

# AGRICULTURAL PRODUCTION IN THE REPUBLIC OF SERBIA WITH EMPHASIS ON THE SITUATION IN NISAVA DISTRICT<sup>1</sup>

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## **Abstract**

*The main characteristics of the Serbian economy is relatively large percentage share of agriculture in the national economy compared to other countries in Eastern and Southern Europe, the slow implementation of the necessary land reforms and delay implementation of the law on restitution. These are just some of the elements that a lot of influence on agricultural production in Serbia. The country is through the agricultural policy in recent years wanted to have an impact on changes in the volume of production. The authors believe that agricultural production must be organized in a modern way, which means that such production requires labor productivity, which is at the industry level. This attitude is quite acceptable if one bears in mind that modern agriculture has to have intensive capital ie. She must have big capital. He just looks at the efficiency of agriculture over the achieved level of productivity, which is viewed through the ratio of the number of employees and the volume of arable land. What is reality is that productivity is low in both sectors. Low productivity of individual farms can be explained by the fact that it is burdened with a series of aggravating circumstances. Some of them are to be placed on the limited possession and work on it all household*

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*members. At the end, the authors have made a study on the state of agricultural production in Nisava district. The aim of the research is to analyze the results of the state in agricultural production.*

**Keywords:** *agricultural production, marketing of agricultural products.*

## **Introduction**

Serbia has favorable natural conditions for the development of various agricultural productions. As it is known, is located in a favorable area of north latitude, which is characterized by four seasons and four climate areas. It is therefore enabled the development of a variety of plant and animal production: cereals, industrial crops, fruits and vegetables, seeds and seedlings, herbs, and livestock. In addition to climate, land is the most important natural condition for the development and deployment of Agriculture. Soil fertility is subject to change and is under the direct influence of climatic, hydrological and biological changes and human activities.

Based on the data of the Government of the Republic of Serbia, our country has about 5,734,000 ha of agricultural land (0.56 ha per capita), of which 4,867,000 ha, and the surface area is arable land (0.46 ha per capita). In fact, about 70% of Serbia's territory is agricultural land, while 30% is woodland.<sup>4</sup> According to the current state of arable land are mostly (90%) are privately owned - farmers, while the remaining 10% owned by the state and enterprises. Much of the arable land is acidic as a result of the uncontrolled use of chemicals, and in Vojvodina and the diaphragm, which succinctly reduces the production possibilities of agriculture and at the same time increasing production costs. On this basis, it is necessary to take cultural practices in order to improve soil structure, but also requires a greater use of organic fertilizers. If we observe the geographical northern part of Serbia, Vojvodina, major part of his flat, while the hilly and mountainous areas are in the central and southern part of Serbia. Lowland regions are located in the Pannonian Plain in its border areas, or in Mačva, Posavina, Pomoravlje, Stig and the Negotin Krajina. Each of these regions is suitable for a particular type of agricultural production. Thus the lowland region as it is already known suitable for mechanized crop and vegetable production, mountainous and

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<sup>4</sup> <http://www.arhiva.srbija.gov.rs/cms/view.php?id=1024>

hilly for fruit, wine-growing and cattle breeding, a highland for developing sheep and cattle and forestry.

### Agricultural production and productivity

Agricultural production in Serbia in the period from 2004 to 2011 was uneven. The smallest volume of agricultural production recorded in 2007. Renewed growth of agricultural production recorded in 2008 and since 2009 the decline again, which continues in 2010 and 2011. (Table 1). This cyclical decline in the growth of agricultural production cannot justify transition.

**Table 1.** *Scope and structure of agricultural production, 1991-2011.*

	2004	2005	2006	2007	2008	2009	2010	2011
Index (previous year: =100)								
Agricultural production	119.5	95.0	99.7	92.0	108.5	101.0	101.1	100.9
Crop production	143.9	94.1	97.4	82.2	123.3	103.6	101.1	98.2
- farming	156.3	98.4	92.9	76.9	129.8	102.4	105.8	95.4
- fruit growing	102.8	75.5	126.8	110.7	98.4	108.3	81.1	119.3
- viticulture	94.3	56.7	140.4	98.3	105.6	115.6	76.5	98.4
Animal husbandry	99.6	102.3	97.4	100.4	97.1	96.5	101.1	100.2
Structure (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.1
- crop production	59.1	47.9	50.0	45.0	55.9	51.8	50.0	49.4
- animal husbandry	40.9	52.1	50.0	55.0	44.1	48.2	50.0	50.6

**Source:** *Statistical Yearbook of Serbia, 2005, 2010, 2012.*

Approximately 63.7% of the territory of the Republic of Serbia is under agricultural land, which is in representation, solvency and how to use a very heterogeneous in space. Possessing with 0.64 ha of agricultural land per capita and relatively favorable soil and climate conditions, Serbia has large reserves for increasing the competitiveness of agricultural production without endangering the environment. Over 80% of total agricultural land used by family farms, while the remaining companies and cooperatives, with the still unresolved by the end of property rights, so that they do not know reliably area owned by the state, not the rights of former owners or their heirs, nor the terms and land protection. Analysis of the situation of agricultural land irrefutably indicates that restrictions on the sustainable use of agricultural land in Serbia are not agro ecological, but primarily the market, infrastructure, socio-economic and

institutional nature.<sup>5</sup> The total area of agricultural land used for crop production during the last ten years, the observed decreased by about 1%. Thus a minimum reduction of farmland has shown us that in the period of transition in Serbia reduced the minimum area of utilized agricultural land. The greatest reduction of surface recorded in the period after 2004. The downward trend began to be stopped since 2009. In recent years (2005-2011) the surface of utilized agricultural land is around the level of 5.05 to 5.08 million hectares (Table 2). From this area of cultivated land occupied 3,300,000 hectares, meadows around 620 thousand hectares. Throughout the reporting period continued slight downward trend surfaces perennial plants, which occupy about 300 hectares.

**Table 2.** *Used agricultural area (UAA) and the production of some important plant products, 2000-2011.*

	2004	2005	2006	2007	2008	2009	2010	2011
Land area KII3 (000)	5,113	5,074	5,066	5,053	5,055	5,058	5,051	5,056
Arable land	3,344	3,330	3,318	3,299	3,302	3,301	3,295	3,294
- cereals	2,020	1,972	1,888	1,943	1,937	1,956	1,894	1,911
- potato	89	85	84	81	81	78	77	78
- sugar beet	61	64	72	79	48	61	67	56
- Oilseeds	307	330	344	302	332	302	342	339
- vegetables	292	285	284	282	281	276	273	272
- roughage	464	461	458	457	466	455	460	455
Growing crops	310	303	300	299	300	298	297	296
- orchards	244	239	238	240	242	240	240	240
- vineyards	66	64	62	59	58	58	57	56
Meadows	598	609	610	620	621	625	624	621
Production in (000 tons)								
- wheat	2,758	2,007	1,875	1,864	2,095	2,067	1,631	2,076
- corn	6,569	7,085	6,016	3,905	6,158	6,396	7,207	6,480
- sunflower	438	351	385	295	454	377	378	432
- sugar beet	2,814	3,101	3,189	3,206	2,300	2,798	3,325	2,822
- potato	890	970	930	743	844	898	808	892
- plum	425	304	556	681	607	663	427	582
- apples	184	198	240	245	236	232	240	266
- grapes	425	241	359	353	373	431	330	325

**Source:** *Statistical Yearbook of Serbia, 2005, 2010, 2012.*

Changes in the volume of crop production cannot be explained on the basis of weather conditions. The past few years in the reporting period were extremely dry. In the period from 2004 to 2005 were major rainfall that are favorably influenced to some crop plants, but the others did not.

<sup>5</sup> Strategija prostornog razvoja Republike Srbije 2009-2013-2020, Ministarstvo životne sredine i prostornog planiranja, Republička agencija za prostorno planiranje, Beograd, 2009, p. 82.

Overwhelming was the drought during 2006, 2007 and 2008 to between 2009 and 2011, temperatures were normal for our climate.<sup>6</sup> Despite these circumstances, generally speaking, there was a growth in the production of almost all crops. The exceptions to this rule are the orchards and vineyards. The reason for the decrease in the production of these crops is mainly due to the decreasing use of extensive peasant orchards.

Of all the arable land in the country, which amount approximately one billion hectares of wheat occupies about 23%. In Serbia, the wheat grown on an average area of about 2,000,000 hectares and achieved an average yield of 3 to 3, 5 tons per hectare.<sup>7</sup> The reduction of sowing areas in the reporting period can be explained on the basis of the first two possibilities that there has been a decrease in production due to lack of interest of the producers and the second to the smaller sowing areas getting more and more products, and that our agriculture provides more raw materials for industry, that in the structure of diet increases consumption of vegetables and livestock that are rapidly evolving. Serbia is a country where there are important natural resources for the development of this branch of agricultural production. An aggravating factor in the development of animal husbandry is low valorization of natural resources.

**Table 3.** *Number of livestock and production of major livestock products, 1991-2009.*

	2004	2005	2006	2007	2008	2009	2010	2011
Number of cattle (000)								
Cattle	1,102	1,079	1,106	1,087	1,057	1,002	938	937
-Cow	742	721	684	648	624	585	544	546
Pigs	3,439	3,165	3,999	3,832	3,594	3,631	3,489	3,287
Sheep	1,586	1,576	1,556	1,606	1,605	1,504	1,475	1,460
Poultry	16,280	16,631	16,595	16,422	17,188	22,821	20,156	19,103
Production of meat and milk								
Cattle (000 t)	93	90	83	95	99	100	96	81
Pigs (000 t)	242	253	255	289	266	252	269	271
Sheep (000 t)	20	21	20	20	23	24	23	24
Poultry (000 t)	65	67	75	70	76	80	84	103
Milk (million liters)	1,593	1,616	1,602	1,562	1,548	1,489	1,472	1,445
Eggs (million units)	1,536	1,476	1,456	1,364	1,204	1,026	1,219	1,219

**Source:** *Statistical Yearbook of Serbia, 2005, 2010, 2012.*

<sup>6</sup> <http://www.hidmet.gov.rs>

<sup>7</sup> Munčan P., Živković D (2006): *Menadžment ratarske proizvodnje*, Poljoprivredni fakultet Zemun – Beograd, p. 109.

The largest increase in livestock production in the period 2000-2011, had a poultry production and for the 12%. In the period to 2004, this production was decreasing on average by 5%, as of 2005 began to grow again, a slight reduction was recorded in 2006 and 2007, and that in 2008 and 2009 again achieved an increase. The reduction was achieved by 2009 compared to 2008 and it was around 33%. Pig production in the period from 2000 to 2011 the year decreased by about 11%. The greatest reduction in the production of still happened in cattle and dairy industry for about 28.4% of the cattle in the production of approximately 19%. Throughout this reporting period produced an average of 1,550,000 sheep. In the transition period decreased milk production by an average of about 6%. After 2005, milk production is increasing year by year. The volume of production of beef, pork and mutton has not significantly changed throughout the period.

Based on these data we can conclude that animal production in the reporting period from 1991 to 2011 has recorded a slight decline that is present from year to year. This is a kind of crisis of agricultural production which is characterized by a reduction of livestock production in all its forms. The basic aim of raising cattle is to obtain the major products (milk, meat, leather), followed by secondary (manure, axis).<sup>8</sup> Despite the number of cattle in the last few years there has been a tendency to fall. Quantity of pigs from year to year changes, although in recent years this number stabilized and recorded an increasing trend. Sheep production shows oscillations in the period from 2009 to 2011. The increase in production was recorded in poultry.

We wish to point out that the state wants to pay special attention to the development of livestock production. The best example of our argument represents the Spatial Plan of the Republic of Serbia, where the question is raised livestock production ambitious. The plan envisages an increase in livestock throughout Serbia, particularly in Vojvodina, with a view to fuller utilization of agricultural land. Ten municipalities in Serbia is covered by programs revival of livestock farms.<sup>9</sup> This seeks to encourage the production especially in swine, sheep and goat breeding. In practice, most households lack hygienic conditions for cattle. The number and composition of livestock is far below the potential of the feed base. According to the latest draft of the spatial plan of the Republic of Serbia

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<sup>8</sup> Ostojić, M. (2006): *Zlatarski sir*, Institut za ekonomiku poljoprivrede, Beograd, p. 115.

<sup>9</sup> Đekić, S. (2010): *Agrarni menadžment*, Ekonomski fakultet, Niš, p. 86.

provided for the development of pasture cattle-breeding and re-introduction of indigenous breeds of livestock rearing.<sup>10</sup> Some of the goals of the new law on animal husbandry are the conservation of genetic variation and biological diversity in livestock breeding, production of sufficient quantities of high-quality livestock products, the implementation of organic production in livestock, breeding of domestic animals with regard to environmental standards and so on.<sup>11</sup> Finally we point out that the intensification of livestock production and increasing the participation of industry in the structure of the agricultural production can provide encouraging shift racial composition of cattle and increasing the production of meat and milk per unit of capacity.

Be sure that the changes in the volume of agricultural production affected by the agrarian policy and that in several ways. Some of these ways are providing more favorable market conditions (price policy) and giving budgetary support to producers. It is best to influence agricultural policy can be seen in the case of apple production. The areas below the apples were all over this period increased, and this is the period in which the state subsidized the means to improve the production and stem fruit plantations.

**Table 4.** *Average yields of major agricultural products, 2000-2011.*

	2004	2005	2006	2007	2008	2009	2010	2011
Yields per hectare, tone (per tree, vine, kg)								
wheat	4.3	3.6	3.5	3.3	4.3	3.6	3.4	4.2
corn	5.5	5.8	5.1	3.2	4.8	5.3	5.9	5.1
sunflower	2.3	1.8	2.1	1.9	2.4	2.4	2.2	2.5
sugar beet	46.6	48.2	44.6	40.6	47.8	45.6	50.0	50.7
potato	11.0	11.4	11.0	9.3	10.4	11.5	11.6	11.4
plum	13.2	7.1	13.3	16.2	14.5	15.9	10.4	14.3
apples	12.3	13.4	16.4	16.3	15.5	18.1	15.1	16.6
grapes	1.2	0.7	1.1	1.1	1.2	1.5	1.1	1.2
Milk production per cow milkers	2,427	2,568	2,645	2,663	2,731	2,852	2,794	2,865

**Source:** *Statistical Yearbook of Serbia, 2010, 2012.*

On the other hand, an example of the poor functioning of agricultural policy is the lack of support for a production that gives good results. This is a production of sugar. Annual sugar production in Serbia is between

<sup>10</sup> Prostorni plan Republike Srbije 2010-2014-2021 (nacrt), Ministarstvo životne sredine i prostornog planiranja, Republička agencija za prostorno planiranje, Beograd, februar, 2010, pp. 68-78.

<sup>11</sup> Službeni Glasnik RS, br 41/09, p. 178.

450,000 to 500,000 tons, and export quota to the EU from Serbia is 180,000 tons. In all the reports on the export of goods from Serbia sugar occupies one of the first cities, with about 180 million Euros of profit, which significantly improves the balance of payments of Serbia. Country Serbia does not give special subsidies to beet producers or the incentives to export sugar. Despite all that sugar beet production is stable and yields per hectare are good and amounted on average in the reporting period 2000-2011 year, slightly more than 40 tons (Table 4). In cattle agricultural policy could not prevent the decline in production. There was a decrease in the number of cattle and the number of cows. Number of dairy cows began to fall with an increase in milk production per dairy cow (specialization in terms of race and breed). Throughout this period of transition the country is carried subsidize livestock production. In the end we can say that in spite of all modern management concept in the transition period affected the changes in the volume of production. Modern organization of agricultural production requires labor productivity, which is at the industry level. This attitude is quite acceptable if one bears in mind that modern agriculture has to have intensive capital or she must have big capital. The efficiency of agriculture is seen through the achieved level of productivity observed through the ratio of the number of employees and the volume of arable land. The fact is that productivity is low in both sectors. Low productivity of individual farms can be explained by the fact that it is burdened with a series of aggravating circumstances. Some of them are to be placed on the limited possession and work on it all household members.<sup>12</sup>

In Serbia, there are significant differences between the productivity of labor on farms and farmers in agricultural enterprises, and the differences are primarily related to an increase in labor productivity on farms farmers.<sup>13</sup> Increased labor productivity in agriculture means that more food per capita. In developed countries there is a tendency to produce higher productivity occupying a significant part of production capacity. Labor productivity is expressed in the total income or income per employee, expenditure of human and machine work required to produce 100 kilograms of certain agricultural products, the amount of the realized yield of agricultural produce per hour of labor expended so.<sup>14</sup> For the purpose

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<sup>12</sup> Zakić, Z. (2001): *Agrarna ekonomija*, CID, Ekonomski fakultet Beograd, pp. 179-180.

<sup>13</sup> Đekić, S. (2005): *Ekonomika poljoprivrede*, Sven, Niš, p. 214.

<sup>14</sup> Simonović, D., Đekić, S. (2000): *Ekonomika poljoprivrede*, Ekonomski fakultet, Niš, pp. 270-273.



of evaluating the economic efficiency of labor expended in the agriculture of the Republic of Serbia, can be used several criteria which reflect labor productivity. Taking into account the global labor productivity and available statistical data, for the purposes of further research we have chosen to follow the criteria that the ratio between the index of total agricultural production and the index of employment in agriculture. The aforementioned criteria show the total agricultural production, globally, achieved with the number of employees in agriculture. Tends to reduce agricultural production in the period from 1989 to 2000 is determined by the unfavorable economic conditions and a decline in relative prices in agriculture and reduction of investments in the manufacturing process, mainly bio-chemical inputs. All this is a logical consequence of the earlier economic in qualitative terms, the extensive development process, but also decrease the efficiency of production factors and the absence of a positive impact of organizational technical improvements and structural changes.<sup>15</sup>

**Table 5.** *Labor productivity in agriculture Serbian-expressed through the total agricultural production and the index of employed in agriculture (%)*

Specification	Years							
	2004	2005	2006	2007	2008	2009	2010	2011
The index of total agricultural production	124.4	98.7	88.1	112.4	101.8	91.9	101.1	100.9
Index of employment in agriculture chain	94.3	91.3	90.6	92.3	97.8	92.2	-	-
Employees in social sector	59,694	54,523	48,380	45,578	40,007	36,872	34,269	30,802
The index of total agricultural production /Index employed in agriculture	131.9	108.1	97.2	121.8	116.0	99.7	-	-

**Source:** *Statistical Yearbook of Serbia for the corresponding year, Editions Republic Institute for Statistics, Belgrade; Employment statistics, RZS Serbia, Belgrade 2004th*

<sup>15</sup> Gajić, M., Lovre, K., Zekić, S. (2002): „Razvojne karakteristike poljoprivrede Srbija“, *Institucionalne reforme i tranzicija agroprivrede u Republici Srbiji*, Ekonomski fakultet Beograd, p. 179.

As the base was taken in 2004 years, and the time period covered by the analysis (2004 to 2011), it can be concluded relatively favorable trend in the movement of the total agricultural production as a direct consequence of the changes in the socio - economic system of the country. The ratio of total agricultural production index and the index of employment in agriculture was observed in all years over the unit value, the highest level in 2004, 132.9%. This certainly points us to the conclusion that the growth of agricultural production, the result of positive developments in labor productivity.<sup>16</sup> In order to more fully express what aggregate productivity, science has determined a new concept of calculating productivity by using, among other superlative index Laspeyres's index of quantity, because of its simplicity and Tornqvist's index, which is more comprehensive because it incorporates changes in price base and current period, thus enabling the expression of marginal productivity in the period.<sup>17</sup>

We note that the main characteristic of the Serbian economy relatively large share of the share of agriculture in the national economy compared to other countries in Eastern and Southern Europe, the slow implementation of the necessary land reforms and delay implementation of the law on restitution. These are just some of the elements that a lot of influence on agricultural production in Serbia. The country is through the agricultural policy in recent years wanted to have an impact on changes in the volume of production. It can be seen that there is a desire to be in our agricultural production is organized in a modern way, which means that such production requires labor productivity, which is at the industry level. This attitude is quite acceptable if one bears in mind that modern agriculture has to have intensive capital ie. she must have big capital.<sup>18</sup>

### **Agricultural production in Nisava district**

The aim of the research was to examine the agricultural production. For this survey prepared a special questionnaire. Nisava district power it has

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<sup>16</sup>Cvijanović, D. V., & Subić, J. (2005): "Ocena produktivnosti rada u poljoprivredi Srbije", *Ekonomika*, 51(3), pp. 38-39.

<sup>17</sup> Drobac, M. M. (2008): "Značaj faktora proizvodnje u merenju produktivnosti u poljoprivredi - teorijski aspekt", *Ekonomika poljoprivrede*, 55(1), pp. 39-40.

<sup>18</sup> Simonović, Z., Mihailović, B., & Subić, J. (2016). Measure of Agricultural Policy in the Republic of Serbia With Emphasis on the Situation in Nisava District. *Facta universitatis - series: Economics and Organization*, 13(2), pp. 205-215.

under the state from 2012, 31.709 farms. If you take a sample of 0.5% then to 159 households to be interviewed (see table).

**Table 6.** *Number of holdings according to the state authorities Nis 2012<sup>th</sup>.*

Municipality	Agricultural holdings	The required number of polling 0.5%
Aleksinac	7,116	36
Gadžin Han	2,159	11
Doljevac	3,733	19
Meršina	3,074	15
Niš	10,244	51
Ražanj	2,332	12
Svrljig	3,051	15
In total	31,709	159

**Source:** *Department of Statistics and calculation authors.*

The most common are farmers in the city of Nis and Aleksinac municipality, five other municipalities follow them in a smaller, or about the same percentage.

**Table 7.** *Municipality's carrier according to the structure of agricultural holdings in%*

Municipality	participation in %
Niš	32.08
Alekainac	22.64
Svrljig	9.43
Merošina	9.43
Ražanj	7.55
Gadžin Han	6.92
Doljevac	11.95

**Source:** *Author's calculations based survey*

Education of the farms in this parts of Serbia is mostly medium (60%) while the Main-digit number (28%). Just over 10% of the holders of farms come with college and university education.

**Table 8.** *Education of agricultural holdings according to the structure in%*

answers of respondents	participation in %
yes	40.88
no	57.23
no answer	1.89
in total n=159	100.0

**Source:** *Author's calculations based survey*

Over 78% of households in the Nis area is registered in the single register of agricultural holdings.

**Table 9.** *Registered farms in percentages*

answers of respondents	participation in %
yes	78.62
no	21.38
in total n=159	100.0

**Source:** *Author's calculations based survey*

More than the obvious difference in the average size of arable land between registered (5.2 ha) and unregistered (2.5 ha) of agricultural holdings. The difference is observed with the lease of land so we have to almost three times more work the land registered farmers. Registered households on average pay pension contributions (36%) than non-registered (6%), i.e. exactly five times more. Registered farms are mainly engaged in animal husbandry, farming and fruit growing, while the unregistered to a large extent dominated by vegetable crops.

**Table 10.** *Holders of households who independently pay contributions for pension and health insurance*

answers of respondents	participation in %
yes	29,75
no	70,25
in total n=159	100,0

**Source:** *Author's calculations based survey*

Nearly one-third of respondents in this part of Serbia alone pay contributions for pension and health insurance.

**Table 11.** *Types of holdings on the basis of the very sources of income*

type farms	participation in %
Agricultural holding	46.54
A mixed farm	50.31
Non-agricultural farm	1.89
no answer	1.26

**Source:** *Author's calculations based survey*

Arable land on average is between 4.6 and 6.1 hectare. There are few major deviations from the average arable leased area because there are farms that lease the entire 50 hectares of arable land. Generally adding all surfaces, we conclude that the non-rented (720 ha) two times greater than the leased area (325 ha).

**Table 12. Primary production in the Nis district**

	number of holdings	%
Field Crop Production	35	22.0
animal husbandry	41	25.8
Vegetable Crops	35	22.0
viticulture	6	3.8
beekeeping	5	3.1
fruit growing	31	19.5
no answer	6	3.8
in total	159	100.0

**Source:** *Author's calculations based survey*

The table clearly shows the presence and orientation of agricultural holdings towards a particular type of production. Livestock and farming are the main commitment, and nothing less Vegetable and fruit growing, while viticulture and beekeeping at the level of statistical error, ie. do not exceed 5 percent.

**Table 13. Secondary production in the Nis district**

	number of holdings	%
Field Crop Production	26	16.0
animal husbandry	22	13.8
Vegetable Crops	14	8.8
viticulture	4	2.5
beekeeping	2	1.3
fruit growing	10	6.3
no answer	81	50.9
in total	159	100.0

**Source:** *Author's calculations based survey*

There are farms in this part of Serbia whose basic production are organized and auxiliary (78 seed farms and performs other tasks on the farm). So we have the question of agricultural orientation surveyed gave opportunities to enroll all activities that farm deals with the next base. Farms are oriented mainly on crop and livestock production.

**Table 14. Methods of selling products in Nis district as a first option**

	number of holdings	%
Through cooperative	17	10.7
Personally at the market	97	61.0
Enterprises	17	10.7
Through the customer	14	8.8
Direct manufacturing	9	5.7
no answer	5	3.1
in total	159	100.0

**Source:** *Author's calculations based survey*

The first option of choice in the realization of the production is sold to the person, to the market in 61% of cases, followed by co-operatives and enterprises with 10%, and a slightly smaller number of dealers is over.

**Table 15.** *Other selling methods as the second option that defines respondents in Nis district*

Type sales	number of holdings	%
Personally at the market	2	1.3
Enterprises	6	3.8
Through the customer	14	8.8
Direct manufacturing	15	9.4
no answer	122	76.7
in total	159	100.0

**Source:** *Author's calculations based survey*

Holders of households who reported another option selling has 37. These are mainly ways to sell directly to processors over of dealers.

**Table 16.** *The biggest constraints to agricultural production in the Nis district*

	number of holdings	%
Placement	102	64.2
Financial resources	16	10.1
Belonging to an association or cooperative	6	3.8
Low support from the agricultural budget	35	22.0
in total	159	100.0

**Source:** *Author's calculations based survey*

The largest number of carrier's surveyed households stated that marketing of agricultural products is a major constraint, is also not a small number of those who are committed to the biggest limitation are the lack of support from the agricultural budget of the country.<sup>19</sup>

## Conclusion

Agriculture Serbia thanks to his own capacities can satisfy the domestic food market in agricultural products, because all the products except

<sup>19</sup> Simonović, Z., Mihailović, B., & Milovanović, Z. (2016). Cooperatives and Farmers Association as a Model of Entrepreneurship in Serbian Agriculture Regarding the case of Nisava District. *Ekonomika poljoprivrede*, 63(2), p. 709.

citrus fruit. On the other hand, the market supply of food and agricultural products in Serbia is not regulated by the standards prevailing in the EU countries. Lack of appropriate legislation by the standards of the European Union creates opportunities to come to the creation of specific problems. A specific problem in agricultural production is the existence of several processors, and buyers of agricultural products that have significant market share and market power. These processors or buyers of agricultural products dominate in most markets of primary agricultural products: the market of wheat, sunflower, soybean, sugar beet, milk and tobacco. The business environment in this area is characterized by: a small domestic market, the difficulties in the placement, especially exports, high technological requirements of agricultural production, the standards in the system of food safety and quality requirements and the EU, etc.

The offer of agricultural products and foods is a large number of small farmers who are old and poorly educated and have little economic power. The works of these agricultural producers are characterized by subsistence or subsistence production. They have small investment opportunities in refrigerators, dryers, silos, increase in production and its standardization. There is no or weak organization of farmers through associations and cooperatives. From our prior discussion, it appears that there are a large number of manufacturers that there is not enough production to meet the needs of their own so-called. Large customers, but at the same time have a great offer and difficult placement in the local market. In the existing purchase and payment flows that van regularity, there is a large percentage of the market of primary agricultural products, which certainly promotes unfair competition. This situation is primarily due to poor law enforcement and inefficient labor inspection authorities. Not being purchasing and distribution centers and agricultural cooperatives whose role would be that of agricultural producers take over the function of sales and distribution.

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