Republic of Serbia
COMMISSION FOR PROTECTION OF COMPETITION

REPORT ON THE COMPETITION CONDITIONS INQUIRY INTO THE RASPBERRY PURCHASE AND EXPORT MARKET IN THE REPUBLIC OF SERBIA FOR 2015-2017

December 2017

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1. Subject and objective of the inquiry

Pursuant to the provisions of Article 21(1/6) of the Law on Protection of Competition (Official Gazette of the RS 51/09 and 95/13 - hereinafter referred to as the Law), the Commission for Protection of Competition (hereinafter referred to as the Commission) conducted a competition conditions inquiry into the raspberry market on the territory of the Republic of Serbia.

For the inquiry related needs, the following two relevant markets are identified, namely:

1. raspberry purchase market, and
2. raspberry export market.

The subject of this inquiry related to the collection and elaboration of relevant data on production, purchase, import and export of raspberries and the establishment of circumstances under which the 2017 raspberry harvest purchase is conducted. The objective of this inquiry related to investigating the existence of a reasonable assumption on the presence of competition infringement on the raspberry purchase market on the part of buyers (owners of cold storage facilities), pursuant to which the Commission would be able, in accordance with its competences, to institute an investigative proceeding *ex officio*.

The inquiry is conducted from July 2017 to December 2017, and included data on import and export of fresh and frozen raspberries in 2015 and 2016 and in the first ten months of 2017, submitted by the Ministry of Finance – Customs Administration following the Commission's request. In line with the submitted data on exported quantities during the past three years, 15 largest raspberry exporters are identified and contacted by the Commission with a special request for the submission of data and information. Respective undertakings were requested to submit the following data for 2015 and 2016 and for the first ten months of 2017:

- total purchase quantities of raspberries (in kg);
- total value of purchase quantities (in dinars);
- total sold quantities of raspberries (in kg), fresh and frozen, on the domestic market;
- total sold quantities of raspberries (in kg), fresh and frozen, on the foreign markets;
- total received value of raspberry sales on the domestic market (in RSD);
- total received value of raspberry sales on the foreign markets (in EUR); and,
- official price list of the 2017 raspberry harvest purchase, or current purchase prices.

The inquiry also included data on raspberry export and import from 2010-2016, previously submitted by the Ministry of Agriculture, Forestry and Water Management.

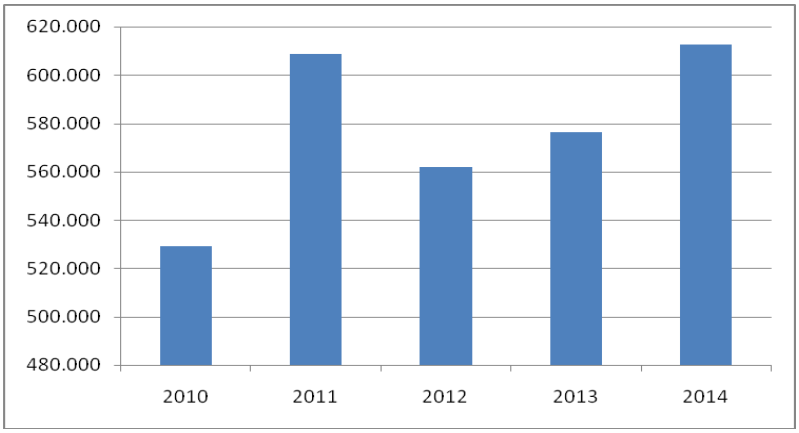
In addition to the data submitted by the above-mentioned institutions and undertakings, the Statistical Office of the Republic of Serbia, as well as other available public data and information sources on the production and export of raspberries identified in the Republic of Serbia and worldwide, are used for the inquiry related needs.

2. Raspberry production

2.1 World raspberry production

In line with the data of the Food and Agriculture Organization of the United Nations (UN FAO), world raspberry production in 2010-2014 displayed an upward trend, with an average annual growth rate of 4%.

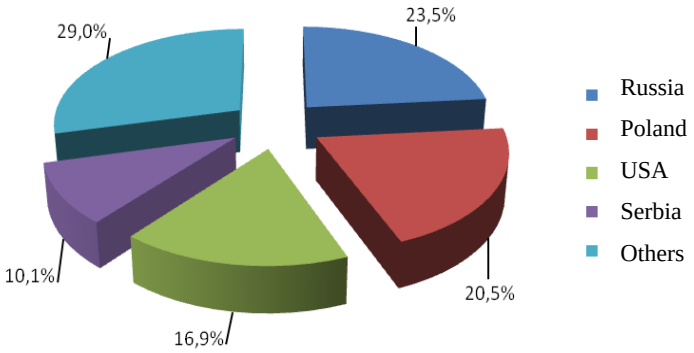
Chart 1. World raspberry production (in 000 tonnes), 2010-2014



Source: http://www.fao.org/statistics/en/

As per UN FAO data, the largest world raspberry producer in the entire period under observation is Russia, with average annual production of ¼ of the total world raspberry production quantities (23-25%), followed by Poland with approx. 20% of world raspberry production, USA with 15-18% of world production, and Serbia, whose share in the total world raspberry production is reduced from 16% in 2010 to 10% in 2014.

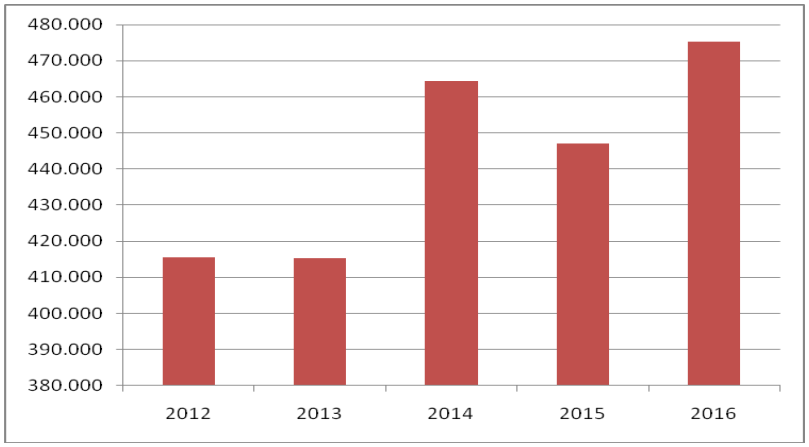
Chart 2. Largest world raspberry producers, 2014



Source: http://www.fao.org/statistics/en/

The International Raspberry Organization – IRO, gathers 13 raspberry producing countries (Australia, Bulgaria, Canada, Chile, China, England, France, Hungary, Mexico, Poland, Serbia, Scotland and USA) whose consolidated production, as per IRO data, amounts to 90% of the total world raspberry production capacities. As per IRO data, the total world raspberry production is approx. 450,000 tonnes. During 2012-2016, world raspberry production fluctuated from the lowest level of 415,200 tonnes in 2013, to the maximum level of 475,200 tonnes in 2016.

Chart 3. World raspberry production (IRO, 2012-2016)



Source: http://www.internationalraspberry.net/

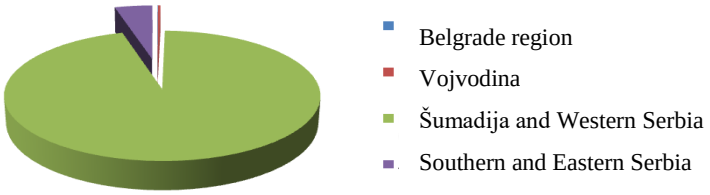
If we compare the values from the two data sources for 2012-2014, when both data sources were available, we can notice considerable deviations ranging from 30-40%. Such discrepancy can be attributed to the fact that Russia, as the most significant raspberry producer (but not an exporter, since its production is almost solely intended for its own domestic market purposes), is not an IRO member state, an organization that gathers not only significant producing, but also raspberry exporting countries.

2.2. Raspberry production in Serbia

As per data of the Statistical Office of the Republic of Serbia, the total raspberry plantation areas in Serbia in 2014-2016 amounted to 11,041 ha, while the region of Šumadija and Western Serbia covers as much as 95% of plantations.

The average 2016 crop production amounted to 5.6 tonnes per hectare, while the highest crop production is achieved in the Belgrade region (8.3 t/ha) and in Vojvodina (7.0 t/ha), and the lowest in the region of Southern and Eastern Serbia (4.0 t/ha).

Graph 4. Plantation areas – Serbia

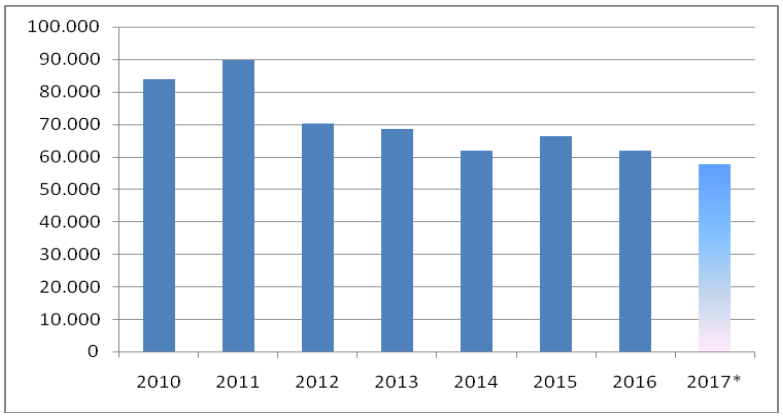


Source: Statistical Office of the RS (http://webrzs.stat.gov.rs/)

Based on the 2012 Agriculture inventory data, the largest raspberry plantation areas are located on the territory of Ivanjica (1,249 ha) and Arilje (1,226 ha) municipalities. Municipalities of Krupanj (759 ha), Brus (759 ha), Bajina Bašta (694 ha), Osečina (686 ha), Lučani (662 ha), Aleksandrovac (596 ha), Užice (548 ha), Ljubovija (539 ha) and Kosjerić (503 ha) are among 500+ ha raspberry plantation growing municipalities.

In accordance with the official statistics, the total raspberry production in 2016 amounted to 61,875 tonnes, which is slightly above the achieved production levels in 2014 (61,715) and 6% less than in 2015 (66,176). As per identical data source, it is expected that the raspberry production levels in 2017 will amount to 57,631 tonnes, which would represent a reduction in production against 2016 by 6.9%.

Chart 5. Raspberry production in Serbia (in 000 tonnes), 2010-2017



Source: Statistical Office of the RS
*2017 estimates.

Against 2010, the raspberry production saw a downward trend, with an average negative growth rate of 5% annually. The exception are 2011 and 2015, when production increased 7% against the previous year, respectively.

When compared against the publicly available official statistics, the data submitted by the Ministry of Agriculture illustrate somewhat differently when it comes to the state of raspberry farming. Based on the on-site collected data disposed by the Ministry, raspberry plantations

cover the total surface area of slightly less than 20,000 ha, while the largest raspberry growing areas are located in Western Serbia (Arilje, Ivanjica, Lučani, Čačak, Požega, Užice, Nova Varoš, Priboj, Prijepolje). The following region as per observed criterion relevance is North-Western Serbia (Valjevo, Šabac, Osečina, Ljubovija) and South-Eastern Serbia (Brus, Aleksandrovac and Kuršumlija). The last couple of years saw an alteration of raspberry growing landscape with a decentralization of plantations, given that the new raspberry plantations are cultivated with double cropping raspberries and also in traditionally non-raspberry growing areas such as Bačka in Vojvodina, Raška district (Novi Pazar, Sjenica) and Southern Serbia (Leskovac, Lebane, Vladičin Han).

Against the achieved crop yields of 5.6 t/ha as recorded by the official statistics, the experience demonstrates that the Western Serbia region regularly yields from 15 to 20 t/ha.

As per data of the Cold storage association of Serbia, disposed by the Ministry of Agriculture, Serbia on average produces approx. 80-85,000 tonnes of raspberries annually. During 2016, a record high raspberry crop of approx. 90,000 tonnes was recorded, which in combination with 15,000 tonnes of carry-over stock and 5,000 tonnes of imported raspberries amounted to approx. 110,000 tonnes, and placed Serbia in the leading position among world raspberry producing and exporting countries. With the production capacity of 85-90,000 tonnes, Poland surpassed the United States of America with 70,000 tonnes production capacity, while Chile placed as fourth with 55-60,000 tonnes production. Further on the list are England, with consolidated raspberry production with Scotland of 13,000 tonnes, China (10,000t), Canada (8,000t), France (7,000t), Australia (4,000t) and Hungary (1,000t), while all other countries' combined raspberry harvest capacities closed with the total crop of 31,000 tonnes.

The same source expects that the 2017 raspberry harvest will initiate with a carry-over stock of 25-30,000 tonnes. The new raspberry plantation areas, as well as increased production capacities due to the introduction of modern crop-growing technologies, created a hyper production in the raspberry-growing industry and a stagnation in the raspberry international sales.

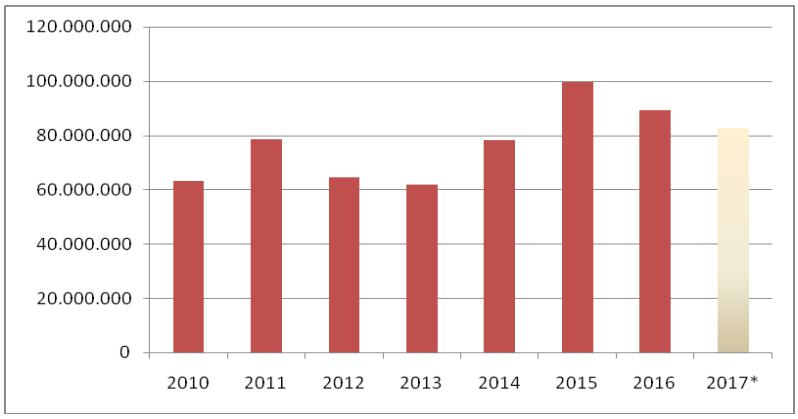
In accordance with the Ministry of Agriculture data, raspberry cultivation technology in Serbia moves in two directions. On one side are producers advancing this production by land consolidation, accurate utilization of all agro-technical measures, introduction of irrigation systems, but the number of such producers is extremely small. On the other side are producers not investing sufficiently in the care of already aged plantations, thus regularly harvesting less crops with lower quality of produced fruits. The current ratio between these two groups is close to equal, reflected in the maintenance of production levels, but unfortunately with the decreasing quality of raspberries. While the first group yields over 20 t/ha, the second records significantly low yields that amount to approx. 5 t/ha. Due to insufficient production of certified cuttings and harvesting of shoots from production plantations, but also due to the drought in the last couple of years, the raspberry production is experiencing fluctuations.

Approximately 95% of raspberry production in Serbia is comprised of top quality sorts "Willamette" (90%) and "Meeker" (5%), approx. 3% relate to "Tulameen", while approx. 2% relate to other raspberry sorts such as "Heritage", "Gradina", "Polka" and "Polana", which are of a somewhat lower quality.

3. Raspberry exports

The Republic of Serbia is a significant raspberry exporter, placing among other world-leading exporters of this berry fruit, alongside Poland, USA and Chile. During 2010-2016, raspberry exports displayed a changeable trend. Following the increase of exports in 2011 of 24% against 2010, during 2012 and 2013 export numbers slipped back to 2010 levels. In 2014, export levels grew back again and in 2015 reached a record-breaking level of approx. 100,000 tonnes. During 2016, export levels declined again against the previous year and amounted to 89.3 thousand tonnes, which still denoted an increase of 41% relative to the initial 2010. The export levels achieved in the first 10 months of 2017 almost reached the entire export volume from the previous year, hence it can be expected that the 2017 annual levels will once again record a slight increase in the raspberry export sector.

Chart 6. Raspberry exports (in kg), 2010-2017*



*January-October 2017

In line with the publicly available data, 90-95% of the domestic raspberry production volume is export oriented, while the remaining quantities are absorbed by the national market. If, however, the official statistics on produced and exported annual quantities are compared, up to and including 2013, it can be noted that Serbian exports covered approx. 90% of the total domestic production volume, while in the following years exports increased against the domestic production for approx. 50%. Such imbalance between the exports and production volumes may be the consequence of two factors. First of all, the official statistics probably undermines the domestic production volume, as indicated by the International Raspberry Organization data, according to which Serbia annually produces up to 78% more than the official statistics is recording.[1] And secondly, there is an increasing number of exporters that in addition to the domestic fresh raspberry quantities also purchase a deep-frozen imported raspberry, which are all later placed on foreign markets.

In accordance with the Customs Administration data, raspberry is predominately exported as a frozen commodity (approx. 95%), while the largest quantities are exported to the EU member states (Germany, France, Belgium, Holland, Great Britain, Austria, Italy) and the USA. Germany

[1] The specific data relates to 2015.

and France are the largest buyers of Serbian raspberries with more than 50% of the total exports. There are four product categories of exported frozen raspberries: Rolend (whole fruit, the most expensive), whole and broken, crumble (mashed raspberry) and block, while the raspberry Rolend and crumbled kind make approx. 90% of the frozen raspberry export quantities. The largest buyers of fresh raspberries are Austria, Germany and Italy, with over 90% of freshly exported quantities.

Over 170 companies are involved in export business, out of which the top four largest have a combined share between 25-30% of total export numbers, while **the top eight generate between 37-44% of the total export volumes**. As per 2015 and 2016 data, and for the first ten months of 2017, **the most significant raspberry exporter is limited liability company "Altiva" d.o.o. Beograd**, whose predominant activity is fruit and vegetable juice production (industrial code 1032). This company predominately exports to Germany and France, while its commodity exports make **approx. 10% of the total raspberry export volumes** in the entire period under observation. Among other top four exporters are limited liability companies "Stanić" d.o.o. from Arilje, "Sirogojno Company" d.o.o. from Sirogojno and „Crops&Partners" d.o.o. from Belgrade, whose individual export share ranges between 4% and 7%.

Table 1. Raspberry export concentration ratio (CR4, CR8 and CR13)

CR	2015		2016		2017*	
	quantiv	value	quantiv	value	quantiv	value
CR4	25.1%	26.4%	27.6%	29.3%	27.3%	29.9%
CR8	36.8%	38.6%	39.7%	41.6%	41.2%	43.6%
CR13**	45.9%	48.0%	50.8%	53.4%	50.1%	55.1%

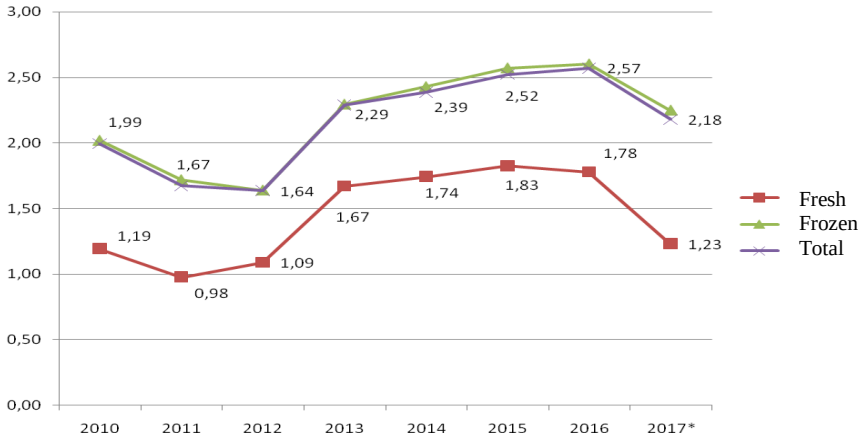
*January-October 2017
**Sample of the Commission

Export prices

The fluctuation of average raspberry export prices is determined by the fluctuation of average *frozen* raspberry export prices, considering its share of the total raspberry exports. The average raspberry export price displayed a downward trend during 2010-2012, followed by an increase and **a record-breaking level of 2.57 euro/kg in 2016**. In accordance with data of the Ministry of Agriculture, the average export price of *frozen* raspberries during the observed period was somewhat above the average raspberry export price, and is recorded at the level of 2.60 euro/kg in 2016, while the average export price of fresh raspberries during the observed period was 30-40% lower relative to the average export price of frozen raspberries, and is recorded at the level of 1.78 euro/kg in 2016.

During the first ten months of 2017, the average raspberry export price declined. The average export price of fresh and frozen raspberries dropped, respectively 31% and 14% against 2016, resulting in **the average raspberry export price of 2.18 euro/kg in 2017, which is 15% lower when compared to the previous year.**

Chart 7. Average raspberry export price, fresh, frozen and total (EUR/kg)



During 2015, the average export price per kg of frozen raspberry fluctuated in the range from 1.20 euro/kg (Libya) to 3.51 euro/kg (Croatia). Among the above-mentioned highest raspberry exporting countries, the most lucrative Serbian exports related to the USA (3.10 euro/kg), while the most affordable raspberry price was paid by Italian consumers (2.33 euro/kg). If observed by the average export price of the top eight exporters, they ranged from 2.20 ("Stanić") to 2.90 („Sirogojno Company"), while the biggest exporter "Altiva" generated the average export price of 2.71 euro/kg.

The average export price per kg of frozen raspberry in 2016 fluctuated in the range from 1.89 euro (Ireland) to 5.13 euro (UAE). Among the above-mentioned highest raspberry exporting countries, the most lucrative Serbian exports related to Great Britain (3.01 euro/kg), while the most affordable raspberry price was paid by Austrian consumers (2.24 euro/kg). If observed by the average export price of the top eight exporters, they ranged from 2.07 („Z.A.Fruit") to 3.06 („Crops&Partners"), while the biggest exporter "Altiva" generated the average export price of 2.62 euro/kg.

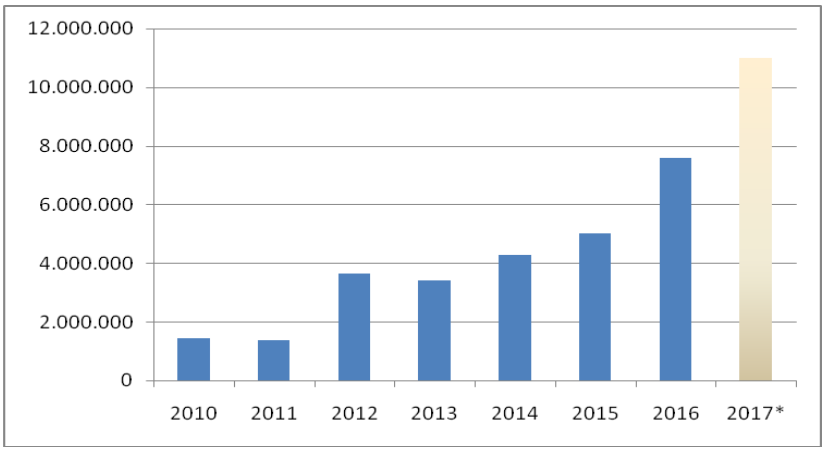
The average export price per kg of frozen raspberry in the first ten months of 2017 fluctuated in the range from 1.10 euro (Cyprus) to 3.83 euro (Qatar). Among the above-mentioned highest raspberry exporting countries, the most lucrative Serbian exports related to Great Britain (2.79 euro/kg), while the most affordable raspberry price was paid by Italian consumers (1.67 euro/kg). If observed by the average export price of the top eight exporters, they ranged from 1.65 („Z.A.Fruit") to 2.89 („Sirogojno Company"), while the biggest exporter "Altiva" generated the average export price of 2.34 euro/kg.

4. Raspberry imports

The import of raspberries recorded an upward trend during the observed period, and in 2016 was 3.5 times higher than in 2010. In the first ten months of 2017, raspberry generated imports reached the level of 10,990 tonnes and almost two times exceeded amounts of the entire 2016 generated imports. As per data submitted by the Customs Administration following the

Commission's request, in 2015 and 2016 import was higher than when compared against the Ministry of Agriculture data, and hence according to these data, the total of 7,589 tonnes of fresh and frozen raspberries are imported in 2016. Frozen raspberries (with over 98%) are predominately imported commodity, while the import volumes of fresh raspberries are negligible. Raspberry is mostly imported from Bosnia and Herzegovina (70-75%), approx. 13% of quantities in 2016 and 2017 came from Kosovo, while significantly smaller quantities are imported from Bulgaria and Montenegro. As per customs declaration documents, approx. 10% of the total imported quantities records the Republic of Serbia as a country of origin.

Chart 8. Raspberry imports (in kg), 2010-2017*



*January-October 2017.
Source: Ministry of Agriculture (2010-2014) and the Customs Administration (2015-2017)

Relative to the generated exports, raspberry imports make approx. 5% in 2012-2015, that is, 8.5% in 2016 and 13.3% in the first ten months of 2017.

Table 2. Raspberry export and import, 2010-2017

Year	Export (kg)	Import (kg)	Import/Export (in %)
2010	63.358.267	1.447.096	2,3%
2011	78.525.479	1.368.266	1,7%
2012	64.735.886	3.653.062	5,6%
2013	62.014.554	3.397.801	5,5%
2014	78.308.540	4.280.032	5,5%
2015	99.596.928	5.012.237	5,0%
2016	89.251.381	7.588.925	8,5%
2017*	82.619.236	10.990.357	13,3%

*January- October 2017
Source: Ministry of Agriculture (2010-2014) and the Customs Administration (2015-2017)

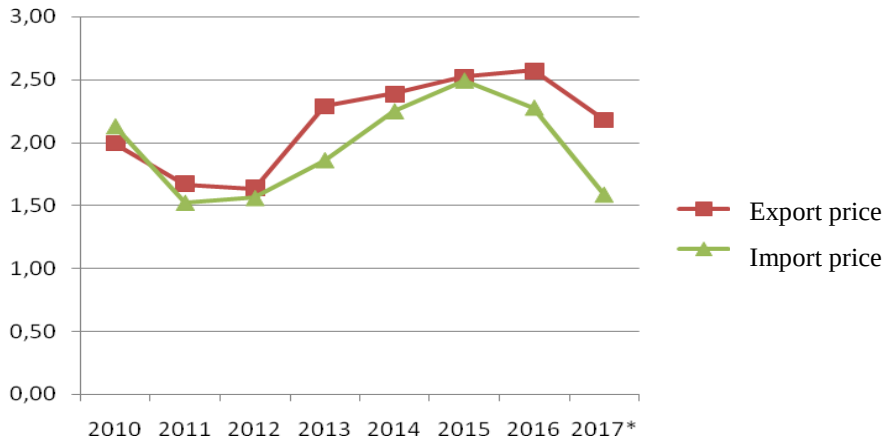
The raspberry import market borders the low and moderate concentration, while the top four importers' combined import share is approx. 50% in terms of quantity and value. The position of

the leading raspberry importer, by contrast to the raspberry export sector, is a variable category. The largest raspberry importer in the first ten months of 2017 is limited liability company „Fru com plus“ from Varvarin, and among the top four leading importers in the last three years were also limited liability companies „Crops&Partners“ d.o.o from Belgrade (2015 and 2016 leading importer), „Sirogojno Company” d.o.o. from Sirogojno, „Lukafood“ d.o.o. from Umčari, „DBR Proizvodnja“ from Belgrade and “Stanić” from Arilje.

Import prices

The average raspberry import price had an upward trend in 2012-2015. As per data submitted by the Customs Administration, the average raspberry import price in 2015 reached the maximum level of 2.49 euro/kg and almost leveled with the average export price. In 2016, the average raspberry import price is reduced against 2015 by 9%, while the negative trend is continued in 2017 as well.

Chart 9. Fluctuation of the average raspberry export and import prices, EUR/kg, 2010-2017*



*January-October 2017

In line with the Customs Administration data, the average raspberry import price in the first ten months of 2017 reached the level of 1.59 euro/kg and was 27% below the average export price, while the average raspberry import price from Bosnia and Herzegovina, as a country of origin where 75% of related quantities are imported, amounted to 1.53 euro/kg.

5. Analysis of data submitted by undertakings

For the purposes of investigating competition-related conditions on the raspberry purchase and export markets, the Commission addressed the biggest exporters requesting the provision of information. The leading raspberry exporters sample included a total of 15 (fifteen) exporters, namely: Altiva d.o.o. Beograd, Crops&Partners d.o.o. Beograd, Lukowa d.o.o. Beograd, Sirogojno Company d.o.o. Sirogojno, YUBE d.o.o. Požega, Elixir Food d.o.o. Šabac, Stanić d.o.o. Arilje, Z.A. Fruit d.o.o. Valjevo and Agropartner d.o.o. Lučani, Frucom Food d.o.o. Arilje, IQF d.o.o. Požega, ITN Group d.o.o. Beograd (Zemun), Master Frigo (Master Fruits[2]) d.o.o. Beograd (Borča), Mondi Lamex d.o.o. Vrdila (Kraljevo) and Zadrugar d.o.o. Ljubovija.

Thirteen out of 15 listed companies acted in accordance with the Commission's request, while companies Frucom Food d.o.o. Arilje and Zadrugar d.o.o. Ljubovija failed to submit the requested data.

When observed relative to the combined share of companies included in the sample against the total exports during the observed period, it can be established that the representation of such selected sample is quite satisfactory. **The above-listed 13 companies participated with 50.8% (in quantitative terms) and 53.4% (in value terms) in the total raspberry exports in 2016, that is, with 50.1% (in quantitative terms) and 55.1% (in value terms) in the first ten months of 2017.**

Two out of 13 companies which have submitted all requested data (Altiva and IQF) are not involved in the raspberry purchase operations, but exclusively deal with the wholesales of deep-frozen raspberries.

If the total purchase quantities acquired on the part of companies encompassed by the sample are set against the official statistics on the total annual raspberry production, it can be concluded that 13 undertakings encompassed by the sample purchase approx. 45% of the total produced quantities.

By benchmarking the total purchase and sales quantities of companies encompassed by the sample, in full and complete consideration of the fact that raspberry is purchased fresh and mainly sold as frozen commodity, it is established that in the majority of cases, the raspberry sales exceed the purchase quantities in each respective year. If considered that among observed exporters are some of the leading raspberry importers (Stanić, Sirogojno Company, Crops&Partners), from the above-mentioned it can be concluded that the majority of observed companies, although not explicitly stated, in addition to the fresh raspberry purchase also procure (import) frozen raspberry as well, which are further sold as a deep-frozen commodity. This is particularly typical for 2016 when raspberry imports achieved record-breaking levels, with continued alike trend in the case of some of the observed companies in the first ten months of 2017 as well.

[2] Master Fruits is a subsidiary company of Master Frigo, with registered seat in Požega. During 2017, Master Fruits tookover the fruit purchase and export activities from its parent company Master Frigo.

Such conclusion is also in accordance with the previously given statement on exports exceeding Serbian raspberry production volumes during the last couple of years, or respectively that imported raspberry is also included in the domestic raspberry export volumes.

Only two out of 13 companies included in the sample, specifically companies Stanić d.o.o. Arilje and Z.A. Fruit d.o.o. Valjevo, separately presented data on fresh raspberry purchase and frozen raspberry procurement.

According to the statement by company Altiva, the difference between traded (exported) and purchased quantities is a result of carry-over stock, measuring from the last two harvests in 2015 and 2016 up to 20,000 tonnes, while the regular carry-over stock which are non-burdening for the purchase and sale of upcoming harvest quantities amount to approx. 5-6,000 tonnes.

Purchase prices

The average purchase prices for each exporter/buyer are calculated as a ratio between the total received purchase value and the total purchase quantities in the observed year.

The average purchase price for undertakings included in the survey is calculated as a simple arithmetic mean of average values for each buyer.

The average purchase price for the observed 11 undertakings involved in the raspberry purchase operations in the first ten months of 2017 is 34% lower than the average purchase price in 2016, while observed for each exporter/buyer individually, the said difference ranges from 24% to 44%.

In the table below are presented values that in a comparative manner demonstrate the average purchase price (simple arithmetic mean of average purchase prices) in each of the observed years, the standard deviation as absolute measure of dispersion, i.e. average deviation value, and the coefficient of variation as relative measure of deviation that enables measures of variability in a set of data when given in the same units but with different arithmetic means, as is the case here. The value of this coefficient shows the clustering of data around the arithmetic mean, demonstrating that the lower the coefficient of variation, the greater the clustering around the arithmetic mean, and vice versa – the higher the coefficient, the greater the average value deviation.

Table 3. Average purchase price of fresh raspberries (RSD/kg), 2015-2017

Indicator	2015	2016	2017	Index 2017 (2016=100)
Average purchase price (RSD/kg)	**206.74**	**220.74**	**145.22**	**66**
Standard deviation	*11.05*	*16.38*	*12.37*	
Coeficient of variation	*5.3%*	*7.4%*	*8.5%*	

Source: Economic Analysis Division calculations based on data submitted by undertakings

As it can be seen from the table above, if 2017 (the first ten months) is compared against previous years, it can be noted that the said year has the lowest mean value of purchase prices,

but at the same time has the highest value of coefficient of variation, pointing to the relative higher deviations among buyers in terms of purchase prices against previous years. The standard deviation for 2017 is lower than for 2016, but above the calculated value for 2015.

Based on data submitted by respective undertakings in respect of the 2017 harvest purchase prices, it is established that they differ relative to the raspberry sort (Willamette, Meeker, Polka, etc.), moment of purchase (morning – higher, and afternoon – lower delivery price) and delivery venue (purchase venue or cold storage facility), as well as whether raspberries are purchased from legal or natural persons. Some buyers also forecast purchase prices for the second and third class of raspberries by issuing a special decision on daily settlement price, while the transportation costs to cold storage facility, additional payment for morning/afternoon delivered raspberry, as well as supplementary payment for non-overfilled tray packaging are subsequently established. Also, purchase price is adjusted to market conditions throughout the purchase period, and thus, by the end of the season may be lower or higher relative to the start of related harvest season. Based on all presented arguments, submitted data have not pointed to the existence of a unique raspberry purchase price.

Sale prices

Companies included in the sample are predominately export-oriented, an activity which generates approx. 80% of the total transaction volumes, while approx. 20% of goods are sold on the domestic market.

The average sale price on the domestic and foreign markets is calculated and presented as a ratio between the total sale value and the total sold quantities executed on the part of undertakings included in the sample.

The average sale price on the domestic market in the first ten months of 2017 is 11% lower than the average sale price in 2016, while in the case of individual undertakings, the said difference fluctuates between 3% and 46%.

The average sale price on foreign markets is 14% lower than the achieved last year's price, while in the case of individual undertakings, the said difference fluctuates between 3% and 25%.

Table 4. Average sale price on domestic and foreign markets, 2016-2017

Average sale price	2016	2017	Index (2016=100)
Domestic makret (RSD/kg)	266.15	236.09	89
Exports (EUR/kg)	2.65	2.26	86

Source: Economic Analysis Division calculations based on data submitted by undertakings

However, such derived data and related conclusions should be carefully observed and interpreted, due to the following reasons: (1) data submitted on the part of company Lukowa relate to the entire received sales value on foreign markets, and not solely to raspberry; (2) data submitted on the part of company Altiva for 2017, refer to January-June 2017, that is only to H1

2017; (3) company Crops&Partners failed to submit data on the received purchase value in the first ten months of 2017, with a rationale that the purchase season is not closed; and (4) during H1 2017, undertakings traded previous season's raspberry stocks and partially imported quantities, given that the 2017 harvest purchase season only opened in June.

By comparison of average purchase prices exchanged into the euro currency as per annual-average middle exchange rate for 2015, 2016 and the first ten months of 2017, against the average sale price received on the foreign markets in the respective period, it can be established that during 2015 and 2016, the ratio between the two prices was relatively stable, i.e. that the average sale (export) price in the case of majority of observed undertakings was 30-50% higher relative to the average purchase price. During 2017, the range increase between the average sale (export) price and the average purchase price was notable, so that the average export price in the case of majority of exporters is 70-90% higher, and in the case of individual undertakings even double the value against the average purchase price.

In accordance with the information provided by company Altiva, the purchase and export price difference in 2017 is the result of a circumstance that the delivery of 2015 and 2016 contract-arranged raspberry quantities is still ongoing. Against former contract-regulated export prices, the export price difference for contracts pertaining to the 2017 harvest season ranges up to 0.87 euro/kg for Rolend raspberry (whole fruit) - Willamette sort, while the contract-regulated export price for organic grown raspberry from the 2017 harvest season is lower for 1.25 euro/kg against the previous year's harvest based contracts. The contract price for Rolend raspberry – Meeker sort from the 2017 harvest season is up to 1.10 euro/kg lower than in the last year contracts. Annual contracts relating to this year's harvest season stipulated end-November 2018 as the delivery closing period. As per information provided by Altiva, each supplier as a contractual party receives absolutely identical price for each package, regardless of the volume of delivered quantities.

The other factor leading to the wrong conclusion in terms of a difference between the purchase and export price in all observed years, as per information provided by company Altiva, relates to the fact that the export price shown in the customs declaration documents also includes the price of packaging and the price of transport. Namely, the majority of commodity is exported in custom printed pouches of 500, 650 or 750 grams net weight, or in custom printed paperboard boxes of 300 or 500 grams net weight, and as such are directly delivered into retail systems. The package price here makes a significant factor, including pouches and transport boxes and can range from 10-11 cents per kg, up to over 20 cents in the case of paperboard boxes of 300 grams or plastic bowls for Meeker raspberry. The transport price fluctuates from the minimum price of 8 cents up to 14 cents per kg for Willamette/Rolend raspberry, or more than 17 cents per kg for Meeker raspberry.

6. Conclusion

The competition conditions inquiry into the raspberry purchase and export market is conducted with the objective to investigate the existence of a reasonable assumption on the presence of competition infringement on the raspberry purchase market on the part of buyers (owners of cold

storage facilities), pursuant to which the Commission would be able, in accordance with its competences, to instigate an investigative proceeding *ex officio*.

Towards conducting the inquiry, data provided by the Ministry of Agriculture and the Ministry of Finance – Customs Administration are collected and analyzed, as well as publicly available official statistics. During the inquiry, the Commission conducted a survey involving the largest raspberry exporters, which encompassed a representative sample of 13 companies with combined share of 50-55% in the total raspberry exports.

Pursuant to all collected and analyzed data and information, the Commission was unable to derive a conclusion on the existence of disturbances on the 2017 raspberry harvest purchase market, which could be the result of preventing, restricting or distorting competition on the part of undertakings operating on the related market. Data on the purchase quantities and on the received value of purchase, as well as on the 2017 harvest purchase prices, all collected during the inquiry implemented by the Commission, have not pointed to the existence of a uniform purchase price of raspberry, which could potentially be the result of a prearranged agreement on the raspberry purchase price between buyers – owners of cold storage facilities.

Based on the 2017 raspberry harvest purchase prices submitted on the part of eight undertakings involved in the raspberry purchase operations, it is established that they differ relative to the raspberry sort, moment of purchase and delivery venue, as well as whether the commodity is purchased from legal or natural persons. At the beginning of a harvest season, an advance purchase price is established which is later adjusted to the market conditions throughout the purchase period, and thus, by the end of a respective purchase season purchase price may be lower or higher relative to the initial one. The final purchase price is established upon the closing of a respective harvest purchase season and upon the overview of export potentials and export price. Due to all reasons mentioned, it cannot be said on a uniform raspberry purchase price.

Also, derived statistical indicators have not suggested on the existence of a uniform purchase price for the 2017 harvest season. Namely, although in the first ten months of 2017 the purchase price reached the lowest mean value in a three year period, the values of coefficient of variation indicate on the relative higher deviations among buyers in terms of raspberry purchase prices against the previous years.

The average sale prices on the domestic and foreign markets during the first ten months of 2017 are lower relative to the respective prices in 2016 by 11% (domestic market) and 14% (exports), while the average purchase price is 34% lower against the same observed period. On the other hand, by comparison of the average purchase prices exchanged into the euro currency as per annual-average middle exchange rate, against the average sale price achieved on the foreign markets in the respective period, it is established that the range increase between the average sale (export) price and the average purchase price was achieved by all exporters during 2017, thus making that the average export price in the case of individual exporters even double the value against the average purchase price.

However, when deriving a final conclusion in regards to the listed statements, the Commission considered that such and similar issues tackled by the Serbian raspberry farming industry in 2017

are partially caused by the last year's record-breaking purchase (and export) prices, as well as by the fact that the principal export commodity in H1 2017 was the frozen raspberry purchased in 2016, as per 2016 contract regulated prices.

During the implementation of this inquiry, the Commission came to findings on the existence of considerable stocks from the last year's raspberry harvest (2016 harvest), exceeding the usual stock balances in this branch of fruit growing industry, which could have an impact on the purchase price decrease during the 2017 harvest season. Also, a decrease in demand for more expensive sorts of raspberries which have recorded the highest export volumes in the previous period (Willamette, Meeker), parallel to the increase of production and exports of more affordable sorts of raspberries – Polka and Polana, could have influenced the decrease of average export price in H1 2017 against the previous year.

Data provided by the Customs Administration demonstrated a rising trend in the frozen raspberry imports during the last three years, whereas the imports generated in H1 2017 only, exceeded the entire import levels from 2016. Considerable raspberry import increase in 2016 and particularity during the first ten months of 2017 against the previous period is a consequence of a negative trend affecting the average import price, which increasingly shies away from the average export price. It should be particularly noted that Bosnia and Herzegovina imports increased during the previous period, with the average import price reduction from 2.28 euro/kg in 2016 to 1.53 euro/kg in the first ten months of 2017. On the other hand, the average raspberry export price in the first ten months of 2017 was 2.18 euro/kg and was 15% lower than the average export price in 2016. It can be assumed that the downward trend affecting the average import price and consequently increased imports, as well as the average export price decrease, in addition to other factors, have created a pressure on the reduction of raspberry purchase price in H1 2017.

A separate issue in this inquiry related to the discrepancy between official statistics and other publicly available data concerning the raspberry production and exports. Data at the Commission's disposal, submitted by the Ministry of Agriculture, Forestry and Water Management, demonstrated that the official statistics undermines the total raspberry plantation areas, crops and domestic raspberry production volumes. As per identical data source, the new raspberry plantation areas, as well as increased production capacities due to the introduction of modern crop-growing technologies, created a hyper production in the raspberry-growing industry and a stagnation in the raspberry international sales.

Furthermore, when investigating the raspberry purchase market, numerous issues that Serbian raspberry farmers tackle are also identified, which could be classified into four basic categories:

1) Issues created during the purchase phase (absence of classification, quality controls and health and sanitary safety controls of raspberry fruits, control of the purchase process in terms of a clear presentation of all conditions of purchase, terms and deadlines of payment, etc.);

2) Issues created in reference to the long-term (standard-type) contracts on business cooperation in respect of production and purchase, concluded between producers and buyers at the beginning of the year. Based on such contracts, buyers provide pesticides

and fertilizers for producers, repaid in kind during the raspberry purchase period. When entering into contracts, producers are only familiar with the price of production materials offered and not with the raspberry purchase price, while the contract only mentions that the raspberry purchase price will be established as a "market price", thus rendering producers unsure of the value of their product when purchasing chemicals, or respectively how much actually will they have to "pay" for fertilizers. Also, even when not bonded contractually, producers predominately deliver all raspberry quantities during the purchase period to precisely those cold storage facilities with whom they have a pre-arranged contracts and to whom have delivered their harvests in the previous years, i.e. with whom have already established cooperation and gained positive experiences in respect of payment methods and terms and deadlines.

3) The issue concerning a lack of organization of fragmented producers, foremost from the mountainous areas whose agriculture lands are minor (less than one hectare), but which generate extremely significant revenues owing to raspberry agribusiness. Such producers, whose share in the total raspberry production is considerable, lack of sufficiently strong negotiating position against buyers, and also often require financial assistance for raspberry production needs, support in acquiring new know-hows from the cultivation technology standpoint and information on the quality standards and sanitary safety requirements that export markets require, etc.

4) The issue of purchase as per unified purchase price, free from the purchase quantities criterion, on the one hand, and the issue of production costs of individual producers that depend on the utilized cultivation technology and yields, on the other. Such situation brings that the offered advance purchase price covers costs and generates certain profits for those producers with high productivity levels, while such price for those less productive often fails to even cover the basic production and harvest related costs.

Buyers (owners of cold storage facilities) also face issues, reflected in the incapability to precisely forecast the future sale price when implementing the purchase, but base their purchase price decisions on the *estimates* of export prices. Also, buyers are often forced to use less than favorable credit lines for purchase purposes, forcing many to purchase commodities by offering deferred payment methods, thus causing variations in the individual buyers' payment deadlines. Such situation is not without an impact on producers, which rather opt for buyers capable of paying in the shortest possible time or which are able to provide payment guarantees.

Such and alike issues that both raspberry producers and buyers encounter are of a systematic nature and require the involvement of all relevant institutions towards finding a long-term and sustainable solution, so that the continued existence of this extremely important fruit-growing branch yielding significant export revenues would not be jeopardized (raspberry share in the total fruit exports value in 2016 is 42%).

Based on all presented information, it is established that at this moment **exists no reasonable assumption on the executed competition infringement**, thus is concluded that the legally stipulated due conditions for instigating the investigative proceeding are not fulfilled.

As per the Commission's opinion, the important matter, both for the improved quality of the inquiry on conditions of competition and for the establishment of a qualitative agricultural policy, concerns the improvement of available statistical data quality. When preparing this inquiry, the Commission used available data; however, it is clear that there is a room for data quality improvement, particularly in the segment relating to data on the total raspberry plantation areas and on the total raspberry production volumes in Serbia.

The Commission wishes to express its gratitude to all undertakings for their duly submission of requested data during the inquiry on conditions of competition, and at the same time calls upon undertakings and other expert public to submit their comments to the report.