

2020 Annual Report on the General Surveillance of GHB614 Cotton in the EU

BASF Agricultural Solutions Seed US LLC
Represented by
BASF SE

Submitted on
11th December 2020

The submitted information (this document and all the study reports attached to it) contain scientific data and other information which is protected under Article 31 of Regulation (EC) No 1829/2003 and copyright laws. This submitted information may only be used for the evaluation by the regulatory authority to which it has been submitted as requested in the application of BASF. Any other use of this information, in whole or in part, without prior written consent of BASF, is strictly prohibited. By submitting this information, BASF does not grant any person or entity any right to use or license the information, data or intellectual property contained in this submitted information.

ANNUAL REPORT ON THE GENERAL SURVEILLANCE OF GHB614 COTTON IN THE EU

1. General Information

- 1.1 Crop/trait(s): GHB614 Cotton / Glyphosate herbicide tolerance**
- 1.2 Decision authorisation number pursuant to Directive 2001/18/EC and number and date of consent pursuant to Directive 2001/18/EC: NA¹**
- 1.3 Decision authorisation number and date of authorisation pursuant to Regulation (EC) No 1829/2003: Commission Decision 2011/354/EU of 17 June 2011**
- 1.4 Unique identifier: BCS-GHØØ2-5**
- 1.5 Reporting Period from: July 2019 to June 2020**
- 1.6 Other monitoring reports have been submitted in respect of Cultivation: No**

2. Executive Summary

On 17 June 2011, Commission Decision 2011/354/EU² (as amended by Commission Implementing Decision (EU) 2019/1195³ addressed to BASF SE) authorised the placing on the market of GHB614 cotton pursuant to Regulation (EC) No 1829/2003 of the European Parliament and of the Council. The authorisation covers the following products:

- a) foods and food ingredients containing, consisting of, or produced from GHB614 cotton;
- b) feed containing, consisting of, or produced from GHB614 cotton;
- c) products other than food and feed containing or consisting of GHB614 cotton for the same uses as any other cotton with the exception of cultivation.

In accordance with Directive 2001/18/EC and Article 4 of Commission Decision 2011/354/EU, the authorisation holder for GHB614 cotton, shall ensure that the monitoring plan, contained in the application and consisting of a general surveillance plan, is put in place and implemented. In addition, Article 4 of Commission Decision 2011/354/EU stipulates that the authorisation holder shall submit to the Commission annual reports on the implementation and the results of the activities set out in the monitoring plan.

In view of the obligation to submit annual monitoring reports for GHB614 cotton, the authorisation holder has undertaken a number of general surveillance activities accompanying the placing on the market of GHB614 cotton in the EU. An updated status on these activities

¹ NA: not applicable.

² Commission Decision of 17 June 2011 authorising the placing on the market of products containing, consisting of, or produced from genetically modified cotton GHB614 (BCS-GHØØ2-5) pursuant to Regulation (EC) No 1829/2003 of the European Parliament and of the Council (2011/354/EU). *Official Journal of the European Union* L 160/90, 18.6.2011.

³ Commission Implementing Decision (EU) 2019/1195 of 10 July 2019 amending Decisions 2008/730/EC, 2008/837/EC, 2009/184/EC, 2011/354/EU, Implementing Decisions 2012/81/EU, 2013/327/EU, (EU) 2015/690, (EU) 2015/697, (EU) 2015/699, (EU) 2016/1215, (EU) 2017/1208 and (EU) 2017/2451 as regards the authorisation holder and the representative for the placing on the market of genetically modified soybean, cotton, oilseed rape and maize. *Official Journal of the European Union* L 187/43, 12.7.2019.

is given in this annual monitoring report.

To date, the general surveillance accompanying the placing on the market of GHB614 cotton indicates that there have been no adverse health or environmental effects associated with the importation or use of GHB614 cotton. Therefore, no revisions to the general surveillance plan are considered necessary for GHB614 cotton.

3. Uses of GMOs Other Than Cultivation

3.1 Commodity imports into the Community

3.1.1 Commodity crop (GM + non-GM) imports into the Community by country of origin (actuals for the reporting period of July 2019 to June 2020)⁴

Country of origin ⁵	Quantity ⁶ (tons)
Japan	634,1
Korea (South Korea)	237,1
India	38,2
United States*	0
All Other Countries	4,2
TOTAL extra-EU	913,6

3.1.2 Commodity Crop (GM + non-GM) imports into the Community by country of destination (actuals for the reporting period of July 2019 to June 2020)⁴

Destination country	Quantity ⁶ (tons)
Greece	871,2
Italy	38,0
United Kingdom	0,2
TOTAL	913,6

⁴ Source: Eurostat (2020).

⁵ Data are provided for the main exporting countries, which combined make up approximately 98% of total cotton imports. Data for exporting countries where GHB614 cotton is authorised for cultivation are also included and marked with “*”.

⁶ The quantities are total EU-28 imports.

3.1.3 Analysis of data provided in tables 3.1.1 and 3.1.2

The authorisation holder, via EuropaBio, has collected EUROSTAT data on cotton imports into the EU for the period of July 2019 to June 2020. According to this data, total extra-EU imports of cotton were 913,6 tons and the main exporters of cotton to the EU were Japan, Korea (South Korea) and India which together accounted for approximately 99% of total extra-EU cotton imports.

For the period of July 2019 to June 2020, GHB614 cotton was authorised for cultivation in the United States. The total EU cotton imports from the United States were 0 tons. During the period of July 2019 to June 2020, the United States cotton exports to the EU accounted for 0% of total extra-EU cotton imports. Therefore, market share data for the United States is not provided (**Table 3.1.1**).

Table 3.1.2 summarizes the total cotton imports from outside the EU-28 by destination. The main import countries for cotton in the EU for the period of July 2019 to June 2020 were Greece, Italy and the United Kingdom. They are accounting together for 100% of the total cotton imports.

3.2 General Surveillance

3.2.1 Description of General Surveillance

The current approach used for general surveillance represents the consensus between all authorisation holders within EuropaBio and has been endorsed by the operators involved in the trade of viable cotton commodity (listed in Section 3.2.2).

The authorisation holder is not involved in commodity trade with GHB614 cotton. The monitoring methodology hence needs to be predominantly based on collaboration with third parties, such as operators involved in the import, handling and processing of viable GHB614 cotton. They are exposed to the imported viable GHB614 cotton and therefore are the best placed to observe and report any unanticipated adverse effects in the framework of their routine surveillance of the commodities they handle and use. The routine surveillance is based on the HACCP principles.

Since traders may commingle GHB614 cotton with other commercial cotton, including authorised GM cotton, The authorisation holder is working together with other members of the plant biotechnology industry within the European Association of Bioindustries (EuropaBio) and trade associations representing the relevant operators in order to implement a harmonised monitoring methodology.

The different parties agreed to collaborate on the following basis:

⇒ The consent holder represented by EuropaBio shall:

- Agree with the operators before adding or amending activities that fall under their responsibility in accordance with the proposed monitoring plan.
- Inform the operators in a timely fashion of any newly approved GM plant products for import and processing under Regulation (EC) No 1829/2003 or Directive 2001/18/EC subject to general surveillance.

- Set up and maintain a website dedicated to operators that provides an overview and detailed information on approved GM plant products subject to general surveillance. The website, hosted on the EuropaBio website under <http://www.europabio.org/agricultural-biotech/trade-and-approvals/operators-product-information> , contains the following information:
 - An introduction to the purpose of the website
 - A table giving an overview of all currently approved GM plant products subject to general surveillance
 - A profile for every approved GM plant product providing documentation on characteristics and safety, positive EFSA opinion(s) and Commission Decisions(s) authorising the GM plant product in the EU
 - A contact point at EuropaBio for information exchange on any of the GM plant products

The website will be regularly updated in order to further facilitate and ensure a transparent process for general surveillance and easy access to relevant information for operators.

- Contact the selected networks of operators annually, providing them with an update on the approved GM plant products subject to general surveillance and reminding them of their agreement to report on any unanticipated adverse effects (or absence thereof).

⇒ The selected networks of operators (European trade associations) shall:

- Inform and remind their member organisations and companies on an annual basis
 - to monitor for potential unanticipated adverse effects
 - to inform and remind their own member companies of this requirement
 - to report back any adverse effect reported to them to the European trade associations
- Report to the consent holders directly or via EuropaBio
 - at least annually, regardless of whether an adverse effect was observed or not
 - immediately any adverse effects reported to them

Consequently, the European trade associations shall notify EuropaBio of the results of the general surveillance on an annual basis. The report shall cover all approved GM plant products subject to general surveillance. EuropaBio shall forward this report to the respective authorisation holders for inclusion in their annual report to the European Commission.

The general surveillance information reported to and collected by the authorisation holder from the European trade associations or other sources shall be analysed for its relevance. Where information indicates the possibility of an unanticipated adverse effect, the authorisation holder will immediately investigate to determine and confirm whether a significant correlation between the effect and GHB614 cotton can be established. If the investigation establishes that GHB614 cotton was present when the adverse effect was identified, and confirms that GHB614 cotton is the cause of the adverse effect, The authorisation holder shall immediately inform the European Commission. The authorisation holder, in collaboration with the European Commission and based on a scientific evaluation of the potential consequences of the observed adverse effect, shall define and implement management measures to protect human and animal health or the environment, as necessary. It is important that the remedial action is proportionate to the significance of the observed

effect.

As described in the bullet points above, the authorisation holder shall submit an annual monitoring report including results of the general surveillance in accordance with the conditions of the authorisation. The report shall contain information on any unanticipated adverse effects that have arisen from handling and use of viable GHB614 cotton.

The report will include a scientific evaluation of the confirmed adverse effect, a conclusion of the safety of GHB614 cotton and, as appropriate, the measures that were taken to ensure the safety of human and animal health or the environment.

3.2.2 Details of industry, environmental, food and/or feed related surveillance networks used during General Surveillance

The authorisation holder, together with other members of the plant biotechnology industry and EuropaBio, will implement general surveillance of viable GM cotton, including GHB614 cotton, with the help of the selected networks described below, according to the methodology outlined in the authorisation holder's general surveillance plan and as detailed in Section 3.2.1. The following networks are currently involved:

⇒ *Importers / Traders*

COCERAL is the European association of trade in cereals, rice, feedstuffs, oilseeds, olive oil, oils and fats and agrosupply. It represents the interests of the European collectors, traders, importers, exporters and port silo storekeepers of the above mentioned agricultural products. The main importers of cereals and feedstuffs into the EU are members of COCERAL.

Also see: <http://www.coceral.com>

⇒ *Silo Operators*

UNISTOCK is the European association representing professional storekeepers for agribulk commodities within the EU. UNISTOCK full and extraordinary members are present in twelve countries and UNISTOCK is itself a full member of COCERAL. Commodity imports enter the EU by sea and transit through sea-port silos. The main storekeepers managing these silos are members of UNISTOCK.

Also see: <http://www.unistock.be/>

⇒ *Processors*

FEDIOL, the federation of the EU vegetable Oil and Protein Meal Industry, represents the interests of the European crushers of oilseeds, meal producers and vegetable oil producers/processors.

Also see: <http://www.fediol.eu/>

These associations represent the majority of European operators importing, handling and processing viable cotton commodity. They work closely together with a continuous and efficient flow of communication between them, particularly, through the documentation that needs to accompany any shipment containing GMOs in accordance with the labelling and

traceability requirements of Regulation (EC) No 1830/2003, and are therefore best placed to observe and report any unanticipated adverse effects.

Other networks consisting of operators further down the food and feed chain have not been selected for the general surveillance of viable GHB614 cotton, because they focus on processed, non-viable material.

3.2.3 Details of information and/or training provided to importers, traders, handlers, processors, etc.

The authorisation holder directly informed the selected network of operators (*i.e.* COCERAL, UNISTOCK and FEDIOL) that GHB614 cotton was authorised pursuant to Regulation (EC) No 1829/2003 by Commission Decision 2011/354/EU and that a website dedicated to operators that provides an overview and detailed information on the authorised GHB614 cotton has been made available as described below.

Specific information concerning the safety, general characteristics and the general surveillance conditions for GHB614 cotton was uploaded in a website dedicated to trade associations representing the relevant operators that import, handle and process viable cotton commodity in the EU, providing an overview and detailed information on approved GM plant products subject to general surveillance. The website, hosted on the EuropaBio website under <http://www.europabio.org/agricultural-biotech/trade-and-approvals/operators-product-information>, contains the following information:

- An introduction to the purpose of the website

- A table giving an overview of all currently approved GM plant products subject to general surveillance

- A profile for every approved GM plant product providing documentation on characteristics and safety, positive EFSA opinion(s) and Commission Decision(s) authorising the GM plant product in the EU. The document providing documentation on characteristics and safety for GHB614 cotton is attached as Appendix 1 to this annual monitoring report. In line with the general surveillance requirements for GHB614 cotton as described in the GHB614 cotton monitoring plan, this document also informs operators about the possibility of and consequences arising from accidental spillage of GHB614 cotton in the context of its intended uses and alerts the operators to the possibility that accidental spillage of imported cotton grains in ports and crushing facilities may result in the germination and establishment of volunteer plants, including GHB614 cotton. In addition, and in order to assist operators importing cotton grain in the EU, the authorisation holder has developed appropriate technical advice how to eradicate cotton volunteers which may include GHB614 cotton (Appendix 2).

- A contact point at EuropaBio for information exchange on any of the GM plant products

The website will be regularly updated in order to further facilitate and ensure a transparent process for general surveillance and easy access to relevant information for operators.

3.2.4 Results of General Surveillance

The reporting by the trade associations takes place at the end of their business year, *i.e.* end of June. Therefore, EuropaBio reminded the trade associations to provide their annual report on

any occurrence of unanticipated adverse effects arising from the approved GM products, including GHB614 cotton placed on the market during the period from July 2019 to June 2020.

The trade associations implemented the monitoring in the framework of their routine surveillance of the commodities (GM and non-GM) they handle and use. As required in the monitoring plan, they reminded their members *“to monitor for potential unanticipated adverse effects; that, in the framework of their management or safety standards (ISO, HACCP, etc), procedures must be in place and implemented to limit losses and spillage of viable GMOs and to routinely eradicate adventitious populations on their premises – any such adventitious populations, resisting routine eradication procedures, shall be treated as potential adverse effects; To inform and remind their own member companies of this requirement; and to report back any adverse effect reported to them to the European trade associations;”* .

COCERAL, UNISTOCK and FEDIOL members have in place Good Hygiene Practices and Good Manufacturing Practices in their daily operations, at the level of imports, storage, handling, and internal transport of grains and oilseeds commodities, as well as at the level of oilseed crushing and vegetable oil refining, irrespective of the botanical species of the commodity. Such practices form the pre-requisite programmes which are the foundation upon which their HACCP systems are built. Measures implemented in this context to limit losses and spillage of viable grains and oilseeds, as well as clean-up and eradication measures (in case of accidental spillage), allow trade associations to report any adverse effect that would be considered as “unusual” or “unanticipated” and potentially attributable to GMOs.

The trade associations informed EuropaBio in a format that reiterates the terms of the agreement of the general surveillance system and reports on the outcome of the monitoring. The format allows the authorisation holder to comply with the requirement to give evidence to the Commission and the Competent Authorities that the system is in place; that the trade associations are aware of the requirement to monitor; and, that they are providing information on any observed unanticipated adverse effects, if any.

The reports received from COCERAL, UNISTOCK and FEDIOL indicate that no adverse effects were reported from their members, thus implying that no adverse effects were linked to the presence of GHB614 cotton in the time period from July 2019 to June 2020 (see Appendix 3 and Appendix 4). Furthermore, no incidents in relation to the placing on the market of GHB614 cotton have been reported to EuropaBio or the authorisation holder since July 2020 to date.

3.2.5 Additional Information

Not applicable since no adverse or unanticipated effects were reported.

3.2.6 Review of peer-reviewed publications

The authorisation holder actively monitors peer-reviewed scientific literature related to its products. In the light of the 2020 annual general surveillance report for GHB614 cotton, a scoping review was performed for the GHB614 cotton and its newly expressed protein, 2mEPSPS. The objective of this scoping review was to determine if there were studies about the molecular characterization of GHB614 cotton, its effects on food and feed safety, or on environmental safety, that might require in-depth examination. A set of broad literature searches was performed using several bibliographic databases covering scientific literature

from October 1, 2019 to September 30, 2020. Additional sources of information, such as web pages of food safety, agriculture, and biotechnology-related authorities were searched for the same time window, along with the bibliographies of relevant reviews. The references identified were evaluated for potential relevance to the scoping review questions according to pre-defined criteria.

These literature searches identified a total of 48 unique publications, which were subject to rapid assessment to exclude obviously irrelevant publications. A total of 11 publications were progressed for detailed assessment and were determined to be not relevant after detailed review.

No new publications were found that contained new data on the molecular characterization of the GHB614 cotton and its newly expressed protein, 2mEPSPS. Similarly, no new publications were found that suggested any potential adverse effects of GHB614 cotton on human health, animal health, or the environment. No issues or topics were identified that would trigger or warrant more specific question formulation or indicate that a systematic review would be of value.

Therefore, this literature search and review of the retrieved publications identified no relevant publications that would contradict the existing safety assessment of GHB614 cotton and the newly expressed 2mEPSPS protein (Annex I_GHB614 Literature Review).

3.3 Case-Specific Monitoring

3.3.1 Description and results of Case-Specific Monitoring (if applicable)

The scientific evaluation of the characteristics of GHB614 cotton in the environmental risk assessment (e.r.a.) has shown that the risk for potential adverse effects on human and animal health or the environment is negligible in the context of the intended uses of GHB614 cotton. It is therefore considered that there is no need for case-specific monitoring.

3.3.2 Processing (if applicable)

Not applicable.

3.3.3 Monitoring and reporting of adverse effects resulting from accidental spillage (Not applicable)

3.4 Concluding remarks

The information reported to and collected by the authorisation holder within the frame of the general surveillance accompanying the placing on the market of GHB614 cotton in the EU indicates that there have been no adverse health or environmental effects associated with the importation or use of GHB614 cotton. The reports received from COCERAL, UNISTOCK and FEDIOL show that no adverse effects linked to the presence of GHB614 cotton were recorded and no adverse findings from independent research relating to GHB614 cotton have been published.

4. Summary of Results and Conclusions

To date, the general surveillance accompanying the placing on the market of GHB614 cotton

in the EU indicates that there have been no adverse health or environmental effects associated with the importation or use of GHB614 cotton.

Taking into account:

- a) the favourable scientific evaluations by scientists and regulatory agencies around the world;
- b) our experience with this product;
- c) the reports from the European trade associations (operators involved in the import, handling and processing of viable GHB614 cotton) who are selected as the most appropriate participants in the general surveillance network;
- d) the lack of adverse findings from independent research, available through the public literature;
- e) the fact that no adverse effects for GHB614 cotton have been reported to the authorisation holder

there is, to the best of our knowledge, no information available that questions the conclusion that GHB614 cotton does not pose any greater risk to health or the environment than conventional cotton.

5. Adaptation of the Monitoring Plan and Associated Methodology for future years

In view of the results given in this report, no revisions to the general surveillance plan are considered necessary for GHB614 cotton.

Signed: BASF

Date: 11th December 2020