

THE ROLE OF GMOs IN THE NEW MEMBER STATES

-A critical appraisal-

This report gives an overview on presence, use and authorisation of Genetically Modified Organisms (GMOs) in the New Member States of the European Union. It critically appraises political developments and highlights the role of the organic farming sector as well as Citizen's movements. Authorities in charge, people's attitudes, civil society movement's initiatives, cultivation and market situation of GMOs are presented. The report also provides general information about the situation of agriculture in the New Member States and specifically on the role of GMO free regions.

Editorial note

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Bulgaria

Introduction

Bulgaria is located in the heart of the Balkans. Its landscape is very diverse: in the North there are lowlands of the Danube, in the South highlands and elevated plains, in the east the Black Sea.

Bulgaria entered the European Union in 2007.

The agriculture sector still plays an important role in the Bulgarian economy. In 2007 it accounted for 4.2% of GDP. Agricultural land constitutes about 5.12 Mio ha. 7.5% of all employed work in agricultural sector. The main crops in the North are wheat, maize, sunflower, grapes, vegetables, and fruit trees. In the mountainous regions, potatoes, tobacco and flax are cultivated. Description of the sector o

Bulgaria seeks to balance the sufficient production of quality food and the increase of the employment rate with protection of the environment (e.g. 75% of territory suffers from soil erosion) and to prevent land abandonment.³ However, Svetla Nikolova, the chairwomen of the Bulgarian organic farming association AgroLink clarifies that this statement is only an official declaration made by the Ministry which is not in line with reality. There is no public support by the government to organic farming. Implementation of the EU's agro-environmental scheme started very late – in 2007 and due to different problems in the SAPARD Programme and lack of capacity of the Executive Agency there is no payment for organic farming project submitted by agricultural producers.

According to Bioselena in 2003, 650 ha were managed in an organic way. Whereas in 2007, there were 11 808 ha, which is 18 times more - (see the graph). Additionally, there were almost 398 000 ha of certified wild collection areas. ⁴ The total turnover of biological products in 2008 was almost 4 million Euros. ⁵ Svetla Nikolova adds that this turnover is related to entire organic market in Bulgaria. From 733 organic products sold at national level only 54 are produced in Bulgaria.



¹ http://ec.europa.eu/agriculture/agrista/2008/table_en/2012.pdf

http://www.gmo-free-regions.org/countries/bulgaria/bulgary.rtf

³ http://www.mzgar.government.bg/MZ_eng/RuralAreas/NOFAP_FINAL_en.pdf

⁴ http://www.bioselena.com/modules.php?name=News&file=article&sid=91

⁵ http://www.organic-world.net/bulgaria.html

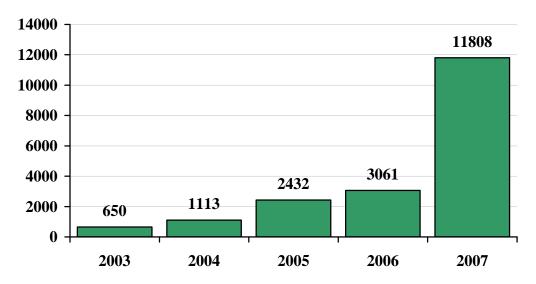


Figure 1: Development of organically managed agricultural land in Bulgaria 2003-2007 (Source: Bioselena)

One of the goals of the National Plan for development of organic farming (2007-2013) is to increase by 2013 the organic cultivated agricultural land to 8% and sale of the organic food products to 3%.

Cultivation of GM crops

In 1991, transgenic tobacco plants were released for the first time in the Balkan region. In the mid-1990s, field trials of virus- and bacteria-resistant tobacco and GM alfalfa were led by the Bulgarian Institute of Genetic Engineering (IGE)⁷ (at present AgroBioInstitute).

There were field trials with GM maize in the period of 1998-2004 on overall 42 800 ha in different regions in Bulgaria. According to Kalin Anastasov, the president of NGO Ecosouthwest, in 1998, Bulgarian farmers grew Monsanto's GM maize on 1 ha. In 1999 - 12 000 ha, and in 2000 - 20 000 ha were cultivated with GMO. (Monsanto's Roundup Ready maize - EPSPS and Pioneer maize known as "Liberty Link" or "Basta", was produced in 2002 on 2 200 ha, and 2003 on 2 195 ha. There are no data on which GM plant was sown in 2002 and 2003. However, Kalin Anastasov suspects it was the same as in 2000. Officially these were only field trials. However, there is evidence that farmers used the GM maize for animal fodder. A GM potato resistant to Colorado beetle was first grown in 1999 on 0.2 ha, in 2000 on 3 ha and 2001 on 3 ha. There were also field trials with sunflower in 2000 on 1.5 0.15 ha.

With its EU-accession in 2007, Bulgaria had to respect EU legislation concerning the cultivation of GMOs. At the moment, there is no official cultivation of GM crops in Bulgaria. However, Svetla Nikolova, AgroLink states that there is currently only one application to the Commission in the Ministry of Environment for release into environment (growing) of GM cotton. It is a Bulgarian GM hybrid, but in Europe

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⁵ http://www.mzgar.government.bg/MZ_eng/RuralAreas/NOFAP_FINAL_en.pdf

http://www.gmo-free-regions.org/countries/bulgaria/bulgary.rtf

⁸ http://ec.europa.eu/dgs/jrc/downloads/jrc_20081118_bulgaria_socioeconomic_alexandrova.pdf

GM cotton is not authorized and Bulgaria cannot grow it. The application was submitted by a private Bulgarian company to plant GM cotton trait which is elaborated by the same company based on Monsanto BT cotton. According to Svetla Nikolova, AgroLink, there are several unofficial signals that there are illegal imports of GM seeds.

Bans

There have been no bans so far. However, AgroLink together with other NGOs and parliamentarians is working on a ban of Monsanto's MON 810.

Products containing GMO

Most of the GM maize harvested in 1999 and 2000 was probably used for animal feed and thus entered the human food chain via meat and dairy products. The GM maize was not kept separate from the conventional crop.⁹

In 2006 sampling of foods in Bulgaria exposed the presence of GM soya and maize in chocolate waffles, and other soya and maize products.¹⁰

In 2007, the 35 S regulatory sequence from the cauliflower mosaic virus, which is commonly used in GM plants, was identified in soy shipped from Brazil. Therefore, the import was not permitted by the Bulgarian authorities.¹¹

Svetla Nikolova, AgroLink informed that in 2007 there were tests of products made by independent laboratory in Varna, which belongs to SGS group - a certification company on request from an NGO - Public Environmental Centre of Sustainable Development based in Varna. Due to limited finances, the tests were only qualitative not quantitative, and therefore it is not possible to say how much GM soy was there.

In 2008 there were tests conducted by The Sofia Regional Inspectorates for Prevention and Control of Public Health, which is the only authority in Bulgaria which tests food on GMO ingredients. A letter received from the Inspectorate by Kalin Anastasov, Ecosouthwest on 29.04.2009 states that:

- 1. In 2008, the laboratory made 272 tests and in 19 the GMO ingredient exceeded 0.9%.
- 2. The foods containing GMO ingredients above the 0.9 threshold originated from Bulgarian producers. All products contained a GM soy ingredient which came from imports.
- None of the products has been labelled accordingly.

Svetla Nikolova, AgroLink claims that the Inspectorate (governmental body) refused to inform the public opinion which company products contain GMO and who produced GMO food in Bulgaria.

There are no products on the market labelled as containing GMOs.

¹⁰http://www.gmcontaminationregister.org/index.php?content=re_detail&gw_id=140®=cou.45&inc=0&con=0&cof=0&year=0&handle2_page=

r=0&handle2_page=

11 http://www.gmcontaminationregister.org/index.php?content=re_detail&gw_id=181®=cou.45&inc=0&con=0&cof=0&year=0&handle2_page=



⁹ http://www.gmo-free-regions.org/countries/bulgaria/bulgary.rtf

Competent authorities

According to Bulgarian GMOs law the competent authorities are the Ministry of Environment and Water (MEW) and the Ministry of Agriculture and Food (MAF). MEW is responsible for authorisation and control of GM crops, MAF is in charge of import and export. According to Kalin Anastasov, Ecosouthwest, both MEW and MAF are sceptical about GMOs. Svetla Nikolova, AgroLink argues that the Ministry of Environment (MEW) is rather sceptical but the Ministry of Agriculture and Food (MAF) is directly in favour of GMO.

Legislation

In order to transpose the *Acquis communautaire* into national legislation, Bulgaria adopted the 'Genetically Modified Organisms Act, State Gazette No. 27/29.03.2005', which is in force since 01 June 2005. At the beginning the act banned the research on genetic modification with such plant species as tobacco, vine, and oil rose. It was lifted in 2007. Furthermore, the regulation banned the deliberate release into the environment and placing on the market of tobacco, vine, cotton, damask rose, wheat, all vegetable and orchard crops. In 2008 cotton was excluded. Additionally, it is illegal to apply GMO-based farming *"if organic farming is practiced on an adjoining field"*; the deliberate release of any GMOs into the areas included in the National Ecological Network, as well as into the adjoining areas within a zone of 30 km around any such areas. The regulation covers partly also coexistence measures. The distances between GM and non GM crops are defined in Annex 2 to Article 51 (4) and Article 71 (3). Minimum distances are: maize 800m, soya 20m, oilseed rape 400m. 12

At the end of December 2008 a new bill for an amendment of the laws was submitted by a group of parliamentarians. The proposal was to allow releasing into environment GM maize in the protected areas – natural and national parks and reserves. AgroLink and Za Zemiata issued statement with arguments against the new change of the law. Svetla Nikolova, Agrolink participated in the hearing in the Environmental commission of the Parliament. The campaign which were organised by AgroLink, Za Zemiata and a group of scientists convinced the Commission to vote negative to plant GMO maize in natural protected areas.

Organisations active on GMOs¹³

Organisation	Website
AgroLink	http://www.agrolink.org/
Blue Link	http://bluelink.net/gmo
Ecosouthwest	http://ecosw.dir.bg
Public Environmental Centre of	http://www.ecovarna.info/pageDispatch.php?
Sustainable Development	pid=20⟨=EN
Za Zemiata (For the Earth)	http://www.zazemiata.org/ (Bulgarian)

GMO-free regions

¹³ no claim to be complete



¹² http://www.moew.government.bg/index_e.html

There are 5 GMO-free municipalities: Satovcha, Ivaylovgrad, Banite, Kurdzhali i Zlataritsa (see map ¹⁴) officially declared by the municipalities administrations after public consultations and debates organised by AGROLINK Association.

In 2007 the world's campaign against GMO took place. Ecosouthwest organised a regional campaign during which 3 municipalities (Simitly, Kresna and Blagoevgrad) stated their willingness to become GMO-free zone as up to now there are not data for GMO crops in south western Bulgaria.



Figure 2: GMO-free regions in Bulgaria (Source: www.gmo-free -regions.org)

Attitude of people towards GMOs

According to the Eurobarometer survey from March 2008, 43 % of the Bulgarians are against GMOs, while 16% are in favour. ¹⁵ AgroLink Association has organised an information campaign on GMOs ('Monster Tomato') together with Friends of the Earth Europe. Svetla Nikolova claims that farmers are under big influence and pressure by Monsanto which is very active in the country and organise special events and visits at which journalists and media are present.

Reports on GMOs

Due to the lack of financial resources there are no reports available specifically on GMOs in Bulgaria.

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Website: www.agrolink.org

¹⁴ http://www.gmo-free-regions.org/gmo-free-regions/bulgaria.html

¹⁵ http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

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If not otherwise indicated, the information comes from one of these experts, who kindly shared their knowledge on GMOs in Bulgaria.

Cyprus

Introduction

Cyprus is the third largest island in the Mediterranean, with a total area of app. 9 251 km². ¹⁶

Cyprus entered the European Union in 2004.

Natural vegetation is composed mainly of short-lived annual plants that dry up in late spring. There are no crops that can grow in summer without irrigation. There are three main categories of agriculture: dryland farming irrigated farming and animal husbandry. Although irrigated farming occupies only 13% of the total cultivated area, its contribution to the gross value of crop production is about 60%. The main irrigated crops are potato, citrus, vegetables, watermelons and other melons and flowers. About 3% of the total irrigated land is used for the production of irrigated fodder crops. Soils are poor and shallow in many areas.¹⁷

Agriculture accounted for 2.1% of GDP in 2006. The share of employment in agriculture in relation to the total economically active population was 7.1% in 2006. In 2007 the share of agriculture in the GDP constituted 3.6% and the share in employment of civilian working population was 4.4%. ¹⁹

According to Eurostat in 2005 the share of organic farming in total utilised agricultural area in Cyprus was 1.1% and in 2007 it was 1.6%.²⁰ The Federation of Environmental and Ecological Organizations, Cyprus (FEEO) learnt from the Lacon Institute for Inspection and Certification for Organic Production in Cyprus (cy-bio-001) that the percentage of organic farming is increasing, and in 2009 has risen to 2.2%. The number of organic producers is about 700. An important step forward is the production of organic eggs and milk (only 8 producers by now). It is expected that organic farming and production in Cyprus will be further augmented. There are 2 organic farmers associations in Cyprus (Organic Farmers Association of Cyprus and

Pancyprian Association of Organic Farmers) which are against GMOs.

Cultivation of GM crops

Cyprus has transferred into national law all the related Directives and regulations of the EU. But, there are 2 strict articles in the national law transferring Directive 2001/18/EC which prohibit:

- a) GMO release into the environment in Nature 2000 sites
- b) GM crops release into the environment that have relative wild species in Cyprus

http://www.ilri.org/infoserv/webpub/fulldocs/wana/Cyprus.htm

http://ec.europa.eu/agriculture/agrista/2008/table_en/2012.pdf

²⁰http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TSDPC440



http://en.wikipedia.org/wiki/Cyprus

¹⁸http://www.mof.gov.cy/mof/cystat/statistics.nsf/All/A033E0BE2F71586AC225754400345E52/\$file/AGRI_STAT_2006.pdf? OpenElement

Cyprus government supported by NGOs, farmers and consumers associations, local authorities, all political parties, etc. aims to ban GMO release in Cyprus. FEEO prepared a document presenting Cyprus-specific parameters, which should be taken into consideration regarding GMO release and consumption. The reasons include among others: small size of agricultural plots which ease contamination of neighbouring plots; lack of proper buffer zones, which put organic farming at risk; high level of biodiversity and endemism, which could be put in danger by GM contamination; introduction of GMOs in the diet of the people suffering from hereditary or area-specific illnesses, which occur in a very high percentage due to the isolation of the island, could lead to further and severest risks; the cultivation of GM plants resistant to pesticides leads to further increase of pesticide use which has been already high.

One step forward is the Decision at the Council of EU Environment Ministers on the 4th of December 2008 points that 'in accordance with Community Law, which includes the Precautionary Principle, regions with particular agronomical and environmental characteristics, including small isolated islands, may require different case-specific management or restrictions measures, including prohibition measures for GMO cultivation.'²¹

To date, there have not been GMO field trials in Cyprus.²²

Bans

NGOs work to ban GMOs in Cyprus

Products containing GMO

There are both food and feed products containing GMOs. Unfortunately, very few are labelled.

In 2005 Cypriot legislators tried to oblige supermarkets to place products containing GMOs on separate shelves. In response the United States sent a letter to the Cypriot parliament saying that they stigmatize GM foods which may be in breach of Cyprus's obligations as a World Trade Organization member. ²³ Constantinos Charalambous from Friends of the Earth Cyprus (FoEC) states that the main driving force behind the attempt to legislate for GMOs to be on separate shelves was the Green Party in Cyprus, but the whole issue is delayed (or maybe cancelled) due to reactions of the US embassy in Cyprus.

Concerning animal feed, GM soy is fed to farm animals. However, measures are taken that imported feed is grinded and/or roasted in order to avoid spreading GM seeds growing wild. Cyprus strongly supports and applies zero tolerance of GMOs presence in seeds.

There were three proved cases of food and feed contamination with GMOs: in October 2006 product Riceland Parboiled contained unauthorised GMO rice; in March 2007 a 100 tonne shipment of rice protein from China contained DNA from

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http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/envir/104509.pdf

http://www.gmo-compass.org/eng/agri_biotechnology/field_trials/ http://cyprusembassy.net/home/index.php?module=article&id=4027

unauthorised insect resistant BT63 rice; in April 2007 dog food imported from the USA contained unauthorised GM rice LL RICE 601.²⁴

Competent authorities

The Ministry of Agriculture, Natural Resources and Environment and the Ministry of Health are in charge of GMO. According to Constantinos Charalambous, FoEC the position of the Ministry of Agriculture, Natural Resources and Environment has always been against GMOs. During a recent European Cyber-action (March 2009)²⁵, FoEC got a reply from the Department of Environment that Cyprus Minister will vote against cultivation of GM maize in Europe and in favour of French and Greek bans. The Cyprus Republic, so far, was against GMOs, so respectively all ministries share and apply the same position.

Legislation

The documents are available:

http://www.moa.gov.cy/moa/Agriculture.nsf/All/3C12A3CD3F75D0E0C22573B1006D5503?OpenDocument

Cyprus has not got any draft coexistence legislation yet. However, a study, on behalf of the Cyprus Government, will be initiated soon, aiming to examine the consequences of coexistence of GMOs with conventional and organic agriculture in Cyprus.

Organisations active on GMOs²⁶

Organisation	Website
Federation of Environmental and	http://www.oikologiafeeo.org/
Ecological Organizations, Cyprus	
(FEEO)	
Friends of the Earth Cyprus*	http://www.foecyprus.weebly.com/
Green Party of Cyprus	http://www.greenpartycy.com/
Cyprus Consumers Association*	http://www.cyprusconsumers.org.cy/

^{*} Both organisations are members of FEEO

GMO-free regions

Federation of Environmental and Ecological Organisations works intensively to declare Cyprus a GMO-free country. FEEO continues the campaign on Local Authorities aiming at the declaration of their territories as GMO free zones. The Municipalities which have declared their territories as a GMO-free region by now are the capital Nicosia, Ayios Athanasios, Engomi, Larnaca, Germasogeia, Strovolos and Latsia (see the map provided by FEEO). FEEO works with the Cyprus Union of Municipalities and the Cyprus Communities Union. The Cyprus Union of Municipalities has issued a declaration calling upon its members to take decisions prohibiting the release of GMOs into the environment. Moreover, the Cyprus Communities Union has issued a declaration on GMOs calling upon the Community Councils to declare their territories to GMO free zones.

no claim to be complete



²⁴/_{or}http://www.gmcontaminationregister.org/index.php?content=re®=cou.51&inc=0&con=0&cof=0&year=0

http://foecyprus.weebly.com/gmo-free-regions.html



Figure 3: GMO-free regions in Cyprus (Source: Federation of Environmental and Ecological Organisations of Cyprus)

Attitude of people towards GMOs

Eurobarometer survey from March 2008 shows that 81% of the Cypriots are against GMOs, while 7% are in favour. According to Constantinos Charalambous, FoEC, people in Cyprus are against GMOs as long as they get informed about the risks. Successful public petitions against GMOs have been held in the past. For example, in 2008, the Federation of Environmental and Ecological Organisations of Cyprus (FEEO) collected 78,226 signatures calling for total ban of GMOs, which is a very representative sample compared to the Cyprus population of 749,200 citizens (census of 2004).

Reports on GMOs

There are some reports available in Greek on the Environment Service site http://www.moa.gov.cy/moa/Agriculture.nsf/All/3C12A3CD3F75D0E0C22573B100 6D5503?OpenDocument. FEEO possesses many reports in Greek as well.

There was also an opinion from 3 April 2008 of the Cyprus National Bioethics Committee published, which calls for: establishment of the risk assessment for consumers' health, environment and farmers, more gradual and cautious applications regarding GMO, timely and accurate manner of the public information, respect and safeguard for «freedom of choice» of the consumers.²⁸

For more information:

http://www.bioethics.gov.cy/Law/cnbc/cnbc.nsf/All/70294B240F5D0950C22574DD003631C8/\$file/Abstract%20of%20the%20CNBC%20opinion%20on%20Genetically%20Modified%20Organisms.pdf - abstract in English



 $^{^{\}rm 27}$ http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

²⁸http://www.bioethics.gov.cy/Law/cnbc/cnbc.nsf/All/07B6465B480AF0BEC2257456002D1037?OpenDocument - full text in Greek

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If not otherwise indicated, the information comes from one of these experts/organisations, who kindly shared their knowledge on GMOs in Cyprus.

Czech Republic

Introduction

The Czech Republic is a landlocked country in Central Europe. The Czech landscape is quite hilly. The country is composed of the historic regions of Bohemia with the rivers: Elbe and Vltava and the Krkonoše range of the Sudetes, Moravia in the eastern part of the country with the Morava River and the source of the Oder River, as well as parts of Silesia.²⁹

The Czech Republic became a member of the EU in 2004.

There are currently 4.2 million hectares of agricultural land in the Czech Republic, 71% of which is arable land. The main crops are maize, sugar beet, potatoes, wheat, barley, and rye. Permanent cultures consist of grassland (978 000 hectares), gardens and fruit orchards (209 000 hectares), vineyards (19 000 hectares) and hop fields (10 000 hectares). Hills and mountains cover about 95% of the country which is perfect for cattle and sheep husbandry.³⁰

Organic farming in the Czech Republic keeps developing (see the table). In 2007, there were 1 318 organic enterprises and almost 312 000 ha of organic land, which accounts for 7.35 % of the total agricultural land.³¹

Year	Number of Enterprises	Total Area under OF in ha	Percentage of the Agri- cultural Land Fund
1990	3	480	^^
1991	132	17,507	0.41
1992	135	15,371	0.36
1993	141	15,667	0.37
1994	187	15,818	0.37
1995	181	14,982	0.35
1996	182	17,022	0.4
1997	211	20,239	0.47
1998	348	71,621	1.67
1999	473	110,756	2.58
2000	563	165,699	3.86
2001	654	217,869	5.09
2002	721	235,136	5.5
2003	810	254,995	5.97
2004	836	263,299	6.16
2005	829	254,982	5.98
2006	963	281,535	6,61
2007	1 318	312,890	7,35

Table 1: The Development of Total Area of Organically Farmed Land in the Czech Republic (Source: http://www.bioinstitut.cz/english/documents/RocenkaEZ_2007-angl_KOMPLET.pdf)

30 http://en.mze.cz/Index.aspx?ch=73&typ=2&ids=3659&val=3659

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²⁹ http://en.wikipedia.org/wiki/Czech_Republic

³¹ http://www.bioinstitut.cz/english/documents/RocenkaEZ_2007-angl_KOMPLET.pdf

Cultivation of GM crops

Monsanto's maize MON 810 was grown on 150 ha in 2005, 1 290 ha in 2006, 5 000 ha in 2007 and 8 383 in 2008. 32 The unofficial number for 2009 is 7 000 ha.

In 2005-2009, there have been GMO field trials for potato, maize, plum, tobacco and flax .33

Bans

There are no bans in the Czech Republic.

Products containing GMO

There are oils, fats, and feed that contain GMOs on the market. The products are labelled.

In April 2007, unauthorised LLRICE601 in packets of long grain rice being sold in the Czech Republic was identified. The rice came from Germany but originally it had been imported into the EU from the United States via the Netherlands.34

Competent authorities

The Ministry of Environment deals with applications and registers GM products for contained use, release into the environment, and onto the market. The Ministry of Agriculture is the competent authority for handling notifications and approvals of GM food and feed. This Ministry has set up the rules for coexistence of GM crops with conventional and organic farming.

Legislation

In order to enable GM maize to be cultivated in 2005, the Czech government developed temporary coexistence rules that applied only to Bt-maize cultivation in 2005.35 The rules were specified in the article 2i 'Cultivation of genetically modified variety' of Act no. 441/2005 Coll. on Agriculture. They cover the obligation to inform the Ministry of Agriculture and the neighbours about the intention to cultivate GM maize, keep the required distances between GM and non-GM crops and mark the area where GM crop is sown. 36 The Decree No. 89/2006 Coll. of 10 March 2006 on more detailed requirements for cultivation of genetically modified variety specifies the coexistence measures for maize and potatoes. The required distance to conventional corn is up to 70 metres, and to organic corn up to 200 metres; for potatoes it is 10 metres to conventional cultures and up to 20 metres for organic ones (Annex to Decree No. 89/2006 Coll.). 37



³²http://www.gmo-compass.org/eng/agri_biotechnology/gmo_planting/392.gm_maize_cultivation_europe_2008.html

³³ http://gmoinfo.jrc.ec.europa.eu/gmp_browse.aspx

³⁴ http://www.gmcontaminationregister.org/index.php?content=re_detail&gw_id=180®=cou.52&inc=0&con=0&cof=0&yea r=0&handle2_page=
³⁵ http://www.gmo-safety.eu/en/coexistence/489.docu.html

http://en.mze.cz/Index.aspx?ids=3659&ch=73&typ=1&val=708

³⁷ http://en.mze.cz/Index.aspx?ch=73&typ=1&val=709&ids=0&katId=3659

Organisations active on GMOs³⁸

There are two organisations active on GMOs: Greenpeace and 'Bioinstitut'

GMO-free regions

There is currently no GMO-free region in Czech Republic. 39

Attitude of people towards GMOs

In the Czech Republic, the approval of GMOs in society seems to be the highest of all new Member States. According to the Eurobarometer survey from March 2008, 30% of the Czechs are against GMOs, while 66% are in favour.⁴⁰

Reports on GMOs

Currently there are no reports specifically on GMOs in the Czech Republic.

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If not otherwise indicated, the information comes from this expert, who kindly shared her knowledge on GMOs in the Czech Republic.

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http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf



³⁸ no claim to be complete

http://www.gmo-free-regions.org/gmo-free-regions/czech-republic.html

Estonia

Introduction

Estonia is located the most northern of the Baltic States. It is a low land country on the eastern shores of the Baltic Sea, with many lakes and islands. Much of the land is covered by farmland or forest.⁴¹

Estonia entered the European Union in 2004.

There are about 824 000 hectares of agricultural land in Estonia which is around 18% of the total area. Arable land accounts for 600 000 ha and permanent pasture with 216 000 ha. ⁴² In 2007 agricultural sector accounted for 1.8% of GDP. In the same year 4.7% of employed civilian working population worked in agriculture sector. ⁴³ During 2003 – 2007, the number of agricultural holdings decreased by 36.7%; however, the average area of agricultural land of the holdings almost doubled (from 21.6 hectares to 38.9 hectares). The most important branch of agricultural production is animal husbandry, with the biggest share of cattle, pig production and poultry. Important crops in plant production are cereals, oil plants, potatoes and vegetables. ⁴⁴

According to Eurostat in 2005 the share of organic farming in total utilised agricultural area in Estonia was 7.2% and in 2007 it was 8.8%. ⁴⁵ Such a number gave Estonia 7th place among the countries with the highest share in the world. ⁴⁶ Nastja Pertsjonok, manager of the GMO-free Estonia states that in 2008 the share increased up to approx. 10%, but mainly it is grassland (more than 80%).

Cultivation of GM crops

The Ministry of Agriculture states that there is no GMO cultivation in Estonia. However, as there is no requirement to pass the information about GMO cultivation to the government, it might be possible that there are some farmers growing GM crops. However, as far as maize is concerned, it is not a widely used crop in Estonia and the traits of BT maize are not relevant for Estonia's conditions. Therefore, one can suppose that there is no cultivation.

To date there have not been GMO field trials in Estonia.⁴⁷

There have been two cases of contamination. In 2003 the mixture of different Bt maize (mainly MON810) was accidentally sold and sown. In 2008, the testing of oilseed rape showed that rape grown in Estonia was contaminated with GM rape T45. However, no official institution is following up on this, so the extent and source of the contamination is not known.

http://ec.europa.eu/agriculture/agrista/2008/table_en/2012.pdf

44 http://www.agri.ee/agriculture-and-food

www.greens-efa.eu

⁴¹ http://europa.eu/abc/european_countries/eu_members/estonia/index_en.htm

⁴² http://www.stat.ee/34244

 ⁴⁵ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TSDPC440
 46 http://www.organic-world.net/fileadmin/images/yearbook/2009-graphs/fibl-ifoam-graphs-yearbook-2009.pdf

⁴⁷ http://www.gmo-compass.org/eng/agri_biotechnology/field_trials/

Bans

Estonia is on governmental level very pro-GM (both the Ministry of Agriculture and the Ministry of Environment). So, there have never been any bans and neither are they expected.

Products containing GMO

Almost all compound feed contains GM (soya) and most food oils are made from GM soya. Not only are all GM soy oils legally labelled, but also when GM soy is one of ingredients in oil. The problem occurs when it is just labelled "vegetable oil" or "vegetable fat", and then there is no indication of whether it is GM soybean oil or palm oil or any other. Tests for other foods (sausages, soy meal products, etc) have shown mostly only small accidental contaminations.

Competent authorities

The Commission for Gene Technology within the Ministry of Environment deals with the implementation of Directive 2001/18 on the deliberate release into environment of GMO. The Commission consists of 18 people, including NGO representatives.

The Committee of Novel Food within the Ministry of Agriculture is responsible for the implementation of Regulation 1829/2003/EC on genetically modified food and feed and Regulation 1830/2003/EC on traceability and labelling of GMO. In this committee there are no NGO representatives. The Ministry of Agriculture is also responsible for the co-existence strategy.

Legislation

In 1999, the Estonian first Act on Deliberate Release into the Environment of GMO came into force. In 2004, this act was replaced by a new version. In fact, although there was no legal framework for the release, production and marketing of GMOs in Estonia until the adoption of the first GMO act in 1999, the Seed and Vegetative Propagation Material Act required the labelling of the retail packaging of certified genetically modified seed and vegetative propagation and cultivation material with the letters "GMO". 48

Right now, the draft of new GMO legislation is expected to be dealt with in the Parliament soon. It is expected that the coexistence issues will be further addressed there. The proposed measures and distances: 200 m for maize (1 year between), 50 m for potatoes (4 years), 3000 m for rape (5 years). Eesti Keskkonnaühenduste Koda - EKO (Estonian Environmental Chamber) made some comments on proposed legislation (can be viewed in Estonian here: http://exuyum.nw.eenet.ee/gmo/index.php?option=com_content&task=view&id=5 91&Itemid=40. However, actually, they were not taken into account.

Organisations active on GMOs

There is a platform called "GMO-free Estonia" launched mainly by the Estonian

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⁴⁸ http://www-user.uni-bremen.de/~avosetta/estonia_06.pdf

Fund for Nature, Friends of the Earth Estonia, organic farmers' associations, small scale farmers union and some consumer organisations.

GMO-free regions

The Estonian Council of Environmental NGOs, the Estonian Farmers` Federation, the Fund of Organic Agriculture, the Centre for Ecological Technologies and Consumers´

Organisations have launched a campaign to establish GMO-free zones. So far, 287 landowners have declared their land GMO-free (see map 49).

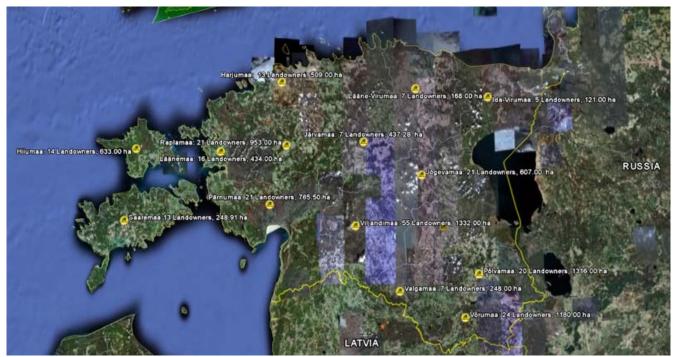


Figure 4: GMO-free regions in Estonia (Source: www.gmo-free -regions.org)

Attitude of people towards GMOs

The Eurobarometer survey from March 2008 shows that 31 % of the Estonians are against GMOs, while 26 % are in favour. ⁵⁰ Nastja Pertsjonok from GMO-free Estonia calls the approach of people towards GMOs a "passive cautiousness".

Reports on GMOs

There are no reports on GMOs issues in Estonia.

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If not otherwise indicated, the information comes from this expert, who kindly shared her knowledge on GMOs in Estonia.

⁴⁹ http://www.gmo-free-regions.org/gmo-free-regions/estonia.html

http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

Hungary

Introduction

Hungary is a landlocked state of Central Europe with the Lake Balaton, the largest lake in Central Europe, which is often referred to as 'Hungarian sea'. It is mostly flat, with low mountains in the north. Since the whole country is located in the Carpathian-basin, rivers brought fertile wash from the Carpathian Mountains and the Alps to the plains and that makes Hungarian ground so fat. That is why agriculture sector has significant importance of the country.

Hungary entered the European Union in 2004.

In 2007, arable land in Hungary amounted to 4,506,000 hectares, which is 48% of the area of Hungary (and 78% of the total agricultural land). Cereals (wheat, barley, triticale, oats, rye and corn) play a dominant role in the structure of crop production which makes Hungary the biggest grain producer among the New Member States. Primary agricultural production contributes to 3.6–4.0% of the GDP. The participation of agribusiness is becoming more and more important compared to primary production. According to calculations, the share of agribusiness in GDP production is 12–13%. 4.7% of all employments in the national economy are related to agriculture.⁵¹

Although, organic farming plays an important role among the agri-environmental management programmes in Hungary, contrary to many other countries in the world, the area of land under organic cultivation has decreased since 2004. In 1995, there were 8 000 ha under organic cultivation, in 2004 133 000 ha, and in 2007 122 270 ha.⁵²

Cultivation of GM crops

There has never been GMO cultivation for commercial purposes. Since 1999, some GM plants were released for research purposes (mainly GM maize lines) but only on small plots and under very strict conditions (e.g. the plot had to be fenced in or guarded day and night). In 2005, the Government banned the cultivation of Monsanto's GM maize line MON810. In 2006, the Hungarian Parliament passed a resolution including the short and mid term strategy for Hungary regarding the use of GMOs in agriculture. The main goal is to maintain the moratorium and the GMO-free status of Hungary. The resolution was approved by all parliamentary parties in consensus.

Bans

The only GMO crop authorized in EU - MON810 - is banned in Hungary. However, the European Commission unsuccessfully tried to force the country to lift this ban twice. First time, on 20 February 2007 - Hungary supported by the Member States could keep the ban (vote in the Environmental Council achieved with qualified majority - 262 supporting votes). Second time took place on 2 March

52 http://www.fvm.hu/doc/upload/200812/masz_english.pdf





⁵¹ http://www.fvm.hu/doc/upload/200812/masz_english.pdf

2009. Again, it was rejected by the Council of Environmental Ministers by 2/3 majority. Finland, Sweden, United Kingdom, Estonia and the Netherlands voted in favour, whereas the other Member States (282 votes, 22 countries) voted against lifting the ban.

Products containing GMO

Regarding soybean, Hungarian consumers do not have much of a choice: GM free soybean is hardly available on the market and only at higher price. There is cultivation of GMO-free soybean in Hungary, and mainly used in food processing. There are many imported food products on the Hungarian market which may contain GMOs. There are products which can contain genetically modified soy or MON810 corn. SHOP RITE products were found by environmental activists years ago in shops of Julius Meinl and Rotschild. They were Spaghetti sauce and chocolate syrup to decorate cakes. The list of all can be found here: http://www.zpok.hu/genmanipulacio/shoprite_lista.htm. Products containing GMOs must be labelled, when their amount is above 0.2% of the total ingredients.

Soybean used in animal feed mixtures is often genetically modified.

Competent authorities

The Ministry of Agriculture and Rural Development is in charge of the use of GMOs in agriculture and industry. The Ministry of Environment and Water and the Ministry of Health are specialized authorities for the GMO authorization process and give expert opinion on environmental and health related risks of GMOs.

All existing political decision makers (the government, the five political parties in the national parliament, MEPs) are against GMOs.

Pro-GMO movements are located in the National Academy of Sciences and can also be found in the associations of farmers possessing a lot of land such as the National Federation of Agricultural Co-operators and Producers (Mezőgazdasági Szövetkezők és Termelők Országos Szövetsége - MOSZ), and the Grain Producer's Association-Hungary - GPAH (Gabonatermesztők Országos Szövetsége - GOSZ) and the Association of Hungarian Pig breeders (Magyar Sertéstenyésztők Szövetsége).

Legislation

The first Act on Biotechnology was introduced in 1998. Since then the Act has been amended several times. In November 2006, the "Coexistence Regulation" (Act CVII. of 2006) was approved. The coexistence regulation is comparatively strict; especially with regard isolation distances (e.g. minimum distances for maize are 400-800m). ⁵³

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http://www.gmo-safety.eu/en/coexistence/513.docu.html

Organisations active on GMOs⁵⁴

Friends of the Earth Hungary, Greenpeace Hungary, ETK, Bioculture Association, Szövet, Conscious Consumers' Organization, MAGOSZ, Élőlánc and many more smaller NGOs, farmer organizations, consumer organizations

GMO-free regions

There are 76 municipalities who either declared their territory a GMO-free zone, or follow a GMO-free policy in their services, or enhance and support GMO-free agriculture (see map ⁵⁵).



Figure 5: GMO-free regions in Hungary (Source: www.gmo-free -regions.org)

Attitude of people towards GMOs

According to the last (2008) Eurobarometer survey, 70% of Hungarians are against GMOs, 12% are in favour and 14 % do not know about them. ⁵⁶

Reports on GMOs

There are no reports specifically on GMOs issues in Hungary.

 $^{^{54}}_{-}$ no claim to be complete

http://www.gmo-free-regions.org/gmo-free-regions/hungary.html

http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

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If not otherwise indicated, the information comes from this expert, who kindly shared his knowledge on GMOs in Hungary.

Latvia

Introduction

Latvia is located on the Baltic coast. It is a low land country with large forests that supply timber for construction and paper industries. The environment is rich in wildlife.⁵⁷

Latvia entered the European Union in 2004.

Agriculture is an important economic sector in Latvia. 36% of the total territory is agricultural land, whereof 73.3 % is arable land, 1.05 % orchards, 8.9 % meadows and 16.8 % pastures. Agriculture and hunting contributes 2.2% to the GDP. About 7.4 % of all employees work in agriculture and hunting. 58

There were 4120 organic farms in 2007 in Latvia. In 1998 - 2007 there was a great rise of the organic agricultural land of 106 folds (see the graph below). ⁵⁹ According to Eurostat in 2005 the share of organic farming in total utilised agricultural area in Latvia was 7% and in 2007 it was 9.8%. ⁶⁰ Such a number gives Estonia 4th place among the countries with the highest share in the world. ⁶¹

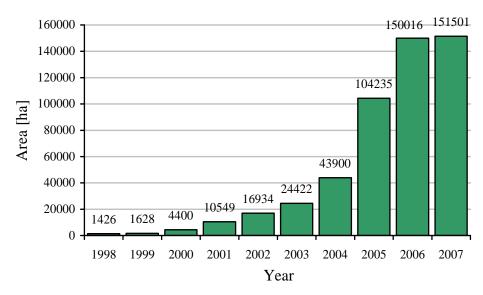


Figure 6: Certified areas of organic agricultural land 1998 – 2007 (Source: http://www.zm.gov.lv/doc_upl/agriculture_of_latvia(2).pdf)

Cultivation of GM crops

There has been no legal cultivation. In a new document published by the Ministry of Agriculture there is a reference to "rumours" that illegal experimental cultivation takes place at some universities.

59 http://www.zm.gov.lv/doc_upl/agriculture_of_latvia(2).pdf

⁶⁰http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TSDPC440
⁶¹http://www.organic-world.net/fileadmin/images/yearbook/2009-graphs/fibl-ifoam-graphs-yearbook-2009.pdf



⁵⁷ http://europa.eu/abc/european_countries/eu_members/latvia/index_en.htm

http://www.zm.gov.lv/doc_upl/agriculture_of_latvia(2).pdf

Up to date, officially, there have been no field trials in Latvia. 62

Bans

No national bans have been implemented.

Products containing GMO

Food in shops contains GMOs and some products are labelled according to the Regulation. Due to the lack of monitoring of GMO contamination, there have been reasonable suspicions that unlabeled products may be sold as well. However, NGOs do not have any proofs as none of them has resources to organise independent monitoring.

Competent authorities

Institutions which are responsible for GMO issues are: the Ministry of Agriculture, the Ministry of Environment and the Food and Veterinary Service.

The main institution in charge of GMOs is the Ministry of Agriculture. Within this Ministry two consultative institutions have recently been established: GMO Interinstitutional Working Group (with participation of NGO's) and GMO Supervisory Council (with complete blockage of NGO participation). They are responsible for consultations on GMO issues and preparation of opinions. The Ministry proved to take more and more pro-GMO stand in last months.

The Ministry of Environment (MoE) is currently very active in GMO issues and is negative about them. The Food and Veterinary Service is responsible for monitoring of actual situation and is the most supportive towards GMOs.

Legislation

The legislation is being revised at the moment and will probably become much stronger also as far as legalisation of GMO free regions is concerned. The National Parliament due to the pressure from the side of the Latvian civil society movement coordinated by Friend of the Earth Latvia might decide that GM products will have to be placed on separated shelves in stores and GMO-free zones will be legal and procedure for establishing such zones will be included in national law.

The draft coexistence legislation presented the following minimum distances: maize 200/400m, rape 4000/6000m, sugar beet 100/300m, potatoes 20/100m (from conventional/organic fields in each case) and other measures such as cropping intervals and volunteer control. ⁶³

In the on-going discussions on how Latvia should vote on GMOs issues in coming years in the EU, Friends of the Earth Latvia has managed to persuade the National Parliament to go against the opinion of the Ministry of the Agriculture (vote was in May 2009) and vote against new applications of GM crops for cultivation and review on case-by-case basis applications for GMOs distribution

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⁶² http://gmoinfo.jrc.ec.europa.eu/gmp_browse.aspx

⁶³ http://www.gmo-safety.eu/en/coexistence/513.docu.html#Lettland

on the market. Currently they are also working with the government to reach the position 'NO' regarding distribution on the market.

Organisations active on GMOs

There are couple of organisations involved: Green Liberty, Friends of the Earth Latvia, Association of Biological Farmers. There is also the informal initiative "GMO Free Latvia" — a group of scientists, journalists and activists, which is coordinated by Friends of the Earth Latvia.

GMO-free regions

There are currently no GMO-free regions declared in Latvia. 64

Attitude of people towards GMOs

The Eurobarometer survey from March 2008 shows that 75% of the Latvians are against GMOs, while 11% are in favour.⁶⁵

In March 2009, an opinion poll was organised the Ministry of Environment and showed that 96% of the Latvians are against GMOs (30 000 responses were collected). It was not a scientific poll but it shows the trend quite clearly.

The newest public poll was conducted with regard to the discussion on how to vote in EU Councils. The survey revealed that: 5% population are in favour of both GMO cultivation and distribution on the market, 4% in favour of cultivation but against distribution on the market, 67% against both, the rest confesses that they lack information to judge.

Reports on GMOs

The reports can be requested from the expert. But they are not available in English.

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If not otherwise indicated, the information comes from this expert, who kindly shared his knowledge on GMOs in Latvia.

⁶⁴ http://www.gmo-free-regions.org/gmo-free-regions/latvia.html

www.greens-efa.eu

⁶⁵ http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

Lithuania

Introduction

Lithuania is the largest, most populous and southernmost of the three Baltic States. The landscape is predominantly flat, with a few low hills in the western uplands and eastern highlands. Forests cover just over 30% of the country. 66

Lithuania entered the European Union in 2004.

Utilised agricultural land comprises 2 696 000 ha. The share of civilian working population employed in agriculture (including forestry, hunting and fishing sector) is 10.4 %. In 2007 agriculture accounted for 2.7% of GDP. 67

In 2008 there were 2 805 certified organic farms. The certified organic area amounted to 127 362 hectares (see the graph). In 2008 compared to 2007, the number of organic farms decreased by 2 %, and the certified area increased by 2 % because the average size of a farm increased to 45.4 ha. 68

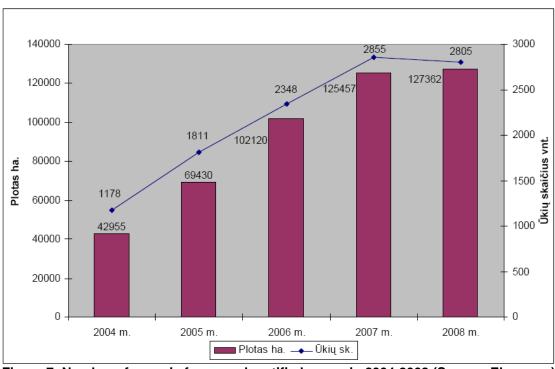


Figure 7: Number of organic farms and certified area c in 2004-2008 (Source: Ekoagros)

Cultivation of GM crops

There has been no commercial cultivation of GM crops in Lithuania. Two field trials have been conducted (2007-2011): one on oilseed rape modified for improved oil composition in the seed (BASF) and one on NK603 Roundup Ready maize (Monsanto's project 'Weed control strategies in Maize'). 69



⁶⁶ http://europa.eu/abc/european_countries/eu_members/lithuania/index_en.htm

⁶⁷ http://ec.europa.eu/agriculture/agrista/2008/table_en/2012.pdf

⁶⁸http://www.ekoagros.lt/web/files/file/naujas2009/Microsoft%20Word%20-

Bans

There are no bans on GMOs in Lithuania.

Products containing GMO

There are some GMO containing products on the market (mainly oils, margarine). However, it is assumed that there are more in reality. Every year there are new products identified which contain GMO but are not labelled (e.g. in 2008 4 food products were identified containing GTS 40-3-2 soy: in rice from Argentine, cacao wafer from Turkey, farinaceous products from Ukraine; also 6 types of feed from Ukraine containing GTS 40-3-2 soy, maize T25 etc.).

Competent authorities

The Ministry of the Environment controls the release into the environment of genetically modified organisms. The Ministry has always had a clear position against GMOs. Other institutions involved: Ministry of Agriculture, State Plant Protection Service, State Food and Veterinary Service, State Veterinary Inspection, Nutrition Centre under Ministry of Health

Legislation

The Regulation No IX-375 on genetically modified organisms of 12 June 2001 establishes the spheres of activities involving genetically modified organisms and genetically modified products, their management and regulation, as well as the rights, duties and responsibilities of the users of the said organisms and products.⁷⁰

The draft coexistence legislation requires the following minimum distances: maize 200m, sugar beet 50m, potatoes 20m.⁷¹

There is a proposal for the change of the current legislation on GMOs, according to which GMOs are going to be banned for both commercial and experimental purpose in Lithuania. Recently the Health Committee of the Lithuanian Parliament and representatives of state institutions discussed the proposal and agreed on it. So there is a very clear political statement on it, although it may not be compatible with EU legislation.

Organisations active on GMOs

At the moment it seems that there is no one working specifically on GMOs issues from the civil society movement.

GMO-free regions

There are no GMO-free regions declared in Lithuania.⁷²

http://www.gmo-free-regions.org/gmo-free-regions/lithuania.html



⁷⁰ http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_I?p_id=151558

⁷¹ http://www.gmo-safety.eu/en/coexistence/513.docu.html#Tschechien

Attitude of people towards GMOs

According to the Eurobarometer survey from March 2008, 55 % of the Lithuanians are against GMOs, while 41% are in favour.⁷³

There was also an opinion poll in Lithuania in 2009. The results presented in March showed that 51% of respondents have a negative attitude towards GMO, 38% are against any use of GMO in Lithuania, 30% agree only on use of GMO in laboratories, 27% agree to a use for agrofuels, only 6% agree to use GMO for commercial purposes (feed, food).

Reports on GMOs

There is a website dedicated to GMOs under supervision of the Ministry of Environment (http://gmo.am.lt), where different reports on the implementation of GMO related legislation etc. can be found. However, the website is in Lithuanian, and the English part is very poor.

For more information:

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If not otherwise indicated, the information comes from this expert, who kindly shared her knowledge on GMOs in Lithuania.

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⁷³ http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

Malta

Introduction

Malta consists of seven islands in the Mediterranean Sea. Only the three largest islands - Malta, Gozo and Comino - are inhabited. The terrain is low and rocky with coastal cliffs. ⁷⁴ Malta's total population is estimated at around 410,000 in an area of 316 square km. ⁷⁵

Malta entered the European Union in 2004.

Malta's agricultural production has been largely dominated by animal husbandry. When it comes to plant production, three different landscapes can be identified: garden type farming areas (intensive cultivation, e.g. high-quality fruit and grapes), barren meadows (fodder and legumes) and dry farming (vegetables, mainly potatoes). In 2007 there were 10 000 ha of utilised agriculturally land. Around 1,500 persons are engaged in agriculture on a full time basis and around 16,000 persons are engaged on a part time basis. Agriculture's share in the country's GDP is at 2.6%. The share of total utilised agricultural area (UAA) cultivated with organic farming in 2006 was 0.1% and in 2007 0.2%.

Jason Zammit, Secretary General, Friends of the Earth Malta states that there are currently 7 certified producers. The development of organic farming in Malta is hampered because there are mostly conventional farmers who have agricultural land side by side and used pesticides can easily contaminate any adjacent fields. Therefore, the Malta Standard Authority (MSA) has issued only those few licences after many years of studies.

Cultivation of GM crops

There has been no GM cultivation in Malta. In order to cultivate GMO, the permit from Malta Environment and Planning Authority (MEPA) through the Biosafety Coordinating Committee needs to be obtained.

So far, there have been no GMO field trials in Malta.80

Bans

There have been no bans on GMOs in Malta.

Bans are always inline with EU policies but Biosafety Coordinating Committee goes into a case by case basis.

www.greens-efa.eu

⁷⁴/_{__} http://europa.eu/abc/european_countries/eu_members/malta/index_en.htm

⁷⁵http://www.mepa.org.mt/soer_2005/driving_force/soer%2005%20driving%20forces%20for%20environmental%20change %20sub%20report_not%20final.doc

⁷⁶ http://ressources.ciheam.org/om/pdf/b07/93400006.pdf

http://ec.europa.eu/agriculture/agrista/2008/table_en/2012.pdf

http://www.nso.gov.mt/statdoc/document_file.aspx?id=1679

⁷⁹ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TSDPC440

⁸⁰ http://gmoinfo.jrc.ec.europa.eu/gmp_browse.aspx

Products containing GMO

In Malta, only EU approved products are allowed but these still have to be authorized by Malta Environment and Planning Authority (MEPA), Malta Standards Authority (MSA) and Environmental Health Department. As these products have to go through the mentioned authorities most products containing GMOs are labelled. However, it could be the case was some importers or producers manage to hide such vital information from customers.

In October and November 2006, the Maltese health authorities informed the public that unauthorised GM rice LL RICE 601 from the United States might have entered Malta. This was the case and affected batches were removed from shops.⁸¹

Competent authorities

The Ministry of Environment has always been against cultivation of GM crops. However, in the past, permits for the cultivation of soya, chicory, oilseed rape, maize and carnations were considered. The minister has mentioned the precautionary principle as the reason for voting against GMOs so far. Nevertheless, the minister lately spoke on having a balance between GMOs and people worried about the possible effect on the environment and human beings.

So far, Malta has 3 voting powers in EU levels and always voted against GMOs or abstained.

Legislation

Maltese legislation addresses GMOs by various Legal Notices, but there is no coexistence legislation yet. 82

Organisations active on GMOs83

Friends of the Earth Malta is an Environmental NGO that lobbied the public and hope to continue doing so via e-mails, Facebook, HI5, etc, by forwarding letters to the ministers or competent authorities on the current voting procedures on the EU level on GMOs.⁸⁴

Other NGOs active on GMOs issues are: Genista Foundation, Malta Organic Agriculture Movement, Move!, Moviment Graffiti, National Council of Women, Nature Trust, Progressive Farmers Union, Vegetarian Society.⁸⁵

Alternattiva Demokratika- Green Political Party⁸⁶

GMO-free regions

There are currently no GMO-free regions in Malta.87

http://www.foemalta.org/home/index.php/no-to-gmos



^{81/}http://www.sahha.gov.mt/showdoc.aspx?id=378&filesource=4&file=Press%20Release%20GMOs.pdf

⁸² http://www.gmo-safety.eu/en/coexistence/513.docu.html

⁸³ no claim to be complete

⁸⁵ http://www.movimentgraffitti.org/pressrel/example2.php?subaction=showfull&id=1117444047&archive=&start_from=&ucat

^{=1&}amp; a6 http://www.alternattiva.org.mt/filebank/documents/rome7.pdf

Attitude of people towards GMOs

According to the Eurobarometer survey from March 2008, 28% of the Maltese are against GMOs, while 19% are in favour.⁸⁸

Reports on GMOs

There are currently no reports on GMOs in Malta.

For more information:

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Website: www.foemalta.org

If not otherwise indicated, the information came from the experts above, who kindly shared their knowledge on GMOs in Malta.



⁸⁷ http://www.gmo-free-regions.org/gmo-free-regions/malta.html

⁸⁸ http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

Poland

Introduction

Poland is a country in Central Europe. It is geographically diverse - in the North there is the Baltic Sea, in the Northeast the Masurian Lake District, in the South mountains (the Carpathian Mountains including the Tatra range and the Sudetes with the Karkonosze), central part consists almost entirely of lowlands.

Poland entered the European Union in 2004.

The agricultural area accounts for almost 60.8% of land is agricultural land, the rest are: forests, waters, mines, cities, roads, and wastelands. Rural areas cover 93.2% of the area of Poland. 73.7% of farmland is arable land. Polish agricultural holdings are quite dispersed. The average size of a holding is 7.7 ha and half of the farms produce mainly or only for their own use. Those farms use traditional methods of production, limited amounts of pesticides and fertilisers as well as industrial feedstuffs. Despite this phenomenon, Poland is an important producer of such goods as potatoes, rye, wheat, sugar beet, apples and pig meat. The share of agriculture, forestry and hunting in the GDP constitutes around 4%. ⁸⁹ More info can be found here:

http://www.stat.gov.pl/cps/rde/xbcr/gus/PUBL rls rocznik rolnictwa 2008.pdf

Due to the agricultural character of Poland, low use of pesticides, family based farming, growing consumers' demand for organic products, Poland possess excellent conditions for the development of organic farming. In 2004 there were 3760 organic farms producing on the organic area of 82.730 ha. In 2007 there were 285 878 ha managed in an organic way by 11 887 organic farms. In 2002 the share of organic area in the total agricultural area constituted 0.3%, whereas in 2007 it was around 1.8%. ⁹⁰

Cultivation of GM crops

In field trials, potato, maize, cucumber, triticale and flax are cultivated. ⁹¹ In addition, unregistered regular fields can be found- which add up to around 3000 ha in 2008 according to unconfirmed sources. It is difficult to judge whether these are legal or illegal fields as the legislation contains lots of loopholes. This situation should be sorted out by the GMO act which is in preparation now.

Bans

In March 2005, Poland banned the cultivation of Monsanto's maize MON 810. The application was lodged under Article 16 of Directive 2002/53/EC (on the common catalogue of varieties of agricultural plant species). The ban affects 16 out of 31 MON 810 varieties. In May 2006, the Polish government complemented the ban with a general prohibition based on a national law to sell any GM seeds in Poland.

⁹¹http://www.gmo-compass.org/eng/agri_biotechnology/field_trials/218.poland_field_trials_gmos.html



http://www.minrol.gov.pl/DesktopDefault.aspx?TabOrgId=1210&LangId=1

http://www.minrol.gov.pl/DesktopDefault.aspx?TabOrgId=1154&LangId=0

Products containing GMO

There are both food and feedstuffs containing GMOs on the market. 92

Competent authorities

The Ministry of Environment deals with legal regulations on planting and coexistence issues. The position towards GMOs is negative.

The Veterinary Inspection within the Ministry of Agriculture and Rural Development is in charge of feed (testing, labelling issues).

The Ministry of Health is responsible for the approval of food products (Chief Sanitary Inspectorate) and for lab testing (National Sanitary Inspectorate).

Legislation

The GMO act containing the draft coexistence legislation is being set up at the moment. The draft foresees the following minimum distances: maize 200/300m, sugar beet 100m (3000m for seed production), potatoes 50m. Furthermore, additional measures have to be undertaken (cropping intervals of several years). 93

Organisations active on GMOs

There is a network called Coalition "GMO Free Poland" with over 200 member organizations and institutions, e.g. Greenpeace, ICPPC and others.

GMO-free regions

16 Polish regions, 4 counties, 16 communities and over 251 farms have declared themselves to be GMO-free (see map⁹⁴).

⁹³http://www.gmo-safety.eu/en/coexistence/513.docu.html#Polen 94http://www.gmo-free-regions.org/gmo-free-regions/poland.html



⁹² http://www.gmo.icppc.pl/index.php?id=38



Figure 8: GMO-free regions in Poland (Source: www.gmo-free -regions.org)

Attitude of people towards GMOs

According to the Eurobarometer survey from March 2008, 67 % of the Poles are against GMOs, while 20 % are in favour. 95

Reports on GMOs

In December 2008, the independent body, the Supreme Chamber of Control (Najwyższa Izba Kontroli - NIK) published a report on GMO regulation.

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If not otherwise indicated, the information comes from this expert, who kindly shared her knowledge on GMOs in Poland.



⁹⁵ http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

Romania

Introduction

Romania is located in south-eastern Europe. In the north it is mountainous, in the south the Danube valley and in the east the Black Sea.

Romania is member of the European Union since 1 January 2007.

Romania is one of the European major agricultural producers. Arable land represents 39.5% of its total area. It has the highest level of family labour force in agriculture in EU 27: almost 30% of the people work in agriculture. Romania is a major producer of grains, wine, fruits, vegetables, flowers, and meat and milk products. 96 The share of agriculture in the GDP is 2.7%. 97

Due to the agricultural and geographical structure of Romania and family base farming, Romania has a great potential to develop organic farming. The size of organic area in Romania has raised 9 folds since 2000. According to Romanian Ministry of Agriculture (MAPAM) 17 438 ha were managed in an organic way in 2000 and in 2007 there were 190 129 ha. 98 In 2007, there were around 4 000 organic agricultural holdings.99

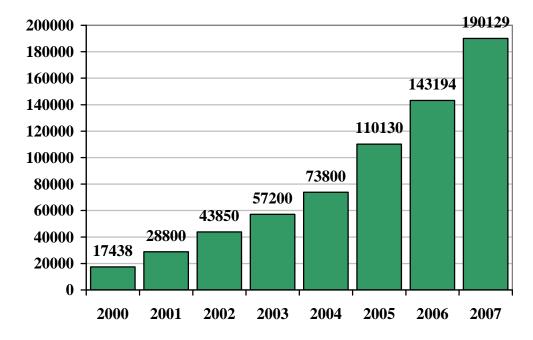


Figure 9: Development of organically managed agricultural land in Romania 2000-2007 (Source: the Ministry of Agriculture - MAPAM)

Cultivation of GM crops

Before the accession, Romania was the only country in Eastern Europe to plant GM soybeans: 110.000 ha were grown in 2005 and around 140 000 ha in

www.greens-efa.eu

⁹⁶http://rbd.doingbusiness.ro/en/2008/september/latest-articles/all/102-romanian-agriculture-potential-vs-reality.html

⁹⁷ http://ec.europa.eu/agriculture/agrista/2008/table_en/2012.pdf

⁹⁸ http://www.mapam.ro/pages/page.php?self=01&sub=0107&tz=010710

⁹⁹ http://www.ekoconnect.org/pdf/Infobrief_20/Infobrief-englisch-20.pdf

2006. 100 Monsanto's maize MON810 was also grown. According to the ISAAA (International Service for the Acquisition of Agri-biotech Applications), 332 ha of maize were cultivated in 2007 and about 7 000 ha in 2008. 101

Between 2005 and 2008, 17 illegal cultivation incidents were discovered (MON810, RR soya, plum trees, Bt potato). 102

Bans

GM soy was banned after the accession to the EU on 1 January 2007.

In 2008, the Minister of Environment announced the intention to ban the cultivation of MON810 mentioning the health risks and the impossibility of coexistence. However, he failed due to the lack of support from the Minister of Agriculture and the Biosafety Commission.

Products containing GMO

There is no labelled GMO product on the market today.

From 2006 - 2007, 3 incidents of food contamination with RR soya were discovered. 103

Competent authorities

A new government was established in January 2009. The current coalition, Democrat-Liberal Party (PDL) and Social Democrat Party (PSD) seems to be in favour of GMOs.

The Ministry of Environment is the central authority for the authorization process. At the moment, its position towards GMO is not clear.

The Biosafety Commission plays a consultative role in the authorization process. It is in favour of GMOs.

The Ministry of Agriculture is responsible for the evidence of cultivation. It seems to be against GMOs. However, according to Gabriel Paun from Agent Green, the Ministry of Agriculture keeps the locations of MON810 cultivation in secret. He has already written several letters to the Ministry asking for information about the cultivation places. He thinks that this information would reveal that the cultivation of MON810 is out of control.

The National Authority for Consumer Protection is in charge of food labelling

Legislation

All documents are available in Romanian on this website: http://www.mapam.ro/pages/page.php?self=06&sub=0604&tz=060404

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¹⁰⁰ http://www.europabio.org/documents/PR120209_slides.pdf.pdf

¹⁰¹ http://www.isaaa.org/

^{102/}http://www.gmo-free-regions.org/fileadmin/files/gmo-free-regions/Romania/Paun_24_4_Romania_ppt_en.pdf
103/http://www.gmo-free-regions.org/fileadmin/files/gmo-free-regions/Romania/Paun_24_4_Romania_ppt_en.pdf

Organisations active on GMOs¹⁰⁴

Until 2008, Greenpeace Romania has been campaigning against GMOs. At the moment, Agent Green does.

GMO-free regions

37 communes and three cities have declared themselves GMO-free (see map 105).



Figure 10: GMO-free regions in Romania (Source: www.gmo-free -regions.org)

Attitude of people towards GMOs

According to the Eurobarometer survey from March 2008, 50% of the Romanians are against GMOs, while 18% are in favour. 106

National polls say that the Romanians' rejection of GM food is decreasing from 67% in 2007 to 60% in 2008.

Reports on GMOs

There are currently no reports specifically on GMOs in Romania.

 ¹⁰⁴ no claim to be complete
 105 http://www.gmo-free-regions.org/gmo-free-regions/romania.html
 106 http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf

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If not otherwise indicated, the information comes from this expert, who kindly shared his knowledge on GMOs in Romania.

Slovakia

Introduction

Slovakia lies in the heart of central Europe. It is linked to its neighbours by the River Danube. In the northern half of the country there are the Carpathian Mountains, a fertile region around the lowlands of the Danube is excellent for farming.

Slovakia entered the European Union in 2004.

Agricultural land covers 49.7 % and forest 40.84 % of the total area of Slovakia. The highest share of agricultural land is allotted to arable land (61.7%), where intensive plant production of cereals, fodders and industrial crops takes place. The share of agriculture in the GDP has oscillated around 4% in recent years. 4.7% of the economically active population are employed in agriculture (including forestry and hunting). ¹⁰⁷

Development of organic farming in Slovakia dates back to 1991 when 31 farms entered the system, with a total area of 14 773 ha of agricultural land. In 1994 those farms were allowed to label their products as 'Bio'. Since that time organic agriculture has been facing further development (see the graph). In 2007 there were 120 000 ha managed organically by 185 organic producers. In the same year organic farming represented 5.78% of total agricultural area.

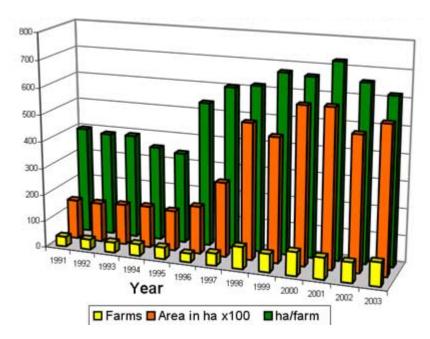


Figure 11: Development of organic farming in Slovakia in 1991-2003 (Source: the Ministry of Agriculture)

http://www.land.gov.sk/en/index.php?navID=27

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http://www.land.gov.sk/en/index.php?navID=24

http://www.organic-europe.net/country_reports/slovakia/default.asp

Cultivation of GM crops

GMOs are cultivated in Slovakia since 2006. In 2006 there were 30 ha, in 2007 around 900 ha and in 2008 around 1 900 ha of maize. 110

There have been field trials of Monsanto's and Syngenta's maize between 2006 and 2009. 111

Bans

There is no ban for GMOs in Slovakia.

Products containing GMO

Regarding food there are mainly imported oils containing GM soy. Most of them were imported from the Czech Republic. The list of products can be viewed here: http://www.greenpeace.org/slovakia/campaigns/geneticky-modifikovaneorganiz/jedlo/gmo-potraviny.

In June 2008, the Slovak authorities found DNA from unauthorised LLRICE601 long grain rice in boiling bags from the Czech Republic, the raw material came from Italy. 112 Information concerning animal feed is lacking.

Competent authorities

The Ministry of Environment approves GMOs for Slovakia. The Ministry of Agricultural is in charge of coexistence legislation. The "Slovak Inspection of Environment" checks the compatibility of labels of food products on the market. The "Central and Testing Institute in Agriculture" is in charge of laboratory tests and controlling. Neither of those institutions opposes GMO.

Legislation

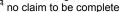
There are two main laws, Law 151/2002 on the use of genetic technologies and genetically modified organisms and 184/2006 on the cultivation of GM crops.

Draft coexistence legislation was submitted to the European Commission for notification in 2006. The suggestions for minimum separation distances: maize 200/300, potatoes 20 metres, oilseed rape 400/600 and sugar beet 50 metres (the values after slash are meant for organic production). 113

Organisations active on GMOs 114

No campaigns on GMOs are running in Slovakia.

http://ec.europa.eu/enterprise/tris/pisa/app/search/index.cfm?fuseaction=pisa_notif_overview&iYear=2006&inum=455&la ng=EN&sNLang=EN



¹¹⁰ http://www.gmo-compass.org/eng/agri_biotechnology/gmo_planting/392.gm_maize_cultivation_europe_2008.html

¹¹¹ http://gmoinfo.jrc.ec.europa.eu/gmp_browse.aspx

¹¹²http://www.gmcontaminationregister.org/index.php?content=re_detail&gw_id=241®=cou.58&inc=0&con=0&cof=0&ye ar=0&handle2 page=

GMO-free regions

There is currently no GMO-free region in Slovakia 115

Attitude of people towards GMOs

According to the Eurobarometer survey from March 2008, 62% of the Slovaks are against GMOs, while 17% are in favour. 116

Reports on GMOs

There are no reports on GMOs in Slovakia.

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If not otherwise indicated, the information comes from this expert, who kindly shared her knowledge on GMOs in Slovakia.

http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf



¹¹⁵ http://www.gmo-free-regions.org/gmo-free-regions/slovakia.html

Slovenia

Introduction

Slovenia was one of the six republics of the former Yugoslavia. It became independent in 1991 which meant the disintegration of Yugoslavia. Four major European geographic regions meet in the country: the Alps, the Dinaric area, the Pannonia plain and the Mediterranean. ¹¹⁷

Slovenia became the EU member in 2004.

Slovenia has 490,939 hectares of utilised agricultural area. Meadows and pastures account for 60% of agricultural land. More than 20% of the arable land is used for feed production (maize, root crops, and grass-clover). This indicates the great importance of livestock farming. Mainly ruminants are kept, with cattle prevailing, but also sheep and goats' breeding on the rise. With a percentage of just under 2%, the share of agriculture in the GDP is slightly lower than the European average. Despite the small share in GDP, agriculture's significance is great due to the multipurpose role it plays in the Slovenian rural areas. Due to the fact that Slovenia is mountainous, up to 449,000 hectares are defined as areas with limiting factors. 118

The share of agricultural area utilised in an organic way in comparison to total utilised agricultural area increased from 4.12% (20 224.05 ha) in 2006 to 4.72% (23 560.28 ha) in 2007. The number of organic agricultural holdings increased from 1 393 in 2006 to 1 610 in 2007. The number of organic agricultural holdings increased from 1 393 in 2006 to 1 610 in 2007.

Cultivation of GM crops

There is no cultivation of GM crops in Slovenia. To date, there have been no GMO field trials in Slovenia. ¹²⁰

Bans

There are no bans on GMOs.

Products containing GMO

There are products containing GMOs on the market, but mostly limited to animal fodder. There may be some GM-labelled foods on the market; however, the largest retail chain Mercator has a non-GM product policy.

There were proved cases of food products contamination with GMOs in the past. In September and November 2006, 2 cases of contamination with unauthorised GM rice from the United States were identified by the Slovenian authorities. On 18



¹¹⁷ http://europa.eu/abc/european_countries/eu_members/slovenia/index_en.htm

http://www.mkgp.gov.si/en/areas_of_work/agriculture/

http://www.stat.si/eng/novica_prikazi.aspx?ID=1868

http://www.gmo-compass.org/eng/agri_biotechnology/field_trials/

June 2008, the Slovenian authorities found rice powder from China contaminated with Bt 63. 121

Competent authorities

Due to concerns with regard to socioeconomic impacts on national agriculture and to public opinion, quite a few people in the Ministry of Agriculture seem to be rather sceptical towards GMOs. However, the current Minister of Agriculture is said to be in favour of GMOs. The Ministry of Environment and Spatial Planning has been rather pro-GM because relying exclusively on its pro-GM (external) scientific board, although its position in 2008-09 has been against new authorisations on the EU level, according to their statement as long as Slovenia would not have the legislation on coexistence in place. The Ministry of Health has no elaborated position. Following the positions of these three ministries, Slovenia voted against new authorizations in the last 2 years.

Legislation

On 21st of May 2009 Slovenia passed the Act on the co-existence of genetically modified plants with other agricultural plants which starts applying in 15 days from that date. The two necessary implementing regulations are being elaborated and are expected by the end of 2009 latest.

Organisations active on GMOs¹²²

There are several organisations active on GMOs: the Institute for Biodynamic Greenpeace, Sustainable Development, Union of Association for Healthy Slovenia, the Beekeepers' Union and a number of smaller local NGOs.

The Institute for Sustainable Development runs a campaign 'Without GMO', launched on 22 April 2007. They have published info brochures 'Gene technology in fields and on plate', prepared and/or translated several other info documents (such as reports 'Who benefits from GM crops' by FOE) and are well present in national media.

GMO-free regions

As a result of a national campaign coordinated by the 'Institute for Sustainable Development', 79 community councils (more than 1/3 of all Slovenian communities) have declared themselves GM-free (see map 123).

http://www.gmo-free-regions.org/gmo-free-regions/slovenia.html



¹²¹ http://www.gmcontaminationregister.org/index.php?content=re_detail&gw_id=243®=cou.44&inc=0&con=0&cof=0&ye ar=0&handle2_page=

no claim to be complete



Figure 12: GMO-free regions in Slovenia (Source: www.gmo-free -regions.org)

Attitude of people towards GMOs

According to the Eurobarometer survey from March 2008, 82% of the Slovenians are against GMOs, while 10% are in favour. 124

Reports on GMOs

There are some reports available on the website of the Institute for Sustainable Development (www.itr.si).

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If not otherwise indicated, the information comes from these organisations, who kindly shared their knowledge on GMOs in Slovenia.



¹²⁴ http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf