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EFFECTS OF THE REGULATION (EC) No 1829/2003 and 1830/2003 ON THE FOOD INDUSTRY IN GERMANY

Tobias Hirzinger¹, Klaus Menrad¹

k.menrad@wz-straubing.de

¹ Chair of Marketing and Management of Biogenic Resources, Straubing Center of Science, University of Applied Sciences Weihenstephan, Straubing, Germany

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Effects of the Regulation (EC) No 1829/2003 and 1830/2003 on the Food Industry in Germany

Dipl.Agr.Ing. Tobias Hirzinger
University of Applied Sciences
Science Centre Straubing
Schulgasse 16; D-94315 Straubing
Germany
Email: tobias.hirzinger@fh-weihenstephan.de
Tel: +49-(0) 94 21 18 72 17

Prof. Klaus Menrad
University of Applied Sciences
Science Centre Straubing
Schulgasse 16, D-94315 Straubing
Germany
E-mail: klaus.menrad@fh-weihenstephan.de
Tel.: +49-(0)9421-187-200

Summary: This survey assesses the effects of Regulation (EC) No 1829/2003 and 1830/2003 on the food industry in Germany. According to this study 89.5% of the food producers in Germany are affected of Regulations (EC) No 1829/2003 and 1830/2003 and no food producer in Germany processes GMOs which would require labelling. Further more the food industry in Germany developed quality management systems to exclude GMOs from production which would require labelling. The most used measure which 82.4% of the food producer mentioned to comply legal requirements and to prevent GMOs in production processes is the demand of a written affirmation of GM-free status from suppliers. The second most used measure, which 77.1% of the food producer mentioned, are enquiries back to supplier about GM-status of raw materials. Arising costs of Regulations (EC) No 1829/2003 and 1830/2003 mainly result from higher costs of GMO free raw materials (mentioned by 13.7% of the food producers), costs for analytical testing of GMO contents in raw materials (mentioned by 27.7% of the food producers) and additional personal costs (mentioned by 33.0% of the food producers).

Approach: Labelling of GMOs in food is nothing new in the EU. For several years any food product containing more than 1% GMO had to be labelled as containing genetically modified ingredients, a label which food producer and retailers have strived to avoid. This policy, however, gave a free ride to highly processed food products whose processing destroyed the novel proteins or DNA sequences that indicates the presence of GMOs. Regulation (EC) No 1829/2003 and 1830/2003 entered into force in April 2004 require exceeded labelling and traceability. There are following key components of Regulations (EC) No 1829/2003 and 1830/2003:

- **Traceability:** Mandates product traceability through documentation and implementation for the entire supply chain.
- **Labelling:** Products containing GMOs must be labelled as such, even when undetectable by tests. Products containing traces of GMOs below the appropriate regulatory tolerances thresholds are exempt from labelling, provided that compliant traceability systems are in place and traces of GMOs are adventitious and technically unavoidable.
- **Thresholds:** 0.9 percent tolerance for EU authorized GMOs and 0.5 percent for unauthorized GMOs they have already received a favourable EU risk assessment. Compliant traceabil-

ity systems must be in place and must demonstrate that any traces of GMO are adventitious and are technically unavoidable (www.genetic-id.com).

Because of this labelling and traceability requirements for GMOs of Regulation (EC) No 1829/2003 and 1830/2003 in the EU, this survey analyses the impact of these regulations on the German food industry. This survey considers the whole food industry in Germany and branches are differentiated in milling industry, confectionary industry, bakery industry, dairy industry, confectionary industry, meat industry, other food industry, other beverages, brewery and fruit juice industry. Data have been collected with a questionnaire which was send to the different branches in the food industry.

Strategy of the food industry in Germany towards GMOs

This survey shows that the food industry in Germany avoids GMOs in production processes, because no producer uses GMOs in food production which would require labelling as GM-product. There are different strategies to avoid GMOs in production processes and 82.5% of the food producers answered, to undertake all appropriate steps to avoid GMOs and therefore do not have any labelling requirements, considering legal thresholds of the EC Regulations. 6.3% of the food producers installed an IP-System and do undertake grater efforts to avoid GMOs in production processes. In organic food production rules and regulation related to GMOs are stricter and they are neither allowed in food processing nor as feed in animal production and 6.3% of the companies produce under this rules and regulation. In German law there is a possibility of labelling “ohne Gentechnik (without genetic modification)” since October 1998. Using this label producers are obliged to undertake additional efforts and 2.1% of the food producers mentioned to use the label “ohne Gentechnik”.

| | |
|---|-------|
| Avoidance of GMOs in food production which would require labelling | 82.5% |
| Installation of an IP-System to avoid GMOs in food production | 6.3% |
| Organic Production under compliance of organic production rules and regulations | 6.3% |
| Other Strategy | 2.8% |
| Labelling „ohne Gentechnik“ under compliance stricter labelling regulations | 2.1% |
| Use of GMOs in food production and labelling as GMO | 0% |

Thresholds and duty of care

Both thresholds of 0.9% and 0.5% of Regulation (EC) No 1829/2003 and 1830/2003 just reveal on GMO contents which are adventitious or technically unavoidable. As well as article 12 (3) and article 47 (2) of Regulations (EC) No 1829/2003 require that “operators must be in a position to supply evidence to satisfy the competent authorities that they have taken appropriate steps to avoid the presence of such material”. This means a shifting of the burden of proof and therefore the food producer is obliged to submit evidence that he has undertaken appropriate steps to avoid the presence of such material in case of detecting GMO admixture over legal thresholds. Till know detailed legal requirements missing and food producers questioning which appropriate steps would comply those requirements. So far there is a lack of information and several institutions of the food industry like BLL (Bund für Lebensmittel-

recht und Lebensmittelkunde e.V.) and EHI (Europäisches Handelsinstitut e.V.) recommended guidelines for their members, how to comply these requirements. Following BLL solutions should be differentiated and concentrate on single solutions. But in this context it is to mention that Regulation (EC) 1830/2003 basically requires an active duty of forwarding information about GMO contents over the legal thresholds from suppliers of genetic modified products. But aside this legal duty of information from suppliers, BLL recommends that operators should undertake additional efforts in case of GMO contents in products without labelling, according to product liability and warranty. This survey shows that the food industry in Germany is considering the recommendations and implementing certain “appropriate steps” to fulfil article 12 (3) and article 47 (2) of Regulations (EC) No 1829/2003. The most used “appropriate step” which 82.4% of the food producers mentioned, is the demand of a written affirmation from suppliers of the GM-free status of deliveries. The second most used “appropriate step” which 77.1% of the food producers mention, are queries back to suppliers to get general information about the GM-status of raw materials. Analytical test about GM-contents of raw materials and end products mention 27.7% of the producers, to ensure a GM-free status without labelling obligations. In order to exclude GMOs theoretically from production, 18.6% of the food producers in Germany mention to countercheck, if genetic modified plants already exist for raw materials and 15.8% of the food producers mentioned, to countercheck if their raw materials derive from countries planting approved gm-plants. About 2.2% mentioned to demand IP-certificates of suppliers to have a quiet high standard of GM-free products and raw materials. Just about 10.5% of the food industry mentioned to take no additional measures. This is reasonable because further results of the study show that breweries and drinking industry are less stressed by labelling and traceability requirements of GMOs.

| | |
|--|-------|
| Written affirmation of GM-free status from suppliers of certain Products | 82.4% |
| Enquiry to supplier about general GM-status of raw materials | 77.1% |
| Analytical GM-Testing of raw materials and end products | 27.7% |
| Checking if GM-plants are already existing for raw materials | 18.6% |
| Checking if raw materials derive from countries with GM-plants | 15.8% |
| Demand of IP-certificates of GM-free-status from suppliers | 2.2% |
| No additional measures caused by GMO-legislation | 10.5% |

Costs of labelling and traceability requirements

Additional personal costs throughout Regulation (EC) No 1829/2003 and 1830/2003 mentioned 33.0% of all participated food producers of this survey with average costs about 18.846,- € Additional costs for GMO free raw materials mentioned 13.7% of the food producers with average costs about 23.559,- € Analytical testing of GMO contents in raw materials or end products is feasible on a quantitative or qualitative testing regime. Some producers do just quantitative GMO testing, some qualitative or some apply both methods GMO testing methods. In average companies, if they apply GMO testing, they test about 39 times per year and one test is average about 174,- € This are in average about 6.786,-€/year for

analytical GMO testing. Just 3% of the food producers are stressed by additional personal costs, higher costs for raw materials and costs for analytical GMO testing. About 6% of the food producers are stressed by higher personal costs and higher costs of raw materials and 11% of the food producers are stressed by higher costs for analytical testing and additional personal costs. In the following table you can see the additional efforts and costs over the different branches in the food industry.

| | Analytical testing of GM-contents | Higher costs of raw materials | Additional personal costs |
|--------------------------|-----------------------------------|-------------------------------|---------------------------|
| milling industry | 57.1% | 28.6% | 28.6% |
| confectionary industry | 44.4% | 25.9% | 29.6% |
| other food industry | 37.8% | 22.2% | 40.0% |
| bakery industry | 35.5% | 22.6% | 29.0% |
| dairy industry | 27.6% | 17.2% | 37.9% |
| fruit/vegetable industry | 41.7% | 8.3% | 54.2% |
| meat industry | 23.1% | 7.7% | 40.4% |
| other beverage industry | 5.0% | - | 10.0% |
| Brewery | - | - | 7.7% |
| fruit juice industry | - | - | 35.3% |
| in total | 27.7% | 13.7% | 33.0% |

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