FAQ

How to use Google Scholar

Read these tips to improve your searching with Google Scholar, and to find out when it is useful for you to search with Google Scholar - and when you'd better use another tool or database.

Google Scholar: pros and cons

Google Scholar is a very powerful search engine for scientific literature that is used by many researchers and students. It is especially useful to find and access publications that you already know, or to do a quick search on a topic.

Google Scholar is less useful when you want to get an overview of literature on a certain topic, e.g., for your thesis or literature review. This is because Google Scholar offers limited options to combine multiple search terms with Boolean operators (like AND, OR, NOT). By default, Google Scholar searches in the full text of publications. Advanced searching allows you to limit your search to specific fields (title, author, a particular journal and date), but you can't limit your search to e.g. title, abstract and keywords fields only (as in Scopus).

The selection that Google Scholar makes for you is not transparent. It ranks the search results and shows only the first 1,000 results of any search, based on algorithms that Google changes frequently. The ranking depends on settings that you may be unaware of, such as your language settings or location.

To get an overview of scientific literature on a certain topic, therefore, it's better to use a bibliographic database. Find out here (https://www.wur.nl/en/Library/FAQ-Library/FAQ-display/What-are-the-best-databases-for-my-subject.htm) how to choose the best databases for your subject.

Getting access to publications

If you use Google Scholar from the WUR Library website (https://www.wur.nl/en/Library.htm), you automatically get access to the sources that are part of the WUR collections, if you are on campus.

When you work from the Google Scholar website (https://scholar.google.com/), make sure that it makes a link to WUR Library to give you easy access to the licensed sources. If you don't see a 'Get It from WUR' link next to your search results, go to Settings in the menu on the top of the page. Here, choose Library links and add Wageningen University & Research Library to the list.

For more information about access to licensed sources off-campus, go to How to access licensed sources directly (https://www.wur.nl/en/Library/FAQ-Library/FAQ-display/How-to-access-licensed-sources-directly.htm).

Tips to improve your searching

Note that most of these tips also work in Google!

- Use the **Advanced search** option (in the menu) to search in specific 'fields' or to limit results by year range. These options won't work optimally (see above), but it can help to limit the number of results.

- Use double quotation marks to search for **multiple words** next to each other in the specified order (like in compound terms or an exact phrase), e.g., "climate change" or "the impact of climate change on food security". Otherwise, Google (Scholar) automatically combines multiple words with the operator AND.

- **Include alternative terms** by using the OR operator. In some cases Google (Scholar) doesn't include obvious synonyms in your search. With the OR operator you can combine these terms and find more. Instead of OR you can also use | (a pipe), e.g., "heart|myocardial infarction|attack" finds heart infarction, myocardial infarction, heart attack and myocardial attack.

- **Exclude specific terms** by using the – operator. You can exclude as many terms as you want, e.g., mercury –ford –freddy –outboards –planet.
- **Allintitle**: Limit your search to terms appearing in the title only, e.g., allintitle:"agaricus bisporus".
- **Filetype**: Limit your search to specific file types by using filetype: or ext: E.g., "agaricus bisporus" filetype:pdf
- **Site**: Limit your search to certain websites or domains. This can be useful for websites without good search options, e.g., "plant diseases" site:journals.plos.org. By searching within certain domain extensions, you can limit your search by country or type of institution, e.g., "plant diseases" site:.edu (academic institutions in the USA).
- **Combine** all of the above to do more precise searches, e.g., allintitle:"carbon dioxide" OR CO2 -phosphorus ext:pdf site:.edu
- **Personalise** your searching via Settings and use other handy features of Google Scholar. For example, make your own library of references (called My Library), create literature alerts, or let Google Scholar show import citation links to EndNote or another reference manager. To use these options, you'll need to sign in with your Google account.

Remember also that there are more Google search engines for specific source types, such as Google Books (https://books.google.com/) and Google Patents (https://patents.google.com/).

For more tips and information, go to About Google Scholar (https://scholar.google.nl/intl/en/scholar/about.html).