Please login to a computer and go to

https://libguides.lib.umanitoba.ca/plantsciences/7250
NEEDS TO KNOW AND LITERATURE SEARCHING PROCESS

PLNT 7250
September 24, 2019

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Learning Objectives

At the end of this session participants will:

- Understand the kinds of help available to them at the UM Libraries
- Understand what Open Access and Data Management means
- Identify the Steps as applied to their research process
- Choose resources appropriate to their research questions
- Understand the role of reference managers in their research process
Agenda

1. Fundamental information to know about U of M Libraries
2. Open Access information
3. Data Management
4. Research steps
Fundamental information to know about U of M Libraries

- Library card is your student card
- To access electronic resources from home
- Getting help
  - What kind of help is available?
  - How do librarians help?
  - How to access help?
Your Library Card is your U of M ID Card

Borrower Privileges

As a graduate student, you can:

- checkout up to 200 regular items
- checkout up to 4 reserved items
- request up to 25 items
- renew up to 3 times
- access ebooks and online articles off campus
- get books and articles shipped or emailed to you from other universities

More details at https://libguides.lib.umanitoba.ca/gradhelp/borrow
Accessing Library Resources from Home: Required to login

UMNetID is the first part of your email address before the @ symbol
Example/ student@myumanitoba.ca your UMNetID is studentx

Password is the same as your email, JUMP, and UM Learn password
Getting Help:
What kind of help is available?

- Finding information for your course work, research, and thesis
  - Figuring out where to search
  - Getting access to sources

- Citing and referencing
  - Following a specific reference/citation style
  - Using reference management software

- Open access
- Data management
- Data and Geographic Information Systems (GIS)
Getting Help: How do librarians help?

- Meet with you one-on-one or in groups (can be in-person or virtually)
- Goal is to not only help you get the information need but teach you how to do it
- Answer questions, create content to post online, pull together sources, give workshops, etc.
Getting Help:
How to access help?

- Book an appointment with a librarian
- Email librarian
- In-person help from any UM Library
- Ask Us chat service
Open Access (OA):

Free public online access of viewing the full-text of scholarly works (no subscription needed) – all you need is Internet access

OA can refer to scholarly works including:
- journals and/or journal articles
- data
- conference proceedings
- educational resources (i.e. textbooks)
## Open Access Spectrum – HowOpenIsIt? Grid

<table>
<thead>
<tr>
<th>Access</th>
<th>Reader Rights</th>
<th>Reuse Rights</th>
<th>Copyrights</th>
<th>Author Posting Rights</th>
<th>Automatic Posting</th>
<th>Machine Readability</th>
<th>Access</th>
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<td>Author may post submitted version/draft of final work (&quot;preprint&quot;) to certain repositories or websites</td>
<td>No automatic posting in third-party repositories</td>
<td>Article full text, metadata &amp; citations not available in machine-readable format</td>
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<tr>
<td>Closed Access</td>
<td>Subscription, membership, pay-per-view, or other fees required to read all articles</td>
<td>No resale rights beyond fair use/limitations &amp; exceptions to copyright (all rights reserved copyright) to read</td>
<td>Publisher holds copyright, with no author reuse of published version beyond fair use</td>
<td>Author may not deposit any versions to repositories or websites</td>
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Why should I care about Open Access?

- Access to information for free for anyone
  - *You may want the public to access that same information*

- Tri-Agency’s Policy on Open Access Publications: requires researchers to make their publication open access within 12 months (applies to NSERC, SSERC, CIHR grants)
  - *Your supervisor may have an NSERC grant and is required to do this*

- However graduate students who have received Tri-Agency scholarships and fellowships are not required but strongly recommended
Data Management

- Data management refers to planning, collecting, storing, describing, and sharing data

- Reasons to do data management:
  - Save time
  - Preserve your data
  - Grant/funder requirements
Data Management - File Naming

Include at least 3 things to help you recognize the file:
- Collection date
- Where collected
- Who collected
- Type of analysis
- Method used
- Sample number / ID

Create a template for a file name:
- Be concise
- Fewer than 25 characters in length
- Use underscores_ not spaces
- Avoid using special characters " / \ : * ' <
- Use the date format YYYYMMDD

Use the template consistently:
- Use file names to help classify file types
- Incorporate a method for tracking versions
- Record the elements of the template
- Share it with all collaborators
Create a template for a file name

- Be concise
- Fewer than 25 characters in length
- Use underscores _ not spaces
- Avoid using special characters " / \ : * ' <
- Use the date format YYYYMMDD

Concise? Enough information that you know what the document is without having to open it

Use underscores – easier for the eye to read and some software cannot read spaces (Linux)
GradSteps Data 20180124
GradSteps_Data_20180124
Data Management - 3-2-1 Backup Rule

■ 3: copies of your data
■ 2: different locations
■ 1: on more than one type of storage hardware
Data Management - 3-2-1 Backup Rule for Text documents

- You have been working on an update report about your research in Word. You decide that you will follow the 3-2-1 backup rule.

- 3: Word file .docx; open document format .odt; plain text .txt
- 2: Macbook laptop, and OneDrive
- 1: server and hard drives
Data and GIS

- Meg Miller, Data Visualization and GIS Librarian, meg.miller@umanitoba.ca
  - ArcGIS
  - Maps
Literature Searching Steps and Using the Libraries
What’s the difference between the Libraries’ Search box and a database search like CAB Abstracts?

Libraries searches for physical and electronic resources that the University of Manitoba Libraries’ owns.

A database search allows you to look for scholarly resources in your field and includes resources outside of the University of Manitoba.
Recommend Literature Searching Steps:

1. Determine what information you need
2. Access needed information (effectively and efficiently)
3. Evaluate information and its sources critically
4. Incorporate selected information into your research/course work with appropriate citing & referencing
EXAMPLE CASE

Climate change has a variety of impacts in agriculture.

For perennial crops in Canada what are the effects of climate change on abiotic stress in plant biomass productivity?

Where do you begin?
Recommended Literature Searching  Step #1

Determine what information you need

Can start by asking yourself:

■ Do I need general (background) information for myself?
■ Do I need specialized (foreground) information that will be used in course work or research?
Background versus Foreground Questions

- Undergraduate
- Graduate
- PhD/Researcher
Background Questions (for general information)

topics
+
definitions

facts

Background Questions (for general information)

Example Case:

*Which perennial crops are in Canada?*

*What is abiotic stress?*

*How is plant biomass productivity measured?*
Background Questions (for general information)
Finding Background Resources

Library Search
Searches journal articles, books, and more
Advanced Library Search

Takes you to a form where you can specify book, journal article, etc.
■ More advanced search options
  e.g. Searching by title only
Libraries search for a book

Advanced Search
Selected Books from Material Type dropdown menu

Results displayed

Map It shows you where the book is located in the library

When there are different editions of a book, number of versions will display

When you see Full text available, this means electronic version
EXAMPLE CASE #2

Your task:
Begin your research on agricultural commodity price bubbles.

EXERCISE
• Identify two background questions related to the case
Foreground Questions (for specialized information)

- Research based
- Specific – narrowly focused
- Data is collected and analyzed to answer the question

[Graph of Bloomberg Commodity Index]
Example Case:

*How does the increase in salinity due to climate change effect a perennial crop’s plant biomass productivity?*

*Is it uniform across Canada?*

*Are there beneficial effects for some perennial crops?*
Improved biomass productivity and water use efficiency under water deficit conditions in transgenic wheat constitutively expressing the barley \textit{HVA1} gene

Elumalai Sivamani \textsuperscript{a,1}, Ahmed Babieldin\textsuperscript{b,1}, Jon M. Wraith \textsuperscript{c}, Thamir Al-Niemi \textsuperscript{a},
William E. Dyer \textsuperscript{a}, Tuan-Hua David Ho \textsuperscript{d}, Rongda Qu \textsuperscript{a,1},

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\textsuperscript{b} Ain Shams University, Cairo, Egypt
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Received 21 May 1999; received in revised form 12 November 1999; accepted 16 November 1999

Abstract

The ABA-responsive barley gene \textit{HVA1}, a member of group 3 late embryogenesis abundant (LEA) protein genes, was introduced into spring wheat (\textit{Triticum aestivum} L.) cv. Hi-Line using the biolistic bombardment method. High levels of expression of the \textit{HVA1} gene, regulated by the maize \textit{ub1} promoter, were observed in leaves and roots of independent transgenic wheat plants and were inherited by offspring generations. \textit{T1} progenies of four selected transgenic wheat lines were tested under greenhouse conditions for tolerance of soil water deficit. Potted plants were grown under moderate water deficit and well-watered conditions, respectively. Two homozygous and one heterozygous transgenic lines expressing the \textit{HVA1} gene had significantly ($P < 0.01$) higher water use efficiency values, 0.66–0.68 g kg$^{-1}$, as compared to 0.57 and 0.53 g kg$^{-1}$, respectively, for the non-expressing transgenic and non-transgenic controls under moderate water deficit conditions. The two homozygous transgenic plant lines also had significantly greater total dry mass, root fresh and dry weights, and shoot dry weight compared to the two controls under soil water deficit conditions. Results of this study indicate that growth characteristics were improved in transgenic wheat plants constitutively expressing the barley \textit{HVA1} gene in response to soil water deficit. © 2000 Elsevier Science Ireland Ltd. All rights reserved.
Finding Foreground Resources

http://umanitoba.ca/libraries
Foreground Resources: Databases

- Subject Specific
  - CAB Abstracts
  - AgEcon Search: Research in Agricultural and Applied Economics

- Multidisciplinary

- Clarivate Analytics
- Scopus
- Google Scholar
EXAMPLE CASE #2

Your task:
Begin your research on agricultural commodity price bubbles.

EXERCISE
• Would you use a multidisciplinary database for this case?
• Justify your choice
Recommended Literature Searching

Step #2

Access needed information effectively and efficiently

- Doing the search
- Getting to the full text
Finding articles using a journal database

- Select a database
- Go to Advanced Search
- Search Tips:
  - Use “ ”, * , AND, OR, NEAR to build your search
  - Too many results? Narrow your search by Date
  - Remember to select peer-reviewed journals
FINDING FULL TEXT: OTHER OPTIONS

• Search Citation

• Library Access Browser Extension
  https://libguides.lib.umanitoba.ca/libraryaccess
Libraries search for a known journal article

Step 1: Go to U of M Libraries’ main page and click on Advanced Search.
Libraries search for a known journal article

Step 2: Click on Search Citation (located near top between Browse and Tags).
Libraries search for a known journal article

**Step 3:** Fill in the form and click on Submit.
Library Access

■ Off-Campus access to UM Libraries Licensed:
  – Articles; Journals; Databases

■ Browser Extension download:
  – https://www.leanlibrary.com/download

• Select University of Manitoba resources
• Off-campus, Library Access will let you know when you can access full-text
• Login with your UMNetID
GOOGLE SCHOLAR

• To find full text of articles:
  • *install the Library Access Browser Extension*
    OR
  • *change your Settings*
    • Click on “Library Links”
    • Enter Manitoba and “Find Library”
    • Select University of Manitoba
    • *Check Library Access* link will appear your results list
GOOGLE SCHOLAR OPTION (FULL-TEXT ACCESS)

Google Scholar settings for University of Manitoba
Efficacy and effectiveness of an rVSV-vectored vaccine expressing Ebola surface glycoprotein: interim results from the Guinea ring vaccination cluster-randomised trial

AM Henao-Restrepo, IM Longini, ME Egger, NE Dean... - The Lancet, 2015 - Elsevier

Background A recombinant, replication-competent vesicular stomatitis virus-based vaccine expressing a surface glycoprotein of Zaire Ebolavirus (rVSV-ZEBOV) is a promising Ebola vaccine candidate. We report the results of an interim analysis of a trial of rVSV-ZEBOV in...
Efficacy and effectiveness of an rVSV-vectored vaccine expressing Ebola surface glycoprotein: interim results from the Guinea ring vaccination cluster-randomised trial
Ana Maria Henao-Restrepo; Ira M Longini; Matthias Egger; Natalie E Dean; W John Edmunds; Anton Camacho; Miles W Carroll; Moussa Doumbia; Bertrand Draguez; Sophie Duraffour; Godwin Enwere; Rebecca Grais; Stephan Gunther; Stefanie Hossmann; Mandy Kader Kondé; Souleymane Kone; Eeva Kuismä; Myron M Levine; Sema Mandal; Gunnstein Norheim
ISSN: 0140-6736, 1474-547X; DOI: 10.1016/S0140-6736(15)61117-5
The lancet., 2015, Vol. 386(9996), p. 857-866

Full text available at: CRKN Elsevier ScienceDirect
Available from 1823 volume: 1 issue: 1

Click on blue hyperlink to go to full text
When we don’t have it and you NEED it!

Document Delivery
# Tips for Obscure Information

<table>
<thead>
<tr>
<th>Type of Obscure Information</th>
<th>Where to Search</th>
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<tbody>
<tr>
<td>Government Publication</td>
<td>Google Scholar or Google. You can use site:.gc.ca or site:.gov in the Google Search box</td>
</tr>
</tbody>
</table>

![Google Search Screenshot](image)
Finding data sources at UM Libraries

- From umanitoba.ca/libraries, click Subject Guides
- Type "statistics data" into search box, click Search
- Consult Statistics and Data subject guide for:
  - Census data, survey data, polls, open data
- Consult Data & Statistics (Management Library) research guide for:
  - Financial data, economic data + other
Recommended Literature Searching
Step #3

Evaluate information and its sources critically

Consider:

■ Does the information fit into my topic?
■ Who are the authors? Is this a person I would trust to write about the topic?
■ How current is the information?
Recommended Literature Searching
Step #4

Incorporate selected information into your research/course work with appropriate citing & referencing

Be sure to:

■ Cite every source that you used in your paper (e.g. if you read the information and summarized, paraphrased, or quoted it in your paper)

■ Pick a reference/citation style and use it consistently
REFERENCE MANAGERS

- Import citation information from databases and publisher sites
- Organize and annotate citations and PDFs
- Automatically create bibliographies and in-text citations
REFERENCE MANAGERS

• Common Reference Managers
  • EndNote
  • Mendeley
  • Zotero
• Comparison Chart
  http://libguides.lib.umanitoba.ca/citationmanagers
Mendeley – Mendeley.com

- PDF management – renames files, watch folder, annotation
- Can import PDFs – often need to correct citation information though
- Free (2 GB free storage on web, additional storage and extra groups for a fee)
- Syncing desktop and web application not automatic
- Mendeley overview video https://youtu.be/Gv6_HuCYExM