net monthly salary of around 12.000 MKD. Although this amount is below the national average, it should be mentioned that some of other labor intensive industries, such as textile, offer even lower wages than the processing industry, although they are much more demanding in regards to skills and education of the labor force. The impact of the global crisis further contributed to the status quo situation in regards to the wages of the employees.

4.3.4 Food safety and food quality

Food safety and food quality issues are becoming essential prerequisites for managing every food business, including processed F&V. Apart from the strict requirements of the foreign buyers and markets, the domestic authorities and in particular consumers are becoming much more aware about the safety and quality of food products. According to the existing national food safety legislation, all food processing companies had to implement HACCP by September 2009.

The processing industry due to its export orientation already implemented the up-to-date food safety and food quality requirements. All F&V processing companies are HACCP compliant, and majority of them are HACCP or ISO 22 000 certified. However, implementation of upgraded private standards such as BRC and/or IFS will become an important issue once the domestic companies start to cooperate with major importers of food products from the EU. Several major exporting companies already started with implementation of IFS.

4.4 Perspectives of the industry in 2013

Although the F&V processing industry constantly improved its performances over the period 2003-2012, the industry performance in 2008 and 2009 was hit by the impact of the global crisis. In 2011, the export of frozen products increased along with other processed products meaning that the markets (in particular EU market) recovered and continued to increase their orders. The demand for ajvar in 2012 also increased by foreign markets. Yet, it is expected that the EU financial crisis will again affect the industry during the period 2013-2014, thus preventing stronger export performances of the domestic companies.

The perspectives of the industry in 2013 will greatly depend on several factors, including: financial and management capacities of the companies and intensified cooperation with financial sector, increased cooperation with primary sector and re-definition of the existing export marketing strategies. Recently promoted Sector Export Marketing Plans for fresh and processed fruits and vegetables should additionally strengthen the public-private dialogue in the country and identify marketing actions needed for improved penetration of Macedonian products on selected international markets.

5. CONCLUSIONS

- Fruit and vegetable processing industry has made continuous improvements over the period 2003 – 2012, and recovered from decrease in production output from 2009;
- The industry is defined as very seasonal, export oriented and products enjoy high reputation on regional and international markets;
- It is consisted of 43 active processing capacities in 2012, predominantly canning and combined processing enterprises;
- Majority of the facilities are located near to the main production regions in the country;
- Processing of vegetables is dominant business activity, covering around 93% of the total production;
- The processing output in 2012 is 54,1 thousand tons or + 2,4% in comparison to 2011;
- Exports to the EU in 2012 decreased by 1,2% in volume and 1,7% in value compared to 2011;
- EU and Serbia are the main export destinations for the Macedonian processed F&V;
- Regional markets are becoming very important export markets, jointly contributing with 39,4% in volume and 41% in value to the overall exports of Macedonian processed F&V;
- Export of processed products increased in 2012 and reached the volume of 40,5 thousand tons and value of 46,1 million Euros;
- Majority of the processing companies are defined as small enterprises, while there is no large F&V processing capacity;
- The industry employs 1.108 full time employees and 3.364 seasonal employees;
- Most of the seasonal workers are from rural areas, skilled in handling agricultural products;
- The utilization of the industry increased to 45% in 2012 compared to 40% in 2011;
- Access to capital and shortages of raw materials are the biggest impediments for further growth of the industry;
- Proper deployment of the Sector Export Marketing Plan for improved export performances of the industry will be necessary to address the existing shortcomings and to secure constant growth of the processing industry in the forthcoming period.

Annex 1: List of F&V processing companies

1	Bonum Plus	Bul. Vojvodina bb	02 2551 662	02 2551 662	bonum@t-home.mk	www.bonum.com.mk
2	Lars	Goce Delcev	032 308 507	032 308 570	darko@lars.com.mk	www.lars.com.mk
3	Rudine MM	Marsal Tito bb	033 411 441	033 411 414	rudine@t-home.mk	www.rudine.com.mk
4	Swisslion Agrar	29 Noemvri br.6	047 551 471	047 551 474	agrar@swisslion.com.mk	-
5	Dentina	Goce Delcev 9	034 334 400	034 334 402	mabi_trade@t-home.mk	www.mabi-trade.com
6	Mahap	Straso Pindzur 37	034 383 009	034 383 009	-	-
7	Vipro	Industriska zona bb	034 211 917	034 217 931	vipro@t-home.mk	www.vipro.com.mk
8	Univerzal promet	Goso Vikentiev 23	033 271 030	033 271 040	univerzalp@yahoo.com	www.univerzal-promet.com.mk
9	Tehnoalat komerc	Marsal Tito 124	034 215 985	034 215 985	tehnoolat@t-home.mk	www.hinaproducts.com.mk
10	Green product	s. Dzepiste	044 488 542	044 488 883	green_product@t-home.mk	-
11	Jomi food	Skopski pat bb	043 243 234	043 243 234	jomifood@yahoo.com	-
12	Altra	Slobodan M. danko 111	034 214 383	034 216 258	contact@altra.com.mk	www.altra.com.mk
13	Trgoproduct	s. Dabile	034 330 065	034 323 065	trgoproduct.mk@gmail.com	www.mamasfood.mk
14	Kompanija Z. Radevski	B. Miladinovi br.19	047 242 293	047 242 293	zoran.radevski@t-home.mk	-
15	Diem GP	Basut bb	034 231 428	034 550 428	contact@diem-gp.mk	www.diem-gp.mk
16	KIM	Industriska bb	043 362 760	043 370 761	info@kim.com.mk	www.kim.com.mk
17	POT Kolesino	s. kolesino	034 352 052	034 352 053	pot.kolesino@gmail.com	www.potkolesino.com
18	Sika	Voin Draskovic br.1	02 2050 920	02 2050 921	sika-info@sika.com.mk	www.sika.com.mk
19	Agrokomerc 92	Industriska zona "zona sever"	034 322 287	034 344 647	agrokomerc92@t-home.mk	-
20	Best fud TI	Industriska bb	032 630 230	032 630 231	info@ti.com.mk	www.ti.com.mk
21	Vori	Industriska zona bb	034 218 171	034 218 171	vori@vori.com.mk	www.vori.com.mk
22	DS foods	11 Oktomvri bb	031 437 193	031 437 196	sales@dsfoods.com.mk	www.dsfoods.com.mk
23	Cekofam	Boris Kidric 50	033 441 469	033 441 469	cekofam@yahoo.com	-
24	Agrova	Kozle 30b	02 3081 415	02 3081 415	agrovamk@gmail.com	-
25	Ksenos	Partizanska 10	047 277 607	047 277 608	ksenosdh@yahoo.com	-
26	Best junior	ul.840 br.11	02 2550 295	02 2551 220	bestjunior@t-home.mk	-
27	Dim komerc	Kame polizov bb	034 381 562	034 383 562	dimkomerc@t-home.mk	www.dimkomerc.com.mk
28	Mirana	Blagoj Nacev 49	043 222 605	043 222 205	mirana@t-home.mk	www.mirana.com.mk
29	Baga food	Prilepska bb	047 235 294	047 235 592	baga_fud@yahoo.com	www.vava.com.mk
30	Pajdakov	Vardarski rid bb	034 211 888	034 211 888	info@pajdakov.com.mk	-
31	Eko sto	Marsal Tito bb	034 235 650	034 235 650	ekosto@t-home.mk	-
32	Industriski ladiilnik	Marsal Tito 130	044 335 614	044 334 482	industriskiladiilnik@gmail.com	-
33	Primeks	Crnogorska 47	048 800 220	048 800 220	office@primeks.mk	-
34	Vitalia	ul.516 br.10	02 3217 177	020 3217 176	contact@vitalia.com.mk	www.vitalia.com.mk
35	Global Marketing IRC	Sava Kovacevik 47 N 1	02 3098 681	02 3246 123	zvonko.janevski@globalmarketingirc.com	-
36	Vitaminka	Lece Koteski br.23	048 407 407	048 407 451	contact@vitaminka.com.mk	www.vitaminka.com.mk
37	Fruktana	Kocanska 26	032 300 080	032 300 070	mladen@fruktana.com	www.fruktana.com
38	Ekstra fungi	Kliment Ohridski 20	033 273 636	033 273 636	eksrafungi@gmail.com	-
39	Agrofer	Marsal Tito 73	032 444 153	032 440 135	niko.taskov@agrofer.mk	www.agrofer.mk
40	Milbos	Marsal Tito bb	034 223 127	034 223 098	vodenicar@t-home.mk	-
41	Bon Viveur	ul. Sremska br.24	02 3239 353	02 3237 876	info@bonviveur.mk	www.bonviveur.mk

42	Eko grup	Rokomija 17	078 212 388		info@ekogrup.mk	www.ekogrup.mk
43	Nimeks SA	Pitu Guli 70	032 300 951	032 300 999	nimeks_sa@t-home.mk	-

Did not respond

1	Maemi	Zeleznicka bb	Ohrid	046 262 203	046 262 203	maemi@mt.net.mk
2	Red green				-	-
4	Zora sped	Industriska bb	034 217 081	034 217 082	zorasped@t-home.mk	-

No processing activities in 2012

1	Banimeks					
2	Tambeko plus					
3	Vege trejd	s.Turnovo	034 358 810	034 358 810	vegetrejd@yahoo.com	
4	Evrokom					
5	Ana mak					
6	Konimex	Prvomajska 9 br.10	02 2461 218	02 2469 472	info@konimex.com.mk	www.konimex.com.mk

Annex 2: Definition of different tariff numbers

Tariff number	Description
0710	vegetables, uncooked or cooked by steaming or boiling in water, frozen
0711	vegetables provisionally preserved, e.g. by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption
0712	dried vegetables, whole, cut, sliced, broken or in powder, but not further prepared
0713	dried leguminous vegetables, shelled, whether or not skinned or split
0714	manioc, arrowroot, salep, jerusalem artichokes, sweet potatoes and similar roots and tubers with high starch or inulin content, fresh or dried, whether or not sliced or in the form of pellets; sago pith
0811	fruit and nuts, uncooked or cooked by steaming or boiling in water, frozen, whether or not containing added sugar or other sweetening matter
0812	fruit and nuts, provisionally preserved, e.g. by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption
0813	apricots, prunes, apples, peaches, pears, pawpaws, tamarinds and other dried fruit n.e.s.; mixtures of edible nuts or dried fruits
2001	vegetables, fruit, nuts and other edible parts of plants, prepared or preserved by vinegar or acetic acid
2002	tomatoes, prepared or preserved otherwise than by vinegar or acetic acid
2004	other vegetables prepared or preserved otherwise than by vinegar or acetic acid, frozen (excl. tomatoes, mushrooms and truffles)
2005	other vegetables prepared or preserved otherwise than by vinegar or acetic acid (excl. frozen, and tomatoes, mushrooms and truffles)
200600	fruit, nuts, fruit-peel and other parts of plants, preserved by sugar, drained, glaze or crystallized
2007	jams, fruit jellies, marmalades, fruit or nut puree and fruit or nut pastes, being cooked preparations, whether or not containing added sugar or other sweetening matter
2008	fruits, nuts and other edible parts of plants, prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, n.e.s.
200950	tomato juice, whether or not containing added sugar or other sweetening matter (excl. fermented or containing alcohol)
200971	apple juice (up to 20 brix), whether or not containing added sugar or other sweetening matter (excl. fermented or containing alcohol)

Annex 3: Export of Macedonian processed products 2004-2011

Table: Export by country, value and quantities in 2004

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia and Montenegro	5,819,472	3,459,892
	Australia	1,059,598	1,023,651
	Croatia	880,749	870,822
	Bosnia and Herzegovina	687,671	609,497
	USA	388,898	459,527
	Switzerland	232,799	351,941
	Canada	94,830	133,541
	Albania	271,939	118,226
	Russia	57,163	28,785
	Great Britain	10,316	20,494
	Iran	5,706	15,576
	Norway	14,122	15,096
	Bulgaria	21,232	9,515
	NATO	1,491	1,465
Non EU Total		9,545,986	7,118,029
EU	Germany	2,865,249	2,058,150
	Greece	2,961,572	1,685,556
	Slovenia	709,678	689,855
	Italy	92,210	532,005
	France	545,848	521,115
	Austria	465,974	405,543
	Holland	241,897	262,847
	Poland	311,374	183,729
	Hungary	151,760	132,060
	Belgium	199,669	110,514
	Sweden	56,612	65,024
	Czech Republic	39,008	20,314
	Spain	5,040	10,854
	Slovakia	100	10
EU Total		8,645,992	6,677,577
Grand Total		18,191,978	13,795,605

Table: Export by tariff number, value and quantities in 2004

Tariff Group	Quantities (in kg.)	Value (in €)
2005	4,340,970	4,301,778
2001	3,577,678	2,682,429
0710	3,433,472	1,836,768
2008	1,114,665	1,399,790
2007	3,049,214	1,057,038
0811	1,004,642	825,799
0712	90,071	409,936
2002	355,315	333,038
0713	326,184	242,789
0711	410,045	221,275
2004	185,442	198,638
0813	56,805	109,664
2003	31,860	75,874
200971	91,982	52,037
0812	39,149	34,737
0714	79,438	7,214
200600	1,387	4,833
200950	3,660	1,968
Grand Total	18,191,978	13,795,605

Table: Export by country, value and quantities in 2005

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia and Montenegro	6,634,366	4,688,441
	Croatia	1,652,725	1,578,302
	Bosnia and Herzegovina	1,251,301	1,244,049
	USA	550,417	713,329
	Australia	538,877	557,679
	Switzerland	349,240	449,263
	Canada	150,594	246,619
	Bulgaria	529,528	155,889
	Sri Lanka	91,505	81,745
	Albania	139,615	73,493
	Russia	97,306	62,012
	Romania	30,930	22,882
	Norway	17,000	16,335
	South Africa	4,949	6,321
	Turkey	3,570	5,295
	NATO	3,187	2,529
	Zimbabwe	7,200	1,656
	Slovakia	360	608
Non EU Total		12,052,669	9,906,448
EU	Germany	2,771,682	2,215,003
	Greece	2,558,282	1,301,054
	Italy	208,148	1,145,436
	Slovenia	895,568	868,405
	Holland	556,805	550,863
	Austria	429,763	475,712
	France	500,540	471,404
	Poland	337,728	225,128
	Hungary	274,400	206,007
	Belgium	207,352	147,176
	Sweden	109,493	145,019
	Great Britain	32,603	63,962
	Spain	24,565	20,370
	Cyprus	17,587	13,735
	Denmark	20,497	10,470
	Czech Republic	6,184	3,992
EU Total		8,951,198	7,863,736
Grand Total		21,003,867	17,770,184

Table: Export by tariff number, value and quantities in 2005

Tariff Group	Quantities (in kg.)	Value (in €)
2005	5,571,265	5,925,519
2001	4,371,404	3,707,253
0710	3,630,597	1,832,031
0811	1,482,335	1,328,094
2008	933,804	1,263,471
2007	2,413,158	932,553
0712	90,286	755,064
2004	477,549	579,939
2002	354,463	319,691
0711	354,817	205,577
200971	266,426	175,173
0713	429,815	173,118
2003	89,119	157,205
0812	199,670	155,529
200600	140,272	115,117
0813	140,776	93,956
210320	58,097	50,834
0714	5	52
200950	8	7
Grand Total	21,003,867	17,770,184

Table: Export by country, value and quantities in 2006

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia and Montenegro	7,721,333	6,737,162
	Croatia	2,048,664	2,001,954
	Bosnia and Herzegovina	1,559,990	1,604,858
	Australia	737,601	865,578
	USA	527,054	805,427
	Canada	229,739	399,855
	Switzerland	249,020	334,876
	Albania	160,769	91,170
	Romania	313,950	65,549
	Bulgaria	276,376	57,951
	New Zealand	13,654	23,327
	Russia	19,680	16,728
	Norway	15,272	14,963
	Sudan	8,724	14,782
	Congo	3,763	6,098
	NATO	2,684	2,583
	Portugal	306	635
	Malta	205	374
	Slovakia	94	131
Non EU Total		13,888,878	13,044,000
EU	Germany	2,893,227	2,621,534
	Greece	2,871,485	1,553,475
	Austria	721,649	914,674
	France	825,561	889,159
	Slovenia	873,386	878,293
	Italy	286,962	807,919
	Holland	611,868	675,038
	Sweden	285,944	657,978
	Belgium	1,175,348	611,780
	Poland	821,988	489,505
	Hungary	327,230	303,930
	Great Britain	24,895	37,360
	Croatia	25,068	19,566
	Cyprus	1,332	3,269
EU Total		11,745,942	10,463,481
Grand Total		25,634,820	23,507,481

Table: Export by tariff number, value and quantities in 2006

Tariff Group	Quantities (in kg.)	Value (in €)
2005	6,378,135	7,875,729
2001	5,469,262	4,711,851
0811	2,643,740	3,535,595
0710	5,397,805	2,662,234
2008	1,462,367	1,757,511
2007	1,519,093	586,464
2002	509,134	417,958
2004	318,302	382,870
0712	128,964	303,125
0711	305,399	223,886
0812	336,395	198,925
0713	339,677	192,455
200600	212,696	171,656
200971	217,046	141,088
2003	28,757	140,278
0813	77,366	103,436
210320	101,281	89,386
0714	188,950	12,742
200950	450	294
Grand Total	25,634,820	23,507,481

Table: Export by country, value and quantities in 2007

Country		Quantities (in kg.)	Value (in €)
EU	Sweden	94,052	129,022
	Austria	1,227,601	1,326,910
	Belgium	2,392,181	1,497,879
	Bulgaria	597,767	378,524
	Denmark	21,430	15,788
	France	546,602	506,611
	Germany	5,282,020	3,939,093
	Greece	2,447,771	1,272,921
	Holland	1,313,899	1,176,576
	Italy	387,345	1,108,713
	Cyprus	41,325	73,722
	Poland	1,084,114	723,862
	Romania	37,776	53,413
	Slovenia	984,425	1,356,589
	Hungary	449,004	483,053
	Great Brittan	26,993	49,647
EU Total		16,934,304	14,092,323
Non EU	Switzerland	235,454	334,225
	Albania	50,106	29,996
	Australia	857,058	1,139,122
	Bosnia and Herzegovina	1,556,292	1,591,900
	Montenegro	1,195,578	1,288,653
	Croatia	2,142,403	2,228,646
	Iraq	1,123	1,383
	Canada	228,801	423,724
	Costa Rica	21,600	6,361
	Namibia	1,974	1,546
	Norway	5,357	7,918
	USA	663,842	801,897
	Serbia	5,660,255	4,652,271
	Sudan	10,149	16,821
	Surinam	15,444	5,126
	Turkey	3,024	6,229
Non EU Total		12,648,462	12,535,817
Grand Total		29,582,766	26,628,139

Table: Export by tariff number, value and quantities in 2007

Tariff Group	Quantities (in kg.)	Value (in €)
0710	8,250,159	4,825,716
0711	394,404	259,549
0712	101,469	242,029
0713	110,057	91,858
0714	13,200	3,620
0811	3,223,713	3,100,755
0812	152,959	163,669
0813	36,828	67,600
2001	6,764,636	5,920,595
2002	202,848	165,094
2004	911,024	1,263,333
2005	5,924,919	7,816,209
200600	311,354	250,281
2007	1,388,068	619,853
2008	1,416,474	1,597,350
200950	1,418	1,627
200971	251,225	154,838
210320	128,011	84,161
Grand Total	29,582,766	26,628,139

Table: Export by country, value and quantities in 2008

Country		Quantities (in kg.)	Value (in €)
EU	Germany	4,362,660	3,655,482
	Greece	2,118,211	1,277,508
	Belgium	1,344,922	889,292
	Poland	1,339,929	1,076,455
	Slovenia	1,161,049	1,436,730
	Holland	1,149,287	1,304,099
	Austria	939,731	1,167,510
	France	755,803	738,553
	Italy	666,945	1,645,249
	Hungary	594,173	585,821
	Bulgaria	353,114	264,917
	Sweden	161,433	288,783
	Great Brittan	141,725	129,225
	Chez Republic	112,998	105,605
	Romania	45,190	64,822
	Cyprus	27,262	32,860
	Spain	18,040	10,381
	Portugal	526	1,317
EU Total		15,292,999	14,674,608
Non EU	Serbia	8,784,688	8,186,785
	Croatia	2,620,733	2,685,831
	Bosnia and Herzegovina	1,841,467	1,839,025
	Montenegro	1,750,621	2,022,638
	Australia	615,452	801,457
	USA	550,894	750,831
	Switzerland	234,491	346,854
	Canada	119,255	238,930
	Albania	115,513	57,466
	Slovakia	34,010	33,795
	Norway	29,432	38,320
	Ireland	25,322	30,041
	Mongolia	13,149	17,629
	Turkey	8,632	13,061
	Ghana	832	2,078
Non EU Total		16,744,492	17,064,742
Grand Total		32,037,491	31,739,350

Table: Export by tariff number, value and quantities in 2008

Tariff Group	Quantities (in kg.)	Value (in €)
2005	7,127,913	9,499,312
2001	8,844,832	7,964,322
0811	3,615,105	3,979,046
0710	5,970,321	3,905,894
2008	1,841,775	2,226,368
2004	1,145,060	1,588,411
2007	1,268,228	560,988
2002	561,977	447,468
0712	144,403	398,461
0711	457,585	391,279
0713	396,521	275,671
200971	309,325	175,779
0813	114,533	153,600
210320	196,018	123,723
200600	28,967	45,873
0714	14,350	2,430
200950	578	726
Grand Total	32,037,491	31,739,350

Table: Export by country, value and quantities in 2009

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia	6,878,354	7,035,209
	Croatia	4,711,165	4,776,842
	Bosnia and Herzegovina	2,296,690	2,521,407
	Montenegro	1,853,377	2,194,278
	Kosovo	1,650,242	1,533,478
	Australia	777,876	1,250,177
	USA	419,565	628,376
	Switzerland	268,237	433,946
	Canada	180,108	341,114
	Albania	194,248	114,486
	Norway	46,236	61,655
	Russia	5,173	14,596
	Ukraine	36	45
Non EU Total		19,281,307	20,905,609
EU	Germany	3,954,256	3,216,999
	Greece	2,428,175	1,376,422
	Slovenia	1,090,775	1,351,509
	Italy	497,833	1,317,663
	Austria	1,273,335	1,010,981
	Poland	1,224,071	867,852
	France	790,902	769,074
	Holland	375,756	470,445
	Hungary	420,627	453,592
	Belgium	379,400	206,935
	Sweden	158,712	206,123
	Bulgaria	198,205	158,179
	Great Brittan	108,845	110,787
	Chez Republic	70,152	68,166
	Romania	21,596	60,646
	Cyprus	20,866	24,976
	Slovakia	4,536	6,969
	Portugal	3	11
EU Total		13,018,045	11,677,329
Grand Total		32,299,352	32,582,938

Table: Export by tariff number, value and quantities in 2009

Tariff group	Quantities (in kg.)	Value (in €)
2005	8,286,518	11,566,157
2001	10,247,853	9,592,085
0710	5,651,777	3,275,498
2008	1,796,477	2,142,055
0811	2,450,899	2,082,071
2004	616,213	997,725
2002	801,798	678,313
0813	242,194	416,433
2007	640,807	400,052
0712	196,639	352,114
0711	298,368	273,069
0713	350,928	272,914
200600	197,780	216,180
200971	345,076	193,701
210320	171,837	122,191
0714	3,100	1,360
200950	1,088	1,020
Grand Total	32,299,352	32,582,938

Table: Export by country, value and quantities in 2010

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia	5.532.170	6.348.058
	Croatia	4.391.877	4.651.380
	Bosnia and Herzegovina	2.880.217	3.374.832
	Montenegro	1.547.972	1.865.521
	Kosovo	2.127.772	1.831.038
	Australia	631.948	1.001.641
	USA	447.181	715.042
	Canada	259.981	479.072
	Switzerland	248.759	423.378
	Albania	356.938	145.875
	Russia	67.518	84.154
	Norway	23.310	29.204
	New Zealand	9.659	26.180
	Israel	14.400	12.100
	South Korea	229	650
	Jordan	44	111
	Iceland	10	96
	United Arab Emirates	9	8
Non EU Total		18.539.994	20.988.340
EU	Germany	8.452.252	7.004.545
	Slovenia	1.373.695	1.743.171
	Poland	1.719.845	1.327.301
	Italy	602.641	1.280.107
	France	1.368.395	1.270.667
	Greece	1.886.916	1.213.090
	Austria	1.204.350	976.932
	Belgium	1.572.565	947.216
	Hungary	876.724	845.980
	Holland	499.372	456.022
	Sweden	222.789	331.652
	Latvia	87.297	193.450
	Bulgaria	260.316	171.730
	Great Britain	141.215	139.671
	Czech Republic	189.626	102.621
	Cyprus	37.434	39.022
	Romania	30.824	17.429
	Slovakia	8.116	10.554
	Portugal	291	928
EU Total		20.534.663	18.072.088
Grand Total		39.074.657	39.060.428

Table: Export by tariff number, value and quantities in 2010

Tariff	Quantities (in kg.)	Value (in €)
2005	9.655.344	13.297.623
2001	9.709.771	9.355.896
0811	5.622.240	5.579.205
0710	8.067.677	4.809.493
2008	2.393.975	2.744.628
2004	445.263	717.396
0813	245.940	482.422
2002	603.858	435.944
0711	384.276	397.493
2007	693.929	341.927
0712	193.489	263.422
200971	433.678	260.960
200600	140.351	137.181
210320	174.178	117.790
0713	82.892	85.797
0714	218.880	19.169
20019050	7.652	13.152
200950	1.264	930
Grand Total	39.074.657	39.060.428

Table: Export by country, value and quantities in 2011

Country		Quantities (in kg.)	Value (in €)
EU	Germany	8.348.978	7.203.024
	Belgium	2.381.163	1.910.873
	Slovenia	1.903.380	2.330.373
	France	1.596.663	1.545.371
	Greece	1.590.332	1.254.318
	Austria	1.159.210	1.375.745
	Poland	1.151.334	903.937
	Bulgaria	790.161	468.786
	Italy	779.419	1.709.864
	Hungary	677.102	818.950
	Sweden	397.049	575.264
	Netherland	302.407	452.124
	Great Britain	160.371	188.506
	Denmark	107.819	104.353
	Czech Republic	63.753	40.144
	Spain	60.313	106.135
	Cyprus	30.650	33.868
	Lithuania	21.274	74.556
	Romania	11.593	8.667
	Portugal	360	1.477
	Finland	160	1.188
EU Total		21.533.491	21.107.523
Non-EU	Serbia	5.566.749	6.401.946
	Croatia	3.589.902	4.005.105
	Bosnia and Herzegovina	2.396.427	2.803.748
	Kosovo	2.083.266	2.120.951
	Montenegro	1.873.604	2.245.579
	Australia	910.591	1.574.106
	USA	450.055	658.628
	Canada	386.817	714.140
	Switzerland	273.684	489.184
	Albania	94.658	107.937
	Russia	41.396	60.366
	Sierra Leone	19.602	14.197
	Yemen	6.057	4.878
	New Zealand	4.957	14.375
	Belorussia	1.203	3.450
	Turkey	10	170
Non-EU Total		17.698.978	21.218.760
Grand Total		39.232.469	42.326.283

Table: Export by tariff number, value and quantities in 2011

Tariff	Quantities (in kg.)	Value (in €)
2005	10.679.005	15.457.089
2001	10.556.527	10.138.051
0710	8.453.175	5.719.120
0811	4.157.835	5.277.710
2008	1.743.910	2.233.982
2007	775.718	725.177
2002	894.173	647.869
2004	296.672	553.850
0813	242.136	468.961
07115900	196.895	287.281
0712	90.574	165.399
200971	290.655	163.821
0711	202.278	154.285
210320	164.115	133.564
200600	80.082	83.254
0812	363.360	70.341
0713	44.879	46.166
200950	480	363
Grand Total	39.232.469	42.326.283

Table: Export by country, value and quantities in 2012

Country		Quantities (in kg.)	Value (in €)
Non - EU	Serbia	6.717.784	8.120.848
	Croatia	3.552.979	4.371.080
	Bosnia and Herzegovina	2.092.043	2.482.311
	Kosovo	2.417.599	2.266.213
	Australia	1.044.235	2.019.764
	Montenegro	1.383.386	1.836.536
	USA	687.008	1.155.121
	Canada	425.036	812.799
	Switzerland	286.810	528.934
	Albania	134.541	111.145
	Russia	58.130	81.515
	New Zeland	8.878	24.306
	Jordan	9.782	20.937
	Ukraine	6.347	13.523
	Turkey	2.636	4.908
Non - EU Total		18.827.194	23.849.940
EU	Germany	8.489.876	7.873.481
	Slovenia	1.766.809	2.159.597
	Italy	797.570	1.718.960
	Greece	2.315.776	1.498.379
	France	1.492.424	1.446.437
	Belgium	1.840.477	1.307.943
	Hungary	1.060.481	1.303.664
	Poland	1.407.116	1.257.441
	Netherland	718.466	1.178.825
	Austria	846.683	1.095.437
	Sweden	420.472	782.016
	Great Britain	249.426	336.000
	Bulgaria	266.179	189.447
	Slovakia	5.850	27.120
	Cyprus	25.778	27.085
	Lithuania	3.924	19.479
	Czech Republic	2.208	5.181
	Portugal	267	1.272
	Malta	71	213
	Romania	6	5
EU Total		21.709.859	22.227.982
Grand Total		40.537.053	46.077.922

Table: Export by tariff number, value and quantities in 2012

Tariff	Quantities (in kg.)	Value (in €)
2005	11.183.192	16.353.810
2001	11.023.090	10.792.376
0710	9.059.019	5.833.154
2004	284.114	727.497
2002	413.957	324.154
0712	72.253	195.626
200971	210.713	125.650
200600	74.348	118.257
07115900	61.509	108.507
210320	108.030	91.071
0713	39.593	35.283
0711	46.351	24.915
0811	3.978.694	6.507.517
2008	1.822.567	2.571.217
2007	1.906.400	1.778.145
0813	253.223	490.743
Grand Total	40.537.053	46.077.922