

Faculty Information Exchange Series 2020-21

November 13, 2020

Dr. Cheryl Trueman, Assistant Professor

Department of Plant Agriculture, Ridgetown Campus

Faculty Perspective: Managing Your Research Data from Cradle to Grave

My experience with DMP development



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

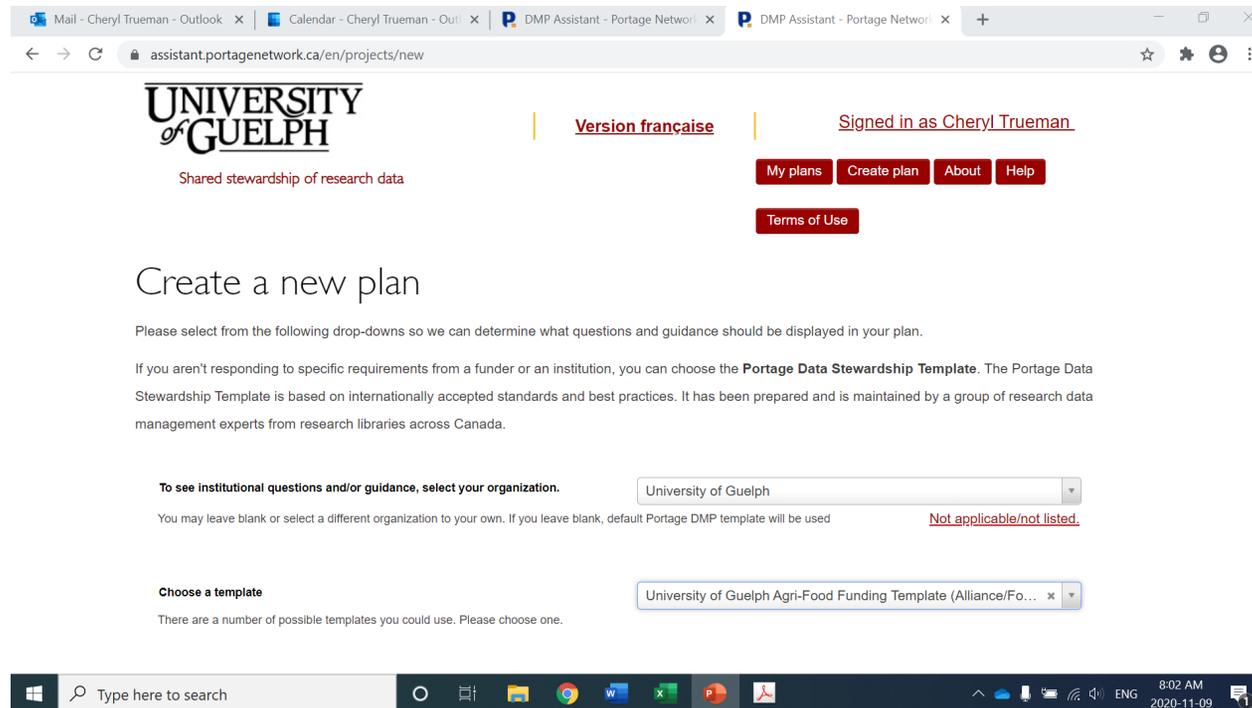
Step 1: Attend a DMP Workshop



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

Step 2: Review and explore Portage

- DMP Assistant <https://portagenetwork.ca/>



The screenshot shows a web browser window with the URL assistant.portagenetwork.ca/en/projects/new. The page features the University of Guelph logo and the tagline "Shared stewardship of research data". Navigation links include "Version française", "Signed in as Cheryl Trueman", "My plans", "Create plan", "About", "Help", and "Terms of Use". The main heading is "Create a new plan", followed by instructions to select from drop-downs. A section titled "To see institutional questions and/or guidance, select your organization." includes a dropdown menu set to "University of Guelph" and a note that the default template will be used if blank. Another section titled "Choose a template" includes a dropdown menu set to "University of Guelph Agri-Food Funding Template (Alliance/Fo...". The Windows taskbar at the bottom shows the time as 8:02 AM on 2020-11-09.

Step 3: Draft a plan

- Data collection: what kinds of data will your project use and produce?

Data Type	Collect	Create	Acquire
Numeric	<p>Raw data: Disease, yield and other field data: plot data from field/greenhouse/growth room/lab trials (either collection in hard copy and then electronic data entry or direct entry, xlxs)</p> <p>Spore trap site locations: (GPS coordinates, in xlxs)</p> <p>Economic analysis: input cost estimates from various</p>	<p>Processed data: calculated from spore trap results and field/greenhouse/growth room/lab data such as area under the disease progress curve, days to first spore detection, canopy coverage, etc. (xlxs), profit margin and program cost calculations</p>	<p>Plant and soil tissue analysis results (AFL labs)</p> <p>Coverage (area, number droplets, droplet size) on water sensitive</p>

WHAT TYPES OF DATA WILL YOU COLLECT, CREATE, LINK TO, ACQUIRE AND/OR RECORD AS PART OF THIS PROJECT?

Data to be collected or obtained from third-party. No pre-existing data.

Data Type	Collect	Create	Acquire
Numeric	Raw data: Disease, yield and other field data: plot data from field/greenhouse/growth room/lab trials (either collection in hard copy and then electronic data entry or direct entry, xlxs) Spore trap site locations: (GPS coordinates, in xlxs) Economic analysis: input cost estimates from various vendors Weather data: RH and temperature data from weather stations	Processed data: calculated from spore trap results and field/greenhouse/growth room/lab data such as area under the disease progress curve, days to first spore detection, canopy coverage, etc. (xlxs), profit margin and program cost calculations Analyzed data: statistical analysis output from statistical analysis (entered in xlxs or saved as pdf)	Plant and soil tissue analysis results (AFL labs) Coverage (area, number droplets, droplet size) on water sensitive paper (OMAFRA)
Images	Photos of trials, spore traps, spores, etc. (jpeg)		
Tabular			Weather data and disease severity values (from Weather Innovations Ltd.) (CSV or xlxs)
Text		Protocols: written instructions for execution of research (docx and ARM) Notes: lab books (hard copy), electronic (docx and ARM)	
Modelling		Statistical coding and output: code for data analysis (SAS and ARM)	

Projected data size is: MB.

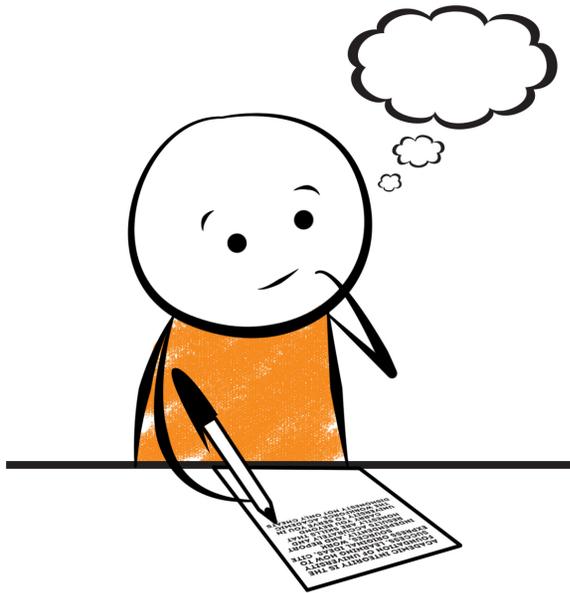
Data sensitivity: Most data is not sensitive. Input costs from specific vendors may be sensitive.

Storage space: Data is stored on computers with backup to OneDrive. Any data initially collected on paper is stored in technician and/or graduate student files at the Ridgetown Campus, University of Guelph.

Security measures: There are no special security measures. Data is stored in locations that are locked with limited access by the public. Electronic data is secured using the standard methods of OneDrive/U of G central login.

File organization: Files for each year and project are assigned a trial code. Files are saved using the trial code and/or within a folder using the trial code.

Step 3: Draft a plan



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

- Preservation:
 - Use standard wording when available and modify
 - For how you will ensure data is preservation ready, identify the key steps
- Restrictions, sharing and reuse:
 - Consider and justify your responses

Step 4: Review and revise

- Internal and external collaborators
- Library staff



Step 5: Submit



[This Photo](#) by Unknown Author is licensed under [CC BY-NC-ND](#).

How much time did this take?

- **Attend a DMP workshop**

IT WILL SAVE YOU SO MUCH TIME!

- Plan #1:
 - ~ 7 hours
 - Workshop (~1.5 hr)
 - Getting familiar with website (~0.5 hr)
 - Draft (~3-4 hr?)
 - Review/revise/communicate (~1 hr)
 - Submit (~0.1 hr)
- Plan #2:
 - ~2 hours



Next: implementation

- Communication with research team
 - Getting everyone on the same page
 - Expectations for staff, graduate students, collaborators
- Connecting research team with *human* guidance especially regarding preservation steps
 - U of G library staff
 - Limit time spent on meeting requirements of DMP preservation by planning ahead
- Time requirement for implementation stage still unclear

Reflections on DMP development



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

Do again

- Ask for help

Considerations for next time

- Budget extra time for staff and graduate student training into proposal budgets
- Communicate DMP requirements with outside collaborators when proposals are written

Final Thoughts

- An opportunity to:
 - Outline and organize your current data management strategies
 - Identify areas of improvement
- You can choose to be annoyed about more paperwork or you can choose to embrace the process.
- Your research group can benefit:
 - Improved data management procedures and awareness
 - Important data management experience for graduate students
 - Assurance to sponsors
 - Support publication process