**Koffi Badou Jeremie Kouame, Ph.D.**

Assistant Professor – Weed Scientist

Agricultural Research Center-Hays, Kansas State University,

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**Education**

2021 - Ph.D. Weed Science, University of Arkansas, Fayetteville, AR

2018 - M.S. Weed Science, University of Nebraska–Lincoln, Lincoln, NE

2005 - M.S. Biology and Crop Protection, Nangui Abrogoua University, Abidjan, Cote d’Ivoire

2002 -B.S. Agronomy National Polytechnique Institute Houphouët-Boigny, Yamoussoukro, Cote d’Ivoire

**Research and Professional Experience**

01/24-present Assistant Professor – Weed Scientist, Agricultural Research Center-Hays, Kansas State University, Hays, KS.

01/22- 12/23 Postdoctoral Research Fellow, Lonoke Research and Extension Center, University of Arkansas Division of Agriculture, Lonoke, AR.

08/18-12/21 Graduate Research Assistant, Crop, Soil and Environment Sciences, University of Arkansas, Fayetteville, AR.

08/15-05/18 Fulbright Foreign Student, Graduate Research Assistant, University of Nebraska-Lincoln, Lincoln, NE.

02/06-07/15 Lecturer, National Polytechnique Institute Houphouët-Boigny, Yamoussoukro, Cote d’Ivoire.

**Research Interest**

My research interest encompasses the areas of weed biology, ecology, and management.

The primary goal is to develop and implement an innovative applied integrated weed management research and education program for dryland and irrigated cropping systems in western Kansas that will include multiple approaches to improve the long-term effectiveness of management strategies. My research program strives to develop environmentally and economically sound solutions on both dryland and irrigated cropping systems that align with needs identified by local commodity commissions, organizations, and other agencies. Projects of interest include improving the understanding of cover crop options for weed suppression, evaluating new herbicide options, and integrating various effective integrated approaches to manage weeds. One key aspect of my program is to investigate herbicide resistance evolution in the most troublesome weeds in Western Kansas (kochia, Palmer amaranth, etc.) to assist producers with management decisions and increase the profitability of their operations. New technologies are regularly proposed to growers for improving weed control; one of my goals is to evaluate various technologies for their performance and adaptability to the growing conditions of Western Kansas.

**Peer Reviewed Publications**

* + M. B. Bertucci, T. R. Butts, **K. B.-J. Kouame**, J. K. Norsworthy (2022) Peach tree response to low-dosages of dicamba as repeated applications or with various spray nozzles. *Weed Technol*. https://doi.org/10.1017/wet.2023.80
  + **K.B.-J. Kouame**, T.R. Butts, J.K. Norsworthy, L.T. Barber (2024) Palmer amaranth (*Amaranthus palmeri*) control affected by weed size and herbicide spray solution with nozzle type pairings. *Weed Technol*. doi: 10.1017/wet.2023.92
  + I.S. Werle, M.M. Noguera, S.K. Karaikal, P. Carvalho-Moore, **K.B.-J. Kouame**, T.L. Roberts, N. Roma-Burgos (2023) Integrating weed-suppressive cultivar and cover crops for weed management in organic sweetpotato production. *Weed Sci.* https://doi.org/10.1017/wsc.2023.14
  + R. Farr, J.K. Norsworthy, **K.B.-J. Kouame**, L.T. Barber, T.R. Butts, T. Roberts (2022) Integration of multiple weed management practices on cotton economics and Palmer amaranth (*Amaranthus palmeri*) populations. *Weed Technol*. <https://doi.org/10.1017/wet.2022.92>
  + **K.B.-J. Kouame**, M.C. Savin, C.D. Willett, M.B. Bertucci, T.R. Butts, N. Roma-Burgos (2022) *S*-metolachlor persistence in soil as influenced by within-season and inter-annual herbicide use*. Environ. Adv.* <https://doi.org/10.1016/j.envadv.2022.100318>
  + **K.B.-J. Kouame**, T.R. Butts, R. Werle, W.G. Johnson (2022) Impact of volatility reduction agents on dicamba and glyphosate spray solution pH, droplet dynamics, and weed control. *Pest Manage Sci.* https://doi.org/10.1002/ps.7258
  + T.R. Butts, B.K. Fritz, **K.B.-J. Kouame**, J.K. Norsworthy, L.T. Barber, W.J. Ross, G.M. Lorenz, B.C. Thrash, J.J. Adamcyzk (2022) Auxin herbicide spray drift from ground and aerial application equipment: Impact on soybean and potential pollinator foraging sources. *Sci. Report.* <https://doi.org/10.1038/s41598-022-22916-4>
  + I.S. Werle, M.M. Noguera, S.K. Karaikal, P. Carvalho-Moore, **K.B.-J. Kouame**, T.-M. Tseng, N. Roma-Burgos (2022)Allelopathic potential and competitive traits of sweetpotato cultivars. *Front. Agron*. <https://doi.org/10.3389/fagro.2022.990879> *.*
  + **K.B.-J. Kouame**, M.B. Bertucci, M.C. Savin, T. Bararpour, L.E. Steckel, T.R. Butts, C.D. Willett, F.G. Machado, N. Roma-Burgos (2022) Resistance of Palmer amaranth (*Amaranthus palmeri* (S.) Wats.) in the Mid-southern United States to *S*-metolachlor. *Weed Sci.* <https://doi.org/10.1017/wsc.2022.37>
  + T.R. Butts, **K.B.-J. Kouame**, J.K. Norsworthy, L.T. Barber (2022) Arkansas rice: herbicide resistance concerns, production practices, and weed management costs. *Front. Agron.* <https://doi.org/10.3389/fagro.2022.881667>
  + **K.B.-J. Kouame**, M.C. Savin, G. Rangani, T.R. Butts, M.B. Bertucci, N. Roma-Burgos (2022)Transpiration responses of herbicide-resistant and -susceptible Palmer amaranth (*Amaranthus palmeri* (S.) Wats.) to progressively drying soil. *Agriculture*. <https://doi.org/10.3390/agriculture12030335>

**Extension activities**

* + **J. Kouame** (2024) Special Weed Problems and fighting herbicide resistance. Extension talk at the 2024 Ag Sprayer School. Feb. 15, 2024. Hugoton, KS
  + **J. Kouame** (2024) Field bindweed control. Noxious Weed Short Courses. Feb. 22, 2024. Hilton Garden Inn, Manhattan, KS
  + S. Lancaster, **J. Kouame** (2024)Pay attention to growth stage for spring herbicide decisions on wheat. March 7, 2024. <https://eupdate.agronomy.ksu.edu/article_new/pay-attention-to-growth-stage-for-spring-herbicide-decisions-on-wheat-582-2>
  + S. Lancaster, J**. Kouame** (2024)Late winter kochia control in fields going to soybeans, sunflowers, and wheat. February 29, 2024. <https://eupdate>.agronomy.ksu.edu/article\_new/late-winter-kochia-control-in-fields-going-to-soybeans-sunflowers-and-wheat-581-7
  + S. Lancaster, **J. Kouame** (2024)Late winter kochia control in fields going to corn or grain sorghum. February 22, 2024. <https://eupdate>.agronomy.ksu.edu/article\_new/late-winter-kochia-control-in-fields-going-to-corn-or-grain-sorghum-580-1
  + S. Lancaster, **J. Kouame** (2024) Preplant herbicide applications for kochia control. February 15. 2024. <https://eupdate.agronomy.ksu.edu/article_new/preplant-herbicide-applications-for-kochia-control-579-2>

**Technical Reports**

* + **K.B.-J. Kouame**, T.R. Butts, B.M. Davis, L.M. Collie, T.W. Dillon, N.H. Reed, J.K. Norsworthy, L.T. Barber (2022) Herbicide-coated urea efficacy in US Midsouth Rice. *B.R. Wells Arkansas Rice Research Studies* 2022. 696: 142-145
  + **K.B.-J. Kouame**, T.R. Butts, B.M. Davis, L.M. Collie, T.W. Dillon, J.K. Sutterfield, B.C. Thrash, N.R. Bateman, J.J. Adamcyzk, G.M. Lorenz (2022) Impact of soybean exposure to simulated drift rates of auxin herbicides on soybean yield, number of pollen and reproductive organs. *Arkansas Soybean Research Studies* 2022. 698: 83-87
  + N.H. Reed, T.R. Butts, J.K. Norsworthy, L.T. Barber, N.R. Burgos, B.M. Davis, T.W. Dillon, L.M. Collie, and **K.B.-J. Kouame** (2022) The use of fall residuals for ryegrass management ahead of soybean. *Arkansas Soybean Research Studies* 2022. 698: 75-77
  + B.M. Davis, T.R. Butts, N.H. Reed, L.T. Barber, J.K Norsworthy, J.T. Hardke, J.A. Bond, H.D. Bowman, **K.B-J. Kouame** (2022) Bed width and drill spacing effect on weed management in furrow-irrigated rice. *B.R. Wells Arkansas Rice Research Studies. 2022.* 696: 121-126
  + N.H. Reed, T.R. Butts, J.K. Norsworthy, J.T. Hardke, L.T. Barber, J.A. Bond, H.D. Bowman, B.M. Davis, T.W. Dillon, **K.B.J. Kouame** (2022) Cultural weed management strategies in flooded rice: effects of rice cultivar and drill row width on barnyardgrass [*Echinochloa crus-galli* (L.) P. Beauv.]. *B.R. Wells Arkansas Rice Research Studies.* 2022. 696: 157 -160
  + **K.B.-J. Kouame**, T.R. Butts, M.C. Savin, G. Rangani, M.B. Bertucci, T. Barber, J.K. Norsworthy, N. Roma-Burgos (2022) Herbicide-resistant and -susceptible Palmer amaranth (*Amaranthus palmeri* (S.) Wats.) transpiration responses to progressively drying soil. *Arkansas Soybean Research Studies 2021.* 689: 139-144
  + **K.B.-J. Kouame**, T.R. Butts, T.W. Dillon, A.N. McCormick, L.M. Collie, B.M. Davis, N.H. Reed, L.T. Barber, J.K. Norsworthy, N. Roma-Burgos (2022) Dicamba and glyphosate spray solution pH, droplet size, and weed control as impacted by volatility reduction agents. *Arkansas Soybean Research Studies 2021.* 689: 106-112
  + **K.B.-J. Kouame**, E. Grantz, C.D. Willet, M.C. Savin, N. Roma-Burgos (2020) Status of Palmer amaranth resistance to *S*-metolachlor in Arkansas: Does high use induce accelerated degradation? *Arkansas Soybean Research Studies* 2019. 670: 182-186
  + **K.B.-J. Kouame**, N. Roma-Burgos, C.D. Willett, M.B. Bertucci, E. Grantz (2019) Palmer amaranth resistance to *S*-metolachlor in Arkansas. *Arkansas Soybean Research Studies* 2018. 663: 88-92

**Published Abstracts & Presentations**

* + **K.B.-J. Kouame**, T.R. Butts, B.M. Davis, L.M. Collie, T.W. Dillon, N.H. Reed, J.K. Norsworthy, L.T. Barber (2023) Herbicide-coated urea efficacy in US midsouth rice. (Poster] 2023 Rice Technical Working Group Conference. February 19-23, 2023; Hot Spring, AR.
  + B.M. Davis, T.R. Butts, N.H. Reed, J.K. Norsworthy, L.T. Barber, J.T. Hardke, J.A. Bond, H.D. Bowman, T.W. Dillon, C.H. Arnold, **K.B.-J. Kouame**. Bed width and drill spacing effect on weed management in furrow-irrigated rice. (Poster] 2023 Rice Technical Working Group Conference. February 19-23, 2023; Hot Spring, AR.
  + **K.B.-J. Kouame**, T.R. Butts, N.H. Reed, B.M. Davis, L.M. Collie, T.W. Dillon, J.K. Norsworthy, T. Barber, J. Hardke, J.A. Bond, H.D. Bowman (2023) Drill-spacing and bed width influence on canopy coverage, weed control and yield in furrow-irrigated rice [Poster] 63rd Annual Meeting of the Weed Science Society of America. Jan 30, 2023 - Feb 2, 2023; Arlington, VA.
  + **K.B.-J. Kouame**, T.R. Butts, B.M. Davis, L.M. Collie, T.W. Dillon, J.K. Sutterfield, B.C. Thrash, N.R. Bateman, J.J. Adamcyzk, G.M. Lorenz (2023) How is soybean biomass partitioning to vegetation, floral development and pod formation affected by exposure to simulated drift rates of auxin herbicides? [Oral] 63rd Annual Meeting of the Weed Science Society of America. Jan 30, 2023 - Feb 2, 2023; Arlington, VA.
  + **K.B.-J. Kouame**, T.R. Butts, R. Werle, W.G. Johnson (2023) Volatility reduction agents influence on dicamba and glyphosate spray solution pH, droplet dynamics, and weed control [Poster] 76th Annual Meeting of the Southern Weed Science Society. Jan. 23-26, 2023; Baton Rouge, LA.
  + **K.B.-J. Kouame**, T.R. Butts, N.H. Reed, B.M. Davis, L.M. Collie, T.W. Dillon, J.K. Norsworthy, T. Barber, J. Hardke, J.A. Bond, H.D. Bowman (2023) Canopy coverage and weed control as affected by drill-spacing and bed width in furrow-irrigated rice [Oral] 76th Annual Meeting of the Southern Weed Science Society. Jan. 23-26, 2023; Baton Rouge, LA.
  + N.H. Reed, T.R. Butts, J.K. Norsworthy, J. Hardke, T. Barber, J. Bond, H.D. Bowman, B.M. Davis, T. Dillon, **K.B.-J. Kouame** (2023) Nozzle selection and drill row width effects on spray coverage and weed management in flooded rice [Poster] 76th Annual Meeting of the Southern Weed Science Society. Jan. 23-26, 2023; Baton Rouge, LA.
  + L.M. Collie, T.R. Butts, T. Barber, J. Bond, D. Miller, **K.B.-J. Kouame**, N.H. Reed, B.M. Davis, L. Adams, D.O. Stephenson IV, C. Webster, L. Steckel (2023) Effect of simulated drift rates of reviton (tiafenacil) on rice and soybean [Poster] 76th Annual Meeting of the Southern Weed Science Society. Jan. 23-26, 2023; Baton Rouge, LA.
  + N.H. Reed, T.R. Butts, J.K. Norsworthy, J. Hardke, T. Barber, J. Bond, H.D. Bowman, B.M. Davis, T. Dillon, **K.B.-J. Kouame** (2023) Cultural Weed Management Strategies in Rice: Effects of Drill Row Width and Rice Cultivar [Poster] 76th Annual Meeting of the Southern Weed Science Society. Jan. 23-26, 2023; Baton Rouge, LA.
  + **K.B.-J. Kouame**, J. Coetzee, P. Carvalho-Moore, M. Noguera, I.S. Werle, N. Roma-Burgos (2021) Residual weed control with preemergence herbicides as affected by adjuvants. [Poster] Proceedings of the Southern Weed Science Society 74th Annual Meetings, January 25-26, 2021, Virtual meeting.
  + **K.B.-J. Kouame,** R. Grewe, E. Grantz, C.D. Willett, M.C. Savin, N. Roma-Burgos NR (2020) Dissipation rate of *S*-metolachlor in soil previously sprayed with the same herbicide. [Poster]. Proceedings of the Southern Weed Science Society 73rd Annual Meeting, January 27-30, 2020; Biloxi, MS.
  + **K.B.-J. Kouame,** R. Grewe, E. Grantz, C.D. Willett, M.C. Savin, N. Roma-Burgos (2020)Does high use of *S*-metolachlor accelerate dissipation of *S*-metolachlor applied thereafter? [Oral] Proceedings of the Southern Weed Science Society 73rd Annual Meeting, January 27-30, 2020; Biloxi, MS.
  + **K.B.-J. Kouame**, R. Grewe, E. Grantz, C.D. Willett, N. Roma-Burgos (2019) Modeling the effect of *S*-metolachlor application timing on herbicide degradation in Captina silt loam soil. [Oral] Presentation at the Arkansas Crop Protection Association Research Conference. November 20, 2019; Fayetteville, AR.
  + **K.B.-J. Kouame**, N.R. Burgos, C.D. Willett, M.B. Bertucci, E. Grantz (2019) Investigating Palmer amaranth resistance to *S*-metolachlor in Arkansas. [Oral] Presentation at the 20th annual student presentation competition of Gamma Sigma Delta. March 15, 2019; Fayetteville, AR.
  + **K.B.-J. Kouame**, N. Roma-Burgos, C.D. Willett, M.B. Bertucci, E. Grantz (2019) Investigating Palmer amaranth resistance to *S*-metolachlor in Arkansas. [Poster] Proceedings of the 59th Annual Meeting of the Weed Science Society of America. February 11-14, 2019; New Orleans, LA.
  + **K.B.-J. Kouame**, A.J. Jhala, S.Z. Knezevic, T. Arkebauer, J.L. Lindquist (2016) Soybean (*Glycine max* L.) yield loss as affected by common ragweed (*Ambrosia artemisiifolia* L.) and common waterhemp (*Amaranthus rudis* Sauer) in Nebraska. [Oral] Proceedings of the 71th Annual Meeting of the North Central Weed Science Society, December 12-15, 2016, Des Moines, IA.
  + **K.B.-J. Kouame**, A.J. Jhala, S.Z. Knezevic, T. Arkebauer, J.L. Lindquist (2016) Effect of common ragweed (*Ambrosia artemisiifolia* L.) and common waterhemp (*Amaranthus rudis* Sauer) on soybean (*Glycine max* L.) Growth. [Poster] Proceedings of the 71th Annual Meeting of the North Central Weed Science Society, December 12-15, 2016, Des Moines, IA.

**Honors/Awards**

* PhD Oral Presentation; 3rd Place: Arkansas Crop Protection Association 11/2019
* Doctoral Student Travel Grant: University of Arkansas, Fayetteville 02/2019
* Foreign Fulbright Scholarship; US Department of State 2015-2018

**Professional activities**

* Weed Science Society of America
* Western Society of Weed Science
* North Central Weed Science Society
* Reviewer for Agrosystems, Geosciences & Environment, *Sci. Report*, *Crop Forage Turfgrass Manage.,* Frontiers in Agronomy, PLOS ONE, Pest Management Science, Weed Science, Weed Technology

**Grants** (since January 2024):

* D. Ruiz, D. Suarez, J. Aguilar, J. Holman, V. Kumar, A. Obour, B. Olson, C. Rice, L. Zeglin, G. Ibendahl, D. O’Brien, **J. Kouame** (2023 - 2028). Increasing water productivity, soil carbon and sustainability of integrated multi-crop systems using field scale research. Foundation for Food and Agriculture Research (FFAR) 22-000547. $7,657,633.26

**Training**

* USDA-NIFA Grants Support Technical Assistance Workshop University of Arkansas, Fayetteville, AR 5/8-12, 2023
* Research Data Services Seminar: Survey with Qualtrics - Best Practice, Python for Data Analytics. University of Arkansas, Fayetteville, AR 3/17, 2022
* Drones, Cameras, Droplets, and More - The Latest Technologies for Crop Sprays, American Society of Agronomy 1/20, 2022
* Clarivate/Web Of Science: Where Should I Publish and What's in a Name? University of Arkansas, Fayetteville 3/12, 2021
* Drone applications and potential in rice, Arkansas Crop Management Conference 1/20, 2021
* Eddy Covariance Training, LI-COR, Lincoln, NE 1/16-18, 2018
* New Innovations in Fluorescence Measurements, LI-COR, Lincoln, NE 5/2, 2017
* LI-6800 Portable Photosynthesis System, LI-COR, Lincoln, NE 3/1, 2017
* Soft Skills Workshop, University of Nebraska-Lincoln, ASUN Graduate Student Assembly, Lincoln, NE 3/3, 2017
* Gas exchange and fluorescence measurements, LI-COR, Lincoln, NE 1/24-26, 2016
* Statistical Analysis System (SAS) workshop, University of Nebraska-Lincoln, Department of Statistics 9/14, 2015