Maxwel Coura Oliveira, PhD

Postdoctoral Research Associate, University of Wisconsin-Madison 1575 Linden Drive · Department of Agronomy · Madison, Wisconsin, USA 53706

EDUCATION

• *University of Nebraska-Lincoln*, Ph.D. Agronomy (Weed Science)

December 2017

• Federal University of Jequitinhonha and Mucuri Valleys, MSc. Weed Science

July 2013

• Federal University of Jequitinhonha and Mucuri Valleys, BSc. Agronomy

July 2011

PROFESSIONAL EXPERIENCE

• Postdoctoral Research Associate, WiscWeeds Lab · University of Wisconsin-Madison · Madison · WI · USA January 2018

Goal: conduct innovative and collaborative research and extension programming on biology, ecology and management of troublesome weeds in corn, soybeans and industrial hemp under Dr. Rodrigo Werle's supervision

- Graduate Research Assistant, Knezevic Lab University of Nebraska-Lincoln, Lincoln · NE · USA January, 2014 to December 2017
- Goal: Doctoral research in Weed Biology and Ecology, Integrated Weed Management, Herbicide Resistance Evolution and Management, and Herbicide efficacy trials under Dr. Stevan Knezevic's supervision
- Sales Management Trainee, TIMAC Agro · Paragominas · PA · Brazil January to June 2013 Goal: Trained to be a supervisor of fertilizers sales team, talent acquisition, and marketing
- Graduate Research Assistant, Federal University of Jequitinhonha and Mucuri Valleys · Diamantina · MG · Brazil July 2011 to December 2012 Goal: Masters research in weed Biology, competition, and integrated weed management under Dr. José Barbosa dos Santos' supervision
- *Undergraduate Senior Trainee*, The Ohio Program · OH · USA April 2010 to March 2011 Goal: farm hand in a vegetable farm in Michigan (USA) and greenhouse assistant in a hydroponic tomato greenhouse in New York, USA.
- *Undergraduate Junior Trainee*, Pulveriza Fertilizers · Matipó · MG · Brazil July 2009 Goal: work in a industry of foliar fertilizers for corn, vegetables and coffee trees
- *Coordinator*, CREA Jr · Diamantina · MG · Brazil January to December 2009 Goal: leading the club for mentoring students, connecting students to professional engineers, organizing seminars, prospective of new members
- Undergraduate Intern, EMATER MG · Santana do Paraíso · MG · Brazil July 2008 Goal: extension work with small vegetables growers

TEACHING EXPERIENCE

University of Wisconsin-Madison, Weeds Contest Prep Course
 University of Nebraska-Lincoln, Invasive Plants Lab
 Federal University of Jequitinhonha and Mucuri Valleys, Weed Manag Lab
 Spring 2016/2017

• Federal University of Jequitinhonha and Mucuri Valleys, Crop Improv Lab

VISITOR SCHOLAR

- ullet University of Illinois Urbana-Champaign \cdot IL \cdot USA September 2017 Laboratory research on PPO resistance mechanism in Amaranthus palmeri from Nebraska under Dr. Pat Tranel's supervision
- ullet Colorado State University—Fort Collins \cdot CO \cdot USA May 2017 Laboratory research on HPPD resistance mechanism in Amaranthus tuberculatus from Nebraska under Dr. Todd Gaines' supervision
- Colorado State University–Fort Collins · CO · USA September 2016 Laboratory research on herbicide physiology in Amaranthus tuberculatus from Nebraska under Dr. Franck Dayan's supervision
- Federal University of Viçosa-Viçosa · MG · Brazil August 2012 to December 2012 Field, laboratory, and greenhouse research with fate of herbicide in the soil, and integrated weed management under Dr. Antonio Alberto Silva's supervision

ACADEMIC HONORS AND AWARDS

TELLE LIVIE TO TORONO TILLE	
• North Central Weed Science Society Meeting, Saint louis · MO · USA 1st Place Outstanding Poster Presentation (Herbicide Resistance section)	December 2017
• North Central Weed Science Society Weed Contest, Ames · IA · USA 1 st Place Graduate Team and 1 st Place Overall Individual Herbicide ID	July 2017
\bullet <i>University of Nebraska-Lincoln</i> , Lincoln \cdot NE \cdot USA Travel Grant (\$400) to attend the 2017 Global Herbicide Resistant Conference	March 2017
$ullet$ North Central Weed Science Society Weed Contest, West Laffayete \cdot USA 3^{rd} Place Graduate Team	July 2016
 Weed Science Society of America Meeting, San Juan · PR 1st Place Outstanding Poster Presentation (Weed Biology section) 	February 2015
\bullet Western Weed Science Society Weed Contest, Columbus \cdot OH \cdot USA 3^{rd} Place Graduate Team and 3^{rd} Place Overall Individual Graduate	July 2015
• <i>Mayrink Vieira High School Science Fair</i> , Ipatinga · MG · BRA Outstanding team project "Batteries and electrolysis"	September 2002
• <i>Mayrink Vieira High School Science Fair</i> , Ipatinga · MG · BRA Outstanding team project "Cell organelles"	September 2001

Spring/Fall 2009

PROFESSIONAL SOCIETY MEMBERSHIPS

- Weed Science Society of America
- North Central Weed Science Society

MANUSCRIPTS IN PREPARATION

- Oliveira MC, Butts T, Conley S, and Werle R. Tolerance of US Midwest Soybean Cultivars to Preemergent Applications of Metribuzin and Sulfentrazone. Target Journal: *Weed Technology*
- Oliveira MC, Giacomini D, Tranel P, and Werle R. Molecular and greenhouse validation of field evolved resistance to glyphosate and PPO-inhibitors in Nebraska. Target Journal: *Pest Management Science*
- Werle R, **Oliveira MC**, and Butts L (2019) Combining herbicide programs and cereal rye cover crop for integrated weed management in soybeans. Target Journal: *Agriculture*, invited submission for special issue entitled: "Cover Crops"
- Oliveira MC, Jhala AJ, Proctor CA, and Werle R (2019) Survey of Nebraska and Wisconsin stakeholders' adoption of dicamba-resistant soybean technology and dicamba off-target movement. Target Journal: *Pest Management Science* or *Weed Technology*
- Smith D, **Oliveira MC**, Davis V, and Werle R. (2019) Herbicide carryover evaluation following commonly applied silage corn and soybean herbicides. Target Journal: *Agronomy*
- Soltani N, **Oliveira MC**, Alves G, Werle R, Kruger G, Norsworthy J, Sprague C, Young B, Reynolds D, and Sikkema P (2019) Large-Scale Off-Target Movement Assessment of Dicamba in North America. Target Journal: *Weed Technology*
- Oliveira MC, Ospitan OA, Begcy K, Werle R (2019) Preventing weed establishment while promoting increased sustainability of agricultural systems: win-win! Target Journal: *Plant Science* (Invited)

SUBMITTED MANUSCRIPT

• Oliveira MC, da Silva AL, Ulguim AR, Werle R. Assessment of Weed Management Strategies and Challenges in Brazilian Cropping Systems. Submitted to Weed Technology

PUBLICATIONS

- Oliveira MC, Butts L, and Werle R (2019) Survey of cover crop management in Nebraska. 9:1-14 *Agriculture*, invited submission for special issue entitled: "Cover Crops". doi: 10.3390/agriculture9060124
- 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
- Ferreira EA, Paiva MCG, Pereira GAM, **Oliveira MC**, Silva, EB (2019) Fitossociologia de plantas daninhas na cultura do milho submetida à aplicação de doses de nitrogênio, *Journal of Neotropical Agriculture*, 6:100-107 (in Portuguese with English abstract). doi: 10.32404/rean.v6i2.2710

- Werle R, Oliveira MC, Jhala AJ, Klein R, Proctor CA, and Rees J (2018) Survey of Nebraska farmers' adoption of dicamba-tolerant soybean technology and off-target movement. *Weed Technology*, 32:754–761. doi: 10.1017/wet.2018.62
- Oliveira MC, Gaines TA, Patterson EP, Jhala AJ, Irmak S, Amundsen K, and Knezevic SZ (2018) Interspecific and intraspecific transfer of metabolism based mesotrione resistance transfer in dioecious weedy *Amaranthus*. *Plant Journal*. 96:1051–1063. doi: 10.1111/tpj.14089
- Knezevic SZ, Ospitan AO, **Oliveira MC**, and Scott JE (2018) *Lythrum salicaria* (purple loosestrife) control with herbicides: multiyear applications. *Invasive Plant Science and Management*. 11:143–154. doi: 10.1017/inp.2018.17
- Oliveira MC, Pereira GAM, Ferreira EA, Barbosa JB, Knezevic SZ, and Werle R (2018) Additive design: the concept and data analysis. *Weed Research*, 58:338–347. doi: 10.1111/wre.12317
- Oliveira MC, Gaines TA, Jhala AJ, and Knezevic SZ (2018) Inheritance of mesotrione resistance in an (*Amaranthus tuberculatus*) (var. *rudis*) population from Nebraska, USA. *Frontiers in Plant Science*, 9:60. doi: 10.3389/fpls.2018.00060
- Miller JJ, Schepers JS, Shapiro CA, Arnenson NJ, Eskridge KM, **Oliveira MC**, and Giesler LJ (2018) Characterizing soybean vigor and productivity using multiple crop canopy sensor readings. *Field Crops Research*, 216:22–31. doi: 10.1016/j.fcr.2017.11.006
- 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
- Oliveira MC, Feist D, Eskelsen S, Scott JE, and Knezevic SZ (2017) Weed control in soybean with preemergence and postemergence-applied herbicides. *Crop, Forage, and Turfgrass Management*, 3:1–7
- 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
- Butts TR, Miller JJ, Pruitt JD, Vieira BC, **Oliveira MC**, Ramirez II S, and Lindquist JL (2017) Light quality effect on corn growth as influenced by weed species and nitrogen rate. *Journal of Agricultural Science*, 9:15–27. doi: 10.5539/jas.v9n1p15
- Braga RR, Santos JB, Zanuncio JC, Bibiano CS, Ferreira EA, **Oliveira MC**, Silva DV, and Serrão JE (2016) Effect of growing *Brachiaria brizantha* on phytoremediation of picloram under different pH environments. *Ecological Engineering*, 94:102–106. doi: 10.1016/j.ecoleng.2016.05.050
- Magalhães JES, Ferreira EA, **Oliveira MC**, Pereira GAM, Silva DV, and Santos JB (2016) Effect of plant-biostimulant on cassava initial growth. *Ceres*, 63:208–213 doi: 10.1590/0034-737X201663020012
- Silva DV, Ferreira, **Oliveira MC**, Pereira GAM, Braga RR, Santos JB, Aspiazú I, and Souza MF (2016) Productivity of cassava and other crops in an intercropping system. *Ciencia e Investigación Agraria*, 43:159–166. doi: 10.4067/S0718-16202016000100015
- Pereira GAM, **Oliveira MC**, Braga RR, Silva DV, Oliveira AJM, Fernandes JSC, and Andrade Junior VC (2015) Growth of carrot cultivars in different environments. *Comunicata Scientiae*,

6:317–325. (in Portuguese with English abstract)

- Santos RC, Ferreira EA, Santos JB, **Oliveira MC**, Silva DV, Pereira GAM, Galon L, Aspiazú I, and Mattos NP (2015) Phytosociological characterization of weed species as affected by soil management. *Australian Journal of Crop Science*, 9:112–119
- Pereira GAM, **Oliveira MC**, Oliveira, AJM, Fernandes JSC, Andrade Junior VC, Silva DV, and Ferreira EA (2015) Performance of carrot genotypes at two Jequitinhonha Valley sites. *Semina: Ciências Agrárias*, 36:4059-4070. doi: 10.5433/1679-0359.2015v36n6Supl2p4059
- Ferreira EA, Silva DV, Braga RR, **Oliveira MC**, Pereira GAM, Santos JB, and Sediyama T (2014) Initial growth of cassava in intercropping system. *Scientia Agraria Paranaensis*, 13:219-226
- Franco MHR, Nery MC, França AC, **Oliveira MC**, Franco GCN, and Lemos VT (2013) Production and physiological quality of bean seeds after application diquat. *Semina: Ciências Agrárias*, 34:1707-1714 (in Portuguese with English abstract). doi: 10.5433/1679-0359.2013v34n4p1707
- Pereira GAM, Lemos VT, Santos JB, Ferreira EA, Silva DV, **Oliveira MC**, and Menezes CWG (2012) Growth of cassava and weed in response to phosphate fertilizer. *Ceres*, 59:716-722 (in Portuguese with English abstract). doi: 10.1590/S0034-737X2012000500019
- Miranda VS, Ribeiro KG, Silva AC, Pereira RC, Pereira OG, Torrado PV, Fernandes JSC, and **Oliveira MC** (2012) Rehabilitation with forage grasses of an area degraded by urban solid waste deposits. *Brazilian Journal of Animal Science*, 41:18-23. doi: 10.1590/S1516-35982012000100003

INVITED PRESENTATIONS

- *Valoriza Agronegocios*, Patos de Minas · MG · Brazil January 2019 Lecture: "Treinamento resistência, dicamba, identificação de plantas daninhas e herbicidas" (In Portuguese)
- II IMAST, Dracena · SP · Brazil September 2018 Lecture: "Da resistência ao dicamba: o desafio no manejo de plantas daninhas nos EUA" (In Portuguese)
- \bullet *JF Crow Institute for the Study of Evolution,* Madison \cdot WI \cdot USA September 2018 Lecture: Evolution of 4-hydroxyphepylpiruvate dioxygenase inhibitor herbicide resistance in *Amaranthus tuberculatus*

EXTENSION PRESENTATIONS

- Waterhemp Resistance Evolution and Status. Waterhemp worshop, Chippewa Falls, Bangor, Janesville, Appleton, WI, USA, March 2019
- Weed control in corn with different PRE-applied herbicides and carrier volumes. Wisconsin Cropping Systems Weed Science Field Day, Arlington, WI, USA, July 2018
- Integrated weed management strategies in cassava fields. Field day of cassava: specificities and practices, Diamantina, MG, Brazil, October 2011

EVENTS ORGANIZATIONS

• Wisconsin Weed Science Field Day, Arlington and Lancaster · WI · USA July 2018

• Flaming Weed Control Workshop, Concord · NE · USA August 2014/15/16/17

• Field day of cassava: specificities and practices, Diamantina, MG, Brazil October 2011

• II Seminar of Forage and Rangeland Sciences, Diamantina · MG · Brazil March 2009

• I Seminar of Engineers, Diamantina · MG · Brazil September 2009

PROFESSIONAL MEETING PRESENTATION AND ABSTRACTS

- Werle R, DeWerff R, Striegel S, Arsenijevic N, Ribeiro VHV, **Oliveira MC** (2019) Systems Approach to Weed Management in Corn in Wisconsin. Proceeding of the Weed Science Society of America Annual Meetings, New Orleans, LA
- Oliveira MC, Jhala A, Proctor C, Mitchell P, Werle R (2019) Survey of 2017 and 2018 dicamba use in Nebraska and Wisconsin soybean production systems. Proceeding of the Weed Science Society of America Annual Meetings, New Orleans, LA
- Oliveira MC, Bernards M, Jhala A, Proctor C, Stepanovic S, Werle R (2019) Adaptation of Palmer Amaranth to the Upper Midwest. Proceeding of the Weed Science Society of America Annual Meetings, New Orleans, LA
- Oliveira MC, Lencina A, Ulguim A, Werle R (2019) A cropping-system weed science survey of Brazil, a breadbasket country in the tropics. Proceeding of the Weed Science Society of America Annual Meetings, New Orleans, LA
- Oliveira MC, Giacomini D, Tranel D, Vieira GS, Arsenijevic N, Werle R (2018) Molecular and greenhouse validation of field-evolved resistance to glyphosate and PPO-inhibitors in Palmer amaranth. Proceeding of the North Central Weed Science Society Annual Meetings, Milwaukee, WI
- Butts TR, **Oliveira MC**, Arsenijevic MC, Conley S, Werle R (2018) Tolerance of midwest soybean cultivars to preemergent applications of metribuzin and sulfentrazone (2018). Proceeding of the North Central Weed Science Society Annual Meetings, Milwaukee, WI
- Liu L, **Oliveira MC**, Werle R (2018) Wisconsin cropping systems weed science survey where are we at? Proceeding of the North Central Weed Science Society Annual Meetings, Milwaukee, WI
- Renz R, Striegel S, DeWerff R, Arsenijevic N, Ribeiro VHV, **Oliveira MC**, Luck B, Werle R (2018) Impact of carrier volume rate on PRE-emergence herbicide efficacy in Wisconsin cropping systems. Proceeding of the North Central Weed Science Society Annual Meetings, Milwaukee, WI
- Ribeiro VHV, **Oliveira MC**, Smith D, Santos JB, Werle R (2018) Spectrum of Weed Species Controlled by Various PRE- Emergence Soybean Herbicides in Wisconsin. Proceeding of the North Central Weed Science Society Annual Meetings, Milwaukee, WI
- Arsenijevic N, Striegel S, Ribeiro VHV, **Oliveira MC**, Werle R (2018) Screening of soybean variety tolerance to PRE-emergence herbicides sulfentrazone (PPO) and metribuzin (PSII). Proceeding of the North Central Weed Science Society Annual Meetings, Milwaukee, WI

- Oliveira MC, Patterson E, Gaines TA, Knezevic SZ (2017) A qualitative assay for detecting Palmer amaranth and its hybrids amongst pigweed species. Proceeding of the North Central Weed Science Society Annual Meetings, Saint Louis, MO
- Oliveira MC, Gaines TA, Knezevic SZ (2017) Inheritance of mesotrione resistance in a waterhemp population from Nebraska. Proceeding of the North Central Weed Science Society Annual Meetings, Saint Louis, MO
- Vieira G, Oliveira MC, Giacomini D, Arsenijevic N, Tranel P, Werle R (2017) Molecular screening of PPO and glyphosate resistance in Palmer amaranth populations from Nebraska. Proceeding of the North Central Weed Science Society Annual Meetings, Saint Louis, MO
- Miller JJ, Schepers JS, Giesler LJ, Shapiro CA, Oliveira MC, Arnenson NJ (2016) Characterizing soybean vigor and productivity using multiple crop canopy sensor readings. Proceeding of the American Society of Agronomy Annual Meetings, Phoenix, AZ
- Oliveira MC, Dayan FE, Gaines TA, Knezevic SZ (2016) Investigations into target-site and nontarget site resistance mechanisms in HPPD resistant waterhemp from Nebraska. Proceeding of the North Central Weed Science Society Annual Meetings, Des Moines, IA
- Oliveira MC, Scott JE, Knezevic SZ (2016) Critical time for weed removal in soybeans is influenced by soil applied herbicides. Proceeding of the North Central Weed Science Society Annual Meetings, Des Moines, IA
- Knezevic SZ, Oliveira MC, Scott JE (2016) Simulated drift of dicamba on potentially sensitive crops. Proceeding of the North Central Weed Science Society Annual Meetings, Des Moines, IA
- Oliveira MC, cott JE, Jhala AJ, Gaines T, Knezevic SZ (2016) Herbicide Programs to control HPPD-resistant Common Waterhemp in Nebraska. Proceeding of the Weed Science Society of America Annual Meetings, San Juan, PR
- Oliveira MC, Gaines T, Jhala A, Knezevic SZ (2016) Pollen-mediated resistance transfer from HPPD-resistance waterhemp to susceptible Palmer amaranth in Nebraska. Proceeding of the Weed Science Society of America Annual Meetings, San Juan, PR
- Oliveira MC, Oliveira e Freitas IF, Scott JE, Knezevic SZ (2015) Soybean yields and critical time for weed removal as influenced by soil applied herbicides. Proceeding of the North Central Weed Science Society Annual Meetings, Indianapolis, IN
- Oliveira MC, Gaines T, Jhala A, Knezevic SZ (2015) HPPD-resistance in waterhemp from Nebraska: Evidence for multiple genes enhancing metabolism. Proceeding of the North Central Weed Science Society Annual Meetings, Indianapolis, IN
- Oliveira MC, Gaines T, Knezevic SZ (2014) HPPD Resistance in Nebraska's Waterhemp: Enhance Metabolism of Target Site Mutation. Proceeding of the North Central Weed Science Society Annual Meetings, Minneapolis, MN
- Oliveira MC, Gaines T, Knezevic SZ (2014) Herbicide Options to Control HPPD resistant waterhemp in Nebraska. Proceeding of the North Central Weed Science Society Annual Meetings, Minneapolis, MN
- Oliveira MC, Scott JE, Franssen AS, Shivrain VK, Knezevic SZ (2014) Confirmation of HPPD Resistant Common Waterhemp in Nebraska. Proceeding of the North Central Weed Science Society Annual Meetings, Minneapolis, MN

- Knezevic SZ, Jhala AJ, Kruger GR, Sandell LD, **Oliveira MC**, Golus JA, Scott J (2014) Volunteer Roundup Ready Soybean Control in Roundup Ready Corn. Proceeding of the North Central Weed Science Society of America Annual Meetings, Minneapolis, MN
- 30+ abstracts in Brazilian Professional meetings from 2008 to 2013

GRANTS

• UW-Madison Division of Extension and UW-Madison CALS March 2019 Adaptation of Industrial Hemp (*Cannabis sativa*) to Agronomic practices in Wisconsin Funded: \$35,000

• Wisconsin Corn Promotion Board

January 2019

Title: Challenging the Weed Management Challenges in Wisconsin Corn Production Funded: \$30,000

• North Central Soybean Research Program

August 2018

Title: Adaptation and Management of Glyphosate-Resistant Pigweed Species in the Northern Midwest US Soybean Production Systems
Submitted but not funded

• CAPES Foundation

September 2013

Title: Evolution of HPPD-resistant waterhemp (*Amaranthus tuberculatus*) in Nebraska Funded my Ph.D at the University of Nebraska-Lincoln (\$130,000)

EXTENSION MANUALS

Cover Crops 101

August 2019

Link

• Herbicide site of action key for crop injury symptoms English and Portuguese version.

September 2018

 UW Waterhemp Challenge: Preliminary Report Comparison of Soil Residual Herbicides August 2018
 Link

PROGRAMMING

- R e Rstudio
- GitHub
- LaTeX e Markdown
- Agricultural Research Management (ARM)
- Statistical Analysis Software (SAS)

PERSONAL PROJECTS

- Open Source Weed Science A repository with tutorial for codes of data analysis and data visualization commonly published in manuscripts of weed research and related areas
- Blog: https://maxweeds.rbind.io My blog developed with Hugo, blogdown, Rstudio, and GitHub

LANGUAGUES

- Portuguese (Native speaker proficiency)
- English (Bilingual proficiency)
- Spanish (Intermediate working proficiency)