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LABELING OF GENETICALLY MODIFIED FOOD AND CONSUMERS' RIGHTS

***Abstract**: The legal regulation of genetically modified food directly affects consumers, since they are the ones who encounter genetically modified food on the shelves every day. At the beginning, authors indicate that there are huge differences between legal regulation of genetically modified food in the United States and in the European Union. These differences result in different labeling regimes in those two systems of genetically modified food regulation. Authors consider several factors from which depend efficiency of the labeling regime, and labels' influence on the actual realization of basic consumers' rights. Authors will analyze these factors in the paper, such as: label complexity, opting for positive or negative labeling regime, whether labeling regime is mandatory or voluntary, etc. In the conclusion authors give recommendations to the Serbian legislator, and propositions for changes in current domestic legal regulation, which would improve realization of basic consumers' rights in relation with genetically modified food.*

***Key words:** genetically modified food, consumer, genetically modified food labeling regime, basic consumers' rights.*

INTRODUCTION

Production, turnover, and labeling of food that contains genetically modified organisms (hereinafter: GMO) is extremely complicated issue. This issue is at the intersection of different sciences, and nowadays it becomes more and more important, since the presence of genetically modified food (hereinafter:

GM food) has been expanding last years. Development of GM food has always been subject of dispute between proponents and opponents of GM food. The proponents argue that genetically modified plants provide important benefits, such as decreased pesticide use, increased vitamin content, and increased crop yields, and that they have great potential to yield even more impressive benefits in the future. On the other hand, opponents contend that the genetically modified technology poses significant risks, such as gene drift, the production of new allergens or toxins, and the transfer of genetically modified proteins to human cells.[1]

Said differences between proponents and opponents of GM food caused significant differences in the legal regulation of production, turnover, and labeling of GM food in different parts of the world. These differences are particularly expressed in the diametrically opposed approach to this issue in the United States and European Union. At the beginning, EU tried to completely prohibit production, growth, and export of GM food.[2] However, USA, Canada, and Argentina successfully thwarted this attempt before World Trade Organization (hereinafter: WTO). WTO has stated that prohibition of production and export of GM food infringes Agreement on the Application of Sanitary and Phytosanitary Measures. Nonetheless, after this WTO decision, EU has adopted the broadest and the most stringent regulation of GM food all around the world.[3] Basic EU laws on this issue are two regulations: Regulation (EC) No. 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed (hereinafter: Regulation),[4] and Regulation (EC) No. 1829/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labeling of genetically modified organisms and the traceability of food and feed products produced from genetically modi-

[1] Valery Federici, "Genetically Modified Food and Informed Consumer Choice: Comparing U.S. and E.U. Labeling Laws", *Brooklyn Journal of International Law*, 35-3/2010, 515-516.

[2] Peter Mitchell, "Europe Angers US with Strict GM Labeling", *Nature Biotechnology*, 21-1/2003, 6.

[3] There are some indications that future EU regulation will be even more stringent. Namely, in 2009, 13 Member States asked the European Commission for more flexibility to decide not to cultivate GMOs on their territory. This is why, in 2010, the Commission adopted a proposal to the European Parliament and to the Council to offer additional possibilities to Member States to ban or restrict the cultivation of GMOs on part of or all their territory, based on their national circumstances, and without affecting the EU permission system. In July 2011, the European Parliament issued a positive first reading opinion with amendments and after several years, the Council adopted on 12 June 2014 a political agreement which will allow the co-legislators to get one step closer towards the adoption of the proposal. The European Parliament and the Council will continue discussions in second reading to reach agreement on a common text. The GMO cultivation proposal is foreseen for final adoption in 2015.

[4] *Official Journal of the European Union*, L 268/1.

fied organisms.[5] In the heart of these regulations is the so called permission system, combined with very broad mandatory labeling regime. That means that all GM food intended for sale in EU, first of all, must obtain permission for sale, and once the permission is given, all GM food must be labeled as such. On the contrary, American regulation on GM food is based on assumption that bioengineered foods do not differ from other foods in any meaningful or uniform way. Thus, applying this assumption, the U.S. Food and Drug Administration (hereinafter: FDA) has stated that foods developed by the new techniques do not present any different or greater safety concern than foods developed by traditional plant breeding.[6] Consequence of this approach is non-existing of special regulation on GM food labeling. The so called national uniform clause on food labeling, prescribed in the Federal Food, Drug, and Cosmetic Act (hereinafter: FDCA),[7] applies on labeling of GM food as well.

The issue of labeling of GM food is now relevant in Serbia, too, because Serbian consumers encounter GM food on the shelves regularly. Considering Serbia's endeavors to become member of EU, Serbian Law on this issue predominantly adopts EU approach. Relevant sources of law on GM food in Serbia are: Law on Food Safety (hereinafter: LFS),[8] and Law on Genetically Modified Organisms (hereinafter: LGMO).[9] Common impression is that Serbian regulation on GM food is not developed enough, and that many important issues are still unresolved.[10]

Consequences of using GM food directly affect consumers. American and EU Law give totally opposed answer on the question whether presence of GMO in food is of essential importance for consumers' decision to purchase and consume food. In EU Law dominates opinion that consumer does have right to know whether food that he/she consumes has been genetically modified or not. On the other hand, in American Law consumers' right to know is not considered as important enough for prescribing mandatory labeling regime.

It is clear that labeling of GM food helps consumers to make informed choice about consumption of GM food. It is still important to emphasize that label itself does not provide realization of consumers' informed choice. There are different kinds of labels, and they could be more or less useful for consumers. A legal regime of GM food labeling should be based on the regulation that has the

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[5] *Official Journal of the European Union*, L 268.

[6] Guidance for Industry: Voluntary Labeling Indicating Whether Foods Have or Have Not Been Developed Using Bioengineering, *http://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation/labelingnutrition/ucm059098.htm*, 11th October 2014.

[7] *United States Code Annotated*, Title 21, Food and Drugs.

[8] „*Službeni Glasnik RS*", 41/2009.

[9] "*Službeni Glasnik RS*", 41/2009.

[10] Dragan Vujisić, Borko Mihajlović, "Genetski modifikovana hrana – pravo potrošača na izbor i obaveštenost", Pravo i privreda, 7-9/2014, 295.

best consumers' interests as its objective.[11] That regulation should consider several factors from which depend efficiency of the label, and labels' influence on the actual realization of consumers' rights on choice and information. These factors are: label complexity, opting for positive or negative labeling regime, whether labeling regime is mandatory or voluntary, what threshold should trigger duty for producers and traders to label GM food, whether regulation should be focused on the final product or both on the final product and production process, and the size and the spot of the label on the packaging.[12] All these factors are relevant, and the legislator should consider all of them before creating the GM food labeling regime.

The goal of this paper is attempt of determination what characteristics of the label are the most favorable for consumers' interests, i.e. how the label should look like in order to enable consumers to make informed choice. Therefore, subject of analysis in the paper will be afore mentioned factors from which depend efficiency of the label. Each factor will be analyzed through comparison of legal regulation of GM food between two opposed systems – American and European. Serbian regulation, relevant for considering the factors, will be analyzed as well. At the end, authors will give recommendations to the Serbian legislator, and propositions for changes in current domestic legal regulation, which would improve realization of basic consumers' rights in relation with GM food.

1. LABEL COMPLEXITY

Label complexity indicates how many information food's label conveys to consumer. Considering label complexity, there are two kind of labels: simple and complex. Simple labels indicate only whether a product has been genetically modified or not. They are often not that useful, since they do not provide sufficient information, and therefore do not enable consumer to adequately compare products of different producers considering their key features. Label that contains only information whether a product has been genetically modified or not will not adequately help a consumer when he/she tries to find differences among different products, since the reason why some product has been genetically modified influences consumers' choice as well. Consumers may choose to use GM food instead of GM - free food because that food contains more food ingredients or less pesticides or herbicides.[13]

[11] Maja Stanivuković, "Ugovori sa potrošačima sa inostranim elementom - merodavno pravo i nadležnost", Zbornik radova Pravnog fakulteta u Novom Sadu, 3/2003, 190.

[12] V. Federici, 546.

[13] *Ibid*., 547.

Complex labels indicate not only whether a product has been genetically modified or not, but they do explain as well a reason why that product has been modified, and what are the changes on the product as result of modification.[14] Complex labels may have negative impact on the actual realization of consumers right on choice and information. Adding information about GMO ingredients increases amount of information which packaging generally contains; more information means that each information has less room on the packaging, and attracts less consumers attention. Every new information put on the packaging must be significant for our decision whether to purchase a product or not. Simple increasing of amount of information on the packaging may actually decrease consumers ability to notice other, maybe more important information.[15]

Labels' complexity reffers as well on the information that foods' label conveys to consumer, i.e. which information on the label contributes the most to the realization of basic consumers rights. Benefits of labeling are reached: if information is important for many consumers, even though that information actually is not that important for each consumer; if information itself is extremely important for consumers, even though only a few consumers have interest about that information.[16]

Surveys show that huge per cent of consumers want GM food to be labeled. For instance, 94% of American consumers want to see labels on GM food.[17] Therefore, a label should contain at least whether food contains GMO or not.

In order to create labeling regime which would effectively facilitate consumers choice, label must contain information that consumers understand, information in which consumers believe, and information must enable consumers to notice differences between products.[18] Transfer of information that consumers understand is very hard to achieve. Biotechnology science is extremely complicated, and it is not easy for understanding by laypersons. This difficulty represents huge obstacle for every labeling regime.

EU law does not pay much attention to the issue of labels' complexity. More attention has been paid to the form of label and its place on the packaging. The Regulation in most of the cases only requires that the label must have infor-

[14] *Ibid*.

[15] Byung-Kwan Lee, Wei-Na Lee, "The Effect of Information Overload on Consumer Choice Quality in an On-Line Environment", *Psychology & Marketing*, 21-3/2004, 159.

[16] Mario Teisl, Julie Caswell, "Information Policy and Genetically Modified Food: Weighing the Benefits and Costs", University of Massachusetts Amherst, Department of Resource Economics, Working Paper no. 2003-1, page 6, available at *http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1195&context=peri_workingpapers,* 15.10.2014.

[17] Robert Paarlberg, *Starved for Science: How Biotechnology Is Being Kept Out of Africa*, Cambridge 2008, 23.

[18] M. Teisl, J. Caswell, 18.

mation that food was genetically modified. That means that Regulation requires the so called simple labels. However, this rule does have some exceptions. In certain cases, all characteristics and properties of GM food have to be disclosed on the label. This exception applies where a food is different from its conventional counterpart as regards the following characteristics or properties: composition; nutritional value or nutritional effects; intended use of the food; implications for the health of certain sections of the population; where a food may give rise to ethical or religious concerns.[19]

United States do not have special regulation on GM food labeling. This issue in USA has been regulated by general provisions on food labeling, i.e. FDCA. This Act contains so called national uniform clause on food labeling, which requires labeling on food that discloses serving size, the presence of adulterations such as chemical preservatives and colorings, and nutritional data such as the content of calories, cholesterol, saturated and unsaturated fat, sodium, total and complex carbohydrates, sugars, dietary fiber, total protein, and vitamins and minerals.[20]

Even though food labeling is not mandatory in United States, the Center for Food Safety promulgated guidance, titled "Voluntary Labeling Indicating Whether Foods Have or Have Not Been Developed Using Bioengineering". This guidance encourages voluntary labeling of GMO materials in food. The purpose of the guidance is to construe provisions of FDCA, which is partially relevant for degree of labels complexity. The FDA applied the FDCA requirements to biotech foods as follows: if a bioengineered food is significantly different from its traditional counterpart such that the common or usual name no longer adequately describes the new food, the name must be changed to describe the difference; if an issue exists for the food or a constituent of the food regarding how the food is used or consequences of its use, a statement must be made on the label to describe the issue; if a bioengineered food has a significantly different nutritional property, its label must reflect the difference; if a new food includes an allergen that consumers would not expect to be present based on the name of the food, the presence of that allergen must be disclosed on the label. Thus, while the label need not say specifically, for example, "this tomato has been genetically engineered to contain a Brazil nut gene," it must say something to the effect of, "this tomato contains proteins that may engender allergic responses in people allergic to Brazil nuts.[21]

[19] Regulation, Article 13, Paragraph two.

[20] FDCA, Article 343-1.

[21] Guidance for Industry: Voluntary Labeling Indicating Whether Foods Have or Have Not Been Developed Using Bioengineering.

LFS regulates the issue of labeling of GM food in Serbian law with only one provision, leaving in that way many issues unresolved.[22] These issues are regulated in detail in EU law. To the issue of complexity of label has not been paid enough attention as well. LFS provides that GM food intended for sale shall have on declaration, besides general labeling requirements, additional information on its features, i.e. information about its GMO ingredients.[23] Minister will prescribe aditional requirements for labeling of GM food.

2. SYSTEM OF POSITIVE AND NEGATIVE LABELING

One of the factors that hinges efficiency of labeling is whether a label is positive or negative, or is it both positive and negative. So called positive labeling requires from traders to inform consumers that biotechnology has been used in the manufacturing of the product, or that GMO ingredients in food exceed prescribed threshold which requires labeling. In other words, positive label is one that says "This product contains GMO". On the other hand, negative labeling enables traders to inform consumers that their food does not contain GMO. For instance, negative label is one that says "This product does not contain GMO". Finally, there is the third system - the system of both positive and negative labeling, which requires all food to be labeled, i.e. all food has to provide information whether it contains GMO or not.

Consumers are fully informed in the regime that provides both positive and negative labels. However, there are arguments that this comprehensive labeling is unnecessary, if it is possible to establish the labeling regime that would require only positive or negative labeling, relying on consumers' assumptions about GMO status of food that has not been labeled.[24] For instance, if we opt for positive labeling regime, consumers should assume that products which do not have any labels are GMO-free. This assumption is correct only if the system is "symetric", in the sense that all cases of presence or absence of GMO are properly labeled.

In the positive labeling regime all the food that contains GMO have to be labeled, but at the same time GMO-free food must not have negative labels. This regime causes strong opposition of organic food producers, who currently label their food as "GMO-free", and in that manner they occupy part of the market against GM food. On the other hand, in the negative labeling regime organic food producers may still follow their practice of labeling, but that regime might

[22] D. Vujisić, B. Mihajlović, 295.
[23] LFS, Article 63, Paragraph three.
[24] V. Federici, 549.

be confusing for consumers, since some surveys show that consumers do not believe in negative labels.[25]

EU law adopts principle of positive labeling of GM food. That means that producers and traders should clearly label GM food. However, the Regulation is ambigious with respect to possibility of negative labeling. Considering that clear prohibition does not exist, follows that it is allowed to put on GMO-free food labels such as "This product does not contain GMO". That could cause consumers confusion, since lack of prohibition of negative labeling in EU law makes the labeling regime asymetric. In the so called asymetric systems, consumer cannot assume that food without any label does not contain GMO, because he/she will be finding food with both positive and negative labels on the shelves. Serbian law provides for principle of positive labeling as well, without prohibition of negative labeling.

We cannot say whether US law has adopted system of positive or negative labeling, since this country does not require mandatory labeling of GM food. Although American producers are not obliged to label their products as genetically modified, they may label their products as "GMO-free", provided that this kind of labeling is not misleading. Aditionally, consumers who want to avoid GM food may constrain their purchases only on food labeled as "organic food". That is the only certain way of avoiding GM food in United States.[26]

3. SYSTEM OF MANDATORY OR VOLUNTARY LABELING

The issue whether labeling should be positive or negative is narrowly related with the issue if labeling should be mandatory or voluntary. This factor represents the biggest difference between the legal regime of labeling of GM food in US and EU law. There are several elements that should be taken in consideration when opting for mandatory or voluntary regime: consumers attitude toward GM food, economic elements, opting for precaution principle or principle of risk assessment.

In countries in which consumers attitude towards GM food is extremely negative, the legislator should opt for mandatory labeling regime for sure. Otherwise, consumers would completely lose confidence in the legal regulation of food safety and labeling regime. Also, if consumers do not have negative attitude towards GM food, the legislator should adopt mandatory regime, in case that majority of consumers want to see the labels on the food they purchase. Of cource, it is always hard to find out the public opinion. Considering complexity of biotechnology and inability of average consumer to actually understand bene-

[25] R. Paarlberg, 5.
[26] V. Federici, 541.

fits and shortcomings of GM food, it is justifiable to raise the issue whether consumers attitude in this area should be that important.[27] Nevertheless, even in USA, which adopted voluntary regime of labeling of GM food, and where consumers generally do not have negative attitude towards GM food, surveys show that 94% of consumers consider that GM food should be labeled.[28]

When we consider economic elements, we think of, first of all, economic benefits that one country reaps from production of GM food. It is clear that countries that are huge producers and exporters of GM products do have positive attitude towards GM food and do not require mandatory labeling of GM food. That is the case with USA as well, since USA are the biggest producers of GM products all around the world. This may be the most important rationale for adopting voluntary labeling in this country. That made strong farmers loby in USA that generally supports GM food, as well as developed biotechnological industry that invested huge amounts of money in expanding new methods of food production.[29] Also, all of this unabled groups against GM food to develop campagne against GM food, unlike in Europe, where this campagne has been particularly strong.[30]

Finally, adopting of mandatory or voluntary labeling regime depends from the fact whether the legislator opted for the precaution principle or for the principle of risk assessment. The precaution principle is based on the idea that the legislator should always be on the safe side, even when there is no any obvious risk. The legislator should be dedicated completely to avoiding of risk. Potential benefits are, therefore, excluded from analyses.[31] Precaution principle has prevention in its nature, and it is based on idea that even though some activity could not be proven as unsafe or detrimental, it does not mean that that activity does not have negative consequences.[32] On the other hand, the principle of risk assessment entails comparison between risks and benefits. In that analyses, potential benefits of new technology and reasonably foreseeable risks for human health and environment are weighed.[33] There is a difference between EU and US regulation on this issue as well. European regulation adopts precaution principle, while American regulation opts for principle of risk assessment, with the prevailing opinion that

[27] *Ibid*., 532.

[28] R. Paarlberg, 23.

[29] *Ibid*., 18.

[30] Emilie Leibovitch, "Food Safety Regulation in the European Union: Toward an Unavoidable Centralization of Regulatory Powers*"*, *Texas International Law Journal*, 43-3/2008, 434.

[31] Cass Sunstein, "Beyond the Precautionary Principle*"*, *University of Pennsylvania Law Review*, 151-3/2003, 1012.

[32] Bojan Tubić, "Načelo predostrožnosti u međunarodnom pravu životne sredine i međunarodnoj sudskoj praksi", Zbornik radova Pravnog fakulteta u Novom Sadu, 2/2014, 368.

[33] V. Federici, 537.

potential benefits of GM food outweigh its risks. Serbian regulation, following the example of EU, adopts the precaution principle.

4. MINIMAL PERCENTS

Minimal percents that represent threshold relevant for labeling have long history in the legal regulation of food is USA as well as in EU. However, the issue what threshold should be applied has been raised, i.e. what per cent of GMO in food requires labeling.

Theoretically, if the purpose of labeling is informing of consumers, then the threshold should be set on the level that consumers deem relevant.[34] However, it would require determination of per cent of GMO ingredients that average consumer deems relevant and which makes him eager to know that food has been genetically modified. This method is practically impossible, because a majority of consumers do not understand biotechnology, and therefore they could not identify what level of GMO ingredients in food would be relevant.[35]

Of course, some consumers would like all GM food to be labeled. Some groups are strongly against GM technology, and in case they cannot obtain regulation that would completely ban GM food, they would argue for at least system of comprehensive labeling. Even EU, which system has been considered as the broadest and the most stringent regime of legal regulation of GM food in the world, recognizes that it is impossible to use labels for each product that has been genetically modified in some manner. Therefore, labeling regime must have some threshold that would require labeling.

Four factors are relevant for determining that threshold: costs, consumers reliance (confidence), sort of genetical modification, and whether mixing of GMO and non-GMO ingredients has been done purposely or not.[36]

Among countries which require labeling, EU set up the lowest threshold. All the products that have been deliberately genetically modified, first of all, must be permitted for sale in EU, and after that they have to be labeled as GMO. The labeling regime shall not apply only to foods containing material which contains, consists of or is produced from GMOs in a proportion no higher than 0,9 per cent of the food ingredients considered individually or food consisting of a single ingredient, provided that this presence is adventitious or technically unavoidable.[37] EU

[34] *Ibid*., 552.

[35] Alan McHughen, *Pandora's Picnic Basket : The Potential and Hazards of Genetically Modified Foods*, Oxford 2000, 207.

[36] V. Federici, 553.

[37] Regulation, Article 12, Paragraph two.

regulation does not explain in what way the 0,9% per cent threshold was determinated, nor which criterias were used. Among countries which require labeling, Japan is the most flexible with the 5% per cent threshold.[38]

The problem is that even though high threshold is more practical and cheaper, a label in that case becomes less significant for consumers, who become distrustful of all labels generally.[39] For example, if some product contains 2% of GMO and that product is not labeled because it is below prescribed threshold, and consumers consider that 2% of GMO ingredients is of essential importance, they would lose confidence in the labeling regime. There is no information that indicates which threshold is essentially important for consumers when they make decision whether to consume GM food or not. Considering complexity of biotechnology, scientists have decided what is the relevant threshold so far.

The threshold is necessary, inter alia to put the legal regulation of GM food in accordance with general legal regulation of food. However, considering differences in methods of genetical modification, threshold should be determined for each sort of modification separately, and maybe even for particular products within each sort of modification.[40]

In Serbian law, LGMO uses minimal per cents. It prescribes explicitly that nobody can put in turnover modified live organisms nor products that contain GMOs, or to harbour them for commercial purposes in Republic of Serbia. The Law prescribes two exceptions. Genetically modified organism is not: agricultural product of vegetable origin which contains up to 0,9% of GMO impurities or impurities that originates from GMO, nor seed or reproductive materials if they contain up to 0,1% of GMO impurities or impurities that originates from GMO.[41]

5. FOCUS OF REGULATION

One more significant difference in regulatory approach between European and American regulation is that American legislator is focused on final product made by new technology, while European legislator is focused on the product, as well as on the process of its production. In USA dominates opinion that with respect to the food safety issue subject of concern should be the characteristics

[38] Colin Carter, Guillaume Gruere, International Approaches to the Labeling of Genetically Modified Foods, Agricultural Issues Center University of California and Department of Agricultural and Resource Economics University of California, Davis, available at: *http://www.agmrc.org/media/cms/cartergruere_16D28F0207B6C.pdf*, 24.10.2014.

[39] V. Federici, 553.

[40] *Ibid.,* 554.

[41] LGMO, Article three.

of a product itself, and not the methods used in its production. In other words, in USA the same rules on food safety control and food labeling apply, no matter what methods have been used in production of food. With respect to biotech foods specifically, the FDA has stated that it "has no basis for concluding that bioengineered foods differ from other foods in any meaningful or uniform way, or that, as a class, foods developed by the new techniques present any different or greater safety concern than foods developed by traditional plant breeding".[42]

However, even in USA there are different opinions on this issue. American Center for Science in the Public Interest considers that there is no *a priori* rationale for FDA to narrow its approach only on final product.[43] Also, consumers potentially could be misled by labels that reffer only on final product. Namely, a food, in which production GMO materials have been used, is not necessarily genetically modified itself, and information that in production of food GMO materials have been used is still important for consumers. Product oriented labels do not provide for consumers information about materials used in production process. In that way, one of the main principles od labeling, proclaimed by FDA - principle that labeling shall not be misleading for consumers, has been questioned.[44] One of the arguments is that in some other federal labeling systems information on production process are mandatory as well, and the same approach has been adopted by the proposed U.S."Genetically Engineered Food Right to Know Act".[45]

On the other hand, EU takes into account not just the product, but the process of production as well. That regulation provides labels which reffer to product, such as "this product contains GMO", and labels which reffer to production process, such as "this product has been produced from GMO materials". European legislator did not, however, always opt for principle of focusing on both the final product and the production process. According to the old regulation, which was part of EU food regulation from 1997, "GM food shall be labeled only if its GMO ingredients could be found in the final product". In September 2003, EU changed the old regulation, oriented towards final product, with the new one, which adopted approach oriented towards production process as well. The Regulation prescribes that provisions on ap-

[42] Guidance for Industry: Voluntary Labeling Indicating Whether Foods Have or Have Not Been Developed Using Bioengineering.

[43] U.S. Center for Science in the Public Interest (updated 2012): Biotechnology Project: Frequently-Asked Question, available at: *http://www.cspinet.org/biotech/faq.html*, 11.09.2014.

[44] V. Federici, 551.

[45] M. Teisl, J. Caswell, 6.

proval and scrutiny apply on GM food and food *produced* from genetically modified materials.[46]

Similar to the EU Law, Serbian Law adopts principle of focusing both on the final product and on the production process as well. This principle derives from the notion of GM food adopted in Serbian Law. GM food comprises food and food for animals *produced* from GMO or which contain ingredients *produced* from GMO.[47]

6. THE SIZE AND THE SPOT OF THE LABEL ON THE PACKAGING

Even if label contains all necessary information on GMO in food, that information could be without practical importance for consumers, if the information are not sufficiently visible on the packaging. Therefore, the form and the spot of label on the packaging become very significant, as factor which influences usefulness of labeling of GM food. Much attention has been paid to this issue in EU Law. The Regulation differentiates three sorts of food: pre-packaged food with list of ingredients, pre-packaged food without list of ingredients, and non-pre-packaged food or pre-packaged food in small containers. For each sort the Regulation prescribes in detail form, spot, and content of the label. On the packaged food with list of ingredients, which consists of more than one ingredient, the words 'genetically modified' or 'produced from genetically modified (name of the ingredient)' shall appear in the list of ingredients. Where there is no list of ingredients, the words 'genetically modified' or 'produced from genetically modified (name of organism)' shall appear clearly on the labeling. Where the food is offered for sale to the final consumer as non-pre-packaged food, or as pre-packaged food in small containers, the information required under the Regulation must be permanently and visibly displayed either on the food display or immediately next to it, or on the packaging material, in a font sufficiently large for it to be easily identified and read. [48]

Unfortunately, these provisions have not been implemented in Serbian Law so far. LFS, Law on Consumers' Protection, and Rules on Food Declaring, Labeling, and Advertising (hereinafter: Rules) do not have special provisions concerning the size and the spot of the label on GM food packaging. Rules do have some provisions with respect to the issue of size and the spot of the label on the packaging, but these provisions are part of general legal regulation of food. Rules do not provide special rules for labeling of GM food.

[46] Regulation, Article three, Paragraph one.
[47] LFS, Article 60, Paragraph one.
[48] Regulation, Article 13, Paragraph one.

CONCLUSION

Serbian LFS dedicates only one provision to the labeling of GM food. It is clear that this issue deserves much more attention of Serbian legislator, considering, first of all, that EU Law regulates this issue in detail. The objective of the legal regulation of GM food, and especially the legal regulation of GM food labeling must be fully realization of the basic consumers' rights, such as right on choice, and right on information. Therefore, the Serbian legislator has to begin from this objective, and to try to prescribe the rules which would suit the best consumers' interests. It is clear that GM food labeling contributes to the realization of consumers' rights on choice and information, and mandatory labeling regime is the one that protects consumers' interests. The Serbian legislator prescribed that GM food labeling is mandatory, but he did not do anything else, but that. Labeling itself is not sufficient. The future Serbian GM food regulation must provide more details on this issue.

First, the legislator should prescribe what information a label is supposed to contain. In doing this, he has to have in mind that neither simple nor complex labels protect consumers' interest entirely. That means that the legislator should find a right balance between simple and complex labels – a label that provides only information whether food has been genetically modified is not sufficient, but on the other hand, a label must not contain too much information, since it would cause the so called "information overload problem" to consumers. The legislator should strive to avoid both of these extremes. Second, the legislator should prescribe that all foods must have labels about theirs GMO status. In other words, authors recommend to the legislator to adopt the system of both positive and negative labeling, even though there are some opinions that this comprehensive labeling is unnecessary. The reason why this system is recommended is that the system of both positive and negative labeling is the most favorable one for consumers. In case that the legislator assesses that this system is too expensive, he has to provide for "symetric" system of positive labeling, with clear prohibition of negative labeling. Third, the Serbian legislator should prescribe some threshold, which would be a border for mandatory labeling. The 0,9% threshold, adopted in EU Law, seems like logic choice for our legislator, considering a general need for implementation of EU Law in Serbian Law. Fourth, the size and the spot of the label on the packaging of GM food have strong influence on the actual realization of consumers' rights on choice and information. Thus, special provisions concerning this issue should be introduced in Serbian Law, having in mind solutions adopted in EU Law on this issue. Finally, at least some of the basic provisions of GM food labeling regime should become a part of Law on Consumers Protection.

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Правни факултет у Крагујевцу

Означавање генетски модификоване хране и права потрошача

***Сажетак*:** *Правно регулисање генетски модификоване хране директно утиче на потрошаче, с обзиром да су они ти који се свакодневно сусрећу са генетски модификованом храном у супермаркетима. На почетку рада, аутори указују на то да постоје велике разлике у правном регулисању генетски модификоване хране у САД и ЕУ. Те разлике за последицу имају разлике у правним режимима означавања између ова два система правног регулисања генетски модификоване хране. Аутори разматрају неколико фактора од којих зависи ефикасност правног режима означавања и утицај ознаке на фактичко остваривање основних права потрошача. Аутори ће у раду анализирати те факторе: сложеност ознаке, усвајање позитивног или негативног режима означавања, опредељивање за обавезни или факултативни режим означавања итд. У закључку аутори ће дати препоруке српском законодавцу и предлоге за усвајање нових решења у важећој законској регулативи, која ће унапредити остваривање основних права потрошача у вези са генетски модификованом храном.*

Кључне речи: *генетски модификована храна, потрошач, правни режим означавања генетски модификоване хране, основна права потрошача.*