Maxwel **Coura Oliveira**

Research agronomist

Cologne, Germany

+49 15205854941 | maxwelco@tuta.com | maxweeds.rbind.io | maxwelco

Summary

Agricultural scientist with a strong background in crop protection, digital farming, and market-relevant research across academic, industry, and regulatory environments. Proven track record in delivering actionable insights from complex datasets through advanced analytics, including statistical modeling, machine learning, and data visualization in R and Python. Experienced in managing field trials, synthesizing secondary data, and producing high-impact reports for diverse stakeholders. Author of 30+ peer-reviewed publications and recognized internationally for bridging agronomic research with practical, data-driven decision-making. Fluent in English, Portuguese, and Spanish, with cross-continental expertise spanning Latin America, North America, and Europe.

Professional experiences

BASF Digital Farming

Senior Digital Agronomist · Cologne · NRW · Germany — Oct 2023 - Current

- Coordinated smart spraying research and development for the **One Smart Spray** platform in the US, enhancing precision farming capabilities.
- Built and maintained strong stakeholder relationships, fostering collaboration across global teams.
- Developing agronomic digital intelligence for **One Smart Spray** and **xarvio Field Manager**.
- Agronomic coordinator of *Expert Scouting Trip* (field monitoring) project based on modeling and remote sensing of the **xarvio AgBusiness** platform.

McGill University

Assistant Professor of Weed Science · Saint-Anne-de-Bellevue · QC · Canada — Dec 2022 - Sep 2023

- Tenure-track research and teaching in Weed Science.
- Led agronomic research projects on sweet corn with Groupe Bonduelle and delivered extension talks to stakeholders.

TeeJet Technologies South America

Research and Training Coordinator · Sao Paulo · SP · Brazil — Nov 2021 - Oct 2022

- Developed strategies for nozzle positioning in pesticide application, and maintained relationships with stakeholders.
- Led certified training programs for pesticide applicators on auxin herbicide (e.g., 2,4-D, dicamba) application in field crops.

Western São Paulo University

Assistant Professor · Presidente Prudente · SP · Brazil — Fev 2020 - Fev 2021

- Taught courses and workshops on weed biology, agronomy, and programming in R.
- Conducted surveys and research on herbicide weed management and cover crop strategies in corn and soybean farming systems.

University of Wisconsin-Madison

Research Associate/Data analyst, WiscWeeds Lab · Remote — Jan 2020 - Sep 2021

- Analyzed complex datasets with empirical and machine learning models, and published manuscripts in high-impact journals.

- Mentored graduate students in experimental design, writing and data visualization techniques for effectively communicating research findings.

Postdoctoral Research Associate, WiscWeeds Lab · Madison · WI · USA Jan 2018 - Dec 2019

- Developed integrated weed management strategies for corn and soybeans in Wisconsin, USA
- Led herbicide resistance studies and field herbicide efficacy trials with chemical industry.
- Conducted research on off-target herbicide movement (e.g., 2,4-D and dicamba) that was used by EPA product registration decision.
- Delivered extension talks and outreach activities to stakeholders and growers.
- Supported students' academic growth and contributed to grant proposals and publications.

University of Nebraska-Lincoln

Graduate Research Assistant, Knezevic Lab · Concord/Lincoln · NE · USA Jan 2014 to Dec 2017

- Conducted field (corn and soybeans), greenhouse, and laboratory research on herbicide resistance, toxicology and weed ecology.
- Designed and executed extension talks on integrated weed management and conducted herbicide efficacy trials with chemical industry.

TIMAC Agro Brasil

Sales Management Trainee, Paragominas · PA · Brazil Jan to Jun 2013

- Conducted sales prospecting and marketing campaigns to expand client base.
- Organized and delivered training sessions to enhance team performance and product knowledge.

Education

Ph.D. in Agronomy (Weed Science) · University of Nebraska-Lincoln Jan 2014 to Dec 2017
Dissertation: Evolution of HPPD-inhibitor herbicide resistance in a waterhemp (*Amaranthus tuberculatus* var. *rudis*) population from Nebraska, USA
Advisor: Dr. Stevan Knezevic | *Co-advisor*: Dr. Todd Gaines, Dr. Amit Jhala

MSc. in Plant Science (Weed Science) · Federal University of Jequitinhonha and Mucuri Valleys Ago 2011 to Jul 2013
Thesis: Competitive ability of corn with *Commelina benghalensis* and *Richardia brasiliensis*
Advisor: Dr. José B Santos

BSc. in Agronomy · Federal University of Jequitinhonha and Mucuri Valleys Mar 2006 to Jul 2011
Thesis: Composition and extraction of minerals in forage grass in a previously soil waste urban deposit area
Advisor: Dr. Karina G. Ribeiro

Languages

- *English*: Fluent proficiency (reading, writing, and speaking).
- *Portuguese*: Native → Key for Brazilian leaf operations
- *Spanish*: Professional → Latin American supply chains
- *Italian*: Intermediate proficiency (reading, conversational speaking, listening).
- *French*: Basic proficiency (reading, listening).
- *German*: Basic proficiency (reading, basic speaking).

Selected peer-reviewed publications

Herbicide weed resistance

1. **Oliveira MC**, Jhala A, Gaines T, Irmak S, Amundsen K, Scott JE, and Knezevic SZ (2017) Confirmation and Control of HPPD-inhibiting Herbicide-Resistant Waterhemp (*Amaranthus tuberculatus*) in Nebraska. *Weed Technology*, 31:67–79. doi: 10.1017/wet.2016.4

2. **Oliveira MC**, Gaines TA, Dayan FE, Patterson EL, Jhala AJ, and Knezevic SZ (2018) Reversing resistance to tembotrione in an *Amaranthus tuberculatus* (syn. *rudis*) population from Nebraska, USA with cytochrome P450 inhibitors. *Pest Management Science*, 74:2296–2305. (Invited publication) doi: 10.1002/ps.4697

Herbicide weed management

1. **Oliveira MC**, Osipitan OA, Begcy K, and Werle R (2020) Cover crops, hormones and herbicides: priming an integrated weed management Strategy. *Plant Science* 301:110550 doi: 10.1016/j.plantsci.2020.110550

2. Knezevic SZ, Pavlovic P, Barnes ER, Beiermann C, **Oliveira MC**, Lawrence N, Scott JE, and Jhala AJ (2019) Critical Time for Weed Removal in Glyphosate-Resistant Soybean as Influenced by Preemergence Herbicides. 33:393-399. *Weed Technology*. doi: 10.1017/wet.2019.18

3. Soltani S, **Oliveira MC**, Alves GS, Werle R, Norsworthy JK, Sprague CL, Young BG, Reynolds DB, Brown A, and Sikkema PH (2020) Off-Target Movement Assessment of Dicamba in North America. *Weed Technology* 34:318-330. doi: 10.1017/wet.2020.17

Weed ecology

1. **Oliveira MC**, Jhala AJ, Bernards ML, Proctor CA, Stepanovic S, Werle R (2022) Palmer Amaranth (*Amaranthus palmeri*) Adaptation to US Midwest Agroecosystems. *Frontiers in Agronomy* 4, doi: 10.3389/fagro.2022.887629

2. Mobli A, **Oliveira MC**, Butts L, Proctor C, Lawrence N, Werle R (2022) Emergence pattern of horseweed (*Erigeron canadensis* L.) accessions across Nebraska. *Weed Technology* 36:655-662 doi: 10.1017/wet.2022.62

Agronomic crops

1. Grint K, Arneson NJ, Arriaga F, DeWerff R, **Oliveira M**, Smith DH, Stoltenberg DE, Werle R (2022) Cover crops and preemergence herbicides: an integrated approach for weed management in corn-soybean systems in the US Midwest. *Frontiers in Agronomy* 4:888349 10.3389/fagro.2022.888349

2. Ortmeier-Clarke HJ, Laboski CAM, **Oliveira MC**, Arneson NJ, Conley SP, Werle R (2023) Cultivar and management effects on industrial hemp yields in Wisconsin. Agronomy Journal 115:1335-1343 doi: 10.1002/agj2.21297

Surveys

1. **Oliveira MC**, da Silva AL, Ulguim AR, and Werle R (2021) Assessment of weed management strategies and challenges in Brazilian cropping systems. *Weed Technology* 32:754-761 doi: 10.1017/wet.2020.96

2. **Oliveira MC**, Butts, L, and Werle R, (2018) Assessment of cover crop management strategies in Nebraska, US. *Agriculture* 6:754-761 doi: 10.3390/agriculture9060124

A complete list of publications is available upon request or can be accessed on Maxwel Coura Oliveia - Google Scholar

Technical bulletins and extension articles

1. Striegel S, **Oliveira MC**, Arneson NJ, Conley SP, Stoltenberg DE, and Werle R (2020) Spray solution pH as influenced by synthetic auxin formulation and spray additives. *WiscWeeds* Link: link

2. Striegel S, **Oliveira MC**, Arneson NJ, Conley SP, Stoltenberg DE, and Werle R (2020) Soybean injury as influenced by synthetic auxin formulation and spray additives. *WiscWeeds* Link: link

3. Alves DP, Reis MR, Pereira GAM, Silva MMJ, Nascimento MA, and **Oliveira MC** (2020) Injúrias causadas por residual de herbicidas na cultura do alho. *Universidade Federal de Viçosa* Link

4. Gomes CA, Reis MR, Silva MMJ, Pereira GAM, and **Oliveira MC** (2020) Injúrias causadas por residual de herbicidas na cultura da cebola. *Universidade Federal de Viçosa* Link

5. **Oliveira MC**, Pereira GAM, Takano H, Nunes AL, and Reis MR (2020) Classificação dos herbicidas no Brasil. *maxweeds* Link

6. Arneson NJ, Smith DH, DeWerff R, **Oliveira MC, and** Rodrigo Werle (2019) Residual control of waterhemp with pre-emergence herbicides in soybean. *WiscWeeds* Link

7. Smith DH, Broeske M, Patton J, Shelley K, Arriaga F, Jensen B, **Oliveira MC,** Briski B, Bubolz B, Rushmann R, Johnson H, Schriefer G, and Sorge M (2019) Cover Crops 101. *University of Wisconsin-Madison* Link
8. **Oliveira MC** and Werle R (2018) Herbicide site of action key for crop injury symptoms. *WiscWeeds* Link: EN and PT.

Certification

1. Teaching and tidyverse instructor certification — February 2021
   Issue by Rstudio
2. Pesticide applicator license — March 2018
   Issue by Wisconsin Department of Agriculture