

ENHANCING THE COMPETITIVENESS OF POULTRY MEAT FROM EXTENSIVE HOUSING SYSTEMS

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Abstract

Increasing living standard and purchasing power, various health crises and increased concern about animal welfare have shifted consumers' attention towards rearing systems and feeding methods and towards the reliability of information and the veracity of labels. Research done decade ago showed that consumers in Serbia, like in other countries, were extremely enthusiastic about the systems in which chickens are reared, their welfare, nutrition etc. They believed that poultry meat from extensive housing systems was healthier, more tasteful and they were ready to pay a higher price for this kind of meat if such products were appropriately controlled and labeled. Despite all that, the extensive housing systems and market opportunities are not yet fully exploited in Serbia. In this paper, the authors have repeated the above mention research in Novi Sad and area nearby (300 respondents) and have compared consumers' perception now and ten years ago in order to investigate the consumers' perceptions and possibilities of enhancing the competitiveness of poultry meat from extensive housing systems.

Key words: *Poultry meat, extensive housing systems, consumers' perception.*

Introduction

Global poultry meat production and consumption is increasing. Intensive poultry meat production is quite similar throughout the world, in terms of technical performance, housing systems, feeding methods and genotypes of the birds involved (*Leenstra et al., 2006*) and it has accomplished great production results. Moreover, increasing living standard and purchasing power, various health crises which have happened in the last two decades, have moved consumers' attention toward rearing and nutrition methods and toward reliability of information and the veracity of labels (*Magdelaine et al., 2008*).

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Facing the above, alternative poultry meat production and rearing housing systems that offer outdoor access to the animals, have become exceedingly popular in the Western world due to the increasing discontent of consumers with conventional farming practice (Kijlstra et al. 2009). There is a perception that if chickens are kept in extensive housing systems, they are both healthier and happier and produce better quality products which taste better. Many authors (Rodić et al. 2003, Bogosavljevic-Boskovic et al. 2006, Fanatico et al. 2006, Pavlovski et al. 2009, and Škrbić et al. 2009) point out that intensive industrial poultry production can result in lower-grade product quality² and that housing system is one of many non-genetic factors that can notably influence meat quality. On the other hand, numerous studies (Milošević 2003, Van Horne, 2009) have shown that costs of production in alternative systems are higher than in conventional. Thus, willingness of consumers to pay higher price for poultry meat from extensive housing system is a precondition for development of these systems and the enhancement of competitiveness of this kind of poultry meat production in Serbia. Alternative housing systems have been long popular in Europe (Poltowicz et al. 2011). Research conducted a decade ago (Rodić et al. 2003, Rodić et al. 2006) showed that consumers in Serbia were also exceedingly interested in the systems in which chickens are reared, their nutrition, welfare etc. They believed that poultry meat from extensive housing systems was healthier, more tasteful and they were willing to pay a higher price for this kind of meat if such products were appropriately controlled and labeled. However, it seems that growing consumer interest in the extensive housing systems and market opportunities were not yet fully exploited in Serbia.

According to mentioned above, the objective of the paper is to compare consumers' perception now and ten years ago in order to investigate the possibilities of enhancing the competitiveness of poultry meat from extensive housing systems in Serbia.

Materials and Methods

In order to investigate the perception of consumers toward poultry meat from extensive housing systems, the authors have compared results of the quantitative research which was carried out ten years ago and the one conducted in March and April 2011 via individual personal interviews (face to face) using prepared questionnaire. The survey was designed to cover consumers' attitudes about housing systems, nutrition, consumers' willingness to pay a higher price for poultry meat from extensive housing systems, their labeling preference etc. In total, 300 qualified poultry meat consumers from Novi Sad and the rural area nearby (Vojvodina, Serbia) completed the survey. The responses from survey were analyzed with SPSS version 16.0.

2 According to Jahan et al. 2004 more natural rearing conditions and increased activity of the birds contribute to the lower lipid content in broiler meat.

Results and Discussion

The socio-demographic characteristics of the respondents are presented in Table 1. The sample included a higher share of females (64%), reflecting the disproportionate share of females serving as the primary shopper in households. The age of the sample is slightly skewed towards more middle-aged individuals, with higher education and income level (if compared to national average), due to their higher willingness to participate in survey like this one (Table

Table 1 Socio-demographic characteristics of sample (N=300)

Gender	male	36%
	female	64%
Region	urban	65.9%
	rural	34.1%
Age, years	18 – 25	4.1%
	26 – 35	32.2%
	36 – 45	29.6%
	46 – 55	18.0%
	more than 55	16.1%
Education	Primary school	5.1%
	Secondary school	40.2%
	University degree	54.7%
Net monthly income of the household in RSD	up to 15,000	2.3%
	15,000 – 30,000	10.7%
	30,000 – 75,000	44.9%
	75,000 – 150,000	34.6%
	more than 150,000	7.5%
Number of members in the household	one	13.6%
	two	16.8%
	three	23.4%
	four	37.4%
	five or more	8.9%

According to the objective of the paper, some results of the survey conducted ten years ago and the results obtained in 2011 are displayed in Table 2.

Table 2 Comparison of the responds to some questions

Questions	Survey conducted in 2001	Survey conducted in 2011
Whether nutrition of broilers is important when purchasing poultry meat	YES 94.3% NO 5.7%	YES 85.5% NO 14.5%
Whether rearing housing system is important when purchasing poultry meat	YES 93.3% NO 6.7%	YES 80.3% NO 19.7%
Which housing system they prefer when purchasing poultry meat 1 = Intensive housing system, 2 = Extensive housing system, 3 = backyard chicken	1) 5.1% 2) 22.7% 3) 72.2%	1) 4.9% 2) 23.4% 3) 71.7%
Whether they believe that poultry meat that origin from extensive system is healthier than from intensive system	YES 72.1% NO 27.9%	YES 69.6% NO 30.4%
Whether they would pay higher price for poultry meat that origins from extensive system	YES 71.3% NO 28.7%	YES 68.7% NO 31.3%

Comparison of the data from 2011 (Table 2) to 2001 show that although consumers are now less interested in nutrition of broilers and rearing housing systems when purchasing poultry meat, there is still large majority of those who believe that nutrition and rearing housing system are important. The decrease of interests can be explained by the lower living standard and economic crises which are present during the last couple of years.

When consumers were asked (hypothetically)³ which housing systems they prefer, the obtained results are quite similar to those obtained in 2001; more than 70% of respondents still prefer backyard chicken. Authors believe that this is due to the lack of information concerning extensive housing system and participants' belief that backyard chickens are extensively reared, although it is very often intensive or semi-intensive production, out of any control.

In Table 3 correlations between willingness to pay a higher price for poultry meat and age, level of education and net monthly household income are presented. It can be concluded that younger consumers (between 26 and 45 years old), with higher education level and higher net monthly household income are more willing to pay higher price for poultry meat from extensive housing systems. The similar results were obtained in the survey conducted in 2001 (*Rodić et al. 2003, Rodić et al. 2006*).

3 Given the fact that currently in Serbia the supply of poultry meat from extensive housing system is limited, the question was set hypothetically "If you could choose, from which housing systems you would rather buy poultry meat?"

Table 3 Correlation between willingness to pay higher price for poultry meat from extensive housing systems and age, level of education and net monthly household income (2011)

		Relative increase of price of poultry meat from extensive housing systems in comparison with conventional produced meat					
		Not willing to pay	< 10%	10-20%	20-30%	30-50%	> 50%
Respondents %		29.00	31.80	26.60	7.50	3.30	1.90
Age, Years	< 25 years old	9.68	4.41	3.51	-	-	-
	26–35years old	25.81	30.88	29.82	43.75	42.86	25.00
	36–45years old	27.41	19.12	28.07	12.50	14.29	75.00
	46–55years old	20.97	22.06	24.56	25.00	28.57	-
	> 55 years old	16.13	23.53	14.04	18.75	14.29	-
Level of education	Primary school	6.45	10.30	-	-	-	-
	Secondary school	51.61	36.76	35.09	25.00	14.29	100.00
	University degree	41.94	52.94	64.91	75.00	85.71	-
Net monthly household income in RSD	up to 15000	3.23	4.41	-	-	-	-
	15000 – 30000	16.13	7.35	14.03	-	-	-
	30000 – 75000	43.55	55.88	40.35	25.00	14.28	75.00
	75000 – 150000	33.87	29.42	36.84	56.25	42.86	-
	more than 150000	3.22	2.94	8.77	18.75	42.86	25.00

Great majority of respondents (89.3%) agreed that products from extensive housing systems must be trustfully controlled and labeled. At the moment, however, there is not a developed and adequate system of control and labeling of products from extensive housing systems, which is one of the reasons why they are insufficiently presented on the Serbian market (*Rodić et al. 2006*). This should be systematically solved and accompanied by differentiated prices for poultry meat originated from different systems. Only in this way competitiveness of alternative housing systems and their further development could be expected.

Conclusion

Alternative poultry meat production and rearing housing systems have become exceedingly popular in the Western world due to the increasing discontent of consumers with conventional farming practice. Moreover, intensive poultry production can result in lower-grade product quality. On the other hand, costs of production in alternative systems are higher than in conventional. Thus, willingness of consumers to pay higher price for poultry meat from extensive housing system is a precondition for development of these systems and the enhancement of competitiveness of this kind of poultry meat production in Serbia. The results of the research show that consumers in Serbia are still

interested in housing and nutrition systems, especially in backyard chickens (71.7%) and extensive housing system (23.4%). The majority of respondents (69.6%) believe that poultry meat which origin from extensive systems is healthier. In addition, 68.7% of respondents are willing to pay higher price for such meat, but not more than 30% of the regular price.

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UNAPREĐENJE KONKURENTNOSTI PILEĆEG MESA IZ EKSTENZIVNIH SISTEMA DRŽANJA

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Rezime

Intenzivan tov brojlerskih pilića još uvek je osnov proizvodnje živinskog mesa u svetu, pa i u Srbiji. Međutim, sa porastom standarda i kupovne moći, kao i sve jačeg uticaja pokreta za prava i dobrobit životinja, raste i potražnja za mesom iz drugih sistema proizvodnje. Istraživanja od pre jednu deceniju su pokazala da i u Srbiji postoji zainteresovanost potrošača za pilećim mesom iz ekstenzivnih sistema držanja, da smatraju da je ono zdravstveno-bezbednije, ukusnije i da su spremni da plate i veću cenu za njega, ukoliko im oznaka o poreku i kvalitetu to garantuje. Međutim, kod nas je ponuda ovoga mesa na tržištu još uvek izuzetno mala. Autori su u ovom radu ponovili istraživanje od pre jedne decenije kako bi, anketirajući 300 ispitanika na širem području Novog Sada, sagledali da li je došlo do promene stavova potrošača i mogućnosti poboljšanja konkurentnosti pilećeg mesa iz ekstenzivnih sistema držanja.

Ključne reči: *Pileće meso, ekstenzivni sistemi držanja, stavovi potrošača.*

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