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**) 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 R 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.

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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

Cargil 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 Bioengeneering
- Microbial-Food-Biotechnology
- Applied Statistics and Bioinformatics
- Risk Assessment, Bio-safety and Patent Law
- Molecular Plant Breeding
- Microbial Diagnostics
- Plant Pathogens and Symbionts
- 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

R PACKAGES

agData: an R package containing agricultural data sets
https://derekmichaelwright.github.io/agData/
devtools::install_github("derekmichaelwright/agData")

gwaspr: an R package for plotting GWAS results
https://derekmichaelwright.github.io/gwaspr/
devtools::install_github("derekmichaelwright/gwaspr")

SKILLS

- Photography
- Biology
- Genomics
- Data Analytics
- Data Visualization
- The R Project

Contact Info

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+1 306-220-0645

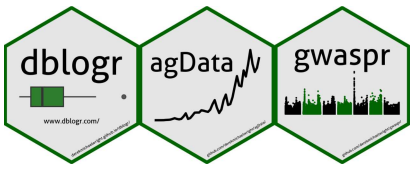
Social Media

@DerekMWright
github.com/derekmichaelwright

Website

www.dblogr.com/ or

derekmichaelwright.github.io/dblogr/



PUBLICATIONS

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
Elessawy F, **Wright D**, *et al*.

data collection

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.
Neupane S, **Wright D**, *et al*.

data collection
data analysis
data visualization
manuscript writing

2021

Strategic Identification of New Genetic Diversity to Expand Lentil (Lens culinaris Medik.) Production (Using Nepal as an Example)
Agronomy. 11(10): 1933.
Neupane S, Dhakal R, **Wright D**, *et al*.

data analysis
data visualization

2020

Genomic selection for lentil breeding: Empirical evidence
The Plant Genome. 13(1):e20002.
Haile TA, Heidecker T, **Wright D**, *et al*.

data visualization

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.
Wright D, *et al*.

data collection
data analysis
data visualization
manuscript writing

2015

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

UNPUBLISHED WORK

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

data analysis
data visualization
manuscript writing

GWAS of predicted protein and amino acid content in lentil using near-infrared reflectance spectroscopy

data analysis
data visualization

Investigating seed size, shape, color, and patterning in a lentil diversity panel and inter-specific RIL populations

data analysis
data visualization

PHOTOGRAPHY

Saskatchewan Field Trials

Bangladesh Field Trials

Lentil Seed Diversity