Analysis of Serbian beef marketing chain from the standpoint of primary producers

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Abstract
Livestock production is an important part of agriculture of the Republic of Serbia. Besides supplying the domestic market, exports of live cattle and beef is important for foreign trade balance. The largest export was made during late 1980ies and afterwards there was a reduction of export. Although the EU has approved a preferential treatment for exports of Serbian beef, this possibility is only partially used. There are many facts, explanations and interpretations of reasons for export decline. However, very rarely analysis of live animals’ trade, as the important element of marketing chain, has been carried out. Using surveys and interviews various aspects of trade with live animals were analyzed. The results show that primary producers do not always have positive attitudes towards traders, regardless of the volume of trade. This paper analyzes the trade of live animals from the standpoint of primary producers and their relation with customers, especially slaughterhouses and meat processors. The aim of this paper is, firstly, to examine the way of trade, secondly, to show views and opinions of the primary producers about buyers of live animals and thirdly, to present the effect of trade volume on the pricing of livestock. The aim of the research is also to find opportunities for improvement of the marketing chain in trade with live animals.

Key words: marketing, beef, primary producers, Serbia

Introduction
For primary agricultural producers in Serbia a good marketing is essential for making a profit which is usually determined by the volume of trade.

According to the 2002 Census, farms were classified into seven groups according to size of agricultural land. In the largest group there are the farms with 15 or more hectares of agricultural land. This group is made of 1.96% farms and breed some 8.5% of the total number of cattle, while average family farm has less than one cattle.

Research on primary producers in marketing of their own products in Serbia is mostly focused on all farms in agriculture. Since there are differences in farm size measured in hectares and number of livestock, it is interesting to explore the position of the largest farms. Those farms could be classified as advanced and they are important for further competitiveness improvement of the livestock production in Serbia.

As a rule, farmers sell their products directly on the farm, where abattoirs, processors and traders appear as buyers, whose main activity is further trade. In this study, the basic characteristics of advanced farms in the Republic of Serbia are shown, as well as the general problems they are facing with when they are selling their products.

Materials and methods
In order to obtain relevant information, a survey was conducted. In the group of the largest farms it was selected a random sample with a sample size of 52 family farms. Interviewers were persons familiar with the situation at local level and experienced in surveys. In addition to surveys, interviews were conducted with key stakeholders involved in animal husbandry in certain regions. This allowed getting precise picture of current
situation in the livestock production and trade. Questions in the survey were mostly in the closed form and consisted of several areas: general issues, regulations, production, contracts and standards; market - trends, volumes, buyers; prices of products, inputs and services; suppliers; professional development and perspectives; compliance with rules and standards, the basic characteristics of the farms. Collected data were analyzed mainly using descriptive statistics and for specific topic the method of variance analysis (ANOVA) was used.

Results and discussion

The basic characteristics of the farms: Farmers have been asked about the predominant type of livestock production that exists on their farms. In case of the variety of production, farmers had a choice of multiple responses. The largest number of farmers, 48% of them indicated that they have production of milk and cattle fattening, 27% of them are specialized for cattle fattening, while the production of cow milk as predominant activity is characteristic for 11% of farmers. Sheep farming is the main activity of 11% farms. Poultry - broilers, eggs and day-old chicks are produced on approximately 3% of farms. None of the surveyed farms is engaged in goat production.

Based on the obtained data it can be concluded that there is no narrow specialization for particular type of livestock production. The largest portion of cattle breeders practices combined production of meat and milk. Such production orientation is probably due to the dispersion of risks and needs for cash on a monthly basis. The money usually comes from selling of raw milk.

General issues: The views of primary producers on the general issue are estimated on a scale from 1 to 5. The note 1 means that this problem is not important and 5 means that this problem is the most important one. For farmers the problem of drinking water and water for animals is of relatively low importance (score 2.37), and the biggest problem are low prices of agricultural products (score 4.38). The most important potential problem for farmers is respect of agreements by the buyers (score 4.38), followed by changes of prices of agricultural products (score 4.15) and, finally high costs of inputs (score 4.00). Based on these results it can be concluded that the biggest problem for farmers is marketing of their products and purchasing of inputs. Bearing in mind that the good supply of inputs is one of the basic prerequisites of successful business, farmers can significantly improve their position by improving skills and knowledge in trade and marketing.

The problem of the agreement respect by the buyers is an area where farmers can not have any influence. It is important to emphasize that the majority of farmers don’t have written agreements, but just verbal ones. Research shows that farmers believe that even if written agreements were signed, it will not be a guarantee that it would be enforced (Zaric, 2008). It is obvious that institutions are responsible for this situation.

Trade - trends, quantity, and buyers: Surveyed farmers were asked to estimate trade trend during the period 2006-2009 compared to 2005. The following statements about the volume of trade were possible: reduced (1), remained the same (2), increased (3), I do not know (4). Volume of trade with live animals and animal products according to farmers’ estimates does not change in the analysed period.

Producers were asked about the number of animals sold during the year, and the number of animals that are used on farms for consumption by farmers and members of their family. In the period 2007-2009 farm sold 60 heads of horned cattle, 52 fattening pigs and 38 lambs annually on average. For consumption on the farm, each year there seven heads of horned cattle, 3 fattened pigs and 3 lambs were used by farmers and their family members. The most important farm products for sale are fattened cattle (550 kg/head). In the period 2007-2009 the annual sales volume ranged between 36 and 42 animals. It is important to note that the maximum number of cattle sold was 120 pieces, but there are farms that sold only ten animals. This shows that producers have different capacities and different intensity of specialization. In addition to the fattening, the beef cattle producers are dealing with at least one more activity. In most cases it is fattening of pigs or sheep breeding. Data indicate that producers with a smaller number of sold cattle, have a larger number of sold fattened pigs and lambs.

The larger producers of beef cattle in Serbia tend to have contracted production for their products. In 70% of cases farmers are selling cattle to local abattoir and processors in the region, while in 30% of those are the cattle traders. Based on this finding it can be concluded that most of the trade is done at the local and regional level. The products retain the characteristics of the region since the production and processing are performed in the same area. Marketing chain is quite short, so the added value of primary producers is
smaller than the potential, which could be achieved if they would have a share in processing plants (Zaric, 2008).

On average, each farmer has two processors and three cattle traders as buyers. This relatively large number of the primary products buyers shows that farmers maybe not be satisfied with their buyers and that they are constantly looking for new ones. At the same time, this could mean that there is a lack of supply and surplus of processing capacity on the livestock market. Buyers try to provide enough animals for slaughter by purchasing animals from different producers (Zaric, 2008).

Farmers were asked to rate certain statements relating to the trade of agricultural products. There were five statements on which respondents could answer on a scale ranging from strongly disagree (score 1) to strongly agree (score 5).

Graf 1. Trade - attitudes of primary producers (survey research)

Most producers maintain relationships with buyers during periods when there is no trade (score 3.71). Farmers state that buyers do not meet the promised deadlines concerning payments (score 2.56). A similar assessment was given to the statement "Buyers always respect the verbal agreements and contracts concluded in written form" (score 2.69). The surveyed farmers do not agree with the statement "Negotiating with buyers is an easy job", since they usually gave the answer "disagree", and overall rate amounts to 2.21. The above results indicate that the position of farmers could be improved if they are skilled in negotiating process (Koester and Zaric, 2009). Adequate training on this subject would certainly be of benefit to primary producers.

In the next step the correlation between the relationships with buyers on one side and the sales volume of livestock on the other side was analysed. The basic hypothesis was that the sales volume of livestock, as an independent variable, has no influence on the attitudes of primary producers to retailers. The results confirmed this null hypothesis. The lowest value of F test was 0.327 (p>0.05). It can be concluded that the behaviour of the livestock buyers is equal with all producers. The prices that farmers realize in the sale of livestock don’t depend on sales volume as well (F=2.349, p>0.05). Farm size and sales volume also have no effect on the purchasing prices of inputs.

These results suggest that farmers can not influence the creation of input prices, or prices of their products. It is important to emphasize that analyzed primary producers are relatively large (for the conditions in Serbia) and that they represent a minority of the total number of producers. It is obvious that these producers are relatively small "players" for abattoirs and processors.

Since there is an effort of Serbia to join the EU, we can expect changes in the structure of supply and in the vertical chain from primary producers to abattoirs, processors, wholesale and retail trade. The enforcement of regulations that allow the traceability of products is expected and consequently there will be a need for adaptation of primary producers (Gorton et al., 2009). Food safety is one of the basic requirements for the placement of products into the EU market (Nielsen, 2000). On this basis one can expect further structural changes in primary production.
Conclusion

This research analyzes the position of the advanced livestock farms in Serbia in marketing of their products. The data show that there is no narrow specialization for particular types of production. The most important problems from the standpoint of the primary producers are related to the marketing of their products due to the non-compliance with agreements by buyers and changes in prices of inputs. Volume of live animals' trade over the past several years has not changed, which basically shows that there is no increase in production. Sales contracts have been made only by the largest producers from this group. The largest part of the trade is done at the local and regional level. Farm size measured as the volume of the live animals' trade per year, does not have a significant influence onto the prices of animals, or input prices, as well as onto the buyers' attitude toward primary producers. Although the analysed farms are relatively large for conditions in Serbia, their size is not sufficient to make them able to influence trade flows in the case of live animals. With the further liberalization of foreign trade, an adjustment of livestock farms will be even more needed. In the entire marketing chain primary producers are in a position to accept the rules, over which they do not have any influence.

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