# MAXWEL COURA OLIVEIRA, Ph.D.

## **Curriculum Vitae**

Postdoctoral Research Associate Weed Scientist, University of Wisconsin-Madison

#### **ADDRESS**

1575 Linden Drive, Madison, WI 53706 max.oliveira@wisc.edu, 402-580-6652

## **EDUCATION AND TRAINING**

Ph.D. December 2017	University of Nebraska-Lincoln	Major: Agronomy
		Specialization: Weed Science
M.S. July 2013	Federal University of	Major: Agronomy
	Jequitinhonha and Mucuri	Specialization: Weed Science
	Valleys	
B.S. July 2011	Federal University of	Major: Agronomy
	Jequitinhonha and Mucuri	
	Valleys	

## PROFESSIONAL EXPERIENCE

- Postdoctoral Research Associate Weed Scientist, University of Wisconsin-Madison, Madison, WI, January, 2018. Goal: conduct innovative and collaborative research and extension programming on biology, ecology and management of troublesome weeds in corn, soybeans and small grain crops.
- Graduate Research Assistant, Department of Agronomy and Horticulture, University of Nebraska-Lincoln, Lincoln and Concord, NE, January, 2014 to December, 2017. 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, January 2013 to June 2013, Castanhal, PA, Brasil. Trained to be a supervisor of fertilizers sales team, talent acquisition, and marketing.
- Graduate Research Assistant, Department of Agronomy, Federal University of Jequitinhonha and Mucuri Valleys, Diamantina, MG, Brazil, July, 2011 to December, 2012. Masters research in Weed Biology, Competition, and Integrated Weed Management under Dr. José Barbosa dos Santos' supervision.
- *Undergraduate Senior Trainee*, The Ohio State University International Program (TOP), April 2010 to March 2011. Farm hand in a vegetable farm in Michigan and greenhouse assistant in a hydroponic tomato greenhouse in New York.
- *Undergraduate Junior Trainee*, Pulveriza Fertilizers, Matipó, MG, Brazil, July 2009. Industry of foliar fertilizers for corn, vegetables and coffee trees.
- Engineer's Club (Crea Jr) Coordinator, Diamantina, MG, Brazil, 2009. Leading the club for mentoring students, connecting students and professional engineers, organizing seminars, prospective of new members.

- *Undergraduate Research Assistant*, Department of Agronomy, Federal University of Jequitinhonha and Mucuri Valleys, Brazil, August 2008 to July 2009. Field and greenhouse research in forage and rangeland sciences.
- *Undergraduate Sophomore Trainee*, Emater, Santana do Paraíso, MG, Brazil, January 2008. Agricultural extension in vegetables of high value.

## TEACHING EXPERIENCE

- Prep Course for Weeds Contest, Spring 2018.
- Invasive Plants Lab: Spring/2016, and Spring/2017.
- Integrated Weed Management Lab: Spring/2011.
- Crop Management Lab: Spring and Fall/2009.

## VISITOR SCHOLAR

- University of Illinois Urbana/Champaign, September 2017. Laboratory research on PPO resistance mechanism in *Amaranthus palmeri* from Nebraska under Dr. Pat Tranel's supervision.
- Colorado State University Fort Collins, CO, May 2017. Laboratory research on HPPD resistance mechanism in *Amaranthus tuberculatus* from Nebraska under Dr. Todd Gaines' supervision.
- Colorado State University Fort Collins, CO, September 2016. Laboratory research on herbicide physiology in *Amaranthus tuberculatus* from Nebraska under Dr. Franck Dayan's supervision.
- Federal University of Viçosa Viçosa, MG, 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**

- 2017 North Central Weed Science Society Meeting in Saint louis, MO, 1st Place Outstanding Poster Presentation (Herbicide Resistance section).
- 2017- North Central Weed Science Society Contest at Iowa State University, 1st Place Graduate Team.
- 2017- North Central Weed Science Society Contest at Iowa State University, 1st Place Overall Individual Herbicide ID.
- 2017- UNL Travel Grant (\$400) to the Global Herbicide Resistant Conference in Denver.
- 2016 North Central Weed Science Society Contest at Purdue University, 3<sup>rd</sup> Place Graduate Team.
- 2016 Weed Science Society of America Meeting in Puerto Rico, 1st Place Outstanding Poster Presentation (Weed Biology section).
- 2015 Western Weed Science Society Contest at the Ohio State University, 3<sup>rd</sup> Place Graduate Team

- 2015 Western Weed Science Society Contest at the Ohio State University, 3<sup>rd</sup> Place Overall Individual Graduate.
- 2002 Outstanding team project "Batteries and electrolysis" in the High School (Mayrink Vieira) Science Fair.
- 2001 Outstanding team project "Cell organelles" in the High School (Mayrink Vieira) Science Fair.

#### PROFESSIONAL SOCIETY MEMBERSHIPS

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

# **GRANT PROPOSALS (Funded)**

**Oliveira, MC**, Knezevic SZ. Evolution of HHPD-resistant *Amaranthus tuberculatus* in Nebraska: confirmation, biology, mechanism of resistance, and genetics. CAPES Foundation. \$130,000 (2014-2017).

# MANUSCRIPTS IN PREPARATION

- **Oliveira MC**, Gaines TA, Patterson EP, Jhala AJ, Irmak S, Amundsen K, Knezevic SZ. Interspecific and intraspecific metabolism-based herbicide resistance transfer in dioecious weedy *Amaranthus*. To be submitted to *The Plant Journal*
- Knezevic SZ, **Oliveira MC**, Ospitan OA. Herbicide control of purple loosestrife: a multi-year study. To be submitted to *Invasive Plant Journal*
- **Oliveira MC**, Giacomini DA, Tranel PJ, Werle R. Confirmation and distribution of PPO and glyphosate resistant *Amaranthus palmeri* populations from Southwest Nebraska. To be submitted to *Pest Management Science Journal*.

# MANUSCRIPTS UNDER REVIEW

- **Oliveira MC,** Pereira GAM, Werle R, Knezevic SZ. Additive design: The concept and data analysis. Submitted to *Weed Research Journal*
- Werle R, **Oliveira MC**, Jhala AJ, Klein R, Proctor CA, Rees J. Survey of Nebraska farmers' adoption of dicamba-tolerant soybean technology and off-target movement. Submitted to *Weed Technology Journal*

## REFEREED PUBLICATIONS

- **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.
- Miller JJ, Schepers JS, Shapiro CA, Arnenson NJ, Eskridge KM, **Oliveira MC**, Giesler LJ (2018) Characterizing soybean vigor and productivity using multiple crop canopy sensor readings. *Field Crops Research*, 216:22-31
- **Oliveira MC**, Gaines TA, Dayan FE, Patterson EL, Jhala AJ, and Knezevic SZ (2017) Reversing resistance to tembotrione in an *Amaranthus tuberculatus* (syn. *rudis*) population from Nebraska, USA with cytochrome P450 inhibitors. *Pest Management Science Journal*. In press

- **Oliveira MC**, Feist D, Eskelsen S, Scott JE, Knezevic SZ (2017) Weed Control in Soybean with Preemergence and Postemergence-applied Herbicides. *Crop, Forage, and Turfgrass Management Journal*, 3:1-7
- Oliveira MC, Jhala A, Gaines T, Irmak S, Amundsen K, Scott JE, Knezevic SZ (2017) Confirmation and Control of HPPD-inhibiting Herbicide-Resistant Waterhemp (*Amaranthus tuberculatus*) in Nebraska. Weed Technology, 31:67-79
- Butts TR, Miller JJ, Pruitt JD, Vieira BC, **Oliveira MC**, Ramirez II S, Lindquist JL (2017) Light Quality Effect on Corn Growth as Influenced by Weed Species and Nitrogen Rate. *Journal of Agricultural Science*, 9:15-27
- Braga RR, Santos JB, Zanuncio JC, Bibiano CS, Ferreira EA, **Oliveira MC**, Silva DV, Serrão JE (2016) Effect of growing *Brachiaria brizantha* on phytoremediation of picloram under different pH environments. *Ecological Engineering*, 94:102-106
- Magalhães JES, Ferreira EA, **Oliveira MC**, Pereira GAM, Silva DV, Santos JB (2016) Effect of plant-biostimulant on cassava initial growth. *Ceres*, 63:208:213
- Silva DV, Ferreira, **Oliveira MC**, Pereira GAM, Braga RR, Santos JB, Aspiazú I, Souza MF (2016) Productivity of cassava and other crops in an intercropping system. *Ciencia e Investigación Agraria*, 43:159-166
- Pereira GAM, **Oliveira MC**, Braga RR, Silva DV, Oliveira AJM, Fernandes JSC, 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, 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, Ferreira EA (2015) Performance of carrot genotypes at two Jequitinhonha Valley sites. *Semina: Ciências Agrárias*, 36:4059-4070
- Ferreira EA, Silva DV, Braga RR, **Oliveira MC**, Pereira GAM, Santos JB, Sediyama T (2014) Initial growth of cassava in intercropping system. Journal. *Scientia Agraria Paranaensis*, 13:219-226
- Franco MHR, Nery MC, França AC, **Oliveira MC**, Franco GCN, Lemos VT (2103) Production and Physiological quality of bean seeds after application Diquat. *Semina: Ciências Agrárias*, 34:1707-1714 (in Portuguese with English abstract)
- Pereira GAM, Lemos VT, Santos JB, Ferreira EA, Silva DV, **Oliveira MC**, Menezes CWG (2012) Growth of cassava and weed in response to phosphate fertilizer. *Ceres*, 59:716-722 (in Portuguese with English abstract)
- Miranda VS, Ribeiro KG, Silva AC, Pereira RC, Pereira OG, Torrado PV, Fernandes JSC, **Oliveira MC** (2012) Rehabilitation with forage grasses of an area degraded by urban solid waste deposits. *Brazilian Journal of Animal Science*, 41:18-23

#### **EXTENSION PRESENTATIONS**

**Oliveira, MC** (2011) Integrated weed management strategies in cassava fields. Field day of cassava: specificities and practices. October, 2011.

## **EVENTS ORGANIZATIONS**

**Oliveira MC**, Santos JB, Ferreira EA, Pereira GAM, Braga RR (2011) Field day of cassava: specificities and practices, October 2011.

- **Oliveira MC**, Ribeiro KG, Avellar M (2009) II Seminar of Forage and Rangeland Sciences, March 2009.
- **Oliveira MC**, Lima VAB, Martins LM, Pires RMO (2009) I Seminar of Engineers, September 2009.

# PROFESSIONAL MEETING PRESENTATION AND ABSTRACTS

- 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, Scott 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.

# **PROGRAMING**

- Terminal
- R
- R-studio (ggplot2, blogdown, markdown, dvtools, dplyr, knitr, etc.)
- GitHub
- ARM
- 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: <a href="https://maxweeds.rbind.io">https://maxweeds.rbind.io</a> My personal blog developed with Hugo and blogdown in R-studio and GitHub.

#### REFERENCES

Stevan Knezevic, Professor at University of Nebraska-Lincoln, USA.

E-mail: sknezevic2@unl.edu Phone number: +1(402) 404-0175

Todd Gaines, Professor at Colorado State University, USA.

E-mail: Todd.Gaines@colostate@edu Phone number: +1(970) 420-6284

Rodrigo Werle, Assistant Professor at University of Wisconsin-Madison, USA.

E-mail: rwerle@wisc.edu Phone number: +1(402) 937-2887

Josh Miller, Technical Market Manager for Plant Health, USA.

E-mail: Joshua.miller@basf.com Phone number: +1(402) 440-5033

Renata Ramos, Senior Research Scientist at DuPont Pionner, Brazil.

E-mail: renata.pereira@pionner.com Phone number: +55(45)91520076