APPENDIX 3

LITERATURE SEARCH TO SUPPORT GENERAL SURVEILLANCE OF 2022/2023 ANNUAL POST MARKET ENVIRONMENTAL MONITORING REPORTS OF MON 810 MAIZE

Data protection.

This application contains scientific data and other information which are protected in accordance with Art. 31 of Regulation (EC) No 1829/2003.

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SUMMARY

This 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 report. It addresses the review question "Do MON 810 maize, derived food/feed products and its respective introduced trait 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 searching[2]. Literature searching for MON 810 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 searching[2] 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 5 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 MON 810 maize.

[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 19 September 2023

1. INTRODUCTION

As part of the general surveillance requirements for MON 810 maize authorised in the European Union (EU) market under regulation (EC) No 1829/2003, Bayer Agriculture BV[3] has actively monitored MON 810 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 MON 810 maize 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 MON 810 maize, 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 searching[2].

Key elements used for the review question are humans, animals, and/or the environment (= population), MON 810 maize, derived food/feed products and respective introduced traits (= intervention/exposure), conventional counterpart or non-GM maize (= 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, referenced 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.e*. authorisation for all uses as any other maize including the cultivation of MON 810 maize are addressed as general protection goals.
Intervention/exposure	MON 810 maize derived food/feed products and correspondent 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 maize 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 MON 810 maize intended for all uses as any other maize including 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 searching[2]. Following a conservative approach, Bayer selected the broad inclusion/eligibility criteria that align with the review question and the scope of MON 810 authorisation. 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 making [4] and the 2019 EFSA explanatory note on literature searching[2], identification of bibliographic sources and development of search strategies was 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 CABA[6] (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 catalogue[8].

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[8,9]. 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

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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 19 September 2023

5 SciSearch: http://www.stn-international.de/sites/default/files/STN/summary-sheets/SCISEARCH.pdf - Accessed on 19 September 2023

6 CABA: http://www.stn-international.de/sites/default/files/STN/summary-sheets/CABA.pdf – Accessed 19 September 2023

7 CAB Abstracts®: https://www.cabi.org/publishing-products/online-information-resources/cab-abstracts/ - Accessed on 19 September 2023

8 STN®: http://stn-international.de/sites/default/files/STN/brochures/stnfile-kat.pdf - Accessed on 19 September 2023

9 Web of Science group; https://clarivate.com/webofsciencegroup/solutions/webofscience-core-collection-editorial-selection-process/ - Accessed on 19 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 applications[2], 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 applications[2], nine[10] are involved in risk assessment of single GM maize products. Three of the remaining five (CIBIOGEM, Environment and Climate Change Canada and OECD) are not involved in GM risk assessment while the other two (OGTR and GEAC), for the time being, only assess GM cotton and oilseed rape. Therefore, the internet search focused on the nine key organisations relevant for MON 810 maize.

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 searching[2]:

- 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 (subject indexing). The search terms were designed to give an excellent coverage and retrieve the broadest possible number of articles related to MON 810 maize.

[10] Internet pages of the relevant key organisations for MON 810 maize:
US EPA (https://www.epa.gov/environmental-topics/science-topics) - Accessed on 19 September 2023;
USDA (https://www.usda.gov/media) - Accessed on 19 September 2023;
US FDA (https://www.fda.gov/) - Accessed on 19 September 2023;
CFIA (http://www.inspection.gc.ca/eng/1297964599443/1297965645317) - Accessed on 19 September 2023;
Health Canada (https://www.canada.ca/en/health-canada.html) - Accessed on 19 September 2023;
FSANZ (http://www.foodstandards.gov.au/Pages/default.aspx) - Accessed on 19 September 2023;
CTNBio (http://ctnbio.mctic.gov.br/) - Accessed on 19 September 2023;
CONABIA (https://www.argentina.gob.ar/) - Accessed on 19 September 2023;
Japan MAFF (http://www.maff.go.jp/e/) - Accessed on 19 September 2023.

Annex I presents the translation of the intervention key elements into search terms. 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® commands[11] 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 both[12]. 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 terms[13]. 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.

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.

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[11] STN. Command summary chart for bibliographic and full-text databases. – Accessed on 19 September 2023

[12] STNindex user guide: http://www.stn-international.de/fileadmin/be_user/STN/pdf/QRG/STNIndexUserGuide.pdf - Accessed on 19 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 19 September 2023

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 searching[2], 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 MON 810.

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 MON 810 maize.

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. 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.

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

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[2] 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 MON 810 maize for all uses as any other maize including 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
- Non target organisms (NTO)
- Gene flow
- Protein/ DNA/ RNA fate in soil or in stream water
- Insect resistance management (IRM)
- Impact of management practices
- Ecology

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 searching[2] 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 281 and 266 hits in SciSearch and CABA databases, respectively (*see* **Annex II**). After de-duplication, the total number resulted in 407 hits.

5.1.2. Outcomes of literature search (relevant key organisations)

The literature search in the internet pages of the nine relevant key organisations retrieved a total of 80 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**. Five 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 literature searching 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**. None of the retrieved documents needed further assessment.

5.3. Considering the implications of the findings

The reliability assessment for the relevant publications is provided in **Annex V.** All the relevant publications have no implications for the risk assessment of MON 810 maize 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 MON 810 maize found no new information that would invalidate the conclusions of the risk assessment for MON 810 maize.

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 searching[2] to support the general surveillance in the context of 2022/2023 annual PMEM for MON 810 maize, identified no relevant publications that would invalidate the initial conclusions of the MON 810 maize previous risk assessments. Therefore, the conclusions of the risk assessment as presented in the initial application of the MON 810 maize remain unchanged.

Annex I. Translation of intervention/exposure key elements into search terms for MON 810 maize literature search in STN® database catalogue

1. Free-text search terms for Bayer GM maize 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 810 or MON-ØØ81Ø-6 NK603 or MON-ØØ6Ø3-6 MON 88017 or MON-88Ø17-3 MON 89034 or MON-89Ø34-3 MON 87460 or MON 8746Ø-4 MON 87427 or MON-87427-7 MON 87411 or MON-87411-9 MON 87403 or MON-874Ø3-1 TC1507 or 1507 or DAS-Ø15Ø7-1 59122 or DAS-59122-7 T25 or ACS-ZMØØ3-2 MIR162 or SYN-IR162-4	MON 810? OR MON810? OR MON!810? OR MON 00810? OR MON00810? OR MON!00810? OR MON OO81O? OR MONOO81O? OR MON!OO81O? OR MON EMPTY SETEMPTY SET81EMPTY SET? OR MON!EMPTY SETEMPTY SET81EMPTY SET? OR MONEMPTY SETEMPTY SET81EMPTY SET? OR NK603 OR NK 603 OR MON 00603? OR MON!00603? OR MON00603? OR MON OO6O3? OR MONOO6O3? OR MON!OO6O3? OR MON EMPTY SETEMPTY SET6EMPTY SET3? OR MON!EMPTY SETEMPTY SET6EMPTY SET3? OR MONEMPTY SETEMPTY SET6EMPTY SET3? OR MON 88017? OR MON!88017? OR MON88017? OR MON 88O17? OR MON!88O17? OR MON88O17? OR MON 88EMPTY SET17? OR MON!88EMPTY SET17? OR MON88EMPTY SET17? OR MON 89034? OR MON!89034? OR MON89034? OR MON 89O34? OR MON!89O34? OR MON89O34? OR MON 89EMPTY SET34? OR MON!89EMPTY SET34? OR MON89EMPTY SET34? OR MON 87460? OR MON!87460? OR MON87460? OR MON 8746O? OR MON!8746O? OR MON8746O? OR MON 8746EMPTY SET? OR MON!8746EMPTY SET? OR MON8746EMPTY SET? OR MON 87427? OR MON!87427? OR MON87427? OR ((1507 OR 15O7 OR 15EMPTYSET7) AND (MAIZE? OR CORN? OR "ZEA MAYS" OR "Z. MAYS")) OR TC1507 OR TC15O7 OR TC15EMPTYSET7 OR MON 87411? OR MON!87411? OR MON87411? OR MON 87403? OR MON!87403? OR MON87403? OR MON 874O3? OR MON!874O3? OR MON874O3? OR MON 874EMPTY SET3? OR MON!874EMPTY SET3? OR MON874EMPTY SET3?

		OR DAS 01507? OR DAS!01507? OR DAS01507? OR DAS O15O7? OR DAS!O15O7? OR DASO15O7? OR DAS EMPTY SET15EMPTY SET7? OR DAS!EMPTY SET15EMPTY SET7? OR DASEMPTY SET15EMPTY SET7? OR 59122 OR DAS 59122? OR DAS!59122? OR DAS59122? OR (T25 AND (MAIZE? OR CORN? OR "ZEA MAYS" OR "Z. MAYS")) OR ACS ZM003? OR ACS!ZM003? OR ACSZM003? OR ACS ZMOO3? OR ACS!ZMOO3? OR ACSZMOO3? OR ACS ZMEMPTY SET EMPTY SET3? OR ACS!ZMEMPTY SET EMPTY SET3? OR ACSZMEMPTY SET EMPTY SET3? OR MIR!162? OR MIR 162? OR MIR162? OR SYN!IR162? OR SYN IR162? OR SYNIR162?
Trade name	YieldGard® Corn Borer Roundup Ready® 2 YieldGard VT Rootworm/RR2® YieldGard® VT® PRO® DroughtGard® Hybrids Herculex™ I, Herculex™ CB Herculex™ RW Liberty Link™ Maize YieldGard® VT ® Triple® Genuity® VT Triple PRO® Genuity® VT Double PRO™ Genuity® PowerCore® SmartStax® Genuity® VT Double Pro® with Roundup® Hybridization System VTPRO4® Trecepta™	YIELD GARD? OR YIELDG? OR YIELD!GARD? OR YIELDGARD? OR ROUNDUPREADY? OR ROUND UP READY? OR ROUND!UP!READY? OR ROUND!UP READY? OR ROUNDUP READY? OR RR2? OR RRII? OR VT? PRO? OR VT! PRO OR VT PRO? OR VT!PRO? OR VTPRO? OR DROUGHTGARD? OR DROUGHT GARD? OR HERCULEX? LIBERTY LINK? OR LIBERTYLINK? OR LIBERTY!LINK OR VT? TRIPLE? OR VTTRIPLE? OR VT!TRIPLE? OR VT TRIPLE? OR VT DOUBLE PRO? OR VT DOUBLEPRO? OR VTDOUBLE PRO? OR VTDOUBLEPRO? OR VT!DOUBLE PRO? OR VT DOUBLEPRO? OR VT!DOUBLEPRO? OR VT!2!PRO? SMARTSTAX? OR SMART STAX? OR SMART!STAX? OR RHS OR HYBRIDIZATION SYSTEM OR VT 2 PRO? OR POWER CORE? OR POWERCORE? OR AGRISURE? OR VIPTERA? OR TRECEPTA?

	Agrisure™ Viptera	
Newly expressed proteins	CP4 EPSPS CP4 EPSPS L214P PAT Cry1Ab Cry1A.105 Cry2Ab2 Cry1F Cry3Bb1 Cry34/35Ab1 Cold shock protein B (cspB) ATHB-17 Vip3Aa20	CP4EPSPS? OR CP4 EPSPS? OR 5(W)(ENOL PYRUVYL SHIKIMATE OR ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYLSHIKIMATE OR ENOL!PYRUVYL! SHIKIMATE OR ENOLPYRUVYLSHIKIMATE)(W)3 PHOSPHATE (1W)SYNTHASE OR PAT AND (GENE OR ENZYME OR PROTEIN) OR (PHOSPHINOTHRICIN AND (ACETYL TRANSFERASE OR ACETYL!TRANSFERASE OR ACETYLTRANSFERASE) OR CRY1AB OR CRY1 AB OR CRY 1 AB OR CRY 1AB OR CRYIAB OR CRYI AB OR CRY I AB OR CRY IAB OR CRY1A105 OR CRY1A 105 OR CRY 1A 105 OR CRY 1A105 OR CRYIA105 OR CRYIA 105 OR CRY IA 105 OR CRY IA105 OR CRY1A.105 OR CRY2AB? OR CRY2 AB? OR CRY 2 AB? OR CRY 2AB? OR CRYIIAB? OR CRYII AB? OR CRY II AB? OR CRY IIAB? OR CRY1F OR CRY1 F OR CRY 1 F OR CRY 1F OR CRYIF OR CRYI F OR CRY I F OR CRY IF OR CRY3BB? OR CRY3 BB? OR CRY 3 BB? OR CRY 3BB? OR CRYIIIBB? OR CRYIII BB? OR CRY III BB? OR CRY IIIBB? OR CRY34AB1? OR CRY34AB 1? OR CRY 34AB 1? OR CRY 34AB1? OR GPP34AB1? OR GPP34AB 1? OR GPP 34AB 1? OR GPP 34AB1? OR CRY35AB1? OR CRY35AB 1? OR CRY 35AB 1? OR CRY 35AB1? OR TPP35AB1? OR TPP35AB 1? OR TPP 35AB 1? OR TPP 35AB1? OR (CSPB AND (GENE OR ENZYME OR PROTEIN)) OR (CSP B AND (GENE OR ENZYME OR PROTEIN)) OR COLD SHOCK PROTEIN B OR COLD!SHOCKPROTEIN!B OR COLD!SHOCK PROTEIN!B OR COLD!SHOCK!PROTEIN!B OR ATHB17? OR ATHB!17? OR ATHB 17? OR HB17? OR HB!17? OR HB 17? OR VIP3AA20 OR VIP3!AA20 OR VIP3 AA20
Newly expressed RNA	DvSnf7 RNA	(RNA? OR DSRNA? OR SIRNA?)(5A)(DVSNF7 OR WCR SNF7 OR CRW SNF7 OR DV SNF7 OR DVSNF 7 OR DV SNF 7 OR DV.SNF7 OR SNF7)
Intended traits: Herbicide tolerance traits	Glyphosate/ roundup tolerance, Glufosinate tolerance	(TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(GL!PHOSATE OR GL!FOSATE OR ROUNDUP? OR ROUND UP? OR ROUND!UP OR GLUFOSINATE OR GLUPHOSINATE OR PHOSPHINOTHRICIN OR ?BUTANOIC ACID OR BASTA OR IGNITE OR LIBERTY)

Intended traits: Insect protection traits	Bt maize (corn) / *Bacillus thuringiensis* maize (corn) providing Lepidopteran protection or protection against Noctuidae and Crambidae insect pest families or corn/stem borer or European corn borer (ECB) or Mediterranean corn borer (MCB) or Pink stalk borer or West African pink borer or Asian corn borer (ACB) or Spotted stemborer (SSB) or Southwestern corn borer (SWCB) or Sugarcane borer (SCB) or fall armyworm (FAW) or African maize stalk borer (AMSB) or corn earworm or cotton bollworm (CEW; CBW) or Old World bollworm or African bollworm or American cotton bollworm or cotton bollworm or corn earworm (OBW; CBW; CEW) or western bean cutworm (WBC) or *Ostrinia nubilalis* or *Ostrinia furnacalis* or *Spodoptera frugiperda* or *Spodoptera exigua* or *Sesamia nonagrioides* or *Chilo partellus* or *Diatraea grandiosella* or *Diatraea saccharalis* or *Busseola fusca* or *Helicoverpa zea* or *Helicoverpa armigera* or *Striacosta albicosta* or *Agrotis ipsilon* or *Feltia jaculifera* or *Pseudaletia unipuncta*	(BTMAIZE OR BTCORN OR BT MAIZE OR BT CORN OR BT!MAIZE OR BT!CORN OR THURINGIENSIS!MAIZE OR THURINGIENSISMAIZE OR THURINGIENSIS MAIZE OR THURINGIENSIS!CORN OR THURINGIENSISCORN OR THURINGIENSIS CORN) (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(BORER? OR EARWORM? OR BOLLWORM? OR ARMYWORM? OR EAR WORM? OR BOLL WORM? OR ARMY WORM? OR LEPIDOPTERA? OR NOCTUIDAE) (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(CRAMBIDAE OR OSTRINIA OR SESAMIA OR CHILO OR DIATRAEA OR SPODOPTERA OR BUSSEOLA OR HELICOVERPA OR FURNACALIS OR NUBILALIS OR NONAGRIOIDES OR PARTELLUS) (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(GRANDIOSELLA OR SACCHARALIS OR FRUGIPERDA OR FUSCA OR ZEA OR ARMIGERA OR ECB OR MCB OR ACB OR SSB OR SWCB OR SCB OR FAW OR AMSB OR CEW OR CBW OR OBW) (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(EXIGUA OR CUTWORM? OR CUT WORM? OR STRIACOSTA OR AGROTIS OR FELTIA OR PSEUDALETIA OR ALBICOSTA OR IPSILON OR JACULIFERA OR UNIPUNCTA OR WBC)
	Bt maize (corn) / *Bacillus thuringiensis* maize providing Coleopteran protection, or protection against Chrysomel insect pest families or western corn rootworm (WCR / WCRW) or Northern corn rootworm (NCR) or Southern corn rootworm (SCR) or Mexican corn rootworm (MCR) or *Diabrotica virgifera virgifera* or *Diabrotica barberi* (*D barberi*) or *Diabrotica undecimpunctata* (*D undecimpunctata*) or *Diabrotica virgifera zeae* (*D. virgifera zeae*)	(BTMAIZE OR BTCORN OR BT MAIZE OR BT CORN OR BT!MAIZE OR BT!CORN OR THURINGIENSIS!MAIZE OR THURINGIENSISMAIZE OR THURINGIENSIS MAIZE OR THURINGIENSIS!CORN OR THURINGIENSISCORN OR THURINGIENSIS CORN) (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(ROOTWORM? OR ROOT WORM? OR COLEOPTERA? OR CHRYSOMEL? OR DIABROTICA OR VIRGIFERA OR BARBERI OR UNDECIMPUNCTATA OR CRW OR WCR? OR NCR? OR SCR? OR MCR?)
Intended traits: Drought tolerance traits	Drought tolerant or water efficient maize	(TOLERAN? OR RESISTAN? OR PROTEC?)(5A)DROUGHT OR (EFFICIEN? OR REDUC? OR LIMIT? OR DECRE? OR LOW?)(5A)WATER

Intended traits: Hybridisation system traits	Glyphosate based hybridization system	HYBRID? OR CROSS? OR POLLEN? OR POLLINAT? OR STERIL?(5A)MALE) AND (GL!PHOSATE OR GL!FOSATE OR ROUNDUP? OR ROUND UP? OR ROUND!UP?
Intended traits: Increased biomass traits	Increased ear biomass	(INCRE? OR ENHANCE?)(5A)(EAR SIZE OR EAR BIOMASS OR EAR GROWTH OR EAR WEIGHT OR EAR MASS OR SINK CAPACITY OR SINK POTENTIAL)
Crop name	maize, corn, *Zea mays*	MAIZE? OR CORN? OR "ZEA MAYS" OR "Z. MAYS"
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, for Bayer GM Maize 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	Bt maize (corn) / *Bacillus thuringiensis* maize (corn) providing Lepidopteran protection or protection against Noctuidae and Crambidae insect pest families or corn/stem borer or European corn borer (ECB) or Mediterranean corn borer (MCB) or Pink stalk borer or West African pink borer or Asian corn borer (ACB) or Spotted stemborer (SSB) or Southwestern corn borer (SWCB) or Sugarcane borer (SCB) or fall armyworm (FAW) or African maize stalk borer (AMSB) or corn earworm or cotton bollworm (CEW; CBW) or Old World bollworm or African bollworm or American cotton bollworm or cotton bollworm or corn earworm (OBW; CBW; CEW) or western bean cutworm (WBC) or *Ostrinia nubilalis* or *Ostrinia furnacalis* or *Spodoptera frugiperda* or *Spodoptera exigua* or *Sesamia nonagrioides* or *Chilo partellus* or *Diatraea grandiosella* or *Diatraea saccharalis* or *Busseola fusca* or *Helicoverpa zea* or *Helicoverpa armigera* or *Striacosta albicosta* or *Agrotis ipsilon* or *Feltia jaculifera* or *Pseudaletia unipuncta* Bt maize (corn) / *Bacillus thuringiensis* maize providing Coleopteran protection, or protection against Chrysomel insect pest families or western corn rootworm (WCR / WCRW) or	(WEED CONTROL+UF,NT/CT OR INSECT CONTROL+UF,NT/CT) AND (LEPIDOPTERA+UF,NT2/CT,ORGN OR NOCTUIDAE+UF/CT,ORGN OR CRAMBIDAE+UF/CT,ORGN OR COLEOPTERA+UF,NT2/CT,ORGN OR CHRYSOMELIDAE+UF/CT,ORGN OR DIABROTICA+UF,NT1/CT,ORGN OR GLYPHOSATE+UF,NT/CT OR GLUFOSINATE+UF,NT/CT) (OSTRINIA+UF,NT1/CT,ORGN OR SESAMIA+UF,NT1/CT,ORGN OR CHILO+UF,NT1/CT,ORGN OR DIATRAEA+UF,NT1/CT,ORGN OR HELICOVERPA+UF,NT1/CT,ORGN OR SPODOPTERA+UF,NT1/CT,ORGN) (BUSSEOLA+UF,NT1/CT,ORGN OR AGROTIS+UF,NT1/CT,ORGN OR STRIACOSTA+UF,NT1/CT,ORGN OR FELTIA+UF,NT1/CT,ORGN OR PSEUDALETIA+UF,NT1/CT,ORGN)

	Northern corn rootworm (NCR) or Southern corn rootworm (SCR) or Mexican corn rootworm (MCR) or *Diabrotica virgifera virgifera* or *Diabrotica barberi* (*D barberi*) or *Diabrotica undecimpunctata* (*D undecimpunctata*) or *Diabrotica virgifera zeae* (*D. virgifera zeae*) Glyphosate/ roundup tolerance, Glufosinate tolerance	
Intended traits: Hybridisation system traits	Glyphosate based hybridization system	(HYBRIDIZATION+UF,NT/CT OR CROSSING+UF,NT/CT OR PLANT BREEDING METHODS+UF,NT/CT OR POLLINATION+UF,NT/CT OR MALE STERILITY+UF,NT/CT) AND GLYPHOSATE+UF,NT/CT
Intended traits: Drought tolerance and increased ear biomass traits	Drought tolerance and increased ear biomass	DROUGHT RESISTANCE+UF,NT/CT OR BIOMASS PRODUCTION+UF,NT/CT
Crop name	maize, corn, *Zea mays*	ZEA MAYS+UF,NT/CT,ORGN OR MAIZE+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 MON 810 maize literature search in SciSearch and CABA databases using STN® database catalogue, and outcomes of the search (2022-2023)

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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 14:45:23 ON 06 JUN 2023)
                DEL HIS Y
L1              QUE SPE=ON  ABB=ON  PLU=ON  MON 810? OR MON810? OR MON!810? OR
                MON 00810? OR MON00810? OR MON!00810? OR MON OO81O? OR
                MONOO81O? OR MON!OO81O? OR MON EMPTY SETEMPTY SET81EMPTY SET?
                OR MON!EMPTY SETEMPTY SET81EMPTY SET? OR MONEMPTY SETEMPTY
                SET81EMPTY SET? OR NK603 OR NK 603
L2              QUE SPE=ON  ABB=ON  PLU=ON  MON 00603? OR MON!00603? OR
                MON00603? OR MON OO6O3? OR MONOO6O3? OR MON!OO6O3? OR MON
                EMPTY SETEMPTY SET6EMPTY SET3? OR MON!EMPTY SETEMPTY SET6EMPTY
                SET3? OR MONEMPTY SETEMPTY SET6EMPTY SET3?
L3              QUE SPE=ON  ABB=ON  PLU=ON  MON 88017? OR MON!88017? OR
                MON88017? OR MON 88O17? OR MON!88O17? OR MON88O17? OR MON
                88EMPTY SET17? OR MON!88EMPTY SET17? OR MON88EMPTY SET17?
L4              QUE SPE=ON  ABB=ON  PLU=ON  MON 89034? OR MON!89034? OR
                MON89034? OR MON 89O34? OR MON!89O34? OR MON89O34? OR MON
                89EMPTY SET34? OR MON!89EMPTY SET34? OR MON89EMPTY SET34?
L5              QUE SPE=ON  ABB=ON  PLU=ON  MON 87460? OR MON!87460? OR
                MON87460? OR MON 8746O? OR MON!8746O? OR MON8746O? OR MON
                8746EMPTY SET? OR MON!8746EMPTY SET? OR MON8746EMPTY SET? OR
                MON 87427? OR MON!87427? OR MON87427?
L6              QUE SPE=ON  ABB=ON  PLU=ON  ((1507 OR 15O7 OR 15EMPTYSET7) AND
                (MAIZE? OR CORN? OR "ZEA MAYS" OR "Z. MAYS")) OR TC1507 OR
                TC15O7 OR TC15EMPTYSET7
L7              QUE SPE=ON  ABB=ON  PLU=ON  DAS 01507? OR DAS!01507? OR
                DAS01507? OR DAS O15O7? OR DAS!O15O7? OR DASO15O7? OR DAS
                EMPTY SET15EMPTY SET7? OR DAS!EMPTY SET15EMPTY SET7? OR
                DASEMPTY SET15EMPTY SET7?
L8              QUE SPE=ON  ABB=ON  PLU=ON  (59122 AND (MAIZE? OR CORN? OR
                "ZEA MAYS" OR "Z. MAYS")) OR DAS 59122? OR DAS!59122? OR
                DAS59122? OR (T25 AND (MAIZE? OR CORN? OR "ZEA MAYS" OR "Z.
                MAYS"))
L9              QUE SPE=ON  ABB=ON  PLU=ON  ACS ZM003? OR ACS!ZM003? OR
                ACSZM003? OR ACS ZMOO3? OR ACS!ZMOO3? OR ACSZMOO3? OR ACS
                ZMEMPTY SET EMPTY SET3? OR ACS!ZMEMPTY SET EMPTY SET3? OR
                ACSZMEMPTY SET EMPTY SET3? OR MON 87411? OR MON!87411? OR
                MON87411?
L10             QUE SPE=ON  ABB=ON  PLU=ON  MON 87403? OR MON!87403? OR
                MON87403? OR MON 874O3? OR MON!874O3? OR MON874O3? OR MON
                874EMPTY SET3? OR MON!874EMPTY SET3? OR MON874EMPTY SET3?
L11             QUE SPE=ON  ABB=ON  PLU=ON  MIR!162? OR MIR 162? OR MIR162? OR
                SYN!IR162? OR SYN IR162? OR SYNIR162?
L12             QUE SPE=ON  ABB=ON  PLU=ON  YIELD GARD? OR YIELDG? OR YIELD!GAR
                D? OR YIELDGARD? OR ROUNDUPREADY? OR ROUND UP READY? OR
                ROUND!UP!READY? OR ROUND!UP READY? OR ROUNDUP READY? OR RR2?
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	OR RRII? OR VT? PRO? OR VT! PRO OR VT PRO? OR VT!PRO? OR VTPRO? OR DROUGHTGARD? OR DROUGHT GARD? OR HERCULEX?
L13	QUE SPE=ON ABB=ON PLU=ON LIBERTY LINK? OR LIBERTYLINK? OR LIBERTY!LINK OR VT? TRIPLE? OR VTTRIPLE? OR VT!TRIPLE? OR VT TRIPLE? OR VT DOUBLE PRO? OR VT DOUBLEPRO? OR VTDOUBLE PRO? OR VTDOUBLEPRO? OR VT!DOUBLE PRO? OR VT DOUBLEPRO? OR VT!DOUBLEPRO ? OR VT!2!PRO?
L14	QUE SPE=ON ABB=ON PLU=ON SMARTSTAX? OR SMART STAX? OR SMART!STAX? OR RHS OR HYBRIDIZATION SYSTEM OR VT 2 PRO? OR POWER CORE? OR POWERCORE? OR AGRISURE? OR VIPTERA? OR TRECEPTA?
L15	QUE SPE=ON ABB=ON PLU=ON MAIZE? OR CORN? OR "ZEA MAYS" OR "Z. MAYS"
L16	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)
L17	QUE SPE=ON ABB=ON PLU=ON (PAT AND (GENE OR ENZYME OR PROTEIN)) OR (PHOSPHINOTHRICIN AND (ACETYL TRANSFERASE OR ACETYL!TRANSFERASE OR ACETYLTRANSFERASE))
L18	QUE SPE=ON ABB=ON PLU=ON CRY1AB OR CRY1 AB OR CRY 1 AB OR CRY 1AB OR CRYIAB OR CRYI AB OR CRY I AB OR CRY IAB OR CRY1A105 OR CRY1A 105 OR CRY 1A 105 OR CRY 1A105 OR CRYIA105 OR CRYIA 105 OR CRY IA 105 OR CRY IA105 OR CRY1A.105
L19	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? OR CRY1F OR CRY1 F OR CRY 1 F OR CRY 1F OR CRYIF OR CRYI F OR CRY I F OR CRY IF OR VIP3AA20 OR VIP3!AA20 OR VIP3 AA20
L20	QUE SPE=ON ABB=ON PLU=ON CRY3BB? OR CRY3 BB? OR CRY 3 BB? OR CRY 3BB? OR CRYIIIBB? OR CRYIII BB? OR CRY III BB? OR CRY IIIBB? OR CRY34AB1? OR CRY34AB 1? OR CRY 34AB 1? OR CRY 34AB1? OR GPP34AB1? OR GPP34AB 1? OR GPP 34AB 1? OR GPP 34AB1?
L21	QUE SPE=ON ABB=ON PLU=ON CRY35AB1? OR CRY35AB 1? OR CRY 35AB 1? OR CRY 35AB1? OR TPP35AB1? OR TPP35AB 1? OR TPP 35AB 1? OR TPP 35AB1?
L22	QUE SPE=ON ABB=ON PLU=ON (CSPB AND (GENE OR ENZYME OR PROTEIN)) OR (CSP B AND (GENE OR ENZYME OR PROTEIN))
L23	QUE SPE=ON ABB=ON PLU=ON COLD SHOCK PROTEIN B OR COLD!SHOCK! PROTEIN!B OR COLD SHOCKPROTEIN B OR COLD!SHOCKPROTEIN!B OR COLD!SHOCK PROTEIN B OR COLD!SHOCK PROTEIN!B OR (ATHB17? OR ATHB!17? OR ATHB 17? OR HB17? OR HB!17? OR HB 17?)
L24	QUE SPE=ON ABB=ON PLU=ON (RNA? OR DSRNA? OR SIRNA?)(5A)(DVSN F7 OR WCR SNF7 OR CRW SNF7 OR DV SNF7 OR DVSNF 7 OR DV SNF 7 OR DV.SNF7 OR SNF7)
L25	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?))
L26	QUE SPE=ON ABB=ON PLU=ON (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(GL!PHOSATE OR GL!FOSATE OR ROUNDUP? OR ROUND UP? OR ROUND!UP OR GLUFOSINATE OR GLUPHOSINATE OR PHOSPHINOTHRICIN OR ?BUTANOIC ACID OR BASTA OR IGNITE OR LIBERTY)
L27	QUE SPE=ON ABB=ON PLU=ON (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(BORER? OR EARWORM? OR BOLLWORM? OR ARMYWORM? OR EAR WORM? OR BOLL WORM? OR ARMY WORM? OR LEPIDOPTERA? OR NOCTUIDAE)
L28	QUE SPE=ON ABB=ON PLU=ON (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(CRAMBIDAE OR OSTRINIA OR SESAMIA OR CHILO OR DIATRAEA OR SPODOPTERA OR BUSSEOLA OR HELICOVERPA OR FURNACALIS OR NUBILALIS OR NONAGRIOIDES OR PARTELLUS)
L29	QUE SPE=ON ABB=ON PLU=ON (TOLERAN? OR RESISTAN? OR PROTEC?)(5A)(GRANDIOSELLA OR SACCHARALIS OR FRUGIPERDA OR FUSCA OR ZEA

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                OR ARMIGERA OR ECB OR MCB OR ACB OR SSB OR SWCB OR SCB OR FAW
                OR AMSB OR CEW OR CBW OR OBW)
L30             QUE SPE=ON  ABB=ON  PLU=ON  (TOLERAN? OR RESISTAN? OR PROTEC?)(
                5A)(EXIGUA OR CUTWORM? OR CUT WORM? OR STRIACOSTA OR AGROTIS
                OR FELTIA OR PSEUDALETIA OR ALBICOSTA OR IPSILON OR JACULIFERA
                OR UNIPUNCTA OR WBC)
L31             QUE SPE=ON  ABB=ON  PLU=ON  (TOLERAN? OR RESISTAN? OR PROTEC?)(
                5A)(ROOTWORM? OR ROOT WORM? OR COLEOPTERA? OR CHRYSOMEL? OR
                DIABROTICA OR VIRGIFERA OR BARBERI OR UNDECIMPUNCTATA OR CRW
                OR WCR? OR NCR? OR SCR? OR MCR?)
L32             QUE SPE=ON  ABB=ON  PLU=ON  (BTMAIZE OR BTCORN OR BT MAIZE OR
                BT CORN OR BT!MAIZE OR BT!CORN OR THURINGIENSIS!MAIZE OR
                THURINGIENSISMAIZE OR THURINGIENSIS MAIZE OR THURINGIENSIS!CORN
                 OR THURINGIENSISCORN OR THURINGIENSIS CORN)
L33             QUE SPE=ON  ABB=ON  PLU=ON  (TOLERAN? OR RESISTAN? OR PROTEC?)(
                5A)DROUGHT OR (EFFICIEN? OR REDUC? OR LIMIT? OR DECRE? OR
                LOW?)(5A)WATER
L34             QUE SPE=ON  ABB=ON  PLU=ON  (HYBRID? OR CROSS? OR POLLEN? OR
                POLLINAT? OR STERIL?(5A)MALE) AND (GL!PHOSATE OR GL!FOSATE OR
                ROUNDUP? OR ROUND UP? OR ROUND!UP?)
L35             QUE SPE=ON  ABB=ON  PLU=ON  (INCRE? OR ENHANCE?)(5A)(EAR SIZE
                OR EAR BIOMASS OR EAR GROWTH OR EAR WEIGHT OR EAR MASS OR SINK
                CAPACITY OR SINK POTENTIAL)
L36             QUE SPE=ON  ABB=ON  PLU=ON  ZEA MAYS+UF,NT/CT,ORGN OR MAIZE+UF,
                NT/CT,ORGN
L37             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
L38             QUE SPE=ON  ABB=ON  PLU=ON  (WEED CONTROL+UF,NT/CT OR INSECT
                CONTROL+UF,NT/CT)
L39             QUE SPE=ON  ABB=ON  PLU=ON  (COLEOPTERA+UF/CT,ORGN OR CHRYSOMEL
                IDAE+UF/CT,ORGN OR DIABROTICA+UF,NT1/CT,ORGN OR LEPIDOPTERA+UF/
                CT,ORGN OR NOCTUIDAE+UF/CT,ORGN OR CRAMBIDAE+UF/CT,ORGN OR
                GLYPHOSATE+UF,NT/CT OR GLUFOSINATE+UF,NT/CT)
L40             QUE SPE=ON  ABB=ON  PLU=ON  (OSTRINIA+UF,NT1/CT,ORGN OR
                SESAMIA+UF,NT1/CT,ORGN OR CHILO+UF,NT1/CT,ORGN OR DIATRAEA+UF,N
                T1/CT,ORGN OR HELICOVERPA+UF,NT1/CT,ORGN OR SPODOPTERA+UF,NT1/C
                T,ORGN)
L41             QUE SPE=ON  ABB=ON  PLU=ON  (BUSSEOLA+UF,NT1/CT,ORGN OR
                AGROTIS+UF,NT1/CT,ORGN OR STRIACOSTA+UF,NT1/CT,ORGN OR
                FELTIA+UF,NT1/CT,ORGN OR PSEUDALETIA+UF,NT1/CT,ORGN)
L42             QUE SPE=ON  ABB=ON  PLU=ON  (HYBRIDIZATION+UF,NT/CT OR
                CROSSING+UF,NT/CT OR PLANT BREEDING METHODS+UF,NT/CT OR
                POLLINATION+UF,NT/CT OR MALE STERILITY+UF,NT/CT) AND GLYPHOSATE
                +UF,NT/CT
L43             QUE SPE=ON  ABB=ON  PLU=ON  DROUGHT RESISTANCE+UF,NT/CT OR
                BIOMASS PRODUCTION+UF,NT/CT

     FILE 'SCISEARCH' ENTERED AT 14:46:00 ON 06 JUN 2023
L44          29 SEA SPE=ON  ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5 OR L6
                OR L7 OR L8 OR L9 OR L10 OR L11) AND ED>=20220606 AND ED<=20230
                606 AND PY>=2022
L45         522 SEA SPE=ON  ABB=ON  PLU=ON  (L12 OR L13 OR L14) AND ED>=2022060
                6 AND ED<=20230606 AND PY>=2022
L46       26519 SEA SPE=ON  ABB=ON  PLU=ON  L15 AND ED>=20220606 AND ED<=202306
                06 AND PY>=2022
L47          12 SEA SPE=ON  ABB=ON  PLU=ON  L45 AND L46
L48         224 SEA SPE=ON  ABB=ON  PLU=ON  (L16 OR L17) AND ED>=20220606 AND
                ED<=20230606 AND PY>=2022
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L49          101 SEA SPE=ON  ABB=ON  PLU=ON  (L18 OR L19) AND ED>=20220606 AND
                 ED<=20230606 AND PY>=2022
L50           13 SEA SPE=ON  ABB=ON  PLU=ON  (L20 OR L21) AND ED>=20220606 AND
                 ED<=20230606 AND PY>=2022
L51           13 SEA SPE=ON  ABB=ON  PLU=ON  (L22 OR L23) AND ED>=20220606 AND
                 ED<=20230606 AND PY>=2022
L52            3 SEA SPE=ON  ABB=ON  PLU=ON  L24 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L53          343 SEA SPE=ON  ABB=ON  PLU=ON  L48 OR L49 OR L50 OR L51 OR L52
L54        29150 SEA SPE=ON  ABB=ON  PLU=ON  L25 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L55          134 SEA SPE=ON  ABB=ON  PLU=ON  L53 AND (L54 OR L46)
L56          197 SEA SPE=ON  ABB=ON  PLU=ON  L26 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L57          319 SEA SPE=ON  ABB=ON  PLU=ON  (L27 OR L28 OR L29 OR L30) AND
                 ED>=20220606 AND ED<=20230606 AND PY>=2022
L58         2245 SEA SPE=ON  ABB=ON  PLU=ON  L31 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L59           75 SEA SPE=ON  ABB=ON  PLU=ON  L32 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L60        30316 SEA SPE=ON  ABB=ON  PLU=ON  L33 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L61          104 SEA SPE=ON  ABB=ON  PLU=ON  L34 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L62           40 SEA SPE=ON  ABB=ON  PLU=ON  L35 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L63        33042 SEA SPE=ON  ABB=ON  PLU=ON  L56 OR L57 OR L58 OR L60 OR L61 OR
                 L62
L64          146 SEA SPE=ON  ABB=ON  PLU=ON  L63 AND L54 AND L46
L65           55 SEA SPE=ON  ABB=ON  PLU=ON  L59 AND L54
L66          177 SEA SPE=ON  ABB=ON  PLU=ON  L65 OR L64
L67          281 SEA SPE=ON  ABB=ON  PLU=ON  L44 OR L47 OR L55 OR L66

     FILE 'CABA' ENTERED AT 15:46:44 ON 06 JUN 2023
L68           30 SEA SPE=ON  ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5 OR L6
                 OR L7 OR L8 OR L9 OR L10 OR L11) AND ED>=20220606 AND ED<=20230
                 606 AND PY>=2022
L69          116 SEA SPE=ON  ABB=ON  PLU=ON  (L12 OR L13 OR L14) AND ED>=2022060
                 6 AND ED<=20230606 AND PY>=2022
L70        13974 SEA SPE=ON  ABB=ON  PLU=ON  L15 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L71         8959 SEA SPE=ON  ABB=ON  PLU=ON  L36 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L72        13980 SEA SPE=ON  ABB=ON  PLU=ON  L70 OR L71
L73           14 SEA SPE=ON  ABB=ON  PLU=ON  L69 AND L72
L74           94 SEA SPE=ON  ABB=ON  PLU=ON  (L16 OR L17) AND ED>=20220606 AND
                 ED<=20230606 AND PY>=2022
L75           85 SEA SPE=ON  ABB=ON  PLU=ON  (L18 OR L19) AND ED>=20220606 AND
                 ED<=20230606 AND PY>=2022
L76            9 SEA SPE=ON  ABB=ON  PLU=ON  (L20 OR L21) AND ED>=20220606 AND
                 ED<=20230606 AND PY>=2022
L77            5 SEA SPE=ON  ABB=ON  PLU=ON  (L22 OR L23) AND ED>=20220606 AND
                 ED<=20230606 AND PY>=2022
L78            1 SEA SPE=ON  ABB=ON  PLU=ON  L24 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L79          186 SEA SPE=ON  ABB=ON  PLU=ON  L74 OR L75 OR L76 OR L77 OR L78
L80        11384 SEA SPE=ON  ABB=ON  PLU=ON  L25 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L81         6177 SEA SPE=ON  ABB=ON  PLU=ON  L37 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
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L82        12121 SEA SPE=ON  ABB=ON  PLU=ON  L80 OR L81
L83          121 SEA SPE=ON  ABB=ON  PLU=ON  L79 AND (L72 OR L82)
L84          193 SEA SPE=ON  ABB=ON  PLU=ON  L26 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L85          377 SEA SPE=ON  ABB=ON  PLU=ON  (L27 OR L28 OR L29 OR L30) AND
                 ED>=20220606 AND ED<=20230606 AND PY>=2022
L86         1257 SEA SPE=ON  ABB=ON  PLU=ON  L31 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L87           52 SEA SPE=ON  ABB=ON  PLU=ON  L32 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L88        16590 SEA SPE=ON  ABB=ON  PLU=ON  L33 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L89           66 SEA SPE=ON  ABB=ON  PLU=ON  L34 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L90           37 SEA SPE=ON  ABB=ON  PLU=ON  L35 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L91         3065 SEA SPE=ON  ABB=ON  PLU=ON  L38 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L92         3033 SEA SPE=ON  ABB=ON  PLU=ON  (L39 OR L40 OR L41) AND ED>=2022060
                 6 AND ED<=20230606 AND PY>=2022
L93          423 SEA SPE=ON  ABB=ON  PLU=ON  L91 AND L92
L94            5 SEA SPE=ON  ABB=ON  PLU=ON  L42 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L95         4901 SEA SPE=ON  ABB=ON  PLU=ON  L43 AND ED>=20220606 AND ED<=202306
                 06 AND PY>=2022
L96        19421 SEA SPE=ON  ABB=ON  PLU=ON  L84 OR L85 OR L86 OR L88 OR L89 OR
                 L90 OR L93 OR L94 OR L95
L97          145 SEA SPE=ON  ABB=ON  PLU=ON  L96 AND L82 AND L72
L98           45 SEA SPE=ON  ABB=ON  PLU=ON  L87 AND L82
L99          166 SEA SPE=ON  ABB=ON  PLU=ON  L97 OR L98
L100         266 SEA SPE=ON  ABB=ON  PLU=ON  L68 OR L73 OR L83 OR L99

     FILE 'STNGUIDE' ENTERED AT 15:48:14 ON 06 JUN 2023

     FILE 'CABA, SCISEARCH' ENTERED AT 15:48:15 ON 06 JUN 2023
L101         490 DUP REM L100 L67 (57 DUPLICATES REMOVED)
                     ANSWERS '1-266' FROM FILE CABA
                     ANSWERS '267-490' FROM FILE SCISEARCH
                 D L101 1-490 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
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Annex III. List of reference publications used in identifying search terms and in validating the literature search strategy for MON 810 maize 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.

Castañera P, Farinós G, Ortego F and Andow D. (2016). Sixteen Years of BtMaize in the EU Hotspot: Why Has Resistance Not Evolved? Plos One, 1-13.

Farinós GP, Hernández-Crespo P, Ortego F and Castañera P. (2017). Monitoringof Sesamia nonagrioides resistance to MON 810 maize in the European Union:lessons from a longterm harmonized plan. Pest Management Science, 74, 557-568.

Hammond BG, Dudek R, Lemen JK and Nemeth MA.(2006). Results of a 90-day safety assurance study with rats fed grain from corn borer-protected corn.Food and Chemical Toxicology, 44, 1092-1099.

Thieme T, Buuk C, Gloyna K, Ortego F and Farinós G. (2017). Ten years ofMON 810 resistance monitoring offield populations of Ostrinia nubilalis inEurope. Journal of Applied Entomology, 00, 1-9.

Annex IV. Literature search in internet pages of relevant key organisations for MON 810 maize covering time span 2022 - 2023

Relevant key organisations	Link to the relevant information and summary of the retrieved records
US EPA	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. *Date of the most recent website update at the time of the search*: 14 July 2020 *Limits applied*: The list of PIP active ingredients registered was sorted by 'Year Registered' and those registered starting from 2022 were assessed. *Number of records retrieved matching the abovementioned criteria*: "Zero". *Number of relevant records or full-text documents retrieved*: No record was retrieved.
USDA	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. *Date of the most recent website update at the time of the search*: 21 April 2023 *Limits applied*: The list of the petitions was sorted by 'Effective Date' and those deregulated starting from 01/01/2022 were assessed. *Number of records retrieved matching the abovementioned criteria*: "One". *Number of relevant records or full-text documents retrieved*: The retrieved record is not relevant to MON 810 maize.
US FDA	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. *Date of the most recent website update at the time of the search*: 31 July 2023 *Limits applied*: The list of the consultations starting from the 'FDA Letter Date' of 01 01, 2022 was assessed. *Number of records retrieved matching the abovementioned criteria*: "11". *Number of relevant records or full-text documents retrieved*: The retrieved records are not relevant to MON 810 maize.

CFIA	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. *Date of the most recent website update at the time of the search*: not clear *Limits applied*: The list of repository documents referring to plants with novel traits starting from 'Date modified' of 2023-03-01 was assessed. *Number of records retrieved matching the abovementioned criteria*: "30". *Number of relevant records or full-text documents retrieved*: The retrieved records are not relevant to MON 810 maize.
Health Canada	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. *Date of the most recent website update at the time of the search*: 11 August 2023 *Limits applied*: The list of novel food decisions starting from the 'Decision Date (20YY/MM/DD)' of 2022/01/01 was assessed. *Number of records retrieved matching the abovementioned criteria*: "Seven". *Number of relevant records or full-text documents retrieved*: The retrieved records are not relevant to MON 810 maize.
FSANZ	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. *Date of the most recent website update at the time of the search*: May 2023 *Limits applied*: The list for GM applications and approvals with 'Status' approved or under assessment starting from 2022 was assessed. *Number of records retrieved matching the abovementioned criteria*: "Three". *Number of relevant records or full-text documents retrieved*: The retrieved records are not relevant to MON 810 maize.
CTNBio	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. *Date of the most recent website update at the time of the search*: Not clear (several dates mentioned) *Limits applied*: The list of commercial releases for plants (= plantas) starting from 2022 was assessed. *Number of records retrieved matching the abovementioned criteria*: "13". *Number of relevant records or full-text documents retrieved*: The retrieved records are not relevant to MON 810 maize.

CONABIA	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. *Date of the most recent website update at the time of the search*: Not available *Limits applied*: The list of events with commercial authorisation (= Eventos con autorización comercial) starting from 2022 were checked. *Number of records retrieved matching the abovementioned criteria*: "Four". *Number of relevant records or full-text documents retrieved*: The retrieved records are not relevant to MON 810 maize.
MAFF	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. *Date of the most recent website update at the time of the search*: 13 July 2023 *Limits applied*: The list of GM agricultural crops with approval date ('承認日') starting from 01 01, 2022 was assessed. *Number of records retrieved matching the abovementioned criteria*: "11". *Number of relevant records or full-text documents retrieved*: The retrieved records are not relevant to MON 810 maize.

Annex V. Results of the publication selection process for MON 810 maize 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)	407
Publications excluded after rapid assessment for relevance	393
Publications screened using full-text documents	14
Publications excluded after detailed assessment for relevance	8
Unobtainable publications	0
Unclear publications	1
Publications considered relevant	5

Table 2. List of all relevant publications for MON 810 maize retrieved after detailed assessment of full-text documents for relevance: ordered by category of information.

Products	Study (author(s) and year)	Title	Source
Food/Feed safety assessment			
Agronomic and phenotypic characteristics			
MON 810	(Feng *et al.*, 2022)	Effects of exogenous salicylic acid application to aboveground part on the defense responses in *Bt* (*Bacillus thuringiensis*) and non- *Bt* corn (*Zea mays* L) seedlings.	Plants
Environmental safety assessment			
Insect resistance management			
MON 810	(García *et al.*, 2023)	Monitoring insect resistance to *Bt* maize in the European Union: Update, challenges, and future prospects.	Journal of Economic Entomology
Non target organisms			
MON 810	(Cagáň *et al.*, 2022)	Could the presence of thrips affect the yield potential of genetically modified and conventional maize?	Toxins
MON 810	(Svobodová *et al.*, 2023)	No bioaccumulation of *Cry* protein in the aphidophagous predator *Harmonia axyridis*	Environmental Toxicology and Pharmacology
MON 810	(Twardowski *et al.*, 2022)	An assessment of environmental risk of *Bt*-maize on rove beetle communities	Ecological Chemistry and Engineering

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
Aglasan *et al*	2023	Risk effects of GM corn: Evidence from crop insurance outcomes and high-dimensional methods.	Agricultural Economics	Original/primary data were not presented in the publication
Albrecht *et al*	2022	Growth, development, and chlorophyll indexes of glyphosate and glufosinate-tolerant maize under herbicide application.	Agronomia Colombiana	The articles are not safety studies on MON 810
Bekelja *et al*	2023	Removing neonicotinoid seed treatments has negligible effects on refuge function and crop protection in transgenic maize targeting western corn rootworm (*Coleoptera: Chrysomelidae*).	Journal of Economic Entomology	
Ge *et al*	2023	Evaluating response mechanisms of soil microbiomes and metabolomes to *Bt* toxin additions.	Journal of Hazardous Materials	
Mendes *et al*	2022	Effect of earworm injuries on fumonisins production in *Bt* and non-*Bt* maize.	Revista Brasileira de Milho e Sorgo	
Neto *et al*	2023	Impact of glyphosate on morphophysiological traits of RR corn plants under drought stress.	Acta Physiologae Plantarum	

Study authors	Year	Title	Source	Reasons for exclusion based on the eligibility/ inclusion criteria
Ureta *et al*	2023	A data mining approach gives insights of causes related to the ongoing transgene presence in Mexican native maize populations.	Agroecology and Sustainable Food Systems	The articles are not safety studies on MON 810
Zuim *et al*	2022	*Bt*-maize in neotropical arthropod food webs: community-stress or lack thereof?	Entomologia Experimentalis et Applicata	

Table 4. List of unclear publications, with explanation why they could not be classified

Study authors	Year	Title	Source	Explanation of why the publication could not be classified, with a description of methods used to resolve the remaining uncertainty
Ferreira *et al*	2023	Decrease in faeces removal and soil bioturbation by dung beetles in genetically modified maize plantations in southern Brazil.	Entomologia Experimentalis et Applicata	Based on the publicly available information, it was not possible to determine whether the event used in the study was MON 810

Table 5. 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		
(Feng *et al.*, 2022)	Low	None, because no new hazards, modified exposure, or new scientific uncertainties are reported
Environmental Safety assessment		
Insect resistance management		
(García *et al.*, 2023)	High	None, because no new hazards, modified exposure, or new scientific uncertainties are reported
Non target organisms		
(Cagáň *et al.*, 2022)	Moderate	None, because no new hazards, modified exposure, or new scientific uncertainties are reported
(Svobodová *et al.*, 2023)	Moderate	None, because no new hazards, modified exposure, or new scientific uncertainties are reported
(Twardowski *et al.*, 2022)	High	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[15] .

[15] 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 19 September 2023

REFERENCES

Cagáň Ľ, Bokor P and Skoková Habuštová O, 2022. Could the presence of thrips affect the yield potential of genetically modified and conventional maize? Toxins, 14, 502.

Feng Y, Wang X, Du T, Shu Y, Tan F and Wang J, 2022. Effects of exogenous salicylic acid application to aboveground part on the defense responses in *Bt* (*Bacillus thuringiensis*) and non-*Bt* Corn (*Zea mays L.*) Seedlings. Plants, 11, 2162.

García M, García-Benítez C, Ortego F and Farinós GP, 2023. Monitoring insect resistance to *Bt* maize in the European Union: Update, challenges, and future prospects. Journal of economic entomology, 116, 275-288.

Svobodová Z, Habuštová OS and Sehadová H, 2023. No bioaccumulation of *Cry* protein in the aphidophagous predator *Harmonia axyridis*. Environmental Toxicology and Pharmacology, 97, 104015.

Twardowski J, Gruss I, Bereś P, Hurej M and Klukowski Z, 2022. An assessment of environmental risk of *bt*-maize on rove beetle communities. Ecological Chemistry and Engineering S-Chemia I Inzynieria Ekologiczna S, 29.

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 maize.txt file).