

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.

🎓 RESEARCH EXPERIENCE & EDUCATION

Current 2015	<ul style="list-style-type: none">● University of Saskatchewan Research Assistant<ul style="list-style-type: none">• Coordinate field trials• Seed setup• Post-harvest processing• Data collection & analysis• Presentations• Collaborations	📍 Saskatoon, Saskatchewan, Canada
2015	<ul style="list-style-type: none">● Cargill Specialty Seeds and Oils Research Assistant (Internship)<ul style="list-style-type: none">• Data collection & analysis• Pathology (blackleg)	📍 Aberdeen, Saskatchewan, Canada
2015 2013	<ul style="list-style-type: none">● M.Sc. in Agrobiotechnology University of Giessen<ul style="list-style-type: none">• Biotechnology and Genomics• Molecular Phytopathology• Plant Microbe Interactions• Plant Protection and Bioengineering• 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	📍 Giessen, Hesse, Germany
2012 2007	<ul style="list-style-type: none">● B.Sc. Biology University of Regina<ul style="list-style-type: none">• Limnology• Environmental Microbiology• Global Biogeochemistry• Stable Isotope Ecology• Vertebrate Animal Biology• Advanced Plant Physiology• Molecular Genetics• Bacterial Genetics	📍 Regina, Saskatchewan, Canada

leftrightarrow 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")



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

🧪 SKILLS

- 📷 Photography
- 🌿 Biology
- 🧬 Genomics
- 📊 Data Analytics
- 📈 Data Visualization
- 🇷 The R Project

✉️ Contact Info

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☁️ Social Media

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- 🐙 github.com/derekmichaelwright
- 🌐 www.dblogr.com/



PUBLICATIONS

- | | | |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 2023 | <ul style="list-style-type: none">● Mass Spectrometry-Based Untargeted Metabolomics Reveals the Importance of Glycosylated Flavones in Patterned Lentil Seed Coats
<i>Journal of Agricultural and Food Chemistry.</i> 71(7): 3541–3549
Elessawy F, Wright D, et al. | data collection |
| 2022 | <ul style="list-style-type: none">● Focusing the GWAS Lens on days to flower using latent variable phenotypes derived from global multi-environment trials
<i>The Plant Genome.</i> e20269.
Neupane S, Wright D, et al. | data collection
data analysis
data visualization
manuscript writing |
| 2021 | <ul style="list-style-type: none">● Strategic Identification of New Genetic Diversity to Expand Lentil (<i>Lens culinaris</i> Medik.) Production (Using Nepal as an Example)
<i>Agronomy.</i> 11(10): 1933.
Neupane S, Dhakal R, Wright D, et al. | data analysis
data visualization |
| 2020 | <ul style="list-style-type: none">● Genomic selection for lentil breeding: Empirical evidence
<i>The Plant Genome.</i> 13(1):e20002.
Haile TA, Heidecker T, Wright D, et al. | data visualization |
| 2020 | <ul style="list-style-type: none">● Understanding photothermal interactions can help expand production range and increase genetic diversity of lentil (<i>Lens culinaris</i> Medik.)
<i>Plants, People, Planet.</i> 3(2): 171-181.
Wright D, et al. | data collection
data analysis
data visualization
manuscript writing |
| 2015 | <ul style="list-style-type: none">● Influence of heterozygosity on nitrogen use efficiency in hybrid and purebred lines of <i>Brassica napus</i> (L.)
<i>MSc Thesis</i>
Wright D | |

UNPUBLISHED WORK

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <ul style="list-style-type: none">● Dissecting lentil crop growth across multi-environment trials using unoccupied aerial vehicles and genome-wide association studies● Investigating seed size, shape, color, and patterning in a lentil diversity panel and inter-specific RIL populations● GWAS for disease resistance in a lentil diversity panel | data collection
data analysis
data visualization
manuscript writing |
| | data analysis
data visualization |

PHOTOGRAPHY

- **Saskatchewan Field Trials**



- **Bangladesh Field Trials**



- **Lentil Seed Diversity**

