

APPENDIX 3

LITERATURE SEARCH TO SUPPORT GENERAL SURVEILLANCE OF 2022/2023 ANNUAL POST MARKET ENVIRONMENTAL MONITORING REPORTS OF BAYER GM COTTON PRODUCTS

Data protection.

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SUMMARY

The literature search was conducted in accordance with the 2019 EFSA explanatory note on literature searching conducted in the context of GMO applications^{1,2} to support general surveillance of 2022/2023 annual post market environmental monitoring reports. It addresses the review question “Do Bayer GM cotton products, derived food/feed products and their respective introduced traits have adverse effects on human and animal health and the environment?”.

Eligibility/inclusion criteria to establish the relevance of retrieved publications was determined following the criteria described in the 2019 EFSA explanatory note on literature searching². Literature searching for Bayer GM cotton products was conducted in electronic bibliographic databases and internet pages of relevant key organisations.

In line with the requirements in the 2019 EFSA explanatory note on literature searching² the literature search covered the time span 2022 – 2023 to capture any publication published during the annual general surveillance of 2022/2023 post market environmental monitoring season.

The literature search retrieved three publications as relevant. These publications did not have any implication on the risk assessment, because no new hazard, modified exposure, or new scientific uncertainty is reported.

The comprehensive literature search found no new information that would invalidate the conclusions of the risk assessment for Bayer GM cotton products.

¹ Hereafter referred to as 2019 EFSA explanatory note on literature searching.

² EFSA, 2019. [Explanatory note on literature searching conducted in the context of GMO applications for \(renewed\) market authorisation and annual post-market environmental monitoring reports on GMOs authorised in the EU market - Note on literature searching to GMO risk assessment guidance. EFSA journal, 2019:EN-1614, 1-62.](#) – Accessed on 15 September 2023

1. INTRODUCTION

As part of the general surveillance requirements for Bayer GM cotton products authorised in the European Union (EU) market under regulation (EC) No 1829/2003, Bayer Agriculture BV³ has actively monitored the cotton products by conducting quarterly literature searches covering the time span between June 2022 and May 2023.

The results of the literature search that were analysed in detail according to the relevance for the risk assessment of the Bayer GM cotton products are presented here.

The Appendix completeness checklist is provided with this report.

2. FORMULATING THE REVIEW QUESTION AND CLARIFYING ITS PURPOSE

This literature search has been conducted to address the review question “Do Bayer GM cotton products, derived food/feed products and respective introduced traits have adverse effects on human and animal health and the environment?”

The purpose for undertaking this literature search is to support general surveillance of 2022/2023 annual post market environmental monitoring (PMEM) reports in accordance with the 2019 EFSA explanatory note on literature searching².

Key elements used for the review question are humans, animals, and/or the environment (= population), Bayer GM cotton products, derived food/feed products and respective introduced traits (= intervention/exposure), conventional counterpart or non-GM cotton (= comparator), and adverse effect on human and animal health, and the environment (= outcomes). Accordingly, the eligibility criteria for assessing the relevance of publications for inclusion in the literature review are provided in **Table 1**.

³ Hereafter referred to as Bayer.

Table 1. Eligibility/inclusion criteria to establish the relevance of publications

Key elements	Criteria
Population	Humans, animals and the environment (taking into account the scope of the applications) <i>i.e.</i> authorisation for all uses as any other cotton but excluding the cultivation of Bayer GM cotton products are addressed as general protection goals.
Intervention/exposure	Bayer GM cotton products derived food/feed products and corresponding introduced traits addressed in the publication are identical or similar to those under scientific review by the EFSA.
Comparator	In case of a comparative study that uses the GM plant material as test material, eligible publications must report a non-GM cotton as a comparator.
Outcomes	Adverse effects on human and animal health and the environment are addressed (taking into consideration the scope of the applications).
Additional key elements	
Information/ data requirements, including source of publications data	The publication potentially contributes to the knowledge of the risk assessment of Bayer GM cotton products for all uses as any other cotton but excluding cultivation. Original/primary data are presented in the publication.

The eligibility/inclusion criteria implemented by Bayer for assessing the relevance of publications follow the recommendations described in the 2019 EFSA explanatory note on literature searching². Following a conservative approach, Bayer selected the broad inclusion/eligibility criteria that align with the review question and the scope of the Bayer GM cotton products' authorisations. Hence, given the conservative approach taken when selecting the eligibility/inclusion criteria, conducting a pilot study was considered unwarranted.

When necessary, the eligibility criteria and/or process may be modified/reviewed as a result of for example new regulatory guidance or novel topics on literature regarding the risk assessment of GM plants.

3. SEARCHING FOR/ IDENTIFYING RELEVANT PUBLICATIONS

In accordance with the 2010 EFSA Guidance on application of systematic review methodology to food and feed safety assessments to support decision making⁴ and the 2019 EFSA explanatory note on literature searching², identification of bibliographic sources and development of search strategies were developed together with an information specialist who subsequently performed the literature search. The approach used to develop the search strategy follows a lumping method and includes a wide range of free-text terms and, where available, controlled vocabulary that defines search terms.

3.1. Sources of scientific literature

3.1.1. Electronic bibliographic databases

Bayer selects the SciSearch (Science Citation Index)⁵ and the CABA⁶ (CAB Abstracts®)⁷ databases to perform the literature search based on the coverage and relevance of the journals included in these databases. The literature search was conducted using the STN® database catalogue⁸.

The SciSearch, produced by from Clarivate Analytics (UK) Limited, includes over 45 million records in Science and technology published since 1974. It includes literatures captured under Science Citation Index Expanded™, a largest multidisciplinary scientific database and an international index covering all scientific topics. It contains also all the records published from the Current Contents series of publications as well as bibliographic information and cited references from over 5 600 scientific, technical and medical journals. In addition, “Records from January 1991 on include abstracts, author keywords, and KeyWords Plus®. Bibliographic information, authors, cited references, and KeyWords Plus® are searchable”⁵. The database is updated on a weekly basis.

The CABA, produced by CAB international (UK), includes over 8.9 million records in agriculture and life sciences published since 1973. The database “covers worldwide literature from all areas of agriculture and related sciences including biotechnology, forestry, and veterinary medicine. Sources for CABA include journals, books, reports, published theses, conference proceedings, and patents. Bibliographic information, indexing terms, abstracts, and CAS Registry Numbers are searchable. An online thesaurus is available for the Con-trolled Term (/CT), the Geographic term (/GT), and the Organism (/ORGN) fields”⁶. The database is updated on a weekly basis.

All journals included in the two databases must go through a verification process and as a minimum requirement, non-English language journals must include English-language bibliographic information (title, abstract, keywords) and be peer-reviewed^{7,9}. In general, English is considered the universal language of science. For this reason, the journals most important to the international research community will publish either full text or a

⁴ EFSA, 2010. [Application of systematic review methodology to food and feed safety assessments to support decision making The EFSA Journal, 1637, 1-90](#) - Accessed on 15 September 2023

⁵ STN/SciSearch: <https://www.stn-international.com/sites/default/files/stn/dbss/SCISEARCH.pdf> - Accessed on 15 September 2023

⁶ STN/CABA: <https://www.stn-international.com/sites/default/files/stn/dbss/CABA.pdf> – Accessed on 15 September 2023

⁷ CAB Abstracts®: <https://www.cabi.org/publishing-products/online-information-resources/cab-abstracts/> - Accessed on 15 September 2023

⁸ STN®: <http://stn-international.de/sites/default/files/STN/brochures/stnfile-kat.pdf>- Accessed on 15 September 2023

⁹ Web of Science group; <https://clarivate.com/webofsciencelibrary/solutions/webofscience-core-collection-editorial-selection-process/> - Accessed on 15 September 2023

minimum of bibliographic information in English, which is especially true in the scientific domain of natural sciences. Full text in English is highly desirable if the journal intends to serve an international community of researchers. Therefore, it is expected that even if there is a relevant article for the food and feed safety of GM plants in a language different than English, the article will include title/abstract/keywords in English, which will guarantee the retrievability of these articles when using keywords and keyword combinations in English.

Based on the above, the selected databases are, to our knowledge, comprehensive, multidisciplinary, conservative sources for literature searching and offer the broadest coverage to retrieve a largest breadth of possible relevant publications. Therefore, additional search sources are not deemed necessary.

3.1.2. Internet (world-wide-web) pages of relevant key organisations

In accordance with the 2019 Explanatory note on literature searching for GMO applications², the search in electronic bibliographic databases has been complemented with internet search in webpages of relevant key organisations involved in the risk assessment of GM plants.

Of the 14 key organisations cited in the 2019 Explanatory note on literature searching for GMO applications², 11¹⁰ are involved in risk assessment of Bayer GM cotton products. The remaining three (CIBIOGEM, Environment and Climate Change Canada and OECD) are not involved in GM risk assessment. Therefore, the internet search focused on the 11 key organisations relevant for Bayer GM cotton products.

3.2. Search strategy (electronic databases)

3.2.1. Search terms and search strings

The intervention/exposure key elements were defined and translated into search terms. These search terms were identified following the below listed approaches in line with the 2019 EFSA explanatory note on literature searching²:

- assessing words in reference publications,
- assessing subject indexing terms,
- searching for synonyms and related terms and
- consulting experts and stakeholders.

Following the aforementioned approaches, possible synonyms, related terms, abbreviations including acronyms and truncations, old and new as well as lay and scientific terminologies, brand and generic names, and spelling variants including common typos of the search terms were considered. Where applicable, the search was also adapted to controlled vocabulary

¹⁰ Internet pages of the relevant key organisations for Bayer GM cotton products:
US EPA (<https://www.epa.gov/environmental-topics/science-topics>) - Accessed on 15 September 2023;
USDA (<https://www.usda.gov/media>) - Accessed on 15 September 2023;
US FDA (<https://www.fda.gov/>) - Accessed on 15 September 2023;
CFIA (<http://www.inspection.gc.ca/eng/1297964599443/1297965645317>) - Accessed on 15 September 2023;
Health Canada (<https://www.canada.ca/en/health-canada.html>) - Accessed on 15 September 2023;
FSANZ (<http://www.foodstandards.gov.au/Pages/default.aspx>) - Accessed on 15 September 2023;
CTNBio (<http://ctnbio.mctic.gov.br/>) - Accessed on 15 September 2023;
CONABIA (<https://www.argentina.gob.ar/>) - Accessed on 15 September 2023;
Japan MAFF (<http://www.maff.go.jp/e/>) - Accessed on 15 September 2023;
GEAC (<http://www.geacindia.gov.in/approved-products.aspx>) - Accessed on 15 September 2023;
OGTR (<http://www.ogtr.gov.au/>) - Accessed on 15 September 2023.

(subject indexing). The search terms were designed to give an excellent coverage and retrieve the broadest possible number of articles related to Bayer GM cotton products.

The translation of the intervention key elements into search terms are presented in **Annex I**. The search terms, the fields and the Boolean operators used to combine them were defined as shown in **Annex II**. The search strings were built following the STN[®] commands¹¹ to allow the literature search in the STN[®] database catalogue. The free-text search terms, controlled vocabulary and the search strings are updated upon identification of a new search term.

The search sets belonging to each key element as described in **Annex I** and **Annex II** were combined by 'OR' to retrieve all the identified publications excluding duplicates. The separate assessment of these search sets, including those yielding only a small number of publications, was considered not necessary as this would duplicate the literature screening process and alter the consistency and comprehensiveness used in the literature search strategies.

3.2.2. Limits applied

An advanced literature search was conducted using the web-based STN[®] database catalogue for both the selected electronic databases (*see* section 3.1.1). STN[®] enables searching in each electronic database by making use of pre-defined fields, set combinations based on Boolean operators or a combination of both¹². In STN[®], the results of the search from each database can be merged and duplicates can be removed by de-duplication.

The STN[®] literature search utilised "Basic Index" (None (or /BI)) field which utilises free-text search terms and enables comprehensive searching in different sections (*e.g.* title, abstract, keywords, supplementary terms, controlled terms) within a record^{5,6,11}. Where applicable, controlled vocabulary (subject indexes) offered by CABA (controlled terms (CT)) were also included in the search strategy. Controlled vocabulary is assigned by subject specialists to CAB records to represent the content of the source documents. It allows users to use only one term to search for a concept rather than using lots of terms¹³. The most relevant, broad and controlled terms in the hierarchy of CAB Thesaurus terms and that were listed as preferred terms by CAB for a search query were selected and added to the search string, as shown in **Annex I** and **Annex II**.

3.2.3. Language

The search terms and their combinations are established in English. Therefore, the search is expected to result in a list of titles, abstracts or keywords written in English, covering also articles written in other languages with at least a title, abstract or keywords in English. Also, as technical terms on proteins names, event codes, trade names and Latin names are common in all languages, the search is expected to retrieve articles in all languages.

¹¹ STN. [Command summary chart for bibliographic and full-text databases](#). – Accessed on 15 September 2023

¹² STNindex user guide: <https://stn.products.fiz-karlsruhe.de/training-center/documentation/stn-index-user-guide> - Accessed on 15 September 2023

¹³ CAB Direct advanced searching of CAB abstracts: <https://www.cabi.org/Uploads/CABI/publishing/training-materials/resources-by-interface/cab-direct-user-guides/advanced-searching-cab-abstracts.pdf> - Accessed on 15 September 2023

3.2.4. Time period

The literature searches covered the time span 1 June 2022 - 31 May 2023.

The literature search in the electronic databases was conducted on a quarterly basis considering the entry dates in the STN[®] database catalogue. **Table 2** shows the search dates and the time span of each search.

Table 2. Description of literature search periods in the electronic databases

Date of the search	Last database update dates	Search period
10 October 2022	SciSearch: 03 October 2022	06 June 2022– 03 October 2022
	CABA: 04 October 2022	06 June 2022– 03 October 2022
01 February 2023	SciSearch: 01 February 2023	03 October 2022– 30 January 2023
	CABA: 31 January 2023	03 October 2022– 30 January 2023
06 June 2023 ¹⁴	SciSearch: 06 June 2023	06 June 2022– 06 June 2023
	CABA: 30 May 2023	06 June 2022– 06 June 2023

3.2.5. Reference publications

In accordance with the 2019 EFSA explanatory note on literature searching², a list of reference publications is provided in **Annex III**. The reference publications were tested and retrieved using the search terms and strategy developed for Bayer GM cotton products.

3.3. Search strategy (relevant key organisations)

All records related to GMO applications and approvals published in the webpage of each relevant key organisation were screened based on ‘limits applied’ as described in the **Annex IV** and assessed for their relevance to Bayer GM cotton products.

The literature search in the internet pages of the relevant key organisations was conducted on 16 August 2023 and covered the time span 01 June 2022 – 16 August 2023.

4. SELECTING PUBLICATIONS

Publications retrieved from the literature search were screened for their relevance first and then the selected ones were evaluated for their reliability through detailed assessments. Relevance to the search scope and scientific reliability were rigorously assessed by internal and external technical experts.

4.1. Eligibility screening process

The process of selecting relevant publications was undertaken in two stages:

- **Rapid assessment** for the relevance based on information in the title and abstract of the publications, to exclude publications that are obviously irrelevant.
- **Detailed assessment** of full-text document if required. Full-text documents were obtained for those publications not excluded in the rapid assessment and those documents were assessed in detail for their relevance to the review question.

¹⁴ Note the search was revised on 06 June 2023 as the search scripts were modified to address some errors.

Publications not excluded by the detailed assessment were classified as relevant. At this stage, publications must comply with all the eligibility/inclusion criteria and meet all key elements of the review question.

Experts with a solid experience in GM plants risk assessment performed the screening process. Based on the available comprehensive weight of evidence, the experts assessed if the conclusions of the risk assessment are still valid.

4.2. Reviewers

4.2.1. Number of reviewers

All publications that were identified by the search described in **Section 3** have been screened by three different reviewers (one internal and two external experts) with solid experience in the risk assessment of GM plants.

4.2.2. Expertise of reviewers

Besides their academic background, the reviewers have adequate expertise in the risk assessment areas of GM crops (molecular characterisation, food and feed safety, environmental safety) and several years of experience in the analysis and selection of relevant publications in literature searches for GM applications.

4.2.3. Inter-reviewer agreement

Reviewers (internal and external) perform their assessment in an independent sequential manner. They are in communication and meet on a regular basis to ensure consistent interpretation and implementation of eligibility/inclusion criteria and/or screening process. During the rapid assessment stage, retrieved abstracts and titles of publications are screened by each reviewer independently and assessed against each other to conclude on inclusion or exclusion based on eligibility/inclusion criteria. If opinions on relevance differ, the discrepancies are discussed between the reviewers and if a disagreement persists, the publication under discussion is *de facto* included in the next stage for further consideration. In summary, publications which appear to be relevant and those of unclear relevance, are progressed to the next stage.

During the detailed assessment, the selected publications are assessed in detail, independently and sequentially by the two external reviewers based on the full text of the publications. The publications screened by each reviewer are assessed against each other to conclude on inclusion or exclusion based on eligibility/inclusion criteria. If opinions on relevance differ between reviewers, all reviewers (external and internal) discuss the discrepancy as necessary and, if needed, consult additional internal reviewers to resolve the discrepancy.

If uncertainty remains, the publication is *de facto* reported as unclear providing a justification as suggested by the reviewers. In summary, publications, which appear to be relevant and those of unclear relevance, are reported.

This approach ensures a high-quality process as it allows a harmonised continuous publication screening process across different GM applications in accordance with the 2019 EFSA explanatory note on literature searching^{Error! Bookmark not defined.} and avoids missing publications due to bias towards certain eligibility criteria.

4.3. Classification of publications

Taking account of i) the review question, ii) the scope of the application, *i.e.* authorisation of Bayer GM cotton products for all uses as any other cotton but excluding cultivation in the EU and iii) the eligibility criteria to establish the relevance of retrieved publications, the list of retrieved hits were assessed to conclude whether a certain publication was considered relevant or not. When a publication was considered relevant, the category the publication belongs to is indicated. The following is a non-exhaustive list of categories publications may belong to:

Food/Feed safety assessment

- Molecular characterisation
- Protein expression
- Crop composition
- Agronomic and phenotypic characteristics
- Toxicology - Animal feeding / *In vitro*
- Allergenicity of the protein or the whole food/feed
- Nutrition
- Protein / DNA/ RNA fate in digestive tract

Environmental safety assessment

- Spillage and consequences thereof

It should be noted that the selection criteria are well defined and reassessed annually.

4.4. Quality appraisal of the relevant publications

The relevant publications, if identified, are appraised in terms of reliability in accordance with the 2019 EFSA explanatory note on literature searching² by at least two individuals with technical expertise on the topic using the following steps categorised in two main areas:

Credibility of the publication

1. ***Does the publication include sufficient information to establish the reliability of the research?*** Publications with insufficient information (e.g., incomplete experimental design, publications for which only an abstract is publicly available) are categorised as “**not assignable**”. Others go to step 2.
2. ***Is the publication scientifically sound/reliable?*** Publications that do not contain scientifically sound/reliable information (e.g., inadequate methodology, test/control materials) are categorised as “**not reliable**”. Others go to step 3.

Appropriateness of the publication for the EFSA risk assessment

3. ***What is the relevance level of the publication for the EFSA risk assessment?*** Publications with low relevance for the EFSA risk assessment (e.g. publications dealing with wild relatives or pests not found in the EU) are categorised as “**low reliable**”. Publications with moderate relevance for the EFSA risk assessment (e.g., exploratory studies, research with limited focus on risk assessment) are categorised as “**moderately reliable**”. Whereas publications with high relevance for the EFSA risk assessment (e.g. research based on data collected for regulatory studies) are categorised as “**highly reliable**”.

In cases of disagreements, the evaluators discuss together and collectively determine the reliability of the publication.

5. SUMMARISING AND REPORTING THE DATA, AND CONSIDERING THE IMPLICATIONS OF THE FINDINGS

5.1. Search outcomes

5.1.1. Outcomes of literature search (electronic databases)

The literature searches identified 107 and 168 hits in SciSearch and CABA databases, respectively (see **Annex II**). After de-duplication¹⁵, the total number resulted in 243 hits (see **Annex V**).

5.1.2. Outcomes of literature search (relevant key organisations)

The literature search in the internet pages of the 11 relevant key organisations retrieved a total of 88 records. The links to the results of the literature search and the summary of the retrieved data are shown in **Annex IV**.

5.2. Results of the publication selection process

5.2.1. Results of the publication selection process (electronic databases)

The results of the publication selection process for the retrieved hits from the electronic databases are provided in **Annex V**. Two relevant publications were retrieved after detailed assessment of the full text documents.

For bibliographic details regarding these publications in .RIS format, see **Annex VI**.

For the full-text documents of the relevant publications, see the references folder within the Appendix 3_Literature search folder.

5.2.2. Results of the publication selection process (relevant key organisations)

The results of the publication selection process for the retrieved records from the relevant key organisations are provided in **Annex IV**. One record was identified as relevant. For the full-text document of the relevant publication, see **Annex IV**.

5.3. Considering the implications of the findings

The reliability assessment for the relevant publications is provided in **Annex V**. The one relevant record retrieved from the relevant key organisations (see **Annex IV**) is reliable since the rationale for the positive conclusions in those records are consistent with the results reported in the data package provided by Bayer. All the relevant publications have no implications for the risk assessment of Bayer GM cotton products because no new hazards, modified exposure, or new uncertainties are reported.

The comprehensive literature search for publications relevant to the food, feed, and environmental safety of Bayer GM cotton products found no new information that would invalidate the conclusions of the risk assessment Bayer GM cotton products.

¹⁵ Corresponds to the unique publications after STN® and manual de-duplication.

6. CONCLUSION

Taking into consideration all the above, Bayer confirms that this literature search, conducted in accordance with the 2019 EFSA explanatory note on literature searching² to support the general surveillance in the context of 2022/2023 annual PMEM for Bayer GM cotton products, identified no relevant publications that would invalidate the conclusions of the Bayer GM cotton products previous risk assessments. Therefore, the conclusions of the risk assessment as presented in the initial applications of the Bayer GM cotton products remain unchanged.

Annex I. Translation of intervention/exposure key elements into search terms for Bayer GM cotton products literature search in STN® database catalogue

1. Free-text search terms for Bayer GM Cotton products

Key elements	Search terms	Synonyms, related terms, abbreviations/ acronyms/ truncations, lay/ scientific terms, brand/ generic names and spelling variants/ typos (adapted for performing search in STN® database catalogue)
Event names	MON 15985 or MON-15985-7 MON 88913 or MON-88913-8	MON!15985? OR MON 15985? OR MON15985? OR MON!88913? OR MON 88913? OR MON88913?
Trade name	Genuity® Bollgard II® cotton Genuity® Roundup Ready® Flex cotton	BOLLGARD II? OR BOLLGARD!II? OR BOLLGARDII? OR BOLLGARD 2? OR BOLLGARD!2? OR BOLLGARD2? OR BG II OR BGII OR BG!II OR BG 2 OR BG2 OR BG!2 ROUNDUPREADY? OR ROUND!UP!READY? OR ROUND!UP READY? OR ROUNDUP READY? OR ROUND UP READY? OR RRFLEX OR RR FLEX OR RR!FLEX
Newly expressed proteins	CP4 EPSPS Cry1Ac Cry2Ab2	CP4EPSPS? OR CP4 EPSPS? OR 5(W) (ENOL PYRUVYL SHIKIMATE OR ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR ENOL!PYRUVYL! SHIKIMATE! OR ENOLPYRUVYL SHIKIM ATE) (W)3 PHOSPHATE (1W) SYNTHASE CRY1AC OR CRY1 AC OR CRY 1 AC OR CRY 1AC OR CRYIAC OR CRYI AC OR CRY I AC OR CRY IAC CRY2AB? OR CRY2 AB? OR CRY 2 AB? OR CRY 2AB? OR CRYIIAB? OR CRYII AB? OR CRY II AB? OR CRY IIAB?
Intended traits: Herbicide tolerance traits	Glyphosate/roundup tolerance	(TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(GL!PHOSATE OR GL!FOSATE OR ROUND!UP? OR ROUNDUP? OR ROUND UP?)
Intended traits: Insect protection traits	<i>Bt</i> Cotton / <i>Bacillus thuringiensis</i> , Cotton providing Lepidopteran protection against Noctuidae and Gelechiidae insect pest families or Tobacco budworm (TBW) or cotton	(BTCOTTON OR BT COTTON OR BT!COTTON OR THURINGIENSIS!COTTON OR THURINGIENSIS COTTON OR THURINGIENSISCOTTON)

	bollworm or corn ear worm (CBW/CEW) or pink bollworm (PBW) or <i>Heliothis virescens</i> or <i>Helicoverpa zea</i> or <i>Pectinophora gossypiella</i>	(TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(LEPIDOPTERA? OR BOLLWORM? OR BOLL WORM? OR BUDWORM? OR BUD WORM? OR EARWORM? OR EAR WORM? OR NOCTUIDAE OR GELECHIIDAE OR HELIOTHIS OR VIRESCENS OR HELICOVERPA OR ZEA OR PECTINOPHORA OR GOSSYPIELLA OR TBW OR CBW OR CEW)
Crop name	Cotton, <i>Gossypium</i>	COTTON OR GOSSYPIMUM
GMO general terms	Genetically modified organism (GMO, GM); Living modified organism (LMO); biotechnology-derived organism (biotech-derived); Genetic engineering (GE); transgenesis (transgene); genetic transformation; genetic manipulation; genetic improvement.	GMO? OR LMO? OR GM OR GE OR TRANSGEN? OR ((GENETIC? OR LIVING OR BIOTECH?)(5A)(MODIF? OR TRANSFORM? OR MANIPULAT? OR IMPROV? OR ENGINEER? OR DERIV?))

2. Controlled vocabulary, if applicable. Bayer GM Cotton products

Key elements	Search terms	Controlled terms offered by CABA (adapted for performing search in STN® database catalogue)
Event name	Not applicable	
Trade name	Not applicable	
Newly expressed proteins	Not applicable	
Intended traits: Insect protection and herbicide tolerance traits	<i>Bt</i> Cotton / <i>Bacillus thuringiensis</i> , Cotton providing Lepidopteran protection against Noctuidae and Gelechiidae insect pest families or Tobacco budworm (TBW) or cotton bollworm or corn ear worm (CBW/CEW) or pink bollworm (PBW) or <i>Heliothis virescens</i> or <i>Helicoverpa zea</i> or <i>Pectinophora gossypiella</i>	(WEED CONTROL+UF,NT/CT OR INSECT CONTROL+UF,NT/CT) AND (LEPIDOPTERA+UF,NT2/CT,ORGN OR NOCTUIDAE+UF/CT,ORGN OR GELECHIIDAE+UF/CT,ORGN OR HELIOTHIS+UF,NT1/CT,ORGN OR HELICOVERPA+UF,NT1/CT,ORGN OR PECTINOPHORA+UF,NT1/CT,ORGN OR GLYPHOSATE+UF,NT/CT)

	Glyphosate/ roundup tolerance	
Crop name	Cotton, <i>Gossypium</i>	COTTON+UF,NT/CT,ORGN
GMO general terms	Genetically modified organism (GMO, GM); Living modified organism (LMO); biotechnology-derived organism (biotech- derived); Genetic engineering (GE); transgenesis (transgene); genetic transformation; genetic manipulation; genetic improvement	GENETIC ENGINEERING+UF,NT/CT OR GENETIC TRANSFORMATION+UF,NT/CT OR GENETICALLY ENGINEERED FOODS+UF,NT/CT OR GENETICALLY ENGINEERED ORGANISMS+UF,NT/CT OR FOOD BIOTECHNOLOGY+UF,NT/CT

Annex II. The search string used for Bayer GM [CROP NAME] products literature search in SciSearch and CABA databases using STN® database catalogue, and outcomes of the search (2022-2023)

This alert run covers the time range from 20220606 until 20230606

This alert will only include literature published from 2022 onwards

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(FILE 'STNGUIDE' ENTERED AT 15:01:10 ON 06 JUN 2023)
DEL HIS Y
L1      QUE SPE=ON  ABB=ON  PLU=ON  MON!15985? OR MON 15985? OR
MON15985? OR MON!88913? OR MON 88913? OR MON88913?
L2      QUE SPE=ON  ABB=ON  PLU=ON  BOLLGARD II? OR BOLLGARD!II? OR
BOLLGARDII? OR BOLLGARD 2? OR BOLLGARD!2? OR BOLLGARD2? OR BG
II OR BGII OR BG!II OR BG 2 OR BG2 OR BG!2
L3      QUE SPE=ON  ABB=ON  PLU=ON  ROUNDUPREADY? OR ROUND!UP!READY?
OR ROUND!UP READY? OR ROUNDUP READY? OR ROUND UP READY? OR
RRFLEX OR RR FLEX OR RR!FLEX
L4      QUE SPE=ON  ABB=ON  PLU=ON  COTTON OR GOSSYPIMUM
L5      QUE SPE=ON  ABB=ON  PLU=ON  CP4EPSPS? OR CP4 EPSPS? OR
5(W) (ENOL PYRUVYL SHIKIMATE OR ENOLPYRUVYL SHIKIMATE OR ENOL
PYRUVYLSHIKIMATE OR ENOL!PYRUVYL!SHIKIMATE OR ENOLPYRUVYLSHIKIM
ATE) (W) 3 PHOSPHATE(1W) SYNTHASE
L6      QUE SPE=ON  ABB=ON  PLU=ON  CRY1AC OR CRY1 AC OR CRY 1 AC OR
CRY 1AC OR CRYIAC OR CRYI AC OR CRY I AC OR CRY IAC
L7      QUE SPE=ON  ABB=ON  PLU=ON  CRY2AB? OR CRY2 AB? OR CRY 2 AB?
OR CRY 2AB? OR CRYIIAB? OR CRYII AB? OR CRY II AB? OR CRY
IIAB?
L8      QUE SPE=ON  ABB=ON  PLU=ON  GMO? OR LMO? OR GM OR GE OR
TRANSGEN? OR ((GENETIC? OR LIVING OR BIOTECH?) (5A) (MODIF? OR
TRANSFORM? OR MANIPULAT? OR IMPROV? OR ENGINEER? OR DERIV?))
L9      QUE SPE=ON  ABB=ON  PLU=ON  (TOLERAN? OR RESISTAN? OR PROTEC?) (
5A) (GL!PHOSATE OR GL!FOSATE OR ROUND!UP? OR ROUNDUP? OR ROUND
UP?)
L10     QUE SPE=ON  ABB=ON  PLU=ON  (TOLERAN? OR RESISTAN? OR PROTEC?) (
5A) (LEPIDOPTERA? OR BOLLWORM? OR BOLL WORM? OR BUDWORM? OR BUD
WORM? OR EARWORM? OR EAR WORM?)
L11     QUE SPE=ON  ABB=ON  PLU=ON  (TOLERAN? OR RESISTAN? OR PROTEC?) (
5A) (NOCTUIDAE OR GELECHIIDAE OR HELIOTHIS OR VIRESCENS OR
HELICOVERPA OR ZEA OR PECTINOPHORA OR GOSSYPIELLA OR TBW OR
CBW OR CEW)
L12     QUE SPE=ON  ABB=ON  PLU=ON  (BTCOTTON OR BT COTTON OR BT!COTTON
OR THURINGIENSIS!COTTON OR THURINGIENSIS COTTON OR THURINGIENS
ISCOTTON)
L13     QUE SPE=ON  ABB=ON  PLU=ON  COTTON+UF,NT/CT,ORGN
L14     QUE SPE=ON  ABB=ON  PLU=ON  GENETIC ENGINEERING+UF,NT/CT OR
GENETIC TRANSFORMATION+UF,NT/CT OR GENETICALLY ENGINEERED
FOODS+UF,NT/CT OR GENETICALLY ENGINEERED ORGANISMS+UF,NT/CT OR
FOOD BIOTECHNOLOGY+UF,NT/CT
L15     QUE SPE=ON  ABB=ON  PLU=ON  (WEED CONTROL+UF,NT/CT OR INSECT
CONTROL+UF,NT/CT) AND (LEPIDOPTERA+UF/CT,ORGN OR NOCTUIDAE+UF/C
T,ORGN OR GELECHIIDAE+UF/CT,ORGN OR HELIOTHIS+UF,NT1/CT,ORGN
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OR HELICOVERPA+UF,NT1/CT,ORGN OR PECTINOPHORA+UF,NT1/CT,ORGN
OR GLYPHOSATE+UF,NT/CT)

FILE 'SCISEARCH' ENTERED AT 15:01:29 ON 06 JUN 2023

L16	0	SEA SPE=ON	ABB=ON	PLU=ON	L1 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L17	58	SEA SPE=ON	ABB=ON	PLU=ON	(L2 OR L3) AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L18	4910	SEA SPE=ON	ABB=ON	PLU=ON	L4 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L19	4	SEA SPE=ON	ABB=ON	PLU=ON	L17 AND L18
L20	48	SEA SPE=ON	ABB=ON	PLU=ON	L5 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L21	94	SEA SPE=ON	ABB=ON	PLU=ON	(L6 OR L7) AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L22	139	SEA SPE=ON	ABB=ON	PLU=ON	L20 OR L21
L23	29150	SEA SPE=ON	ABB=ON	PLU=ON	L8 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L24	88	SEA SPE=ON	ABB=ON	PLU=ON	L22 AND (L23 OR L18)
L25	166	SEA SPE=ON	ABB=ON	PLU=ON	L9 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L26	159	SEA SPE=ON	ABB=ON	PLU=ON	(L10 OR L11) AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L27	107	SEA SPE=ON	ABB=ON	PLU=ON	L12 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L28	324	SEA SPE=ON	ABB=ON	PLU=ON	L25 OR L26
L29	30	SEA SPE=ON	ABB=ON	PLU=ON	L28 AND L23 AND L18
L30	52	SEA SPE=ON	ABB=ON	PLU=ON	L27 AND L23
L31	67	SEA SPE=ON	ABB=ON	PLU=ON	L29 OR L30
L32	132	SEA SPE=ON	ABB=ON	PLU=ON	L16 OR L19 OR L24 OR L31

FILE 'CABA' ENTERED AT 15:01:39 ON 06 JUN 2023

L33	0	SEA SPE=ON	ABB=ON	PLU=ON	L1 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L34	37	SEA SPE=ON	ABB=ON	PLU=ON	(L2 OR L3) AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L35	3379	SEA SPE=ON	ABB=ON	PLU=ON	L4 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L36	2215	SEA SPE=ON	ABB=ON	PLU=ON	L13 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L37	3379	SEA SPE=ON	ABB=ON	PLU=ON	L35 OR L36
L38	11	SEA SPE=ON	ABB=ON	PLU=ON	L34 AND L37
L39	35	SEA SPE=ON	ABB=ON	PLU=ON	L5 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L40	94	SEA SPE=ON	ABB=ON	PLU=ON	(L6 OR L7) AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L41	127	SEA SPE=ON	ABB=ON	PLU=ON	L39 OR L40
L42	11384	SEA SPE=ON	ABB=ON	PLU=ON	L8 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L43	6177	SEA SPE=ON	ABB=ON	PLU=ON	L14 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L44	12121	SEA SPE=ON	ABB=ON	PLU=ON	L42 OR L43
L45	93	SEA SPE=ON	ABB=ON	PLU=ON	L41 AND (L37 OR L44)
L46	161	SEA SPE=ON	ABB=ON	PLU=ON	L9 AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L47	192	SEA SPE=ON	ABB=ON	PLU=ON	(L10 OR L11) AND ED>=20220606 AND ED<=20230606 AND PY>=2022
L48	85	SEA SPE=ON	ABB=ON	PLU=ON	L12 AND ED>=20220606 AND ED<=20230606 AND PY>=2022

L49 255 SEA SPE=ON ABB=ON PLU=ON L15 AND ED>=20220606 AND ED<=202306
 06 AND PY>=2022
 L50 569 SEA SPE=ON ABB=ON PLU=ON L46 OR L47 OR L49
 L51 55 SEA SPE=ON ABB=ON PLU=ON L50 AND L44 AND L37
 L52 61 SEA SPE=ON ABB=ON PLU=ON L48 AND L44
 L53 96 SEA SPE=ON ABB=ON PLU=ON L51 OR L52
 L54 168 SEA SPE=ON ABB=ON PLU=ON L33 OR L38 OR L45 OR L53

FILE 'STNGUIDE' ENTERED AT 15:02:04 ON 06 JUN 2023

FILE 'CABA, SCISEARCH' ENTERED AT 15:02:05 ON 06 JUN 2023
 L55 275 DUP REM L54 L32 (25 DUPLICATES REMOVED)
 ANSWERS '1-168' FROM FILE CABA
 ANSWERS '169-275' FROM FILE SCISEARCH
 D L55 1-275 ALL PY

FILE SCISEARCH

FILE COVERS 1974 TO 6 Jun 2023 (20230606/ED)

To bring you the most up-to-date SciSearch information,
 SciSearch SDIs now run on Mondays.

FILE CABA
 FILE LAST UPDATED: 30 MAY 2023 <20230530/UP>
 FILE COVERS 1973 TO DATE

Annex III. List of reference publications used in identifying search terms and in validating the literature search strategy for Bayer GM cotton products literature search

The list below includes reference publications used for each relevant key element, namely event name, trade name, newly expressed proteins and intended traits. For GMO general and crop name search terms, given the breadth of the terms and as they are used to focus the search to GM crops, reference publications were considered not applicable.

Dhanaraj AL, Willse AR and Kamath SP, 2019. Stability of expression of Cry1Ac and Cry2Ab2 proteins in Bollgard-II hybrids at different stages of crop growth in different genotypes across cropping seasons and multiple geographies. *Transgenic Res*, 28, 33-50.

Faldu GO, Patel HB, Vadodariya GD and Solanki BG, 2015. Response and Expression Pattern of Bt Toxin in Bollgard Cotton Hybrids with Respect to Crop Age under Different Environmental Conditions. *Trends in Biosciences*, 8, 1237-1242.

Gampala SS, Fast BJ, Richey KA, Gao Z, Hill R, Wulfschle B, Shan G, Bradfish GA and Herman RA, 2017. Single-event transgene product levels predict levels in genetically modified breeding stacks. *J Agric Food Chem*, 65, 7885-7892.

Annex IV. Literature search in internet pages of relevant key organisations for Bayer GM cotton products covering time span 2022 – 2023

Relevant key organisations	Link to the relevant information and summary of the retrieved records
US EPA	<p>https://www.epa.gov/ingredients-used-pesticide-products/current-and-previously-registered-section-3-plant-incorporated – Accessed on 16 August 2023. The webpage dedicated to PIP registrations was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> 14 July 2020</p> <p><i>Limits applied:</i> The list of PIP active ingredients registered was sorted by ‘Year Registered’ and those registered starting from 2022 were assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “Zero”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> No record was retrieved.</p>
USDA	<p>https://www.aphis.usda.gov/aphis/ourfocus/biotechnology/regulatory-processes/petitions/petition-status/petitions-table - Accessed on 16 August 2023. The webpage dedicated to petitions for determination of nonregulated status was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> 21 April 2023</p> <p><i>Limits applied:</i> The list of the petitions was sorted by ‘Effective Date’ and those deregulated starting from 01/01/2022 were assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “One”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved record is not relevant to Bayer GM cotton products.</p>
US FDA	<p>https://www.accessdata.fda.gov/scripts/fdcc/?set=Biocon – Accessed on 16 August 2023. The webpage dedicated to biotechnology consultations on food from GE plant varieties was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> 31 July 2023</p> <p><i>Limits applied:</i> The list of the consultations starting from the ‘FDA Letter Date’ of 01 01, 2022 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “11”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM cotton products.</p>

CFIA	<p>https://inspection.canada.ca/industry-guidance/eng/1374161650885/1374161737236?gp=3&gc=25&ga=4#gdr_results - Accessed on 16 August 2023. The webpage dedicated to repository documents referring to plants with novel traits was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> not clear</p> <p><i>Limits applied:</i> The list of repository documents referring to plants with novel traits starting from 'Date modified' of 2023-03-01 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "30".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved record is not relevant to Bayer GM cotton products.</p>
Health Canada	<p>https://www.canada.ca/en/health-canada/services/food-nutrition/genetically-modified-foods-other-novel-foods/approved-products.html - Accessed on 16 August 2023. The webpage dedicated to approved products of genetically modified (GM) foods and other novel foods was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> 11 August 2023</p> <p><i>Limits applied:</i> The list of novel food decisions starting from the 'Decision Date (20YY/MM/DD)' of 2022/01/01 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "Seven".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved record is not relevant to Bayer GM cotton products.</p>
FSANZ	<p>http://www.foodstandards.gov.au/consumer/gmfood/applications/Pages/default.aspx - Accessed on 16 August 2023. The webpage dedicated to current GM applications and approvals was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> May 2023</p> <p><i>Limits applied:</i> The list for GM applications and approvals with 'Status' approved or under assessment starting from 2022 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "Three".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved record is not relevant to Bayer GM cotton products.</p>

CTNBio	<p>http://ctnbio.mctic.gov.br/liberacao-comercial#/liberacao-comercial/consultar-processo – Accessed on 16 August 2023. The webpage dedicated to commercial releases (= Liberações Comerciais) was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> Not clear (several dates mentioned)</p> <p><i>Limits applied:</i> The list of commercial releases for plants (= plantas) starting from 2022 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “13”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> One of the retrieved records is relevant to MON 15947¹⁶. It does not have any implication on the risk assessment, because no new hazards, modified exposure, or new scientific uncertainties are reported.</p>
CONABIA	<p>https://www.argentina.gob.ar/agroindustria/alimentos-y-bioeconomia/ogm-comerciales – Accessed on 16 August 2023. The webpage of the national advisory commission on agricultural biotechnology (= Comisión Nacional Asesora de Biotecnología Agropecuaria) was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> Not available</p> <p><i>Limits applied:</i> The list of events with commercial authorisation (= Eventos con autorización comercial) starting from 2022 were checked.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “Four”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM cotton products.</p>
MAFF	<p>https://www.maff.go.jp/j/syouan/nouan/carta/torikumi/attach/pdf/index-41.pdf Accessed on 16 August 2023. The weblink dedicated to list of approved genetically modified agricultural crops was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> 13 July 2023</p> <p><i>Limits applied:</i> The list of GM agricultural crops with approval date (‘承認日’) starting from 01 01, 2022 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “11”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM cotton products.</p>
GEAC	<p>http://www.geacindia.gov.in/approved-products.aspx - Accessed on 16 August 2023. The weblink of Agriculture applications - Commercially Approved, was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> Not available.</p> <p><i>Limits applied:</i> The list of ‘commercially released Bt cotton hybrids/varieties’ starting from 2022 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “Zero”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> No records were retrieved</p>

OGTR	<p>https://www.ogtr.gov.au/what-weve-approved/dealings-involving-intentional-release - Accessed on 16 August 2023. The webpage dedicated to details on applications and licences for Dealings involving an Intentional Release (DIR) of a GMO into the environment was checked.</p> <p><i>Date of the most recent website update at the time of the search:</i> Not clear (several dates mentioned).</p> <p><i>Limits applied:</i> List of agricultural applications and authorisations for DIR into the environment starting from ‘Issue Date’ of 01 01 2022 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> “Eight”.</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM cotton products.</p>
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¹⁶ CTNBio, 2022. Parecer Técnico:Liberacao Comercial: <http://ctnbio.mctic.gov.br/documents/566529/2303342/Parecer+Técnico+nº%208038+-+2022/d32f3b1d-7c9c-4916-902d-0faa76b3ce28?version=1.0>

Annex V. Results of the publication selection process for Bayer GM cotton products literature search in SciSearch and CABA databases using STN® database catalogue

Table 1. Results of the publication selection process.

Review question captured in the search	Number of publications
Publications identified after searches of the scientific literature in SciSearch and CABA databases (following de-duplication)	243
Publications excluded after rapid assessment for relevance	240
Publications screened using full-text documents	3
Publications excluded after detailed assessment for relevance	1
Unobtainable publications	0
Unclear publications	0
Publications considered relevant	2

Table 2. List of all relevant publications for Bayer GM cotton products retrieved after detailed assessment of full-text documents for relevance: ordered by category of information.

Products ¹	Study (author(s) and year)	Title	Source
Food/Feed safety assessment			
Agronomic and phenotypic characteristics			
MON 15985	(Kaur <i>et al.</i> , 2022)	Dry matter partitioning in <i>Bt</i> and non <i>Bt</i> cotton (<i>Gossypium hirsutum</i>) cultivars under different sowing environments of Punjab.	Indian Journal of Agricultural Sciences
MON 15985	(Blaise <i>et al.</i> , 2022)	Productivity and fibre attributes of absorbent Asiatic cotton (<i>Gossypium arboreum</i>) cultivars in rainfed central India.	Indian Journal of Agricultural Sciences

¹ Products not listed above don't have relevant publication retrieved in this monitoring season.

Table 3. List of publications excluded from the risk assessment after detailed assessment of full-text documents, with the reason(s) for exclusion

Study authors	Year	Title	Source	Reasons for exclusion based on the eligibility/ inclusion criteria
Mobeen <i>et al</i>	2022	Toxicity assessment of transgenic cotton containing double gene (Cry1Ac and Cry2Ab) and triple gene (Cry1Ac, Cry2Ab, and EPSPS) as plant incorporated protectants against insects and weed.	Toxicology Letters	It is not a safety study on Bayer's GM cotton products

Table 4. Report of the reliability and implications for the risk assessment of the relevant publication retrieved after detailed assessment of full-text document for relevance.

Study author(s) and year	Reliability appraisal	Implications for the risk assessment ¹
Food/Feed Safety assessment		
Agronomic and phenotypic characteristics		
(Kaur <i>et al.</i> , 2022)	Low	None, because no new hazards, modified exposure, or new scientific uncertainties are reported
(Blaise <i>et al.</i> , 2022)	Low	None, because no new hazards, modified exposure, or new scientific uncertainties are reported
¹ Identification of a new hazard, modified exposure, or new scientific uncertainty requiring further consideration in the risk assessment; None , because no new hazards, modified exposure, or new scientific uncertainties are reported; None , because the findings reported in the study are not reliable; Implications for risk assessment were previously considered by EFSA and/or its GMO Panel, and are therefore not addressed further here (EFSA, 2019) ²		

REFERENCES

Blaise D, Kranthi K, Saxena S, Venugopalan MV and Mohan P, 2022. Productivity and fibre attributes of absorbent Asiatic cotton (*Gossypium arboreum*) cultivars in rainfed central India. The Indian Journal of Agricultural Sciences, 92, 300-304.

Kaur V, Mishra SK and Singh K, 2022. Dry matter partitioning in Bt and non Bt cotton (*Gossypium hirsutum*) cultivars under different sowing environments of Punjab. Indian Journal of Agricultural Sciences, 92, 1469-1474.

Annex VI. List of relevant publications retrieved from SciSearch and CABA databases using STN® database catalogue (provided in .RIS format)

The list of the relevant publications is enclosed with this report (*see cotton txt file*).