



SPECIFICITY OF RASPBERRY EXPORT PRICE MANAGEMENT - THE CASE OF THE REPUBLIC OF SERBIA

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Abstract: For more than twenty years, raspberries have occupied the most important place in fruit production in Serbia, which made Serbia the largest exporter of raspberries in the world. Although the lack of labor is considered the leading problem affecting the export price of raspberries, export revenues in 2022 have increased compared to 2021, precisely because the export price has reached a record. Germany is considered the largest importer of Serbian raspberries, so due to the drop in demand in supermarkets, there was a drop in sales and prices. This is the situation in other Western countries, so a downward trend is expected in the future as well. However, it should be taken into account that there has been an expansion of the market to Argentina and Saudi Arabia, where, although the exported quantity is small, it affects the overall growth of exports. The aim of the paper is to point out the specifics of managing the export price of raspberries as an agricultural product in the case of Serbia. The first part of the paper is focused on the management processes related to the formation of the optimal export price agricultural product. The second part of the paper analyzes the key factors and specifics of export prices of raspberries, while the third part analyzes the raspberry export policy in the period 2011-2021 in the Republic of Serbia.

Keywords: management, export, price, raspberry, Serbia.

1. INTRODUCTION

Raspberries are one of the world's specific products, because they are among the fruits that, in terms of quantity, are the least produced in the world. Red treasure or raspberries have a long tradition of growing in Serbia, where raspberry growing is one of the few agricultural activities in which Serbia enjoys an important world economic status [1]. For more than twenty years, raspberries have occupied the most important place in fruit production in the Republic of Serbia, which makes it one of the largest exporters of raspberries in the world. Raspberry production is concentrated in two production centers (Raspberry Mountains), Arilje and Valjevo, and significantly less in the Podrinje, Kopaonik-Brus, Čačak, Dragačevo and Šabac regions [2]. However, an additional problem for domestic raspberries is only primary processing, because raspberries end up in cold stores, while on the other hand, foreign buyers charge a high price for even the smallest part of this fruit, in some of their finished products [3].

The optimal combination of marketing mix instruments is very important for achieving the desired performance of companies engaged in the export of raspberries. These performances are, first of all, expressed through the volume of sales on the foreign market, then through the percentage of market share and, consequently, through the profitability of exports. The marketing mix should be adapted to the characteristics of foreign markets, that is, to the needs of foreign raspberry buyers [4]. It is considered that the quality of Serbian raspberries is a key instrument of the international marketing mix, which further enables the desired effects to be achieved on the international market with minimal investment in the field of promotion and distribution. Accordingly, the decline in raspberry quality could not be helped by a low price or successful promotion and distribution [5].

On the other hand, the price of raspberries for export is an instrument of the marketing mix that is the easiest to adjust, unlike the other three. Also, the export price of raspberries is a result of its positioning in foreign markets and is a feature of brand strength [6]. Only the price has a direct impact on the profitability of exports, while the other instruments of the marketing mix are treated as an investment, that is, an expense [7].

Although the lack of labor force is considered the leading problem affecting the export price of raspberries, export revenues in 2022 were increased compared to 2021 precisely because the export price reached a record [8]. Germany is

considered the largest importer of Serbian raspberries, so due to the drop in demand in supermarkets, there was a drop in sales, and therefore a drop in prices. This is the situation in other Western countries, so a downward trend is expected in the future as well. However, it should be taken into account that there has been an expansion of the market to Argentina and Saudi Arabia, where even a small amount exported affects the overall growth of exports.

The aim of the paper is to point out the specifics of managing the export price of raspberries as an agricultural product in the case of Serbia. The first part of the paper is focused on the management processes related to the formation of the optimal export price agricultural product. The second part of the paper analyzes the key factors and specifics of export prices of raspberries, while the third part analyzes the raspberry export policy in the period 2011-2021 in the Republic of Serbia.

2. SPECIFICITIES OF ADMINISTRATION OF THE EXPORT PRICE OF AGRICULTURAL PRODUCTS

The elements of the external environment in the international market are specific and can differ greatly from business conditions in the domestic market. Therefore, the sales strategy implemented by a company in export markets is often not the same as the strategy developed for the domestic market. The sales strategy for the export markets represents the way in which the company designed and formulated the elements of the marketing mix for the export markets. In professional literature, this strategy is called 'export marketing strategy', and it is considered one of the most important research questions in international marketing [9]. Companies develop and implement an export marketing strategy (a strategy for entering export markets), as a response to the forces of the external environment, taking into account internal forces. The same authors emphasize that this strategy is a means by which companies respond to market forces in order to achieve their goals through all aspects of the marketing mix - product, price, promotion and distribution [10]. Management of price formation processes related to the export of agricultural products belongs to a very sensitive segment of marketing management. The demand for agro-industrial products serves to satisfy the existential needs of man, so it cannot fall into the category of products with a high level of needs that result in a higher level of prices. This does not imply that in this area of the economy there is no need for high quality and an appropriate price, but on the contrary, it implies research and analysis of specific interests, from whose interests the process of production and sale of products should be organized. The level of satisfactory quality is made up of many factors, which influenced the final product to have such a useful value, the price of which does not represent a major problem when purchasing. Demand and need when it comes to agro-industrial products are quite interconnected because agro-industry products represent basic, more or less high levels of life needs, when it comes to prices for that product.

One of the tasks of marketing management is to predict, sense and respond to consumer behavior with adequate management activities. Consumer behavior is most often expressed by the level and structure of demand for certain products. Based on the obtained results, it is necessary to adjust the management activities of marketing and management, which depend on the flexibility and elasticity of the organization. Marketing management consists of activities aimed at finding the market optimum, taking into account changes in the environment. Another relevant task of marketing management is finding a compromise between supply and demand. And in such a way that appropriate activities will affect the level, timing and structure of demand and help the company to achieve its marketing goals. Depending on the state of demand, it is necessary to build different management activities of the company, purely marketing or in cooperation with other business functions, through which the demand, i.e. the market, is acted upon [11].

In order to survive, in the conditions of a large world supply of agricultural products, Serbia must lead an active policy of encouraging domestic agricultural production [12]. Concern about the relationship between prices and the development of agricultural production actually represents the adoption of a national strategy for the development of agriculture, on the domestic market, and its position in relation to world agriculture.

3. KEY FACTORS AND SPECIFICITIES OF RASPBERRY EXPORT PRICE FORMATION

When considering the export price of raspberries, the following should first of all be taken into account: the attractiveness of the payment terms for the foreign buyer/distributor, the earning of attractive margins, favorable terms of payment for transport and delivery of goods to a foreign partner, as well as the competitiveness of the price of Serbian raspberries in relation to the prices of the main competitors abroad the market. It is obvious that there is a certain degree of correlation between the exported quantity of raspberries and the movement of export prices. This dependence is not complete, because the competition in raspberry production, in the world, has a growing trend. So the quantities produced in Serbia do not have a predominant influence on the movement of frozen raspberry prices on the European Union market. Also, there is a connection between the movement of the export and purchase prices of raspberries. The higher the export price, the smaller the difference between the purchase price and the export price. The

exporter's expectations largely dictate the value and change in purchase prices. This means that if the price on the world market rises, they are ready to offer higher prices to producers and vice versa [13].

The basic method of forming the export price is to add a margin to the costs of raspberry production. Margins are quite high because it is a seasonal product (to cover the risk if it doesn't sell). Also, we should add the fact that the export price is affected by high storage costs [14].

The competition for the export of Serbian raspberries is constantly intensifying, where the large supply on the European and world markets affects the reduction of export prices, while exporters from Serbia often have to accept this. The export price of raspberries is subject to constant modification, most often due to weakening demand. From the point of view of export companies, the price should be a function of the overall processes, around the improvement of placement and the realization of the largest possible volume of sales [15]. The raspberry export price must have the following elements: height, product unit, gross or net weight of goods, currency and transport clause. Knowledge of transport clauses is the main condition for regulating relations between exporters and importers, in connection with the delivery of goods, the transfer of goods risk and the transfer of goods costs [16]. The choice of the carrier, that is, the type of transport, affects the formation of the price, the time of delivery and the condition of the goods that have arrived, which further affects customer satisfaction [17].

Most often, the export price of raspberries is formed by the following methods [18]:

- internal cost-based methods,
- methods based on competition and
- methods based on consumer value.

The total costs of raspberry exporters are certainly higher than the costs of companies that sell only on the domestic market. Also, the cost structure of exporters differs from the cost structure of companies that are oriented towards the Serbian market. The basis for the formation of raspberry export prices is the production costs, to which, as a rule, it is necessary to add the costs that accompany the execution of the contracted work. By nature, export prices can be sliding and firm [19]. The price can be fixed through a cartel agreement, and in this way companies of the same activity agree on the level of the price and the volume of realization on certain foreign markets. Sliding pricing is used in a situation where the market is unstable and inflation is high. In this way, the direct formulation of prices in the sales contract is avoided, especially if it is a delivery that needs to be made over a longer period of time [20].

External factors that affect the export price of raspberries are: level of demand, government regulation, general economic conditions, local currency and competition. The dependence of the price on the level and structure of demand is a consequence of the fact that the perceived value of raspberries by buyers varies greatly, from one country to another, or from one-time period to another. Within the framework of state regulations, the factors that influence the formation of the export price are: customs duties, taxes, export-import quotas and tariffs, and various types of subsidies. Within the framework of direct measures of state regulation that influence the formation of prices are price prescription, price maximization, determination of indicative prices and determination of minimum and guarantee prices. The basic orientation of these measures is determining the level of specific prices or a specific price framework [21]. It is of particular importance for raspberry exporters to inform themselves about the customs policy of the importing country.

Sometimes it seems to the exporter that a certain market is more attractive, because the prices are higher than those that can be achieved in Serbia. It is rare that the market turns out to be really attractive. In that case, the so-called price escalation refers to the situation when the retail price increases due to transport costs, customs duties, taxes and intermediary margins [22]. Such a price is too high and many companies give up exporting, based on such a calculation, without taking into account the other parameters of the price policy [5].

As for macroeconomic conditions, the inflation rate and the stability of the domestic currency (dinar) have the greatest influence on the formation of the raspberry export price. Taking into account the specifics of the raspberry export price and the factors that influence its formation, Serbian raspberry exporters must undertake a detailed analysis of foreign, target markets, in order to fully adapt their marketing program to the conditions in those markets.

Raspberries are mostly exported unprocessed, that is, they undergo only primary processing. Thus, most of the raspberries are exported in a frozen state. A potential chance for increasing export profitability lies in the fact that raspberry products such as juices or jams could be sold at an extremely high price on the foreign market. The export of finished products would generate significant income, considering that foreign buyers highly value raspberry products.

4. ANALYSIS OF RASPBERRY EXPORT POLICY IN THE REPUBLIC OF SERBIA

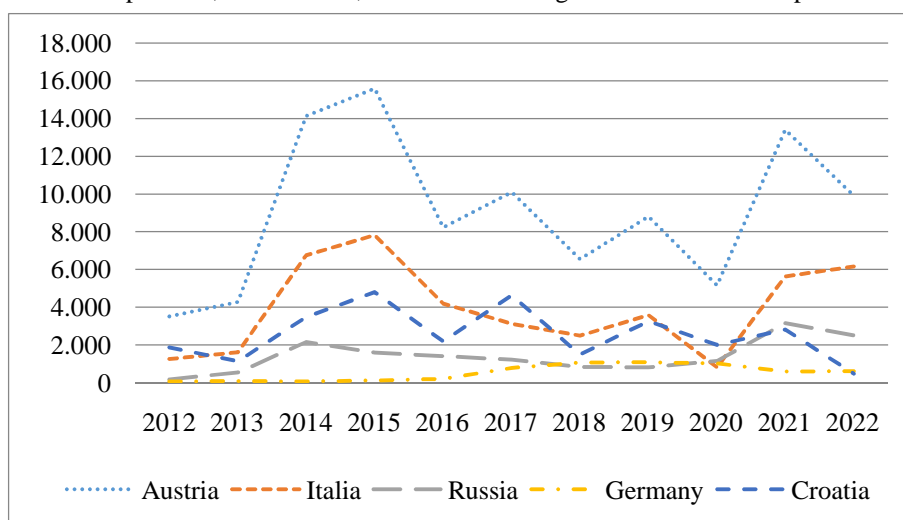
The quality of the Serbian raspberry has been recognized in the world for many years and is considered the golden lever of Serbian exports. Considering the small quantities in the total world balance, it is clear that the raspberry takes precedence in the foreign trade exchange of agricultural products. Various authors in the agricultural sector believe that the areas under raspberry and the total amount are decreasing from year to year [3].

According to the data of the Serbian Chamber of Commerce (2022), the 2022 raspberry season in the Republic of Serbia resulted in about 90,000 tons of fruit, while additional, about 15,000 tons of frozen raspberries from last year's

harvest in 2021 remained unsold and in cold stores. The exported quantities of raspberries in 2022 are lower than the previous year, while the total revenues from around 200 million euros for the period of eight months in the past year, increased to slightly more than 224 million euros in 2022. The purchase price of all raspberries in 2022 ranged from 500-650 din/kg, while in 2021 the price was 420 din/kg. Given that the price of raspberries in Poland at the beginning of the harvest was 3 eur/kg, and that at the end of the harvest it was 2 eur/kg, this resulted in a questionable situation among buyers regarding the high price of Serbian raspberries. On the other hand, and despite the Ukrainian crisis, Ukraine recorded a good raspberry harvest, with a price of around 3.30 eur/kg for whole raspberries and around 2.35 eur/kg for 'grit' raspberries.

Given that the largest export buyer of Serbian raspberries is Germany, where there was a drop in sales in supermarkets, as well as a lower demand for jams, yogurts, etc., there was a significant drop in demand for Serbian raspberries. In addition, a further price drop is expected raspberries, due to a significant drop in demand from the USA, as well as the already mentioned drop in demand in Germany, and therefore also in Western Europe. According to data from the Serbian Chamber of Commerce (2022), depending on the export market, the drop in sales ranges between 10% (France) - 40% (Germany), which are also the two largest for frozen Serbian raspberries. Export growth was recorded in markets such as Argentina and Saudi Arabia, but the exported quantities are still too small to have a significant impact on the overall increase in exports. It is mostly exported to Western European countries - Germany, France, Italy and Great Britain [1]. According to Trade Map data (2022) in the period 2012-2022 year export of fresh raspberries, blackberries, mulberries and loganberries from the Republic of Serbia, the largest export was with Austria and Italy (Chart 1). There are opinions that in the future we should produce what buyers in the world are looking for, above all the varieties 'Vilamet' and 'Miker' which, in order to gain in quantity, should not be mixed with other varieties [23].

Chart 1: Export of fresh raspberries, blackberries, mulberries and loganberries from the Republic of Serbia, 2012-2022.



Source: Trade map, 2023, retrieved from <https://www.trademap.org>, 2022.

During 2021, Serbia exported 483,500 tons of fruit, worth 824.1 million euros. The highest value was achieved with frozen raspberries (361 million euros), followed by fresh apples (107 million euros) as the second fruit species in terms of export value, frozen blackberries (86 million euros) and frozen cherries (35 million euros) [3]. Observing the realized production of wheat and early fruit, raspberry achieved 5.8 t of yield per hectare (Table 1) [24].

Table 1: Realized production of wheat and early fruits, 2022.

Republic of Serbia								
	TOTAL	Serbia-north			Serbia-south			
		total	Belgrade region	Vojvodina region	total	Šumadija and Western Serbia region	South and Eastern region	Kosovo i Metohija region
Wheat								
Harvested area, ha	631086	375104	32174	342930	255982	126369	129613	...
Yield per ha, t	4.9	5.4	5	5.4	4.3	4.6	4	...
Production, t	3113085	2006116	161996	1844120	1106969	585406	521563	...
Indeks, 2021=100	90.4	89.2	94.3	88.8	92.8	94	91.4	...
Raspberries								
Površina, ha	19703	1478	573	905	18225	16187	2038	...
Yield per ha, t	5.8	4.4	4	4.7	6	6.2	4.1	...
Production, t	114987	6541	2271	4270	108446	100113	8333	...
Indeks, 2021=100	104	88.3	90.4	87.1	105.1	105.7	98.9	...
Cherries								
Površina, ha	19875	3345	1233	2112	16530	3865	12665	...
Yield per ha, t	8.3	6	7.3	5.3	8.9	7	9.2	...
Production, t	164446	20149	9023	11126	144297	27163	117134	...
Indeks, 2021=100	106	127	106	151.5	103.6	105.4	103.2	...

Source: RZS, retrieved from <https://www.stat.gov.rs> , 2022.

5. CONCLUSION

International success of Serbian raspberries can only be achieved with an adequate combination of international marketing mix instruments. Each instrument should be carefully created and designed, where special attention should be paid to the formation of the raspberry export price, taking into account its specificities and the factors that influence it. Despite the significant efforts of export companies in the field of marketing, the export price of raspberries is very often under the dominant influence of general economic conditions, and in this case the influence of exporters on price formation is negligible.

In order to promote the Republic of Serbia as an export destination and promote exports, it is necessary to strive to improve the image. The main goal is to produce sufficient quantities of high-quality raspberries, which would promote the Republic of Serbia as an attractive destination for raspberry exports. The way to achieve the goals is based on the definition of the international marketing strategy. As a good example for prosperity and international promotion in the export of raspberries, we should look to competing countries, such as Poland and Chile, which have been well positioned on the world market for years.

REFERENCES

- [1] N.I. Fišić, 2022, "Berba malina završila u samo 28 dana, otkupna cijena 530 dinara za kilogram", <https://www.poslovni.co.rs/regija/berba-malina-završila-u-samo-28-dana-otkupna-cijena-530-dinara-za-kilogram-4348296>
- [2] V. Popović, B. Kalanović, V.R. Živković, "Malina u proizvodnji i izvozu poljoprivrede Srbije". *Ekonomika poljoprivrede* 50(3), 2003, pp. 267-275.

- [3] M. Jovanović, 2022, "Zbog čega je malina zlatna poluga srpskog izvoza?" <https://biznis.rs/vesti/srbija/zbog-cega-je-malina-zlatna-poluga-srpskog-izvoza/>
- [4] S. Vasiljev, "Marketing", Univerzitet Singidunum, Fakultet za turistički i hotelijerski menadžment, Beograd, 2006.
- [5] J. Previšić, Đ Ozretić Došen, "Osnove međunarodnog marketinga" Masmedija, Zagreb, 2000.
- [6] P. Kotler, K.L. Keler, "Marketing menadžment", Datastatus, Beograd, 2006.
- [7] M. Ćirić, B. Vapa, "Strategija cena na međunarodnom tržištu", *Economy and Market Communication Review*, 1 (1), 2011, pp.104–112.
- [8] I. Vladimirović, J. Ignjatović, S. Marković, S. Knežević, M. Blagojević, "Creation of a marketing strategy for the export of raspberries with special reference to the importance of mechanization - a case study for Serbia". 32nd International scientific-expert conference of agriculture and food industry. Sarajevo: Poljoprivredno-prehrambeni fakultet Univerziteta u Sarajevu, 2022, pp.117.
- [9] L. Leonidas, C. Katsikeas, "Integrative assessment of exporting research articles in business journals during the period 1960–2007", *Journal of Business Research*, 63(8), 2010, pp. 879-887.
- [10] A. O'Casey, J. Craig, "Examining firm and environmental influences on export marketing mix strategy and export performance of Australian exporters", *European journal of marketing*, 37(3/4), 2003, pp. 366-384.
- [11] P. Kotler, K.L. Keller, "Marketing management", Twelfth edition, New Jersey, Pearson Education, Prentice Hall, 2005.
- [12] B. Kuzman, A. Tešić, A.T. Đelić, "Mogući pravci približavanja (agroindustrijskog kompleksa) Srbije prema EU i STO", *Ekonomika poljoprivrede*, Institut za ekonomiku poljoprivrede, Beograd, 60 (3), 2013, pp.541-549.
- [13] B. Drašković, I. Stošić, Z. Rajković, "Proizvodnja i izvoz voća kao faktor ruralnog razvoja", *Ekonomika poljoprivrede*, 58 (SB1), 2011, pp. 72-80.
- [14] B. Vapa, "Uloga i značaj instrumenata marketing miksa u poslovanju izvoznih preduzeća", doktorska disertacija, Univerzitet Privredna akademija, Fakultet za ekonomiju i inženjerski menadžment, Novi Sad, 2017.
- [15] S. Lovreta, G. Petković, "Trgovinski marketing". Centar za izdavačku delatnost Ekonomskog fakulteta, Beograd, 2015.
- [16] D. Vezjak, *Međunarodni marketing*. Savremena administracija, Beograd, 1991.
- [17] P. Kotler, "Upravljanje marketingom 2: analiza, planiranje i kontrola", Informator, Zagreb, 1988.
- [18] G. Lancaster, L. Massingham, "Menadžment u marketingu", Grmeč, Beograd, 1997.
- [19] A. Grubor, "Marketing istraživanja: integralni deo međunarodnog marketing programa". Ekonomski fakultet, Subotica, 2008.
- [20] B. Vapa, Z. Grandov, M. Ćirić, "Uticaj cene na indikatore izvoznih performansi preduzeća". *Ekonomija-teorija i praksa*, 9(4), 2016, pp. 1-16.
- [21] B. Rakita, "Međunarodni marketing: od lokalne do globalne perspektive". Ekonomski fakultet, Beograd, 2012.
- [22] Milisavljević, M. (1993). *Marketing*. Savremena administracija, Beograd.
- [23] Agrofin."Leposavić: Samo sorte „vilamet“ i „miker“ održavaju imidž srpske maline u svetu". <https://www.agrofin.rs/vesti/leposavic-samo-sorte-vilamet-i-miker-odrzavaju-imidz-srpske-maline-u-svetu>, retrieved december 2022.
- [24] Republički zavod za statistiku (RZS). "Poljoprivreda, šumarstvo i ribarstvo - godišnja biljna proizvodnja". <https://www.stat.gov.rs/sr-latn/vesti/statisticalrelease/?p=8841&a=13&s=1301?s=1301>, retrieved december 2022.