

DEREK MICHAEL WRIGHT

I graduated with a BSc in Biology from the [University of Regina](#) in 2012, followed by a MSc in Agrobiotechnology from [Justus-Liebig-Universität Gießen](#) (University of Giessen, Germany) in 2015. I now work in the Plant Sciences department at the [University of Saskatchewan](#) and have been involved in three research projects ([AGILE](#), [EVOLVES](#), [P2IRC](#) & [ACTIVATE](#)) with lentil (*Lens culinaris*).

I have done extensive work with a lentil diversity panel, NAM and inter-specific RIL populations. I am very fluent in  and have plenty of experience with data analysis such as PCA, GWAS and QTL analysis. I have recently been working with data acquisition from UAV and seed imaging systems and can handle data wrangling and visualization of large, high-throughput data sets.



RESEARCH EXPERIENCE & EDUCATION

Current
|
2015

University of Saskatchewan

Research Assistant

 Saskatoon, Saskatchewan, Canada

- Coordinate field trials
- Seed setup
- Post-harvest processing

- Data collection & analysis
- Presentations
- Collaborations

2015

Cargill Specialty Seeds and Oils

Research Assistant (Internship)

 Aberdeen, Saskatchewan, Canada

- Data collection & analysis

- Pathology (blackleg)

2015
|
2013

M.Sc. in Agrobiotechnology

University of Giessen

 Giessen, Hesse, Germany

- Biotechnology and Genomics
- Molecular Phytopathology
- Plant Microbe Interactions
- Plant Protection and Bioengineering
- Microbial-Food-Biotechnology

- Applied Statistics and Bioinformatics
- Molecular Plant Breeding
- Molecular Entomology
- Tissue Culturing and Genetic Transformation

2012
|
2007

B.Sc. Biology

University of Regina

 Regina, Saskatchewan, Canada

- Limnology
- Environmental Microbiology
- Global Biogeochemistry
- Stable Isotope Ecology

- Vertebrate Animal Biology
- Advanced Plant Physiology
- Molecular Genetics
- Bacterial Genetics

PACKAGES

agData: an package containing agricultural data sets

<https://derekmichaelwright.github.io/agData/>

devtools::install_github("derekmichaelwright/agData")

gwaspr: an package for plotting GWAS results

<https://derekmichaelwright.github.io/gwaspr/>

devtools::install_github("derekmichaelwright/gwaspr")

View CV as:  [PDF](#)  [HTML](#)

Skills

 Photography

 Biology &Genomics

 Data Analytics & Visualization

 The R Project

Contact

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 derek.wright@usask.ca

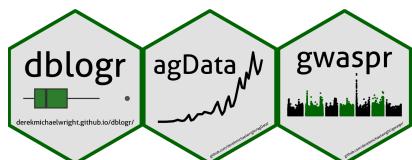
 [@DerekMWright](https://twitter.com/@DerekMWright)

 [@derekmichaelwright](https://twitter.com/@derekmichaelwright)

 github.com/derekmichaelwright

Website

derekmichaelwright.github.io/dblogr/



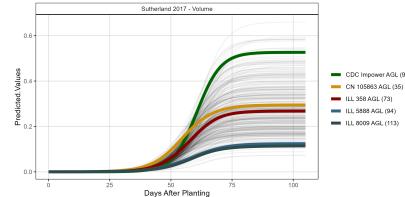
PUBLICATIONS

2025

Disecting lentil crop growth across multi-environment trials using unoccupied aerial vehicles and genome-wide association studies

The Plant Phenome Journal. In review.

[github](#) [Script](#)

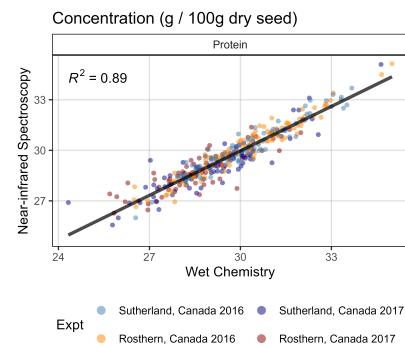


2025

Breeding potential of cultivated lentil for increased protein and amino acid concentrations in the Northern Great Plains

Crop Science. 65(3): e70085.

[github](#) [Script](#)



2024

Grazing preferences of three species of amoebae on cyanobacteria and green algae

The Journal of Eukaryotic Microbiology. e13018: 1-14.

2023

Mass Spectrometry-Based Untargeted Metabolomics Reveals the Importance of Glycosylated Flavones in Patterned Lentil Seed Coats

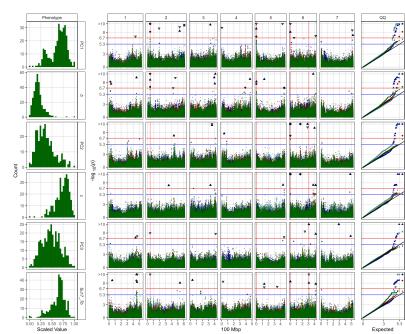
Journal of Agricultural and Food Chemistry. 71(7): 3541–3549.

2022

Focusing the GWAS Lens on days to flower using latent variable phenotypes derived from global multi-environment trials

The Plant Genome. 16(1): e20269.

[github](#) [Script](#)



2021

Strategic Identification of New Genetic Diversity to Expand Lentil (*Lens culinaris* Medik.) Production (Using Nepal as an Example)

Agronomy. 11(10): 1933.

[github](#) [Script](#)

2020

Genomic selection for lentil breeding: Empirical evidence

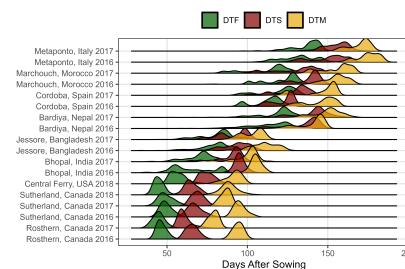
The Plant Genome. 13(1):e20002.

2020

Understanding photothermal interactions can help expand production range and increase genetic diversity of lentil (*Lens culinaris* Medik.)

Plants, People, Planet. 3(2): 171-181.

[github](#) [Script](#)

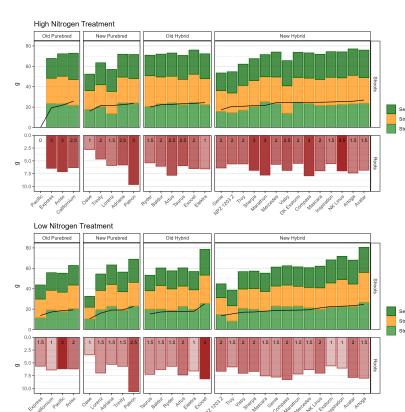


2015

Influence of heterozygosity on nitrogen use efficiency in hybrid and purebred lines of *Brassica napus* (L.)

University of Giessen MSc Thesis

[Script](#)



Investigating seed size, shape, color, and patterning in a lentil using high throughput imaging

unpublished