

APPENDIX 3

LITERATURE SEARCH TO SUPPORT GENERAL SURVEILLANCE OF 2021/2022 ANNUAL POST MARKET ENVIRONMENTAL MONITORING REPORTS OF BAYER GM OILSEED RAPE PRODUCTS

Data protection.

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

© 2022 Bayer Group. All Rights Reserved.

This document is intellectual property of Bayer protected under national and international intellectual property laws. This document and any accompanying materials shall only be used by the regulatory authority to which it has been submitted by Bayer and only in support of or in conjunction with actions and/or applications requested and/or submitted by Bayer. Any other use, copying or transmission, including internet posting or scientific peer-reviewed publications, of this document and any materials described in or accompanying hereof, without prior consent of Bayer, is strictly prohibited, save for the cases where has expressly granted such consent to the regulatory authority, by virtue of law or in writing. The information, materials or data described in or accompanying this document are owned by Bayer holding exclusive rights to such intellectual property. By submitting this document and any accompanying materials, Bayer does not grant any person and/or entity any right or license to either of the information, materials, data or intellectual property described or contained herein.

Table of contents

SUMMARY	4
1. INTRODUCTION	5
2. FORMULATING THE REVIEW QUESTION AND CLARIFYING ITS PURPOSE	5
3. SEARCHING FOR/ IDENTIFYING RELEVANT PUBLICATIONS	7
3.1. Sources of scientific literature	7
3.1.1. Electronic bibliographic databases	7
3.1.2. Internet (world-wide-web) pages of relevant key organisations.....	8
3.2. Search strategy (electronic databases)	8
3.2.1. Search terms and search strings	8
3.2.2. Limits applied	9
3.2.3. Language	9
3.2.4. Time period	10
3.2.5. Reference publications	10
3.3. Search strategy (relevant key organisations).....	10
4. SELECTING PUBLICATIONS	10
4.1. Eligibility screening process	10
4.2. Reviewers	11
4.2.1. Number of reviewers.....	11
4.2.2. Expertise of reviewers.....	11
4.2.3. Inter-reviewer agreement	11
4.3. Classification of publications	12
4.4. Quality appraisal of the relevant publications	12
5. SUMMARISING AND REPORTING THE DATA, AND CONSIDERING THE IMPLICATIONS OF THE FINDINGS.....	13
5.1. Search outcomes	13
5.1.1. Outcomes of literature search (electronic databases).....	13
5.1.2. Outcomes of literature search (relevant key organisations).....	13
5.2. Results of the publication selection process	13
5.2.1. Results of the publication selection process (electronic databases).....	13
5.2.2. Results of the publication selection process (relevant key organisations).....	13
5.3. Considering the implications of the findings	13
6. CONCLUSION.....	13

Annex I. Translation of intervention/exposure key elements into search terms for Bayer GM oilseed rape products literature search in STN® database catalogue	14
Annex II. The search string used for Bayer GM oilseed rape products literature search in SciSearch and CABA databases using STN® database catalogue, and outcomes of the search (2021-2022)	17
Annex III. List of reference publications used in identifying search terms and in validating the literature search strategy for Bayer GM oilseed rape products literature search	26
Annex IV. Literature search in internet pages of relevant key organisations for Bayer GM oilseed rape products covering time span 2021 - 2022	27
Annex V. Results of the publication selection process for Bayer GM oilseed rape products literature search in SciSearch and CABA databases using STN® database catalogue	30

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 2021/2022 annual post market environmental monitoring reports. It addresses the review question “Do Bayer GM oilseed rape 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 oilseed rape 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 2021 – 2022 to capture any publication published during the annual general surveillance of 2021/2022 post market environmental monitoring season.

The literature search retrieved no publications as relevant.

The comprehensive literature search found no new information that would invalidate the conclusions of the risk assessment for Bayer GM oilseed rape 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 19 September 2022.

1. INTRODUCTION

As part of the general surveillance requirements for Bayer GM oilseed rape products authorised in the European Union (EU) market under regulation (EC) No 1829/2003³, Bayer Agriculture BV has actively monitored the oilseed rape products by conducting quarterly literature searches covering the time span between June 2021 and May 2022.

The results of the literature search that were analysed in detail according to the relevance for the risk assessment of the Bayer GM oilseed rape 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 oilseed rape 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 2021/2022 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 oilseed rape products, derived food/feed products and respective introduced traits (= intervention/exposure), conventional counterpart or non-GM oilseed rape (= 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 EC, 2003. [REGULATION \(EC\) No 1829/2003 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 September 2003 on genetically modified food and feed](#). – Accessed 19 September 2022.

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 oilseed rape but excluding the cultivation of Bayer GM oilseed rape products are addressed as general protection goals.
Intervention/exposure	Bayer GM oilseed rape 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 oilseed rape 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 oilseed rape products for all uses as any other oilseed rape 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 oilseed rape 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,

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 2022.

⁵ STN/SciSearch: <https://www.stn-international.com/sites/default/files/stn/dbss/SCISEARCH.pdf> - Accessed on 19 September 2022.

⁶ STN/CABA: <https://www.stn-international.com/sites/default/files/stn/dbss/CABA.pdf> – Accessed on 19 September 2022.

⁷ CAB Abstracts®: <https://www.cabi.org/publishing-products/online-information-resources/cab-abstracts/> - Accessed on 19 September 2022.

⁸ STN®: <http://stn-international.de/sites/default/files/STN/brochures/stnfile-kat.pdf>- Accessed on 19 September 2022.

⁹ Web of Science group; <https://clarivate.com/webofsciencgroup/solutions/webofscience-core-collection-editorial-selection-process/> - Accessed on 19 September 2022.

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 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 searching², 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 searching², nine¹⁰ are involved in risk assessment of Bayer GM oilseed rape products. Three of the remaining six (CIBIOGEM, Environment and Climate Change Canada and OECD) are not involved in GM risk assessment while one (GEAC), for the time being, only assesses GM cotton and the US EPA is only involved in the assessment of events containing Plant-Incorporated Protectants (PIP). Therefore, the internet search focused on the nine key organisations relevant for Bayer GM oilseed rape 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,

¹⁰ Internet pages of the relevant key organisations for Bayer GM oilseed rape products:
USDA (<https://www.usda.gov/media>) - Accessed on 19 September 2022;
US FDA (<https://www.fda.gov/>) - Accessed on 19 September 2022;
CFIA (<http://www.inspection.gc.ca/eng/1297964599443/1297965645317>) - Accessed on 19 September 2022;
Health Canada (<https://www.canada.ca/en/health-canada.html>) - Accessed on 19 September 2022;
FSANZ (<http://www.foodstandards.gov.au/Pages/default.aspx>) - Accessed on 19 September 2022;
CTNBio (<http://ctnbio.mctic.gov.br/>) - Accessed on 19 September 2022;
CONABIA (<https://www.argentina.gob.ar/>) - Accessed on 19 September 2022;
Japan MAFF (<http://www.maff.go.jp/e/>) - Accessed on 19 September 2022;
OGTR (<http://www.ogtr.gov.au/>) - Accessed on 19 September 2022.

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 Bayer GM oilseed rape 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^{5,6,14}. 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 19 September 2022

¹² STNindex user guide: <https://stn.products.fiz-karlsruhe.de/training-center/documentation/stn-index-user-guide> - Accessed on 19 September 2022

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 2022

3.2.4. Time period

The literature searches covered the time span 1 June 2021 - 31 May 2022.

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
12 October 2021	SciSearch: 11 October 2021	31 May 2021 – 11 October 2021
	CABA: 05 October 2021	31 May 2021 – 05 October 2021
02 February 2022	SciSearch: 31 January 2022	05 October 2021– 31 January 2022
	CABA: 01 February 2022	05 October 2021– 01 February 2022
09 June 2022	SciSearch: 06 June 2022	31 January 2022– 06 June 2022
	CABA: 07 June 2022	31 January 2022– 07 June 2022

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 oilseed rape 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 oilseed rape products.

The literature search in the internet pages of the relevant key organisations was conducted on 13 September/04 October 2022 and covered the time span 01 January 2021– 13 September/04 October 2022.

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.

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 searching² 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 oilseed rape products for all uses as any other oilseed rape 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 374 and 258 hits in SciSearch and CABA databases, respectively (see **Annex II**). After de-duplication¹⁴, the total number resulted in 531 hits (see **Annex V**).

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 814 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**. No relevant publications were identified.

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

Not applicable as no relevant publication was identified.

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 2021/2022 annual PMEM for Bayer GM oilseed rape products, identified no relevant publications that would invalidate the conclusions of the Bayer GM oilseed rape products previous risk assessments. Therefore, the conclusions of the risk assessment as presented in the initial applications of the Bayer GM oilseed rape products remain unchanged.

¹⁴ Corresponds to the unique publications after STN® and manual de-duplication.

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

1. Free-text search terms for Bayer GM Oilseed rape 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	GT73 or RT73 or MON-ØØØ73-7 MON 88302 or MON-883Ø2-9 MS8 or ACS-BNØØ5-8 RF3 or ACS-BNØØ3-6	GT!73 OR GT73 OR GT 73 OR RT!73 OR RT73 OR RT 73 OR MON!OOO73? OR MONOOO73? OR MON OOO73? OR MON!00073 OR MON00073? OR MON 00073? OR MON!EMPTY SETEMPTY SETEMPTY SET73? OR MONEMPTY SETEMPTY SETEMPTY SET73? OR MON EMPTY SETEMPTY SETEMPTY SET73? MON!88302? OR MON88302? OR MON 88302? OR MON!883O2? OR MON883O2? OR MON 883O2? OR MON!883EMPTYSET2? OR MON883EMPTY SET2? OR MON 883EMPTY SET2? MS!8 OR MS8 OR MS 8 OR ACS!BN005? OR ACSBN005? OR ACS BN005? OR ACS!BNOO5? OR ACSBNOO5? OR ACS BNOO5? OR ACS!BNEMPTY SETEMPTY SET5? OR ACSBNEMPTY SETEMPTY SET5? OR ACS BNEMPTY SETEMPTY SET5? OR RF!3 OR RF3 OR RF 3 OR ACS!BN003? OR ACSBN003? OR ACS BN003? OR ACS!BNOO3? OR ACSBNOO3? OR ACS BNOO3? OR ACS!BNEMPTY SETEMPTY SET3? OR ACSBNEMPTY SETEMPTY SET3? OR ACS BNEMPTY SETEMPTY SET3?
Trade names	Roundup Ready® canola TruFlex™canola with Roundup Ready® technology InVigor™ Canola	ROUNDUPREADY? OR ROUND!UP!READY? ROUND UP READY? OR ROUNDUP READY? OR ROUND!UP READY? OR TRU!FLEX? OR TRU FLEX? OR TRUFLEX OR IN!VIGOR? OR INVIGOR? OR IN VIGOR?
Newly expressed proteins	CP4 EPSPS GOX PAT Barnase	CP4EPSPS? OR CP4 EPSPS? OR 5(W)(ENOLPYRUVYLSHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYLSHIKIMATE OR ENOL!PYRUVYL! SHIKIMATE!)(W)3 PHOSPHATE SYNTHASE OR OXIDOREDUCTASE OR GOX

	Barnase inhibitor	PAT OR PHOSPHINOTHRICIN OR N ACETYLTRANSFERASE OR N ACETYLTRANSFERASE OR N ACETYL!TRANSFERASE OR N!ACETYLTRANSFERASE OR N!ACETYL TRANSFERASE OR N!ACETYL!TRANSFERASE BARNASE OR BAR OR BARSTAR
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 BASTA OR IGNITE OR LIBERTY)
Intended traits: Male sterility; male fertility restorer	Male sterility Male fertility restorer	(CONTROL? OR FERTIL? OR STERIL?) (5A) (POLLEN OR POLLINATION OR MALE)
Crop name	Rape, rapeseed, oilseed rape, canola, <i>Brassica</i>	RAPESEED OR RAPE SEED OR OILSEEDRAPE OR OILSEED RAPE OR CANOLA OR BRASSICA
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 Oilseed rape 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 : herbicide tolerance traits	Glyphosate tolerance Glufosinate tolerance	(WEED CONTROL+UF,NT/CT AND (GLYPHOSATE+UF,NT/CT OR GLUFOSINATE+UF,NT/CT)) OR MALE STERILITY +UF,NT/CT OR
Intended traits: male sterility; male fertility restorer	Male sterility Male fertility restorer	MALE FERTILITY +UF,NT/CT OR RESTORER GENES +UF,NT/CT
Crop name	Rape, rapeseed, oilseed rape, canola, <i>Brassica</i>	RAPESEED+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 oilseed rape products literature search in SciSearch and CABA databases using STN® database catalogue, and outcomes of the search (2021-2022)

Bayer GM Oilseed rape products literature search – First quarter (June 2021 - September 2021)

Translation of query terms into STN search language:

```
(FILE 'STNGUIDE' ENTERED AT 14:25:41 ON 12 OCT 2021)
DEL HIS Y
L1  QUE SPE=ON  ABB=ON  PLU=ON  GT!73 OR GT73 OR GT 73 OR RT!73 OR
RT73 OR RT 73 OR MON!00073? OR MON00073? OR MON 00073? OR
MON!00073 OR MON00073? OR MON 00073? OR MON!EMPTY SETEMPTY
SEEMPTY SET73? OR MONEMPTY SETEMPTY SETEMPTY SET73? OR MON
EMPTY SETEMPTY SETEMPTY SET73?
L2  QUE SPE=ON  ABB=ON  PLU=ON  MON!88302? OR MON88302? OR MON
88302? OR MON!88302? OR MON88302? OR MON 88302? OR MON!883EMPTY
SET2? OR MON883EMPTY SET2? OR MON 883EMPTY SET2?
L3  QUE SPE=ON  ABB=ON  PLU=ON  MS!8 OR MS8 OR MS 8 OR RF!3 OR RF3
OR RF 3 OR ACS!BN005? OR ACSBN005? OR ACS BN005? OR ACS!BNO05?
OR ACSBN005? OR ACS BNO05? OR ACS!BEMPTY SETEMPTY SET5? OR
ACSBNEMPTY SETEMPTY SET5? OR ACS BEMPTY SETEMPTY SET5?
L4  QUE SPE=ON  ABB=ON  PLU=ON  ACS!BN003? OR ACSBN003? OR ACS
BN003? OR ACS!BNO03? OR ACSBN003? OR ACS BNO03? OR ACS!BEMPTY
SEEMPTY SET3? OR ACSBNEMPTY SETEMPTY SET3? OR ACS BEMPTY
SEEMPTY SET3?
L5  QUE SPE=ON  ABB=ON  PLU=ON  ROUNDUPREADY? OR ROUND!UP!READY?
ROUND UP READY? OR ROUNDUP READY? OR ROUND!UP READY? OR
TRU!FLEX? OR TRU FLEX? OR TRUFLEX OR IN!VIGOR? OR INVIGOR? OR
IN VIGOR?
L6  QUE SPE=ON  ABB=ON  PLU=ON  RAPESEED OR RAPE SEED OR OILSEEDRAP
E OR OILSEED RAPE OR CANOLA OR BRASSICA
L7  QUE SPE=ON  ABB=ON  PLU=ON  CP4EPSPS? OR CP4 EPSPS? OR
5(W) (ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR
ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR ENOL!PYRUVYL!
SHIKIMATE!) (W)3 PHOSPHATE SYNTHASE OR OXIDOREDUCTASE
L8  QUE SPE=ON  ABB=ON  PLU=ON  N ACETYLTRANSFERASE OR N ACETYL
TRANSFERASE OR N ACETYL!TRANSFERASE OR N!ACETYLTRANSFERASE OR
N!ACETYL TRANSFERASE OR N!ACETYL!TRANSFERASE OR BARNASE OR BAR
OR BARSTAR OR GOX OR PAT OR PHOSPHINOTHRICIN
L9  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?))
L10 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 BASTA OR IGNITE OR
LIBERTY)
L11 QUE SPE=ON  ABB=ON  PLU=ON  (CONTROL? OR FERTIL? OR STERIL?)
(5A) (POLLEN OR POLLINATION OR MALE)
L12 QUE SPE=ON  ABB=ON  PLU=ON  RAPESEED+UF,NT/CT,ORGN
L13 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
L14 QUE SPE=ON  ABB=ON  PLU=ON  (WEED CONTROL+UF,NT/CT AND
(GLYPHOSATE+UF,NT/CT OR GLUFOSINATE+UF,NT/CT)) OR MALE
STERILITY +UF,NT/CT OR MALE FERTILITY +UF,NT/CT OR RESTORER
GENES +UF,NT/CT
```

Search in SciSearch Database:

```
FILE 'SCISEARCH' ENTERED AT 14:26:11 ON 12 OCT 2021
L15      46 SEA SPE=ON ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4) AND
ED>=20210531 AND ED<=20211011 AND PY>=2021
L16      144 SEA SPE=ON ABB=ON PLU=ON L5 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L17      1499 SEA SPE=ON ABB=ON PLU=ON L6 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L18      1 SEA SPE=ON ABB=ON PLU=ON L16 AND L17
L19      535 SEA SPE=ON ABB=ON PLU=ON L7 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L20      7322 SEA SPE=ON ABB=ON PLU=ON L8 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L21      7853 SEA SPE=ON ABB=ON PLU=ON L19 OR L20
L22      11060 SEA SPE=ON ABB=ON PLU=ON L9 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L23      96 SEA SPE=ON ABB=ON PLU=ON L21 AND (L22 OR L17)
L24      112 SEA SPE=ON ABB=ON PLU=ON L10 AND ED>=20210531 AND ED<=202110
11 AND PY>=2021
L25      1299 SEA SPE=ON ABB=ON PLU=ON L11 AND ED>=20210531 AND ED<=202110
11 AND PY>=2021
L26      1411 SEA SPE=ON ABB=ON PLU=ON L24 OR L25
L27      6 SEA SPE=ON ABB=ON PLU=ON L26 AND L22 AND L17
L28      145 SEA SPE=ON ABB=ON PLU=ON L15 OR L18 OR L23 OR L27
```

Search in CABA Database:

```
FILE 'CABA' ENTERED AT 14:26:26 ON 12 OCT 2021
L29      8 SEA SPE=ON ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4) AND
ED>=20210531 AND ED<=20211011 AND PY>=2021
L30      45 SEA SPE=ON ABB=ON PLU=ON L5 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L31      1254 SEA SPE=ON ABB=ON PLU=ON L6 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L32      147 SEA SPE=ON ABB=ON PLU=ON L12 AND ED>=20210531 AND ED<=202110
11 AND PY>=2021
L33      1254 SEA SPE=ON ABB=ON PLU=ON L31 OR L32
L34      0 SEA SPE=ON ABB=ON PLU=ON L30 AND L33
L35      447 SEA SPE=ON ABB=ON PLU=ON L7 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L36      380 SEA SPE=ON ABB=ON PLU=ON L8 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L37      824 SEA SPE=ON ABB=ON PLU=ON L35 OR L36
L38      3063 SEA SPE=ON ABB=ON PLU=ON L9 AND ED>=20210531 AND ED<=2021101
1 AND PY>=2021
L39      1353 SEA SPE=ON ABB=ON PLU=ON L13 AND ED>=20210531 AND ED<=202110
11 AND PY>=2021
L40      3071 SEA SPE=ON ABB=ON PLU=ON L38 OR L39
L41      49 SEA SPE=ON ABB=ON PLU=ON L37 AND (L40 OR L33)
L42      65 SEA SPE=ON ABB=ON PLU=ON L10 AND ED>=20210531 AND ED<=202110
11 AND PY>=2021
L43      485 SEA SPE=ON ABB=ON PLU=ON L11 AND ED>=20210531 AND ED<=202110
11 AND PY>=2021
L44      170 SEA SPE=ON ABB=ON PLU=ON L14 AND ED>=20210531 AND ED<=202110
11 AND PY>=2021
L45      569 SEA SPE=ON ABB=ON PLU=ON L42 OR L43 OR L44
L46      4 SEA SPE=ON ABB=ON PLU=ON L45 AND L40 AND L33
L47      61 SEA SPE=ON ABB=ON PLU=ON L29 OR L34 OR L41 OR L46
```

Deduplication of Hit-sets from both sources:

FILE 'CABA, SCISEARCH' ENTERED AT 14:29:54 ON 12 OCT 2021
L48 195 DUP REM L47 L28 (11 DUPLICATES REMOVED)
ANSWERS '1-61' FROM FILE CABA
ANSWERS '62-195' FROM FILE SCISEARCH
D L48 1-195 ALL PY

FILE SCISEARCH

FILE COVERS 1974 TO 11 Oct 2021 (20211011/ED)

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

FILE CABA

FILE LAST UPDATED: 5 OCT 2021 <20211005/UP>
FILE COVERS 1973 TO DATE

Bayer GM Oilseed rape products literature search – Second quarter (October 2021 – January 2022)

Translation of query terms into STN search language:

```
(FILE 'STNGUIDE' ENTERED AT 10:04:05 ON 02 FEB 2022)
DEL HIS Y
L1  QUE SPE=ON  ABB=ON  PLU=ON  GT!73 OR GT73 OR GT 73 OR RT!73 OR
    RT73 OR RT 73 OR MON!00073? OR MON00073? OR MON 00073? OR
    MON!00073 OR MON00073? OR MON 00073? OR MON!EMPTY SETEMPTY
    SETEMPTY SET73? OR MONEMPTY SETEMPTY SETEMPTY SET73? OR MON
    EMPTY SETEMPTY SETEMPTY SET73?
L2  QUE SPE=ON  ABB=ON  PLU=ON  MON!88302? OR MON88302? OR MON
    88302? OR MON!88302? OR MON88302? OR MON 88302? OR MON!883EMPTY
    SET2? OR MON883EMPTY SET2? OR MON 883EMPTY SET2?
L3  QUE SPE=ON  ABB=ON  PLU=ON  MS!8 OR MS8 OR MS 8 OR RF!3 OR RF3
    OR RF 3 OR ACS!BN005? OR ACSBN005? OR ACS BN005? OR ACS!BNO05?
    OR ACSBN005? OR ACS BNO05? OR ACS!BNEMPTY SETEMPTY SET5? OR
    ACSBNEMPTY SETEMPTY SET5? OR ACS BNEMPTY SETEMPTY SET5?
L4  QUE SPE=ON  ABB=ON  PLU=ON  ACS!BN003? OR ACSBN003? OR ACS
    BN003? OR ACS!BNO03? OR ACSBN003? OR ACS BNO03? OR ACS!BNEMPTY
    SETEMPTY SET3? OR ACSBNEMPTY SETEMPTY SET3? OR ACS BNEMPTY
    SETEMPTY SET3?
L5  QUE SPE=ON  ABB=ON  PLU=ON  ROUNDUPREADY? OR ROUND!UP!READY?
    ROUND UP READY? OR ROUNDUP READY? OR ROUND!UP READY? OR
    TRU!FLEX? OR TRU FLEX? OR TRUFLEX OR IN!VIGOR? OR INVIGOR? OR
    IN VIGOR?
L6  QUE SPE=ON  ABB=ON  PLU=ON  RAPESEED OR RAPE SEED OR OILSEEDRAP
    E OR OILSEED RAPE OR CANOLA OR BRASSICA
L7  QUE SPE=ON  ABB=ON  PLU=ON  CP4EPSPS? OR CP4 EPSPS? OR
    5(W) (ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR
    ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR ENOL!PYRUVYL!
    SHIKIMATE!) (W) 3 PHOSPHATE SYNTHASE OR OXIDOREDUCTASE
L8  QUE SPE=ON  ABB=ON  PLU=ON  N ACETYLTRANSFERASE OR N ACETYL
    TRANSFERASE OR N ACETYLTRANSFERASE OR N!ACETYLTRANSFERASE OR
    N!ACETYL TRANSFERASE OR N!ACETYLTRANSFERASE OR BARNASE OR BAR
    OR BARSTAR OR GOX OR PAT OR PHOSPHINOTHRICIN
L9  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?))
L10 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 BASTA OR IGNITE OR
    LIBERTY)
L11 QUE SPE=ON  ABB=ON  PLU=ON  (CONTROL? OR FERTIL? OR STERIL?)
    (5A) (POLLEN OR POLLINATION OR MALE)
L12 QUE SPE=ON  ABB=ON  PLU=ON  RAPESEED+UF,NT/CT,ORGN
L13 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
L14 QUE SPE=ON  ABB=ON  PLU=ON  (WEED CONTROL+UF,NT/CT AND
    (GLYPHOSATE+UF,NT/CT OR GLUFOSINATE+UF,NT/CT)) OR MALE
    STERILITY +UF,NT/CT OR MALE FERTILITY +UF,NT/CT OR RESTORER
    GENES +UF,NT/CT
```

Search in SciSearch Database:

```
FILE 'SCISEARCH' ENTERED AT 10:04:42 ON 02 FEB 2022
L15      35 SEA SPE=ON ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4) AND
        ED>=20211005 AND ED<=20220131 AND PY>=2021
L16      94 SEA SPE=ON ABB=ON PLU=ON L5 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L17     1066 SEA SPE=ON ABB=ON PLU=ON L6 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L18      1 SEA SPE=ON ABB=ON PLU=ON L16 AND L17
L19     350 SEA SPE=ON ABB=ON PLU=ON L7 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L20     5385 SEA SPE=ON ABB=ON PLU=ON L8 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L21     5732 SEA SPE=ON ABB=ON PLU=ON L19 OR L20
L22     8810 SEA SPE=ON ABB=ON PLU=ON L9 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L23      65 SEA SPE=ON ABB=ON PLU=ON L21 AND (L22 OR L17)
L24      75 SEA SPE=ON ABB=ON PLU=ON L10 AND ED>=20211005 AND ED<=202201
        31 AND PY>=2021
L25     934 SEA SPE=ON ABB=ON PLU=ON L11 AND ED>=20211005 AND ED<=202201
        31 AND PY>=2021
L26    1009 SEA SPE=ON ABB=ON PLU=ON L24 OR L25
L27      11 SEA SPE=ON ABB=ON PLU=ON L26 AND L22 AND L17
L28     109 SEA SPE=ON ABB=ON PLU=ON L15 OR L18 OR L23 OR L27
```

Search in CABA Database:

```
FILE 'CABA' ENTERED AT 10:04:56 ON 02 FEB 2022
L29      11 SEA SPE=ON ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4) AND
        ED>=20211005 AND ED<=20220131 AND PY>=2021
L30      51 SEA SPE=ON ABB=ON PLU=ON L5 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L31     1748 SEA SPE=ON ABB=ON PLU=ON L6 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L32      211 SEA SPE=ON ABB=ON PLU=ON L12 AND ED>=20211005 AND ED<=202201
        31 AND PY>=2021
L33     1748 SEA SPE=ON ABB=ON PLU=ON L31 OR L32
L34      2 SEA SPE=ON ABB=ON PLU=ON L30 AND L33
L35     752 SEA SPE=ON ABB=ON PLU=ON L7 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L36     470 SEA SPE=ON ABB=ON PLU=ON L8 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L37     1219 SEA SPE=ON ABB=ON PLU=ON L35 OR L36
L38     4277 SEA SPE=ON ABB=ON PLU=ON L9 AND ED>=20211005 AND ED<=2022013
        1 AND PY>=2021
L39     1943 SEA SPE=ON ABB=ON PLU=ON L13 AND ED>=20211005 AND ED<=202201
        31 AND PY>=2021
L40     4284 SEA SPE=ON ABB=ON PLU=ON L38 OR L39
L41      81 SEA SPE=ON ABB=ON PLU=ON L37 AND (L40 OR L33)
L42      96 SEA SPE=ON ABB=ON PLU=ON L10 AND ED>=20211005 AND ED<=202201
        31 AND PY>=2021
L43     676 SEA SPE=ON ABB=ON PLU=ON L11 AND ED>=20211005 AND ED<=202201
        31 AND PY>=2021
L44     311 SEA SPE=ON ABB=ON PLU=ON L14 AND ED>=20211005 AND ED<=202201
        31 AND PY>=2021
L45     820 SEA SPE=ON ABB=ON PLU=ON L42 OR L43 OR L44
L46      7 SEA SPE=ON ABB=ON PLU=ON L45 AND L40 AND L33
L47     99 SEA SPE=ON ABB=ON PLU=ON L29 OR L34 OR L41 OR L46
```

Deduplication of Hit-sets from both sources:

FILE 'CABA, SCISEARCH' ENTERED AT 10:05:35 ON 02 FEB 2022
L48 203 DUP REM L47 L28 (5 DUPLICATES REMOVED)
ANSWERS '1-99' FROM FILE CABA
ANSWERS '100-203' FROM FILE SCISEARCH
D L48 1-203 ALL PY

FILE SCISEARCH

FILE COVERS 1974 TO 31 Jan 2022 (20220131/ED)
To bring you the most up-to-date SciSearch information,
SciSearch SDIs now run on Mondays.

FILE CABA

FILE LAST UPDATED: 1 FEB 2022 <20220201/UP>
FILE COVERS 1973 TO DATE

Bayer GM Oilseed rape products literature search – Third quarter (February 2022 – May 2022)

Translation of query terms into STN search language:

```
(FILE 'STNGUIDE' ENTERED AT 14:26:02 ON 09 JUN 2022)
      DEL HIS Y
L1      QUE SPE=ON ABB=ON PLU=ON GT!73 OR GT73 OR GT 73 OR RT!73 OR
      RT73 OR RT 73 OR MON!00073? OR MON00073? OR MON 00073? OR
      MON!00073 OR MON00073? OR MON 00073? OR MON!EMPTY SETEMPTY
      SETEMPTY SET73? OR MONEMPTY SETEMPTY SETEMPTY SET73? OR MON
      EMPTY SETEMPTY SETEMPTY SET73?
L2      QUE SPE=ON ABB=ON PLU=ON MON!88302? OR MON88302? OR MON
      88302? OR MON!88302? OR MON88302? OR MON 88302? OR MON!883EMPTY
      SET2? OR MON883EMPTY SET2? OR MON 883EMPTY SET2?
L3      QUE SPE=ON ABB=ON PLU=ON MS!8 OR MS8 OR MS 8 OR RF!3 OR RF3
      OR RF 3 OR ACS!BN005? OR ACSBN005? OR ACS BN005? OR ACS!BNO05?
      OR ACSBN005? OR ACS BNO05? OR ACS!BNEMPTY SETEMPTY SET5? OR
      ACSBNEMPTY SETEMPTY SET5? OR ACS BNEMPTY SETEMPTY SET5?
L4      QUE SPE=ON ABB=ON PLU=ON ACS!BN003? OR ACSBN003? OR ACS
      BN003? OR ACS!BNO03? OR ACSBN003? OR ACS BNO03? OR ACS!BNEMPTY
      SETEMPTY SET3? OR ACSBNEMPTY SETEMPTY SET3? OR ACS BNEMPTY
      SETEMPTY SET3?
L5      QUE SPE=ON ABB=ON PLU=ON ROUNDUPREADY? OR ROUND!UP!READY?
      ROUND UP READY? OR ROUNDUP READY? OR ROUND!UP READY? OR
      TRU!FLEX? OR TRU FLEX? OR TRUFLEX OR IN!VIGOR? OR INVIGOR? OR
      IN VIGOR?
L6      QUE SPE=ON ABB=ON PLU=ON RAPESEED OR RAPE SEED OR OILSEEDRAP
      E OR OILSEED RAPE OR CANOLA OR BRASSICA
L7      QUE SPE=ON ABB=ON PLU=ON CP4EPSPS? OR CP4 EPSPS? OR
      5(W) (ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR
      ENOLPYRUVYL SHIKIMATE OR ENOL PYRUVYL SHIKIMATE OR ENOL!PYRUVYL!
      SHIKIMATE!) (W) 3 PHOSPHATE SYNTHASE OR OXIDOREDUCTASE
L8      QUE SPE=ON ABB=ON PLU=ON N ACETYLTRANSFERASE OR N ACETYL
      TRANSFERASE OR N ACETYL!TRANSFERASE OR N!ACETYLTRANSFERASE OR
      N!ACETYL TRANSFERASE OR N!ACETYL!TRANSFERASE OR BARNASE OR BAR
      OR BARSTAR OR GOX OR PAT OR PHOSPHINOTHRICIN
L9      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?))
L10     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 BASTA OR IGNITE OR
      LIBERTY)
L11     QUE SPE=ON ABB=ON PLU=ON (CONTROL? OR FERTIL? OR STERIL?)
      (5A) (POLLEN OR POLLINATION OR MALE)
L12     QUE SPE=ON ABB=ON PLU=ON RAPESEED+UF,NT/CT,ORGN
L13     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
L14     QUE SPE=ON ABB=ON PLU=ON (WEED CONTROL+UF,NT/CT AND
      (GLYPHOSATE+UF,NT/CT OR GLUFOSINATE+UF,NT/CT)) OR MALE
      STERILITY +UF,NT/CT OR MALE FERTILITY +UF,NT/CT OR RESTORER
      GENES +UF,NT/CT
```

Search in SciSearch Database:

FILE 'SCISEARCH' ENTERED AT 14:26:20 ON 09 JUN 2022

L15 42 SEA SPE=ON ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4) AND
ED>=20220131 AND ED<=20220606 AND PY>=2021

L16 133 SEA SPE=ON ABB=ON PLU=ON L5 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L17 1315 SEA SPE=ON ABB=ON PLU=ON L6 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L18 1 SEA SPE=ON ABB=ON PLU=ON L16 AND L17

L19 444 SEA SPE=ON ABB=ON PLU=ON L7 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L20 6335 SEA SPE=ON ABB=ON PLU=ON L8 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L21 6775 SEA SPE=ON ABB=ON PLU=ON L19 OR L20

L22 10209 SEA SPE=ON ABB=ON PLU=ON L9 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L23 74 SEA SPE=ON ABB=ON PLU=ON L21 AND (L22 OR L17)

L24 83 SEA SPE=ON ABB=ON PLU=ON L10 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L25 1100 SEA SPE=ON ABB=ON PLU=ON L11 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L26 1183 SEA SPE=ON ABB=ON PLU=ON L24 OR L25

L27 5 SEA SPE=ON ABB=ON PLU=ON L26 AND L22 AND L17

L28 120 SEA SPE=ON ABB=ON PLU=ON L15 OR L18 OR L23 OR L27

Search in CABA Database:

FILE 'CABA' ENTERED AT 14:26:29 ON 09 JUN 2022

L29 15 SEA SPE=ON ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4) AND
ED>=20220131 AND ED<=20220606 AND PY>=2021

L30 63 SEA SPE=ON ABB=ON PLU=ON L5 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L31 1692 SEA SPE=ON ABB=ON PLU=ON L6 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L32 148 SEA SPE=ON ABB=ON PLU=ON L12 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L33 1692 SEA SPE=ON ABB=ON PLU=ON L31 OR L32

L34 1 SEA SPE=ON ABB=ON PLU=ON L30 AND L33

L35 461 SEA SPE=ON ABB=ON PLU=ON L7 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L36 466 SEA SPE=ON ABB=ON PLU=ON L8 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L37 923 SEA SPE=ON ABB=ON PLU=ON L35 OR L36

L38 3882 SEA SPE=ON ABB=ON PLU=ON L9 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L39 1727 SEA SPE=ON ABB=ON PLU=ON L13 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L40 3892 SEA SPE=ON ABB=ON PLU=ON L38 OR L39

L41 79 SEA SPE=ON ABB=ON PLU=ON L37 AND (L40 OR L33)

L42 80 SEA SPE=ON ABB=ON PLU=ON L10 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L43 622 SEA SPE=ON ABB=ON PLU=ON L11 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L44 297 SEA SPE=ON ABB=ON PLU=ON L14 AND ED>=20220131 AND ED<=20220606
AND PY>=2021

L45 762 SEA SPE=ON ABB=ON PLU=ON L42 OR L43 OR L44

L46 4 SEA SPE=ON ABB=ON PLU=ON L45 AND L40 AND L33

L47 98 SEA SPE=ON ABB=ON PLU=ON L29 OR L34 OR L41 OR L46

Deduplication of Hit-sets from both sources:

```
FILE 'CABA, SCISEARCH' ENTERED AT 14:27:01 ON 09 JUN 2022
L48      205 DUP REM L47 L28 (13 DUPLICATES REMOVED)
          ANSWERS '1-98' FROM FILE CABA
          ANSWERS '99-205' FROM FILE SCISEARCH
          D L48 1-205 ALL PY
```

FILE SCISEARCH

FILE COVERS 1974 TO 6 Jun 2022 (20220606/ED)

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

FILE CABA

FILE LAST UPDATED: 7 JUN 2022 <20220607/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 oilseed rape 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.

Brown, PB; Wilson, KA; Jonker, Y; Nickson, TE (2003). Glyphosate tolerant canola meal is equivalent to the parental line in diets fed to rainbow trout. *JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY*. Volume: 51, Issue: 15, Pages: 4268-4272, DOI: 10.1021/jf034018f

Taylor, ML; Stanisiewski, EP; Riordan, SG; Nemeth, MA; George, B; Hartnell, GF (2004). Comparison of broiler performance when fed diets containing roundup ready (Event RT73), nontransgenic control, or commercial canola meal. *POULTRY SCIENCE*. Volume: 83, Issue: 3, Pages: 456-461, DOI: 10.1093/ps/83.3.456

EFSA (2017). Scientific Opinion on application EFSA-GMO-NL-2013-119 for authorisation of genetically modified glufosinate-ammonium- and glyphosate-tolerant oilseed rape MON 88302 × MS8 × RF3 and subcombinations independently of their origin, for food and feed uses, import and processing submitted in accordance with Regulation (EC) No 1829/2003 by Monsanto Company and Bayer CropScience, EFSA Journal, 10.2903/j.efsa.2017.4767, **15**, 4.

EFSA (2005). Opinion of the Scientific Panel on Genetically Modified Organisms on a request from the Commission related to the application (Reference C/BE/96/01) for the placing on the market of glufosinate-tolerant hybrid oilseed rape Ms8xRf3, derived from genetically modified parental lines (Ms8, Rf3), for import and processing for feed and industrial uses, under Part C of Directive 2001/18/EC from Bayer CropScience. *EFSA Journal* 2005; **3**(10): 281, 23 pp. doi:[10.2903/j.efsa.2005.281](https://doi.org/10.2903/j.efsa.2005.281)

EFSA (2012). Scientific Opinion on application (EFSAGMO-BE-2010-81) for the placing on the market of genetically modified herbicide-tolerant oilseed rape Ms8, Rf3 and Ms8 9 Rf3 for food containing or consisting of, and food produced from or containing ingredients produced from, oilseed rape Ms8, Rf3 and Ms8 9 Rf3 (with the exception of processed oil) under Regulation (EC) No 1829/2003 from Bayer. *EFSA Journal* 2012; **10**(9): 2875, 32 pp. doi:[10.2903/j.efsa.2012.2875](https://doi.org/10.2903/j.efsa.2012.2875)

EFSA (2014). Scientific Opinion on application (EFSA-GMO-BE-2011-101) for the placing on the market of herbicide-tolerant genetically modified oilseed rape MON 88302 for food and feed uses, import and processing under Regulation (EC) No 1829/2003 from Monsanto. *EFSA Journal* 2014; **12**(6): 3701, 37 pp. doi:[10.2903/j.efsa.2014.3701](https://doi.org/10.2903/j.efsa.2014.3701)

Annex IV. Literature search in internet pages of relevant key organisations for Bayer GM oilseed rape products covering time span 2021 - 2022

Relevant key organisations	Link to the relevant information and summary of the retrieved records
USDA	<p>https://www.aphis.usda.gov/aphis/ourfocus/biotechnology/permits-notifications-petitions/petitions/petition-status - Accessed on 13 September 2022. 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> 23 August 2022</p> <p><i>Limits applied:</i> The list of the petitions was sorted by 'Effective Date' and those deregulated starting from 01/01/2021 were assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "Six".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape products.</p>
US FDA	<p>https://www.accessdata.fda.gov/scripts/fdcc/?set=Biocon – Accessed on 13 September 2022. 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> 09 September 2022</p> <p><i>Limits applied:</i> The list of the consultations starting from the 'FDA Letter Date' of 01/01/2021 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 oilseed rape products.</p>
CFIA	<p>https://inspection.canada.ca/industry-guidance/eng/1374161650885/1374161737236?gp=3&gc=25&ga=4#gdr_results - Accessed on 13 September 2022. 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 (several dates mentioned)</p> <p><i>Limits applied:</i> The list of repository documents referring to plants with novel traits starting from 'Date modified' of 01/01/2021 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "43".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape 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 13 September 2022. 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> 10 August 2022</p> <p><i>Limits applied:</i> The list of novel food decisions starting from the 'Decision Date (YYYY/MM/DD)' of 01/01/2021 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "18".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape products.</p>
FSANZ	<p>http://www.foodstandards.gov.au/consumer/gmfood/applications/Pages/default.aspx - Accessed on 04 October 2022. 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 2022</p> <p><i>Limits applied:</i> The list for GM applications and approvals with 'Status' approved or under assessment starting from 2021 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "Six".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape products.</p>
CTNBio	<p>http://ctnbio.mctic.gov.br/liberacao-comercial#/liberacao-comercial/consultar-processo - Accessed on 13 September 2022. 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 01/01/2021 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "10".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape products.</p>
CONABIA	<p>https://www.argentina.gob.ar/agroindustria/alimentos-y-bioeconomia/ogm-comerciales - Accessed on 13 September 2022. 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 01/01/2021 were checked.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "Five".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape products.</p>
MAFF	<p>https://www.maff.go.jp/j/syouan/nouan/carta/torikumi/attach/pdf/index-23.pdf Accessed on 13 September 2022. 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> 27 May, 2022</p> <p><i>Limits applied:</i> The list of GM agricultural crops with approval date ('承認日') starting from 01/01/2021 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "15".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape products.</p>

OGTR	<p>https://www.ogtr.gov.au/what-weve-approved - Accessed on 13 September 2022. The webpage dedicated to list of GMOs released 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> Table of applications and authorisations for Dealings involving Intentional Release (DIR) into the environment starting from 'Issue Date' of 01/01/2021 was assessed.</p> <p><i>Number of records retrieved matching the abovementioned criteria:</i> "700".</p> <p><i>Number of relevant records or full-text documents retrieved:</i> The retrieved records are not relevant to Bayer GM oilseed rape products.</p>
------	--

Annex V. Results of the publication selection process for Bayer GM oilseed rape 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)	531
Publications excluded after rapid assessment for relevance	531
Publications screened using full-text	0
Publications excluded after detailed assessment for relevance	0
Unobtainable publications	0
Unclear publications	0
Publications considered relevant	0