

PRODUCTION POTENTIALS AS A CHANCE FOR AGRICULTURAL PRODUCERS – CASE STUDY OF SMEDEREVO CITY IN THE REPUBLIC OF SERBIA¹

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Abstract

The basic directions for development of agriculture of the Republic of Serbia are defined by the Strategy of Agriculture and Rural Development of the Republic of Serbia for the period 2014-2024., the Law on Agriculture and Rural Development, the Law on Incentives in Agriculture and Rural Development and the National Program for Accepting the EU Legislation 2014-2018. Given that the Republic of Serbia has a clear commitment to European integration, one of the most important prerequisites in the integration process is to improve the competitiveness of the national economy on its way to the creation of an export-oriented economy.

This paper presents production potentials in the fruit and vegetable production sector in the area of Smederevo as the potentially most developed and the most promising area for this type of production in the Republic of Serbia. The case of the city of Smederevo can serve as an example or model of well-organized and successful production for agricultural producers in all spheres of agro-business.

Key words: Smederevo, Serbia, fruit growing, viticulture, production potential, economic development.

Introduction

The main directions in the development of agriculture of the Republic of Serbia are defined in the Strategy of Agriculture and Rural Development of the Republic of Serbia for the period 2014-2024 (Official Gazette of RS, no. 85/14), the Law on Agriculture and Rural Development (Official Gazette of RS, no. 41/09 and 10/13 – etc.), the Law on Incentives for Agriculture Production and Rural Development (Official Gazette of RS, no. 10/13, 142/14, 103/15) and the National Program for the implementation of the EU legal principles 2014-2018 (SEIO, 2014).

Globalisation of markets, trade liberalisation, and especially our country's clear preference for European integrations, require a new definition of the role and importance of agricultural and food production sectors, as well as rural development. Modern positioning of the rural development policy implies its development on the basis of the policy of balanced regional development and at the same time reliance on the unique set of measures of agricultural policy, structural policy,

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industrial policy, tertiary sector development policy, health care, infrastructure and environmental protection policy in a certain area (Bogdanov, 2007).

The Republic of Serbia, especially in certain parts, has very favourable natural conditions for the growing of fruit. Fruit production in hilly and mountainous regions (where 10-15 times higher production per hectare can be achieved than in the production of maize and wheat) greatly exceeds the profitability of other crops, due to the favourable natural conditions, which is why no other production can make as much profit as fruit production in these areas (Keserovic, 2004). Significant foreign exchange inflows can be achieved through the export of fruit and fruit products, which makes this agricultural branch economically very important. There is a significant interest in fruit growing, which, with state incentive measures and founding of cooperatives and associations, can bring good results (Milić et al., 2011).

Smederevo has the *city status* (Official Gazette of RS, 129/07 and 18/16) and is located in the Podunavlje District, the region of Southern and Eastern Serbia (Table 1).

Table 1. Administrative area of the city of Smederevo, basic data, 2015.

Territory	District ¹	Region	Area	No. of settlements ²	Number of inhabitants, 2011.	No. of CO ³
The city of Smederevo	Podunavlje	Southern and Eastern Serbia	484 km ²	28	108.209	30

Source: SORS, 2015.

¹ The area consists of the city of Smederevo and the municipalities of Velika Plana and Smederevska Palanka.

² In the territory of the city of Smederevo there is one urban settlement (Smederevo) and 27 other settlements (rural or semi-urban): Badljevica, Binovac, Vodanj, Vranovo, Vrbovac, Vucak, Dobri Do, Drugovac, Kolari, Landol, Lipe, Lugavčina, Lunjevac, Mala Krsna, Malo Orašje, Mihajlovac, Osipaonica, Petrijevo, Radinac, Rajla, Saraorci, Seone, Skobalj, Suvodol, Udovice, Šalinac and Kulić (Official Gazette of the City of Smederevo, 2/15).

³ CO - cadastral municipality.



Figure 1. The geographical position of the City of Smederevo

Source: www.smederevo.org.rs/OPSTINA-SMEDEREVO-Geografski-polozaj_67____cir

With regards to the development and representation of different types of primary agricultural production (agricultural routes), the territory of the city of Smederevo, according to the internal data of the Department of Agriculture, can be conditionally divided into the so-called Sumadija and Morava area (Fig. 2).

Šumadija area (green): agricultural production is mostly directed toward fruit production and viticulture. This part of the territory of the City includes the following settlements: Badljevica, Binovac, Vodanj, Vrbovac, Vucak, Dobri Do, Drugovac, Kolari, Lunjevac, Malo Orassje, Mihajlovac, Petrijevo, Rajla, Seone, Suvodol, Udovice, Landol and Smederevo.

Morava area (yellow): agricultural areas are used for crop, vegetable and livestock production. It consists of the territories of the following settlements: Vranovo, Kulic, Lipe, Lugavcina, Mala Krsna, Osipaonica, Radinac, Saraorci, Skobalj and Salinac (Strategy of Agriculture and Rural Development of the City of Smederevo for the period 2015-2020, IAE, 2016).

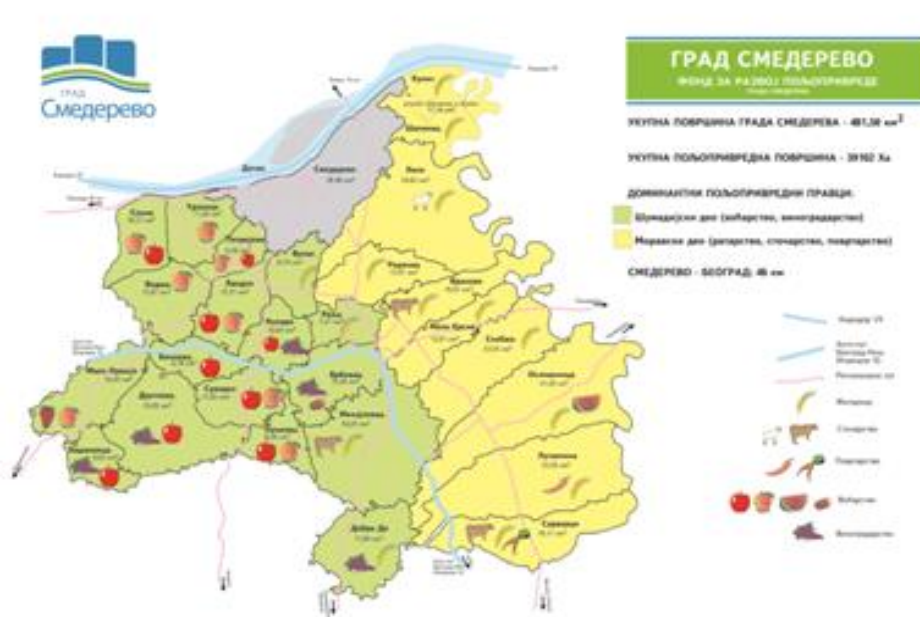


Figure 2. Agricultural routes on the territory of the city of Smederevo

Source: City of Smederevo, Department of Agriculture, internal data, 2015.

Materials and Methods of Study

Given that statistical data on the yield and production of fruit and grape for the JLS level are not available, data from the 2012 Census of Agriculture were used in the analysis of fruit production and viticulture in the city of Smederevo. Data on areas under permanent plantations and estimation of yield and production of fruit and grapes in Smederevo were obtained from field research by relevant subjects in this sector: extension service Smederevo, Kolari; fruit growers' association Zlatno brdo, Udovice; as well as an interview with leading fruit and grape producers and larger wineries.

Fruit production and viticulture

The main advantages of Serbia's agriculture are: highly productive area of arable land, long tradition in production and participation of agricultural population within the overall population, as well as installed production capacities. On the other hand, the main limitations of agricultural production are fragmentation of land parcels and insufficiently used production capacities, resulting in low productivity which affects product competitiveness the most.

Fruit production and viticulture are of special importance for the area of the city of Smederevo. Due to the mild continental climate, Smederevo region (especially Sumadija area, suitable for fruit growing and viticulture) has favourable conditions for the successful growing of almost all kinds of fruits and vines.

According to the 2012 Census of Agriculture (settlement level), the average area under permanent fruit plantation per agricultural household in Smederevo is 1.5 ha. According to the data of extension service Smederevo, larger fruit producers (owning orchards of about 10 ha and more) make up about 30-40% of the total number of fruit producers in Smederevo (these producers possess cold storage units, storage capacities, mechanization, etc.), and two large producers, which apply modern production technology and irrigate significant areas, are located in Suvodol (the producer owns about 60-70 ha of orchards) and Binovac (the area of orchard owned by the agricultural household is about 50 ha). Average fruit producers, among which is the majority of fruit producers in Smederevo, each own an area of about 5 ha under orchards, which classifies them as average producers.

According to the 2012 Census of Agriculture (settlement level), *orchards* (including areas under berry fruit) in Smederevo occupy an area of 4,412.4 ha, which is 16.6% of UAA, and 2,912 agricultural households (or 41% of their total number) declared having orchards (SORS, 2013).

Cultivated plantations dominate, accounting for 96% of the total orchard area², but only a small percentage belongs to the group of the so-called modern and contemporary orchards (orchards with irrigation systems, anti-hail nets, etc.). According to field estimates, only 1-2% of orchards are with anti-hail nets, and according to the 2012 Census of Agriculture (settlement level), only 3.2% of the total orchard area or 142 ha of orchards (including areas under berries) are irrigated.

Taking into account the participation of the orchard areas of Smederevo in the total area of orchards in Serbia and the Podunavlje District (data from the 2012 Census of Agriculture, settlement level), it can be concluded that Smederevo is the leader in fruit production in the Podunavlje District and an important factor in fruit production in Serbia, especially peach production, since almost a quarter of the total area of peach plantations in Serbia are located in the territory of the city of Smederevo (Table 2).

² According to the Statistical Office of the Republic of Serbia (2012 Census of Agriculture, Methodological guidelines), cultivated orchards include those plantations where modern agrotechnical measures are regularly applied and which are raised on larger areas (not less than 30 a) by using plantation systems, i.e. with a certain space between the rows of trees, which allows mechanized processing. Extensive (traditional) orchards are semi-intensive or extensive fruit plantations, which sometimes contain trees of different types of fruit with different planting density. They are only present in Smederevo in weekend settlements.

Peach plantations (1,961 ha) and apple plantations (1,340 ha) dominate in the total structure of fruit plantations and together account for 75% of the total area of orchards in the area of Smederevo. Besides these two fruit species, the following fruit is grown: plum (333 ha), apricot (234 ha), sour cherry (183 ha), pear (87 ha), strawberries (63 ha), blackberries (21 ha), raspberries (1 ha), nuts (26 ha), hazelnuts (10 ha)³.

Observed by the settlements of the city of Smederevo (2012 Census of Agriculture, settlement level), the largest areas of orchards are in the following settlements: Udovice (809 ha), Suvodol (565.2 ha), Vodanj (444.7 ha), Seone (414.1 ha), Drugovac (380.2 ha), Malo Orasje (241.5 ha), Kolari (157.3 ha), etc.

Table 2. Peach and apple plantations in the Republic of Serbia, the Podunavlje District and Smederevo, in 2012, in ha

Element	Apples	Peaches
Republic of Serbia	23.737	8.012
Podunavlje District	1.651	2.173
<i>City of Smederevo</i>	<i>1.340</i>	<i>1.961</i>
Share of plantations in Smederevo in the total orchard area in Serbia (%)	5,6	24,5
Share of plantations in Smederevo in the total orchard area in the Podunavlje District (%)	81,2	90,2

Source: SORS, 2013.

The largest *areas under peaches* are in the settlements of Udovica, Seone, Vodanj, Suvodol, Drugovac (68% of the total number of peach orchards in Smederevo is concentrated in these five villages), and *the largest areas under apples* are in the settlements of Suvodol, Udovica, Drugovac, Vodanj (more than half of the total number of apple orchards in Smederevo are located in these four villages).

According to the field research data, there have been a growing number of sour cherry and apricot orchards in the last few years. These fruit species do not require large investments in production (in support posts, pillars, wires, own production of planting material is possible), they are convenient in conditions of climate change (uneven precipitation), and there is a demand for them in both domestic and foreign markets, as well as a satisfactory price.

Considering the fact that the Statistical Office of the Republic of Serbia does not have data on fruit production and yield per hectare at the JLS level, Table 3 presents *estimated yields and production of the most important fruit species in Smederevo*, based on survey research, i.e. interviews with leading fruit producers and institutions in this sector in Smederevo.

³ Field estimates related to orchard areas differ significantly from the data of the Census of Agriculture 2012.

Table 3. Estimated production of selected fruit species in Smederevo, average 2012-2015¹

Fruit species	Cultivated area (ha)	Average yield (t/ha)	Production (t)
Peach and nectarine ²	3.500	17	59.500
Apple ²	2.500	25	62.500
Plum	670	16,5	11.055
Sour cherry	570	12	6.840
Apricot	500	15	7.500
Pear	350	15	5.250

Source: Author's calculations, IAE, 2016.

¹ Estimates of areas and average yields of selected fruit species were obtained from: extension service "Smederevo", Kolari, fruit growers' association "Zlatno brdo", Udovice and based on interviews with leading fruit producers in Smederevo.

² Average peach yields range from 15-20 t/ha, and apple yields from 22-30 t/ha.

According to the field data, *yields of all fruit species* vary by years depending on: (a) weather conditions, (b) the application of agro-technical measures, (v) assortment, (g) plantation age, (d) planting density, etc. By comparing average yields of peaches and apples produced by Smederevo fruit producers, with leading European producers (Italy, Turkey, Austria, France, Spain), one can conclude that domestic producers do not significantly lag behind in peach yields, but they achieve much lower average apple yields (<http://faostat.fao.org>, date of access 10.02.2016).

Fruit assortment in Smederevo is diverse, it allows for a long harvest period and is to some extent aligned with the demands in the domestic and foreign markets. There is a large number of peach cultivars (mostly cultivars of the Royal group), while nectarines are mostly represented by Kaldezi cultivar. Apples are predominantly of Ajdared cultivar; domestic cultivars and Kecskemet rose cultivar prevail among apricots; while Oblacinska sour cherry (it has a great value in industrial processing) and Sumadinka sour cherry (intended for consumption in fresh condition, it has a high price, but a decline in sales has been noticed recently) are the most grown sour cherry cultivars. Although fruit assortment is adapted to the demand in the Russian Federation market (which is the main export market of Serbian fruit), we should work on compliance of the assortment with the strong consumer demand in the EU market in the coming period. In addition, it is important that the competent services and institutions direct producers toward preservation of autochthonous fruit cultivars, such as Kozara, Kolacara, Budimka (for apples), Lubenicarka, Karamanka (for pears), etc.

The existence of a *large wholesale fruit market* in the village of Udovica has greatly contributed to the development of fruit production. This open-air market is located near the main roads, it is equipped in terms of infrastructure, is open from May to November and represents a kind of a fruit stock exchange in the region of Smederevo. Fresh fruit is traded on the market, and buyers coming from all over Serbia and surrounding countries supply green fruit markets, grocery stores, etc. with fruit from this market. Furthermore, *Fruit and Wine Growers' Association „Zlatno brdo“* is registered in Udovica, and its activity can be an additional stimulus for the development of fruit production in the future.

It is important to note that the development of the *irrigation system* with water supply from the Danube river would significantly increase fruit yields and foreign exchange earnings from fruit exports, so it is important to carry out the initiated capital irrigation projects in this area in the

coming period (Udovicki plateau and irrigation project in the southern part of the City). Irrigation systems will enable the establishment of modern intensive plantations (with the use of irrigation systems and anti-hail nets), improvement of fruit assortment, and consequently improve handling, storage and packaging practices, all in order to achieve high levels of production and productivity, as well as to improve fruit quality.

In the context of fruit quality improvement, the implementation of the *integrated production concept*⁴ will become increasingly important in the future, as an indispensable factor of competitiveness in the placement of fruits, vegetables and grapes in the domestic market, and especially in exports. Generally, the intensification of agricultural production, primarily due to the large use of chemicals (fertilizers and plant protection products), leads to environmental pollution, deterioration of food quality and endangering the health of people and animals, which is why the integrated production concept is becoming increasingly significant. This production concept places emphasis on minimizing the use of chemical agents in plant protection, i.e. it is based on the optimal use of agro-technical measures, at the same time ensuring economic benefits (high yield and high fruit quality) and respecting environmental and health measures and consumers' welfare. Fruit producers have already been largely using this production concept, since a phytosanitary certificate is required for any fruit export to the Russian Federation market (which is dominant). It is issued by extension service "Smederevo" and guarantees that the consignment is free from plant quarantine diseases and pests, and that the use of pesticides was controlled. Namely, what exporters are obliged to deliver to extension service "Smederevo" is, among other things, the Plant Treatment Certificate (for the natural person / entrepreneur / legal person from whom the product was purchased), as well as the Exporter's Statement that the product is health-safe.

However, a large number of agricultural producers in Serbia and Smederevo do not keep the farm records (records of work processes performed for each culture and land parcel)⁵, thus preventing monitoring and control of the use of chemicals that have a negative effect on human health (through greater content of pesticides, nitrates and nitrites in products of plant origin). In order to realize integrated production in practice, it must be adequately organized at the national level. The state is expected to adopt appropriate regulations in the shortest possible time in order to regulate the organization, control, certification and labelling of products obtained through integrated production.

The economic importance of *viticulture* is determined, inter alia, by the fact that vine can be successfully cultivated on terrains, that are not suitable for profitable production of other agricultural crops. This primarily relates to the soils of light mechanical composition, loose, sandy and pebbly soils, sandstones, carbonate soils on marble substrates, then to the cambisols, terra rossa, alluvia and diluvia, soils on the slopes of the mountains and mild slopes up to 240 m above sea level, as well as to the soils within the river valleys and in the vicinity of the lakes, where is plenty of sunlight from the water surface. In the Republic of Serbia, traditional vineyards are found on mentioned terrains with good water outflow, and in majority of cases also on terrains rich in

⁴ Integrated fruit production, www.zdravasrbija.com/lat/Zemlja/Vocarstvo/1850-Integralna-proizvodnja.php, date of access 10.03.2016.

⁵ Farm Records are defined in the Law on the Amendments of the Law on Agricultural Land (Official Gazette of the Republic of Serbia, 112/15) as a document on planning and monitoring of everyday activities in plant production and achieved yields during the year, especially in crop, vegetable and fruit production. At the same time, this Law defines the obligation for tenants of agricultural land in state ownership to establish and maintain farm records for plant production.

minerals, that contribute to better taste of wines (phosphorus, iron, potassium, magnesium and calcium), (Popović et al., 2011).

The most prevalent types of soil (vertisols and cambisols) are of such physic-chemical properties that they are very suitable for growing vine. Viticulture production is located in the Smederevo vineyard of the Belgrade wine region that is a part of Central Serbia viticulture region. The Smederevo vineyard covers the hilly terrain of the Smederevo's part of Danube region and its hinterland. It consists of three parts, separated by the valleys of the rivers Ralja and Konjska Reka (Official Gazette of RS, 45/15). Besides the land, to successful viticulture production of this region also serve relief, favorable microclimate and the vicinity of Danube.

In regard to viticultural production, the city of Smederevo, on one hand, has a long tradition, while on the other very favorable natural conditions. Wine history of Smederevo begins with the period of the reign of the Roman emperor Proba, who ruled this region in the 3rd century. In the 15th century the vineyards in Smederevo and the area around Smederevo were spread by despot Stefan Lazarević and Đurađ Branković. Few centuries later, Miloš Obrenović were also contributing to viticulture, who alongside the family summer house, in Zlatni breg (settlement Plavinac), planted 36 hectares of vineyards. On that site quality grapes and wine are still produced (Jakšić et al., 2015). By all means, the development of viticulture and the creation of grape varieties at individual producers in the second half of the previous century were largely contributed by the former social enterprise Godomin (currently in bankruptcy – in period of capital transition). It owned large areas under a vine, as well as large capacity wine-cellar. It was also repurchased the grapes from the sector of individual agricultural producers from this area.

Statistical data on viticulture production of mentioned region are shown in Table 4, taken from the Agricultural Census of Serbia 2012 (settlement level). Vineyards occupy 1.4% of the available UAA of the Smederevo city, where plantation vineyards and wine grape varieties dominated. Observed by settlements, the largest vineyards are in Drugovec (57.9 ha), as well as in Vrbovac, Badljevaica, Udovica, Suvodol, Malo Orašje and Seone (areas ranging from 25.4 ha to 33.4 ha).

Table 4. Areas under the vine in the Smederevo city (in ha, in 2012.)

Number of farms	Number of farms with vineyards	Total area under vineyards, ha	Plantation vineyards, ha ¹		
			Vine varieties with geographical origin ²	Other vine varieties	Table varieties
7,107	1,313	381	27	204	150

Source: SORS, 2013.

¹ Under plantation vineyards are considered those ones that regularly apply modern agro-technical measures that are raised on larger areas by implementation plantation systems, i.e. with certain spacing between the rows, which allows mechanical land cultivation.

² Grapevine varieties for production of wine with geographical origin are protected and registered.

According to estimation of the extension service Smederevo – Kolari (2016), at the area of Smederevo city, there are approximately 450 ha of vineyards. With average yields of 8 t/ha, within the period 2012-2015., average annual grape production were around 3,600 t.

Currently, the viticulture in Smederevo is characterized by fragmented family production of grapes and wine (average vineyard size per farm growing wine is around 0.3 ha), small number

of modern and market-oriented wineries, unorganized realization of table grape varieties, wine production for natural consumption (at household), etc.

Concerning the variety assortment, according to data of local extension service, at this moment there is no dominant grape variety. Previously, variety Smederevka (local autochthonous variety) occupied large areas, but due to problems with grape realization, these areas have been decreased in recent years. It is currently presented on around 40% of the total area under the vineyards in Smederevo city. It is more used at farms which are not involved in wine production, while at farms with its own wineries, it is presented considerably lower. Smederevka is the variety which could be used both for fresh consumption as a table variety, and for production of quality wine. Wines obtained from Smederevka have a pleasant, refreshing taste and have even better taste when they are mixed with other quality white wines, such as Riesling, Semión, White Burgundy, increasing on that way the total acidity and improving the organoleptic characteristics of obtained wine.

For production of quality white wines are used varieties: Italian Riesling, Sauvignon, Semión and Traminac. Among quality red varieties, dominates variety wine Game, as well as wine type Ružica made from Prokupac variety. Generally, grape varieties are so diverse, covering the wide period of grape harvesting (3-4 months). Farms which have no wine production, are more oriented to table varieties (which can be used both for fresh consumption and for wine processing, especially the Muscat de Hambourg and Cardinal varieties), while on modern farms with wineries, that incorporated and spread new knowledge within the mentioned field, a number of new high-quality wine varieties are presented⁶.

Public and local support of fruit and vine production

Mentioned included official state support of the Government of the Republic of Serbia (Ministry of Agriculture), as well as local support at the level of Smederevo city (local authorities).

State support to fruit and vine production is reflected throughout the incentives for establishment of new plantations. These incentives include support to programs related to:

1. Support for establishment of new plantations oriented to modern technology of fruits/vine/hops growing, (with)out physical support (pole);
2. Land arrangement for plantations establishment.

Right to use the public support for plantation establishment has:

1. Physical person – owner of the registered commercial family agricultural holding;
2. Entrepreneur;
3. Legal entity: enterprise, agricultural cooperative, scientific-research institution, school, monastery, church and foundation.

Right to use the incentives could be realized for one or more established plantations, where the surface of each plantation should be at least:

1. 0,1 ha – for each species of berry fruits, vine or hops, or 0,05 ha for forest strawberry;
2. 0,3 ha – for each species of pomes, drupes and nuts.

⁶ The most presented varieties for white wines are international varieties such as: Italian Riesling, Rhine Riesling, Chardonnay, Sauvignon Blanc, while regarding the varieties for colored wines dominate the international varieties such as: Cabernet Sauvignon, Prokupac, Merlot, Pinot Noir, etc. (Jakšić et al., 2015).

As a precondition it is marked that plantation could be located at one or more cadastral plots, but cadastral parcels must be located next to each other and to form one unit. The largest area that could achieve incentives (for all previously mentioned plantations) is 10 ha, except for the strawberry plantations, 5 ha.

User of incentives realize the right to public support in appropriate percentage of total value of made investment, considering the place of investment, or the area where plantation has been recently established, in accordance to appropriate legislation (law and regulations that regulate distribution of incentives in agriculture and rural development).

Maximal value of incentives used in establishment of plantation, depends of focused element of investment:

1. For seedlings of fruits, vine, or hops – 2 million RSD;
2. For poles, 700,000 RSD;
3. For land arranging, or purchase of certified substrata for blueberries plantations (seedlings are in containers/bags) – 200,000 RSD;
4. For chemical analysis of soil, as well as for examination of mechanical composition of soil - 100.000 RSD.

If plantations are based on domestic (autochthonous) fruit and vine varieties, incentives are increased for 100,000 RSD per established hectare.

If incentives are related to vine plantations established at hilly terrains higher than 200 m a.s.l., or southern exposition, or on slopes that incline more than 10 degrees, or on terraces, it will be increased for 100,000 RSD per established hectare.

If incentives are related to new fruit plantations based on knip seedlings, it will be increased for 100,000 RSD per established hectare (MPRS, 2017).

Local support (Administration of Smederevo city) to *fruit-vine production* could be seen throughout the annual programs for implementation of agricultural and rural development policies. It is directed to producers engaged in fruit-vine growing and covers the following activities⁷:

- Installation of anti-hail stations with adequate number of missiles, in cooperation with the Ministry of Interior (sector for emergency situations). This kind of services have a special importance for large number of fruit/vine growers whose plantations are not secured with anti-hail nets);
- *Insurance of crops, fruits, perennial plantations, nursery gardens and animals* (support cover 40% of the insurance premium). Despite this support, which aims to reduce the risk in agricultural production, there are no significant breakthroughs in the field of insurance in agriculture, given the unfavorable conditions made by insurers;
- *Purchase of mechanization and equipment* for sowing, planting, plant protection and irrigation in fruit/vine and vegetable production at the open field (the amount of subsidies per registered agricultural holdings is 40% of the total realized investment);
- *Supporting the organization of agro-touristic events important for the development of fruit-vine production*, such as "the days of peach" (at the territory of local community Vodanj); "the days of strawberry" (at the territory of local community Malo Orašje); manifestation "the village yards" (within the manifestation autumn in Smederevo), that takes place at Fortress of Smederevo (agricultural products and ethno food, primarily products from fruit-vine production are presented by 20 rural local communities of the Smederevo city. Also, in wine area number of local wineries presents its own products – wine and fruit spirits);

⁷ Realization of annual programs for implementation of agricultural and rural development policies at the territory of Smederevo city for 2014, 2015 and 2016 (Official Gazette of Smederevo city, 2/16).

– Measure „*Credit support*“ (co financing part of interest of agricultural credits). Considering the incentives use, the producers has to respect the basic principle that double financing is not allowed or use of local incentives exclude the use of state support.

Conclusion

As one of the most profitable sectors of Serbian agriculture, fruit growing has dominant position, both by production value and share within the foreign trade, despite the certain difficulties in some production years (presence of drought, freezing, diseases and pests), or sometimes inadequate assortment, agro-technique, etc.

Orchards occupy the area of almost 4,500 ha in Smederevo, or around 16.6% of UAA, involving more than 2,900 farms (or more than 40% of total number of holdings) in fruit growing. Within the fruits structure peach (almost 2,000 ha) and apple (almost 1,500 ha) are dominated (around 75% of the total area under orchards).

On the other hand, the total area under vineyards is almost 400 ha. They occupy around 1.5% of UAA, where dominate plantation vineyards and wine grape varieties.

In last several years, significant improvements have been made in improving of fruit growing (mostly related to production of quality planting material), viticulture and wine production (raising the wines quality, as well as the production of wines with geographical origin). Besides state support, unites of local government are giving great efforts to encourage the establishment of new plantations and improve fruit and vine production (example of Smederevo could be a good example to other local communities oriented to intensification of mentioned sectors of agriculture).

The state should continue with well-designed incentives, in particular for raising plantations, cloning and certification, as for implementation of modern technology and systems of production. Producers themselves also need to change their habits. They must associate (primarily around geographical indications) and improve their knowledge and used technology (in line with national scientific capacities).

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