Abstract

Growing concerns are observable over the coexistence between genetically modified and non-modified organisms in Poland. However, Poland already has in place a legislation and control system that regulates issues connected with GMO use, from scientific experiments, production, through import, distribution and extending to the placement of products containing GMO on the market. Despite the existence of GMO regulatory framework in Poland there are still issues that need particular attention such as trade, where deficiencies in proper labeling of GMO food products were noted. Poles, in general, are in favor of scientific research using genetic engineering in food production and processing. However, they are afraid that GMO in food products might have a negative impact on the environment and human health.
Introduction

Growing concerns are observable in Poland over the coexistence between genetically modified organisms (GMO) and non-modified organisms (non GM). This is because of significant stipulations of many stakeholders. So far GMO use is very restricted in Poland. According to official data provided by responsible authorities, currently there are no GMO cultivations in Poland (Simonides, 2004). However, since September 2004 the European Commission permitted 17 varieties of GMO maize MON810 to be grown in the European Union. Polish authorities asked for a two-year temporary prohibition, backing up this claim by the need to strengthen the existing law on GMO plant cultivation (Press release.., 2005). Nevertheless, there is much opposition to the introduction of GMO crops at the local and regional level. As a result, 13 provinces (out of 16) have already announced that they aim for a total ban of GMO crops (GMO free zones..., 2005). The authorities of Malopolska province, with one of the highest shares of area subject to organic production in Poland, emphasize that such a ban is the only option to ensure the further development of organic farming.

GMO in Polish legislation

In accordance with the Convention on Biological Diversity, Poland elaborates the project of National Strategy for Conservation and Sustainable Use of Biological Diversity. The operational goals of the Strategy cover implementation of a biosafety system, including a new law on GMO. At present there are two basic regulations that refer to GMO issues in Poland: The legal act of 22 June 2001 on genetically modified organisms and legal act of 11 May 2001 on health conditions of food and nutrition. As a result of the harmonization process with EU aquis, on 14 October 2004 the Council of Ministers approved and sent to the Parliament the proposed amendment to the law on genetically modified organisms. The proposal sets new rules, among others, for closed use of genetically modified microorganisms and genetically modified organisms as well as their introduction to the market. Also proposed is a joint monitoring system of GMO use. Due to this changes in the regulatory framework of GMO, once again the responsibilities and tasks of different state bodies have been re-defined. As a result, currently in Poland there are eight different authorities responsible for observance of existing legal regulations in the scope of GMO. In reference to the GMO control system, on 10 March 2003 the Minister of Environment - the governmental administrative authority competent for GMO, indicated 3 laboratories that are empowered to undertake testing and provide opinions on GMO. These three laboratories will form a part of the European Network of GMO Laboratories.
Market control

Competence in the scope of market control was divided between four institutions: Inspection of the Trade Quality of Food Products (raw material, processing, wholesale), State Sanitary Inspection (identification of GMO in food products), Trade Inspection (retail trade), State Veterinary Inspection (control of products of animal origin). In 2004, Inspection of the Trade Quality of Food Products (IJHARS) carried out controls, which aimed to check out the conditions of transport, storage, documentation as well as labeling of products that might contain GMO in Poland (The report on..., 2004). Two main products were selected, soya and maize. The results of the controls show that 99% of products from soya were labeled as GMO free that what was confirmed by appropriate certificates (Solae Europe, Cerestar, Gene Scan, Solbar). In the case of maize, 84% of products traded as GMO free had the required certificates. Only 1% of all controlled products did not have any information about GMO on their labels. Nonetheless, 61% of checked products were labeled incorrectly. Among the samples that were analyzed in depth, 3.77% contained over 0.9% GMO, including two samples declared as GMO free. Compared to the results of a similar control carried out in 2003, the number of tested samples in 2004 rose by 45% and accordingly, the share of products containing GMO (over 0.9%) decreased by 35%. Nevertheless, in 2004 the knowledge of traders about GMO legislation and their responsibilities in this respect increased in comparison to the 2003 controls. Comparable to the previous year not all controlled entities had any system or procedures in place that could ensure traceability and correct identification of GMO products.

Public perception of GMO

Surveys on the public perception of biotechnology were conducted in Poland, similarly as Eurobarometer in the EU, in 1996, 1999, 2001 and 2003. In the 2003 survey on a representative sample of Poles (1007 respondents above 15 years old) 74% respondents declared that they heard about GMO (Janik-Janiec et al., 2003). However, the majority admitted that they are not sufficiently informed about this issue. More than 50% of Poles are in favor of scientific research using the biotechnology and genetic engineering in production and processing of food. However, 58% of respondents are afraid that the GMO in food products might have negative impact on environment and human health. Compared with the 2000 survey, there is decreased support for research on GMO in food (by 18%) and an increase of GMO related threats to health and environment (by 7%). The respondents were very much concerned about the regulatory framework of GMO and 83% of them expected that all issues related to GMO should be strictly regulated by the law and supervised by the government. Almost 75% of Poles believe that new legislative measures concerning GMO should be consulted with civil society.
Compared to the previous surveys these results clearly indicate that less Poles support GMO in food products and they have higher expectations concerning the scope of regulatory framework and labeling of GMO products.

**Conclusions**

Although Poland has legislation that regulates the supply chain of GMO products, which is currently being developed and harmonized with EU acquis, it is not respected, especially with regard to trade. Also, the control system still requires development. Moreover, consumers are not sufficiently informed about advantages and disadvantages of biotechnology and GMO products and the scope of national and EU legislation, of which they have very high expectations. Consumers expect solid information and a transparent system on GMO use. The coexistence on the farm level does not exist in Poland yet, as officially, there are no GMO plantations. However, the economic aspects of coexistence are becoming more and more relevant in Poland. There is also an urgent need to discuss the conditions and measures required to ensure coexistence between various farming systems.

**Bibliography**


The report on the control of the conditions of transport, warehousing, documentation and labeling of products contained GMO in Poland (2004). Inspection of the Trade Quality of Food Products (IJHARS), Warsaw, Poland.
GMO AND NON GM COEXISTANCE IMPLICATIONS IN POLAND AS A NEW MEMBER STATE OF EU

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SCOPE OF THE POSTER

- Regulatory framework of GMO in Poland
- Market control of GMO products in Poland
- Public perception of GMO in Poland

GMO IN POLISH LEGISLATION

- Polish law regulates GMO issues, but still is not fully harmonised with EU acquis
- There is a need to strengthen the existing law on GMO before introduction of any GMO plant cultivations in Poland
- So far there are NO special measures of GMO and non GM coexistance in Poland

FURTHER DEVELOPMENT OF THE REGULATORY FRAMEWORK

- In Poland there is much opposition to the introduction of GMO crops at the local and regional level
- 13 provinces out of 16 declared that they aim at total ban of GMO crops
- Stakeholders ask for regulatory framework in order to ensure the coexistance of different farming systems

AUTHORITIES RESPONSIBLE FOR GMO RELATED ISSUES IN POLAND

- Ministry of Environment
- State Inspection of Nature Protection
- General Inspectorate of Seed and Plant Protection
- State Labor Inspection
- Custom Office
- State Sanitary Inspection (identification of GMO in food products)
- Trade Inspection (retail trade)
- Inspection of the Trade Quality of Food Products (raw material, processing)
- State Veterinary Inspection (products of animal origin)

3 laboratories forming a part of the European Network of GMO Laboratories

MARKET CONTROL OF SELECTED PRODUCTS

performed by the State Inspection of the Trade Quality of Food Products (UHAR-5) in 2004

- 99% soy and 84% maize products on the market is GMO free, what was confirmed by the appropriate certificates
- 61% of products were labeled incorrectly
- Among the samples analysed in depth, 3,77% contained over 0,9% GMO, including two samples declared as GMO free
- Not all controlled entities could ensure tracebility and correct identification of GMO products

PUBLIC PERCEPTION OF GMO

performed by OROP for Institute of Plant Breeding in Radzików

Survey on public perception of biotechnology conducted on representative sample of Poles (1007 respondents above 15 years old) in 2003 shows that:

- 74% Poles have heard about GMO
- 83% of Poles expect that all issues of GMO should be strictly regulated by the law

CONCLUSIONS

- Despite the existance of regulatory framework of GMO the law is not entirely respected
- The products containing GMO are not correctly labeled
- Poles have high expectations concerning the scope of the regulatory framework and labeling of GMO products
- There is a need to develop a strategy to communicate GMO related aspects to Polish consumers

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